REYHER®

FASTENERS AND FIXING TECHNOLOGY

THE CATALOGUE



We ensure your C-parts supply



With over 130 years' experience, REYHER is one of Europe's leading distributors of fasteners and fixing technology supplying customers worldwide.

130,000 different items in stock

Over 99% daily supply readiness

Technical application consulting

The highest supply and process reliability with Kanban supply systems

Optimal ordering processes with e-business solutions

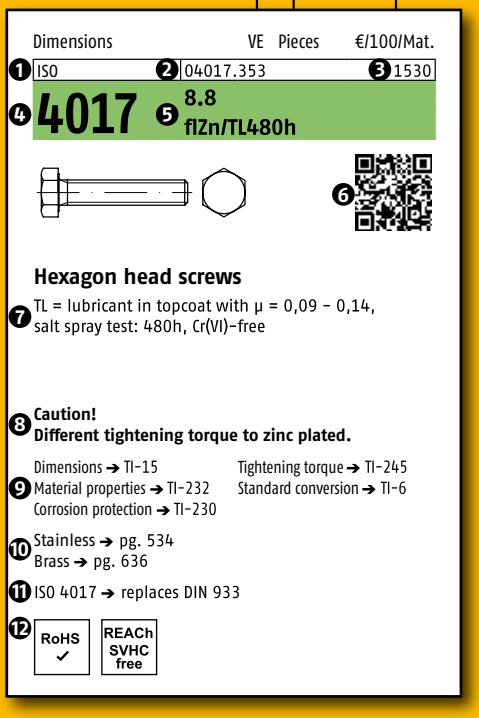
Individualised kitting and packaging services

How it works

PU packing unit: **K** = small pack **S** = standard pack

Pieces Amount of items per packing unit

€/100 price in euros for 100 items for complete packing units



1. Specification DIN, ISO, EN or REYHER article
2. REYHER code number, add dimensions

   Please use this value for the search in the webshop. RIO® REYHER INTERNET ORDER
3. Line number in REYHER discount group
4. Standard/article
5. Material, property class, type, coating
6. QR code takes you directly to the webshop RIO – REYHER Internet Order
7. Article designation and supplementary description
8. Warning notice
9. References to technical information
10. Reference to available other materials
11. Reference to standard change
12. Material Compliance notes and approvals

Material Compliance notes and approvals

RoHS ✓ — Product complies with RoHS Directive (status: October 2019).

REACh SVHC free — Product contains no SVHC in line with REACH regulation (status: October 2019).

HF halogen free — Product contains no halogen.

PED approval — Product can be used in pressure equipment in line with harmonised European standards.

CE — **CE markings** – product in line with harmonised European standards.

ETA CE — **CE markings** – product has CE marking based on ETA.

Building approval – product has building approval.

DIN 1480 — **Certificate of compliance** – building product in line with general administrative regulation for technical construction standard.

Approvals in fixing technology sector

FM approval — **Factory Mutual** – The American Insurance Association, FM Global issues approvals which are recognised worldwide in the sprinkler systems sector.

VdS approval — **VdS (German association of damage insurers)** – in Cologne tests using strict guidelines and certifies products for the sprinkler industry.

BZS shock - approval — **Shock approval** – for shockproof fastenings in civil protection facilities.

Z suitable for tensil zone — **Tensile strength** – suitable plugs for use in cracked (tensile zone) and non-cracked (compression zone) concrete.

Products meet the appropriate fire safety requirements

F90 fire resistance classification | R90 fire resistance classification | F120 fire resistance classification | R120 fire resistance classification | fire protection UL94 HB | fire protection UL94 V2

Explanations to material and coatings

Material / coating	
11H – 45H	Hardness classification
4.6 – 12.9	Property classes for bolts and screws
5-12/04,05	Property classes for nuts
A1-A5	Stainless steel
Al	Aluminium
BP	Brass plated
Br	Brass
browned	Browned/phosphated
Cu	Copper
Cr	Chrome plated
CuNiSi	Copper alloy
CuP	Copper plated
CuSn 8	Bronze
flZn(nc)	Zinc flake coating (Chrome(VI)-free)
FSt	Spring steel
GTN	Malleable iron
HDG	Hot dip galvanized
mech ZP	Mechanical zinc plated
NP	Nickel plated
QT	Quenched and tempered
St	Steel
TLP	Thickness layer passivation
ZNiP	Zinc-nickel plated
ZP	Zinc plated

TÜV Nord – is the certification office for technical work materials.

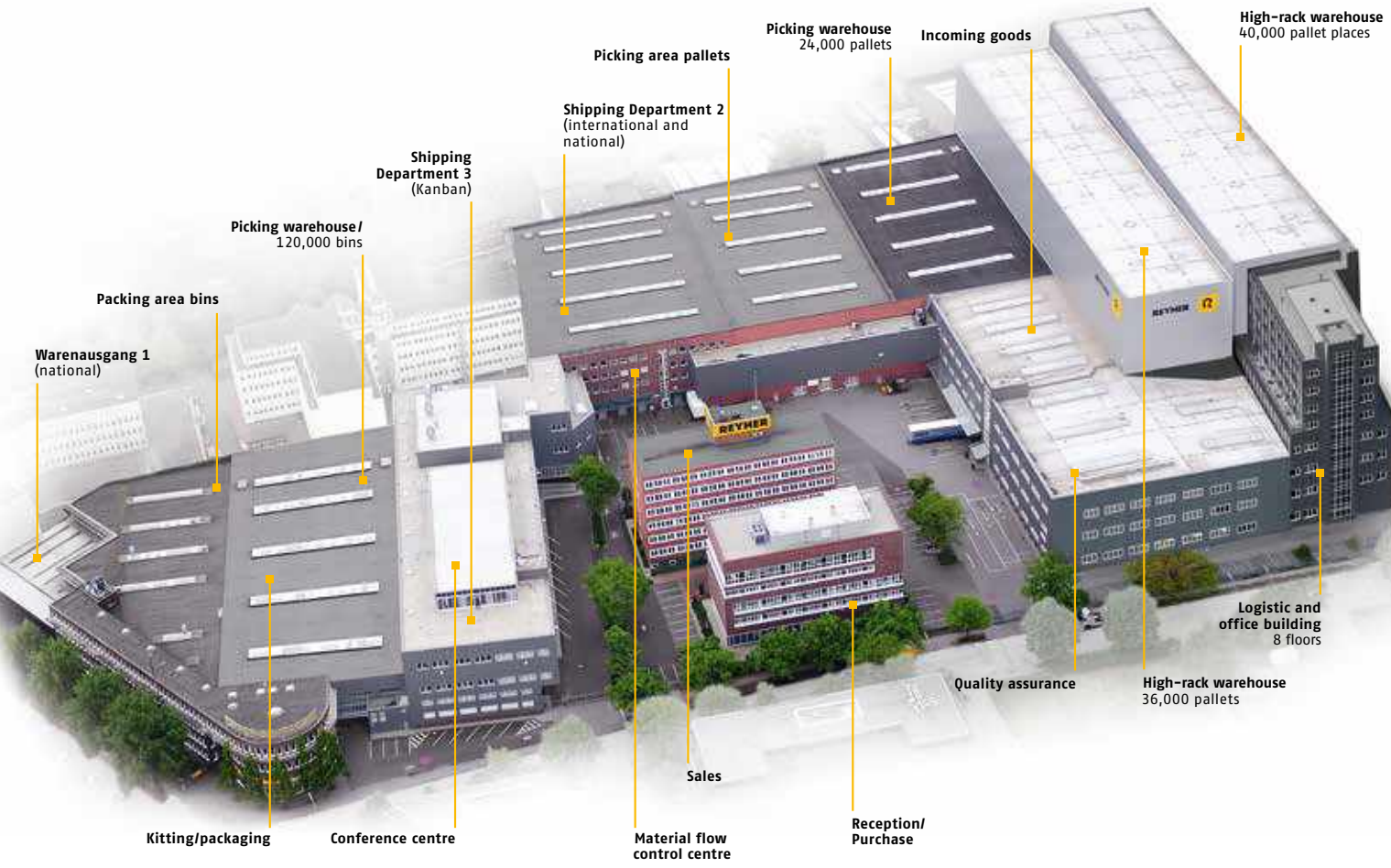
Lloyd's Register Type Approval products have been subjected to tensile, frictional, shear, vibration and shock tests and approved.

dynamic — **Dynamically loaded plugs** – are suitable and approved for anchoring dead (i. e. Dynamic) loads.

REYHER certificates

- DIN EN ISO 9001
- VDA 6.2 (automotive)
- DIN EN 9120 (aviation)
- DIN EN ISO 14001 (environment)
- KTA 1401
- AEO F

Central location Hamburg – our gateway to the world



Overview catalogue groups

- The REYHER catalogue is in part 1, 2 and 3 sorted in ascending order according to DIN-, ISO- and EN-numbers, afterwards according to article numbers.
- REYHER fixing technology is divided in part 4 according to functional groups.

PART 1 – GREEN PAGES **PAGE 63-452**



Fasteners made of steel, plain or coated acc. to DIN, ISO, EN and not standardised products

- Steel zinc plated, hot dip galvanized
- Steel mechanical zinc plated
- Steel zinc flake coating
- Steel nickel plated, chromium plated
- Steel brass plated, browned
- Spax screws
- Assortments and tool boxes

PART 2 – BLUE PAGES **PAGE 453-610**



Fasteners made of stainless steel acc. to DIN, ISO, EN and not standardised products

- Screws/bolts/rods/studs
- Nuts
- Washers
- Accessories

PART 3 – YELLOW PAGES **PAGE 611-648**



Fasteners made of non-ferrous materials acc. to DIN, ISO, EN and not standardised products

- Brass, coated brass
- Copper, bronze
- Aluminium, coated aluminium
- Titanium
- Plastic

PART 4 – ORANGE PAGES **PAGE 649-702**



- Cable ties and accessories
- LINDAPTER fastener and fixing systems
- Plugs and anchors
- Cam segments and adjusting washers for diagonal tension anchors
- MULTI-MONTI screw-in-anchors
- Assembly tools – bits, wrench keys
- Drills, blind rivet systems

TECHNICAL INFORMATION TI – RED PAGES **PAGE 1-263**



- Standards conversion ■ Product information
- Dimensions for fasteners
- Steelwork fastener and fixing systems
- Plugs and anchors ■ Screw thread
- Blind rivet systems ■ Mechanical properties
- Inspections, certificates ■ Corrosion protection
- Locking of screwed fastenings ■ Tolerances
- Assembly of screwed fastenings
- Directives and legislation

Contents at a glance

FOCUS ON REYHER 2-3

CONTENTS

Fastener Image Index
- DIN/ISO/EN standard articles 4-30
- Non-standard screws 31-36
- Non-standard nuts and threaded inserts 36-38
- Non-standard accessories 38-40

Fixing systems Image Index
- Cable ties 40-41
- LINDAPTER 41-43
- FISCHER 43-47
- UPAT 47
- Other fixing elements 48
- Assembly tools 48
- Blind rivet systems 48-51

A-Z 52-57

REYHER Article numbers 58-62

PART 1 – GREEN PAGES **63-452**
Fasteners made of steel
- Plain or coated

PART 2 – BLUE PAGES **453-610**
Fasteners made of stainless steel

PART 3 – YELLOW PAGES **611-648**
Fasteners made of non-ferrous materials

PART 4 – ORANGE PAGES **649-702**
Fixing technology

TI – RED PAGES
Technical Information TI TI 1-263

OUR SERVICES FOR YOU



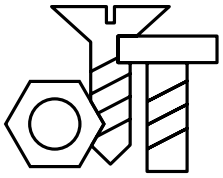
Comprehensive product range

We have 130,000 items in stock

In addition to standard fasteners we have numerous non-standards items. Our range is complemented with a large choice of fixing technology from highly reputable manufacturers. We also support you with customer-specific or engineered parts.

From a total of more than 130,000 different items in stock we have around 80,000 listed in our catalogue, with further around 50,000 items in C-parts management for our customers.

We always supply the same high quality that ourcustomers expect and can always rely on. In addition to standardised or prescribed standards tests, customer-specific and agreed testing plans come into play.





RIO®
REYHER INTERNET ORDER

Diverse e-business solutions

For regular interchange of business data the solution is EDI – Electronic Data Interchange. It's fast and error-free.

Electronic catalogues for customers can be individually tailored so that REYHER item data can be entered into almost every commonly used sourcing system.

The user-friendly webshop RIO – REYHER Internet Order makes it possible to see current availability and prices, at any time for every item. Orders can be placed with a minimum of clicks.



RKP®
REYHER KITTING & PACKAGING

Individualised kitting and packaging services

RKP – REYHER Kitting & Packaging fulfils customer needs for kitting and packaging in industry and trade.

This includes packaging design and labelling as well as compiling items into sets or complex assembly kits that can be given a prioritised pack sequence as required.

We despatch just-in-time to the construction site, to production halls, or wherever fasteners and fixing technology are needed.



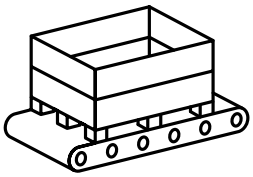
Automatic logistics centre

Our daily supply readiness is at over 99%

Several hundred tons of incoming goods and outgoing goods are daily processed. This works smoothly with our sophisticated warehouse logistics system. A total of 100,000 pallet places and 120,000 bin places are available in our modern warehouses.

The goods are for storage in our high-bay warehouses or in the small parts warehouse transported over conveying distances within our logistics centre.

For delivery, the goods are delivered via state-of-the-art sorting systems to the correct packing location. Afterwards, the goods will be on the way with our reliable shipping system – worldwide.





ROM®
REYHER ORDER MANAGEMENT

Flexible Kanban supply systems

REYHER has offered C-part management systems since 1993. Using ROM – REYHER Order Management provides our customers with the most reliable supply procedures.

Combinable modules, RFID technology, barcode systems, flexible labelling and modern data interchange form an all-round carefree package for seamless materials supply. Adapted precisely and flexibly to meet individual customer needs.



REM®
REYHER ENGINEERING MANAGEMENT

Technical expertise

We have qualified engineers and technicians in our dedicated REM – REYHER Engineering Management team. We advise our customers individually and hold training sessions. We also help to standardise the own range of products and structure it more economically.

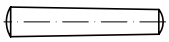
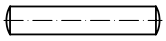
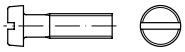
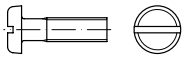
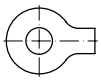
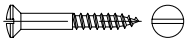
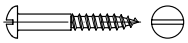
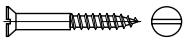
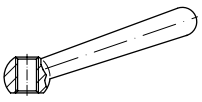
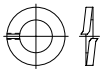
With RRP – REYHER Rapid Prototyping, we also offer a 3D printing service that we can use to fasteners as prototypes or complete components as functional models for the component optimization.



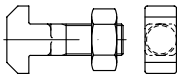
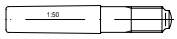
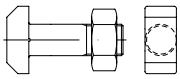
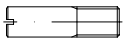
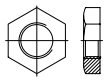
This catalog was printed carbon neutral.

klimaneutral durch EVERS ReForest® Mehr Bäume. Weniger CO_2.

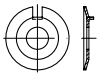
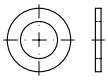
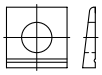
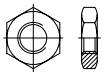
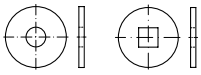
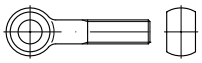
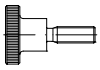
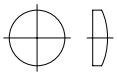
GEDRUCKT MIT 100% ÖKOENERGIE STROM & GAS

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 1 (ISO 2339**)		Taper pins	63	453			117
DIN 7 (ISO 2338**)		Parallel pins	64	453			116
DIN 84 (ISO 1207**)		Slotted cheese head screws	65	455	611		37
DIN 85 (ISO 1580**)		Slotted pan head screws	67	457	612		37
~DIN 93		Tap washers with a long tap	68	458			88
DIN 94 (ISO 1234*)		Split pins	69	459	613		122
DIN 94		Article 82094 Split pins assortment	69				
DIN 95		Slotted raised countersunk head wood screws	70	459	613		50
DIN 96		Slotted round head wood screws	70	460	615		51
DIN 97		Slotted countersunk head wood screws	70	460	615		51
		SPAX and chipboard screws	447	607			52
DIN 98		Rotatable ball handles	70				125
DIN 99		Tapered handles	70	460			125
DIN 125 (ISO 7089**) (ISO 7090**)		Plain washers, product grade A	70	461	616		84
DIN 125 125/127		Article 82125/Article 82127 Washers assortment Washers and spring lock washers assortment	71 74				
DIN 126 (ISO 7091*)		Plain washers, product grade C	72 427				84
		Article 88100 Plain washers ("type 1")	427				84
~DIN 127		Spring lock washers	73	462	617		88

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Article 88123–88129 TECKENTRUP lock washers for hexagon head screws and hexagon socket head cap screws	430	599			105
		Article 88130/88131 Lock rings	431	600			107
		Article 88119 LOCKTIX washers	432				104
~DIN 128		Spring lock washers	75	463			89
~DIN 137		Spring washers	76	463			89
DIN 186		T-head bolts with square neck	77				29
DIN 258		Taper pins with external thread, constant taper length	77				117
DIN 261		T-head bolts	77				29
DIN 315		Wing nuts, rounded or edged wings	77	464	617		72
		Article 88215 Wing nuts, small "American" type	78	464			79
DIN 316		Wing screws, rounded or edged wings	78	464	618		29
DIN 319		Ball knobs			618		125
DIN 404		Slotted capstan screws	78	465			29
DIN 417 (ISO 7435*)		Slotted grub screws with full dog point	79				19
DIN 427 (ISO 2342*)		Slotted headless screws with chamfered end	79	465			19
DIN 431		Pipe nuts	80	465	618		60

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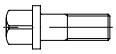
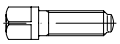
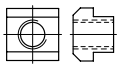
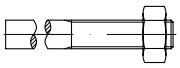
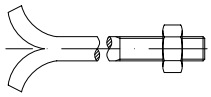
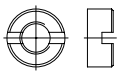
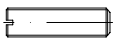
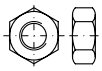
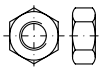
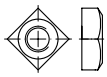
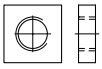
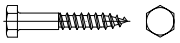
DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
~DIN 432		Washers with external tap	80	465			90
DIN 433 (ISO 7092**)		Washers for cheese head screws	80	466	618		84
DIN 434		Square taper washers for U beams (taper 8%)	81	466			86
DIN 435		Square taper washers for double-T beams (taper 14%)	81	466			86
DIN 436		Square washers	82	467			86
DIN 439 (ISO 4035/ 8675***)		Hexagon thin nuts	82	467	619		61
DIN 440 (ISO 7094**)		Washers for wood constructions	84	467			84
DIN 443		Sealing push-in type caps	85				112
DIN 444		Eye bolts	85	468	619		30
DIN 462		Internal tab washers	87				90
~DIN 463		Washers with 2 taps	87	469	619		91
DIN 464		Knurled thumb screws	87	469	619		30
DIN 466		Knurled nuts, high type	88	469	620		72
DIN 467		Knurled nuts, low type	88	469	620		72
DIN 470		Sealing discs	89				112
DIN 471		Retaining rings for shafts, normal type, heavy type	89	469			91

* DIN : ISO identical = interchangeable

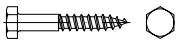
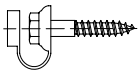
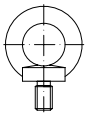
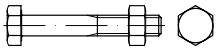
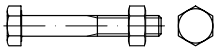
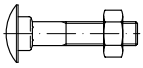
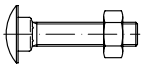
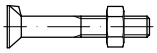
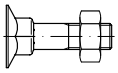
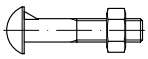
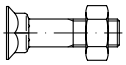
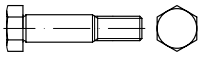
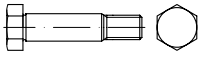
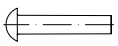
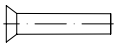
** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ „Technical Information“

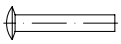
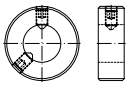
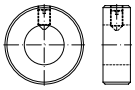
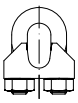
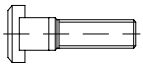
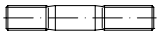
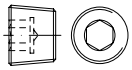
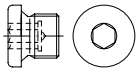
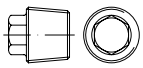
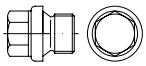
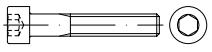
Steel Plain/ Coated | Stainless steel | Brass Cu / Al / Ti Plastic | Fixing Technology | Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 471		Article 82471 Assortment of retaining rings for shafts	90				
DIN 472		Retaining rings for bores	90	470			95
DIN 478		Square head bolts with collar	91				30
DIN 479		Square head bolts with dog point	91				30
DIN 480		Square head bolts with collar, short dog point and rounded end	92				31
DIN 508		T-slot nuts	92				70
DIN 525		Studs for welding	92				31
DIN 529		Masonry bolts (anchor bolts)	92				31
DIN 546		Slotted round nuts	92	470	620		72
DIN 551 (ISO 4766*)		Slotted grub screws with flat point	93	470	620		19
DIN 553 (ISO 7434*)		Slotted grub screws with cone point	94	471	621		19
DIN 555 (ISO 4034***)		Hexagon nuts			621		62 (~ISO 4032)
~DIN 555		Hexagon nuts with BSW thread	94				
DIN 557		Square nuts	95	471			83
DIN 561		Hexagon head set screws with dog point	95				16
DIN 562		Square thin nuts	97	471			83
DIN 564		Hexagon head set screws with short dog point and flat cone end	97				16
DIN 571		Hexagon head wood screws	98	471			51

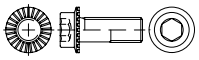
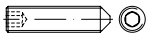
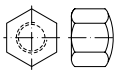
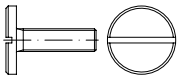
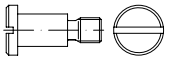
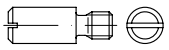
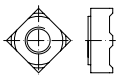
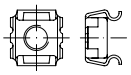
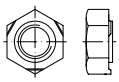
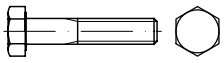
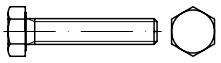
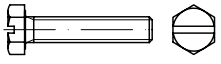
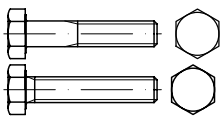
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Article 89571 Hexagon wood screws with CE acc. to EN 14592	450				51
		Article 88005 Plastic sealings/caps for hexagon head, wood screws for corrugated roof panels			645		51
DIN 580		Lifting eye bolts	99	472			32, 142
DIN 582		Lifting eye nuts	99	473			77, 143
DIN 601 (ISO 4016***)		Hexagon head bolts	100				15
		Bolts with hexagon nuts with CE acc. to EN 14592	450				15
DIN 603		Cup head square neck bolts	103	473	621		32
DIN 603		Cup head square neck bolts, thread up to square neck	105				32
DIN 604		Flat countersunk nib bolts	106				32
DIN 605		Flat countersunk square neck bolts with long square	106				33
DIN 607		Cup head nib bolts	106				33
DIN 608		Flat countersunk square neck bolts with short square	106				33
DIN 609		Hexagon fit bolts with long thread	107				16
~DIN 610		Hexagon fit bolts with short thread	108				17
DIN 653		Knurled thumb screws, low type	108	474			33
DIN 660 (ISO 1051*)		Round head rivets	109	474	621		134
DIN 661 (ISO 1051*)		Countersunk head rivets	109	475	622		134

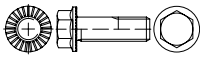
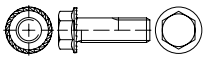
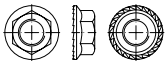
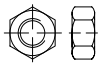
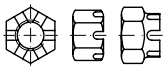
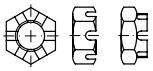
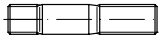
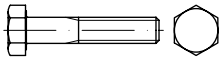
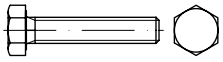
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 662 (ISO 1051*)		Mushroom head rivets (sheet metal rivets)	110		623		134
DIN 674 (ISO 1051*)		Flat round head rivets	110				135
~DIN 703		Adjusting rings, heavy range	110				111
DIN 705		Adjusting rings, light range	110	475			111
~DIN 741		U-bolt wire rope grips	111	475			133
DIN 787		T-slot screws	111				34
DIN 835		Studs, metal end ≈ 2 d	112	476			18
DIN 906		Hexagon socket pipe plugs with taper thread	112	476	624		22
DIN 908		Hexagon socket screw plugs with cylindrical thread	113	476	624		22
DIN 909		Hexagon head pipe plugs with taper thread	113				23
DIN 910		Hexagon head screw plugs with cylindrical thread	114	476	624		23
DIN 911 (→ ISO 2936)		Hexagon socket screw keys (socket wrenchs)	233				
DIN 912 (ISO 4762*)		Hexagon socket head cap screws	115	477			12
		Article 83912/ASME B18.3 Hexagon socket head cap screws with UNC thread	415				13
~DIN 912 (ISO 12474*)		Hexagon socket head cap screws with thread up to head, with fine pitch thread	115	477			12
~DIN 912 ISR (ISO 14579)		Hexalobular socket head cap screws	121				12

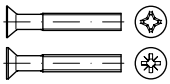
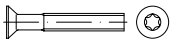
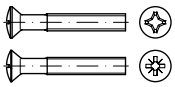
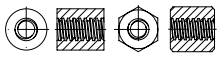
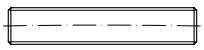
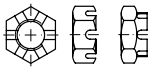
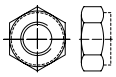
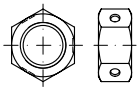
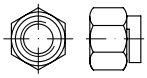
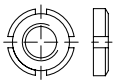
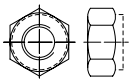
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DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Article 88912 Hexagon socket cap screws with flange, lock ribs under the flange	438				28
DIN 913 (ISO 4026*)		Hexagon socket set screws with flat point	134	481			20
DIN 914 (ISO 4027*)		Hexagon socket set screws with cone point	137	482			20
DIN 915 (ISO 4028*)		Hexagon socket set screws with full dog point	138	483			20
DIN 916 (ISO 4029*)		Hexagon socket set screws with cup point	139	484			21
DIN 917		Hexagon cap nuts, low type	141	485	624		62
DIN 920		Slotted small cheese head screws	141				37
DIN 921		Slotted large cheese head screws	142	485			38
DIN 923		Slotted cheese head shoulder screws	142	485			38
DIN 927		Slotted shoulder screws	143				38
DIN 928		Square weld nuts	143				71
		Article 88109 Square caged nuts	428				78
DIN 929		Hexagon weld nuts	143	486			71
DIN 931 (ISO 4014***)		Hexagon head bolts	143	486	625		15
DIN 933 (ISO 4017***)		Hexagon head screws	156	490	625		15
DIN 933		Slotted hexagon head screws	164				15
		Article 83931, 83933/ASME B18.2.1 Hex cap screws with shank/full thread, with UNC/UNF thread	410				16

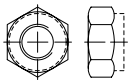
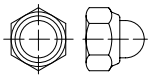
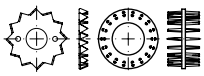
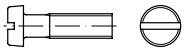
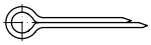
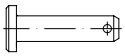
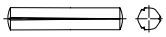
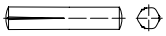
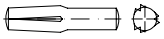
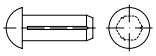
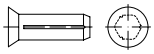
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DIN/ISO/EN		Standardized Products		Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Article 88913 Hexagon head screws with flange and lock ribs		438				28
		Article 88933 Hexagon head locking screws with flange		441				28
		Article 88914 Hexagon nuts with flange and lock ribs		440				70
		Article 88934 Hexagon locking nuts, surface hardened		442				70
DIN 934 (ISO 4032/4033*** 8673/8674***)		Hexagon nuts		168	495	626		62
~DIN 934		Hexagon nuts with BSW thread		169				
		Article 83934/ASME B18.2.2 Hex nuts with UNC/UNF thread		414	592			61
DIN 934		Article 82934, 82935 Hexagon nuts assortment		170 170				
DIN 935		Hexagon slotted and castle nuts		173	497			67
DIN 936 (ISO 4035/ 8675***)		Hexagon thin nuts		174	497	627		63
		Article 83936/ASME B18.2.2 Hex jam nuts with UNC/UNF thread		415				61
DIN 937 (→ DIN 979)		Hexagon thin slotted and castle nuts		176				67
DIN 938		Studs, metal end ≈ 1 d	AD-W	177 177	498			18
DIN 939		Studs, metal end ≈ 1,25 d	AD-W	179 179	499			18
DIN 960 (ISO 8765***)		Hexagon head bolts with shank, with metric fine pitch thread		182				15
DIN 961 (ISO 8676***)		Hexagon head screws with metric fine pitch thread		184				15
DIN 963 (ISO 2009**)		Slotted countersunk head screws		187	500	627		27

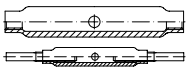
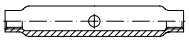
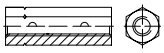
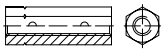
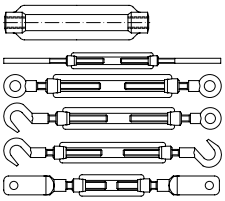
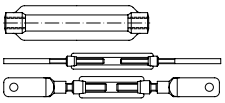
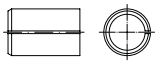
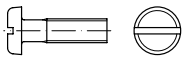
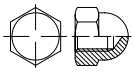
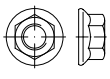
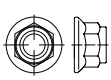
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DIN/ISO/EN		Standardized Products		Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 964 (ISO 2010**)		Slotted raised countersunk head screws		189	502	628		39
DIN 965 (ISO 7046**)		Countersunk head screws with cross recess		190	503			39
~DIN 965 „ISR“		Countersunk head screws with hexalobular socket		191	505			39
DIN 966 (ISO 7047**)		Raised countersunk head screws with cross recess		192	506			39
~DIN 975 DIN 976-1		Threaded rods	1000mm 2000mm	192 193	507 507	630		
~DIN 975		Threaded rods, BSW thread		194				
~DIN 975		Threaded rods with trapezoidal thread		197	508			
		Article 88089, 88090 Nuts with trapezoidal thread, round, hexagon		417	593			77
DIN 976-1		Stud bolts		197	508			
DIN 979		Hexagon thin slotted and castle nuts		198				68
DIN 980 (DIN 6925***) (ISO 7042/ 7719/10513)		Prevailing torque type hexagon nuts, all-metal		198	510			9
		Article 84032 Biloc nuts/prevailing torque type hexagon nuts		200	510			62
~DIN 980		Article 88105 THERMAG nuts, prevailing torque type hexagon nuts, all-metal		199				70
DIN 981		Locknuts for rolling bearings		200				73
DIN 982 (DIN 6924***) (ISO 7040/ 10512***)		Prevailing torque type hexagon nuts with non-metallic insert (plastic), high type		200	511			9
DIN 983		Retaining rings with lugs for shafts, (retainer rings)		201				98

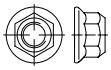
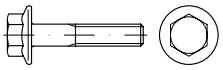
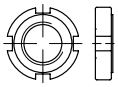
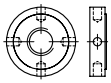
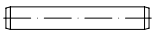
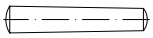
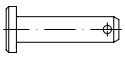
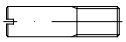
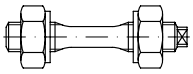
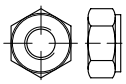
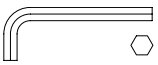
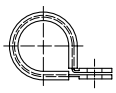
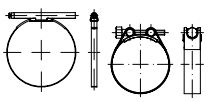
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 985 (ISO 10511***)		Prevailing torque type hexagon nuts with non-metallic insert (plastic), low type	201	512	630		9
DIN 985		Article 82985 Assortment of prevailing torque type hexagon nuts	201				
DIN 986		Prevailing torque type hexagon domed cap nuts with non-metallic insert	203	512			68
DIN 988		Shim rings/supporting rings	203	513			
DIN 1052		Timber connectors, spikes one sided or two sided, metal sheet/malleable cast iron	204	513			
DIN 1052		Washers for timber connectors	205	513			85
ISO 1207 (DIN 84**)		Slotted cheese head screws	205	513	630		37
ISO 1234 (DIN 94*)		Split pins	208	516	632		122
DIN 1440 (ISO 8738**)		Washers for clevis pins, product grade A	208	516			85
DIN 1441		Washers for clevis pins, product grade C	209				85
DIN 1444 (ISO 2341**)		Clevis pins with head	210				122
DIN 1471 (ISO 8744**)		Grooved pins, full length taper grooved	210	517			118
DIN 1472 (ISO 8745**)		Grooved pins, half length taper grooved	211	517			119
DIN 1473 (ISO 8740**)		Grooved pins, full length parallel grooved	211	517			119
DIN 1474 (ISO 8741**)		Grooved pins, half length reverse grooved	212				119
DIN 1475 (ISO 8742/8743)		Grooved pins, third length centre grooved	212				118
DIN 1476 (ISO 8746*)		Grooved pins with round head	213	518	632		120
DIN 1477 (ISO 8747*)		Grooved pins with countersunk head	213				120

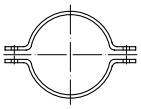
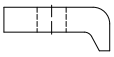
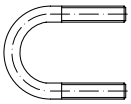
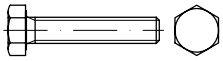
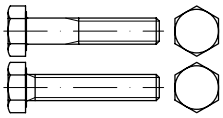
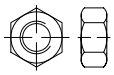
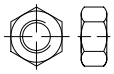
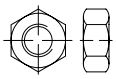
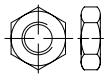
			Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“					

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 1478		Turnbuckles made from tubes SP = turnbuckles SP-AE = with 2 welding studs	214				81
DIN 1478		Turnbuckles made from tubes with approval as construction product (ÜZ)	214				81
DIN 1479		Hexagon turnbuckles	214				81
DIN 1479		Hexagon turnbuckles with approval as construction product (ÜZ)	214				81
ISO 1479 (DIN 7976*)		Hexagon head tapping screws	214	518			46
DIN 1480		Turnbuckles, forged SP = turnbuckles without accessories SP-AE = with 2 welding studs SP-RR = with 2 eye bolts SP-RH = with eye bolt and hook bolt SP-HH = with 2 hook bolts SP-BS = with 2 flat leaf screws	215	518			82
DIN 1480		Turnbuckles, forged, with approval as construction product SP = turnbuckles without accessories (ÜZ) SP-AE = with 2 welding studs (ÜZ) SP-BS-S = with 2 flat leaf screws (CE EN 1090)	215 216 217				82
DIN 1481 (ISO 8752**)		Spring type straight pins, heavy duty	217	519			121
DIN 1481		Article 82481 Spring type straight pins assortment	220				
DIN 1498		Tension bushes for internal application	220				120
ISO 1580 (DIN 85**)		Slotted pan head screws	220	520	633		37
DIN 1587		Hexagon domed cap nuts, high type	221	521	633		63
EN 1661 (DIN 6923***)		Hexagon nuts with flange	222	521			64
EN 1663 (DIN 6926**)		Prevailing torque type hexagon nuts with flange and non-metallic insert	223				69

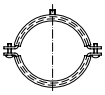
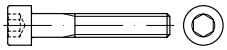
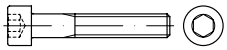
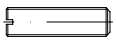
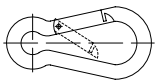
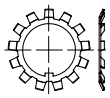
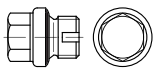
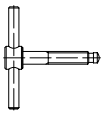
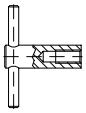
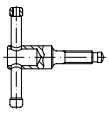
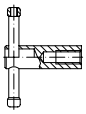
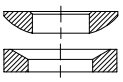
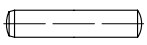
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DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
EN 1664 (DIN 6927**)		Prevailing torque type hexagon nuts with flange, all-metal	223				69
EN 1665 (DIN 6921***)		Hexagon bolts with flange	223	521			17
DIN 1804		Slotted round nuts for hook spanner	224	522			74
DIN 1816		Round nuts with set pin holes inside	225				75
ISO 2009 (DIN 963**)		Slotted countersunk flat head screws	225	522	634		27
ISO 2010 (DIN 964**)		Slotted raised countersunk head screws	227	524	635		39
DIN 2093 (EN 16983*)		Disc springs	227	525			141
ISO 2338 (DIN 7**)		Parallel pins	229	525			116
ISO 2339 (DIN 1**)		Taper pins	230	527			117
ISO 2341 (DIN 1444*)		Clevis pins with head	231				122
ISO 2342 (DIN 427*)		Slotted headless screws with shank	232	527			19
DIN 2510		Bolts with waisted shank and nuts, with certificate EN 10204/3.2/3.1	232				18
DIN 2510		Hexagon nuts for bolts with waisted shank, with certificate EN 10204/3.1	233				61
ISO 2936 (DIN 911***)		Hexagon socket screw keys (socket wrenchs)	233				
DIN 3016		Fastening clamps with rubber profile	233				130
DIN 3017		Hose clamps type A = with worm gear drive type C = with hinge bolts	234	528			131
DIN 3404		Lubricating nipples, button head	234		636		25

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DIN/ISO/EN		Standardized Products		Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 3405		Lubricating nipples, cupped type		235				25
DIN 3567		Pipe clamps		235	528			132
DIN 3568		Clamping plates for pipe fixings		235				132
DIN 3570		Stirrup bolts		235	528			130
ISO 4014 (DIN 931*/***)		Hexagon head bolts	AD-W PED	239 236 238	529 530	636		15
ISO 4017 (DIN 933*/***)		Hexagon head screws	AD-W PED	257 254 256	534 536	636		15
		Article 83931, 83933/ASME B18.2.1 Hex cap screws with shank/full thread, with UNC/UNF thread		410				16
ISO 4026 (DIN 913*)		Hexagon socket set screws with flat point		272	541			20
ISO 4027 (DIN 914*)		Hexagon socket set screws with cone point		274	542			20
ISO 4028 (DIN 915*)		Hexagon socket set screws with full dog point		275	543			20
ISO 4029 (DIN 916*)		Hexagon socket set screws with cup point		277	543			21
ISO 4032 (DIN 934***)		Hexagon nuts, ISO type 1, coarse thread	AD-W PED	279 278 279	544 545	637		62
		Article 83934/ASME B18.2.2 Hex nuts with UNC/UNF thread		414	592			61
ISO 4033 (DIN 934***)		Hexagon nuts, ISO type 2, coarse thread, property class 12		284				63
ISO 4035 (DIN 439/ 936***)		Hexagon thin nuts, chamfered		284	547	638		63
		Article 83936/ASME B18.2.2 Hex jam nuts with UNC/UNF thread		415				61

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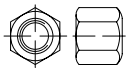
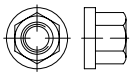
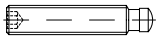
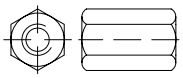
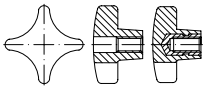
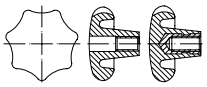
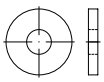
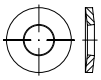
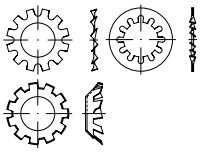
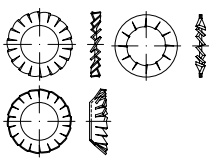
DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
~DIN 4109		Screwed tubular clamps with noise protection inlay	286				132
ISO 4762 (DIN 912*)		Hexagon socket head cap screws	286	547			12
		Article 83912/ASME B18.3 Hexagon socket head cap screws with UNC thread	415				13
ISO 4766 (DIN 551*)		Slotted grub screws with flat point	305	552	638		19
DIN 5299		Snap hooks, type C	306				133
DIN 5406 MB/MBL		Lockwashers/safety plates for locknuts acc. to DIN 981	306				98
DIN 5586		Hexagon head screw plugs with collar, vent and melted sealing (type B) DIN 910-2, type A	306				24
DIN 6304		Tommy screws with fixed clamping bolt	306				127
DIN 6305		Tommy nuts with fixed clamping bolt	307				127
DIN 6306		Tommy screws with movable clamping bolt	307				128
DIN 6307		Tommy nuts with movable clamping bolt	307				128
DIN 6311		Thrust pads for grub screws with thrust point acc. to DIN 6332	307				128
DIN 6319		Spherical washers type C, Conical seats type D and G	307				112
DIN 6325 (ISO 8734*)		Parallel pins	308				116

* DIN : ISO identical = interchangeable

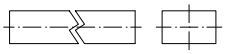
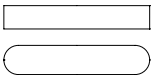
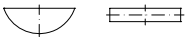
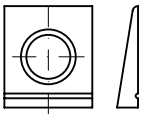
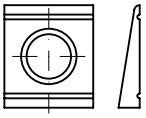
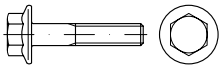
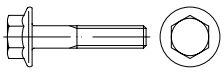
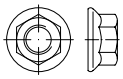
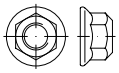
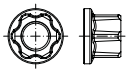
** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ „Technical Information“

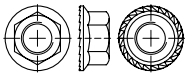
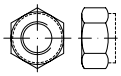
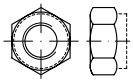
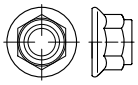
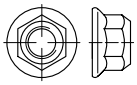
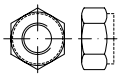
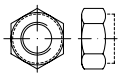
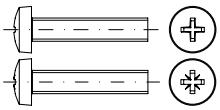
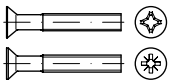
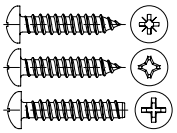
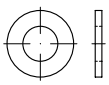
Steel Plain/ Coated | Stainless steel | Brass Cu / Al / Ti Plastic | Fixing Technology | Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 6330		Hexagon nuts with a height of 1,5 d, type B = one spherical bearing face	309	552			64
DIN 6331		Hexagon nuts with collar, with a height of 1,5 d	309	552			64
DIN 6332		Grub screws with thrust point	310				129
~DIN 6334		Hexagon nuts with a height of 3 d	310	553			64
DIN 6335		Palm grips	310		639		126
DIN 6336		Star grips	310		639		126
DIN 6340		Washers for clamping devices, hardened	311				84
DIN 6796		Conical spring washers	311	553			
~DIN 6797		Toothed lock washers type A = external teeth type I = internal teeth type V = countersunk	311	553			99
		Article 88123–88126 TECKENTRUP lock washers for hexagon head screws and hexagon socket cap screws	430	599			105
		Article 88129 TECKENTRUP lock washers with contact serrations	431	600			106
		Article 88119 LOCKTIX washers	432				104
~DIN 6798		Serrated lock washers type A = external teeth type I = internal teeth type V = countersunk	313	554	639		99

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 6799		Retaining rings for shafts	314	554			100
DIN 6880		Key steel	314				137
DIN 6885		Parallel keys	315	555			138
DIN 6887		Taper keys with gib head	316				138
DIN 6888		Woodruff keys	316				138
DIN 6899		Thimbles for fibre ropes	316				133
DIN 6911		Hexagon socket screw keys (pin wrenches) with pilot for hexagon socket cap screws acc. to DIN 6912	317				
DIN 6912		Hexagon socket head cap screws with low head and centre	317	555			12
DIN 6917		Square taper washers for friction grip bolts on double-T-beams in steel constructions (tapper 14%)	319				86
DIN 6918		Square taper washers for friction grip bolts on U-beams in steel constructions (tapper 8%)	320				86
DIN 6921 (EN 1665***)		Hexagon flange bolts	320	557			17
		Article 10105 Hexagon flange bolts acc. to MBN 10105	388				17
DIN 6923 (EN 1661***)		Hexagon flange nuts	322	558			64
		Article 13023 Hexagon flange nuts acc. to MBN 13023	396				69
		Article 13024 Lightweight construction nuts	396				65

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

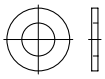
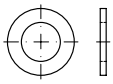
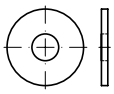
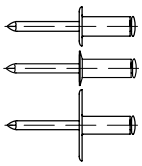
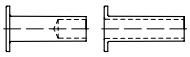
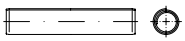
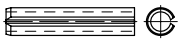
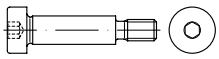
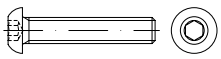
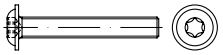
DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
~DIN 6923		Hexagon locking nuts with flange	322	558			64
DIN 6924 (ISO 7040**/ 10512)		Prevailing torque type hexagon nuts with non-metallic insert (plastic)	323	559			9
DIN 6925 (ISO 7042**/ 10513)		Prevailing torque type hexagon nuts, all-metal	323				9
DIN 6926 (EN 1663***)		Prevailing torque type hexagon nuts with flange and non-metallic insert	324				69
DIN 6927 (EN 1664***)		Prevailing torque type hexagon nuts with flange, all-metal	324				69
ISO 7040 (DIN 6924**/ DIN 982***)		Prevailing torque type hexagon nuts with non-metallic insert (plastic)	324	559			9
ISO 7042 (DIN 6925**/ DIN 980***)		Prevailing torque type hexagon nuts, all-metal	325	560			9
ISO 7045 (DIN 7985**)		Cheese head screws with cross recess	326	561			40
ISO 7046 (DIN 965***)		Countersunk head screws with cross recess	328	563			39
ISO 7047 (DIN 966***)		Raised countersunk head screws with cross recess	329	565			39
ISO 7049 (DIN 7981**)		Pan head tapping screws with cross recess	330	566			46
ISO 7050 (DIN 7982***)		Countersunk head tapping screws with cross recess, countersunk ⊲ = 90°	332	567			47
ISO 7051 (DIN 7983***)		Raised csk. head tapping screws with cross recess, counterunk ⊲ = 90°	333	567			47
ISO 7089 (DIN 125**)		Plain washers, normal series, without chamfer, product grade A	333	568			84

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ „Technical Information“

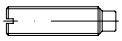
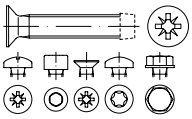
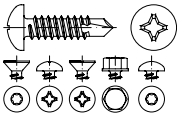
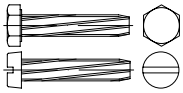
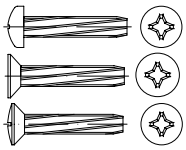
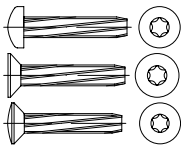
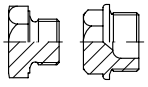
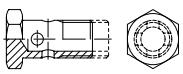
Steel Plain/ Coated | Stainless steel | Brass Cu / Al / Ti Plastic | Fixing Technology | Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
ISO 7090 (DIN 125**)		Plain washers, normal series, with chamfer, product grade A	335	569	640		84
ISO 7091 (DIN 126*)		Plain washers, normal series, product grade C	337				84
ISO 7092 (DIN 433**)		Plain washers, small series, product grade A	338	569	641		84
ISO 7093 (DIN 9021**)		Plain washers, large series, product grade A	338	570	641		85
ISO 7094 (DIN 440**)		Plain washers, extra large series, product grade C	338	570			84
DIN 7337 (ISO 15973-16585)		Blind rivets → Article 88401-88488				689	206
DIN 7338		Rivets for brake linings and clutch linings			641		135
DIN 7343 (ISO 8750*/ 8751)		Spring-type straight pins, coiled, standard duty	339	571			121
DIN 7344 (ISO 8748**)		Spring-type straight pins, coiled, heavy duty	339				121
DIN 7346 (ISO 13337**)		Spring-type straight pins, slotted, light duty	340				122
DIN 7349		Washers for screws with heavy spring-type straight pins	341	571			85
ISO 7379		Hexagon socket head shoulder screws	342	572			13
ISO 7380-1		Hexagon socket button head screws	342	572			14
ISO 7380-2		Hexagon socket button head screws with flange	344	344			14
~ISO 7380-1 ISR (~DIN 34805-1)		Hexalobular socket button head screws	343	572			14
~ISO 7380-2 ISR (~DIN 34805-2)		Hexalobular socket button head screws with flange	344	573			14
ISO 7434 (DIN 553*)		Slotted grub screws with cone point	345	573	641		19

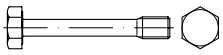
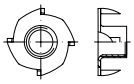
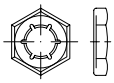
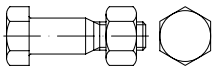
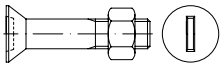
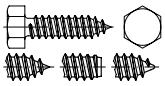
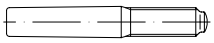
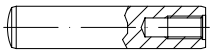
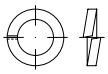
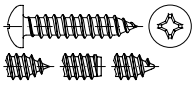
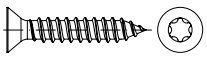
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN

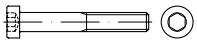
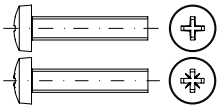
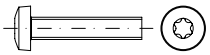
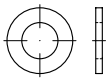
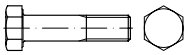
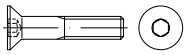
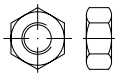
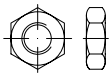
Standardized Products

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
ISO 7435 (DIN 417*)		Slotted grub screws with full dog point	345				19
DIN 7500		Thread rolling screws for ISO metric thread type C = pan head ~type D = hexagon head with collar type E = cylinder head with hexagon socket type M = countersunk head type CE-ISR/PE = pan head, hexalobular socket	346				41
DIN 7504 (ISO 15480-15483)		Drilling screws with tapping screw thread type K = hexagon head with collar type N = pan head type P = countersunk head	347				42
DIN 7513		Thread cutting screws type A = hexagon head type B = slotted cheese head	349				44
DIN 7516		Thread cutting screws with cross recess type A = pan head type D = countersunk head type E = raised countersunk head	350				45
~DIN 7516		Thread cutting screws with hexalobular socket type AE = pan head type DE = countersunk head type EE = raised countersunk head	351				45
DIN 7603		Sealing rings			642		87
DIN 7604		Hexagon head screw plugs with collar	351	574			24
DIN 7643		Hollow screws for ring type banjos	352				34

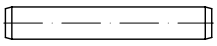
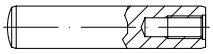
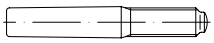
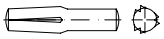
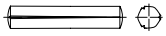
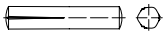
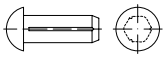
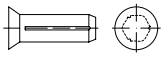
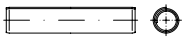
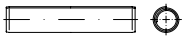
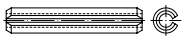
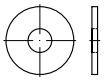
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
~DIN 7964		Hexagon head screws with waisted shank type D1 = hexagon head acc. to ISO 4014		574			17
DIN 7965		Screwed inserts „RAMPA“	352		642		79
		Article 88108 Tee nuts with pronge	428				78
~DIN 7967		Self locking counter nuts	352	574			68
DIN 7968		Hexagon fit bolts for steel structures with CE acc. to EN 15048	352				57
DIN 7969		Slotted countersunk head bolts for steel structures with CE acc. to EN 15048	354				57
DIN 7976 (ISO 1479**)		Hexagon head tapping screws, type C = cone end, type F = flat end	354	575			46
DIN 7977 (ISO 8737*)		Taper pins with external thread, constant threaded part	355				117
DIN 7978 (ISO 8736*)		Taper pins with internal thread	355				118
DIN 7979 (ISO 8733/ 8735***)		Parallel pins with internal thread	356				116
~DIN 7980		Spring lock washers for cheese head screws	357	575			100
DIN 7981 (ISO 7049**)		Pan head tapping screws with cross recess, type C = cone end, type F = flat end	357 331	575			46
		Article 88981 Cap-head tapping screws	360	577			
~DIN 7981 ISR (ISO 14585)		Pan head tapping screws with hexalobular socket	359 406	590			46
DIN 7982 (ISO 7050***)		Countersunk head tapping screws with cross recess	360 332	577			47
~DIN 7982 ISR (ISO 14586)		Countersunk head tapping screws with hexalobular socket	360 405	591			47

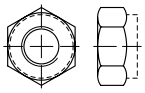
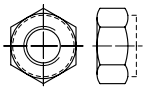
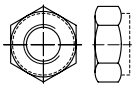
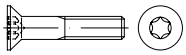
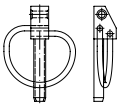
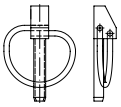
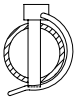
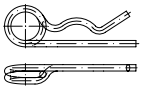
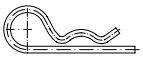
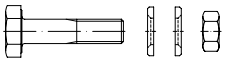
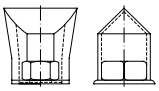
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DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 7983 (ISO 7051***)		Raised countersunk head tapping screws with cross recess	362	578			47
DIN 7984		Hexagon socket head cap screws with low head	362	579			13
~DIN 7984 ISR (ISO 14580)		Hexalobular socket head cap screws with low head	364				13
DIN 7985 (ISO 7045**)		Pan head screws with cross recess	364	580			40
~DIN 7985 ISR (ISO 14583**)		Pan head screws with hexalobular socket	366	581			40
DIN 7989		Washers for steel structures	367	582			84
DIN 7990		Hexagon head bolts for steel structures with CE acc. to EN 15048	367				57
DIN 7991 (➔ ISO 10642)		Hexagon socket countersunk head screws	389	587			14
~DIN 7991 ISR (ISO 14581) (➔ ISO 10642 ISR)		Hexalobular socket countersunk head screws	392				
DIN 7993 (DIN 9925/ 9926***)		Snap rings for shafts and bores	369				101
DIN 8140		Article 88330–88346 Wire thread inserts, coarse thread, fine pitch thread, with locking		603			150
		Article 88340, 88342 Assortment thread inserts		605			
ISO 8673 (DIN 934***)		Hexagon nuts, ISO type 1, metric fine pitch thread	369	582	642		62
ISO 8675 (DIN 439***)		Hexagon thin nuts with chamfers, metric fine pitch thread	371	582	643		63
ISO 8676 (DIN 961*/***)		Hexagon head screws with thread up to head, metric fine pitch thread	372				15

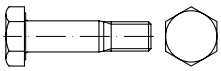
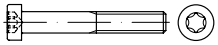
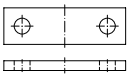
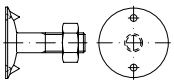
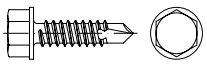
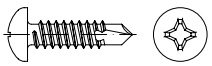
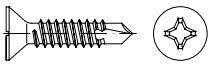
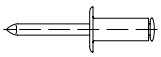
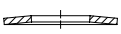
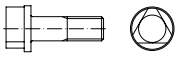
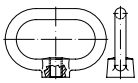
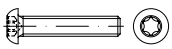
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO ➔ red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
ISO 8734 (DIN 6325*)		Parallel pins	374				116
ISO 8735 (→ DIN 7979***)		Parallel pins with internal thread	356				116
ISO 8736 (DIN 7978*)		Taper pins with internal thread	376				118
ISO 8737 (DIN 7977*)		Taper pins with external thread, constant threaded part	376				117
ISO 8738 (DIN 1440*)		Washers for clevis pins	376	583			85
ISO 8740 (DIN 1473**)		Grooved pins, full length parallel grooved	377	583			119
ISO 8741 (DIN 1474**)		Grooved pins, half length reverse grooved	378				119
ISO 8742 (DIN 1475**)		Grooved pins, third length centre grooved	378				118
ISO 8744 (DIN 1471**)		Grooved pins, full length taper grooved	378	583			118
ISO 8745 (DIN 1472**)		Grooved pins, half length taper grooved	379	584			119
ISO 8746 (DIN 1476*)		Grooved pins with round head	380	584	643		120
ISO 8747 (DIN 1477*)		Grooved pins with countersunk head	380				120
ISO 8748 (DIN 7344**)		Spring-type straight pins, coiled, heavy duty	380				121
ISO 8750 (DIN 7343**)		Spring-type straight pins, coiled, standard duty	381	584			121
ISO 8752 (DIN 1481**)		Spring-type straight pins, heavy duty	381	585			121
ISO 8765 (DIN 960*/***)		Hexagon head bolts with shank, metric fine pitch thread	384				15
DIN 9021 (ISO 7093**)		Plain washers, outside diameter ≈ 3 x d	387	586	643		85
DIN 9925 (DIN 7993 A***)		Snap rings for shafts	388				101
DIN 9926 (DIN 7993 B***)		Snap rings for bores	388				101

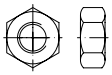
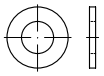
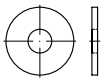
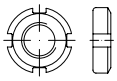
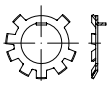
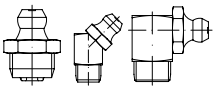
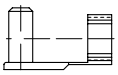
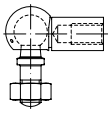
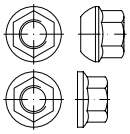
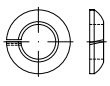
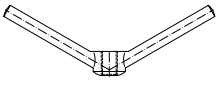
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
ISO 10511 (DIN 985***)		Prevailing torque type hexagon nuts with non-metallic insert	388	587	643		9
ISO 10512 (DIN 982***)		Prevailing torque type hexagon nuts with non-metallic insert, high type, with metric fine pitch thread	389				9
ISO 10513 (DIN 980***)		Prevailing torque type hexagon nuts with metric fine pitch thread, all-metal	389				9
ISO 10642 (DIN 7991**)		Hexagon socket countersunk head screws	389	587			14
~ISO 10642 ISR		Hexalobular socket countersunk head screws	392				
DIN 11023		Linch pins	394				123
~DIN 11023		Linch pins without third hole	394				123
		Article 88023 Linch pins for tubes	394				123
DIN 11024		Spring cotters for a bolt	395	589			123
~DIN 11024		Spring cotters for a bolt, single type	395	589			123
ISO 12474 (DIN 912*)		Hexagon socket head cap screws with metric fine pitch thread	395				12
ISO 13337 (DIN 7346**)		Spring-type straight pins, slotted, light duty	396				122
EN 14399 -4/-6 (DIN 6914-6916)		Assemblies of hexagon bolts, nuts and washers for high-strength structural bolting, system HV	397				58
		Article 88916 Safety sockets for high-strength structural bolting assemblies	402				59

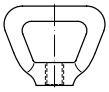
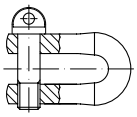
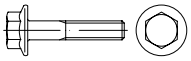
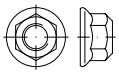
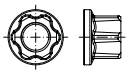
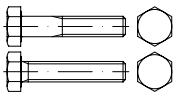
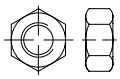
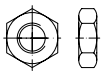
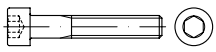
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DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
EN 14399-8 (DIN 7999)		Hexagon fit bolts with large head for high-strength structural bolting, system HV	402				58
ISO 14579 (DIN 912 ISR*)		Hexalobular socket head cap screws	402				12
ISO 14580 (→ DIN 7984 ISR*)		Hexalobular socket head cap screws with low head	364				13
ISO 14581		Hexalobular socket countersunk head screws	403	589			15
ISO 14583 (DIN 7985 ISR)		Cheese head screws with hexalobular socket	403	590			40
ISO 14585 (DIN 7981 ISR)		Pan head tapping screws with hexalobular socket	404	590			46
ISO 14586 (DIN 7982 ISR)		Countersunk head tapping screws with ⍼ = 90°, with hexalobular socket	405	591			47
DIN 15058		Axle holders (for lifting appliances)	407				137
DIN 15237		Seating screws with cupped washer, for attachment of components to belts	407				35
ISO 15480 (DIN 7504*)		Hexagon washers head drilling screws with tapping screw thread	406				42
ISO 15481 (DIN 7504*)		Pan head drilling screws with tapping screw thread	406				42
ISO 15482 (DIN 7504***)		Countersunk head drilling screws with tapping screw thread, countersunk ⍼ = 90°	406				42
ISO 15975-16858 (DIN 7337)		Blind rivets → Article 88401-88488				689	205
EN 16983 (DIN 2093*)		Disc springs	407				141
DIN 22424		Triangle head bolts	408				35
DIN 28129		Clamp nuts (lifting nuts)	408				129
DIN 34805-1 (~ISO 7380-1 ISR)		Hexalobular socket button head screws	343	572			14

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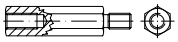
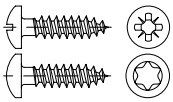
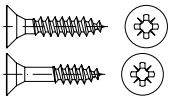
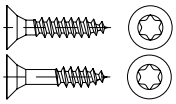
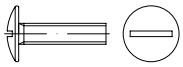
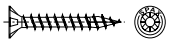
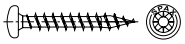
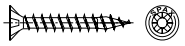
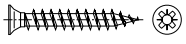
DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 34805-2 (~ISO 7380-2 ISR)		Hexalobular socket button head screws with flange	344	573			14
		Plastic Fasteners					
DIN 34810		Hexagon head plastic screws → DIN 933			625		15
DIN 34814		Hexagon plastic nuts → DIN 555			621		62 (~ISO 4032)
DIN 34815		Plastic washers, normal series → DIN 125			617		84
DIN 34816		Plastic washers, large series → DIN 9021			643		
DIN 70852		Locknuts for hook spanners	408				76
DIN 70952		Lockwashers/safety plates for locknuts	409				102
DIN 71412		Lubricating nipples	409	592			25
DIN 71752		Fork joints	409				124
		Article 88752 Spring flap bolts ("ES bolts")	410				124
DIN 71802		Angle joints (ball joints)	410				
DIN 74361		Nuts with spherical collar (type A), Flat collar nuts (type B)	410 410				
DIN 74361		Spherical springwashers (type C)	410				102
DIN 80701		Butterfly nuts			644		129

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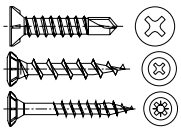
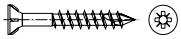
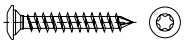
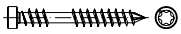
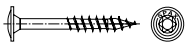
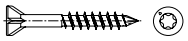
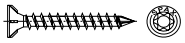
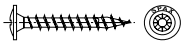
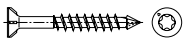
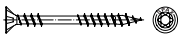
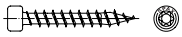
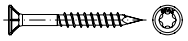
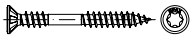
DIN/ISO/EN		Standardized Products	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
DIN 80704		Bow nuts		592	644		129
DIN 82101		D-shackles, forged	410				134
MBN 10105		Hexagon head bolts with flange acc. to MBN 10105	388				17
MBN 13023		Prevailing torque type hexagon nuts with flange acc. to MBN 13023	396				69
		Article 13024 Lightweight construction nuts	396				65
		Fasteners acc. to ASME/ANSI standards					
ASME B18.2.1		Hex cap screws with shank/full thread, with UNC/UNF thread	410				16
ASME B18.2.2		Hex nuts with UNC/UNF thread	414	592			61
ASME B18.2.2		Hex jam nuts with UNC/UNF thread	415				61
ANSI B18.22.1		Plain washers, N = narrow, W = wide	415				85
ASME B18.3		Hexagon socket head cap screws with UNC thread	415				13

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

Content – Non Standardized Screws and Bolts

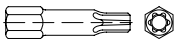
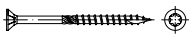
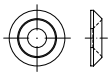
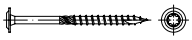
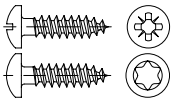
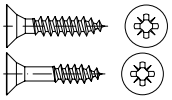
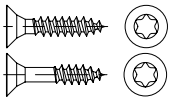
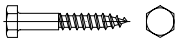
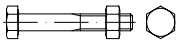
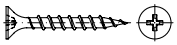
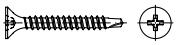
DIN/ISO/EN		Non Standardized Screws and Bolts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88086		Spacers with thread and with hexagon	416				35
88095		Chipboard screws with raised countersunk head and Pozidriv cross recess Z			645		
89096		Chipboard screws with pan head, with CE – Pozidriv cross recess Z – hexalobular socket	447	607			52
89097		Chipboard screws with countersunk head, with Pozidriv cross recess Z, with CE	448	607			52
89098		Chipboard screws with countersunk head, with hexalobular socket, with CE	449	608			52
88107		Slotted mushroom head screws	428	596			41
	SPAX®						
88099		SPAX chipboard screws with countersunk head, with Pozidriv cross recess Z and centre hole	424				
88091		SPAX chipboard screws/wood construction screws until 12 x 600 with countersunk head, with hexalobular socket	417	593			
88092		SPAX chipboard screws with raised countersunk head, with Pozidriv cross recess Z, hexalobular socket	420	594			
88093		SPAX chipboard screws with pan head, with Pozidriv cross recess Z, hexalobular socket	421	594			
88094		SPAX chipboard screws with countersunk head, with Pozidriv cross recess Z	421				
88094		SPAX chipboard screws with small countersunk head, with Pozidriv cross recess Z	421				

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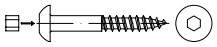
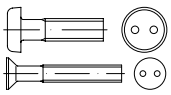
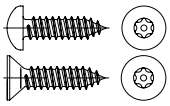
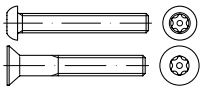
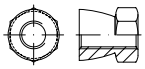
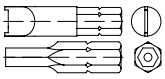
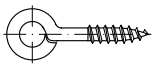
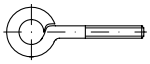
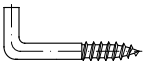
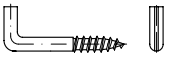
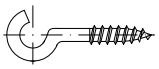
DIN/ISO/EN		Non Standardized Screws and Bolts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88187 88188 88189		SPAX window lair screws FEX type A = for fastening metal reinforcements for simple-wall profiles type KS = fitting screws for plastic profiles type H = screws for wooden window frames	426				
88190		SPAX glass strip screws	425	595			
88191		SPAX post screws		595			
88192		SPAX screws with fixing thread for terraces planks		594			
88193		SPAX screws with flange head	424	595			
88195		SPAX screws with milling head for solid timber floors	425				
88196		SPAX screws fully threaded and MULTI countersunk head	420				
88197		SPAX screws with flange head for back boards	425				
88198		SPAX screws for MDF boards	425				
89015		SPAX flooring screws with fixing thread	427				
89010 89011		SPAX frame anchors RA with star socket Seko = with countersunk head Zyko = with cheese head	426				
89014		SPAX screws for wood, glass and frames	426				
89018		SPAX facade screws with raised countersunk head		595			
89019		SPAX facade screws with raised countersunk head and fixing thread		595			
88001		Caps with pin	424				
89012		Caps for SPAX frame anchors RA	426				
89013		SPAX caps with pin	424				
89021		SPAX screws assortment	420				

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Content – Non Standardized Screws and Bolts

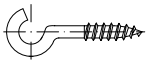
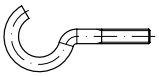
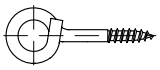
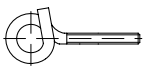
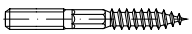
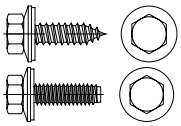
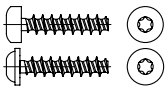
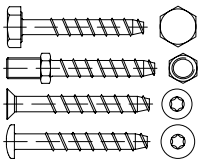
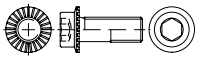
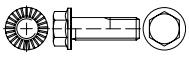
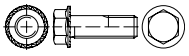
DIN/ISO/EN		Non Standardized Screws and Bolts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88654 88663		SPAX bit assortments				688	
89017		SPAX assembly tools for SPAX threaded rods without head				688	
		Fasteners for timber construction					
89091		Wood building screws with countersunk head, with hexalobular socket, with CE	446				52
89184		Countersunk washers for wood building screws with CE	447				115
		Wood building screws with flange head, with hexalobular socket, with CE	447				53
89096		Chipboard screws with pan head, with CE – Pozidriv cross recess Z – hexalobular socket	447	607			52
89097		Chipboard screws with countersunk head, with Pozidriv cross recess Z, with CE	448	607			52
89098		Chipboard screws with countersunk head, with hexalobular socket, with CE	449	608			52
89571		Hexagon wood screws with CE	450				51
89601		Bolts with hexagon nut, with CE	450				15
		Screws for plasterboard systems with CE according to EN 14566					
89150		Drywall screws with Phillips cross recess H, with flat bugle head and coarse thread, with CE	450				53
89151		Drywall screws with Phillips cross recess H, with flat bugle head and fine pitch thread, with CE	451				53
89152		Drywall screws with Phillips cross recess H, with flat bugle head and drilling point, with CE	451				53

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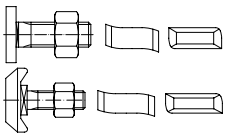
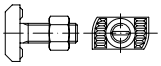
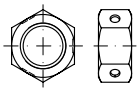
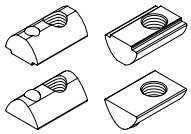
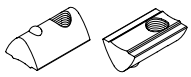
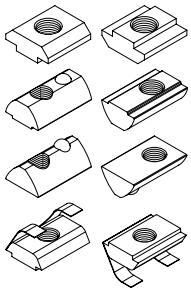
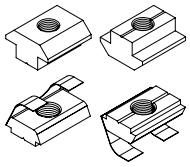
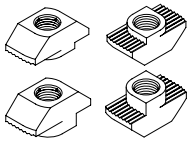
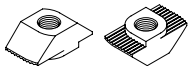
DIN/ISO/EN		Non Standardized Screws and Bolts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Fasteners with Theft Resistant Drives					
88110		Wood screws thread with hexagon socket and rivet pin	429				
88111 88112		Pan head/countersunk head screws with snake eyes drive, metric thread		596			27
88113		Button head screws with hexagon socket and pin, metric thread		597			27
88114 88115		Pan head/countersunk head screws with hexalobular socket and pin, tapping screw thread		597			48
88116 88117		Button head/countersunk head screws with hexalobular socket and pin, metric thread		598			26
88118		Theft resistant nuts/pull-off nuts for one-way assembly		598			
		Special bits → Articles 88665-88667				688	
88133		Screw eyes with wood screw thread	434				54
88135		S-hooks	434				137
88136		Screw eyes with metric thread	434	601			36
88137		Square bend screw hooks with wood screw thread	435				54
88138		Straight screw hooks with metric thread	435				36
88139		Square bend slotted screw hooks with wood screw thread	435				55
88140		Cup hooks with wood screw thread	435				55

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

Content – Non Standardized Screws and Bolts

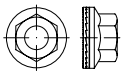
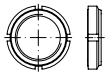
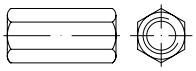
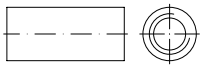
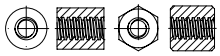
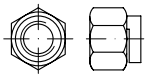
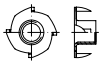
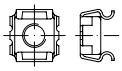
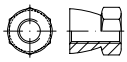
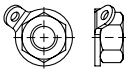
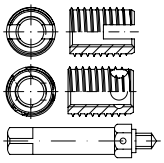
DIN/ISO/EN		Non Standardized Screws and Bolts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88141		Cup hooks with wood screw thread, white painted	435				55
88142		Cup hooks with metric thread	435				36
88143		Right angle screw hooks with wood screw thread, with hexalobular socket	436				55
88144		Heavy duty screw eyes, spiral type, with wood screw thread	436				56
88145		Heavy duty screw eyes, spiral type, with metric thread	436				37
88149		Hanger bolts	436	601			
88176 88276		Tapping screws for facing with assembled sealing washer		602			50
88200 88202 88203 88204		Pan head screws with screw thread for plastic (thermoplastics), with hexalobular socket	436				48 - 49
88296		Spengler screws, raised countersunk head, wood screws with hexalobular socket, including rosettes and sealing washer		603			
88312		Cylindrical head tapping screws with hexagon socket		574			50
88902- 88908		MULTI-MONTI MMSplus screw-in-anchors, wall screws				687	202 - 203
88912		Hexagon socket head cap screws with flange and lock ribs	438				28
88913		Hexagon head screws with flange and lock ribs	438				28
88933		Hexagon head locking screws with flange	441				28

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

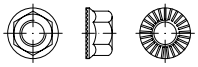
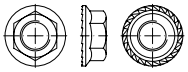
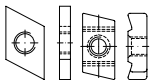
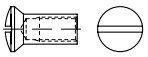
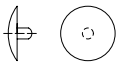
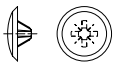
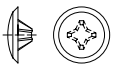
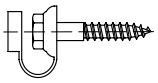
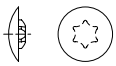
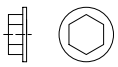
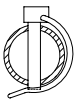
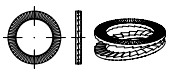
DIN/ISO/EN		Non Standardized Screws and Bolts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88928 88938 88940 88950 88972		T-head bolts/Halfen bolts HS	442	606			
88941 88943 88944		T-head bolts HZS	443	606			
88981		Cap-head tapping screws	360	577			
		Non Standardized Nuts and Inserts					
84032		Biloc nuts/prevailing torque type hexagon nuts	200	510			62
87010		T-Slot nuts, profile 5 mm, - with raised center - without raised center	445				154
87011		T-Slot nuts, profile 6 mm, with peripheral guiding ridge	445				154
87012		T-Slot nuts, profile 8 mm, - with raised center - with raised center and ball - without raised center, with ball - without equipotential bonding, with spring	445				155
87013		T-Slot nuts, profile 10 mm, - with raised center - without equipotential bonding, with spring	446				155
87014		Hammer head nuts for profile 8 mm, - low center - high center	446				155
87015		Hammer head nuts for profile 10 mm, low center	446				155

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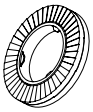
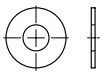
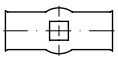
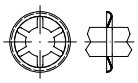
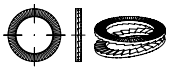
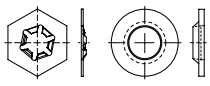
Content – Non Standardized Nuts and Inserts

DIN/ISO/EN		Non Standardized Nuts and Inserts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88034		HEICO-LOCK wedge lock nuts HLM	434				69
88081		Locknuts with non-metallic insert GUK	416				76
88087		Hexagon couplings	417	592			66
88088		Round couplings	417	593			77
88089 88090		Round and hexagon nuts with trapezoidal thread	417	593			77
88105		THERMAG nuts, all-metal nuts with prevailing torque type hexagon nuts	199				70
88106		Rivet nuts	428	596			78
88108		Tee nuts with pronge	428				78
88109		Square caged nuts	428				78
88118		Theft resistant nuts/pull-off nuts for one-way assembly		598			
88153		RUV-REYHER captivity nuts		602			
88215		Wing nuts, small "American" type	78	464			79
88302 88305 88307		ENSAT threaded inserts, short, long, setting tools for ENSAT threaded inserts	437	603			152
88330 88331- 88346		AMECOIL wire thread inserts, coarse thread, fine pitch thread, self locking, setting tools		603			151
88342 88344		AMECOIL assortment box with threaded inserts		605			

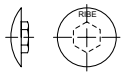
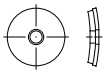
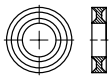
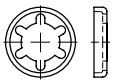
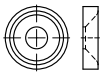
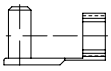
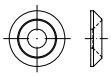
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DIN/ISO/EN		Non Standardized Nuts and Inserts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88914		Hexagon locking nuts with lock ribs	440				70
88934		Hexagon locking nuts, surface hardened	442				70
88951–88955		T-head thread plates/slide nuts for (Halfen-) profiles	444				79
88964		Sleeve nuts with internal thread		607	647		79
		Non Standardized Accessories					
88001		Caps with pin for chipboard screws for SPAX screws with inner hole			424		
88002		Caps with pin for chipboard screws with Pozidriv cross recess Z			427		
88003		Decorative caps for cap screws Article 88981 ∅ 3.9			360		
88004		Caps with pin for chipboard screws, for Phillips cross recess H			361		
88005		Plastic sealings and caps for hexagon wood screws, 7 mm ∅ for corrugated roof panels			645		
88006		Caps for countersunk head screws with hexalobular/star socket			420		
88008		Caps for tapping screws for facing		602			
88023		Linch pins for tubes	394				123
88032		HEICO-LOCK washers, preassembled pairs HLS = normal outer diameter HLB = enlarged outer diameter HLK = to usage with HV-assemblies	433	600			103

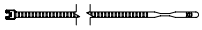
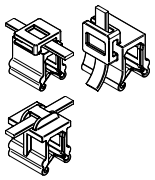
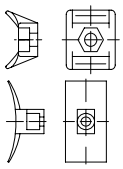
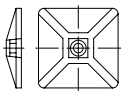
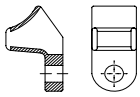
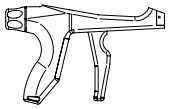
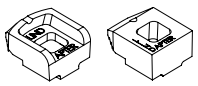
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Non Standardized Accessories	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88033		HEICO-LOCK ring lock washers HLRS = normal outer diameter HLRB = enlarged outer diameter	433				103
88035		HEICO-LOCK combi-washers HKS = normal outer diameter HKB = enlarged outer diameter	434	601			104
88100		Washers "Article 1"	427				84
88101		Plain washers/"Cupal" washers			645		
88102		Joint washers to use with cup head square neck bolts acc. to DIN 603	427				113
88104		Washers with large outside diameter	428	596			85
88119		LOCKTIX washers	432				104
88120 88121		SCHNORR safety washers with serrations on both sides S, VS	429	598			104
88122		Axle locking rings	430				114
88123 88124 88125 88126		TECKENTRUP lock washers for hexagon head screws and hexagon socket head cap screws	430	599			105
88129		TECKENTRUP lock washers with contact serrations	431	600			106
88130 88131		Lock rings	431	600			107
88132		NORD-LOCK washers, preassembled pairs standard = normal outer diameter SP = enlarged outer diameter SC = for HV fastenings X-series washers	432	600			107
88151 88152		RUV-REYHER captivity washers		602	645		

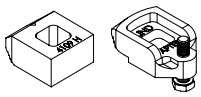
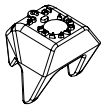
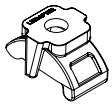
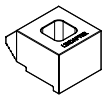
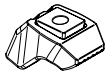
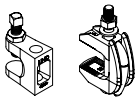
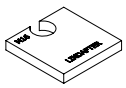
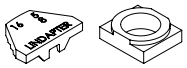
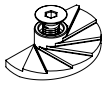
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DIN/ISO/EN		Non Standardized Accessories	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88251		Caps for hexagon socket head screws			645		
88277		Sealing washers (convex metal washers with vulcanised sealing)		603	646		
88494 88495		DUBO profile washers			646		109 110
88496		DUBO lock washers			646		110
88497		KORREX protection caps			646		
88498		KORREX insulating tubes			646		114
88499		KORREX rosettes			647		114
88752		Spring flap bolts ("ES bolts") for yokes acc. to DIN 71752	410				124
88965 88966		Rosettes/finishing washers			647		115
89184		Countersunk washers for wood building screws with CE	447				115
		Cable ties					
82500 82505 82510 82515		Cable ties, inside serrations, T series = standard				649	144
82520		Cable ties, internal serrations, LK series = higher tensile strength				649	145
82516		Cable ties, outside serrations, Robusto series = with flat head				649	145

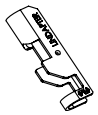
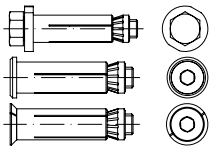
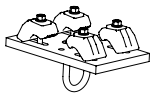
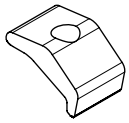
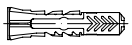
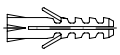
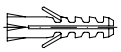
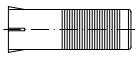
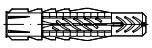
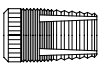
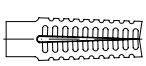
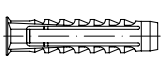
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DIN/ISO/EN		Cable ties	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
82517		Cable ties, inside serrations, Q-tie = with open head and pre-locking functionality				650	145
82518		2-piece fixing ties, Coupler = for parallel separation				650	146
82521 82522 82523		Fixing ties for edges – EdgeClip-Family				650	146
82543 82546		Cable tie mounts, screwable				651	148
82540 82550 82553 82554		Cable tie mounts, self adhesive				651	148
82560		Cable tie mounts				652	149
82535		Manual application tools for cable ties				651	
82580		Cable conduits				652	
82565		Assortment boxes with cable tie mounts					
		Fastener and Fixing Systems					
		LINDAPTER clamps					
82001 82002 82040		Type A, B Type AF-K				652-655	158

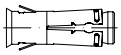
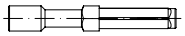
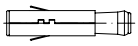
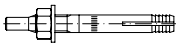
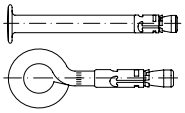
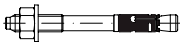
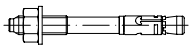
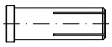
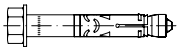
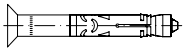
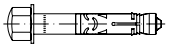
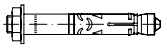
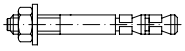
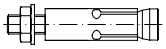
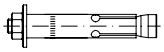
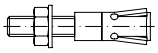
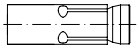
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DIN/ISO/EN		Fastener and Fixing Systems	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
82003 82007		Type BS, D2, (D3)				659	158
82045		Type CF				656	159
82010		Type LR				657	158
82046		Type LS				658	159
82048		Type BR				658	159
82049		Type AAF				656	156
82008 82009 82022 82025 82058		Type FL-D, FL-M, FL-S, F9, LC, F3				661	159
		LINDAPTER accessories					
82011 82012- 82016 82042- 82044		Type CW, P, Type AF-CW, AF-P				654	158
82047		Type LS-P2				658	159
82021 82041		Type W Type AFW				655	158
		LINDAPTER floor fixings					
82019		LINDAPTER-FLOOR-FAST-FF for floor plate fixings				661	159

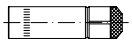
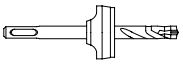
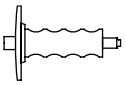
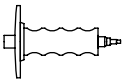
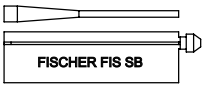
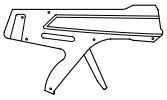
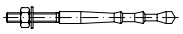
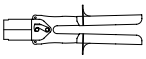
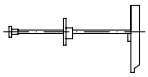
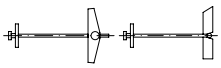
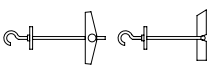
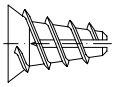
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Fastener and Fixing Systems	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		LINDAPTER cavity fixings					
82024		LINDAPTER toggle clamps TC with internal thread for decking fixing				660	159
82031		LINDAPTER HOLLO-BOLT for fixing onto hollow steel sections Typ HB = with hexagon head Typ HBCSK = with countersunk head Typ HBFF = FlushFit				659	159
82051		LINDAPTER lifting eyes ALP				656	156
		Other Fixing Systems					
82400		MTH-clamping plates Nova Grip				661	
		Plugs and Anchors					
		General Fixings					
88690		FISCHER plugs DUOPOWER				678	187
88500		FISCHER plugs S				678	189
88506		FISCHER plugs MS				679	190
88507		FISCHER twist lock anchors GB				679	191
88510		FISCHER plugs M				679	190
88520		FISCHER universal plugs UX, UX-R				677	188
88521		FISCHER anchors PA 4				679	191
88545		FISCHER steel expansion plugs FMD				678	189
88554		FISCHER expansion plugs SX				678	188

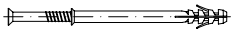
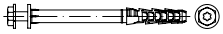
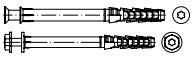
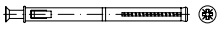
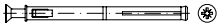
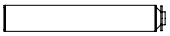
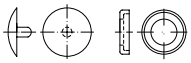
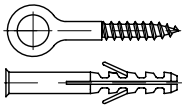
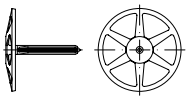
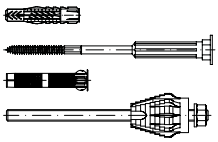
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Plugs and Anchors	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		High Performance Steel Anchors					
88513		FISCHER hollow ceiling anchors FHY				674	180
88688		FISCHER aircrete anchors FPX-I				674	181
88530 88683		FISCHER heavy duty anchors SL, TA-M				674	179
88531		FISCHER wall screws MR				674	180
88546 88548 88547 88549		FISCHER nail anchors FNA, FNAM, FNA OE, FNA-H				672	176-178
88561		FISCHER anchor bolts FAZ II				666	170
88694		FISCHER anchor bolts FBZ				668	171
88567 88568		FISCHER hammerset anchors EA and setting tools EAWH				671	176
88582		FISCHER bolt anchors FB-N				672	178
88593		FISCHER high performance anchors FH II-S				668	171
88594		FISCHER high performance anchors FH II-SK				669	172
88590		FISCHER high performance anchors FH II-H				669	172
88592		FISCHER high performance anchors FH II-B				669	173
88689		FISCHER high performance anchors FH II-I with internal thread				669	173
88715		FISCHER bolt anchors EXA				673	181
88583		FISCHER ZYKON bolt anchors FZA				669	174
88584		FISCHER ZYKON through anchors FZA-D				670	174
88589		FISCHER ZYKON anchors for fixing step irons FZA ST				670	174
88585		FISCHER ZYKON internally threaded anchors FZA-I				670	175

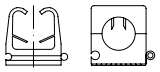
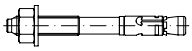
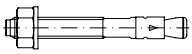
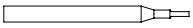
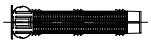
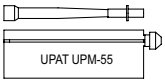
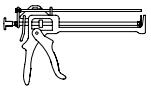
* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN		Plugs and Anchors	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88597		FISCHER ZYKON hammerset anchors FZEA II				670	175
88587		FISCHER drill bits FZUB				671	
88588		FISCHER setting tools FZE plus				671	
88595		FISCHER setting tools FZED plus				671	
		Chemical Fixings					
88579 88687		FISCHER resin capsules FHB II, RSB				662	164 166
88578 88522 88686 88527		FISCHER injection mortar FIS HB, FIS V, FIS EM, FIS SB				662- 663	
88525 88579 88685 88524 88684		FISCHER accessories for chemical fixings static mixer, blow-out pumps, brushes, dispenser, extension tubes				663- 664	
88579 88534 88523 88529		FISCHER anchors FHB II-A, FHB-A dyn, RGM, FIS-A, FIS-E				664- 666	164 166 167 168
88562 88526		FISCHER anchor sleeves FIS H K, FIS H N, FIS H L				666	168 169
		Cavity Fixings					
88512		FISCHER cavity metal fixings HM				679	192
88511		FISCHER professional tools HM-Z 1 for cavity fixing plugs HM-S				679	
88509		FISCHER toggle fixings K				679	192
88518		FISCHER toggles KD				679	193
88519		FISCHER toggles KDH				680	193
88598		FISCHER plasterboard fixings GK/GK-M				680	194

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DIN/ISO/EN		Plugs and Anchors	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Long Shaft Anchors, Frame Fixings, Adjustment Fixings					
88503		FISCHER nail plugs N				676	185
88542		FISCHER frame fixings SRX-T, SRX-FUS				674	182
88551		FISCHER frame fixings SXRL-FUS, SXRL-T				675	183
88515		FISCHER adjustment screws JUSS				677	186
88516		FISCHER frame fixings F-S				677	185
88563 88564		FISCHER frame fixings FUR-T/-TS/-SS				676	184
88680		FISCHER metal frame fixings F-M				677	186
88565		FISCHER rapid installation foam PU 500				681	
88528 88556 88681 88682		FISCHER caps ADT, ADF, ADM, ASM for FISCHER frame fixings				676 677	
		Scaffold Fixings					
88536		FISCHER scaffold fixings S 14 ROE, GS 12				680	196
		Insulation Supports					
88514 88580		FISCHER insulation supports DHK, DT				681	197
88696		FISCHER insulation fixings FID				681	197
88695		FISCHER stand-off installation Thermax				681	187

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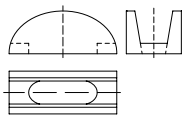
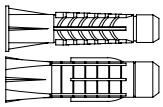
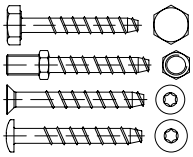
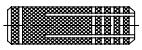
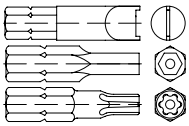
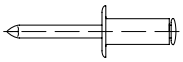
DIN/ISO/EN		Plugs and Anchors	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Electrical Fixings					
88558 88559		FISCHER pipe clips FC and saddles Sch				680	195
		Anchors – Heavy Duty Fixings					
88741		UPAT express anchors MAX				681	198
88764		UPAT express anchors IMC				682	198
88716		UPAT impact anchors USA				682	199
88717		UPAT setting tools for USA hammerset anchors				682	
		Chemical Fixings					
88722		UPAT threaded rods UKA 3-ASTA				683	199
88714		UPAT internal thread bushes UKA 3-IST				683	200
88734		UPAT threaded rods UPM-A				683	
88770		UPAT internal thread anchors UPM-I				684	200
88735		UPAT mesh bushes UPM-SH-K				684	201
88720		UPAT resin capsules UKA 3 PLUS				684	201
88733 88772 88774 88775		UPAT injection mortar UPM 55, UPM 44, UPM 33, UPM 11				684	
88718 88738 88760 88765 88766 88769 88771 88776		UPAT accessories for chemical fixings static mixers, cleaning brushes, blow-out pumps, application guns , setting tools				685 686	

* DIN : ISO identical = interchangeable

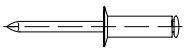
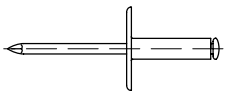
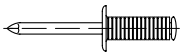
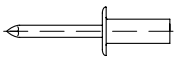
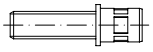
** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ „Technical Information“

Steel Plain/ Coated | Stainless steel | Brass Cu / Al / Ti Plastic | Fixing Technology | Dimensions TI

DIN/ISO/EN		Plugs and Anchors	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
		Other Fixing Elements					
88060 88061		Adjusting washers for cam segments and cam segments for tension anchors for diagonal pull tensioning up to 45°				687	136
88381– 88383		TOX hook plugs 4 As K, Tri, Trika				686	
88902 88903 88905 88908		MULTI-MONTI MMSplus-SS screw anchors, wall screws				687	202 – 204
88910		Brass explanding plugs				686	
		Assembly Tools					
88665 88666 88667		Bits for theft resistant screws Article 88111–88117				688	
88654 88663		SPAX CUT-CASE bits for hexalobular socket screws				688	
		Blind Rivets					
		Open-end blind rivets with break pull mandrel DIN 7337 type A = protruding head					
88401		Steel zinc plated/steel zinc plated				689	206
88402		Al alloy/steel zinc plated				689	206
88403		Al alloy/stainless steel A2				690	206
88404		Stainless steel A2/stainless steel A2				690	206
88405		Stainless steel A2/steel zinc plated (Stinox)				691	206

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

DIN/ISO/EN	Blind Rivets	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88406	Copper/steel zinc plated				691	206
88407	Copper/bronze				691	206
88408	Plastic/plastic				691	207
88410	Al alloy/Al alloy				690	206
88415	Stainless steel A4/stainless steel A4				690	206
88493	Monel/A4				690	206
88417	Al alloy/steel zinc plated – head painted				691	206
	 Open-end blind rivets with break pull mandrel DIN 7337 type B = countersunk head				692	208
88411	Steel zinc plated/steel zinc plated				692	208
88412	Al alloy/steel zinc plated				692	208
	 Open-end blind rivets with break pull mandrel DIN 7337 type C = large protruding head				692	207
88409	Al alloy/steel zinc plated				692	207
88413	Steel zinc plated/steel zinc plated				693	207
88414	Al alloy/Al alloy				693	207
88416	Al alloy/stainless steel A2				693	207
88419	 Open-end blind rivets with grooved rivet body for blind hole rivetting				693	208
88420	 Closed-end blind rivets for air- and water-tight rivetting Al alloy/steel phosphated Al alloy/stainless steel A2 copper/steel phosphated copper/stainless steel A2				694	208
88421	 Open-end blind rivets with break pull mandrel, type M = with connection thread				694	209

* DIN : ISO identical = interchangeable

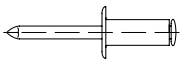
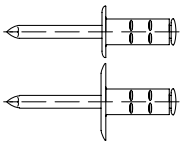
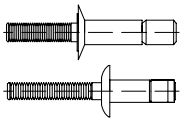
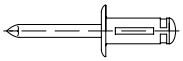
** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ „Technical Information“

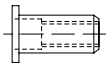
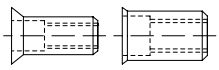
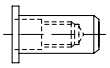
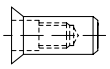
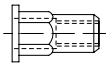
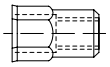
Steel Plain/ Coated | Stainless steel | Brass Cu / Al / Ti Plastic | Fixing Technology | Dimensions TI

DIN/ISO/EN

Blind Rivets

		Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88422	 Open-end blind rivet with break pull mandrel, type SS-A = protruding head, with peel rivet body, for soft building material				694	209
88474 88475	 Open-end blind rivets with multigrip rivet body „PolyGrip“, type A = protruding head, type C = large protruding head, steel zinc plated/steel zinc plated Al alloy/steel zinc plated Al alloy/stainless steel A2 Al alloy/Al alloy				695	209 210
88476 88477	 Open-end blind rivets with break pull mandrel, „MEGA G-LOCK“ = for high strength rivet assembly type F = protruding head type S = countersunk head				696	210
88488	 Open-end blind rivets with break pull mandrel, „TRIFOLD“ = recessed crown for soft material, type F = protruding head				694	211

Blind Rivet Nuts

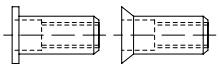
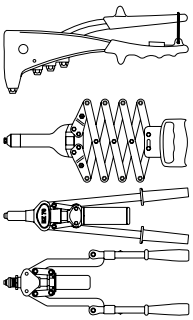
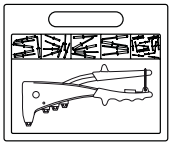
88423	 Blind rivet nuts, round, open-end, type F = protruding head, zinc plated steel, Al alloy, stainless steel A2				697	213
88424 88418	 Blind rivet nuts, round, open-end, type S = countersunk head, type Sk = small countersunk head, zinc plated steel, Al alloy, stainless steel A2				697 696	213 212
88480	 Blind rivet nuts, round, closed, for air- and water-tight rivetting, type F = protruding head				698	213
88481	 Blind rivet nuts, round, closed-end for air- and water-tight rivetting, type S = countersunk head				698	213
88483	 Blind rivet nuts, hexagon, open-end, type F = protruding head				699	214
88484	 Blind rivet nuts, hexagon, open-end, type Sk = small countersunk head				699	214

* DIN : ISO identical = interchangeable

** DIN : ISO/EN mostly interchangeable

*** Standard conversion DIN : ISO → red pages/ „Technical Information“

Steel Plain/ Coated | Stainless steel | Brass Cu / Al / Ti Plastic | Fixing Technology | Dimensions TI

DIN/ISO/EN		Blind Rivet Nuts	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI
88490 88491		Blind rivet nuts, round, open-end, with multigrip rivet body, type F = protruding head, type S = countersunk head				699 699	213
		Setting Tools for Blinde Rivet and Blind Rivet Nuts **Setting Tools for Blind Rivet and Blind Rivet Nuts**					
88440		Hand tools for blind rivets and blind rievet nuts				700	
88441		Blind rivets assortments with hand tools and fitting material Blind rivets assortments with hand tools and fitting material				700	
88443		Battery riveter for blind rivets				701	

* DIN : ISO identical = interchangeable	** DIN : ISO/EN mostly interchangeable	*** Standard conversion DIN : ISO → red pages/ „Technical Information“	Steel Plain/ Coated	Stainless steel	Brass Cu / Al / Ti Plastic	Fixing Technology	Dimensions TI

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
A		
ABC-SPAX assortment		420, 688
ABC-SPAX screws		417, 593
Accu power tools for blind riveting		701
Actros screws and nuts		388, 396
Adapter, clamping plates	3568	442, 606, 652
Adhesive anchor bolts		662 – 666, 683 – 686
Adjusting rings	703, 705	
Adjusting screws	479, 480, 561, 564, 933, 961 (4017, 8676)	
Adjusting washers	988	688
Adjusting washers for cam segments	988	687
AMECOIL wire thread inserts and accessories		603
Anchor bolts	529	687
Anchor rods	975, 976	665, 665, 683, 683
Anchors and plugs for cavitys frame fixings heavy loads light building materials		662 – 687
Angle hooks		435 – 436
Angle joints	71802	
ASME nuts/screws/bolts	ASME B18.2.1 ASME B18.2.2 ASME B18.3	
Assembly case assortment	➔ assortment	
Assembly foam		681
Assortment of special bits for theft resistant screws		688
Assortment/construction cases		69, 71, 74, 90, 170, 199, 201, 220, 420, 605, 652, 688
Axle holder	15058	
Axle locking rings		430
B		
Ball handles	98	
Ball knobs	319	
Bits/assortments		688
Blind rivet nuts		696 – 699
Blind rivets		689 – 696
Blind rivet tools		700
Bolts	601 (4016), 931 (4014), 976, 1444 (2341)	
Bolts with waisted shank	2510	
Bore rings	472, 7993, 9926	
Bow nuts	80704	
Brake lining rivets	7338	
Butterfly nuts	80701	644
C		
Cable ties and accessories		649 – 652
Caged nuts		428
Cam segments for tension anchors		687
Cap nuts	917, 986, 1587	
Cap-head tapping screws		360
Caps		644, 645
Caps for Fischer plugs		676, 677
Caps for frame fixings		676, 677
Caps for hexagon socket/hexalobular socket screws		420, 645
Caps for screws and plugs		644, 645, 677
Caps for screws with cross recess		644
Caps for screws with inner hole		644
Capstan screws	404	
Captive screws/nuts (RUV)	7964	602, 645
Carriage bolts	603	
Cavity fixings		679, 680
CE Bolts and nuts for steel constructions	7968, 7969, 7990 1478, 1479, 1480 (EN 14399-4/-8) (EN 15048) (4014, 4017 SB)	
CE Bolts for wood constructions	(EN 14566, EN 14592)	446 – 450, 607
Center grooved pins	1475 (8742, 8743)	
Cheese head screws with metric thread	84, 85, 920 921, 923 7985 (7049, 7380)	428, 436, 596
Cheese head tapping screws	7981	574
Cheese head thread cutting screws	7513, 7516	
Chipboard/SPAX screws		417 – 427, 447 – 449, 593 – 595, 607 – 609
Clamp nuts	28129, 80701, 80704	
Clamping elements LINDAPTER		652 – 661
Clamping nuts	980, 982, 985, 986, 6924, 6925 (EN 1663, 1664) (ISO 7040, 7042, 10511 – 10513)	416, 440, 442
Clamping plates/rings	3568	652 – 661
Clevis pins	1444	
Clips for wire ropes	741	
Coiled spring-type straight pins	7343, 7344 (8748, 8750)	
Collar nuts	74361	
Collar screws	478-480, 6921 (1665), 7500 34805-2 (7380-2)	388
Combi sealings		645
Compound anchors		662 – 666, 683 – 685
Concrete screws		674, 687
Cone lubricating nipples	71412	
Conical seats	6319	
Conical spring washers	6796	430, 599
Construction screws	601	450
Contact washers (TECKENTRUP)	6797, 6798	431, 600
Counter nuts	439, 936 (4035, 8675)	
Countersunk hole washers		647
Countersunk head grooved pins	1477	
Countersunk head nib bolts	604, 11014	
Countersunk head rivets	661, 7337	692
Countersunk head screws with slot	963, 7513, 7969, 7972	

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
C		
Countersunk head screws with cross recess	965, 7982, 7500 (7046, 7050)	421, 448, 594, 607
Countersunk head screws with hexalobular socket	~965, ~7982 (~10642, 14581)	417, 446, 449, 593, 608
Countersunk head screws with hexagon socket	(10642)	
Countersunk head tapping screws	7972, 7982 (14586)	
Countersunk head wood screws	97	417 – 427, 446 – 449, 593 – 595, 607 – 609
Countersunk head thread cutting screws	7513, 7516	
Countersunk square neck bolts	605, 608	
Couplings round/hexagon		417, 592
Cross hole screws/nuts	404, 1816	
Cross recessed chipboard screws		420 – 424 447, 448 594, 607, 645
Cross recessed drilling screws	7504	
Cross recessed metric screws	965, 966, 7985 (7045 – 7047)	
Cross recessed tapping screws	7981, 7982, 7983 (7049, 7050, 7051)	
Cross recessed thread cutting screws	7516	
Cross recessed thread rolling screws	7500	
Cross recessed wood screws		420, 447, 594
Cup head nib bolts	607	
Cup head square neck bolts	603	
Cup hooks		435
Cupal washers		645
Cupped lubricating nipples	3405	
Cutting screws	7513, 7516	
Cylindrical head screws with slot	84, 7513 (1207)	
Cylindrical head screws with hexagon socket	912, 6912, 7984 ASME B 18.3, (4762, 12474)	438, 574
Cylindrical head screws with hexalobular socket	~912, ~7984 (14579)	
D		
Direct assembly screws		674, 687
Disc springs	2093 (EN 16983)	
Distance bolts		416
Distance rings	988	
Dog point grub/set screws	417, 915 (4028)	
Dog point screws	480, 561, 564, 927	
Drilling screws	7504, 18182	
Drywall screws		450, 451
D-shackles	82101	
DUBO lock washers, rosettes		646
E		
EN nuts	(EN 1663, 1664,14399-4)	
ENSAT threaded inserts		437, 603
Explanding plugs, brass		686
Eye bolts/screws	444	
Eye nuts	582	

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
F		
Facing plugs		674 – 677
Fast construction elements		428 , 430, 596
Fastenings/hose clamps	3016, 3017, 3567	
Fine pitch thread nuts	439, 934 – 937, 980, 985, 1587 (8673, 8675, 10512, 10513)	396, 440
Fine pitch thread rods	975	
Fine pitch thread screws	912, 960, 961, 913 – 916 (4762, 8676, 8765)	388, 439
FISCHER plugs		662 – 681
Fit bolts	609, 610, 7968 (EN 14399-8)	
Fixings for hollow sections		659
Flange bolts/screws	6921, 7500, 34805-2 (EN 1665) (ISO 7380-2)	388, 438 – 441
Flange nuts	6923 (EN 1663, 1664)	396, 440, 442
Flat collar nuts	74361	396, 442
Flat lubricating nipples	3404	
Flat nuts	439, 562, 936, 937, 979, 80705 (4035, 8675)	
Flat round head rivets	674	689 – 696
Flat sealing rings	7603	645
Flat washers	➔ washers ➔ ISO washers	
Fork heads, fork joints	71752	410
Frame fixings		674 – 677
G		
Gib head taper keys	6887	
Glass strip screws		425, 594
Grooved pins	1471 – 1475 (8740 – 8745)	
Grub screws with slot	417, 427, 438, 551, 553, 927	
Grub screws with thrust point	6332	
H		
HALFEN screws		442, 606
Hammerset anchors		671, 682
Hand tools for blind riveting		700
Handles	98, 99, 319, 6304-6311, 6332, 6335, 6336	
Hanger bolts		436, 601
Hardened washers	6319, 6340, 6796-98, 6917-18 (7089, 7090 EN 14399-6)	
Hatch screws/nuts	444, 80704	
Headless screws with slot and chamfer	427	
Heat resistant screws and nuts	931, 933, 934, 2510 (4014, 4017, 4032)	

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
H		
Heavy duty anchors		662 – 674, 681 – 685
Hexagon cap nuts	917, 986, 1587	
Hexagon couplings	6334	417, 592
Hexagon fit bolts	609, 610, 7968 (EN 14399-8)	
Hexagon head screw plugs	909, 910, 5586, 7604	
Hexagon head screws	561, 564, 571, 601, 931, 933, 960, 961, 6921, 7500, 7990, 7964 ASME B 18.2.1 (14399-4) (→ ISO-nuts)	388, 438 – 441, 450
Hexagon head tapping screws	7504, 7976 (1479)	
Hexagon head thread cutting screws	7513	
Hexagon head wood screws	571	450
Hexagon nuts	431, 439, 555, 917, 929, 934, 935, 936, 937, 980, 982, 985, 1587, 2510, 6330, 6331, 6334, 6923, 6925, 74361, 80705, ASME B.18.2.2 (→ EN-nuts) (→ ISO-nuts)	396, 417, 428, 442, 592, 602
Hexagon socket head shoulder screws	(7379)	
Hexagon socket pipe plugs	906, 908	
Hexagon socket screw keys	911, 6911	
Hexagon socket screws	912, 6912, 7984 (4762, 7380, 10642)	438
Hexagon socket set screws	913 – 916 (4026 – 4029)	
Hexagon socket wrench keys	6911 (2936)	
Hexagon weld nuts	929	
High type knurled nuts	466	
High type knurled thumb screws	464	
High type nuts	6330, 6331, 6334, 74361	417, 592
High-strength structural bolting	6917, 6918, (EN 14399-4 /-6/-8)	
Hinge band screws	97	424
Hollow profile fixings		659
Hollow screws	7643	
Hook bolts/nuts	580, 582	442 – 445, 606, 607
Hook screws		435, 436
Hooks, eye bolts		434 – 436, 601
Hose clamps/fastenings	3016, 3017, 3567	
HV bolts	(EN 14399-4)	
HV fit bolts	(EN 14399-8)	
HV nuts	(EN 14399-4)	
HV safety sockets		402
HV washers	(EN 14399-6), 6917, 6918	

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
I		
INBUS screws	912 (4762)	438
INBUS wrench keys	(2936)	
Inch thread nuts	555, 934, ASTM B18.2.2	
Inch thread screws/bolts	ASTM B18.2.1 ASTM B18.3	
Injection anchors		662 – 666, 683 – 685
Inner hole wood screws		424
Inserts	7965	603, 697
Insulating sleeves (KORREX)		646
Insulation supports (FISCHER)		681
ISO pins	(2338, 2339, 8734-8752, 13337)	
ISO screws/nuts	(1207, 1479, 1580, 2009, 2010, 2342, 4014, 4016, 4017, 4026-4029, 4032, 4033, 4035, 4762, 7040-7051, 7379, 7380, 8673, 8675, 8676, 8765, 10511-10513, 10642, 12474, 14579, 14583, 14585, 14586, 15481, 15482)	
ISO washers	(7089 – 7094)	
J		
Joint screws	25193	
Joint washers		427
K		
Key steel	6880	
Knurled nuts	466, 467	
Knurled screws	464, 653	
KORREX insulation sleeves, rossetes, -safety caps		646
L		
Left hand threaded nuts	934, 936 (4032, 4035, 8673, 8675)	
Lifting eye bolts and nuts	580, 582, 28129	
Light building plugs		680
Linch pins	11023	394
LINDAPTER fixing systems		652 – 661
Lock rings	128	431, 600
Locking nuts	980, 982, 985, 986, 6924, 6925, 7967 (EN 1663, 1664) (ISO 7040, 7042, 10511 – 10513)	396, 416, 440, 442, 602
Locking plates	93, 432, 462, 463, 5406, 70952	
Locking screws		438 – 442
Locking washers (SCHNORR)		429, 598

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
L		
Locking washers (TECKENTRUP)		430 , 431, 599, 600
Locknuts	981, 1804, 70852	
Lockwashers for locknuts	5406, 70952	
Low knurled screws/nuts	~7985, ~7981 (7380, ~14583, ~14585)	
Lubricating nipples	3404, 3405, 71412	
M		
Masonry bolts	529	687
Metric threaded screws	84, 85, 963, 964, 965, 966, 7985	428, 596
MULTI-MONTI screw-in-anchors		687
Mushroom head anchor screws	25193	
Mushroom head rivets	662	
N		
Nail plugs		672
Nipples	71412	
NORD-LOCK washers		432, 600
Nuts for welding	928, 929	
Nuts with spherical collar	6923 (1661), 6926 (1663), 6927 (1664), 6331, 74361	396
Nuts, different types	315, 431, 439, 466, 467, 508, 546, 555, 557, 562, 582, 917, 928, 929, 934, 935, 936, 937, 979, 980, 982, 985, 986, 1478, 1479, 1587, 1804, 1816, 2510, 6330, 6331, 6334, 6923-6925, 7967, 28129, 70852,74361, 80701,80704, 80705 ➔ EN-nuts ➔ ISO-nuts ASME B18.2.2	199, 396, 416, 417, 428, 440, 442, 444, 445, 592, 596, 607, 647, 697 – 699
O		
Offset screw drivers	6911, (2936)	
P		
PAL nuts	7967	687
Palm grips	6335	
Pan head cutting screws	7513, 7516	
Pan head screws with metric thread	85, 7985 (1580, 7045)	
Pan head screws with hexagon/ hexalobular socket	~7985, ~7981 (7380, ~14583, ~14585)	
Pan head tapping screws	7981	
Parallel grooved pins	1473	
Parallel keys	6885	
Parallel pins	7, 6325, 7979 (2338, 8734)	
Piano hinge screws	97	424
Pin hole nuts	1816	
Pin wrenches	6911, (2936)	
Pins, tapered	1, 258, 7977, 7978	
Pipe clamps/hooks	1592-1597, 3015, 3016, 3567, 3570	
Pipe nuts	431	
Pipe plugs	906, 909	
Pipe rivets	7338	
Plastic blind rivets		691
Plastic caps		645, 677
Plastic nuts	555, 1587 (4034)	
Plastic screws	84, 85, 933 (4017)	
Plastic washers	125, 9021	645, 646
Plugs (threaded plugs)	906, 908, 909, 910,5586, 7604	
Plugs and anchors for Scaffolds Cavitys Light building materials Frame fixings Heavy loads		 680 679 677 – 679, 674 – 677, 686 662 – 674 681 – 686
Post screws		594
Pressure vessel construction screws/nuts	938, 939, (4014, 4017, 4032)	
Prevailing torque type nuts	980, 982, 985, 986, 6924, 6925 (7040, 7042, 10511 – 10513) (EN 1663, 1664)	396, 199, 322, 416, 440, 442
Profil bolts/nuts		442 – 445, 607
R		
Rain caps		645
Raised countersunk head screws with metric thread	964, 965, 7516	
Raised countersunk head cutting screws	7513, 7516	
Raised countersunk head tapping screws	7973, 7983 (14585)	
Raised countersunk head wood/chipboard screws	95	420, 593, 603, 645
RAMPA inserts/sleeves	7965	
Retaining rings	983	
Retaining rings for shafts/bores	471, 472, 983, 6799	429 – 434, 598 – 601, 602, 645
RIBE caps		645
RIPP screws/nuts		438 – 440
Rivet nuts		428, 596, 696-699
Rivet washers	9021	
Rivets	660, 661, 662, 674, 7337, 7338	689 – 699
Rosettes		447, 647
Rossettes KORREX		647
Round couplings		417, 592

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
R		
Round head grooved pins	1476 (8746)	
Round head rivets	660	689 – 696
Round head wood screws	96	421, 447, 593, 607
Round nuts	546	417, 592
RUV nuts/screws/washers		602, 645
S		
Safety caps/sleeves/plugs		644, 645
Safety plates	93, 432, 462, 463, 5406, 70952	
Safety sockets for HV bolts/nuts		402
Safety washers		432, 433 598 – 601
Scaffold fixings (plugs, eyebolts)		680
SCHNORR safety washers		429, 598
Screw eyes		434 – 436, 679, 680
Screw hooks		435
Screw locker elements	93, 94, 127, 128, 137, 432, 462, 463, 6796, 6797, 6798, 7980, 11024	432 – 434, 598 – 601, 602, 645
Screwed inserts	7965	603
Screwed plugs	906, 908, 909, 910, 5586, 7604	
Screws for plastics		436, 437
Screws with hexalobular socket	~912,~965, 7500, 7504, 7516, ~7984, ~7985, 34805 (~7380, ~10642, ~14583)	417, 446, 449, 593, 608
Screws with waisted shank	7964	
Sealing discs	470	
Sealing push-in type caps	443	
Sealing rings/washers	7603	603, 645
Seating screws	15237	
Self drilling screws	7504 (15480-15482)	
Self locking nuts	980, 982, 985, 7967, (7040)	
Self-cutting screws	7513, 7516	436, 437
Semi-tubular rivets	7338	
Serration lock washers	6798	
Set screws with hexagon head	561, 564	
Set screws with hexagon socket	913, 914, 915, 916	
Set screws with slot	551, 553	
Setting tools for anchors		671, 682, 686
Setting tools for threaded inserts		437, 604, 605
Shackles	82101	
Shaft retaining rings	471, 983, 6799, 9925	
Shaft rings	471, 703, 705, 983	
Sheet metal rivets	662, 7337	689 – 699
Shim rings	988	
S-hooks		434
Shoulder screws	923, (7379)	
Sleeve nuts		607, 647
Slide nuts	508	444 – 446
Slot screws	787	
Slotted and castle nuts	935, 937, 979	
Slotted capstan screws	404	
Slotted countersunk head screws	963, 7513, 7969 (2009)	
Slotted grub screws	551, 553 (4766, 7434)	
Slotted mushroom head screws		428, 596
Slotted nuts	546, 7965	
Slotted screws	84, 85, 920, 921, 923, 933, 963, 964, 7500, 7969 (1207, 1580, 2009,2010)	428, 596
Snap hooks	5299	
Snap rings	7993, 9925, 9926	
Socket keys/wrenches	911, 6911 (2936)	688
Spacers		416
SPAX screws		417, 593
SPAX special screws		424, 594
Spengler screws		603
Spherical spring washers	74361	
Spherical washers	6319	
Split pins	94, 11023, 11024 (1234)	
Spring bolts	931 (4014)	
Spring cotters	11024	
Spring flap bolts		410
Spring flap bolts for yokes		410
Spring lock washers	127, 128, 7980, 74361	429 – 431, 598 – 600
Spring toothed lock washers	6797	429 – 431, 598 – 600
Spring washers	137	
Spring-type straight pins	1481, 7343, 7344, 7346 (8848, 8850, 8752, 13337)	
Square head screws/bolts	478, 479, 480, 787	
Square nuts	508, 557, 562, 928	
Square washers	434, 435, 436, 6917, 6918	
Squared weld nuts	928	
Star grips	6336	
Steel construction washers	6917, 6918, 7989 (EN 14399-6)	
Steel screws	931, 933, 960, 961 (4014, 4017, 8676, 8765) (EN 14399-4)	
Stirrup bolts	3570	
Structure bolts	7968, 7969, 7990 (EN 14399-4/-8) (4014, 4017 SB)	
Studs	835, 938, 939, 976	
Studs for welding	525	
T		
Tang breaks for AMECOIL		604
Tap washers	93	
Taper grooved pins	1471 (8744)	
Taper keys	6880	

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
T		
Taper pins	1, 258, 7977, 7978 (2339, 8737, 8736)	
Taper washers	434, 435, 6917, 6918	
Tapered handles	99	
Tapping screws	7504, 7976, 7981, 7982, 7983 (7049, 7051) (14583-14586, 15480-15482)	574, 597
Tapping screws for facing		602
Technical information	➔ red pages	
TECKENTRUP lock washers		430, 431, 599, 600
Tee nuts with pronge		687
TENSILOCK screws/nuts		441, 442
Tension bush	1498	
Terraces screws		594, 609
T-head bolts/nuts	186, 261	
T-head thread plates		444
Theft resistant screws/nuts		429, 596
THERMAG nuts		199
Thimbles	6899	
Thin nuts	439, 562, 936, 937, 979, 80705 (4035, 8675)	
Thread cutting screws	7513, 7516, (EN 1663, 1664)	603
Thread plates/slide nuts		444 – 446
Thread rolling screws	7500	436
Threaded couplings	6334	417, 592
Threaded eyelets		434, 436
Threaded inserts AMECOIL		603 – 605
Threaded inserts ENSAT		603
Threaded rods/stud bolts	975, 976	665, 683
Thrust pads	6311	
Timber connectors	1052	
Timber screws/bolts	601	417, 593
Titanium nuts	934 (4032)	
Toggle plugs		660, 679, 680
Tommy screws/nuts	6304-6307, 80701	
Toothed lock washers	6797, 6798	429 – 432, 598
TORX screws	~912, ~965, ~7504, ~7516, ~7981, ~7982, ~7984, ~7985, 34805-1/-2 (~7380,~10642, 14579, 14581, 14583, 14585, 14586)	
TOX plugs		686
Trapezodial threaded nuts		417, 592
Trapezodial threaded rods	975	
Triangle head bolts	22424	
T-slot nuts	508	445 – 446
T-slot screws	787	
Tubular rivets	7338	
Turnbuckles	1478, 1479, 1480	

Product	Standardised Products DIN (ISO/EN)	Non Standardised Products Page
U		
UNC bolts/nuts	ASTM B18.2.1, ASTM B18.2.2, ASTM B18.3	415
Universal plugs (TOX)		686
Upat anchors and plugs		681 – 686
W		
Waisted shank screws/bolts	2510	
Wall anchors/bolts	529	674, 687
Washers for mud-gards		428, 596
Washers for wood construction	440, 1052	
Washers round	125, 126, 432, 433, 440, 988, 1052, 1440, 1441, 6319, 6340, 7349, 7989, 9021 (7089 – 7094) (EN 14399-6) ANSI B18.22.1	427, 428, 596, 645
Washers, square and taper	434-436, 6917-6918	
Weld nuts	928, 929	
Welding studs	525	
Wheel nuts	6330, 6331, 74361	
Whitworth threaded nuts/screws	555, 934, 975	
Window drilling screws		426
Window frame fixings		677
Wing nuts/screws	315, 316	78, 464
Wire thread inserts		603
Wire turnbuckles	1478 – 1480	
Wood screws	95, 96, 97, 571	417 – 427, 446 – 450, 593 – 595, 609, 645
Woodruff keys	6888	
Wrenches	911, 6911 (2936)	
Wrenches (bits)		688, 689

No.	Article	Page
10105	Hexagon head screws with flange acc. MBN to 10105	388
13023	Prevailing torque type hexagon nuts with flange acc. MBN 13023	396
13024	Lightweight construction nuts with flange	396
82001	LINDAPTER clamps type A	652
82002	LINDAPTER clamps type B	653
82003	LINDAPTER clamps type BS	659
82007	LINDAPTER clamps type D 2	657
82008	LINDAPTER clamps type FL-D	661
82009	LINDAPTER clamps type F 9	659
82010	LINDAPTER clamps type LR	657
82011	LINDAPTER location plates CW	654
82012	LINDAPTER location plates P1 short	654
82013	LINDAPTER location plates P2 short	655
82015	LINDAPTER location plates P1 long	657
82016	LINDAPTER location plates P2 long	657
82019	LINDAPTER-FLOOR-FAST type FF	661
82021	LINDAPTER plates W	655
82022	LINDAPTER flange clamps F 3	661
82024	LINDAPTER toogle clamps type TC	660
82025	LINDAPTER clamps LC	661
82031	LINDAPTER-HOLLO-BOLT HB	659
82033	LINDAPTER installation nut for HOLLO-BOLT FlushFit	660
82040	LINDAPTER clamps type AF	655
82041	LINDAPTER recess filling plates AF-W	656
82042	LINDAPTER location plates AF-W	656
82043	LINDAPTER location plates AF-P1	656
82044	LINDAPTER location plates AF-P2	656
82045	LINDAPTER clamps CF	656
82046	LINDAPTER clamps LS	658
82047	LINDAPTER location plates LS-P2	658
82048	LINDAPTER clamps BR	658
82049	LINDAPTER clamps AAF	656
82051	LINDAPTER lifting eyes ALP	656
82058	LINDAPTER clamps FL-M	661
82094	Boxed assortments eye bolts	69
82125	Boxed assortments washers	71
82127	Boxed assortments washers/spring washers	74
82400	MTH clamping plates Nova-Grip	661
82471	Boxed assortments locking washers	90
82481	Boxed assortments spring pins	220
82500	Cable ties T	649
82505	Cable ties T-HS	649
82510	Cable ties T-W	649
82515	Cable ties T-HR	649
82516	Cable ties with flat head	649
82517	Cable ties, inside serration, Q-tie	650
82518	Fixing ties coupler for parallel separation	650
82520	Cable ties LK	649
82521	Fixing ties for edges	650
82522	Fixing ties for edges	650
82523	Fixing ties for edges	650
82535	Manual application tools for cable ties with cutting device	651
82540	Fixing sets for cable ties TY-G 1	651
82543	Fixing sets for cable ties NY/SB	651
82546	Fixing sets for cable ties LKC/CB	651
82550	Fixing sets for cable ties MB - CA	651
82553	Fixing sets for cable ties MB - A	651
82554	Cable tie mounts SolidTack-Series	652
82560	Fixing sets for cable ties LCL 8	652
82565	Boxed assortments fixing sets for cable ties	652
82580	Cable conduit Helawrap	652
82934	Boxed assortments nuts with coarse-pitch thread	170
82935	Boxed assortments nuts with coarse/fine pitch thread	170
82985	Boxed assortments prevailing torque type hexagon nuts	201
83125	Washers acc. to 18.22.1	415
83912	Hexagon socket head cap screws acc. to ASME B 18.3	415
83931	Hex cap screws with shank acc. to ASME B 18.2.1	410
83933	Hex cap screws with full thread acc. to ASME B 18.2.1	412
83934	Hex nuts acc. to ASME B 18.2.2	414, 592
83936	Hex jam nuts acc. ASME B 18.2.2	415
84032	Prevailing torque type hexagon nuts - Biloc	200, 510
87010	T-slot nuts for slot 5	445
87011	T-slot nuts for slot 6	445
87012	T-slot nuts for slot 8	445
87013	T-slot nuts for slot 10	446
87014	Hammer nuts for slot 8	446
87015	Hammer nuts for slot 10	446
88001	Caps with pin for cross recess	424, 644
88002	Caps for Pozidrive cross recess Z	427, 609, 644
88003	Caps for cap head screws	360, 577, 644
88004	Caps for Phillips cross recess H	361, 578, 645
88005	Plastic sealings and caps for DIN 571	645
88006	Caps for hexalobular socket	420, 449, 645
88008	Caps for tapping screws for facing	602, 645
88023	Retractable tube pins	394
88032	HEIKO-LOCK washers	433, 600
88033	HEICO-LOCK ring lock washers	433
88034	HEICO-LOCK wedge lock nut	434
88035	HEICO-LOCK combi-washers	434, 601
88060	Cam segments for tension anchors	687
88061	Adjusting washers for cam segment	688
88081	Self locking collars with nylon insert GUK	416
88086	Spacers with thread	416
88087	Hexagon couplings	417, 592
88088	Round couplings	417, 592
88089	Round nuts with truncated thread	417, 592
88090	Hexagon nuts with truncated thread	417
88091	SPAX screws with hexalobular socket	417, 593
88092	SPAX screws raised countersunk head	420, 593
88093	SPAX screws round head	421, 593
88094	SPAX screws countersunk head	421, 594
88095	Chipboard screws with raised countersunk head	645
88096	Chipboard screws with pan head	595
88099	SPAX countersunk head with Pozidriv Z and centre hole	424
88100	Washers article 1	427
88101	CUPAL-washers	645
88102	Joint washers	427
88104	Washers for mudguards	428, 596

No.	Article	Page
88105	THERMAG prevailing torque type self locking nuts	199
88106	Rivet nuts	428, 596
88107	Slotted mushroom head screws	428, 596
88108	Tee nuts with pronge	428
88109	Square caged nuts	428
88110	Theft resistant wood screws with hexagon socket	429
88111	Theft resistant metric screws with 2 hole, pan head	596
88112	Theft resistant metric screws with 2 hole, countersunk head	596
88113	Theft resistant metric screws with hexagon socket and pin, csk. head	597
88114	Theft resistant tapping screws with PIN-ISR, raised csk. head	597
88115	Theft resistant tapping screws with PIN-ISR, countersunk head	597
88116	Theft resistant metric screws with PIN-ISR, pan head	598
88117	Theft resistant metric screws with PIN-ISR, countersunk head	598
88118	Theft resistant pull-off nuts	598
88119	LOCKTIX washers	432
88120	SCHNORR lock washers S	429, 598
88121	SCHNORR lock washers VS	429, 599
88122	Quick fastening elements for shafts	430
88123	TECKENTRUP lock washers S	430, 599
88124	TECKENTRUP lock washers M	430, 599
88125	TECKENTRUP lock washers B	430, 599
88126	TECKENTRUP lock washers Z	431
88129	TECKENTRUP lock washers K	431, 600
88130	Lock rings VSK	431, 600
88131	Lock rings VSK-Z	431
88132	NORD-LOCK washers	432, 600
88133	Screw eye type 1	434
88135	S-Hook type 45	434
88136	Screw eye type 48	434, 601
88137	Straight screw hook type 4	435
88138	Straight screw hook type 4E	435
88139	Slot screw hook type 7	435
88140	Screw hook type 11	435
88141	Screw hook type 11 K	435
88142	Screw hook type 11 E	435
88143	Angle screw hook type 10	436
88144	Ceiling hook type 18	436
88145	Ceiling hook type 18E	436
88149	Hanger bolts	436, 601
88151	RUV washers, stainless steel	602
88152	RUV washers, plastic	645
88153	RUV nuts	602
88176	Tapping screws for facing A	602
88187	SPAX window-lair screws FEX-A	426
88188	SPAX window-lair screws FEX-KS	426
88189	SPAX window-lair screws FEX-H	426
88190	SPAX glass strip screws	425, 594
88191	SPAX post screws	594
88192	SPAX screws D	594
88193	SPAX screws T	424, 594
88195	SPAX screws SF	425
88196	SPAX screws FB	420
88197	SPAX screws R	425
88198	SPAX screws M	425
88200	Pan head screws with screw thread for plastics - RST	436
88202	Pan head screws with screw thread for plastics with collar - RST	437
88203	Pan head screws with screw thread for plastics - RSTplus	437
88204	Pan head screws with screw thread for plastics with collar - RSTplus	437
88215	Small wing nuts	78, 464
88251	RIBE caps for hexagon socket head screws	645
88276	Tapping screws for facing BZ	602
88277	Sealing washers	603, 646
88296	Spengler screws	603
88301	ENSAT tools for inserts, hand assembly	437
88302	ENSAT inserts for metal type 302	603
88305	ENSAT tools for inserts, machine assembly	437
88307	ENSAT inserts for metal type 307	603
88312	Cylindrical head tapping screws with hexagon socket	574
88330	AMECOIL inserts, coarse-pitch thread, type SR, DIN 8140	603
88331	AMECOIL inserts, fine pitch thread, DIN 8140	603
88333	AMECOIL built-in type	604
88334	AMECOIL accessories	604
88335	AMECOIL insertion tool	604
88336	AMECOIL pilot breaker	604
88337	AMECOIL tools	605
88338	AMECOIL thread cutter	605
88339	AMECOIL thread first bit	605
88342	AMECOIL boxed assortments minikit type SR	605
88343	AMECOIL assembly box	605
88344	AMECOIL boxed assortments SR	605
88346	AMECOIL inserts, self locking, type SR, DIN 8140	605
88381	TOX wall plugs 4 AS K	686
88382	TOX wall plugs type Tri	686
88383	TOX wall plugs type Trika	686
88401	Blind rivets, open end, flat head, zinc plated/zinc plated	689
88402	Blind rivets, open end, flat head, aluminium alloy/zinc plated	689
88403	Blind rivets, open end, flat head, aluminium alloy/A 2	690
88404	Blind rivets, open end, flat head, A 2/A 2	690
88405	Blind rivets, open end, flat head, A 2/zinc plated	691
88406	Blind rivets, open end, flat head, copper/zinc plated	691
88407	Blind rivets, open end, flat head, copper/bronze alloy	691
88408	Blind rivets, open end, flat head, plastic	691
88409	Blind rivets, open end, big flat head, aluminium alloy/zinc plated	692
88410	Blind rivets, open end, flat head, aluminium alloy/aluminium alloy	690
88411	Blind rivets, open end, csk. head, zinc plated/zinc plated	692
88412	Blind rivets, open end, csk. head, aluminium alloy/zinc plated	962
88413	Blind rivets, open end, big flat head, zinc plated/zinc plated	693
88414	Blind rivets, open end, big flat head, aluminium alloy/aluminium alloy	693
88415	Blind rivets, open end, flat head, A 4/A 4	690
88416	Blind rivets, open end, flat head, coated, aluminium alloy/zinc plated	693
88417	Blind rivets, open end, flat head, coated, aluminium alloy/zinc plated	691
88418	Blind rivet nuts, small csk. head	696
88419	Grooved blind rivets, open end, flat head, aluminium alloy/zinc plated	696
88420	Blind rivets, closed end, flat head, CAP-F	694
88421	Blind rivets with connection thread, open end	694
88422	Expansion blind rivets, open end, flat head	694

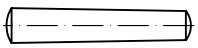
No.	Article	Page
88423	Blind rivet nuts, round, open end, flat head	697
88424	Blind rivet nuts, round, open end, csk. head	697
88440	VVG hand rivet tools	700
88441	VVG assortments	700
88443	VVG battery riveter	701
88474	PolyGrip Blind Rivets, open end, flat head	695
88475	PolyGrip Blind Rivets, open end, big flat head	695
88476	Special blind rivets MEGA G-Lock, open end, flat head	696
88477	Special blind rivets MEGA G-Lock, open end, csk. head	696
88480	Blind rivet nuts round shaft, closed end, F	698
88481	Blind rivet nuts round shaft, closed end, S	698
88483	Blind rivet nuts with hexagonal shaft, open end, flat head	699
88484	Blind rivet nuts with hexagonal shaft, open end, small csk. head	699
88488	Special blind rivets TRI-FOLD, open end flat head	694
88490	Multigrip blind rivet nuts with flat head	699
88491	Multigrip blind rivet nuts with countersunk head	699
88493	Blind rivets, flat head, monel/A 4, open end	690
88494	DUBO screw locking for hexagon screws	646
88495	DUBO screw locking for hexagon socket screws	646
88496	DUBO lock washers	646
88497	KORREX protective caps for nuts	646
88498	KORREX insulating tubes	646
88499	KORREX rosettes	647
88500	FISCHER plugs S	678
88503	FISCHER nail plugs N	676
88506	FISCHER plugs M-S	679
88507	FISCHER aircrete anchors GB	679
88509	FISCHER toggle fixings K	679
88510	FISCHER plugs M	679
88511	FISCHER tools for HM-S	679
88512	FISCHER metal cavity fixings HM-S	679
88513	FISCHER hollow-ceiling anchors FHY	674
88514	FISCHER insulation support DHK	681
88515	FISCHER self-drilling adjustable screws JUSS	677
88516	FISCHER window frame fixings F-S	677
88518	FISCHER toggle fixings KD	679
88519	FISCHER toggle fixings KDH	680
88520	FISCHER universal plugs UX, UX-R	677
88521	FISCHER brass fixings PA 4	679
88522	FISCHER injection cartridges FIS-V 360 S	663
88523	FISCHER injection threaded rods FIS-G	665
88524	FISCHER application guns for FIS	663
88525	FISCHER static mixers FIS	663
88526	FISCHER anchors sleeve with net FIS-HN	666
88527	FISCHER injection mortar	663
88528	FISCHER cover caps ADT	676
88529	FISCHER injections anchors FIS-E	666
88530	FISCHER heavy-duty anchors SL-M	674
88531	FISCHER wall screws MR	674
88534	FISCHER threaded studs RGM	665
88536	FISCHER fixings for scaffolding	680
88542	FISCHER frame fixings	674
88545	FISCHER metal expansion fixings FMD	678
88546	FISCHER nail anchors FNA	672
88547	FISCHER nail anchors FNA-M	672
88548	FISCHER nail anchors FNA-OE	672
88549	FISCHER nail anchors FNA-H	672
88551	FISCHER frame fixings SXRL	675
88554	FISCHER plugs SX	678
88556	FISCHER cover caps ADF	677
88558	FISCHER nylon saddles (clamps) FC	680
88559	FISCHER nylon saddles (clamps) Sch	680
88561	FISCHER anchor bolts FAZ	666
88562	FISCHER injection anchor sleeves	666
88563	FISCHER universal frame fixings FUR-T	676
88564	FISCHER universal frame fixings FUR-SS	676
88565	FISCHER assembly foam FPU 500	681
88567	FISCHER hammerset anchors EA	671
88568	FISCHER setting tools EAW-H	671
88578	FISCHER injection synthetic resins FIS-HB 345 S	662
88579	FISCHER highbond anchor and accessories	662
88580	FISCHER insulation disc DT	681
88582	FISCHER bolt anchors FBN	672
88583	FISCHER zykon anchor bolts FZA	669
88584	FISCHER zykon anchor bolts FZA-D	670
88585	FISCHER zykon anchors bolts FZA-I	670
88587	FISCHER drills FZUB for zykon	671
88588	FISCHER hammerset anchor FZE for zykon	671
88589	FISCHER zykon anchors FZA-ST	670
88590	FISCHER high performance anchors FH-H	669
88592	FISCHER high performance anchors FH-B	669
88593	FISCHER high performance anchors FH-S	668
88594	FISCHER high performance anchors FH-SK	669
88595	FISCHER impact arbor FZED	671
88597	FISCHER zykon Hammerset anchors	670
88598	FISCHER plasterboard fixing GK/GK-M	680
88654	ABC-SPAX-BIT	688
88663	SPAX-BIT assortments	688
88665	Special bits for 2 hole screws	688
88666	Special bits for PIN hexagon socket screws	688
88667	Special bits for 2 hole screws PIN-ISR	689
88680	FISCHER metal frame plugs	677
88681	FISCHER cover caps ADM	677
88682	FISCHER cover caps ASM	677
88683	FISCHER heavy duty fixings TA-M	673
88684	FISCHER-FIS extension hose	664
88685	FISCHER blow-out pump	663
88686	FISCHER superbond mortar FIS SB	663
88687	FISCHER resin capsules RSB	662
88688	FISCHER aircrete anchors FPX-I	674
88689	FISCHER high performance anchors FH II-I	669
88690	FISCHER wall plugs DUOPOWER	678
88693	FISCHER bolt anchor setting tools FA-ST	668
88694	FISCHER anchor bolts FBZ	668
88695	FISCHER stand-off installation Thermax	681
88696	FISCHER insulation fixings FID	681
88714	UPAT internal thread bushes UKA 3-IST	683
88715	UPAT express anchors EXA, EXA short, EXA-IG	673

No.	Article	Page
88716	UPAT impact anchors USA	682
88717	UPAT setting tools USA-SWZ	682
88718	UPAT blow-out pumps for drilled hole	685
88720	UPAT chemical anchors UKA 3-P, capsules	684
88722	UPAT anchor stud ASTA for UKA 3-P	683
88733	UPAT chemical anchor system cartridge UPM-44	684
88734	UPAT threaded rods UPM-A	683
88735	UPAT mesh bushes UPM-SH	684
88738	UPAT static mixer UPM-SM	685
88741	UPAT express anchor MAX	681
88752	Yokes for fork joints/ES-bolt for DIN 71752	410
88760	UPAT setting tools MW-SDS	686
88764	UPAT express anchors IMC	682
88765	UPAT adaptor SDS Plus	686
88766	UPAT adaptor SDS Max	686
88769	UPAT cleaning brushes BS	685
88770	UPAT internal thread anchors UPM-I	684
88771	UPAT-UPM application guns metall	685
88772	UPAT injection mortar UPM 55	684
88774	UPAT injection mortar UPM 33	685
88775	UPAT injection mortar UPM 11	685
88776	UPAT adapter SK SW	686
88902	MULTI-MONTI wall screws, MMSplus, hexagon	687
88903	MULTI-MONTI wall screws, MMSplus	687
88905	MULTI-MONTI wall screws, MMSplus, countersunk	687
88908	MULTI-MONTI wall screws, MMSplus, pan head	687
88910	Brass plugs	686
88912	RIPP Self locking hexagon socket head cap screws	438
88913	RIPP Self locking hexagon head screws	438
88914	RIPP self locking nuts	440
88916	Locking caps for HV-fastenings	402
88917	EPDM seal for hanger bolts	647
88928	T-head bolts type 28/15	442, 606
88933	Self locking screws	441
88934	Self locking nuts	442
88938	T-head bolts type 38/17	443, 606
88940	Hook bolts for type 40/22	443, 606
88941	T-head bolts for halfen channels type HZS 41/22	443, 606
88943	T-head/halfen bolts type HZS 38/23 DYNAGRIP	443, 606
88944	T-head/halfen bolts type type HZS 53/34	444, 606
88950	Hook bolts for type 50/30	444, 607
88951	T-nuts for channels type 28/15	444
88952	T-nuts for channels type 38/17	444
88953	T-nuts for channels type 50/30	445
88954	Hook bolts for channels type 40/22	445
88955	Hook bolts for channel type 50/30	445
88964	Sleeve nuts, threaded inside	607, 647
88965	Rosettes, open	647
88966	Rosettes, closed	647
88972	Hook bolts type 72/48	444
88981	Tapping cap head screws	360, 577
89010	SPAX frame anchor with flat head	426
89011	SPAX frame anchor with cheese head	426
89012	Caps for SPAX frame anchor	426
89013	Caps for SPAX with hole	424
89014	SPAX screws for wooden, glasses and frames with cheese head	426
89015	SPAX flooring screws for chipboards	427
89017	SPAX assembly tools for SPAX-threaded rods without head	688
89018	SPAX facade screws with raised countersunk head	595
89019	SPAX facade screws with small raised countersunk head and fixing thread	595
89021	SPAX assortments L-BOXX / L-BOXX mini	420
89091	Wood building screws with countersunk head, hexalobular socket	446
89092	Wood building screws with flange head	447
89096	Chipboard screws with pan head	447, 607
89097	Chipboard screws with countersunk head, cross recess	448, 607
89098	Chipboard screws with countersunk head, hexalobular socket	449, 608
89150	Drywall screws with flat bugle head and coarse thread	450
89151	Drywall screws with flat bugle head and fine pitch thread	451
89152	Drywall screws with flat bugle head and drilling point	451
89184	Countersunk washers	447
89192	Docking screws with countersunk head	609
89571	Hexagon wood screw	450
89601	Bolts with nut	450



Dimensions	PU Pieces	€/100/Mat.
DIN	00001.002	10

1 **Steel** **type B**



Taper pins,
taper 1 : 50,
B = turned

Dimensions ➔ TI-117 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 453

DIN 1 ➔ replaced by ISO 2339 (DIN EN 22339)

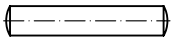
RoHS ✓

type - ∅ x length (without cones)

B 1	x	12	S	200	12,10
B 1	x	18	S	200	13,40
B 1,5	x	10	S	200	11,40
B 1,5	x	12	S	200	12,10
B 1,5	x	16	S	200	13,10
B 1,5	x	20	S	200	13,70
B 2	x	10	S	100	12,40
B 2	x	12	S	100	13,10
B 2	x	14	S	100	13,40
B 2	x	16	S	100	13,80
B 2	x	18	S	100	14,30
B 2	x	20	S	100	14,70
B 2	x	30	S	100	17,70
B 2	x	32	S	100	18,40
B 2	x	36	S	100	19,50
B 2	x	40	S	100	20,60
B 2	x	50	S	100	24,00
B 2,5	x	14	S	100	15,20
B 2,5	x	16	S	100	15,40
B 2,5	x	20	S	100	17,00
B 2,5	x	30	S	100	20,40
B 2,5	x	40	S	100	25,00
B 3	x	10	S	100	14,20
B 3	x	12	S	100	14,60
B 3	x	14	S	100	15,40
B 3	x	16	S	100	16,10
B 3	x	18	S	100	17,00
B 3	x	20	S	100	17,50
B 3	x	24	S	100	19,00
B 3	x	26	S	100	20,70
B 3	x	28	S	100	21,50
B 3	x	30	S	100	22,20
B 3	x	32	S	100	23,30
B 3	x	36	S	100	24,40
B 3	x	40	S	100	26,00
B 3	x	45	S	100	29,00
B 3	x	50	S	100	31,50
B 3	x	60	S	100	39,50
B 4	x	12	S	100	16,70
B 4	x	14	S	100	17,50
B 4	x	16	S	100	18,70
B 4	x	18	S	100	19,40
B 4	x	20	S	100	20,10
B 4	x	22	S	100	21,70
B 4	x	24	S	100	23,20
B 4	x	26	S	100	23,60
B 4	x	28	S	100	24,60
B 4	x	30	S	100	26,50
B 4	x	32	S	100	27,50
B 4	x	36	S	100	29,50
B 4	x	40	S	100	31,50
B 4	x	45	S	100	36,00
B 4	x	50	S	100	39,00
B 4	x	55	S	100	43,00
B 4	x	60	S	100	46,00
B 4	x	70	S	100	56,00
B 4	x	80	S	100	59,00
B 4	x	100	S	100	79,00
B 5	x	16	S	100	19,40
B 5	x	18	S	100	20,60
B 5	x	20	S	100	22,00
B 5	x	22	S	100	23,30
B 5	x	24	S	100	24,60
B 5	x	26	S	100	26,50
B 5	x	28	S	100	27,50
B 5	x	30	S	100	29,50
B 5	x	32	S	100	31,50
B 5	x	36	S	100	34,00
B 5	x	40	S	100	38,00
B 5	x	45	S	100	41,00
B 5	x	50	S	100	44,50
B 5	x	55	S	100	48,50
B 5	x	60	S	100	56,00
B 5	x	65	S	50	62,00
B 5	x	70	S	50	66,00
B 5	x	80	S	50	72,00
B 5	x	90	S	50	78,00
B 5	x	100	S	50	86,00
B 6	x	20	S	100	26,50
B 6	x	24	S	100	31,00
B 6	x	26	S	100	33,00
B 6	x	28	S	100	36,00
B 6	x	30	S	100	38,50
B 6	x	32	S	100	41,00
B 6	x	36	S	100	43,00
B 6	x	40	S	100	46,00
B 6	x	45	S	100	49,50
B 6	x	50	S	100	54,00
B 6	x	55	S	50	62,00
B 6	x	60	S	50	68,00
B 6	x	70	S	50	78,00
B 6	x	80	S	50	86,00
B 6	x	90	S	50	97,00
B 6	x	100	S	50	112,00
B 6	x	120	S	50	207,00
B 6,5	x	40	S	100	63,00
B 6,5	x	50	S	100	77,00
B 6,5	x	60	S	50	96,00
B 6,5	x	100	S	50	163,00
B 7	x	60	S	50	147,00
B 7	x	70	S	50	172,00
B 7	x	80	S	50	189,00
B 7	x	100	S	50	275,00
B 8	x	24	S	50	47,50
B 8	x	26	S	50	51,00
B 8	x	28	S	50	54,00
B 8	x	30	S	50	57,00
B 8	x	32	S	50	61,00
B 8	x	36	S	50	65,00
B 8	x	40	S	50	67,00
B 8	x	45	S	50	68,00
B 8	x	50	S	50	84,00
B 8	x	55	S	50	95,00
B 8	x	60	S	50	103,00
B 8	x	70	S	50	118,00
B 8	x	80	S	50	130,00
B 8	x	90	S	50	157,00
B 8	x	100	S	50	184,00
B 8	x	110	S	50	205,00
B 8	x	120	S	50	224,00
B 8	x	130	S	50	295,00
B 8	x	140	S	50	315,00
B 8	x	150	S	50	385,00
B 10	x	28	S	50	84,00
B 10	x	30	S	50	91,00
B 10	x	32	S	50	95,00
B 10	x	36	S	50	105,00
B 10	x	40	S	50	111,00
B 10	x	45	S	50	118,00
B 10	x	50	S	50	123,00
B 10	x	55	S	25	151,00
B 10	x	60	S	25	164,00
B 10	x	70	S	25	189,00
B 10	x	80	S	25	210,00
B 10	x	90	S	25	223,00
B 10	x	100	S	25	255,00
B 10	x	110	S	25	275,00
B 10	x	120	S	25	295,00
B 10	x	130	S	25	345,00
B 10	x	140	S	25	365,00
B 10	x	150	S	25	385,00
B 12	x	30	S	25	121,00
B 12	x	36	S	25	132,00
B 12	x	40	S	25	142,00
B 12	x	45	S	25	160,00
B 12	x	50	S	25	165,00
B 12	x	55	S	25	182,00
B 12	x	60	S	25	197,00
B 12	x	70	S	25	230,00
B 12	x	80	S	25	255,00
B 12	x	90	S	25	275,00
B 12	x	100	S	25	325,00
B 12	x	110	S	10	385,00
B 12	x	120	S	10	455,00
B 12	x	130	S	10	540,00
B 12	x	140	S	10	580,00
B 12	x	150	S	10	610,00
B 13	x	50	S	25	355,00
B 13	x	60	S	25	255,00
B 13	x	70	S	25	315,00
B 13	x	80	S	25	345,00
B 13	x	100	S	25	430,00
B 13	x	120	S	10	540,00
B 13	x	130	S	10	660,00
B 13	x	150	S	10	760,00
B 14	x	50	S	25	245,00
B 14	x	80	S	25	370,00
B 14	x	100	S	25	495,00
B 14	x	120	S	10	620,00
B 14	x	140	S	10	770,00
B 16	x	40	S	10	290,00
B 16	x	50	S	10	335,00
B 16	x	60	S	10	380,00
B 16	x	70	S	10	440,00
B 16	x	80	S	10	480,00
B 16	x	90	S	10	530,00
B 16	x	100	S	10	600,00
B 16	x	120	S	10	720,00
B 16	x	140	S	10	890,00
B 16	x	150	S	1	1060,00
B 16	x	165	S	1	1580,00
B 16	x	180	S	1	1690,00
B 16	x	200	S	1	1810,00
B 20	x	50	S	10	940,00
B 20	x	60	S	10	1060,00
B 20	x	70	S	10	1150,00
B 20	x	80	S	10	1210,00
B 20	x	100	S	10	1470,00
B 20	x	120	S	1	1670,00
B 20	x	140	S	1	2050,00
B 20	x	150	S	1	2300,00

DIN 7

Dimensions	PU Pieces	€/100/Mat.
DIN	00007.000	10
7	**Steel**	**m6**



Parallel pins, tolerance zone m6

Dimensions ➔ TI-116 REACH ➔ TI-262
Standard conversion ➔ TI-10
Stainless ➔ pg. 453
DIN 7 ➔ replaced by ISO 2338

RoHS ✓

∅ - tol. x length (without cones)

Dimensions				PU	Pieces	€/100/Mat.
1	m6	x	3	S	1000	9,40
1	m6	x	4	S	1000	9,40
1	m6	x	5	S	1000	9,40
1	m6	x	6	S	1000	9,40
1	m6	x	8	S	1000	9,40
1	m6	x	10	S	1000	9,40
1	m6	x	12	S	1000	9,50
1,5	m6	x	4	S	1000	9,40
1,5	m6	x	5	S	1000	9,40
1,5	m6	x	6	S	1000	9,40
1,5	m6	x	8	S	1000	9,50
1,5	m6	x	10	S	1000	9,50
1,5	m6	x	12	S	1000	9,70
1,5	m6	x	14	S	1000	9,70
1,5	m6	x	16	S	1000	10,10
1,5	m6	x	18	S	1000	10,20
1,5	m6	x	20	S	1000	10,50
2	m6	x	4	S	1000	9,10
2	m6	x	5	S	1000	9,50
2	m6	x	6	S	1000	9,70
2	m6	x	8	S	1000	9,70
2	m6	x	10	S	1000	9,70
2	m6	x	12	S	1000	10,10
2	m6	x	14	S	1000	10,10
2	m6	x	16	S	1000	10,20
2	m6	x	18	S	1000	10,50
2	m6	x	20	S	1000	11,10
2	m6	x	24	S	1000	11,70
2	m6	x	28	S	1000	13,10
2	m6	x	30	S	1000	13,40
2,5	m6	x	5	S	1000	9,70
2,5	m6	x	6	S	1000	9,70
2,5	m6	x	8	S	1000	10,10
2,5	m6	x	10	S	1000	10,10
2,5	m6	x	12	S	1000	10,20
2,5	m6	x	14	S	1000	10,50
2,5	m6	x	16	S	1000	10,70
2,5	m6	x	18	S	1000	11,10
2,5	m6	x	20	S	1000	11,30
2,5	m6	x	24	S	1000	11,80
2,5	m6	x	28	S	1000	13,10
2,5	m6	x	30	S	1000	13,50
2,5	m6	x	32	S	1000	13,60
3	m6	x	5	S	1000	6,70
3	m6	x	6	S	1000	6,70
3	m6	x	8	S	1000	6,80
3	m6	x	10	S	1000	7,20
3	m6	x	12	S	1000	7,60
3	m6	x	14	S	1000	7,80
3	m6	x	16	S	1000	7,90
3	m6	x	18	S	1000	10,20
3	m6	x	20	S	1000	10,60
3	m6	x	24	S	1000	12,10
3	m6	x	28	S	1000	13,10
3	m6	x	30	S	1000	13,40
3	m6	x	32	S	1000	13,60
3	m6	x	36	S	500	18,40
3	m6	x	40	S	500	20,10
3	m6	x	50	S	500	27,50
4	m6	x	5	S	1000	10,80
4	m6	x	6	S	1000	10,80
4	m6	x	8	S	1000	11,30
4	m6	x	10	S	1000	11,70
4	m6	x	12	S	1000	12,10
4	m6	x	14	S	1000	12,80
4	m6	x	16	S	1000	13,40
4	m6	x	18	S	1000	13,80
4	m6	x	20	S	1000	14,70
4	m6	x	24	S	1000	15,80
4	m6	x	26	S	1000	16,10
4	m6	x	28	S	1000	16,40
4	m6	x	30	S	1000	17,00
4	m6	x	32	S	500	17,50
4	m6	x	36	S	500	18,40
4	m6	x	40	S	500	20,40
4	m6	x	45	S	500	26,00
4	m6	x	50	S	500	27,50
5	m6	x	5	S	500	11,70
5	m6	x	6	S	500	11,70
5	m6	x	8	S	500	12,10
5	m6	x	10	S	500	13,50
5	m6	x	12	S	500	14,10
5	m6	x	14	S	500	15,00
5	m6	x	16	S	500	15,40
5	m6	x	18	S	500	16,00
5	m6	x	20	S	500	17,10
5	m6	x	22	S	500	17,60
5	m6	x	24	S	500	18,00
5	m6	x	28	S	500	19,20
5	m6	x	30	S	500	20,60
5	m6	x	32	S	500	21,20
5	m6	x	36	S	500	21,60
5	m6	x	40	S	500	24,20
5	m6	x	45	S	500	26,00
5	m6	x	50	S	500	27,50
5	m6	x	55	S	500	36,50
5	m6	x	60	S	500	41,00
6	m6	x	6	S	500	14,10
6	m6	x	8	S	500	14,70
6	m6	x	10	S	500	15,70
6	m6	x	12	S	500	17,00
6	m6	x	14	S	500	18,00
6	m6	x	16	S	500	18,80
6	m6	x	18	S	500	19,80
6	m6	x	20	S	500	20,40
6	m6	x	22	S	500	20,90
6	m6	x	24	S	500	22,40
6	m6	x	26	S	500	22,80
6	m6	x	28	S	500	23,00
6	m6	x	30	S	500	24,20
6	m6	x	32	S	500	25,50
6	m6	x	36	S	500	27,50
6	m6	x	40	S	500	29,50
6	m6	x	45	S	500	32,50
6	m6	x	50	S	500	34,00
6	m6	x	55	S	500	36,50
6	m6	x	60	S	200	41,00
6	m6	x	70	S	200	77,00
6	m6	x	80	S	200	89,00
6	m6	x	90	S	200	153,00
6	m6	x	100	S	200	177,00
8	m6	x	8	S	500	21,30
8	m6	x	10	S	500	22,40
8	m6	x	12	S	500	22,90
8	m6	x	14	S	500	25,00
8	m6	x	16	S	500	26,50
8	m6	x	18	S	500	29,50
8	m6	x	20	S	500	30,50
8	m6	x	22	S	500	33,50
8	m6	x	24	S	500	35,00
8	m6	x	26	S	500	39,00
8	m6	x	28	S	500	41,00
8	m6	x	30	S	500	44,00
8	m6	x	32	S	500	45,50
8	m6	x	36	S	200	47,00
8	m6	x	40	S	200	52,00
8	m6	x	45	S	200	56,00
8	m6	x	50	S	200	59,00
8	m6	x	55	S	200	63,00
8	m6	x	60	S	200	68,00
8	m6	x	70	S	200	77,00
8	m6	x	80	S	200	89,00
8	m6	x	90	S	200	153,00
8	m6	x	100	S	200	195,00
10	m6	x	10	S	200	36,50
10	m6	x	12	S	200	38,00
10	m6	x	14	S	200	39,50
10	m6	x	16	S	200	42,50
10	m6	x	18	S	200	44,50
10	m6	x	20	S	200	47,00
10	m6	x	24	S	200	52,00
10	m6	x	28	S	200	57,00
10	m6	x	30	S	200	59,00
10	m6	x	32	S	200	62,00
10	m6	x	36	S	200	67,00
10	m6	x	40	S	200	74,00
10	m6	x	45	S	200	78,00
10	m6	x	50	S	200	85,00
10	m6	x	55	S	200	91,00
10	m6	x	60	S	200	97,00
10	m6	x	65	S	50	113,00
10	m6	x	70	S	50	121,00
10	m6	x	80	S	50	131,00
10	m6	x	90	S	50	153,00
10	m6	x	100	S	50	177,00
10	m6	x	120	S	50	223,00
12	m6	x	12	S	200	59,00
12	m6	x	14	S	200	60,00
12	m6	x	16	S	200	61,00
12	m6	x	18	S	200	62,00
12	m6	x	20	S	200	66,00
12	m6	x	24	S	200	69,00
12	m6	x	28	S	200	82,00
12	m6	x	30	S	200	86,00
12	m6	x	32	S	200	94,00
12	m6	x	36	S	200	103,00
12	m6	x	40	S	200	111,00
12	m6	x	45	S	100	128,00
12	m6	x	50	S	100	137,00
12	m6	x	55	S	100	147,00
12	m6	x	60	S	100	154,00
12	m6	x	70	S	100	167,00
12	m6	x	80	S	100	183,00
12	m6	x	90	S	100	200,00
12	m6	x	100	S	100	224,00
12	m6	x	120	S	100	255,00
13	m6	x	20	S	50	91,00
13	m6	x	28	S	50	115,00
13	m6	x	40	S	50	155,00
13	m6	x	50	S	25	193,00
13	m6	x	60	S	25	220,00
13	m6	x	70	S	25	244,00
13	m6	x	80	S	25	285,00
14	m6	x	20	S	25	99,00
14	m6	x	24	S	25	115,00
14	m6	x	28	S	25	121,00
14	m6	x	30	S	25	134,00
14	m6	x	32	S	25	143,00
14	m6	x	36	S	25	152,00
14	m6	x	40	S	25	165,00
14	m6	x	45	S	25	175,00
14	m6	x	50	S	25	200,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
14 m6 x 55	S	25	205,00
14 m6 x 60	S	25	220,00
14 m6 x 70	S	25	255,00
14 m6 x 80	S	25	285,00
14 m6 x 90	S	25	315,00
14 m6 x 100	S	25	335,00
14 m6 x 120	S	25	360,00
16 m6 x 20	S	25	135,00
16 m6 x 24	S	25	153,00
16 m6 x 28	S	25	165,00
16 m6 x 30	S	25	176,00
16 m6 x 32	S	25	187,00
16 m6 x 36	S	25	201,00
16 m6 x 40	S	25	217,00
16 m6 x 45	S	25	239,00
16 m6 x 50	S	25	255,00
16 m6 x 55	S	25	265,00
16 m6 x 60	S	25	295,00
16 m6 x 70	S	25	335,00
16 m6 x 80	S	25	380,00
16 m6 x 90	S	25	415,00
16 m6 x 100	S	25	455,00
16 m6 x 120	S	25	540,00
20 m6 x 24	S	25	275,00
20 m6 x 28	S	25	285,00
20 m6 x 30	S	25	300,00
20 m6 x 32	S	25	310,00
20 m6 x 36	S	25	335,00
20 m6 x 40	S	25	360,00
20 m6 x 45	S	25	385,00
20 m6 x 50	S	25	415,00
20 m6 x 55	S	25	430,00
20 m6 x 60	S	25	470,00
20 m6 x 70	S	25	510,00
20 m6 x 80	S	25	540,00
20 m6 x 90	S	25	620,00
20 m6 x 100	S	25	680,00
20 m6 x 120	S	25	790,00
25 m6 x 40	S	10	1070,00
25 m6 x 45	S	10	1120,00
25 m6 x 50	S	10	1150,00
25 m6 x 60	S	10	1410,00
25 m6 x 70	S	10	1580,00
25 m6 x 80	S	10	1800,00
25 m6 x 90	S	10	1930,00
25 m6 x 100	S	10	2100,00
25 m6 x 120	S	10	2440,00
30 m6 x 50	S	10	2160,00
30 m6 x 60	S	10	2440,00
30 m6 x 70	S	10	2650,00
30 m6 x 80	S	10	2800,00
30 m6 x 90	S	10	3150,00
30 m6 x 100	S	10	3600,00
30 m6 x 120	S	10	4250,00

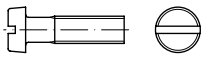
E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU	Pieces	€/100/Mat.
DIN 00084.004			30

84 Steel turned bare



Slotted cheese head screws

Dimensions → TI-37 | Standard conversion → TI-11
Material properties → TI-232 | REACH → TI-262

Stainless → pg. 455
Brass → pg. 611

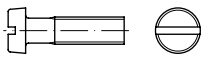
DIN 84 → replaced by ISO 1207 (compatible)

RoHS ✓

M 1	x	2	S	100	26,50 turned
M 1	x	3	S	100	28,00 turned
M 1	x	5	S	100	28,00 turned
M 1	x	6	S	100	28,50 turned
M 1	x	8	S	100	29,50 turned
M 1	x	10	S	100	34,00 turned
M 1,2	x	2	S	100	26,50 turned
M 1,2	x	3	S	100	26,50 turned
M 1,2	x	4	S	100	29,00 turned
M 1,2	x	6	S	100	29,00 turned
M 1,2	x	8	S	100	29,50 turned
M 1,2	x	10	S	100	32,00 turned
M 1,4	x	2	S	100	26,00 turned
M 1,4	x	3	S	100	26,00 turned
M 1,4	x	4	S	100	27,50 turned
M 1,4	x	5	S	100	28,00 turned
M 1,4	x	6	S	100	25,50 turned
M 1,4	x	8	S	100	30,50 turned
M 1,4	x	10	S	100	32,00 turned
M 1,4	x	16	S	100	39,50 turned
M 1,6	x	3	S	100	23,40 turned
M 1,6	x	4	S	100	24,70 turned
M 1,6	x	5	S	100	25,50 turned
M 1,6	x	6	S	100	26,50 turned
M 1,6	x	8	S	100	30,50 turned
M 1,6	x	10	S	100	31,50 turned
M 1,6	x	16	S	100	42,50 turned

Dimensions	PU	Pieces	€/100/Mat.
DIN 00084.400			30

84 4.8



Slotted cheese head screws

Dimensions → TI-37 | Standard conversion → TI-11
Material properties → TI-232 | REACH → TI-262

Stainless → pg. 455
Brass, Plastic → pg. 611

DIN 84 → replaced by ISO 1207 (compatible)

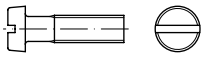
RoHS ✓

M 2	x	3	S	2000	4,55
M 2	x	4	S	2000	3,65
M 2	x	5	S	2000	3,60
M 2	x	6	S	2000	3,15
M 2	x	8	S	2000	3,25
M 2	x	10	S	2000	3,35
M 2	x	12	S	2000	3,45
M 2	x	16	S	2000	3,90
M 2	x	20	S	2000	5,00
M 2,5	x	4	S	2000	5,10
M 2,5	x	5	S	2000	4,80
M 2,5	x	6	S	2000	3,00
M 2,5	x	8	S	2000	3,10
M 2,5	x	10	S	2000	3,30
M 2,5	x	12	S	2000	3,60
M 2,5	x	16	S	2000	4,15
M 2,5	x	18	S	2000	4,65
M 2,5	x	20	S	2000	4,85
M 2,5	x	25	S	2000	5,50
M 2,5	x	30	S	2000	7,20
M 3	x	3	S	2000	8,80
M 3	x	4	S	2000	5,30
M 3	x	5	S	2000	5,10
M 3	x	6	S	2000	1,35
M 3	x	8	S	2000	1,40
M 3	x	10	S	2000	1,45
M 3	x	12	S	2000	1,55
M 3	x	16	S	2000	1,75
M 3	x	18	S	2000	3,30
M 3	x	20	S	2000	3,60
M 3	x	22	S	2000	4,10
M 3	x	25	S	2000	4,30
M 3	x	30	S	2000	4,55
M 3	x	35	S	2000	4,85
M 3	x	40	S	1000	5,40
M 3	x	45	S	1000	7,80
M 3	x	50	S	1000	8,80
M 4	x	4	S	2000	9,60
M 4	x	5	S	2000	6,50
M 4	x	6	S	2000	2,15
M 4	x	8	S	2000	2,20
M 4	x	10	S	2000	2,25
M 4	x	12	S	2000	2,30
M 4	x	16	S	2000	2,75
M 4	x	20	S	2000	3,10
M 4	x	22	S	1000	3,40
M 4	x	25	S	1000	3,60
M 4	x	30	S	1000	4,20
M 4	x	35	S	1000	4,80
M 4	x	40	S	1000	5,30
M 4	x	45	S	1000	6,70
M 4	x	50	S	1000	8,20
M 4	x	55	S	500	12,30
M 4	x	60	S	500	13,50
M 4	x	65	S	500	15,00
M 4	x	70	S	500	21,10
M 5	x	6	S	2000	9,60
M 5	x	8	S	2000	3,25
M 5	x	10	S	2000	3,40
M 5	x	12	S	1000	3,65
M 5	x	16	S	1000	4,15
M 5	x	18	S	1000	5,70
M 5	x	20	S	1000	6,20
M 5	x	22	S	1000	7,30
M 5	x	25	S	1000	7,70
M 5	x	30	S	1000	8,00
M 5	x	35	S	500	8,20
M 5	x	40	S	500	9,20
M 5	x	45	S	500	9,70
M 5	x	50	S	500	10,20
M 5	x	55	S	500	13,50
M 5	x	60	S	200	13,90
M 5	x	70	S	200	15,00
M 5	x	75	S	200	27,50
M 5	x	80	S	200	32,00
M 6	x	8	S	1000	6,50
M 6	x	10	S	1000	5,30
M 6	x	12	S	1000	5,40

DIN 84

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 16	S	1000	5,90
M 6 x 20	S	1000	6,70
M 6 x 25	S	500	7,30
M 6 x 30	S	500	8,30
M 6 x 35	S	500	9,10
M 6 x 40	S	500	10,10
M 6 x 45	S	500	13,60
M 6 x 50	S	200	15,50
M 6 x 55	S	200	17,70
M 6 x 60	S	200	21,30
M 6 x 65	S	200	23,30
M 6 x 70	S	200	24,50
M 6 x 75	S	200	36,00
M 6 x 80	S	200	40,00
M 6 x 100	S	200	45,50
M 8 x 10	S	500	36,50
M 8 x 12	S	500	14,30
M 8 x 16	S	500	14,80
M 8 x 20	S	500	15,20
M 8 x 25	S	500	15,70
M 8 x 30	S	200	21,70
M 8 x 35	S	200	22,50
M 8 x 40	S	200	23,60
M 8 x 45	S	200	31,00
M 8 x 50	S	200	35,00
M 8 x 55	S	200	41,00
M 8 x 60	S	200	45,00
M 8 x 70	S	200	50,00
M 10 x 12	S	200	92,00
M 10 x 16	S	200	31,00
M 10 x 20	S	200	28,50
M 10 x 25	S	200	35,00
M 10 x 30	S	200	36,50
M 10 x 40	S	200	38,00
M 10 x 45	S	100	45,50

DIN	00084.410	30
84	**4.8** **zinc plated**	



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 455
Brass, Plastic ➔ pg. 611

DIN 84 ➔ replaced by ISO 1207 (compatible)

RoHS ✓

M 2	x	3	S	2000	5,00 ZP
M 2	x	3	K	200	8,00 ZP
M 2	x	4	S	2000	4,10 ZP
M 2	x	4	K	200	6,90 ZP
M 2	x	5	S	2000	3,90 ZP
M 2	x	5	K	200	6,80 ZP
M 2	x	6	S	2000	3,45 ZP
M 2	x	6	K	200	6,50 ZP
M 2	x	8	S	2000	3,50 ZP
M 2	x	8	K	200	6,40 ZP
M 2	x	10	S	2000	3,10 ZP
M 2	x	10	K	200	6,00 ZP
M 2	x	12	S	2000	3,85 ZP
M 2	x	12	K	200	6,80 ZP
M 2	x	16	S	2000	4,10 ZP
M 2	x	16	K	200	7,10 ZP

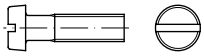
Dimensions	PU	Pieces	€/100/Mat.
M 2 x 18	K	200	8,00 ZP
M 2 x 20	S	2000	5,50 ZP
M 2 x 20	K	200	8,50 ZP
M 2 x 30	S	2000	10,80 ZP
M 2 x 30	K	200	14,60 ZP
M 2,5 x 3	K	200	12,60 ZP
M 2,5 x 4	S	2000	5,60 ZP
M 2,5 x 4	K	200	8,60 ZP
M 2,5 x 5	S	2000	5,30 ZP
M 2,5 x 5	K	200	8,20 ZP
M 2,5 x 6	S	2000	3,30 ZP
M 2,5 x 6	K	200	6,30 ZP
M 2,5 x 8	S	2000	3,35 ZP
M 2,5 x 8	K	200	6,20 ZP
M 2,5 x 10	S	2000	3,60 ZP
M 2,5 x 10	K	200	5,90 ZP
M 2,5 x 12	S	2000	3,85 ZP
M 2,5 x 12	K	200	6,00 ZP
M 2,5 x 16	S	2000	4,45 ZP
M 2,5 x 16	K	200	7,40 ZP
M 2,5 x 18	K	200	8,20 ZP
M 2,5 x 20	S	2000	5,40 ZP
M 2,5 x 20	K	200	8,40 ZP
M 2,5 x 25	S	2000	6,20 ZP
M 2,5 x 25	K	200	9,10 ZP
M 2,5 x 30	S	2000	8,00 ZP
M 2,5 x 30	K	200	10,90 ZP
M 3 x 3	S	2000	9,70 ZP
M 3 x 3	K	200	12,60 ZP
M 3 x 4	S	2000	5,90 ZP
M 3 x 4	K	200	8,80 ZP
M 3 x 5	S	2000	5,60 ZP
M 3 x 5	K	200	8,60 ZP
M 3 x 6	S	2000	1,50 ZP
M 3 x 6	K	200	4,40 ZP
M 3 x 8	S	2000	1,55 ZP
M 3 x 8	K	200	4,45 ZP
M 3 x 10	S	2000	1,60 ZP
M 3 x 10	K	200	4,55 ZP
M 3 x 12	S	2000	1,70 ZP
M 3 x 12	K	200	4,60 ZP
M 3 x 14	S	2000	2,80 ZP
M 3 x 14	K	200	5,70 ZP
M 3 x 16	S	2000	3,10 ZP
M 3 x 16	K	200	6,10 ZP
M 3 x 18	S	2000	3,65 ZP
M 3 x 18	K	200	6,70 ZP
M 3 x 20	S	2000	4,00 ZP
M 3 x 20	K	200	7,10 ZP
M 3 x 22	S	2000	4,45 ZP
M 3 x 22	K	200	7,40 ZP
M 3 x 25	S	2000	4,90 ZP
M 3 x 25	K	200	7,60 ZP
M 3 x 28	S	2000	5,10 ZP
M 3 x 28	K	200	7,80 ZP
M 3 x 30	S	2000	5,30 ZP
M 3 x 30	K	200	8,00 ZP
M 3 x 35	S	2000	5,40 ZP
M 3 x 35	K	200	8,30 ZP
M 3 x 40	S	1000	5,90 ZP
M 3 x 40	K	200	8,90 ZP
M 3 x 45	S	1000	8,60 ZP
M 3 x 45	K	200	11,50 ZP
M 3 x 50	S	1000	9,60 ZP
M 3 x 50	K	200	12,60 ZP
M 3 x 55	S	200	17,00 ZP
M 3 x 60	K	200	17,00 ZP
M 3,5 x 5	K	200	11,10 ZP
M 3,5 x 6	S	2000	5,50 ZP
M 3,5 x 6	K	200	8,50 ZP
M 3,5 x 8	K	200	6,70 ZP
M 3,5 x 10	S	2000	3,90 ZP
M 3,5 x 10	K	200	6,80 ZP
M 3,5 x 12	S	2000	3,95 ZP
M 3,5 x 12	K	200	6,90 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 3,5 x 16	S	2000	4,80 ZP
M 3,5 x 16	K	200	7,80 ZP
M 3,5 x 18	K	200	8,10 ZP
M 3,5 x 20	S	2000	5,40 ZP
M 3,5 x 20	K	200	8,40 ZP
M 3,5 x 25	K	200	8,90 ZP
M 3,5 x 30	K	200	10,50 ZP
M 3,5 x 35	K	200	12,10 ZP
M 3,5 x 40	K	200	13,00 ZP
M 3,5 x 45	K	200	16,00 ZP
M 3,5 x 50	K	200	19,30 ZP
M 4 x 4	S	2000	10,60 ZP
M 4 x 4	K	200	13,40 ZP
M 4 x 5	S	2000	7,20 ZP
M 4 x 5	K	200	10,20 ZP
M 4 x 6	S	2000	2,30 ZP
M 4 x 6	K	200	5,30 ZP
M 4 x 8	S	2000	2,30 ZP
M 4 x 8	K	200	5,30 ZP
M 4 x 10	S	2000	2,45 ZP
M 4 x 10	K	200	5,40 ZP
M 4 x 12	S	2000	2,50 ZP
M 4 x 12	K	200	5,80 ZP
M 4 x 14	S	2000	3,75 ZP
M 4 x 14	K	200	6,70 ZP
M 4 x 16	S	2000	4,00 ZP
M 4 x 16	K	200	7,00 ZP
M 4 x 18	S	2000	4,40 ZP
M 4 x 18	K	200	7,30 ZP
M 4 x 20	S	2000	5,00 ZP
M 4 x 20	K	200	7,60 ZP
M 4 x 22	S	1000	5,40 ZP
M 4 x 22	K	200	7,90 ZP
M 4 x 25	S	1000	5,80 ZP
M 4 x 25	K	200	8,00 ZP
M 4 x 28	S	1000	6,20 ZP
M 4 x 28	K	200	8,20 ZP
M 4 x 30	S	1000	6,60 ZP
M 4 x 30	K	200	8,40 ZP
M 4 x 35	S	1000	6,80 ZP
M 4 x 35	K	200	8,60 ZP
M 4 x 40	S	1000	7,00 ZP
M 4 x 40	K	200	8,80 ZP
M 4 x 45	S	1000	7,30 ZP
M 4 x 45	K	200	10,30 ZP
M 4 x 50	S	1000	8,90 ZP
M 4 x 50	K	200	11,80 ZP
M 4 x 55	S	500	13,50 ZP
M 4 x 55	K	200	12,90 ZP
M 4 x 60	S	500	18,00 ZP
M 4 x 60	K	200	14,00 ZP
M 4 x 65	K	100	20,10 ZP
M 4 x 70	S	500	23,00 ZP
M 4 x 70	K	100	29,00 ZP
M 4 x 80	K	100	33,50 ZP
M 4 x 90	K	100	50,00 ZP
M 4 x 100	K	100	54,00 ZP
M 5 x 6	S	2000	10,70 ZP
M 5 x 6	K	200	13,60 ZP
M 5 x 8	S	2000	3,60 ZP
M 5 x 8	K	200	6,50 ZP
M 5 x 10	S	2000	3,75 ZP
M 5 x 10	K	200	6,70 ZP
M 5 x 12	S	1000	3,95 ZP
M 5 x 12	K	200	6,90 ZP
M 5 x 14	S	1000	6,00 ZP
M 5 x 14	K	200	9,00 ZP
M 5 x 16	S	1000	6,20 ZP
M 5 x 16	K	200	9,10 ZP
M 5 x 18	S	1000	6,30 ZP
M 5 x 18	K	200	9,20 ZP
M 5 x 20	S	1000	7,10 ZP
M 5 x 20	K	200	10,10 ZP
M 5 x 22	S	1000	8,20 ZP
M 5 x 22	K	200	11,10 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25	S	1000	8,50 ZP
M 5	x	25	K	200	11,30 ZP
M 5	x	30	S	1000	8,70 ZP
M 5	x	30	K	200	11,50 ZP
M 5	x	35	S	500	9,00 ZP
M 5	x	35	K	200	11,90 ZP
M 5	x	40	S	500	9,80 ZP
M 5	x	40	K	200	12,40 ZP
M 5	x	45	S	500	10,70 ZP
M 5	x	45	K	200	13,60 ZP
M 5	x	50	S	500	12,10 ZP
M 5	x	50	K	200	14,50 ZP
M 5	x	55	S	500	14,30 ZP
M 5	x	55	K	200	16,10 ZP
M 5	x	60	K	200	19,30 ZP
M 5	x	65	K	100	22,00 ZP
M 5	x	70	S	200	16,00 ZP
M 5	x	70	K	100	25,00 ZP
M 5	x	80	S	200	26,00 ZP
M 5	x	80	K	100	31,50 ZP
M 5	x	90	S	200	49,50 ZP
M 5	x	90	K	100	55,00 ZP
M 5	x	100	S	200	56,00 ZP
M 5	x	100	K	100	67,00 ZP
M 6	x	6	S	1000	21,00 ZP
M 6	x	6	K	200	23,90 ZP
M 6	x	8	S	1000	7,20 ZP
M 6	x	8	K	200	10,10 ZP
M 6	x	10	S	1000	5,90 ZP
M 6	x	10	K	200	8,80 ZP
M 6	x	12	S	1000	5,90 ZP
M 6	x	12	K	200	8,90 ZP
M 6	x	14	S	1000	7,20 ZP
M 6	x	14	K	200	9,10 ZP
M 6	x	16	S	1000	8,20 ZP
M 6	x	16	K	200	9,50 ZP
M 6	x	18	S	1000	8,60 ZP
M 6	x	18	K	200	9,80 ZP
M 6	x	20	S	1000	9,00 ZP
M 6	x	20	K	200	10,50 ZP
M 6	x	22	K	200	11,20 ZP
M 6	x	25	S	500	9,40 ZP
M 6	x	25	K	200	11,40 ZP
M 6	x	30	S	500	9,80 ZP
M 6	x	30	K	200	12,10 ZP
M 6	x	35	S	500	10,20 ZP
M 6	x	35	K	200	12,40 ZP
M 6	x	40	S	500	11,20 ZP
M 6	x	40	K	200	14,10 ZP
M 6	x	45	S	500	15,00 ZP
M 6	x	45	K	200	20,90 ZP
M 6	x	50	K	200	22,10 ZP
M 6	x	55	K	100	25,50 ZP
M 6	x	60	S	200	17,60 ZP
M 6	x	60	K	100	28,00 ZP
M 6	x	65	S	200	21,00 ZP
M 6	x	70	S	200	27,00 ZP
M 6	x	70	K	100	39,00 ZP
M 6	x	80	K	100	41,50 ZP
M 6	x	90	K	100	58,00 ZP
M 6	x	100	S	200	50,00 ZP
M 6	x	100	K	100	62,00 ZP
M 8	x	10	K	100	40,00 ZP
M 8	x	12	K	100	18,80 ZP
M 8	x	16	S	500	16,50 ZP
M 8	x	16	K	100	19,30 ZP
M 8	x	18	K	100	20,10 ZP
M 8	x	20	S	500	17,00 ZP
M 8	x	20	K	100	21,10 ZP
M 8	x	25	S	500	17,50 ZP
M 8	x	25	K	100	22,10 ZP
M 8	x	30	S	200	18,10 ZP
M 8	x	30	K	100	23,90 ZP
M 8	x	35	K	100	29,50 ZP
M 8	x	40	K	100	31,00 ZP
M 8	x	45	K	100	36,50 ZP
M 8	x	50	K	100	39,50 ZP
M 8	x	55	K	100	44,00 ZP
M 8	x	60	K	100	46,00 ZP
M 8	x	70	K	100	48,00 ZP
M 8	x	80	K	100	63,00 ZP
M 8	x	90	K	100	69,00 ZP
M 8	x	100	K	100	80,00 ZP
M 10	x	12	K	100	98,00 ZP
M 10	x	16	K	100	36,50 ZP
M 10	x	20	K	100	34,50 ZP
M 10	x	25	K	100	36,00 ZP
M 10	x	30	K	100	42,50 ZP
M 10	x	35	K	100	47,50 ZP
M 10	x	40	K	100	49,00 ZP
M 10	x	50	K	100	53,00 ZP
M 10	x	60	K	100	60,00 ZP
M 10	x	70	K	100	73,00 ZP
M 10	x	80	K	50	86,00 ZP
M 10	x	100	K	50	118,00 ZP

DIN	00084.430	30
84	**4.8** **nickel plated**	



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

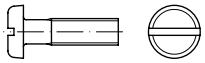
Stainless ➔ pg. 455
Brass, Plastic ➔ pg. 611

DIN 84 ➔ replaced by ISO 1207 (compatible)

RoHS ✓

M 3	x	6	S	2000	2,50 NP
M 3	x	8	S	2000	2,60 NP
M 3	x	10	S	2000	2,75 NP
M 3	x	12	S	2000	2,90 NP
M 3	x	16	S	2000	3,40 NP
M 4	x	8	S	2000	4,10 NP
M 4	x	10	S	2000	4,25 NP
M 4	x	12	S	2000	4,95 NP
M 4	x	16	S	2000	5,30 NP
M 5	x	8	S	2000	6,20 NP
M 5	x	10	S	2000	6,70 NP
M 5	x	12	S	1000	6,90 NP
M 5	x	16	S	1000	7,90 NP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00085.400		30
85	**4.8**		



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 457
Brass, Plastic ➔ pg. 612

DIN 85 ➔ replaced by ISO 1580 (compatible)

RoHS ✓

M 3	x	5	S	2000	6,20
M 3	x	6	S	2000	3,25
M 3	x	8	S	2000	1,40
M 3	x	10	S	2000	1,90
M 3	x	12	S	2000	2,15
M 3	x	16	S	2000	2,30
M 3	x	25	S	2000	3,35
M 4	x	6	S	2000	4,95
M 4	x	8	S	2000	2,40
M 4	x	10	S	2000	2,45
M 4	x	12	S	2000	2,50
M 4	x	16	S	2000	2,85
M 4	x	20	S	2000	3,30
M 4	x	25	S	1000	4,80
M 4	x	30	S	1000	5,30
M 4	x	35	S	1000	6,60
M 4	x	40	S	1000	7,20
M 5	x	8	S	2000	3,65
M 5	x	10	S	2000	3,70
M 5	x	12	S	1000	3,90
M 5	x	16	S	1000	4,45
M 5	x	20	S	1000	4,85
M 5	x	35	S	500	11,30
M 5	x	40	S	500	10,60
M 5	x	50	S	500	11,90
M 6	x	8	S	1000	13,20
M 6	x	10	S	1000	5,60
M 6	x	12	S	1000	5,80
M 6	x	16	S	1000	6,50
M 6	x	20	S	1000	9,80
M 6	x	25	S	500	8,00
M 6	x	30	S	500	8,90
M 6	x	35	S	500	10,00
M 6	x	50	S	200	22,30

RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

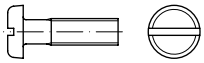
- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

RKP® REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

DIN	00085.410	30
85	4.8 zinc plated	



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228

Standard conversion ➔ TI-11
REACH ➔ TI-262

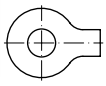
Stainless ➔ pg. 457
Brass, Plastic ➔ pg. 612

DIN 85 ➔ replaced by ISO 1580 (compatible)

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	4	S	2000	7,20 ZP
M 3	x	4	K	200	10,20 ZP
M 3	x	5	S	2000	6,80 ZP
M 3	x	5	K	200	9,70 ZP
M 3	x	6	S	2000	3,15 ZP
M 3	x	6	K	200	6,50 ZP
M 3	x	8	S	2000	1,55 ZP
M 3	x	8	K	200	4,55 ZP
M 3	x	10	S	2000	1,70 ZP
M 3	x	10	K	200	5,00 ZP
M 3	x	12	S	2000	1,95 ZP
M 3	x	12	K	200	5,30 ZP
M 3	x	16	S	2000	2,15 ZP
M 3	x	16	K	200	5,40 ZP
M 3	x	20	S	2000	2,90 ZP
M 3	x	20	K	200	6,30 ZP
M 3	x	25	S	2000	3,35 ZP
M 3	x	25	K	200	6,70 ZP
M 3	x	30	K	200	7,70 ZP
M 3	x	35	K	200	9,10 ZP
M 3	x	40	K	200	9,90 ZP
M 3	x	45	K	200	13,70 ZP
M 3	x	50	K	200	15,50 ZP
M 3	x	60	K	200	19,30 ZP
M 4	x	5	S	2000	10,50 ZP
M 4	x	5	K	200	14,00 ZP
M 4	x	6	S	2000	4,85 ZP
M 4	x	6	K	200	8,40 ZP
M 4	x	8	S	2000	2,50 ZP
M 4	x	8	K	200	5,50 ZP
M 4	x	10	S	2000	2,60 ZP
M 4	x	10	K	200	5,60 ZP
M 4	x	12	S	2000	2,70 ZP
M 4	x	12	K	200	5,70 ZP
M 4	x	16	S	2000	3,15 ZP
M 4	x	16	K	200	6,20 ZP
M 4	x	20	S	2000	3,45 ZP
M 4	x	20	K	200	6,70 ZP
M 4	x	25	S	1000	4,20 ZP
M 4	x	25	K	200	8,30 ZP
M 4	x	30	S	1000	5,40 ZP
M 4	x	30	K	200	8,80 ZP
M 4	x	35	K	200	9,90 ZP
M 4	x	40	K	200	10,30 ZP
M 4	x	45	K	200	13,60 ZP
M 4	x	50	K	200	14,30 ZP
M 4	x	60	K	200	19,30 ZP
M 5	x	6	S	2000	12,80 ZP
M 5	x	6	K	200	17,70 ZP
M 5	x	8	S	2000	3,90 ZP
M 5	x	8	K	200	6,90 ZP
M 5	x	10	S	2000	4,10 ZP
M 5	x	10	K	200	7,10 ZP
M 5	x	12	S	1000	4,20 ZP
M 5	x	12	K	200	7,30 ZP
M 5	x	16	S	1000	4,85 ZP
M 5	x	16	K	200	7,90 ZP
M 5	x	20	S	1000	5,30 ZP
M 5	x	20	K	200	8,40 ZP
M 5	x	25	S	1000	5,80 ZP
M 5	x	25	K	200	8,80 ZP
M 5	x	30	S	1000	6,90 ZP
M 5	x	30	K	200	9,90 ZP
M 5	x	35	S	2000	8,00 ZP
M 5	x	35	K	200	10,90 ZP
M 5	x	40	S	2000	10,50 ZP
M 5	x	40	K	200	13,50 ZP
M 5	x	45	S	500	11,60 ZP
M 5	x	45	K	200	14,60 ZP
M 5	x	50	K	200	16,10 ZP
M 5	x	60	K	200	22,00 ZP
M 6	x	8	S	1000	14,10 ZP
M 6	x	8	K	200	17,60 ZP
M 6	x	10	S	1000	6,10 ZP
M 6	x	10	K	200	9,10 ZP
M 6	x	12	S	1000	6,30 ZP
M 6	x	12	K	200	9,40 ZP
M 6	x	16	S	1000	6,90 ZP
M 6	x	16	K	200	10,10 ZP
M 6	x	20	S	1000	7,80 ZP
M 6	x	20	K	200	10,70 ZP
M 6	x	25	S	500	8,80 ZP
M 6	x	25	K	200	11,80 ZP
M 6	x	30	S	500	9,60 ZP
M 6	x	30	K	200	12,80 ZP
M 6	x	35	K	200	14,00 ZP
M 6	x	40	K	200	17,40 ZP
M 6	x	45	K	200	19,30 ZP
M 6	x	50	K	200	21,00 ZP
M 6	x	55	K	100	34,00 ZP
M 6	x	60	K	100	36,00 ZP
M 8	x	10	K	100	44,00 ZP
M 8	x	12	K	100	22,40 ZP
M 8	x	16	K	100	23,30 ZP
M 8	x	20	K	100	24,50 ZP
M 8	x	25	K	100	27,50 ZP
M 8	x	30	K	100	28,00 ZP
M 8	x	40	K	100	28,50 ZP
M 8	x	50	K	100	39,50 ZP

~DIN	00093.000	40
93	Steel	



Tap washers with a long tap

Caution!
Not suitable for high-tensile screwed fastenings.

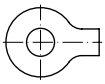
Dimensions ➔ TI-88

Stainless ➔ pg. 458

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
3,2	K	100	14,40
4,3	S	1000	10,80
4,3	K	100	15,30
5,3	S	1000	11,20
5,3	K	100	28,50
6,4	S	1000	12,50
6,4	K	100	18,20
8,4	S	1000	15,50
8,4	K	100	20,40
10,5	S	1000	18,10
10,5	K	100	23,30
13	S	500	24,40
13	K	100	31,50
15	K	100	34,50
17	S	500	34,50
17	K	100	42,50
19	K	100	44,50
21	S	250	39,50
21	K	100	48,50
23	S	100	63,00
25	S	100	66,00
28	S	50	121,00
31	S	50	136,00
34	S	50	155,00
37	S	50	170,00
40	S	50	195,00
43	S	25	211,00
46	S	25	244,00
50	S	25	280,00
54	S	25	310,00

~DIN	00093.010	40
93	Steel zinc plated	



Tap washers with a long tap

Caution!
Not suitable for high-tensile screwed fastenings.

Dimensions ➔ TI-88
Corrosion protection ➔ TI-228

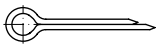
Lock of fasteners ➔ TI-256

Stainless ➔ pg. 458

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
4,3	K	100	15,40 ZP
5,3	K	100	16,00 ZP
6,4	S	1000	12,90 ZP
6,4	K	100	18,70 ZP
8,4	S	1000	16,30 ZP
8,4	K	100	21,20 ZP
10,5	S	1000	19,00 ZP
10,5	K	100	24,40 ZP
13	S	500	26,50 ZP
13	K	100	34,00 ZP
15	K	100	38,00 ZP
17	S	500	38,00 ZP
17	K	100	46,00 ZP
19	K	100	48,50 ZP
21	S	250	44,00 ZP
21	K	100	53,00 ZP
23	S	100	68,00 ZP
25	S	100	72,00 ZP
28	S	50	132,00 ZP
31	S	50	148,00 ZP
34	S	50	170,00 ZP
37	S	50	187,00 ZP
43	S	25	234,00 ZP
50	S	25	315,00 ZP
54	S	25	340,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
DIN	00094.010			40
94	**Steel zinc plated**			



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Corrosion protection ➔ TI-228

Stainless ➔ pg. 458
Brass, Copper ➔ pg. 613
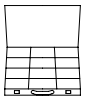
DIN 94 ➔ replaced by ISO 1234 (compatible)

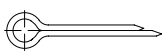
RoHS ✓ REACh SVHC free

nominal ∅ = drilling ∅ x length

1	x	6	S	1000	1,70 ZP
1	x	8	S	1000	1,75 ZP
1	x	10	S	1000	1,80 ZP
1	x	12	S	1000	1,90 ZP
1	x	16	S	1000	2,00 ZP
1	x	18	S	1000	2,10 ZP
1	x	20	S	1000	2,20 ZP
1	x	22	S	1000	2,30 ZP
1	x	25	S	1000	2,45 ZP
1	x	32	S	1000	3,00 ZP
1	x	40	S	1000	3,75 ZP
1,2	x	8	S	1000	1,85 ZP
1,2	x	10	S	1000	1,90 ZP
1,2	x	12	S	1000	1,95 ZP
1,2	x	14	S	1000	2,00 ZP
1,2	x	16	S	1000	2,05 ZP
1,2	x	20	S	1000	2,10 ZP
1,2	x	25	S	1000	2,50 ZP
1,2	x	32	S	1000	3,00 ZP
1,2	x	36	S	1000	3,60 ZP
1,2	x	40	S	1000	3,75 ZP
1,6	x	8	S	1000	2,20 ZP
1,6	x	10	S	1000	2,25 ZP
1,6	x	12	S	1000	2,30 ZP
1,6	x	14	S	1000	2,35 ZP
1,6	x	16	S	1000	2,40 ZP
1,6	x	18	S	1000	2,45 ZP
1,6	x	20	S	1000	2,50 ZP
1,6	x	22	S	1000	2,60 ZP
1,6	x	25	S	1000	2,70 ZP
1,6	x	28	S	1000	2,75 ZP
1,6	x	32	S	1000	3,10 ZP
1,6	x	36	S	1000	3,60 ZP
1,6	x	40	S	1000	3,85 ZP
1,6	x	50	S	1000	5,30 ZP
2	x	8	S	1000	2,80 ZP
2	x	10	S	1000	2,85 ZP
2	x	12	S	1000	2,90 ZP
2	x	14	S	1000	2,95 ZP
2	x	16	S	1000	3,00 ZP
2	x	18	S	1000	3,05 ZP
2	x	20	S	1000	3,10 ZP
2	x	22	S	1000	3,20 ZP
2	x	25	S	1000	3,30 ZP
2	x	28	S	1000	3,40 ZP
2	x	32	S	1000	3,60 ZP
2	x	36	S	1000	3,85 ZP
2	x	40	S	1000	4,15 ZP
2	x	45	S	1000	5,40 ZP
2	x	50	S	1000	5,70 ZP
2,5	x	10	S	500	3,35 ZP
2,5	x	12	S	500	3,40 ZP
2,5	x	14	S	500	3,45 ZP
2,5	x	16	S	500	3,50 ZP
2,5	x	18	S	500	3,55 ZP
2,5	x	20	S	500	3,60 ZP
2,5	x	22	S	500	3,75 ZP
2,5	x	25	S	500	3,95 ZP
2,5	x	28	S	500	4,25 ZP
2,5	x	32	S	500	4,45 ZP
2,5	x	36	S	500	4,75 ZP
2,5	x	40	S	500	5,10 ZP
2,5	x	45	S	500	5,50 ZP
2,5	x	50	S	500	5,80 ZP
2,5	x	56	S	500	7,80 ZP
2,5	x	63	S	500	8,80 ZP
3,2	x	10	S	500	4,15 ZP
3,2	x	12	S	500	4,20 ZP
3,2	x	14	S	500	4,25 ZP
3,2	x	16	S	500	4,30 ZP
3,2	x	18	S	500	4,35 ZP
3,2	x	20	S	500	4,45 ZP
3,2	x	22	S	500	4,60 ZP
3,2	x	25	S	500	4,95 ZP
3,2	x	28	S	500	5,30 ZP
3,2	x	32	S	500	5,60 ZP
3,2	x	36	S	500	6,00 ZP
3,2	x	40	S	500	6,50 ZP
3,2	x	45	S	500	7,20 ZP
3,2	x	50	S	500	7,70 ZP
3,2	x	56	S	500	8,20 ZP
3,2	x	63	S	500	9,20 ZP
3,2	x	71	S	500	10,30 ZP
4	x	15	S	500	5,90 ZP
4	x	18	S	500	6,00 ZP
4	x	20	S	500	6,20 ZP
4	x	22	S	500	6,50 ZP
4	x	25	S	500	6,80 ZP
4	x	28	S	500	7,30 ZP
4	x	32	S	500	7,90 ZP
4	x	36	S	500	8,40 ZP
4	x	40	S	500	9,10 ZP
4	x	45	S	500	9,70 ZP
4	x	50	S	500	10,60 ZP
4	x	56	S	500	11,40 ZP
4	x	63	S	500	12,50 ZP
4	x	71	S	500	13,70 ZP
4	x	80	S	500	15,30 ZP
4	x	90	S	500	26,00 ZP
4	x	100	S	500	29,00 ZP
4	x	112	S	250	33,50 ZP
4	x	125	S	250	37,50 ZP
5	x	20	S	250	9,10 ZP
5	x	22	S	250	9,40 ZP
5	x	25	S	250	9,70 ZP
5	x	28	S	250	11,10 ZP
5	x	32	S	250	12,30 ZP
5	x	36	S	250	13,40 ZP
5	x	40	S	250	14,30 ZP
5	x	45	S	250	15,50 ZP
5	x	50	S	250	16,60 ZP
5	x	56	S	250	18,20 ZP
5	x	63	S	250	20,30 ZP
5	x	71	S	250	22,30 ZP
5	x	80	S	250	24,10 ZP
5	x	90	S	250	27,00 ZP
5	x	100	S	250	30,00 ZP
5	x	112	S	250	51,00 ZP
5	x	125	S	250	58,00 ZP
5	x	210	S	50	850,00 ZP
5,5	x	50	S	250	24,60 ZP
6,3	x	25	S	250	18,30 ZP
6,3	x	32	S	250	18,40 ZP
6,3	x	36	S	250	20,10 ZP
6,3	x	40	S	250	21,30 ZP
6,3	x	45	S	250	23,00 ZP
6,3	x	50	S	250	25,00 ZP
6,3	x	56	S	250	28,00 ZP
6,3	x	63	S	250	31,50 ZP
6,3	x	71	S	250	34,00 ZP
6,3	x	80	S	250	38,00 ZP
6,3	x	90	S	250	42,00 ZP
6,3	x	100	S	250	47,00 ZP
6,3	x	112	S	250	53,00 ZP
6,3	x	125	S	250	60,00 ZP
6,3	x	140	S	250	112,00 ZP
8	x	40	S	100	46,00 ZP
8	x	45	S	100	48,50 ZP
8	x	50	S	100	52,00 ZP
8	x	56	S	100	57,00 ZP
8	x	63	S	100	60,00 ZP
8	x	71	S	100	65,00 ZP
8	x	80	S	100	72,00 ZP
8	x	90	S	100	77,00 ZP
8	x	100	S	100	83,00 ZP
8	x	112	S	100	92,00 ZP
8	x	125	S	100	106,00 ZP
8	x	140	S	100	118,00 ZP
10	x	56	S	100	85,00 ZP
10	x	63	S	100	91,00 ZP
10	x	71	S	100	103,00 ZP
10	x	80	S	100	114,00 ZP
10	x	90	S	100	124,00 ZP
10	x	100	S	100	137,00 ZP
10	x	112	S	100	146,00 ZP
10	x	125	S	100	160,00 ZP
10	x	140	S	100	176,00 ZP
10	x	160	S	100	220,00 ZP
10	x	180	S	100	305,00 ZP
10	x	200	S	100	330,00 ZP
13	x	71	S	25	234,00 ZP
13	x	80	S	25	235,00 ZP
13	x	90	S	25	236,00 ZP
13	x	100	S	25	255,00 ZP
13	x	112	S	25	280,00 ZP
13	x	125	S	25	305,00 ZP
13	x	140	S	25	335,00 ZP
13	x	160	S	25	1010,00 ZP
13	x	180	S	25	1050,00 ZP
13	x	200	S	25	1170,00 ZP
13	x	250	S	25	2200,00 ZP
16	x	125	S	25	2440,00 ZP
16	x	140	S	25	2460,00 ZP
16	x	160	S	25	2550,00 ZP
16	x	180	S	25	2650,00 ZP
16	x	200	S	25	2750,00 ZP
16	x	250	S	25	2850,00 ZP

article	82094.010			5001
82094	**assortment steel, zinc plated**			**DIN 94**





Split pin assortment DIN 94

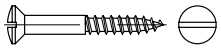
Content: 12 frequently used dimensions from 1 x 20 – 8 x 80, approx. 910 pieces (metal box)

Your own selection on request

RoHS ✓ REACh SVHC free

DIN 94	S	1	7700,00

Dimensions			PU	Pieces	€/100/Mat.
DIN	00095.010				50
95	**Steel zinc plated**				



Slotted raised countersunk head wood screws

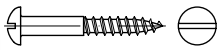
Dimensions ➔ TI-50 Corrosion protection ➔ TI-228

Stainless ➔ pg. 459
Brass ➔ pg. 613

RoHS ✓ | REACh SVHC free

2	x	10	S	500	11,00 ZP
2	x	20	S	500	16,20 ZP

DIN	00096.010	50
96	**Steel zinc plated**	



Slotted round head wood screws

Dimensions ➔ TI-51 Corrosion protection ➔ TI-228

Stainless ➔ pg. 460
Brass ➔ pg. 615

RoHS ✓ | REACh SVHC free

1,6	x	8	S	500	9,60 ZP
1,6	x	10	S	500	5,80 ZP
1,6	x	12	S	500	7,60 ZP
1,6	x	16	S	500	10,20 ZP
2	x	8	S	500	6,30 ZP
2	x	10	S	500	4,40 ZP
2	x	12	S	500	4,75 ZP
2	x	16	S	500	5,80 ZP

DIN	00097.010	50
97	**Steel zinc plated**	



Slotted countersunk head wood screws

Dimensions ➔ TI-51 Corrosion protection ➔ TI-228

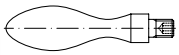
Stainless ➔ pg. 460
Brass ➔ pg. 615

RoHS ✓ | REACh SVHC free

1,6	x	12	S	500	5,20 ZP
1,6	x	16	S	500	6,90 ZP

Dimensions			PU	Pieces	€/100/Mat.
2	x	10	S	500	3,80 ZP
2	x	12	S	500	4,10 ZP
2	x	16	S	500	4,50 ZP

DIN	00098.004	80
98	**Steel**	**type E**



Rotatable ball handles with hexagon socket, E = with threaded shank

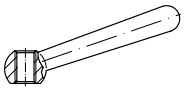
Dimensions ➔ TI-125 REACH ➔ TI-262

RoHS ✓

ball ∅ / threaded shank M

E 16	M 6	S	10	2750,00
E 20	M 8	S	10	3100,00
E 25	M 10	S	10	3900,00
E 32	M 12	S	10	6300,00
E 36	M 16	S	10	8300,00

DIN	00099.007	80
99	**Steel**	**type N**



Tapered handles with handle bracket via thread, N = tilted handle

Dimensions ➔ TI-125 REACH ➔ TI-262

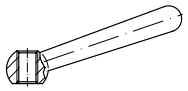
Stainless ➔ pg. 460

RoHS ✓

length / internal thread M

N 50	M 6	S	10	2030,00
N 63	M 8	S	10	1250,00
N 80	M 10	S	1	1510,00
N 100	M 12	S	1	2000,00
N 125	M 16	S	1	3450,00
N 160	M 20	S	1	5900,00
N 200	M 24	S	1	16300,00

Dimensions			PU	Pieces	€/100/Mat.
DIN	00099.017				80
99	**Steel zinc plated**				**type N**



Tapered handles with handle bracket via thread, N = tilted handle

Dimensions ➔ TI-125 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 460

RoHS ✓

length / internal thread M

N 80	M 10	S	10	1600,00 ZP
N 100	M 12	S	1	2070,00 ZP
N 125	M 16	S	1	3700,00 ZP
N 160	M 20	S	1	6200,00 ZP

DIN	00125.001	90
125-1	**Steel 140 HV**	**type A**



Plain washers, A = without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 461
Brass, Copper, Plastic, Aluminium ➔ pg. 616

DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

2,2	x	5	x	0,3	S	5000	0,85
2,2	x	5	x	0,3	K	200	2,90
2,5	x	6	x	0,5	S	5000	1,10
2,5	x	6	x	0,5	K	200	3,25
2,7	x	6	x	0,5	S	5000	1,25
2,7	x	6	x	0,5	K	200	3,40
2,8	x	7	x	0,5	K	200	3,40
3,2	x	7	x	0,5	S	5000	0,40
3,2	x	7	x	0,5	K	200	2,40
3,7	x	8	x	0,5	S	5000	1,45
3,7	x	8	x	0,5	K	200	3,25
4,3	x	9	x	0,8	S	1000	1,10
4,3	x	9	x	0,8	K	200	3,25
5,3	x	10	x	1	S	1000	1,30
5,3	x	10	x	1	K	100	3,40
6,4	x	12	x	1,6	S	1000	2,15
6,4	x	12	x	1,6	K	100	4,55
7,4	x	14	x	1,6	S	1000	3,10
7,4	x	14	x	1,6	K	100	5,70
8,4	x	16	x	1,6	S	1000	2,90
8,4	x	16	x	1,6	K	100	4,95
10,5	x	20	x	2	S	1000	4,80
10,5	x	20	x	2	K	100	7,20
13	x	24	x	2,5	S	500	8,60
13	x	24	x	2,5	K	100	11,70

Dimensions						PU	Pieces	€/100/Mat.
15	x	28	x	2,5		S	500	10,50
15	x	28	x	2,5		K	100	13,80
17	x	30	x	3		S	250	12,50
17	x	30	x	3		K	100	16,40
19	x	34	x	3		S	250	22,40
19	x	34	x	3		K	100	27,50
21	x	37	x	3		S	200	22,90
21	x	37	x	3		K	100	27,50

DIN 00125.011 90

125-1 Steel 140 HV zinc plated type A



Plain washers, A = without chamfer

Dimensions → TI-84 Standard conversion → TI-84
Corrosion protection → TI-228

Stainless → pg. 461
Brass, Copper, Plastic, Aluminium → pg. 616

DIN 125-1 type A → replaced by ISO 7089

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

2,2	x	5	x	0,3		S	5000	1,00 ZP
2,2	x	5	x	0,3		K	200	3,25 ZP
2,5	x	6	x	0,5		S	5000	1,25 ZP
2,5	x	6	x	0,5		K	200	3,35 ZP
2,7	x	6	x	0,5		S	5000	1,30 ZP
2,7	x	6	x	0,5		K	200	3,45 ZP
2,8	x	7	x	0,5		K	200	3,45 ZP
3,2	x	7	x	0,5		S	5000	0,75 ZP
3,2	x	7	x	0,5		K	200	2,60 ZP
3,7	x	8	x	0,5		S	5000	0,85 ZP
3,7	x	8	x	0,5		K	200	3,15 ZP
4,3	x	9	x	0,8		S	1000	1,10 ZP
4,3	x	9	x	0,8		K	200	3,25 ZP
5,3	x	10	x	1		S	1000	1,55 ZP
5,3	x	10	x	1		K	100	3,70 ZP
6,4	x	12	x	1,6		S	1000	2,70 ZP
6,4	x	12	x	1,6		K	100	5,20 ZP
7,4	x	14	x	1,6		S	1000	3,95 ZP
7,4	x	14	x	1,6		K	100	6,70 ZP
8,4	x	16	x	1,6		S	1000	3,75 ZP
8,4	x	16	x	1,6		K	100	5,90 ZP
10,5	x	20	x	2		S	1000	6,50 ZP
10,5	x	20	x	2		K	100	8,90 ZP
13	x	24	x	2,5		S	500	11,50 ZP
13	x	24	x	2,5		K	100	15,00 ZP
15	x	28	x	2,5		S	500	13,60 ZP
15	x	28	x	2,5		K	100	17,70 ZP
17	x	30	x	3		S	250	17,20 ZP
17	x	30	x	3		K	100	21,50 ZP
19	x	34	x	3		S	250	28,50 ZP
19	x	34	x	3		K	100	34,00 ZP
21	x	37	x	3		S	200	30,00 ZP
21	x	37	x	3		K	100	36,00 ZP

DIN 125

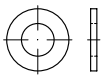
Washers zinc plated with thick layer passivation

→ **ISO 7089/7090**

Dimensions						PU	Pieces	€/100/Mat.
article							82125.010	5001

82125 assortment steel, zinc plated DIN 125/A





Washer assortments DIN 125, type A

Content: 12 frequently used dimensions from 3,2 - 25 ∅, approx. 810 pieces (metal box)

Your own selection on request

RoHS ✓ REACh SVHC free

DIN 125	S	1	7700,00

DIN 00125.021 90

125-1 Steel 140 HV hot dip galvanized type A



Plain washers, A = without chamfer

Dimensions → TI-84 Standard conversion → TI-84
Corrosion protection → TI-231

Stainless → pg. 461
Brass, Copper, Plastic, Aluminium → pg. 616

DIN 125-1 type A → replaced by ISO 7089

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

6,4	x	12	x	1,6		S	1000	5,70 HDG
6,4	x	12	x	1,6		K	100	8,50 HDG
8,4	x	16	x	1,6		S	1000	7,90 HDG
8,4	x	16	x	1,6		K	100	10,70 HDG
10,5	x	20	x	2		S	1000	15,50 HDG
10,5	x	20	x	2		K	100	18,30 HDG
13	x	24	x	2,5		S	500	19,70 HDG
13	x	24	x	2,5		K	100	22,70 HDG
15	x	28	x	2,5		S	500	30,50 HDG
15	x	28	x	2,5		K	100	34,00 HDG
17	x	30	x	3		S	250	31,00 HDG
17	x	30	x	3		K	100	36,00 HDG
19	x	34	x	3		S	250	44,00 HDG
19	x	34	x	3		K	100	48,50 HDG
21	x	37	x	3		S	200	48,00 HDG
21	x	37	x	3		K	100	53,00 HDG

Dimensions						PU	Pieces	€/100/Mat.
DIN							00125.031	90

125-1 Steel 140 HV nickel plated type A



Plain washers, A = without chamfer

Dimensions → TI-84 Standard conversion → TI-84
Corrosion protection → TI-228

Stainless → pg. 461
Brass, Copper, Plastic, Aluminium → pg. 616

DIN 125-1 type A → replaced by ISO 7089

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

3,2	x	7	x	0,5		S	1000	0,85 NP
4,3	x	9	x	0,8		S	1000	1,30 NP
5,3	x	10	x	1		S	1000	1,75 NP
6,4	x	12	x	1,6		S	1000	2,90 NP
8,4	x	16	x	1,6		S	1000	4,15 NP
10,5	x	20	x	2		S	1000	7,20 NP

DIN 00125.004 90

125-1 Steel 140 HV turned type B



Plain washers, B = with chamfer (turned)

Dimensions → TI-84 REACH → TI-262
Standard conversion → TI-84

Stainless → pg. 461
Brass → pg. 616

DIN 125-1 type B → replaced by ISO 7090

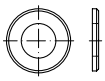
RoHS ✓

inside ∅ x outside ∅ x thickness

1,1	x	3	x	0,3		S	100	35,50 turned
1,3	x	3,5	x	0,3		S	100	35,50 turned
1,5	x	4	x	0,3		S	100	38,50 turned
1,7	x	4	x	0,3		S	100	25,50 turned
1,8	x	4,5	x	0,3		S	100	54,00 turned
2,2	x	5	x	0,5		S	100	25,50 turned
3,2	x	7	x	0,5		S	100	54,00 turned

Dimensions	PU Pieces	€/100/Mat.
DIN	00125.002	90

125-1 Steel 140 HV type B



Plain washers, B = with chamfer (punched)

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 461
Brass ➔ pg. 616

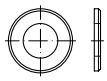
DIN 125-1 type B ➔ replaced by ISO 7090

RoHS ✓ REACh SVHC free

inside ∅	x	outside ∅	x	thickness			
4,3	x	9	x	0,8	S	1000	2,15
5,3	x	10	x	1	S	1000	2,60
6,4	x	12	x	1,6	S	1000	3,35
8,4	x	16	x	1,6	S	1000	4,75
10,5	x	20	x	2	S	1000	8,80
13	x	24	x	2,5	S	500	10,20
15	x	28	x	2,5	S	500	12,90
17	x	30	x	3	S	250	15,20
19	x	34	x	3	S	250	24,90
21	x	37	x	3	S	200	24,60
23	x	39	x	3	S	200	32,50
23	x	39	x	3	K	100	36,50
25	x	44	x	4	S	200	47,50
25	x	44	x	4	K	100	53,00
27	x	50	x	4	S	50	85,00
28	x	50	x	4	S	50	85,00
31	x	56	x	4	S	50	101,00
34	x	60	x	5	S	50	152,00
37	x	66	x	5	S	50	193,00
40	x	72	x	6	S	25	215,00
43	x	78	x	7	S	25	370,00
46	x	85	x	7	S	25	395,00
50	x	92	x	8	S	10	590,00
54	x	98	x	8	S	1	940,00
58	x	105	x	9	S	1	1260,00
60	x	110	x	9	S	1	1510,00
62	x	110	x	9	S	1	1510,00
66	x	115	x	9	S	1	1510,00
70	x	120	x	10	S	1	2850,00
74	x	125	x	10	S	1	2850,00
78	x	135	x	10	S	1	3450,00
82	x	140	x	12	S	1	4200,00
93	x	160	x	12	S	1	6000,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00125.012	90

125-1 Steel 140 HV zinc plated type B



Plain washers, B = with chamfer (punched)

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 461
Brass ➔ pg. 616

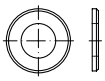
DIN 125-1 type B ➔ replaced by ISO 7090

RoHS ✓ REACh SVHC free

inside ∅	x	outside ∅	x	thickness			
3,2	x	7	x	0,5	S	1000	3,80 ZP
3,2	x	7	x	0,5	K	200	6,20 ZP
4,3	x	9	x	0,8	S	1000	2,25 ZP
4,3	x	9	x	0,8	K	200	4,45 ZP
5,3	x	10	x	1	S	1000	2,80 ZP
5,3	x	10	x	1	K	100	5,00 ZP
6,4	x	12	x	1,6	S	1000	3,95 ZP
6,4	x	12	x	1,6	K	100	6,50 ZP
8,4	x	16	x	1,6	S	1000	5,90 ZP
8,4	x	16	x	1,6	K	100	7,90 ZP
10,5	x	20	x	2	S	1000	11,10 ZP
10,5	x	20	x	2	K	100	13,50 ZP
13	x	24	x	2,5	S	500	12,90 ZP
13	x	24	x	2,5	K	100	16,40 ZP
15	x	28	x	2,5	S	500	16,40 ZP
15	x	28	x	2,5	K	100	20,50 ZP
17	x	30	x	3	S	250	19,80 ZP
17	x	30	x	3	K	100	24,10 ZP
19	x	34	x	3	S	250	31,00 ZP
19	x	34	x	3	K	100	36,50 ZP
21	x	37	x	3	S	200	31,50 ZP
21	x	37	x	3	K	100	36,50 ZP
23	x	39	x	3	S	200	39,00 ZP
23	x	39	x	3	K	100	44,00 ZP
25	x	44	x	4	S	200	59,00 ZP
25	x	44	x	4	K	100	66,00 ZP
27	x	50	x	4	S	50	117,00 ZP
28	x	50	x	4	S	50	117,00 ZP
31	x	56	x	4	S	50	138,00 ZP
34	x	60	x	5	S	50	206,00 ZP
37	x	66	x	5	S	50	265,00 ZP
40	x	72	x	6	S	25	315,00 ZP
43	x	78	x	7	S	25	510,00 ZP
46	x	85	x	7	S	25	560,00 ZP
50	x	92	x	8	S	10	820,00 ZP
54	x	98	x	8	S	1	1170,00 ZP
58	x	105	x	9	S	1	1610,00 ZP
60	x	110	x	9	S	1	1870,00 ZP
62	x	110	x	9	S	1	1870,00 ZP
66	x	115	x	9	S	1	1900,00 ZP
70	x	120	x	10	S	1	3350,00 ZP
74	x	125	x	10	S	1	3350,00 ZP
78	x	135	x	10	S	1	4100,00 ZP
82	x	140	x	12	S	1	4950,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00125.022	90

125-1 Steel 140 HV hot dip galvanized type B



Plain washers, B = with chamfer (punched)

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

Stainless ➔ pg. 461
Brass ➔ pg. 616

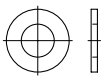
DIN 125-1 type B ➔ replaced by ISO 7090

RoHS ✓ REACh SVHC free

inside ∅	x	outside ∅	x	thickness			
6,4	x	12	x	1,6	S	1000	8,60 HDG
8,4	x	16	x	1,6	S	1000	9,10 HDG
10,5	x	20	x	2	S	1000	16,50 HDG
13	x	24	x	2,5	S	500	21,30 HDG
17	x	30	x	3	S	250	36,50 HDG
21	x	37	x	3	S	200	56,00 HDG
23	x	39	x	3	S	200	58,00 HDG
23	x	39	x	3	K	100	65,00 HDG
25	x	44	x	4	S	200	92,00 HDG
25	x	44	x	4	K	100	102,00 HDG
27	x	50	x	4	S	100	144,00 HDG
28	x	50	x	4	S	100	144,00 HDG
31	x	56	x	4	S	100	174,00 HDG
34	x	60	x	5	S	50	222,00 HDG
37	x	66	x	5	S	50	290,00 HDG
40	x	72	x	6	S	25	395,00 HDG
43	x	78	x	7	S	25	560,00 HDG
46	x	85	x	7	S	25	590,00 HDG
50	x	92	x	8	S	25	1080,00 HDG
54	x	98	x	8	S	1	1080,00 HDG

DIN	00126.000	100

126 Steel 100 HV



Plain washers, punched

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

DIN 126 ➔ replaced by ISO 7091

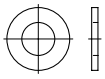
RoHS ✓ REACh SVHC free

inside ∅	x	outside ∅	x	thickness			
5,5	x	10	x	1	S	1000	1,55
5,5	x	10	x	1	K	100	6,10
6,6	x	12	x	1,6	S	1000	1,75
6,6	x	12	x	1,6	K	100	6,30
9	x	16	x	1,6	S	1000	3,30
9	x	16	x	1,6	K	100	7,80
11	x	20	x	2	S	1000	4,85
11	x	20	x	2	K	100	9,90
13,5	x	24	x	2,5	S	500	6,90
13,5	x	24	x	2,5	K	100	13,80
15,5	x	28	x	2,5	K	100	18,40
17,5	x	30	x	3	S	250	10,20

€/100 = price in € plus VAT when ordering full package unit

Dimensions						PU	Pieces	€/100/Mat.
17,5	x	30	x	3		K	100	16,70
20	x	34	x	3		K	100	24,20
22	x	37	x	3		S	250	16,60
22	x	37	x	3		K	100	22,90
24	x	39	x	3		S	100	21,20
26	x	44	x	4		S	100	26,50
30	x	50	x	4		S	100	36,00
33	x	56	x	4		S	100	43,00
36	x	60	x	5		S	100	66,00
39	x	66	x	5		S	100	84,00
42	x	72	x	6		S	50	101,00
45	x	78	x	7		S	50	158,00
48	x	85	x	7		S	50	181,00
52	x	92	x	8		S	25	224,00
56	x	98	x	8		S	25	475,00
62	x	105	x	9		S	25	680,00
66	x	110	x	9		S	10	760,00
70	x	115	x	9		S	10	820,00
78	x	125	x	10		S	10	1060,00
86	x	140	x	12		S	1	1700,00

DIN	00126.010	100
126	**Steel 100 HV zinc plated**	



Plain washers, punched

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

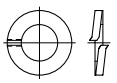
DIN 126 ➔ replaced by ISO 7091

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

5,5	x	10	x	1		S	1000	1,70 ZP
5,5	x	10	x	1		K	100	6,20 ZP
6,6	x	12	x	1,6		S	1000	2,20 ZP
6,6	x	12	x	1,6		K	100	6,70 ZP
9	x	16	x	1,6		S	1000	3,95 ZP
9	x	16	x	1,6		K	100	8,40 ZP
11	x	20	x	2		S	1000	6,20 ZP
11	x	20	x	2		K	100	11,10 ZP
13,5	x	24	x	2,5		S	500	9,20 ZP
13,5	x	24	x	2,5		K	100	16,00 ZP
15,5	x	28	x	2,5		K	100	21,50 ZP
17,5	x	30	x	3		S	250	14,30 ZP
17,5	x	30	x	3		K	100	20,50 ZP
20	x	34	x	3		K	100	29,50 ZP
22	x	37	x	3		S	250	22,90 ZP
22	x	37	x	3		K	100	28,50 ZP
24	x	39	x	3		S	100	28,00 ZP
26	x	44	x	4		S	100	38,50 ZP
30	x	50	x	4		S	100	49,50 ZP
33	x	56	x	4		S	100	61,00 ZP
36	x	60	x	5		S	100	89,00 ZP
39	x	66	x	5		S	100	113,00 ZP
42	x	72	x	6		S	50	143,00 ZP
45	x	78	x	7		S	50	216,00 ZP
48	x	85	x	7		S	50	255,00 ZP
52	x	92	x	8		S	25	325,00 ZP
56	x	98	x	8		S	25	590,00 ZP
62	x	105	x	9		S	25	830,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00127.001		110
127	**Spring steel**		**type A**



Spring lock washers, A = bent end

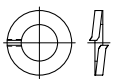
Dimensions ➔ TI-88

Stainless ➔ pg. 462

RoHS ✓ REACh SVHC free

A 3	S	1000	1,05
A 3	K	100	3,85
A 3,5	S	1000	1,10
A 3,5	K	100	3,95
A 4	S	1000	1,25
A 4	K	100	4,10
A 5	S	1000	1,55
A 5	K	100	4,30
A 6	S	1000	2,25
A 6	K	100	5,20
A 7	S	1000	2,70
A 7	K	100	5,50
A 8	S	1000	3,70
A 8	K	100	6,70
A 10	S	1000	5,30
A 10	K	100	8,50
A 12	S	500	7,90
A 12	K	100	11,40
A 14	S	500	13,10
A 14	K	100	16,70
A 16	S	250	16,50
A 16	K	100	20,50
A 18	S	250	17,60
A 18	K	100	21,60
A 20	S	100	26,50
A 22	S	100	30,00
A 24	S	100	45,50
A 27	S	100	53,00
A 30	S	50	108,00
A 33	S	25	157,00
A 36	S	25	180,00
A 39	S	25	195,00
A 42	S	25	345,00
A 45	S	25	385,00
A 48	S	25	410,00

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00127.011		110
127	**Spring steel zinc plated**		**type A**



Spring lock washers, A = bent end

Dimensions ➔ TI-88 Corrosion protection ➔ TI-228

Stainless ➔ pg. 462

RoHS ✓ REACh SVHC free

A 3	S	1000	1,15 ZP
A 3	K	100	4,30 ZP
A 3,5	S	1000	1,25 ZP
A 3,5	K	100	4,55 ZP
A 4	S	1000	1,35 ZP
A 4	K	100	4,60 ZP
A 5	S	1000	1,75 ZP
A 5	K	100	4,95 ZP
A 6	S	1000	3,10 ZP
A 6	K	100	6,10 ZP
A 7	S	1000	3,60 ZP
A 7	K	100	6,70 ZP
A 8	S	1000	5,30 ZP
A 8	K	100	8,50 ZP
A 10	S	1000	7,80 ZP
A 10	K	100	11,20 ZP
A 12	S	500	11,40 ZP
A 12	K	100	15,00 ZP
A 14	S	500	18,40 ZP
A 14	K	100	22,70 ZP
A 16	S	250	24,60 ZP
A 16	K	100	29,50 ZP
A 18	S	250	26,50 ZP
A 18	K	100	31,50 ZP
A 20	S	100	41,50 ZP
A 22	S	100	46,00 ZP
A 24	S	100	69,00 ZP
A 27	S	100	79,00 ZP
A 30	S	50	154,00 ZP
A 33	S	25	220,00 ZP
A 36	S	25	244,00 ZP
A 39	S	25	265,00 ZP
A 42	S	25	460,00 ZP
A 45	S	25	485,00 ZP
A 48	S	25	530,00 ZP
A 52	S	25	990,00 ZP

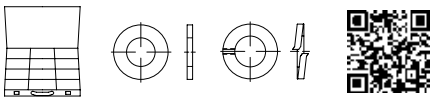
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Dimensions	PU	Pieces	€/100/Mat.
article	82127.000		5001

82127 assortment DIN 125/127 steel, zinc plated



Assortments with washers & spring lock washers, DIN 125 type A and DIN 127 type A

Content: per standard 6 frequently used dimensions 5,3 – 17Ø/A 5 – A 16 Ø, approx. 1000 pieces (metal box)

Corrosion protection ➔ TI-228

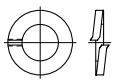
Your own selection on request

RoHS ✓ | REACh SVHC free

DIN 125 / 127	S	1	7700,00

~DIN	00127.041	110

127 Spring steel type A zinc plated 8 TLP*



Spring lock washers, A = bent end

*< Ø 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-88 Corrosion protection ➔ TI-228

Stainless ➔ pg. 462

RoHS ✓ | REACh SVHC free

A 3	S	1000	2,65 ZP TLP
A 4	S	1000	1,70 ZP TLP
A 5	S	1000	2,25 ZP TLP
A 6	S	1000	3,90 ZP TLP
A 8	S	1000	6,60 ZP TLP
A 10	S	1000	10,20 ZP TLP
A 12	S	500	14,80 ZP TLP
A 14	S	500	23,90 ZP TLP
A 16	S	250	33,00 ZP TLP
A 20	S	100	54,00 ZP TLP
A 24	S	100	90,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00127.021		110

127 Spring steel type A hot dip galvanized

Spring lock washers, A = bent end

Dimensions ➔ TI-88 Corrosion protection ➔ TI-231

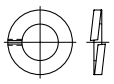
Stainless ➔ pg. 462

RoHS ✓ | REACh SVHC free

A 6	S	1000	5,30 HDG
A 6	K	100	8,20 HDG
A 8	S	1000	5,30 HDG
A 8	K	100	8,20 HDG
A 10	S	1000	8,20 HDG
A 10	K	100	10,60 HDG
A 12	S	500	12,30 HDG
A 12	K	100	15,40 HDG
A 14	K	100	22,40 HDG
A 16	S	250	26,00 HDG
A 16	K	100	30,00 HDG
A 18	S	250	28,00 HDG
A 18	K	100	163,00 HDG
A 20	S	100	43,00 HDG
A 22	S	100	48,50 HDG
A 24	S	100	78,00 HDG
A 27	S	100	86,00 HDG
A 30	S	50	165,00 HDG
A 36	S	25	265,00 HDG

~DIN	00127.002	110

127 Spring steel type B



Spring lock washers, B = flat end

Dimensions ➔ TI-88

Stainless ➔ pg. 462
Bronze ➔ pg. 617

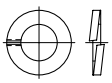
RoHS ✓ | REACh SVHC free

B 2	S	1000	0,85
B 2	K	100	3,75
B 2,5	S	1000	1,05
B 2,5	K	100	19,00
B 3	S	1000	1,05
B 3	K	100	3,85
B 4	S	1000	1,25
B 4	K	100	4,10
B 5	S	1000	1,55
B 5	K	100	4,30
B 6	S	1000	2,25
B 6	K	100	5,20
B 7	S	1000	2,85
B 7	K	100	5,50

Dimensions	PU	Pieces	€/100/Mat.
B 8	S	1000	3,70
B 8	K	100	6,70
B 10	S	1000	5,30
B 10	K	100	8,50
B 12	S	500	7,90
B 12	K	100	11,40
B 14	S	500	13,10
B 14	K	100	16,70
B 16	S	250	16,50
B 16	K	100	20,50
B 18	S	250	17,60
B 18	K	100	21,60
B 20	S	100	26,50
B 22	S	100	30,00
B 24	S	100	45,50
B 27	S	100	53,00
B 30	S	50	108,00
B 33	S	25	157,00
B 36	S	25	180,00
B 39	S	25	195,00
B 42	S	25	345,00
B 48	S	25	410,00
B 52	S	25	830,00
B 56	S	1	3300,00
B 64	S	1	3300,00
B 80	S	1	4750,00
B 90	S	1	4750,00
B 100	S	1	4750,00

~DIN	00127.012	110

127 Spring steel type B zinc plated



Spring lock washers, B = flat end

Dimensions ➔ TI-88 Corrosion protection ➔ TI-228

Stainless ➔ pg. 462
Bronze ➔ pg. 617

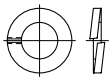
RoHS ✓ | REACh SVHC free

B 2	S	1000	1,05 ZP
B 2	K	100	4,15 ZP
B 2,5	S	1000	1,05 ZP
B 2,5	K	100	4,15 ZP
B 3	S	1000	1,15 ZP
B 3	K	100	4,30 ZP
B 3,5	S	1000	1,25 ZP
B 3,5	K	100	4,55 ZP
B 4	S	1000	1,35 ZP
B 4	K	100	4,60 ZP
B 5	S	1000	1,75 ZP
B 5	K	100	4,95 ZP
B 6	S	1000	3,10 ZP
B 6	K	100	6,10 ZP
B 7	S	1000	3,60 ZP
B 7	K	100	6,70 ZP
B 8	S	1000	5,30 ZP
B 8	K	100	8,50 ZP
B 10	S	1000	7,80 ZP
B 10	K	100	11,20 ZP
B 12	S	500	11,40 ZP
B 12	K	100	15,00 ZP
B 14	S	500	18,40 ZP
B 14	K	100	22,70 ZP
B 16	S	250	24,60 ZP

Dimensions	PU	Pieces	€/100/Mat.
B 16	K	100	29,50 ZP
B 18	S	250	26,50 ZP
B 18	K	100	31,50 ZP
B 20	S	100	41,50 ZP
B 22	S	100	46,00 ZP
B 24	S	100	69,00 ZP
B 27	S	100	79,00 ZP
B 30	S	50	154,00 ZP
B 33	S	25	220,00 ZP
B 36	S	25	244,00 ZP
B 39	S	25	265,00 ZP
B 42	S	25	460,00 ZP
B 48	S	25	530,00 ZP

~DIN 00127.043 110

127 Spring steel zinc plated 8 TLP type B



Spring lock washers, B = flat end

Dimensions ➔ TI-88 Corrosion protection ➔ TI-228

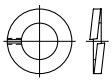
Stainless ➔ pg. 462
Bronze ➔ pg. 617

RoHS ✓ REACh SVHC free

B 8	S	1000	6,60 ZP TLP
B 10	S	1000	10,20 ZP TLP
B 12	S	500	14,80 ZP TLP
B 16	S	250	33,00 ZP TLP
B 20	S	100	56,00 ZP TLP
B 24	S	100	97,00 ZP TLP

~DIN 00127.022 110

127 Spring steel hot dip galvanized type B



Spring lock washers, B = flat end

Dimensions ➔ TI-88 Corrosion protection ➔ TI-231

Stainless ➔ pg. 462
Bronze ➔ pg. 617

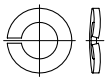
RoHS ✓ REACh SVHC free

B 6	S	1000	5,30 HDG
B 6	K	100	8,20 HDG
B 8	S	1000	5,30 HDG
B 8	K	100	8,20 HDG
B 10	S	1000	8,20 HDG
B 10	K	100	10,60 HDG
B 12	S	500	12,30 HDG
B 12	K	100	15,40 HDG
B 14	K	100	22,40 HDG
B 16	S	250	26,00 HDG
B 16	K	100	30,00 HDG
B 18	S	250	34,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
B 20	S	100	43,00 HDG
B 22	S	100	48,50 HDG
B 24	S	100	78,00 HDG
B 27	S	100	86,00 HDG
B 30	S	50	165,00 HDG
B 36	S	25	265,00 HDG
B 42	S	25	540,00 HDG

~DIN 00128.001 100

128 Spring steel type A



Spring lock washers, A = curved

Dimensions ➔ TI-89

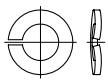
Stainless ➔ pg. 463

RoHS ✓ REACh SVHC free

A 3	S	1000	1,65
A 3	K	100	4,70
A 4	S	1000	1,25
A 4	K	100	4,10
A 5	S	1000	1,55
A 5	K	100	4,30
A 6	S	1000	2,25
A 6	K	100	5,20
A 8	S	1000	3,70
A 8	K	100	6,70
A 10	S	1000	5,30
A 10	K	100	8,50
A 12	S	500	7,90
A 12	K	100	11,40
A 14	S	500	13,10
A 14	K	100	16,70
A 16	S	250	16,50
A 16	K	100	20,50
A 18	K	100	22,60
A 20	S	100	28,50
A 22	S	100	33,50
A 24	S	100	51,00
A 30	S	50	120,00
A 36	S	25	194,00

~DIN 00128.011 100

128 Spring steel mech. zinc plated type A



Spring lock washers, A = curved

Dimensions ➔ TI-89 Corrosion protection ➔ TI-228

Stainless ➔ pg. 463

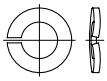
RoHS ✓ REACh SVHC free

A 2,5	S	1000	1,70 mech ZP
A 3	S	1000	1,70 mech ZP

Dimensions	PU	Pieces	€/100/Mat.
A 3	K	100	5,30 mech ZP
A 4	S	1000	1,35 mech ZP
A 4	K	100	4,60 mech ZP
A 5	S	1000	1,75 mech ZP
A 5	K	100	4,95 mech ZP
A 6	S	1000	3,10 mech ZP
A 6	K	100	6,10 mech ZP
A 8	S	1000	5,30 mech ZP
A 8	K	100	8,50 mech ZP
A 10	S	1000	7,80 mech ZP
A 10	K	100	11,20 mech ZP
A 12	S	500	11,40 mech ZP
A 12	K	100	15,00 mech ZP
A 14	S	500	18,40 mech ZP
A 14	K	100	22,70 mech ZP
A 16	S	250	26,00 mech ZP
A 16	K	100	31,00 mech ZP
A 18	S	250	30,00 mech ZP
A 18	K	100	36,00 mech ZP
A 20	S	100	47,50 mech ZP
A 22	S	100	54,00 mech ZP
A 24	S	100	83,00 mech ZP
A 30	S	50	181,00 mech ZP
A 36	S	25	325,00 mech ZP

~DIN 00128.021 100

128 Spring steel hot dip galvanized type A



Spring lock washers, A = curved

Dimensions ➔ TI-89 Corrosion protection ➔ TI-231

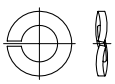
Stainless ➔ pg. 463

RoHS ✓ REACh SVHC free

A 10	S	1000	11,50 HDG
A 12	S	500	17,20 HDG
A 16	S	250	38,50 HDG
A 20	S	100	91,00 HDG
A 27	S	100	144,00 HDG

~DIN 00128.012 100

128 Spring steel mech. zinc plated type B



Spring lock washers, B = waved

Dimensions ➔ TI-89 Corrosion protection ➔ TI-228

Stainless ➔ pg. 463

RoHS ✓ REACh SVHC free

B 3	S	1000	1,70 mech ZP
B 4	S	1000	1,35 mech ZP
B 4	K	100	4,60 mech ZP
B 5	S	1000	1,75 mech ZP

Dimensions	PU	Pieces	€/100/Mat.
B 5	K	100	4,95 mech ZP
B 6	S	1000	3,10 mech ZP
B 6	K	100	6,10 mech ZP
B 8	S	1000	5,30 mech ZP
B 8	K	100	8,50 mech ZP
B 10	S	1000	7,80 mech ZP
B 10	K	100	11,20 mech ZP
B 12	S	500	11,40 mech ZP
B 12	K	100	15,00 mech ZP
B 14	S	500	18,40 mech ZP
B 14	K	100	22,70 mech ZP
B 16	S	250	26,00 mech ZP
B 16	K	100	31,00 mech ZP
B 18	S	250	30,00 mech ZP
B 20	S	100	47,50 mech ZP
B 22	S	100	54,00 mech ZP
B 24	S	100	83,00 mech ZP
B 30	S	50	181,00 mech ZP

~DIN 137 — 00137.001 — 100

Spring steel — type A



Spring washers, A = curved

Dimensions → TI-89

Stainless → pg. 463

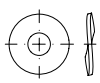
RoHS ✓ | REACh SVHC free

A 2	S	1000	0,65
A 2	K	100	4,25
A 2,3	S	1000	0,60
A 2,3	K	100	4,25
A 2,6	S	1000	1,10
A 2,6	K	100	5,70
A 3	S	1000	2,40
A 3	K	100	8,90
A 3,5	S	1000	0,65
A 4	S	1000	0,75
A 4	K	100	4,55
A 5	S	1000	1,10
A 5	K	100	4,80
A 6	S	1000	1,30
A 6	K	100	4,80
A 7	S	1000	1,85
A 7	K	100	5,60
A 8	S	1000	1,55
A 8	K	100	5,60
A 10	S	1000	4,20
A 10	K	100	8,30

Dimensions	PU	Pieces	€/100/Mat.
A 2	S	1000	0,65 mech ZP
A 2	K	100	4,30 mech ZP
A 2,3	S	1000	0,80 mech ZP
A 2,6	S	1000	0,65 mech ZP
A 2,6	K	100	4,30 mech ZP
A 3	S	1000	0,70 mech ZP
A 3	K	100	4,40 mech ZP
A 3,5	S	1000	0,75 mech ZP
A 3,5	K	100	4,40 mech ZP
A 4	S	1000	1,10 mech ZP
A 4	K	100	4,80 mech ZP
A 5	S	1000	1,30 mech ZP
A 5	K	100	5,00 mech ZP
A 6	S	1000	1,60 mech ZP
A 6	K	100	5,40 mech ZP
A 7	S	1000	2,00 mech ZP
A 7	K	100	5,90 mech ZP
A 8	S	1000	2,70 mech ZP
A 8	K	100	6,30 mech ZP
A 10	S	1000	5,50 mech ZP
A 10	K	100	9,60 mech ZP

~DIN 137 — 00137.002 — 100

Spring steel — type B



Spring washers, B = waved

Dimensions → TI-89

Stainless → pg. 463

RoHS ✓ | REACh SVHC free

B 3	S	1000	0,95
B 3	K	100	4,60
B 3,5	K	100	4,60
B 4	S	1000	0,95
B 4	K	100	4,60
B 5	S	1000	1,30
B 5	K	100	5,00
B 6	S	1000	1,50
B 6	K	100	5,30
B 7	S	1000	3,60
B 7	K	100	7,60
B 8	S	1000	3,00
B 8	K	100	6,80

Dimensions	PU	Pieces	€/100/Mat.
B 10	S	1000	5,50
B 10	K	100	7,90
B 12	S	500	10,70
B 12	K	100	15,30
B 14	S	500	20,70
B 14	K	100	26,50
B 16	S	250	22,70
B 16	K	100	28,50
B 18	S	250	31,50
B 18	K	100	38,50
B 20	S	100	36,00
B 22	S	100	54,00
B 24	S	100	72,00
B 27	S	100	103,00
B 30	S	100	193,00
B 33	S	50	230,00
B 36	S	50	300,00

~DIN 137 — 00137.012 — 100

Spring steel — type B



Spring washers, B = waved

Dimensions → TI-89

Stainless → pg. 463

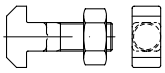
RoHS ✓ | REACh SVHC free

B 3	S	1000	1,10 mech ZP
B 3	K	100	4,80 mech ZP
B 4	S	1000	1,15 mech ZP
B 4	K	100	4,85 mech ZP
B 5	S	1000	1,60 mech ZP
B 5	K	100	5,40 mech ZP
B 6	S	1000	1,90 mech ZP
B 6	K	100	5,70 mech ZP
B 7	S	1000	4,40 mech ZP
B 7	K	100	8,40 mech ZP
B 8	S	1000	3,95 mech ZP
B 8	K	100	7,90 mech ZP
B 10	S	1000	7,70 mech ZP
B 10	K	100	11,90 mech ZP
B 12	S	500	14,40 mech ZP
B 12	K	100	19,40 mech ZP
B 14	S	500	27,50 mech ZP
B 14	K	100	33,50 mech ZP
B 16	S	250	30,00 mech ZP
B 16	K	100	37,00 mech ZP
B 18	S	250	41,50 mech ZP
B 18	K	100	48,00 mech ZP
B 20	S	100	46,00 mech ZP
B 22	S	100	69,00 mech ZP
B 24	S	100	88,00 mech ZP
B 27	S	100	130,00 mech ZP
B 30	S	100	229,00 mech ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00186.402	120

186

Mu 4.6 **type B**



T-head bolts with square neck,
B = with long thread,
Mu = with hexagon nut

Dimensions ➔ TI-29 REACH ➔ TI-262
Material properties ➔ TI-232

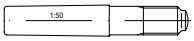
RoHS ✓

BM 6	x	25	S	50	230,00
BM 6	x	30	S	50	230,00
BM 6	x	45	S	50	275,00
BM 6	x	50	S	50	275,00
BM 6	x	60	S	25	365,00
BM 8	x	25	S	25	200,00
BM 8	x	30	S	25	200,00
BM 8	x	35	S	25	222,00
BM 8	x	40	S	25	222,00
BM 8	x	45	S	25	235,00
BM 8	x	50	S	25	235,00
BM 8	x	60	S	25	250,00
BM 8	x	80	S	25	425,00
BM 10	x	25	S	25	192,00
BM 10	x	30	S	25	192,00
BM 10	x	35	S	25	205,00
BM 10	x	40	S	25	205,00
BM 10	x	45	S	25	222,00
BM 10	x	50	S	25	222,00
BM 10	x	55	S	25	232,00
BM 10	x	60	S	25	232,00
BM 10	x	65	S	25	255,00
BM 10	x	70	S	10	285,00
BM 10	x	80	S	10	315,00
BM 10	x	90	S	10	370,00
BM 10	x	100	S	10	415,00
BM 10	x	110	S	10	620,00
BM 12	x	30	S	25	239,00
BM 12	x	35	S	25	275,00
BM 12	x	40	S	10	305,00
BM 12	x	45	S	10	360,00
BM 12	x	50	S	10	360,00
BM 12	x	55	S	10	380,00
BM 12	x	60	S	10	380,00
BM 12	x	65	S	10	410,00
BM 12	x	70	S	10	410,00
BM 12	x	80	S	10	425,00
BM 12	x	90	S	10	440,00
BM 12	x	100	S	10	470,00
BM 12	x	110	S	10	485,00
BM 12	x	120	S	10	510,00
BM 16	x	40	S	10	495,00
BM 16	x	45	S	10	530,00
BM 16	x	50	S	10	530,00
BM 16	x	60	S	10	560,00
BM 16	x	65	S	10	600,00
BM 16	x	70	S	10	600,00
BM 16	x	75	S	10	630,00
BM 16	x	80	S	10	630,00
BM 16	x	90	S	10	660,00
BM 16	x	100	S	10	680,00
BM 16	x	110	S	10	690,00
BM 16	x	120	S	10	730,00
BM 16	x	130	S	10	760,00
BM 16	x	140	S	10	780,00
BM 16	x	160	S	10	860,00
BM 20	x	60	S	10	820,00
BM 20	x	70	S	10	850,00
BM 20	x	80	S	10	880,00
BM 20	x	90	S	10	910,00
BM 20	x	100	S	10	950,00
BM 20	x	120	S	10	1030,00
BM 20	x	140	S	10	1110,00
BM 20	x	160	S	1	1170,00
BM 20	x	200	S	1	1340,00
BM 24	x	70	S	10	1110,00
BM 24	x	80	S	1	1130,00
BM 24	x	90	S	1	1170,00
BM 24	x	100	S	1	1240,00
BM 24	x	110	S	1	1300,00
BM 24	x	120	S	1	1340,00
BM 24	x	160	S	1	1530,00
BM 24	x	200	S	1	1670,00

DIN	00258.000	120

258

Steel



Taper pins with external thread and constant taper lengths

REACH ➔ TI-262

Type with constant thread bolt lengths
➔ DIN 7977

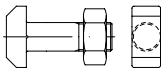
RoHS ✓

5	x	40	S	100	132,00
5	x	50	S	100	152,00
6	x	45	S	25	176,00
6	x	50	S	25	186,00
6	x	55	S	100	199,00
6	x	60	S	25	203,00
8	x	55	S	10	232,00
8	x	60	S	10	232,00
8	x	65	S	100	241,00
8	x	75	S	100	255,00
10	x	65	S	10	325,00
10	x	75	S	100	345,00
10	x	85	S	10	385,00
10	x	100	S	10	420,00
12	x	85	S	10	455,00
12	x	100	S	10	530,00
12	x	120	S	10	620,00
12	x	140	S	10	720,00
16	x	100	S	1	840,00
16	x	120	S	1	840,00
16	x	140	S	1	1150,00
16	x	160	S	1	1250,00
20	x	120	S	1	1300,00
20	x	140	S	1	1320,00
20	x	190	S	1	1630,00
25	x	140	S	1	4300,00
25	x	160	S	1	5300,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00261.400	120

261

Mu 4.6



T-head bolts,
Mu = with hexagon nut

Dimensions ➔ TI-29 REACH ➔ TI-262
Material properties ➔ TI-232

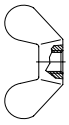
RoHS ✓

M 8	x	30	S	25	200,00
M 10	x	30	S	25	192,00
M 10	x	40	S	25	205,00
M 10	x	50	S	25	222,00
M 10	x	60	S	25	232,00
M 12	x	40	S	10	305,00
M 12	x	50	S	10	360,00
M 12	x	60	S	10	380,00
M 16	x	60	S	10	560,00
M 16	x	70	S	10	600,00
M 16	x	80	S	10	630,00
M 16	x	120	S	10	730,00
M 20	x	60	S	10	820,00
M 20	x	80	S	10	880,00
M 20	x	90	S	10	910,00
M 24	x	90	S	1	1170,00

DIN	00315.000	130

315

Malleable iron / steel



Wing nuts, rounded wings, product grade C (g)

Dimensions ➔ TI-72

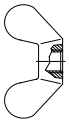
Stainless ➔ pg. 464
Brass ➔ pg. 617

DIN 314 = edged wing, pressed, on request

RoHS ✓ REACh SVHC free

M 4	S	100	28,00
M 5	S	100	32,50
M 6	S	100	42,00
M 8	S	100	62,00
M 10	S	100	103,00
M 12	S	50	177,00
M 14	S	50	224,00
M 16	S	20	335,00
M 20	S	25	770,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00315.010		130
315	**Malleable iron / steel zinc plated**		



Wing nuts, rounded wings, product grade C (g)

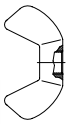
Dimensions ➔ TI-72 Corrosion protection ➔ TI-228

Stainless ➔ pg. 464
Brass ➔ pg. 617

RoHS ✓ | REACh SVHC free

M 4	S	100	28,50 ZP
M 5	S	100	33,50 ZP
M 6	S	100	44,50 ZP
M 8	S	100	67,00 ZP
M 10	S	100	115,00 ZP
M 12	S	50	199,00 ZP
M 14	S	50	250,00 ZP
M 16	S	20	365,00 ZP
M 20	S	10	840,00 ZP
M 24	S	5	1610,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	88215.010		878
315	**Steel zinc plated**	**article 88215**	



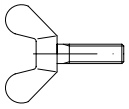
Wing nuts, edged wings, small "American" type, product grade C (g)

Dimensions ➔ TI-79 Corrosion protection ➔ TI-228
Material properties ➔ TI-233

RoHS ✓ | REACh SVHC free

M 3	S	500	15,80 ZP
M 4	S	500	16,70 ZP
M 5	S	500	17,60 ZP
M 6	S	500	19,50 ZP
M 8	S	200	25,50 ZP
M 10	S	100	41,50 ZP
M 12	S	50	89,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00316.010		130
316	**Malleable iron / steel zinc plated**		



Wing screws, rounded wings, product grade C (g)

Dimensions ➔ TI-29 Corrosion protection ➔ TI-228

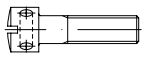
Stainless ➔ pg. 464
Brass ➔ pg. 618

RoHS ✓ | REACh SVHC free

M 4	x	8	S	100	61,00 ZP
M 4	x	10	S	100	63,00 ZP
M 4	x	12	S	100	56,00 ZP
M 4	x	16	S	100	57,00 ZP
M 4	x	20	S	100	67,00 ZP
M 4	x	25	S	100	67,00 ZP
M 4	x	30	S	100	61,00 ZP
M 5	x	10	S	100	67,00 ZP
M 5	x	12	S	100	67,00 ZP
M 5	x	16	S	100	68,00 ZP
M 5	x	20	S	100	69,00 ZP
M 5	x	25	S	100	72,00 ZP
M 5	x	30	S	100	73,00 ZP
M 5	x	35	S	100	74,00 ZP
M 5	x	40	S	100	77,00 ZP
M 5	x	50	S	100	78,00 ZP
M 6	x	10	S	100	83,00 ZP
M 6	x	12	S	100	83,00 ZP
M 6	x	16	S	100	84,00 ZP
M 6	x	20	S	100	83,00 ZP
M 6	x	25	S	100	86,00 ZP
M 6	x	30	S	100	88,00 ZP
M 6	x	35	S	100	91,00 ZP
M 6	x	40	S	100	92,00 ZP
M 6	x	50	S	100	96,00 ZP
M 8	x	10	S	100	113,00 ZP
M 8	x	12	S	100	113,00 ZP
M 8	x	16	S	100	115,00 ZP
M 8	x	20	S	100	117,00 ZP
M 8	x	25	S	100	121,00 ZP
M 8	x	30	S	100	123,00 ZP
M 8	x	35	S	100	125,00 ZP
M 8	x	40	S	50	128,00 ZP
M 8	x	50	S	50	134,00 ZP
M 8	x	60	S	50	152,00 ZP
M 10	x	16	S	50	176,00 ZP
M 10	x	20	S	50	180,00 ZP
M 10	x	25	S	50	190,00 ZP
M 10	x	30	S	50	187,00 ZP
M 10	x	35	S	50	210,00 ZP
M 10	x	40	S	50	215,00 ZP
M 10	x	50	S	20	222,00 ZP
M 10	x	60	S	20	245,00 ZP
M 10	x	70	S	20	280,00 ZP
M 12	x	16	S	20	325,00 ZP
M 12	x	20	S	20	330,00 ZP
M 12	x	25	S	20	335,00 ZP
M 12	x	30	S	20	340,00 ZP
M 12	x	40	S	20	365,00 ZP
M 12	x	50	S	20	390,00 ZP
M 12	x	60	S	20	410,00 ZP
M 12	x	70	S	20	485,00 ZP
M 12	x	80	S	20	485,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	30	S	10	1180,00 ZP
M 16	x	40	S	10	1190,00 ZP
M 16	x	50	S	10	1300,00 ZP
M 16	x	60	S	10	1400,00 ZP

DIN	00404.500	131
404	**5.8**	



Slotted capstan screws

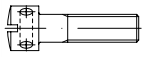
Dimensions ➔ TI-29 REACH ➔ TI-262

Stainless ➔ pg. 465

RoHS ✓

M 3	x	6	S	100	67,00
M 3	x	8	S	100	68,00
M 3	x	10	S	100	72,00
M 4	x	5	S	100	69,00
M 4	x	6	S	100	69,00
M 4	x	8	S	100	77,00
M 4	x	10	S	100	80,00
M 5	x	10	S	100	150,00
M 5	x	16	S	100	109,00
M 5	x	18	S	100	111,00
M 5	x	20	S	100	119,00
M 6	x	16	S	100	156,00
M 6	x	20	S	100	170,00

DIN	00404.510	131
404	**5.8 zinc plated**	



Slotted capstan screws

Dimensions ➔ TI-29 REACH ➔ TI-262
Corrosion protection ➔ TI-228

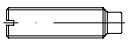
Stainless ➔ pg. 465

RoHS ✓

M 3	x	5	S	100	85,00 ZP
M 3	x	6	S	100	87,00 ZP
M 3	x	8	S	100	87,00 ZP
M 3	x	10	S	100	92,00 ZP
M 4	x	6	S	100	130,00 ZP
M 4	x	8	S	100	95,00 ZP
M 4	x	10	S	100	100,00 ZP
M 5	x	8	S	100	90,00 ZP
M 5	x	10	S	100	111,00 ZP
M 5	x	16	S	100	129,00 ZP
M 5	x	20	S	100	138,00 ZP
M 6	x	10	S	100	165,00 ZP
M 6	x	12	S	100	173,00 ZP
M 6	x	16	S	100	175,00 ZP
M 6	x	20	S	100	189,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00417.000	140

417 14 H



Slotted grub screws with full dog point

Dimensions ➔ TI-19 REACH ➔ TI-262

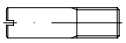
DIN 417 ➔ replaced by ISO 7435 (compatible)

RoHS ✓

M 3	x	5	S	100	17,00
M 3	x	6	S	100	11,10
M 3	x	8	S	100	11,40
M 3	x	10	S	100	14,40
M 3	x	12	S	100	15,10
M 4	x	5	S	100	23,50
M 4	x	6	S	100	18,80
M 4	x	8	S	100	11,80
M 4	x	10	S	100	12,10
M 4	x	12	S	100	16,00
M 4	x	16	S	100	13,70
M 5	x	8	S	100	13,50
M 5	x	10	S	100	14,60
M 5	x	12	S	100	15,10
M 5	x	16	S	100	18,10
M 5	x	20	S	100	23,50
M 5	x	25	S	100	24,70
M 6	x	8	S	100	15,40
M 6	x	10	S	100	16,00
M 6	x	12	S	100	16,70
M 6	x	16	S	100	18,60
M 6	x	20	S	100	20,20
M 6	x	25	S	100	22,60
M 6	x	30	S	100	31,50
M 8	x	10	S	100	38,00
M 8	x	12	S	100	21,60
M 8	x	16	S	100	22,40
M 8	x	20	S	100	27,00
M 8	x	25	S	100	29,50
M 8	x	30	S	100	36,00
M 8	x	35	S	100	51,00
M 8	x	40	S	100	69,00
M 10	x	12	S	50	77,00
M 10	x	16	S	50	50,00
M 10	x	20	S	50	69,00
M 10	x	25	S	50	59,00
M 10	x	30	S	50	78,00
M 10	x	35	S	50	85,00
M 10	x	40	S	50	90,00
M 10	x	50	S	50	160,00
M 12	x	20	S	50	109,00
M 12	x	25	S	50	118,00
M 12	x	40	S	50	148,00
M 12	x	50	S	50	165,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00427.000	140

427 14 H



Slotted headless screws with chamfered end

Dimensions ➔ TI-19 Standard conversion ➔ TI-6
Material properties ➔ TI-232 REACH ➔ TI-262

Stainless ➔ pg. 465

DIN 427 ➔ replaced by ISO 2342 (compatible)

RoHS ✓

M 3	x	6	S	100	18,80
M 3	x	8	S	100	28,00
M 3	x	10	S	100	14,40
M 3	x	12	S	100	19,00
M 4	x	8	S	100	24,80
M 4	x	10	S	100	15,20
M 4	x	12	S	100	16,40
M 4	x	16	S	100	20,40
M 4	x	20	S	100	23,60
M 4	x	25	S	100	26,50
M 5	x	10	S	100	28,00
M 5	x	12	S	100	23,20
M 5	x	16	S	100	23,00
M 5	x	18	S	100	23,80
M 5	x	20	S	100	23,80
M 5	x	25	S	100	31,50
M 5	x	30	S	100	36,00
M 5	x	35	S	100	53,00
M 5	x	40	S	100	72,00
M 6	x	12	S	100	21,20
M 6	x	16	S	100	23,60
M 6	x	18	S	100	26,00
M 6	x	20	S	100	26,00
M 6	x	25	S	100	29,50
M 6	x	30	S	100	40,50
M 6	x	35	S	100	76,00
M 6	x	40	S	100	114,00
M 6	x	45	S	100	118,00
M 6	x	50	S	100	124,00
M 8	x	16	S	100	29,00
M 8	x	18	S	100	34,50
M 8	x	20	S	100	34,50
M 8	x	25	S	100	37,50
M 8	x	30	S	100	46,00
M 8	x	35	S	100	54,00
M 8	x	40	S	100	72,00
M 8	x	45	S	100	136,00
M 8	x	50	S	100	114,00
M 8	x	60	S	100	156,00
M 10	x	20	S	50	84,00
M 10	x	25	S	50	91,00
M 10	x	30	S	50	97,00
M 10	x	35	S	50	106,00
M 10	x	40	S	50	112,00
M 10	x	45	S	50	138,00
M 10	x	50	S	50	146,00
M 12	x	20	S	50	210,00
M 12	x	25	S	50	224,00
M 12	x	30	S	50	260,00
M 12	x	35	S	50	285,00
M 12	x	40	S	50	330,00
M 12	x	50	S	50	410,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00427.010	140

427 14 H zinc plated



Slotted headless screws with chamfered end

Dimensions ➔ TI-19 Standard conversion ➔ TI-6
Material properties ➔ TI-232 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 465

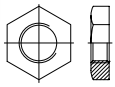
DIN 427 ➔ replaced by ISO 2342 (compatible)

RoHS ✓

M 3	x	6	S	100	43,00 ZP
M 3	x	8	S	100	43,50 ZP
M 3	x	10	S	100	43,50 ZP
M 3	x	12	S	100	48,00 ZP
M 3	x	16	S	100	49,50 ZP
M 4	x	8	S	100	44,00 ZP
M 4	x	10	S	100	44,50 ZP
M 4	x	12	S	100	45,50 ZP
M 4	x	16	S	100	49,50 ZP
M 4	x	20	S	100	53,00 ZP
M 4	x	25	S	100	56,00 ZP
M 4	x	30	S	100	71,00 ZP
M 5	x	10	S	100	47,50 ZP
M 5	x	12	S	100	48,50 ZP
M 5	x	16	S	100	53,00 ZP
M 5	x	20	S	100	53,00 ZP
M 5	x	25	S	100	61,00 ZP
M 5	x	30	S	100	65,00 ZP
M 5	x	40	S	100	102,00 ZP
M 6	x	12	S	100	51,00 ZP
M 6	x	16	S	100	53,00 ZP
M 6	x	20	S	100	55,00 ZP
M 6	x	25	S	100	59,00 ZP
M 6	x	30	S	100	70,00 ZP
M 6	x	50	S	100	154,00 ZP
M 8	x	16	S	100	58,00 ZP
M 8	x	20	S	100	64,00 ZP
M 8	x	25	S	100	67,00 ZP
M 8	x	30	S	100	76,00 ZP
M 8	x	35	S	100	82,00 ZP
M 8	x	40	S	100	102,00 ZP
M 10	x	20	S	50	114,00 ZP
M 10	x	25	S	50	120,00 ZP
M 10	x	30	S	50	126,00 ZP
M 10	x	35	S	50	134,00 ZP
M 10	x	40	S	50	142,00 ZP
M 10	x	50	S	50	176,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
DIN	00431.002			140

431 14 H type B



Pipe nuts with inch pipe thread G, B = thread one-sided countersunk

Dimensions ➔ TI-60 REACH ➔ TI-262
Material properties ➔ TI-233

Stainless ➔ pg. 465
Brass ➔ pg. 618

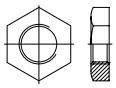
Nuts with wrench sizes acc. to ISO on request

RoHS ✓

nominal size - wrench size			
BG 1/8 s =19	S	50	72,00
BG 1/4 s =22	S	50	94,00
BG 3/8	S	50	132,00
BG 1/2 s =32	S	50	187,00
BG 3/4	S	25	265,00
BG 1	S	10	610,00
BG 1 1/4	S	1	760,00
BG 1 1/2	S	1	1020,00
BG 1 3/4	S	1	1700,00
BG 2	S	1	2160,00

DIN	00431.012			140

431 14 H zinc plated type B



Pipe nuts with inch pipe thread G, B = thread one-sided countersunk

Dimensions ➔ TI-60 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 465
Brass ➔ pg. 618

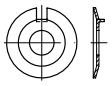
Nuts with wrench sizes acc. to ISO on request

RoHS ✓

nominal size - wrench size			
BG 1/8 s =19	S	50	77,00 ZP
BG 1/4 s =22	S	50	99,00 ZP
BG 3/8	S	50	141,00 ZP
BG 1/2 s =32	S	50	201,00 ZP
BG 3/4	S	25	280,00 ZP
BG 1	S	10	630,00 ZP
BG 1 1/2	S	1	1070,00 ZP
BG 2	S	1	2290,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
~DIN	00432.000			140

432 Steel



Washers with external tap

Caution!
Not suitable for high-tensile screwed fastenings.

Dimensions ➔ TI-90

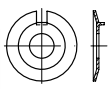
Stainless ➔ pg. 465

RoHS ✓ REACh SVHC free

4,3	S	100	67,00
5,3	S	100	67,00
6,4	S	100	73,00
8,4	S	100	97,00
10,5	S	50	123,00
13	S	50	125,00
15	S	50	130,00
17	S	50	135,00
19	S	50	164,00
21	S	50	172,00
23	S	50	181,00
25	S	50	184,00
28	S	25	242,00
31	S	25	265,00
34	S	25	285,00
37	S	25	315,00
40	S	25	360,00
43	S	25	385,00
46	S	10	425,00
50	S	10	445,00
54	S	10	480,00
58	S	1	2010,00
66	S	1	2360,00

~DIN	00432.010		140

432 Steel zinc plated



Washers with external tap

Caution!
Not suitable for high-tensile screwed fastenings.

Dimensions ➔ TI-90 Corrosion protection ➔ TI-228

Stainless ➔ pg. 465

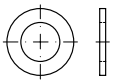
RoHS ✓ REACh SVHC free

5,3	S	100	62,00 ZP
6,4	S	100	73,00 ZP
8,4	S	100	99,00 ZP
10,5	S	50	124,00 ZP
13	S	50	126,00 ZP
17	S	50	137,00 ZP
21	S	50	175,00 ZP
25	S	50	187,00 ZP
31	S	25	270,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
37		S	25	325,00 ZP
43		S	25	390,00 ZP

DIN	00433.000	140

433-1 Steel 140 HV



Washers

primarily for cheese head cap screws

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

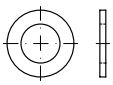
Stainless ➔ pg. 466
Brass ➔ pg. 618

DIN 433 ➔ replaced by ISO 7092

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness							
2,2	x	4,5	x	0,3	S	5000	0,65
2,2	x	4,5	x	0,3	K	500	2,00
2,7	x	5	x	0,5	S	5000	0,55
2,7	x	5	x	0,5	K	500	1,65
3,2	x	6	x	0,5	S	5000	0,35
3,2	x	6	x	0,5	K	500	1,55
3,7	x	7	x	0,5	K	500	2,40
4,3	x	8	x	0,5	S	5000	0,45
4,3	x	8	x	0,5	K	500	1,60
5,3	x	9	x	1	S	5000	1,00
5,3	x	9	x	1	K	500	2,65
6,4	x	11	x	1,6	S	1000	1,70
6,4	x	11	x	1,6	K	250	3,95
8,4	x	15	x	1,6	S	1000	3,15
8,4	x	15	x	1,6	K	250	5,40
10,5	x	18	x	1,6	S	1000	4,80
10,5	x	18	x	1,6	K	250	8,30
13	x	20	x	2	S	1000	7,60
13	x	20	x	2	K	100	14,70
15	x	24	x	2,5	S	500	11,10
15	x	24	x	2,5	K	100	18,20
17	x	28	x	2,5	S	500	14,20
17	x	28	x	2,5	K	100	20,60
19	x	30	x	2,5	S	500	21,20
19	x	30	x	2,5	K	100	27,50
21	x	34	x	3	S	500	25,50
21	x	34	x	3	K	100	31,00

Dimensions					PU	Pieces	€/100/Mat.
DIN		00433.010					140
433-1		**Steel 140 HV zinc plated**					



Washers

primarily for cheese head cap screws

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

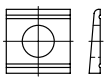
Stainless ➔ pg. 466
Brass ➔ pg. 618

DIN 433 ➔ replaced by ISO 7092

RoHS ✓ | REACh SVHC free

inside ∅		outside ∅		thickness			
2,2	x	4,5	x	0,3	S	5000	0,95 ZP
2,2	x	4,5	x	0,3	K	500	2,00 ZP
2,7	x	5	x	0,5	S	5000	0,70 ZP
2,7	x	5	x	0,5	K	500	2,20 ZP
3,2	x	6	x	0,5	S	5000	0,55 ZP
3,2	x	6	x	0,5	K	500	1,70 ZP
3,7	x	7	x	0,5	K	500	1,85 ZP
4,3	x	8	x	0,5	S	5000	0,45 ZP
4,3	x	8	x	0,5	K	500	1,55 ZP
5,3	x	9	x	1	S	5000	1,05 ZP
5,3	x	9	x	1	K	500	2,20 ZP
6,4	x	11	x	1,6	S	1000	1,95 ZP
6,4	x	11	x	1,6	K	250	4,15 ZP
8,4	x	15	x	1,6	S	1000	3,65 ZP
8,4	x	15	x	1,6	K	250	5,80 ZP
10,5	x	18	x	1,6	S	1000	5,40 ZP
10,5	x	18	x	1,6	K	250	8,60 ZP
13	x	20	x	2	S	1000	8,40 ZP
13	x	20	x	2	K	100	14,80 ZP
15	x	24	x	2,5	S	500	12,30 ZP
15	x	24	x	2,5	K	100	18,60 ZP
17	x	28	x	2,5	S	500	15,70 ZP
17	x	28	x	2,5	K	100	21,20 ZP
19	x	30	x	2,5	S	500	23,50 ZP
19	x	30	x	2,5	K	100	29,00 ZP
21	x	34	x	3	S	500	28,50 ZP
21	x	34	x	3	K	100	33,00 ZP

Dimensions					PU	Pieces	€/100/Mat.
DIN		00434.000					150
434		**Steel**					



Square taper washers for U beams, taper 8 %

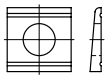
Dimensions ➔ TI-86

Stainless ➔ pg. 466

RoHS ✓ | REACh SVHC free

inside ∅			• ÜH products
9	S	100	32,50
11	S	100	32,50
13,5	S	100	44,00
17,5	S	100	58,00
22	S	100	102,00
24	S	100	195,00
26	S	50	285,00

Dimensions					PU	Pieces	€/100/Mat.
DIN		00434.010					150
434		**Steel zinc plated**					



Square taper washers for U beams, taper 8 %

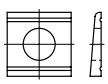
Dimensions ➔ TI-86 Corrosion protection ➔ TI-228

Stainless ➔ pg. 466

RoHS ✓ | REACh SVHC free

inside ∅			• ÜH products
9	S	100	30,00 ZP
11	S	100	38,00 ZP
13,5	S	100	44,50 ZP
17,5	S	100	66,00 ZP
22	S	100	106,00 ZP
26	S	50	310,00 ZP

Dimensions					PU	Pieces	€/100/Mat.
DIN		00434.020					150
434		**Steel hot dip galvanized**					



Square taper washers for U beams, taper 8 %

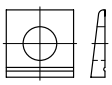
Dimensions ➔ TI-86 Corrosion protection ➔ TI-231

Stainless ➔ pg. 466

RoHS ✓ | REACh SVHC free

inside ∅			• ÜH products
9	S	100	38,00 HDG
11	S	100	37,00 HDG
13,5	S	100	54,00 HDG
17,5	S	100	76,00 HDG
22	S	100	132,00 HDG
24	S	100	240,00 HDG
26	S	50	360,00 HDG
33	S	50	440,00 HDG

Dimensions					PU	Pieces	€/100/Mat.
DIN		00435.000					150
435		**Steel**					



Square taper washers for double-T beams, taper 14 %

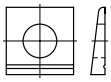
Dimensions ➔ TI-86

Stainless ➔ pg. 466

RoHS ✓ | REACh SVHC free

inside ∅			• ÜH products
9	S	100	54,00
11	S	100	54,00
13,5	S	100	57,00
17,5	S	100	86,00
22	S	100	141,00
24	S	100	236,00

Dimensions					PU	Pieces	€/100/Mat.
DIN		00435.020					150
435		**Steel hot dip galvanized**					



Square taper washers for double-T beams, taper 14 %

Dimensions ➔ TI-86 Corrosion protection ➔ TI-231

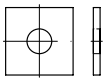
Stainless ➔ pg. 466

RoHS ✓ | REACh SVHC free

inside ∅			• ÜH products
9	S	100	61,00 HDG
11	S	100	60,00 HDG
13,5	S	100	68,00 HDG
17,5	S	100	107,00 HDG
22	S	100	182,00 HDG
24	S	100	295,00 HDG

Dimensions	PU Pieces	€/100/Mat.
DIN	00436.000	160

436 Steel



Square washers, especially for wood constructions

Dimensions ➔ TI-86

Stainless ➔ pg. 467

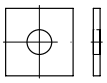
RoHS ✓ | REACh SVHC free

inside ∅ x outside dimension x thickness

11	x	30	x	3	S	100	17,10
13,5	x	40	x	4	S	100	36,00
17,5	x	50	x	5	S	50	65,00
22	x	60	x	5	S	50	96,00
24	x	70	x	6	S	50	195,00
26	x	80	x	6	S	50	255,00
30	x	90	x	6	S	25	315,00
33	x	95	x	6	S	25	345,00
36	x	100	x	6	S	25	385,00
39	x	110	x	8	S	25	650,00

DIN	00436.010	160

436 Steel zinc plated



Square washers, especially for wood constructions

Dimensions ➔ TI-86 Corrosion protection ➔ TI-228

Stainless ➔ pg. 467

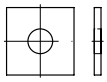
RoHS ✓ | REACh SVHC free

inside ∅ x outside dimension x thickness

11	x	30	x	3	S	100	21,10 ZP
13,5	x	40	x	4	S	100	41,50 ZP
17,5	x	50	x	5	S	50	79,00 ZP
22	x	60	x	5	S	50	121,00 ZP
24	x	70	x	6	S	50	233,00 ZP
26	x	80	x	6	S	25	242,00 ZP
30	x	90	x	6	S	25	420,00 ZP
33	x	95	x	6	S	25	470,00 ZP
36	x	100	x	6	S	25	520,00 ZP
39	x	110	x	8	S	25	920,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00436.020	160

436 Steel hot dip galvanized



Square washers, especially for wood constructions

Dimensions ➔ TI-86 Corrosion protection ➔ TI-231

Stainless ➔ pg. 467

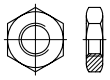
RoHS ✓ | REACh SVHC free

inside ∅ x outside dimension x thickness

11	x	30	x	3	S	100	28,00 HDG
13,5	x	40	x	4	S	100	60,00 HDG
17,5	x	50	x	5	S	50	113,00 HDG
22	x	60	x	5	S	50	164,00 HDG
24	x	70	x	6	S	50	310,00 HDG
26	x	80	x	6	S	50	410,00 HDG
30	x	90	x	6	S	25	510,00 HDG
33	x	95	x	6	S	25	560,00 HDG
36	x	100	x	6	S	25	620,00 HDG
39	x	110	x	8	S	25	1060,00 HDG

DIN	00439.402	170

439 04 type B



Hexagon thin nuts, B = with chamfers

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 467
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

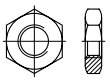
RoHS ✓

BM 2	S	1000	3,90
BM 2	K	100	7,70
BM 2,5	S	1000	3,90
BM 2,5	K	100	7,70
BM 3	S	1000	3,10
BM 3	K	100	6,60
BM 3,5	K	100	7,00
BM 4	S	1000	3,45
BM 4	K	100	7,20
BM 5	S	1000	3,95
BM 5	K	100	7,60
BM 6	S	1000	4,40
BM 6	K	100	7,90
BM 8	S	1000	8,50
BM 8	K	100	11,90
BM 10	S	500	16,40
BM 10	K	100	19,40
BM 12	S	100	29,50
BM 14	S	100	36,00
BM 16	S	100	39,00

Dimensions	PU Pieces	€/100/Mat.
BM 18	S 100	73,00
BM 20	S 50	86,00
BM 22	S 50	132,00
BM 24	S 50	155,00
BM 27	S 25	295,00
BM 30	S 25	310,00
BM 33	S 10	560,00
BM 36	S 10	660,00
BM 42	S 10	1350,00

DIN	00439.412	170

439 04 type B zinc plated



Hexagon thin nuts, B = with chamfers

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 467
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

RoHS ✓

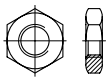
BM 2	S	1000	3,95 ZP
BM 2,5	S	1000	3,95 ZP
BM 3	S	1000	3,15 ZP
BM 3	K	100	6,70 ZP
BM 4	S	1000	3,70 ZP
BM 4	K	100	7,30 ZP
BM 5	S	1000	4,30 ZP
BM 5	K	100	7,80 ZP
BM 6	S	1000	4,95 ZP
BM 6	K	100	8,50 ZP
BM 8	S	1000	9,60 ZP
BM 8	K	100	13,20 ZP
BM 10	S	500	19,00 ZP
BM 10	K	100	22,20 ZP
BM 12	S	100	33,50 ZP
BM 14	S	100	41,00 ZP
BM 16	S	100	44,50 ZP
BM 20	S	50	96,00 ZP
BM 24	S	50	174,00 ZP
BM 30	S	25	345,00 ZP
BM 33	S	10	630,00 ZP
BM 36	S	10	730,00 ZP
BM 42	S	10	1420,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 00439.304 170

439 04 type B

zinc plated 8 TLP*



Hexagon thin nuts, B = with chamfers

*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 467
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

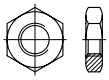
RoHS ✓

BM 3	S	1000	4,25 ZP TLP
BM 4	S	1000	5,10 ZP TLP
BM 5	S	1000	6,00 ZP TLP
BM 6	S	100	6,90 ZP TLP
BM 8	S	1000	13,00 ZP TLP
BM 10	S	500	25,50 ZP TLP
BM 12	S	100	45,00 ZP TLP
BM 16	S	100	60,00 ZP TLP

DIN 00439.352 1510

439 04 type B

flZn/TL480h



Hexagon thin nuts, B = with chamfers

TL = lubricant in topcoat with µ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 467
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

RoHS ✓

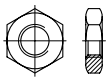
BM 6	S	1000	6,50 flZn
BM 8	S	1000	12,50 flZn
BM 10	S	500	24,90 flZn
BM 12	S	100	44,00 flZn
BM 16	S	100	58,00 flZn
BM 20	S	50	125,00 flZn
BM 24	S	50	226,00 flZn
BM 30	S	25	510,00 flZn

Dimensions | PU Pieces | €/100/Mat.

DIN 00439.422 170

439 04 type B

hot dip galvanized*



Hexagon thin nuts, B = with chamfers

*thread tolerance 6H

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-231
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 467
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

BM 8	S	100	48,50 HDG
BM 10	S	100	48,50 HDG
BM 12	S	100	48,50 HDG
BM 16	S	100	56,00 HDG
BM 20	S	50	118,00 HDG
BM 24	S	50	210,00 HDG
BM 27	S	25	380,00 HDG
BM 30	S	25	420,00 HDG

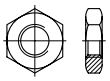
Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions | PU Pieces | €/100/Mat.

DIN 00439.407 170

439 04 type B – fine



Hexagon thin nuts with metric fine pitch thread, B = with chamfers

Dimensions ➔ TI-61
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 467

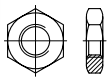
DIN 439 fine thread ➔ replaced by ISO 8676

RoHS ✓

BM 8	x	1	S	100	13,70
BM 10	x	1	S	100	21,10
BM 10	x	1,25	S	100	21,10
BM 12	x	1	S	100	33,00
BM 12	x	1,25	S	100	33,00
BM 12	x	1,5	S	100	33,00
BM 14	x	1,5	S	100	38,50
BM 16	x	1,5	S	50	45,50
BM 18	x	1,5	S	50	84,00
BM 20	x	1,5	S	50	95,00
BM 20	x	2	S	50	95,00
BM 24	x	1,5	S	25	190,00
BM 24	x	2	S	25	190,00
BM 27	x	1,5	S	25	315,00
BM 30	x	1,5	S	25	330,00
BM 30	x	2	S	25	330,00
BM 33	x	1,5	S	10	590,00
BM 36	x	1,5	S	10	690,00
BM 36	x	3	S	10	690,00
BM 39	x	1,5	S	10	1060,00
BM 39	x	3	S	10	1060,00
BM 42	x	1,5	S	10	1380,00
BM 42	x	2	S	10	1380,00
BM 42	x	3	S	10	1380,00
BM 48	x	1,5	S	10	2440,00
BM 48	x	2	S	10	2550,00
BM 48	x	3	S	10	2440,00

Dimensions | PU Pieces | €/100/Mat.

DIN	00439.417	170
439	**04 zinc plated**	**type B – fine**



Hexagon thin nuts with metric fine pitch thread, B = with chamfers

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 467

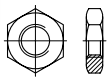
DIN 439 fine thread ➔ replaced by ISO 8676

RoHS ✓

BM 8	x 1	S	100	16,00 ZP
BM 10	x 1	S	100	23,60 ZP
BM 10	x 1,25	S	100	23,60 ZP
BM 12	x 1	S	100	37,00 ZP
BM 12	x 1,25	S	100	37,00 ZP
BM 12	x 1,5	S	100	37,00 ZP
BM 14	x 1,5	S	100	42,50 ZP
BM 16	x 1	S	100	55,00 ZP
BM 16	x 1,5	S	50	51,00 ZP
BM 18	x 1,5	S	50	91,00 ZP
BM 20	x 1,5	S	50	106,00 ZP
BM 22	x 1,5	S	50	170,00 ZP
BM 24	x 1,5	S	25	207,00 ZP
BM 24	x 2	S	25	230,00 ZP
BM 27	x 1,5	S	25	425,00 ZP
BM 30	x 1,5	S	25	370,00 ZP
BM 30	x 2	S	25	370,00 ZP
BM 33	x 1,5	S	50	710,00 ZP
BM 35	x 1,5	S	50	1520,00 ZP
BM 36	x 1,5	S	10	780,00 ZP
BM 36	x 2	S	10	780,00 ZP
BM 36	x 3	S	10	780,00 ZP
BM 39	x 2	S	10	1180,00 ZP
BM 42	x 1,5	S	10	1530,00 ZP
BM 42	x 2	S	10	1530,00 ZP
BM 42	x 3	S	10	1530,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN	00439.415	170
439	**04 zinc plated**	**type B – left**



Hexagon thin nuts with metric left hand thread, B = with chamfers

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

DIN 439 ➔ replaced by ISO 4035

RoHS ✓

BM 6	S	100	36,50 ZP
BM 8	S	100	18,20 ZP
BM 10	S	100	36,50 ZP
BM 12	S	100	73,00 ZP
BM 16	S	50	115,00 ZP
BM 20	S	50	218,00 ZP
BM 24	S	25	425,00 ZP
BM 30	S	25	730,00 ZP
BM 36	S	10	1940,00 ZP
BM 42	S	10	2180,00 ZP

DIN	00440.008	170
440	**Steel 100 HV**	**type R**



Washers, R = with round hole

especially for wood constructions

Dimensions ➔ TI-84
Standard conversion ➔ TI-84

Stainless ➔ pg. 467

DIN 440 type R ➔ replaced by ISO 7094

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

R 5,5	x	18	x	2	S	100	6,20
R 6,6	x	22	x	2	S	100	6,80
R 9	x	28	x	3	S	100	11,40
R 11	x	34	x	3	S	100	16,00
R 13,5	x	44	x	4	S	100	28,50
R 17,5	x	56	x	5	S	50	49,50
R 22	x	72	x	6	S	50	83,00
R 24	x	80	x	6	S	50	126,00
R 26	x	85	x	6	S	50	164,00
R 30	x	98	x	6	S	25	215,00
R 33	x	105	x	6	S	25	250,00
R 36	x	112	x	6	S	25	285,00
R 39	x	125	x	8	S	25	460,00
R 42	x	140	x	8	S	25	910,00
R 45	x	150	x	8	S	10	970,00

Dimensions | PU Pieces | €/100/Mat.

DIN	00440.018	170
440	**Steel 100 HV zinc plated**	**type R**



Washers, R = with round hole

especially for wood constructions

Dimensions ➔ TI-84
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-84

Stainless ➔ pg. 467

DIN 440 type R ➔ replaced by ISO 7094

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

R 5,5	x	18	x	2	S	100	7,20 ZP
R 6,6	x	22	x	2	S	100	8,30 ZP
R 9	x	28	x	3	S	100	14,70 ZP
R 11	x	34	x	3	S	100	20,70 ZP
R 13,5	x	44	x	4	S	100	39,50 ZP
R 17,5	x	56	x	5	S	50	73,00 ZP
R 22	x	72	x	6	S	50	142,00 ZP
R 24	x	80	x	6	S	50	181,00 ZP
R 26	x	85	x	6	S	50	224,00 ZP
R 30	x	98	x	6	S	25	300,00 ZP
R 33	x	105	x	6	S	25	345,00 ZP
R 36	x	112	x	6	S	25	395,00 ZP
R 39	x	125	x	8	S	25	630,00 ZP
R 42	x	140	x	8	S	25	1110,00 ZP

DIN	00440.028	170
440	**Steel 100 HV hot dip galvanized**	**type R**



Washers, R = with round hole

especially for wood constructions

Dimensions ➔ TI-84
Corrosion protection ➔ TI-231
Standard conversion ➔ TI-84

Stainless ➔ pg. 467

DIN 440 type R ➔ replaced by ISO 7094

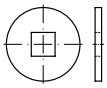
RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

R 6,6	x	22	x	2	S	100	29,50 HDG
R 9	x	28	x	3	S	100	39,50 HDG
R 11	x	34	x	3	S	100	39,50 HDG
R 13,5	x	44	x	4	S	100	48,00 HDG
R 17,5	x	56	x	5	S	50	89,00 HDG
R 22	x	72	x	6	S	50	143,00 HDG
R 26	x	85	x	6	S	50	295,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
DIN	00440.004		170

440 Steel 100 HV type V



Washers, V = with square hole

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

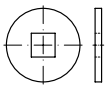
RoHS ✓ REACh SVHC free

inside dimension x outside ∅ x thickness

V 6,6	x	22	x	2	S	100	6,80
V 9	x	28	x	3	S	100	11,40
V 11	x	34	x	3	S	100	16,00
V 14	x	44	x	4	S	100	28,50
V 18	x	56	x	5	S	100	49,50

DIN	00440.014	170

440 Steel 100 HV zinc plated type V



Washers, V = with square hole

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

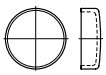
RoHS ✓ REACh SVHC free

inside dimension x outside ∅ x thickness

V 6,6	x	22	x	2	S	100	10,60 ZP
V 9	x	28	x	3	S	100	15,20 ZP
V 11	x	34	x	3	S	100	19,80 ZP
V 14	x	44	x	4	S	100	38,00 ZP
V 18	x	56	x	5	S	100	68,00 ZP
V 22	x	72	x	6	S	50	101,00 ZP

DIN	00443.000	170

443 Steel



Sealing push-in caps

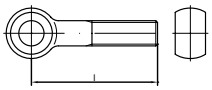
Dimensions ➔ TI-112 REACH ➔ TI-262

RoHS ✓

8	S	100	23,90
10	S	100	27,00
12	S	100	31,50
14	S	100	34,50
16	S	100	38,50
18	S	100	43,00
20	S	100	46,00
22	S	100	60,00
25	S	100	67,00
28	S	100	74,00
30	S	50	86,00
32	S	50	94,00
36	S	50	135,00
38	S	50	151,00
40	S	25	161,00
42	S	25	181,00
45	S	25	194,00
50	S	25	222,00
56	S	10	330,00

DIN	00444.402	180

444 4.6 type B



Eye bolts, B = product grade B (mg)

Dimensions ➔ TI-30 REACH ➔ TI-262
Material properties ➔ TI-232

Stainless ➔ pg. 468
Brass ➔ pg. 619

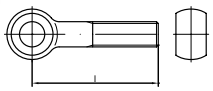
RoHS ✓

thread M x length l

BM 5	x	25	S	50	325,00
BM 5	x	30	S	50	325,00
BM 5	x	35	S	50	295,00
BM 5	x	40	S	25	425,00
BM 6	x	25	S	50	325,00
BM 6	x	30	S	50	325,00
BM 6	x	35	S	50	295,00
BM 6	x	40	S	50	295,00
BM 6	x	45	S	25	325,00
BM 6	x	50	S	25	325,00
BM 6	x	55	S	25	340,00
BM 6	x	60	S	25	340,00
BM 6	x	65	S	25	410,00
BM 6	x	70	S	25	410,00
BM 6	x	75	S	25	470,00
BM 6	x	80	S	25	470,00
BM 8	x	25	S	50	360,00
BM 8	x	30	S	50	360,00
BM 8	x	35	S	50	370,00
BM 8	x	40	S	25	380,00
BM 8	x	45	S	25	385,00
BM 8	x	50	S	25	385,00
BM 8	x	55	S	25	390,00
BM 8	x	60	S	25	390,00
BM 8	x	65	S	25	410,00
BM 8	x	70	S	25	410,00
BM 8	x	75	S	25	420,00
BM 8	x	80	S	25	420,00
BM 8	x	90	S	25	430,00
BM 8	x	100	S	25	440,00
BM 8	x	110	S	25	510,00
BM 8	x	120	S	25	540,00
BM 8	x	130	S	25	580,00
BM 8	x	140	S	25	610,00
BM 10	x	30	S	50	410,00
BM 10	x	35	S	50	420,00
BM 10	x	40	S	25	425,00
BM 10	x	45	S	25	440,00
BM 10	x	50	S	25	440,00
BM 10	x	55	S	25	455,00
BM 10	x	60	S	25	455,00
BM 10	x	65	S	25	470,00
BM 10	x	70	S	25	470,00
BM 10	x	75	S	25	475,00
BM 10	x	80	S	25	475,00
BM 10	x	90	S	25	495,00
BM 10	x	100	S	25	510,00
BM 10	x	110	S	25	530,00
BM 10	x	120	S	10	580,00
BM 10	x	130	S	10	610,00
BM 10	x	140	S	10	660,00
BM 12	x	30	S	25	440,00
BM 12	x	40	S	25	455,00
BM 12	x	45	S	25	475,00
BM 12	x	50	S	10	510,00
BM 12	x	55	S	10	530,00
BM 12	x	60	S	10	530,00
BM 12	x	65	S	10	540,00
BM 12	x	70	S	10	540,00
BM 12	x	75	S	10	540,00
BM 12	x	80	S	10	540,00
BM 12	x	90	S	10	570,00
BM 12	x	100	S	10	620,00
BM 12	x	110	S	10	650,00
BM 12	x	120	S	10	680,00
BM 12	x	130	S	10	740,00
BM 12	x	140	S	10	790,00
BM 12	x	150	S	10	860,00
BM 12	x	160	S	10	970,00
BM 12	x	180	S	10	1030,00
BM 12	x	200	S	10	1080,00
BM 16	x	40	S	10	780,00
BM 16	x	50	S	10	780,00
BM 16	x	60	S	10	780,00
BM 16	x	65	S	10	820,00
BM 16	x	70	S	10	820,00
BM 16	x	75	S	10	830,00
BM 16	x	80	S	10	830,00
BM 16	x	90	S	10	850,00
BM 16	x	100	S	10	850,00
BM 16	x	110	S	10	890,00
BM 16	x	120	S	10	910,00
BM 16	x	130	S	10	940,00
BM 16	x	140	S	10	960,00
BM 16	x	150	S	10	990,00
BM 16	x	160	S	10	1020,00
BM 16	x	180	S	10	1080,00
BM 16	x	200	S	10	1140,00
BM 20	x	80	S	10	1120,00
BM 20	x	90	S	10	1170,00
BM 20	x	100	S	1	1230,00
BM 20	x	110	S	1	1260,00
BM 20	x	120	S	1	1320,00
BM 20	x	130	S	1	1360,00
BM 20	x	140	S	1	1470,00
BM 20	x	150	S	1	1570,00
BM 20	x	160	S	1	1660,00
BM 20	x	170	S	1	1820,00
BM 20	x	180	S	1	1970,00
BM 20	x	200	S	1	2220,00
BM 20	x	260	S	1	2800,00
BM 24	x	80	S	1	1550,00
BM 24	x	90	S	1	1630,00
BM 24	x	100	S	1	1700,00
BM 24	x	110	S	1	1770,00
BM 24	x	120	S	1	1860,00
BM 24	x	130	S	1	1950,00
BM 24	x	140	S	1	2050,00
BM 24	x	150	S	1	2160,00
BM 24	x	160	S	1	2240,00
BM 24	x	170	S	1	2360,00

Dimensions			PU	Pieces	€/100/Mat.
BM 24	x	180	S	1	2500,00
BM 24	x	200	S	1	2750,00
BM 30	x	100	S	1	3550,00
BM 30	x	120	S	1	3650,00
BM 30	x	130	S	1	3700,00
BM 30	x	140	S	1	3850,00
BM 30	x	150	S	1	3900,00
BM 30	x	160	S	1	4100,00
BM 30	x	180	S	1	4400,00
BM 30	x	200	S	1	4600,00

DIN	00444.412	180
444	**4.6** zinc plated	**type B**



Eye bolts, B = product grade B (mg)

Dimensions ➔ TI-30
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 468
Brass ➔ pg. 619

RoHS ✓

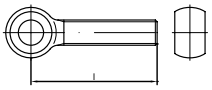
thread M x length l

BM 5	x	25	S	50	330,00 ZP
BM 5	x	30	S	50	330,00 ZP
BM 5	x	35	S	50	315,00 ZP
BM 5	x	40	S	50	305,00 ZP
BM 6	x	20	S	50	325,00 ZP
BM 6	x	25	S	50	330,00 ZP
BM 6	x	30	S	50	330,00 ZP
BM 6	x	35	S	50	335,00 ZP
BM 6	x	40	S	50	305,00 ZP
BM 6	x	45	S	25	330,00 ZP
BM 6	x	50	S	25	330,00 ZP
BM 6	x	55	S	25	340,00 ZP
BM 6	x	60	S	25	345,00 ZP
BM 6	x	65	S	25	415,00 ZP
BM 6	x	70	S	25	415,00 ZP
BM 6	x	75	S	25	455,00 ZP
BM 6	x	80	S	25	485,00 ZP
BM 8	x	25	S	50	410,00 ZP
BM 8	x	30	S	50	410,00 ZP
BM 8	x	35	S	50	425,00 ZP
BM 8	x	40	S	25	390,00 ZP
BM 8	x	45	S	25	420,00 ZP
BM 8	x	50	S	25	395,00 ZP
BM 8	x	55	S	25	520,00 ZP
BM 8	x	60	S	25	415,00 ZP
BM 8	x	65	S	50	510,00 ZP
BM 8	x	70	S	25	425,00 ZP
BM 8	x	75	S	25	580,00 ZP
BM 8	x	80	S	25	440,00 ZP
BM 8	x	90	S	25	450,00 ZP
BM 8	x	100	S	25	470,00 ZP
BM 8	x	110	S	25	540,00 ZP
BM 8	x	120	S	25	570,00 ZP
BM 8	x	130	S	25	630,00 ZP
BM 8	x	140	S	25	670,00 ZP
BM 10	x	30	S	50	420,00 ZP
BM 10	x	35	S	50	385,00 ZP
BM 10	x	40	S	25	440,00 ZP
BM 10	x	45	S	25	455,00 ZP
BM 10	x	50	S	25	460,00 ZP
BM 10	x	55	S	25	475,00 ZP
BM 10	x	60	S	25	475,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
BM 10	x	65	S	25	495,00 ZP
BM 10	x	70	S	25	495,00 ZP
BM 10	x	75	S	25	495,00 ZP
BM 10	x	80	S	25	510,00 ZP
BM 10	x	90	S	25	530,00 ZP
BM 10	x	100	S	25	540,00 ZP
BM 10	x	110	S	25	660,00 ZP
BM 10	x	120	S	10	710,00 ZP
BM 10	x	130	S	10	760,00 ZP
BM 10	x	140	S	10	820,00 ZP
BM 12	x	30	S	25	455,00 ZP
BM 12	x	40	S	25	480,00 ZP
BM 12	x	45	S	25	510,00 ZP
BM 12	x	50	S	10	540,00 ZP
BM 12	x	55	S	10	560,00 ZP
BM 12	x	60	S	10	560,00 ZP
BM 12	x	65	S	10	570,00 ZP
BM 12	x	70	S	10	580,00 ZP
BM 12	x	75	S	10	610,00 ZP
BM 12	x	80	S	10	590,00 ZP
BM 12	x	90	S	10	630,00 ZP
BM 12	x	100	S	10	670,00 ZP
BM 12	x	110	S	10	690,00 ZP
BM 12	x	120	S	10	760,00 ZP
BM 12	x	130	S	10	820,00 ZP
BM 12	x	140	S	10	880,00 ZP
BM 12	x	150	S	10	950,00 ZP
BM 12	x	160	S	10	1060,00 ZP
BM 12	x	180	S	10	1150,00 ZP
BM 12	x	200	S	10	1280,00 ZP
BM 16	x	40	S	25	730,00 ZP
BM 16	x	50	S	10	790,00 ZP
BM 16	x	60	S	10	850,00 ZP
BM 16	x	65	S	10	880,00 ZP
BM 16	x	70	S	10	880,00 ZP
BM 16	x	75	S	10	890,00 ZP
BM 16	x	80	S	10	910,00 ZP
BM 16	x	90	S	10	950,00 ZP
BM 16	x	100	S	10	950,00 ZP
BM 16	x	110	S	10	1010,00 ZP
BM 16	x	120	S	10	1030,00 ZP
BM 16	x	130	S	10	1020,00 ZP
BM 16	x	140	S	10	1110,00 ZP
BM 16	x	150	S	10	1140,00 ZP
BM 16	x	160	S	10	1170,00 ZP
BM 16	x	180	S	10	1240,00 ZP
BM 16	x	200	S	10	1320,00 ZP
BM 20	x	80	S	10	1260,00 ZP
BM 20	x	90	S	1	1280,00 ZP
BM 20	x	100	S	1	1380,00 ZP
BM 20	x	110	S	1	1440,00 ZP
BM 20	x	120	S	1	1520,00 ZP
BM 20	x	130	S	1	1570,00 ZP
BM 20	x	140	S	1	1700,00 ZP
BM 20	x	150	S	1	1710,00 ZP
BM 20	x	160	S	1	1920,00 ZP
BM 20	x	170	S	1	2060,00 ZP
BM 20	x	180	S	1	2240,00 ZP
BM 20	x	200	S	1	2550,00 ZP
BM 20	x	220	S	1	2800,00 ZP
BM 20	x	240	S	1	3100,00 ZP
BM 20	x	260	S	1	3400,00 ZP
BM 20	x	280	S	1	3700,00 ZP
BM 20	x	300	S	1	1970,00 ZP
BM 24	x	80	S	1	1920,00 ZP
BM 24	x	90	S	1	2000,00 ZP
BM 24	x	100	S	1	2060,00 ZP
BM 24	x	110	S	1	2130,00 ZP
BM 24	x	120	S	1	2220,00 ZP
BM 24	x	130	S	1	2320,00 ZP
BM 24	x	140	S	1	2410,00 ZP
BM 24	x	150	S	1	2550,00 ZP
BM 24	x	160	S	1	2700,00 ZP
BM 24	x	170	S	1	2800,00 ZP
BM 24	x	180	S	1	2900,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
BM 24	x	200	S	1	3150,00 ZP
BM 30	x	120	S	1	4750,00 ZP
BM 30	x	130	S	1	4850,00 ZP
BM 30	x	140	S	1	5000,00 ZP
BM 30	x	150	S	1	5100,00 ZP
BM 30	x	160	S	1	5300,00 ZP
BM 30	x	180	S	1	5700,00 ZP
BM 30	x	200	S	1	6000,00 ZP

DIN	00444.414	180
444	**4.6** zinc plated	**type LB**



Eye bolts, L = long thread, B = product grade B (mg)

Dimensions ➔ TI-30
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
REACH ➔ TI-262

RoHS ✓

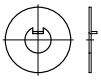
thread M x length l

LBM 8	x	60	S	25	495,00 ZP
LBM 8	x	70	S	25	520,00 ZP
LBM 8	x	80	S	25	540,00 ZP
LBM 8	x	100	S	25	570,00 ZP
LBM 10	x	50	S	25	480,00 ZP
LBM 10	x	60	S	25	520,00 ZP
LBM 10	x	70	S	25	590,00 ZP
LBM 10	x	80	S	25	620,00 ZP
LBM 10	x	100	S	25	660,00 ZP
LBM 12	x	80	S	10	720,00 ZP
LBM 12	x	90	S	10	780,00 ZP
LBM 12	x	100	S	10	820,00 ZP
LBM 12	x	120	S	10	940,00 ZP
LBM 12	x	140	S	10	1070,00 ZP
LBM 16	x	80	S	10	1110,00 ZP
LBM 16	x	100	S	10	1150,00 ZP
LBM 16	x	120	S	10	1240,00 ZP
LBM 16	x	140	S	10	1310,00 ZP
LBM 16	x	150	S	10	1470,00 ZP
LBM 16	x	160	S	10	1570,00 ZP
LBM 16	x	180	S	10	1760,00 ZP
LBM 16	x	200	S	10	1970,00 ZP
LBM 20	x	100	S	10	1660,00 ZP
LBM 20	x	120	S	1	1810,00 ZP
LBM 20	x	130	S	1	1890,00 ZP
LBM 20	x	140	S	1	2040,00 ZP
LBM 20	x	150	S	1	2070,00 ZP
LBM 20	x	160	S	1	2300,00 ZP
LBM 24	x	80	S	1	2490,00 ZP
LBM 24	x	90	S	1	2650,00 ZP
LBM 24	x	100	S	1	2700,00 ZP
LBM 24	x	110	S	1	2800,00 ZP
LBM 24	x	120	S	1	2900,00 ZP
LBM 24	x	130	S	1	3050,00 ZP
LBM 24	x	140	S	1	3150,00 ZP
LBM 24	x	150	S	1	3300,00 ZP
LBM 24	x	160	S	1	3550,00 ZP
LBM 24	x	170	S	1	3650,00 ZP
LBM 24	x	180	S	1	3750,00 ZP
LBM 24	x	200	S	1	3950,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00462.000	180

462

Steel



Internal tab washers

(for groove nuts DIN 1804)

Dimensions ➔ TI-90

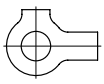
RoHS ✓ | REACh SVHC free

8	S	100	95,00
10	S	100	101,00
14	S	100	112,00
16	S	50	120,00
18	S	50	126,00
20	S	50	137,00
22	S	50	143,00
24	S	50	148,00
28	S	50	160,00
30	S	50	160,00
32	S	50	174,00
35	S	25	205,00
38	S	25	221,00
40	S	25	235,00
42	S	25	235,00
45	S	25	255,00
48	S	25	260,00
50	S	25	260,00
52	S	25	290,00
55	S	25	290,00
58	S	10	345,00
60	S	10	345,00
62	S	10	380,00
65	S	10	380,00
70	S	10	415,00
72	S	10	510,00
75	S	10	510,00
80	S	10	580,00
85	S	10	650,00
95	S	10	910,00
100	S	10	1070,00

~DIN	00463.000	180

463

Steel



Washers with 2 taps

Caution!
Not suitable for high-tensile screwed fastenings.

Dimensions ➔ TI-91

Stainless ➔ pg. 469
Brass ➔ pg. 619

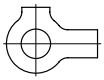
RoHS ✓ | REACh SVHC free

3,2	K	100	13,80
5,3	S	1000	11,30
5,3	K	100	15,40
6,4	S	1000	12,60
6,4	K	100	17,10
8,4	S	1000	17,00
8,4	K	100	21,70
10,5	S	1000	19,30
10,5	K	100	24,40
13	S	500	23,40
13	K	100	29,50
15	K	100	30,50
17	S	500	34,00
17	K	100	41,00
19	K	100	42,00
21	S	250	38,50
21	K	100	44,50
23	S	100	63,00
25	S	100	67,00
28	S	50	134,00
31	S	50	146,00
34	S	50	161,00
37	S	50	182,00
40	S	25	216,00
43	S	25	223,00
50	S	25	295,00
54	S	25	340,00

~DIN	00463.010	180

463

Steel zinc plated



Washers with 2 taps

Caution!
Not suitable for high-tensile screwed fastenings.

Dimensions ➔ TI-91

Corrosion protection ➔ TI-228

Stainless ➔ pg. 469
Brass ➔ pg. 619

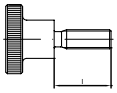
RoHS ✓ | REACh SVHC free

3,2	K	100	27,50 ZP
4,3	K	100	14,80 ZP
5,3	K	100	15,70 ZP
6,4	S	1000	12,90 ZP
6,4	K	100	17,20 ZP
8,4	S	1000	17,40 ZP
8,4	K	100	22,30 ZP
10,5	S	1000	20,00 ZP
10,5	K	100	25,50 ZP
13	S	500	24,90 ZP
13	K	100	31,00 ZP
15	K	100	32,50 ZP
17	S	500	36,50 ZP
17	K	100	42,50 ZP
19	K	100	44,50 ZP
21	S	250	41,50 ZP
21	K	100	47,50 ZP
23	S	100	67,00 ZP
25	S	100	72,00 ZP
28	S	50	142,00 ZP
31	S	50	157,00 ZP
34	S	50	174,00 ZP
37	S	50	195,00 ZP
40	S	25	229,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00464.500	190

464

Steel



Knurled thumb screws, high type

Dimensions ➔ TI-30

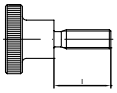
REACH ➔ TI-262

Stainless ➔ pg. 469
Brass ➔ pg. 619

RoHS ✓

thread M x length l					
M 3	x	5	S	50	76,00
M 3	x	6	S	50	78,00
M 3	x	8	S	50	78,00
M 3	x	10	S	50	79,00
M 3	x	12	S	50	85,00
M 3	x	16	S	50	92,00
M 4	x	5	S	50	101,00
M 4	x	6	S	50	105,00
M 4	x	8	S	50	108,00
M 4	x	10	S	50	112,00
M 4	x	12	S	50	115,00
M 4	x	16	S	50	121,00
M 4	x	18	S	50	151,00
M 4	x	20	S	50	136,00
M 4	x	25	S	50	137,00
M 4	x	30	S	50	152,00
M 5	x	8	S	50	125,00
M 5	x	10	S	50	128,00
M 5	x	12	S	50	132,00
M 5	x	16	S	50	141,00
M 5	x	20	S	50	153,00
M 5	x	25	S	25	165,00
M 5	x	30	S	25	183,00
M 5	x	40	S	25	207,00
M 6	x	8	S	25	165,00
M 6	x	10	S	25	170,00
M 6	x	12	S	25	175,00
M 6	x	16	S	25	184,00
M 6	x	20	S	25	201,00
M 6	x	25	S	25	216,00
M 6	x	30	S	25	230,00
M 6	x	35	S	25	244,00
M 6	x	40	S	25	265,00
M 8	x	10	S	25	305,00
M 8	x	12	S	25	310,00
M 8	x	16	S	25	325,00
M 8	x	20	S	25	345,00
M 8	x	25	S	25	380,00
M 8	x	30	S	10	420,00
M 8	x	35	S	10	445,00
M 8	x	40	S	10	485,00
M 10	x	20	S	10	520,00
M 10	x	25	S	10	560,00
M 10	x	30	S	10	600,00
M 10	x	40	S	10	680,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00464.510	190
464	**Steel zinc plated**	



Knurled thumb screws, high type

Dimensions ➔ TI-30 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 469
Brass ➔ pg. 619

RoHS ✓

thread M x length l					
M 3	x	6	S	50	91,00 ZP
M 3	x	8	S	50	97,00 ZP
M 3	x	10	S	50	105,00 ZP
M 3	x	16	S	50	112,00 ZP
M 4	x	6	S	50	121,00 ZP
M 4	x	8	S	50	128,00 ZP
M 4	x	10	S	50	138,00 ZP
M 4	x	12	S	50	146,00 ZP
M 4	x	16	S	50	153,00 ZP
M 4	x	20	S	50	174,00 ZP
M 5	x	8	S	50	138,00 ZP
M 5	x	10	S	50	153,00 ZP
M 5	x	12	S	50	164,00 ZP
M 5	x	16	S	50	174,00 ZP
M 5	x	20	S	50	181,00 ZP
M 5	x	25	S	25	193,00 ZP
M 5	x	30	S	25	211,00 ZP
M 5	x	40	S	25	236,00 ZP
M 6	x	10	S	25	227,00 ZP
M 6	x	12	S	25	235,00 ZP
M 6	x	16	S	25	250,00 ZP
M 6	x	20	S	25	280,00 ZP
M 6	x	25	S	25	335,00 ZP
M 6	x	30	S	25	365,00 ZP
M 6	x	35	S	25	390,00 ZP
M 6	x	40	S	25	400,00 ZP
M 8	x	12	S	25	345,00 ZP
M 8	x	16	S	25	365,00 ZP
M 8	x	20	S	25	380,00 ZP
M 8	x	25	S	25	690,00 ZP
M 10	x	25	S	10	600,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00466.500	190
466	**5**	



Knurled nuts, high type

Dimensions ➔ TI-72 REACH ➔ TI-262
Material properties ➔ TI-233

Stainless ➔ pg. 469
Brass ➔ pg. 620

RoHS ✓

M 3	S	100	29,00
M 4	S	100	44,50
M 5	S	100	66,00
M 6	S	50	106,00
M 8	S	50	195,00
M 10	S	25	335,00

DIN	00466.510	190
466	**5 zinc plated**	



Knurled nuts, high type

Dimensions ➔ TI-72 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 469
Brass ➔ pg. 620

RoHS ✓

M 3	S	100	30,00 ZP
M 4	S	100	47,00 ZP
M 5	S	100	68,00 ZP
M 6	S	50	113,00 ZP
M 8	S	50	210,00 ZP
M 10	S	25	355,00 ZP
M 12	S	25	425,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00467.500	190
467	**5**	



Knurled nuts, low type

Dimensions ➔ TI-72 REACH ➔ TI-262
Material properties ➔ TI-233

Stainless ➔ pg. 469
Brass ➔ pg. 620

RoHS ✓

M 3	S	100	24,10
M 4	S	100	34,00
M 5	S	100	47,00
M 6	S	100	68,00
M 8	S	50	131,00
M 10	S	50	210,00

DIN	00467.510	190
467	**5 zinc plated**	



Knurled nuts, low type

Dimensions ➔ TI-72 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 469
Brass ➔ pg. 620

RoHS ✓

M 3	S	100	24,90 ZP
M 4	S	100	36,50 ZP
M 5	S	100	49,50 ZP
M 6	S	100	74,00 ZP
M 8	S	50	142,00 ZP
M 10	S	50	206,00 ZP
M 12	S	25	305,00 ZP

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

RIO® REYHER INTERNET ORDER

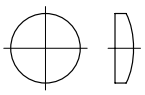
User-friendly webshop for efficient order processing

- 24/7 availability of catalog items – always up to date
- Diverse search functions e.g. feature search, full-text search, product group structures
- Price and availability check

Dimensions	PU	Pieces	€/100/Mat.
DIN	00470.000		190

470

Steel



Sealing discs

Dimensions → TI-112 REACH → TI-262

RoHS ✓

6	K	100	31,50
8	K	100	25,50
10	S	1000	20,60
10	K	100	25,50
12	K	100	26,50
14	S	1000	23,40
14	K	100	29,00
16	S	1000	24,00
16	K	100	29,50
18	K	100	30,00
20	S	500	28,00
20	K	100	33,00
22	K	100	43,00
25	S	500	42,50
25	K	100	49,50
28	S	500	47,00
28	K	100	54,00
30	S	250	53,00
30	K	100	61,00
32	S	100	58,00
34	S	50	68,00
36	S	50	73,00
38	S	50	83,00
40	S	50	86,00
42	S	50	95,00
45	S	50	102,00
48	S	50	112,00
50	S	50	117,00
52	S	50	130,00
56	S	50	142,00
60	S	50	166,00
63	S	25	177,00
80	S	25	310,00
100	S	10	480,00
125	S	10	990,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00471.000		200

471

Spring steel **normal**



Retaining rings for shafts, normal type

Dimensions → TI-91

RoHS ✓ REACh SVHC free

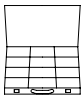
nominal size = for shafts ∅ x thickness

3	x	0,4	S	10000	1,35
3	x	0,4	K	200	4,95
4	x	0,4	S	10000	1,35
4	x	0,4	K	200	4,95
5	x	0,6	S	5000	1,75
5	x	0,6	K	200	5,70
6	x	0,7	S	5000	1,75
6	x	0,7	K	200	5,70
7	x	0,8	S	2500	2,25
7	x	0,8	K	200	6,50
8	x	0,8	S	2000	2,00
8	x	0,8	K	200	6,20
9	x	1	S	2000	3,45
9	x	1	K	200	8,50
10	x	1	S	2000	2,90
10	x	1	K	200	7,80
11	x	1	S	1000	3,85
11	x	1	K	200	9,20
12	x	1	S	1000	3,35
12	x	1	K	200	8,40
13	x	1	S	1000	4,15
13	x	1	K	200	9,60
14	x	1	S	1000	4,10
14	x	1	K	200	9,60
15	x	1	S	1000	4,40
15	x	1	K	200	10,20
16	x	1	S	1000	4,60
16	x	1	K	200	10,50
17	x	1	S	1000	5,20
17	x	1	K	200	11,40
18	x	1,2	S	1000	6,70
18	x	1,2	K	200	13,80
19	x	1,2	S	1000	7,40
19	x	1,2	K	200	15,30
20	x	1,2	S	1000	7,30
20	x	1,2	K	200	14,80
21	x	1,2	S	1000	8,40
21	x	1,2	K	200	16,70
22	x	1,2	S	500	8,60
22	x	1,2	K	200	17,20
23	x	1,2	S	500	11,70
23	x	1,2	K	200	22,20
24	x	1,2	S	500	9,70
24	x	1,2	K	200	19,20
25	x	1,2	S	500	10,60
25	x	1,2	K	200	20,40
26	x	1,2	S	500	13,00
26	x	1,2	K	200	24,50
27	x	1,2	S	500	16,00
27	x	1,2	K	200	30,00
28	x	1,5	S	500	17,20
28	x	1,5	K	100	31,50
29	x	1,5	S	500	20,50
29	x	1,5	K	100	38,00
30	x	1,5	S	250	17,10
30	x	1,5	K	100	31,50
31	x	1,5	S	250	24,50
31	x	1,5	K	100	44,00
32	x	1,5	S	250	19,80
32	x	1,5	K	100	36,50
33	x	1,5	K	100	49,50
34	x	1,5	S	1000	23,40
34	x	1,5	K	100	42,50
35	x	1,5	S	1000	22,30
35	x	1,5	K	100	41,00
36	x	1,75	S	1000	31,50
36	x	1,75	K	100	56,00
37	x	1,75	S	1000	40,00
37	x	1,75	K	100	72,00
38	x	1,75	S	1000	33,50
38	x	1,75	K	100	59,00
39	x	1,75	K	100	76,00
40	x	1,75	S	1000	36,00
40	x	1,75	K	100	63,00
41	x	1,75	S	1000	49,50
41	x	1,75	K	100	73,00
42	x	1,75	S	1000	41,50
42	x	1,75	K	100	73,00
44	x	1,75	S	1000	50,00
44	x	1,75	K	100	73,00
45	x	1,75	S	1000	42,00
45	x	1,75	K	100	73,00
46	x	1,75	S	1000	65,00
46	x	1,75	K	100	88,00
47	x	1,75	S	1000	54,00
47	x	1,75	K	100	78,00
48	x	1,75	S	1000	54,00
48	x	1,75	K	100	79,00
50	x	2	S	100	51,00
52	x	2	S	100	63,00
54	x	2	S	100	69,00
55	x	2	S	100	55,00
56	x	2	S	100	78,00
57	x	2	S	100	74,00
58	x	2	S	100	74,00
60	x	2	S	100	63,00
62	x	2	S	100	76,00
63	x	2	S	100	86,00
65	x	2,5	S	50	89,00
67	x	2,5	S	50	111,00
68	x	2,5	S	50	111,00
70	x	2,5	S	50	95,00
72	x	2,5	S	50	128,00
75	x	2,5	S	50	109,00
77	x	2,5	S	50	132,00
78	x	2,5	S	50	132,00
80	x	2,5	S	50	113,00
82	x	2,5	S	50	137,00
85	x	3	S	50	152,00
87	x	3	S	50	216,00
88	x	3	S	50	190,00
90	x	3	S	50	161,00
92	x	3	S	50	205,00
95	x	3	S	50	176,00
97	x	3	S	50	220,00
98	x	3	S	50	220,00
100	x	3	S	50	180,00
102	x	4	S	1	470,00
105	x	4	S	1	470,00
107	x	4	S	1	560,00
108	x	4	S	1	1370,00
110	x	4	S	1	415,00
112	x	4	S	1	1480,00
115	x	4	S	1	520,00
117	x	4	S	1	1520,00
118	x	4	S	1	1520,00
120	x	4	S	1	445,00
122	x	4	S	1	1610,00
125	x	4	S	1	540,00
127	x	4	S	1	780,00
128	x	4	S	1	1860,00
130	x	4	S	1	590,00
132	x	4	S	1	2000,00
135	x	4	S	1	710,00
137	x	4	S	1	2050,00
138	x	4	S	1	2050,00
140	x	4	S	1	690,00
145	x	4	S	1	740,00
147	x	4	S	1	800,00
148	x	4	S	1	2220,00
150	x	4	S	1	680,00
155	x	4	S	1	850,00
160	x	4	S	1	800,00
165	x	4	S	1	970,00
168	x	4	S	1	1990,00
170	x	4	S	1	1200,00
175	x	4	S	1	1380,00
180	x	4	S	1	1260,00
185	x	4	S	1	1520,00
190	x	4	S	1	1490,00
195	x	4	S	1	1610,00
200	x	4	S	1	1430,00

Dimensions			PU	Pieces	€/100/Mat.
210	x	5	S	1	4600,00
215	x	5	S	1	5300,00
220	x	5	S	1	4450,00
230	x	5	S	1	5200,00
240	x	5	S	1	5300,00
250	x	5	S	1	5600,00
255	x	5	S	1	6900,00
260	x	5	S	1	6000,00
270	x	5	S	1	6300,00
280	x	5	S	1	6600,00
290	x	5	S	1	7700,00
300	x	5	S	1	6900,00
400	x	5	S	1	19400,00

article 82471.000 5001

82471 assortment spring steel DIN 471





Assortment of retaining rings for shafts DIN 471

Content: 12 frequently used dim. for shafts
∅ 8 – 30, approx. 925 pieces, normal type (metal box)

Your own selection on request

RoHS ✓ REACh SVHC free

DIN 471			S	1	7700,00

DIN 00471.004 200

471 Spring steel heavy



Retaining rings for shafts, heavy type

Dimensions → TI-91

RoHS ✓ REACh SVHC free

nominal size = for shafts ∅ x thickness

15	x	1,5	S	1000	17,20
16	x	1,5	S	1000	16,60
20	x	1,75	S	1000	28,50
22	x	1,75	S	500	32,50
24	x	1,75	S	500	36,00
25	x	2	S	500	39,50
30	x	2	S	250	51,00
35	x	2,5	S	200	99,00
40	x	2,5	S	50	111,00
45	x	2,5	S	50	136,00
50	x	3	S	50	255,00
55	x	3	S	50	270,00
60	x	3	S	50	310,00
65	x	4	S	50	365,00
70	x	4	S	50	224,00
80	x	4	S	50	315,00

DIN 00471.318 200

471 Spring steel zinc flake coated normal



Retaining rings for shafts, normal type

Dimensions → TI-91 Corrosion protection → TI-230

RoHS ✓ REACh SVHC free

nominal size = for shafts ∅ x thickness

10	x	1	S	2000	20,00 flZn
12	x	1	S	1000	26,50 flZn
14	x	1	S	1000	27,50 flZn
15	x	1	S	1000	28,00 flZn
16	x	1	S	1000	29,50 flZn
17	x	1	S	1000	30,50 flZn
20	x	1,2	S	1000	33,50 flZn
25	x	1,2	S	500	36,50 flZn
30	x	1,5	S	250	68,00 flZn
32	x	1,5	S	250	76,00 flZn
35	x	1,5	S	250	79,00 flZn
38	x	1,75	S	100	82,00 flZn
40	x	1,75	S	100	83,00 flZn
42	x	1,75	S	100	96,00 flZn
45	x	1,75	S	100	119,00 flZn
50	x	2	S	100	140,00 flZn
55	x	2	S	100	155,00 flZn
60	x	2	S	100	158,00 flZn
70	x	2,5	S	50	206,00 flZn

DIN 00472.000 200

472 Spring steel normal



Retaining rings for bores, normal type

Dimensions → TI-95

RoHS ✓ REACh SVHC free

nominal size = for bore ∅ x thickness

8	x	0,8	S	2000	2,60
8	x	0,8	K	200	7,20
9	x	0,8	S	2000	2,60
9	x	0,8	K	200	7,20
10	x	1	S	2000	3,30
10	x	1	K	200	8,30
11	x	1	S	2000	3,30
11	x	1	K	200	8,30
12	x	1	S	2000	3,30
12	x	1	K	200	8,30
13	x	1	S	2000	3,75
13	x	1	K	200	9,10
14	x	1	S	2000	3,85
14	x	1	K	200	9,20
15	x	1	S	2000	3,65
15	x	1	K	200	8,80
16	x	1	S	2000	4,10

Dimensions			PU	Pieces	€/100/Mat.
16	x	1	K	200	9,50
17	x	1	S	2000	4,75
17	x	1	K	200	10,70
18	x	1	S	2000	4,70
18	x	1	K	200	10,60
19	x	1	S	2000	4,85
19	x	1	K	200	11,10
20	x	1	S	2000	5,10
20	x	1	K	200	11,30
21	x	1	S	2000	6,00
21	x	1	K	200	12,80
22	x	1	S	2000	5,90
22	x	1	K	200	12,60
23	x	1,2	S	2000	8,80
23	x	1,2	K	200	17,40
24	x	1,2	S	2000	8,20
24	x	1,2	K	200	16,40
25	x	1,2	S	2000	8,50
25	x	1,2	K	200	17,00
26	x	1,2	S	2000	9,10
26	x	1,2	K	200	18,00
27	x	1,2	S	2000	10,30
27	x	1,2	K	200	20,00
28	x	1,2	S	2000	9,50
28	x	1,2	K	200	18,60
29	x	1,2	S	2000	12,50
29	x	1,2	K	200	23,60
30	x	1,2	S	2000	10,70
30	x	1,2	K	200	20,60
31	x	1,2	S	2000	14,00
31	x	1,2	K	200	26,50
32	x	1,2	S	2000	11,30
32	x	1,2	K	200	21,60
33	x	1,2	S	1000	16,90
33	x	1,2	K	100	31,50
34	x	1,5	S	1000	15,90
34	x	1,5	K	100	29,50
35	x	1,5	S	1000	16,90
35	x	1,5	K	100	31,50
36	x	1,5	S	1000	18,60
36	x	1,5	K	100	34,00
37	x	1,5	S	1000	21,70
37	x	1,5	K	100	39,50
38	x	1,5	S	1000	22,10
38	x	1,5	K	100	41,00
39	x	1,5	S	1000	31,50
39	x	1,5	K	100	56,00
40	x	1,75	S	100	29,50
41	x	1,75	S	100	44,00
42	x	1,75	S	100	32,50
44	x	1,75	S	100	44,00
45	x	1,75	S	100	34,00
46	x	1,75	S	100	43,00
47	x	1,75	S	100	36,00
48	x	1,75	S	100	37,00
50	x	2	S	100	39,50
51	x	2	S	100	49,50
52	x	2	S	100	40,00
53	x	2	S	100	57,00
54	x	2	S	100	56,00
55	x	2	S	100	44,50
56	x	2	S	100	57,00
57	x	2	S	100	57,00
58	x	2	S	100	54,00
60	x	2	S	100	51,00
62	x	2	S	100	51,00
62	x	3	S	100	176,00
63	x	2	S	100	68,00
64	x	2	S	100	213,00
65	x	2,5	S	100	79,00
67	x	2,5	S	100	92,00
68	x	2,5	S	100	76,00
70	x	2,5	S	100	89,00
72	x	2,5	S	50	79,00
75	x	2,5	S	50	83,00

Dimensions			PU	Pieces	€/100/Mat.
77	x	2,5	S	50	85,00
78	x	2,5	S	50	103,00
80	x	2,5	S	50	89,00
82	x	2,5	S	50	101,00
85	x	3	S	50	112,00
88	x	3	S	50	141,00
90	x	3	S	50	128,00
92	x	3	S	50	136,00
95	x	3	S	50	141,00
97	x	3	S	50	143,00
98	x	3	S	50	166,00
100	x	3	S	50	147,00
102	x	4	S	1	270,00
105	x	4	S	1	222,00
108	x	4	S	1	265,00
110	x	4	S	1	233,00
112	x	4	S	1	380,00
115	x	4	S	1	275,00
118	x	4	S	1	390,00
120	x	4	S	1	280,00
122	x	4	S	1	290,00
125	x	4	S	1	285,00
128	x	4	S	1	380,00
130	x	4	S	1	315,00
132	x	4	S	1	355,00
135	x	4	S	1	370,00
138	x	4	S	1	530,00
140	x	4	S	1	385,00
142	x	4	S	1	510,00
145	x	4	S	1	425,00
148	x	4	S	1	520,00
150	x	4	S	1	420,00
152	x	4	S	1	590,00
155	x	4	S	1	560,00
160	x	4	S	1	510,00
165	x	4	S	1	620,00
168	x	4	S	1	790,00
170	x	4	S	1	570,00
175	x	4	S	1	790,00
180	x	4	S	1	720,00
185	x	4	S	1	900,00
190	x	4	S	1	840,00
195	x	4	S	1	1000,00
200	x	4	S	1	910,00
205	x	5	S	1	4300,00
210	x	5	S	1	3150,00
215	x	5	S	1	3250,00
220	x	5	S	1	3850,00
225	x	5	S	1	3900,00
230	x	5	S	1	3600,00
240	x	5	S	1	3700,00
245	x	5	S	1	4400,00
250	x	5	S	1	3950,00
255	x	5	S	1	5100,00
260	x	5	S	1	4950,00
265	x	5	S	1	6200,00
270	x	5	S	1	5200,00
275	x	5	S	1	6300,00
280	x	5	S	1	4850,00
285	x	5	S	1	5300,00
290	x	5	S	1	5600,00
295	x	5	S	1	6600,00
300	x	5	S	1	6600,00
310	x	6	S	1	6200,00
320	x	6	S	1	4250,00
340	x	6	S	1	14800,00
360	x	6	S	1	21000,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00472.318		200

472 — Spring steel, normal, zinc flake coated



Retaining rings for bores, normal type

Dimensions ➔ TI-95 Corrosion protection ➔ TI-230

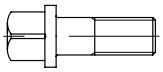
RoHS ✓ REACh SVHC free

nominal size = for bore ∅ x thickness

10	x	1	S	1000	21,80 flZn
12	x	1	S	1000	27,00 flZn
16	x	1	S	1000	30,50 flZn
20	x	1	S	1000	34,00 flZn
25	x	1,2	S	1000	36,50 flZn
30	x	1,2	S	1000	73,00 flZn
35	x	1,5	S	1000	85,00 flZn
40	x	1,75	S	100	97,00 flZn
50	x	2	S	100	146,00 flZn
60	x	2	S	100	170,00 flZn
70	x	2,5	S	50	218,00 flZn

DIN	00478.100	210

478 — 10.9



Square head bolts with collar

Dimensions ➔ TI-30 Material properties ➔ TI-232

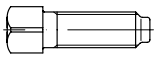
Bolts with wrench sizes acc. to ISO (M16, M20) on request

RoHS ✓ REACh SVHC free

M 8	x	30	S	50	199,00
M 10	x	30	S	50	249,00
M 10	x	40	S	50	265,00
M 10	x	50	S	50	275,00
M 12	x	40	S	25	415,00
M 16	x	60	S	10	670,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00479.800		210

479 — 8.8



Square head bolts with short dog point

Dimensions ➔ TI-30 Material properties ➔ TI-232

Bolts with wrench sizes acc. to ISO (M16, M20) on request

RoHS ✓ REACh SVHC free

M 6	x	16	S	100	41,00
M 6	x	20	S	100	42,00
M 6	x	25	S	100	44,50
M 8	x	20	S	100	58,00
M 8	x	25	S	100	61,00
M 8	x	30	S	100	66,00
M 8	x	40	S	100	84,00
M 8	x	50	S	50	112,00
M 10	x	25	S	50	97,00
M 10	x	30	S	50	107,00
M 10	x	35	S	50	111,00
M 10	x	40	S	50	120,00
M 10	x	50	S	50	147,00
M 10	x	60	S	50	166,00
M 12	x	35	S	25	164,00
M 12	x	40	S	25	176,00
M 12	x	50	S	25	205,00
M 12	x	60	S	25	226,00
M 12	x	80	S	25	260,00
M 16	x	50	S	25	360,00
M 16	x	60	S	10	455,00
M 16	x	70	S	10	480,00
M 16	x	80	S	10	520,00
M 16	x	100	S	10	560,00
M 16	x	120	S	10	650,00
M 20	x	50	S	10	450,00
M 20	x	60	S	10	485,00
M 20	x	70	S	10	590,00
M 20	x	80	S	10	650,00
M 20	x	90	S	10	700,00
M 20	x	100	S	10	790,00
M 20	x	120	S	10	880,00

ROM® REYHER ORDER MANAGEMENT

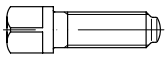
Absolute reliability for Kanban supplies

- Customized Kanban service with combinable modules
- State-of-the-art RFID solutions and barcode-based capture
- Flexible labelling with product images

Dimensions	PU	Pieces	€/100/Mat.
DIN	00480.100		210

480

10.9



Square head bolts with collar and short dog point with rounded end

Dimensions ➔ TI-31 Material properties ➔ TI-232

Bolts with wrench sizes acc. to ISO (M16, M20) on request

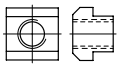
RoHS ✓ REACh SVHC free

M 10	x	50	S	50	275,00
M 10	x	60	S	50	345,00
M 12	x	50	S	25	420,00
M 16	x	50	S	10	730,00
M 16	x	60	S	10	730,00
M 16	x	70	S	10	740,00
M 16	x	80	S	10	770,00
M 20	x	60	S	10	1410,00

DIN	00508.100	210

508

10



T-slot nuts

Dimensions ➔ TI-70 Material properties ➔ TI-233

T-slot screws ➔ DIN 787

RoHS ✓ REACh SVHC free

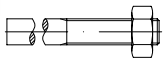
internal thread M x slot width a

M 4	x	5	S	25	385,00
M 5	x	6	S	25	395,00
M 6	x	8	S	25	430,00
M 6	x	10	S	25	445,00
M 8	x	10	S	25	455,00
M 10	x	12	S	10	470,00
M 12	x	14	S	10	530,00
M 14	x	16	S	10	730,00
M 16	x	18	S	10	880,00
M 20	x	22	S	10	1430,00
M 24	x	28	S	10	2750,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00525.000		220

525

Mu 3.6



Studs for welding, Mu = with hexagon nuts

Dimensions ➔ TI-31

RoHS ✓ REACh SVHC free

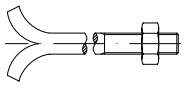
nominal ∅ x length l / ~ thread length

M 6	x	130/ 35	S	100	123,00
M 8	x	140/ 40	S	100	148,00
M 10	x	150/ 45	S	100	232,00
M 12	x	170/ 55	S	50	265,00
M 14	x	180/ 60	S	50	490,00
M 16	x	190/ 65	S	25	500,00
M 20	x	210/ 75	S	25	720,00
M 22	x	220/ 80	S	25	1080,00
M 24	x	230/ 85	S	10	1090,00
M 27	x	250/ 95	S	10	1550,00
M 30	x	270/105	S	10	1990,00
M 36	x	310/125	S	1	3450,00

DIN	00529.013	222

529

Mu steel zinc plated type C



Masonry bolts, C = with split swivels, Mu = with hexagon nut

Dimensions ➔ TI-31 Corrosion protection ➔ TI-228

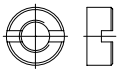
RoHS ✓ REACh SVHC free

CM 8	x	80	S	50	177,00 ZP
CM 8	x	100	S	50	193,00 ZP
CM 8	x	150	S	50	255,00 ZP
CM 10	x	100	S	50	245,00 ZP
CM 10	x	120	S	25	305,00 ZP
CM 10	x	130	S	25	315,00 ZP
CM 10	x	150	S	25	325,00 ZP
CM 10	x	160	S	25	345,00 ZP
CM 10	x	180	S	25	370,00 ZP
CM 10	x	200	S	25	380,00 ZP
CM 12	x	100	S	25	310,00 ZP
CM 12	x	120	S	25	315,00 ZP
CM 12	x	130	S	25	330,00 ZP
CM 12	x	140	S	25	335,00 ZP
CM 12	x	150	S	25	345,00 ZP
CM 12	x	160	S	25	365,00 ZP
CM 12	x	180	S	25	380,00 ZP
CM 12	x	200	S	25	390,00 ZP
CM 12	x	220	S	25	415,00 ZP
CM 12	x	250	S	25	440,00 ZP
CM 12	x	300	S	25	485,00 ZP
CM 16	x	100	S	25	510,00 ZP
CM 16	x	120	S	25	540,00 ZP
CM 16	x	150	S	25	590,00 ZP
CM 16	x	160	S	25	620,00 ZP
CM 16	x	180	S	25	690,00 ZP
CM 16	x	200	S	25	730,00 ZP
CM 16	x	220	S	10	780,00 ZP
CM 16	x	250	S	10	840,00 ZP
CM 16	x	275	S	10	890,00 ZP
CM 16	x	300	S	10	950,00 ZP
CM 16	x	320	S	10	990,00 ZP
CM 16	x	350	S	10	1050,00 ZP
CM 16	x	400	S	10	1130,00 ZP
CM 16	x	450	S	10	1460,00 ZP
CM 16	x	500	S	10	1570,00 ZP
CM 20	x	150	S	10	830,00 ZP
CM 20	x	160	S	10	1120,00 ZP
CM 20	x	200	S	10	1230,00 ZP
CM 20	x	220	S	10	1260,00 ZP
CM 20	x	250	S	10	1320,00 ZP
CM 20	x	300	S	10	1430,00 ZP
CM 20	x	320	S	10	1470,00 ZP
CM 20	x	350	S	10	1530,00 ZP
CM 20	x	400	S	10	1640,00 ZP
CM 20	x	500	S	1	2300,00 ZP
CM 24	x	180	S	5	1890,00 ZP
CM 24	x	200	S	5	1990,00 ZP
CM 24	x	250	S	1	2260,00 ZP
CM 24	x	300	S	1	2600,00 ZP
CM 24	x	320	S	1	2700,00 ZP
CM 24	x	350	S	1	2900,00 ZP
CM 24	x	400	S	1	3250,00 ZP
CM 24	x	450	S	1	3450,00 ZP
CM 24	x	500	S	1	3700,00 ZP
CM 30	x	250	S	1	3250,00 ZP
CM 30	x	320	S	1	3700,00 ZP
CM 30	x	400	S	1	4400,00 ZP
CM 30	x	500	S	1	5100,00 ZP

DIN	00546.500	230

546

Steel



Slotted round nuts

Dimensions ➔ TI-72 REACH ➔ TI-262

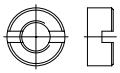
Stainless ➔ pg. 470
Brass ➔ pg. 620

RoHS ✓

M 3	S	1000	26,00
M 3	K	100	32,50
M 4	S	1000	27,50
M 4	K	100	34,00
M 5	S	1000	34,50
M 5	K	100	42,50
M 6	S	1000	39,50
M 6	K	100	47,50
M 8	S	500	92,00
M 8	K	100	106,00
M 10	K	100	215,00
M 12	K	50	265,00
M 16	S	50	460,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00546.510	230

546 Steel zinc plated



Slotted round nuts

Dimensions ➔ TI-72
Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 470
Brass ➔ pg. 620

RoHS ✓

M 3	S 1000	31,50 ZP
M 4	S 1000	39,00 ZP
M 5	S 1000	45,00 ZP
M 6	S 1000	59,00 ZP
M 8	S 500	127,00 ZP
M 10	S 500	244,00 ZP
M 12	S 250	390,00 ZP
M 16	S 250	680,00 ZP

DIN	00551.000	230

551 14 H



Slotted grub screws with flat point

Dimensions ➔ TI-19
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 470
Brass, Plastic ➔ pg. 620

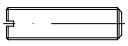
DIN 551 ➔ replaced by ISO 4766 (compatible)

RoHS ✓

M 1,6	x 2	K 100	15,10
M 1,6	x 3	K 100	12,10
M 2	x 3	K 200	10,60
M 2	x 4	K 200	10,70
M 2	x 5	K 200	10,80
M 2	x 6	K 200	11,10
M 2	x 8	K 200	11,20
M 2,5	x 3	K 200	11,20
M 2,5	x 4	K 200	10,80
M 2,5	x 5	K 200	11,10
M 2,5	x 6	K 200	11,20
M 2,5	x 8	K 200	11,30
M 2,5	x 10	K 200	11,80
M 2,5	x 16	K 200	13,40
M 3	x 3	S 1000	7,40
M 3	x 3	K 200	8,40
M 3	x 4	S 1000	4,15
M 3	x 4	K 200	5,00
M 3	x 5	S 1000	3,95
M 3	x 5	K 200	5,30
M 3	x 6	S 1000	4,10
M 3	x 6	K 200	5,50
M 3	x 8	S 1000	4,15
M 3	x 8	K 200	5,60
M 3	x 10	S 1000	4,15
M 3	x 10	K 200	5,60
M 3	x 12	S 1000	4,60
M 3	x 12	K 200	5,90
M 3	x 16	K 200	6,30
M 3	x 20	K 200	7,20
M 3	x 22	K 200	10,30
M 3	x 25	K 200	11,20
M 3	x 30	K 200	12,90
M 4	x 3	K 200	13,20
M 4	x 4	S 1000	4,15
M 4	x 4	K 200	5,10
M 4	x 5	S 1000	4,30
M 4	x 5	K 200	5,30
M 4	x 6	S 1000	4,30
M 4	x 6	K 200	5,30
M 4	x 8	S 1000	4,30
M 4	x 8	K 200	5,30
M 4	x 10	S 1000	4,60
M 4	x 10	K 200	5,50
M 4	x 12	S 1000	4,85
M 4	x 12	K 200	5,90
M 4	x 16	S 1000	5,40
M 4	x 16	K 200	6,60
M 4	x 20	K 200	7,20
M 4	x 25	K 200	7,90
M 4	x 30	K 200	9,40
M 4	x 40	K 100	42,50
M 5	x 4	K 200	9,40
M 5	x 5	S 1000	5,50
M 5	x 5	K 200	6,50
M 5	x 6	S 1000	4,85
M 5	x 6	K 200	5,90
M 5	x 8	S 1000	5,30
M 5	x 8	K 200	6,20
M 5	x 10	S 1000	5,90
M 5	x 10	K 200	6,80
M 5	x 12	S 1000	6,20
M 5	x 12	K 200	7,30
M 5	x 16	S 1000	7,90
M 5	x 16	K 200	8,80
M 5	x 20	K 200	9,20
M 5	x 25	K 200	9,70
M 5	x 30	K 200	11,30
M 5	x 35	K 100	23,80
M 5	x 40	K 100	23,90
M 6	x 4	K 200	9,40
M 6	x 5	K 200	9,40
M 6	x 6	S 1000	5,90
M 6	x 6	K 200	6,80
M 6	x 8	S 1000	6,30
M 6	x 8	K 200	7,40
M 6	x 10	S 1000	6,70
M 6	x 10	K 200	7,70
M 6	x 12	S 1000	7,20
M 6	x 12	K 200	9,20
M 6	x 16	S 1000	8,20
M 6	x 16	K 200	9,40
M 6	x 18	K 200	9,60
M 6	x 20	S 1000	9,10
M 6	x 20	K 200	9,90
M 6	x 25	S 1000	10,50
M 6	x 25	K 100	11,80
M 6	x 30	K 100	13,80
M 6	x 35	K 100	16,30
M 6	x 40	K 100	56,00
M 6	x 50	K 100	60,00
M 6	x 60	K 100	66,00
M 8	x 5	K 100	23,90
M 8	x 6	K 100	16,70
M 8	x 8	K 100	9,40
M 8	x 10	K 100	10,50
M 8	x 12	S 1000	9,70
M 8	x 12	K 100	11,80
M 8	x 16	S 1000	10,30
M 8	x 16	K 100	12,40
M 8	x 18	K 100	14,30
M 8	x 20	S 1000	12,60
M 8	x 20	K 100	14,70
M 8	x 25	S 1000	14,10
M 8	x 25	K 100	16,10
M 8	x 30	K 100	19,70
M 8	x 35	K 100	22,30
M 8	x 40	K 100	30,00
M 8	x 45	K 100	46,00
M 8	x 50	K 100	48,00
M 8	x 60	K 100	53,00
M 8	x 70	K 100	57,00
M 8	x 80	K 100	62,00
M 10	x 6	K 100	33,00
M 10	x 8	K 100	33,00
M 10	x 10	K 100	23,20
M 10	x 12	K 100	23,50
M 10	x 16	K 100	25,00
M 10	x 20	K 100	27,50
M 10	x 25	K 100	30,00
M 10	x 30	K 100	32,50
M 10	x 35	K 100	34,50
M 10	x 40	K 100	37,00
M 10	x 45	K 100	67,00
M 10	x 50	K 100	49,50
M 10	x 60	K 100	62,00
M 10	x 70	K 100	84,00
M 10	x 80	K 100	91,00
M 12	x 20	S 100	51,00
M 12	x 25	S 100	54,00
M 12	x 30	S 100	65,00
M 12	x 35	S 100	68,00
M 12	x 40	S 100	73,00
M 12	x 60	S 50	103,00

DIN	00551.010	230

551 14 H zinc plated



Slotted grub screws with flat point

Dimensions ➔ TI-19
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 470
Brass, Plastic ➔ pg. 620

DIN 551 ➔ replaced by ISO 4766 (compatible)

RoHS ✓

M 3	x 3	S 200	11,20 ZP
M 3	x 4	S 200	7,80 ZP
M 3	x 5	S 200	7,70 ZP
M 3	x 6	S 200	7,80 ZP
M 3	x 8	S 200	7,80 ZP
M 3	x 10	S 200	7,80 ZP
M 3	x 12	S 200	8,30 ZP
M 3	x 16	S 200	9,10 ZP
M 3	x 20	S 200	18,40 ZP
M 4	x 4	S 200	7,80 ZP
M 4	x 5	S 200	8,00 ZP
M 4	x 6	S 200	8,20 ZP
M 4	x 8	S 200	8,20 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	10	S	200	8,30 ZP
M 4	x	12	S	200	8,60 ZP
M 4	x	16	S	200	9,10 ZP
M 4	x	20	S	200	9,90 ZP
M 4	x	25	S	200	10,70 ZP
M 4	x	30	S	200	12,10 ZP
M 4	x	40	S	200	46,00 ZP
M 5	x	5	S	200	9,20 ZP
M 5	x	6	S	200	8,60 ZP
M 5	x	8	S	200	9,00 ZP
M 5	x	10	S	200	10,00 ZP
M 5	x	12	S	200	10,10 ZP
M 5	x	16	S	200	11,10 ZP
M 5	x	20	S	200	11,90 ZP
M 5	x	25	S	200	46,00 ZP
M 5	x	30	S	200	14,90 ZP
M 5	x	35	S	100	21,80 ZP
M 6	x	6	S	200	10,10 ZP
M 6	x	8	S	200	10,60 ZP
M 6	x	10	S	200	11,20 ZP
M 6	x	12	S	200	11,50 ZP
M 6	x	16	S	200	11,80 ZP
M 6	x	20	S	200	12,60 ZP
M 6	x	25	S	100	14,20 ZP
M 6	x	30	S	100	16,60 ZP
M 6	x	35	S	100	19,00 ZP
M 6	x	40	S	100	53,00 ZP
M 6	x	50	S	100	55,00 ZP
M 8	x	6	S	100	22,10 ZP
M 8	x	8	S	100	13,00 ZP
M 8	x	10	S	100	14,90 ZP
M 8	x	12	S	100	16,30 ZP
M 8	x	16	S	100	18,40 ZP
M 8	x	20	S	100	19,20 ZP
M 8	x	25	S	100	21,60 ZP
M 8	x	30	S	100	23,90 ZP
M 8	x	35	S	100	27,00 ZP
M 8	x	40	S	100	34,50 ZP
M 8	x	45	S	100	51,00 ZP
M 8	x	50	S	100	53,00 ZP
M 8	x	60	S	100	57,00 ZP
M 10	x	6	S	100	43,00 ZP
M 10	x	10	S	100	28,00 ZP
M 10	x	12	S	100	26,50 ZP
M 10	x	16	S	100	28,00 ZP
M 10	x	20	S	100	30,50 ZP
M 10	x	25	S	100	33,00 ZP
M 10	x	30	S	100	35,50 ZP
M 10	x	35	S	100	33,00 ZP
M 10	x	40	S	100	42,00 ZP
M 10	x	45	S	100	72,00 ZP
M 10	x	50	S	100	54,00 ZP
M 10	x	60	S	100	59,00 ZP
M 10	x	70	S	100	89,00 ZP
M 10	x	80	S	100	97,00 ZP
M 12	x	12	S	100	56,00 ZP
M 12	x	16	S	100	56,00 ZP
M 12	x	20	S	100	56,00 ZP
M 12	x	25	S	100	59,00 ZP
M 12	x	30	S	100	69,00 ZP
M 12	x	35	S	100	74,00 ZP
M 12	x	40	S	100	79,00 ZP
M 12	x	45	S	100	85,00 ZP
M 12	x	50	S	100	97,00 ZP
M 12	x	60	S	50	109,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00553.000		230

553

14 H



Slotted grub screws with cone point

Dimensions ➔ TI-19
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 471
Brass ➔ pg. 621

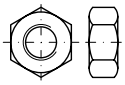
DIN 553 ➔ replaced by ISO 7434 (compatible)

RoHS ✓

M 1,6	x	2	K	100	12,10
M 1,6	x	3	K	100	12,10
M 2	x	3	K	200	10,60
M 2	x	4	K	200	10,70
M 2	x	5	K	200	10,80
M 2	x	6	K	200	11,10
M 2	x	12	K	200	12,40
M 2,5	x	3	K	200	11,20
M 2,5	x	4	K	200	10,80
M 2,5	x	5	K	200	11,10
M 2,5	x	6	K	200	11,20
M 2,5	x	8	K	200	11,30
M 2,5	x	10	K	200	11,80
M 2,5	x	12	K	200	12,60
M 3	x	3	K	200	8,40
M 3	x	4	S	1000	4,15
M 3	x	4	K	200	5,00
M 3	x	5	S	1000	3,95
M 3	x	5	K	200	4,85
M 3	x	6	S	1000	4,10
M 3	x	6	K	200	5,30
M 3	x	8	S	1000	4,15
M 3	x	8	K	200	5,40
M 3	x	10	S	1000	4,15
M 3	x	10	K	200	5,70
M 3	x	12	K	200	5,50
M 3	x	16	K	200	9,10
M 3	x	20	K	200	12,90
M 4	x	4	S	1000	4,15
M 4	x	4	K	200	6,90
M 4	x	5	S	1000	4,30
M 4	x	5	K	200	5,30
M 4	x	6	S	1000	4,30
M 4	x	6	K	200	5,30
M 4	x	8	S	1000	4,30
M 4	x	8	K	200	5,30
M 4	x	10	S	1000	4,60
M 4	x	10	K	200	5,50
M 4	x	12	S	1000	4,85
M 4	x	12	K	200	5,90
M 4	x	16	K	200	6,30
M 4	x	20	K	200	7,20
M 4	x	30	K	200	9,40
M 5	x	5	S	1000	4,85
M 5	x	5	K	200	8,20
M 5	x	6	S	1000	4,85
M 5	x	6	K	200	9,00
M 5	x	8	S	1000	5,30
M 5	x	8	K	200	6,20
M 5	x	10	S	1000	5,90
M 5	x	10	K	200	6,80
M 5	x	12	S	1000	6,20
M 5	x	12	K	200	8,60

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	16	S	1000	7,90
M 5	x	16	K	200	8,80
M 5	x	20	K	200	9,20
M 5	x	25	K	200	9,70
M 6	x	5	K	200	9,40
M 6	x	6	S	1000	8,20
M 6	x	6	K	200	7,20
M 6	x	8	S	1000	6,30
M 6	x	8	K	200	7,40
M 6	x	10	S	1000	6,70
M 6	x	10	K	200	7,70
M 6	x	12	S	1000	7,20
M 6	x	12	K	200	7,90
M 6	x	16	S	1000	8,20
M 6	x	16	K	200	9,60
M 6	x	20	S	1000	9,10
M 6	x	20	K	200	9,90
M 6	x	25	S	1000	10,50
M 6	x	25	K	100	12,50
M 6	x	30	K	100	13,80
M 6	x	40	K	100	39,00
M 8	x	8	K	100	16,40
M 8	x	10	S	1000	8,40
M 8	x	10	K	100	13,50
M 8	x	12	S	1000	9,70
M 8	x	12	K	100	11,80
M 8	x	16	S	1000	10,30
M 8	x	16	K	100	12,50
M 8	x	18	K	100	14,30
M 8	x	20	S	1000	12,60
M 8	x	20	K	100	14,70
M 8	x	25	S	1000	14,10
M 8	x	25	K	100	18,20
M 8	x	30	K	100	19,70
M 8	x	40	K	100	33,00
M 8	x	50	K	100	68,00
M 10	x	10	K	100	23,20
M 10	x	12	K	100	23,50
M 10	x	16	K	100	25,00
M 10	x	20	K	100	27,50
M 10	x	25	K	100	30,00
M 10	x	30	K	100	32,50
M 10	x	35	K	100	34,50
M 10	x	40	K	100	53,00
M 10	x	60	K	100	78,00

DIN	00555.504	240
555	**5**	**Ww-BSW**



Hexagon nuts with Whitworth thread

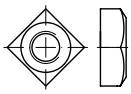
Dimensions ➔ (TI-62 ~ ISO 4032)
Material properties ➔ TI-233
REACH ➔ TI-262

RoHS ✓

thread ∅			
WW 5/8	S	100	158,00
WW 3/4	S	50	260,00
WW 1	S	25	450,00
WW 1 1/8	S	25	600,00
WW 1 1/4	S	25	1030,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00557.500	245

557 5



Square nuts

Dimensions ➔ TI-83 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 471

Nuts with wrench sizes acc. to ISO (M10, M12) on request

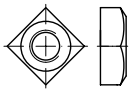
RoHS ✓

SW = wrench size

M 5	S	100	6,50
M 6	S	100	9,60
M 8	S	100	14,10
M 10 s = 17	S	100	23,40
M 12 s = 19	S	100	42,00
M 16	S	50	77,00

DIN	00557.510	245

557 5 zinc plated



Square nuts

Dimensions ➔ TI-83 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 471

Nuts with wrench sizes acc. to ISO (M10, M12) on request

RoHS ✓

SW = wrench size

M 5	S	100	6,80 ZP
M 6	S	100	10,30 ZP
M 8	S	100	15,80 ZP
M 10 s = 17	S	100	27,00 ZP
M 12 s = 19	S	100	47,00 ZP
M 16	S	100	84,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00561.801	260

561 22 H (8.8) Ri



Hexagon head set screws with dog point and small hexagon, with undercut

(type A)

Dimensions ➔ TI-16 Material properties ➔ TI-232

Screws with wrench sizes acc. to ISO (M12, M16) on request

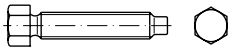
RoHS ✓ REACh SVHC free

AM 6	x	12	S	100	88,00
AM 6	x	16	S	100	78,00
AM 6	x	20	S	100	82,00
AM 6	x	25	S	100	84,00
AM 6	x	30	S	100	88,00
AM 8	x	16	S	100	101,00
AM 8	x	20	S	100	103,00
AM 8	x	25	S	100	106,00
AM 8	x	30	S	100	111,00
AM 8	x	35	S	100	113,00
AM 8	x	40	S	100	120,00
AM 8	x	45	S	50	170,00
AM 8	x	50	S	50	170,00
AM 10	x	20	S	100	147,00
AM 10	x	25	S	100	157,00
AM 10	x	30	S	50	166,00
AM 10	x	35	S	50	174,00
AM 10	x	40	S	50	183,00
AM 10	x	50	S	50	215,00
AM 10	x	60	S	50	260,00
AM 12	x	25	S	50	250,00
AM 12	x	30	S	50	227,00
AM 12	x	35	S	25	270,00
AM 12	x	40	S	25	285,00
AM 12	x	45	S	25	315,00
AM 12	x	50	S	25	315,00
AM 12	x	60	S	25	340,00
AM 12	x	70	S	25	370,00
AM 12	x	80	S	25	475,00
AM 12	x	100	S	25	660,00
AM 12	x	120	S	25	860,00
AM 16	x	30	S	25	460,00
AM 16	x	35	S	25	470,00
AM 16	x	40	S	25	485,00
AM 16	x	45	S	25	510,00
AM 16	x	50	S	25	530,00
AM 16	x	60	S	10	590,00
AM 16	x	70	S	10	630,00
AM 16	x	80	S	10	660,00
AM 16	x	90	S	10	760,00
AM 16	x	100	S	10	790,00
AM 16	x	120	S	10	890,00
AM 20	x	40	S	10	960,00
AM 20	x	50	S	10	1020,00
AM 20	x	60	S	10	1060,00
AM 20	x	70	S	10	1130,00
AM 20	x	80	S	10	1170,00
AM 20	x	90	S	10	1230,00
AM 20	x	100	S	1	1280,00
AM 20	x	120	S	1	1360,00
AM 20	x	140	S	1	2450,00

Dimensions			PU	Pieces	€/100/Mat.
AM 24	x	50	S	1	2800,00
AM 24	x	60	S	1	1750,00
AM 24	x	70	S	1	1820,00
AM 24	x	80	S	1	1890,00
AM 24	x	90	S	1	1950,00
AM 24	x	100	S	1	2040,00
AM 24	x	120	S	1	2210,00
AM 24	x	140	S	1	4100,00
AM 30	x	60	S	1	3850,00
AM 30	x	70	S	1	4150,00
AM 30	x	80	S	1	4300,00
AM 30	x	90	S	1	4550,00
AM 30	x	100	S	1	4800,00
AM 30	x	120	S	1	5400,00
AM 30	x	140	S	1	5900,00
AM 30	x	160	S	1	6600,00

DIN	00561.811	260

561 22 H (8.8) zinc plated Ri



Hexagon head set screws with dog point and small hexagon, with undercut

(type A)

Dimensions ➔ TI-16 Corrosion protection ➔ TI-228
Material properties ➔ TI-232

Screws with wrench sizes acc. to ISO (M12, M16) on request

RoHS ✓ REACh SVHC free

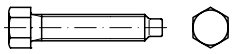
AM 6	x	12	S	100	90,00 ZP
AM 6	x	16	S	100	80,00 ZP
AM 6	x	20	S	100	85,00 ZP
AM 6	x	25	S	100	88,00 ZP
AM 6	x	30	S	100	91,00 ZP
AM 8	x	16	S	100	106,00 ZP
AM 8	x	20	S	100	109,00 ZP
AM 8	x	25	S	100	112,00 ZP
AM 8	x	30	S	100	117,00 ZP
AM 8	x	35	S	100	121,00 ZP
AM 8	x	40	S	100	129,00 ZP
AM 8	x	45	S	50	180,00 ZP
AM 8	x	50	S	50	182,00 ZP
AM 10	x	20	S	100	155,00 ZP
AM 10	x	25	S	100	166,00 ZP
AM 10	x	30	S	50	177,00 ZP
AM 10	x	35	S	50	186,00 ZP
AM 10	x	40	S	50	195,00 ZP
AM 10	x	50	S	50	230,00 ZP
AM 10	x	60	S	50	275,00 ZP
AM 12	x	25	S	50	270,00 ZP
AM 12	x	30	S	50	245,00 ZP
AM 12	x	35	S	25	295,00 ZP
AM 12	x	40	S	25	305,00 ZP
AM 12	x	45	S	25	340,00 ZP
AM 12	x	50	S	25	345,00 ZP
AM 12	x	60	S	25	370,00 ZP
AM 12	x	70	S	25	400,00 ZP
AM 12	x	80	S	25	510,00 ZP
AM 12	x	90	S	25	630,00 ZP
AM 12	x	100	S	25	700,00 ZP
AM 12	x	120	S	25	910,00 ZP
AM 16	x	30	S	25	495,00 ZP
AM 16	x	35	S	25	510,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
AM 16	x	40	S	25	530,00 ZP
AM 16	x	45	S	25	550,00 ZP
AM 16	x	50	S	25	570,00 ZP
AM 16	x	60	S	10	640,00 ZP
AM 16	x	70	S	10	690,00 ZP
AM 16	x	80	S	10	720,00 ZP
AM 16	x	90	S	10	760,00 ZP
AM 16	x	100	S	10	860,00 ZP
AM 16	x	120	S	10	970,00 ZP
AM 20	x	40	S	10	1030,00 ZP
AM 20	x	50	S	10	1100,00 ZP
AM 20	x	60	S	10	1140,00 ZP
AM 20	x	70	S	10	1230,00 ZP
AM 20	x	80	S	10	1280,00 ZP
AM 20	x	90	S	10	1340,00 ZP
AM 20	x	100	S	1	1400,00 ZP
AM 20	x	120	S	1	1510,00 ZP
AM 20	x	140	S	1	2650,00 ZP
AM 24	x	50	S	1	2900,00 ZP
AM 24	x	60	S	1	1880,00 ZP
AM 24	x	70	S	1	1970,00 ZP
AM 24	x	80	S	1	2060,00 ZP
AM 24	x	90	S	1	2120,00 ZP
AM 24	x	100	S	1	2240,00 ZP
AM 24	x	120	S	1	2420,00 ZP
AM 24	x	140	S	1	4350,00 ZP
AM 30	x	60	S	1	4150,00 ZP
AM 30	x	70	S	1	4400,00 ZP
AM 30	x	80	S	1	4600,00 ZP
AM 30	x	90	S	1	4850,00 ZP
AM 30	x	100	S	1	5100,00 ZP
AM 30	x	120	S	1	5700,00 ZP
AM 30	x	140	S	1	6300,00 ZP
AM 30	x	160	S	1	7100,00 ZP

DIN	00561.802	260

561

22 H (8.8)



Hexagon head set screws with dog point and small hexagon, with thread run-out

(type B)

Dimensions ➔ TI-16 Material properties ➔ TI-232

Screws with wrench sizes acc. to ISO (M12, M16) on request

RoHS ✓ REACh SVHC free

BM 6	x	12	S	100	52,00
BM 6	x	16	S	100	52,00
BM 6	x	20	S	100	56,00
BM 6	x	25	S	100	58,00
BM 6	x	30	S	100	68,00
BM 8	x	16	S	100	74,00
BM 8	x	18	S	100	78,00
BM 8	x	20	S	100	78,00
BM 8	x	25	S	100	84,00
BM 8	x	30	S	100	91,00
BM 8	x	35	S	100	101,00
BM 8	x	40	S	100	106,00
BM 8	x	50	S	50	123,00
BM 8	x	60	S	50	152,00
BM 8	x	70	S	50	230,00
BM 8	x	80	S	50	265,00

Dimensions			PU	Pieces	€/100/Mat.
BM 10	x	20	S	100	135,00
BM 10	x	25	S	100	144,00
BM 10	x	30	S	50	152,00
BM 10	x	35	S	50	161,00
BM 10	x	40	S	50	174,00
BM 10	x	45	S	50	205,00
BM 10	x	50	S	50	205,00
BM 10	x	60	S	50	215,00
BM 10	x	70	S	50	230,00
BM 10	x	80	S	50	265,00
BM 10	x	100	S	50	510,00
BM 12	x	25	S	50	137,00
BM 12	x	30	S	50	143,00
BM 12	x	35	S	25	151,00
BM 12	x	40	S	25	160,00
BM 12	x	45	S	25	183,00
BM 12	x	50	S	25	183,00
BM 12	x	60	S	25	195,00
BM 12	x	70	S	25	221,00
BM 12	x	80	S	25	290,00
BM 12	x	90	S	25	365,00
BM 12	x	100	S	25	415,00
BM 12	x	120	S	25	560,00
BM 16	x	30	S	25	265,00
BM 16	x	35	S	25	270,00
BM 16	x	40	S	25	285,00
BM 16	x	45	S	25	290,00
BM 16	x	50	S	25	305,00
BM 16	x	60	S	10	360,00
BM 16	x	70	S	10	380,00
BM 16	x	80	S	10	395,00
BM 16	x	90	S	10	440,00
BM 16	x	100	S	10	470,00
BM 16	x	120	S	10	540,00
BM 20	x	50	S	10	1020,00
BM 20	x	60	S	10	1060,00
BM 20	x	70	S	10	1130,00
BM 20	x	80	S	10	1170,00
BM 20	x	90	S	10	1230,00
BM 20	x	100	S	1	1280,00
BM 20	x	120	S	1	1360,00
BM 20	x	140	S	1	2450,00
BM 24	x	50	S	1	1830,00
BM 24	x	60	S	1	1150,00
BM 24	x	70	S	1	1200,00
BM 24	x	80	S	1	1250,00
BM 24	x	90	S	1	1300,00
BM 24	x	100	S	1	1350,00
BM 24	x	120	S	1	1440,00
BM 24	x	140	S	1	2650,00
BM 30	x	60	S	1	2500,00
BM 30	x	70	S	1	2650,00
BM 30	x	80	S	1	2800,00
BM 30	x	90	S	1	2950,00
BM 30	x	100	S	1	3150,00
BM 30	x	120	S	1	3450,00
BM 30	x	140	S	1	3900,00
BM 30	x	160	S	1	4250,00

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Dimensions			PU	Pieces	€/100/Mat.
DIN		00561.812			260

561

22 H (8.8) zinc plated



Hexagon head set screws with dog point and small hexagon, with thread run-out

(type B)

Dimensions ➔ TI-16 Corrosion protection ➔ TI-228
Material properties ➔ TI-232

Screws with wrench sizes acc. to ISO (M12, M16) on request

RoHS ✓ REACh SVHC free

BM 6	x	12	S	100	55,00 ZP
BM 6	x	16	S	100	56,00 ZP
BM 6	x	20	S	100	59,00 ZP
BM 6	x	25	S	100	61,00 ZP
BM 6	x	30	S	100	73,00 ZP
BM 8	x	16	S	100	79,00 ZP
BM 8	x	18	S	100	83,00 ZP
BM 8	x	20	S	100	83,00 ZP
BM 8	x	25	S	100	90,00 ZP
BM 8	x	30	S	100	97,00 ZP
BM 8	x	35	S	100	108,00 ZP
BM 8	x	40	S	100	115,00 ZP
BM 8	x	50	S	50	134,00 ZP
BM 8	x	60	S	50	164,00 ZP
BM 8	x	70	S	50	242,00 ZP
BM 8	x	80	S	50	275,00 ZP
BM 10	x	20	S	100	143,00 ZP
BM 10	x	25	S	100	155,00 ZP
BM 10	x	30	S	50	164,00 ZP
BM 10	x	35	S	50	172,00 ZP
BM 10	x	40	S	50	188,00 ZP
BM 10	x	45	S	50	218,00 ZP
BM 10	x	50	S	50	222,00 ZP
BM 10	x	60	S	50	233,00 ZP
BM 10	x	70	S	50	255,00 ZP
BM 10	x	80	S	50	300,00 ZP
BM 10	x	90	S	50	475,00 ZP
BM 10	x	100	S	50	540,00 ZP
BM 12	x	25	S	50	155,00 ZP
BM 12	x	30	S	50	164,00 ZP
BM 12	x	35	S	25	170,00 ZP
BM 12	x	40	S	25	182,00 ZP
BM 12	x	45	S	25	206,00 ZP
BM 12	x	50	S	25	210,00 ZP
BM 12	x	60	S	25	224,00 ZP
BM 12	x	70	S	25	255,00 ZP
BM 12	x	80	S	25	330,00 ZP
BM 12	x	90	S	25	410,00 ZP
BM 12	x	100	S	25	455,00 ZP
BM 12	x	120	S	25	600,00 ZP
BM 16	x	30	S	25	295,00 ZP
BM 16	x	35	S	25	305,00 ZP
BM 16	x	40	S	25	325,00 ZP
BM 16	x	45	S	25	330,00 ZP
BM 16	x	50	S	25	355,00 ZP
BM 16	x	60	S	10	410,00 ZP
BM 16	x	70	S	10	430,00 ZP
BM 16	x	80	S	10	460,00 ZP
BM 16	x	90	S	10	510,00 ZP
BM 16	x	100	S	10	540,00 ZP
BM 16	x	120	S	10	620,00 ZP

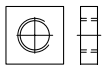
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
BM 16	x	160	S	10	1030,00 ZP
BM 20	x	50	S	10	1090,00 ZP
BM 20	x	60	S	10	1140,00 ZP
BM 20	x	70	S	10	1220,00 ZP
BM 20	x	80	S	10	1280,00 ZP
BM 20	x	90	S	10	1340,00 ZP
BM 20	x	100	S	1	1400,00 ZP
BM 20	x	120	S	1	1510,00 ZP
BM 20	x	140	S	1	2650,00 ZP
BM 24	x	50	S	1	1950,00 ZP
BM 24	x	60	S	1	1340,00 ZP
BM 24	x	70	S	1	1370,00 ZP
BM 24	x	80	S	1	1410,00 ZP
BM 24	x	90	S	1	1480,00 ZP
BM 24	x	100	S	1	1550,00 ZP
BM 24	x	120	S	1	1670,00 ZP
BM 24	x	140	S	1	2900,00 ZP
BM 30	x	60	S	1	2750,00 ZP
BM 30	x	70	S	1	2900,00 ZP
BM 30	x	80	S	1	3100,00 ZP
BM 30	x	90	S	1	3300,00 ZP
BM 30	x	100	S	1	3550,00 ZP
BM 30	x	140	S	1	4300,00 ZP
BM 30	x	160	S	1	4750,00 ZP

DIN	00562.400	260

562

04



Square thin nuts, product grade B

Dimensions ➔ TI-83
Material properties ➔ TI-233
REACH ➔ TI-262

Stainless ➔ pg. 471

RoHS ✓

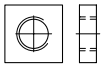
SW = wrench size

M 2	S	100	36,50
M 3	S	1000	2,85
M 3	K	100	6,30
M 4	S	1000	3,35
M 4	K	100	6,80
M 5	S	100	7,90
M 6	S	100	8,90
M 8	S	100	14,30
M 10 s = 17	S	100	22,30

Dimensions	PU	Pieces	€/100/Mat.
DIN 00562.410			260

562

04
zinc plated



Square thin nuts, product grade B

Dimensions ➔ TI-83
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 471

RoHS ✓

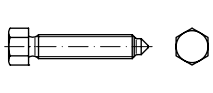
SW = wrench size

M 2,5	S	1000	10,30 ZP
M 3	S	1000	2,90 ZP
M 4	S	1000	3,45 ZP
M 5	S	1000	8,30 ZP
M 6	S	1000	9,50 ZP
M 8	S	500	15,40 ZP
M 10 s = 17	S	100	28,00 ZP

DIN	00564.801	260

564

22 H (8.8) Ri



Hexagon head set screws with small hexagon and short dog point with turncoated cone, with thread undercut

(type A)

Dimensions ➔ TI-16
Material properties ➔ TI-232

Screws with wrench sizes acc. to ISO (M12, M16) on request

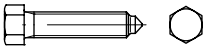
RoHS ✓ REACh SVHC free

AM 6	x	12	S	100	88,00
AM 6	x	20	S	100	82,00
AM 8	x	20	S	100	103,00
AM 8	x	25	S	100	106,00
AM 8	x	30	S	100	111,00
AM 8	x	40	S	100	120,00
AM 10	x	20	S	100	166,00
AM 10	x	30	S	50	189,00
AM 10	x	35	S	50	195,00
AM 10	x	50	S	50	242,00
AM 12	x	25	S	50	250,00
AM 12	x	50	S	25	315,00
AM 12	x	60	S	25	340,00
AM 12	x	80	S	25	475,00
AM 16	x	50	S	25	770,00
AM 16	x	60	S	10	880,00
AM 16	x	80	S	10	940,00
AM 20	x	100	S	1	2410,00

Dimensions	PU	Pieces	€/100/Mat.
DIN 00564.802			260

564

22 H (8.8)



Hexagon head set screws with short dog point with turncoated and small hexagon, with thread run-out

(type B)

Dimensions ➔ TI-16
Material properties ➔ TI-232

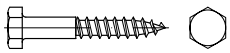
Screws with wrench sizes acc. to ISO (M12, M16) on request

RoHS ✓ REACh SVHC free

BM 6	x	12	S	100	52,00
BM 6	x	16	S	100	52,00
BM 6	x	20	S	100	56,00
BM 6	x	25	S	100	58,00
BM 6	x	30	S	100	68,00
BM 8	x	16	S	100	74,00
BM 8	x	20	S	100	78,00
BM 8	x	25	S	100	84,00
BM 8	x	30	S	100	91,00
BM 8	x	35	S	100	101,00
BM 10	x	20	S	100	151,00
BM 10	x	25	S	100	161,00
BM 10	x	30	S	50	167,00
BM 10	x	35	S	50	177,00
BM 10	x	40	S	50	193,00
BM 10	x	50	S	50	227,00
BM 10	x	60	S	50	239,00
BM 12	x	25	S	50	137,00
BM 12	x	30	S	50	143,00
BM 12	x	35	S	25	151,00
BM 12	x	40	S	25	160,00
BM 12	x	45	S	25	183,00
BM 12	x	50	S	25	183,00
BM 12	x	60	S	25	195,00
BM 12	x	70	S	25	221,00
BM 12	x	80	S	25	290,00
BM 16	x	40	S	25	475,00
BM 16	x	50	S	25	510,00
BM 16	x	60	S	10	570,00
BM 16	x	70	S	10	590,00
BM 16	x	80	S	10	620,00
BM 16	x	90	S	10	660,00
BM 16	x	100	S	10	740,00
BM 20	x	60	S	10	2060,00
BM 20	x	70	S	10	2160,00
BM 20	x	80	S	10	2240,00
BM 20	x	90	S	10	2330,00
BM 20	x	100	S	1	2410,00
BM 24	x	60	S	1	2260,00
BM 24	x	100	S	1	2600,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00571.000		270

571 Steel



Hexagon head wood screws

Dimensions ➔ TI-51

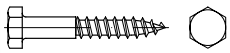
Stainless ➔ pg. 471

RoHS ✓ | REACh SVHC free

6	x	35	S	200		10,90
6	x	40	S	200		11,80
6	x	50	S	200		14,00
6	x	60	S	200		15,70
8	x	30	S	200		16,70
8	x	40	S	200		18,40
8	x	50	S	200		20,10
8	x	60	S	200		22,40
8	x	70	S	200		26,00
10	x	50	S	100		33,50
10	x	60	S	100		35,00
10	x	70	S	100		40,50
10	x	80	S	100		42,50
10	x	100	S	100		56,00
10	x	120	S	50		69,00

DIN	00571.010	270

571 Steel zinc plated



Hexagon head wood screws

Dimensions ➔ TI-51 Corrosion protection ➔ TI-228

Stainless ➔ pg. 471

RoHS ✓ | REACh SVHC free

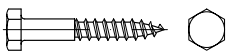
5	x	20	S	500		13,00 ZP
5	x	20	K	100		16,70 ZP
5	x	25	S	500		12,60 ZP
5	x	25	K	100		16,30 ZP
5	x	30	S	500		12,60 ZP
5	x	30	K	100		16,30 ZP
5	x	35	S	200		13,20 ZP
5	x	40	S	200		13,80 ZP
5	x	45	S	200		15,70 ZP
5	x	50	S	200		16,20 ZP
5	x	60	S	200		18,40 ZP
6	x	20	S	500		13,50 ZP
6	x	20	K	100		17,20 ZP
6	x	25	S	500		13,10 ZP
6	x	25	K	100		16,80 ZP
6	x	30	S	500		13,20 ZP
6	x	30	K	100		17,00 ZP
6	x	35	S	200		14,00 ZP
6	x	40	S	200		14,60 ZP
6	x	45	S	200		16,40 ZP
6	x	50	S	200		17,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
6 x 55	S	200	19,10 ZP
6 x 60	S	200	19,30 ZP
6 x 65	S	200	23,60 ZP
6 x 70	S	200	23,90 ZP
6 x 75	S	200	24,20 ZP
6 x 80	S	200	27,00 ZP
6 x 90	S	100	31,50 ZP
6 x 100	S	100	36,00 ZP
6 x 110	S	100	57,00 ZP
6 x 120	S	100	58,00 ZP
6 x 140	S	100	99,00 ZP
8 x 25	S	200	22,40 ZP
8 x 30	S	200	22,60 ZP
8 x 35	S	200	23,00 ZP
8 x 40	S	200	23,50 ZP
8 x 45	S	200	25,50 ZP
8 x 50	S	200	26,00 ZP
8 x 55	S	200	29,00 ZP
8 x 60	S	200	29,50 ZP
8 x 65	S	200	33,00 ZP
8 x 70	S	200	33,50 ZP
8 x 75	S	200	36,50 ZP
8 x 80	S	200	37,00 ZP
8 x 90	S	100	46,50 ZP
8 x 100	S	100	49,50 ZP
8 x 110	S	100	65,00 ZP
8 x 120	S	100	66,00 ZP
8 x 130	S	100	87,00 ZP
8 x 140	S	50	87,00 ZP
8 x 150	S	50	158,00 ZP
8 x 160	S	50	160,00 ZP
8 x 180	S	50	183,00 ZP
8 x 200	S	50	211,00 ZP
10 x 30	S	200	47,50 ZP
10 x 35	S	100	48,50 ZP
10 x 40	S	100	44,50 ZP
10 x 45	S	100	43,00 ZP
10 x 50	S	100	44,00 ZP
10 x 55	S	100	46,00 ZP
10 x 60	S	100	46,50 ZP
10 x 65	S	100	53,00 ZP
10 x 70	S	100	54,00 ZP
10 x 75	S	100	57,00 ZP
10 x 80	S	100	57,00 ZP
10 x 90	S	100	70,00 ZP
10 x 100	S	100	74,00 ZP
10 x 110	S	50	88,00 ZP
10 x 120	S	50	89,00 ZP
10 x 130	S	50	107,00 ZP
10 x 140	S	50	109,00 ZP
10 x 150	S	50	186,00 ZP
10 x 160	S	50	187,00 ZP
10 x 180	S	50	209,00 ZP
10 x 200	S	50	241,00 ZP
10 x 220	S	25	350,00 ZP
10 x 240	S	25	375,00 ZP
10 x 260	S	25	410,00 ZP
10 x 280	S	25	465,00 ZP
10 x 300	S	25	510,00 ZP
12 x 40	S	100	82,00 ZP
12 x 45	S	100	84,00 ZP
12 x 50	S	100	87,00 ZP
12 x 60	S	100	89,00 ZP
12 x 65	S	50	93,00 ZP
12 x 70	S	50	93,00 ZP
12 x 75	S	50	95,00 ZP
12 x 80	S	50	96,00 ZP
12 x 90	S	50	111,00 ZP
12 x 100	S	50	118,00 ZP
12 x 110	S	50	143,00 ZP
12 x 120	S	50	146,00 ZP
12 x 130	S	50	160,00 ZP
12 x 140	S	50	161,00 ZP
12 x 150	S	50	213,00 ZP
12 x 160	S	25	215,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
12 x 180	S	25	239,00 ZP
12 x 200	S	25	275,00 ZP
12 x 220	S	25	390,00 ZP
12 x 240	S	25	415,00 ZP
12 x 260	S	25	455,00 ZP
12 x 280	S	25	500,00 ZP
12 x 300	S	25	550,00 ZP
12 x 320	S	25	1130,00 ZP
12 x 340	S	25	1230,00 ZP
12 x 360	S	25	1330,00 ZP
12 x 380	S	25	1430,00 ZP
16 x 60	S	50	183,00 ZP
16 x 70	S	25	193,00 ZP
16 x 80	S	25	199,00 ZP
16 x 90	S	25	220,00 ZP
16 x 100	S	25	226,00 ZP
16 x 110	S	25	260,00 ZP
16 x 120	S	25	265,00 ZP
16 x 130	S	25	315,00 ZP
16 x 140	S	25	320,00 ZP
16 x 150	S	25	365,00 ZP
16 x 160	S	25	370,00 ZP
16 x 180	S	25	405,00 ZP
16 x 200	S	25	440,00 ZP
16 x 220	S	25	475,00 ZP
16 x 240	S	25	490,00 ZP
16 x 260	S	25	540,00 ZP
16 x 280	S	25	590,00 ZP
16 x 300	S	25	620,00 ZP
20 x 80	S	25	460,00 ZP
20 x 90	S	25	485,00 ZP
20 x 100	S	25	510,00 ZP
20 x 110	S	25	530,00 ZP
20 x 120	S	25	550,00 ZP
20 x 130	S	25	590,00 ZP
20 x 140	S	25	620,00 ZP
20 x 150	S	25	650,00 ZP
20 x 160	S	25	670,00 ZP
20 x 180	S	10	700,00 ZP
20 x 200	S	10	780,00 ZP

DIN	00571.020	271

571 Steel hot dip galvanized



Hexagon head wood screws

Dimensions ➔ TI-51 Corrosion protection ➔ TI-231

Stainless ➔ pg. 471

Combination seal for ∅ 7 mm
➔ article no. 88005 ➔ pg. 4000000

RoHS ✓ | REACh SVHC free

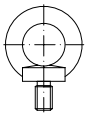
6	x	35	S	200		15,60 HDG
6	x	40	S	200		17,30 HDG
6	x	50	S	200		20,30 HDG
7	x	60	S	200		57,00 HDG
7	x	70	S	200		60,00 HDG
7	x	80	S	200		63,00 HDG
7	x	90	S	200		67,00 HDG
7	x	100	S	100		72,00 HDG
7	x	110	S	100		75,00 HDG
7	x	120	S	100		81,00 HDG
7	x	130	S	100		87,00 HDG
8	x	40	S	200		28,00 HDG
8	x	50	S	200		31,50 HDG

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
8	x	60	S	200	35,50 HDG
8	x	65	S	200	40,00 HDG
8	x	70	S	200	40,50 HDG
8	x	80	S	200	45,00 HDG
8	x	100	S	100	60,00 HDG
8	x	140	S	50	87,00 HDG
10	x	40	S	100	49,00 HDG
10	x	50	S	100	54,00 HDG
10	x	60	S	100	58,00 HDG
10	x	70	S	100	66,00 HDG
10	x	80	S	100	71,00 HDG
10	x	90	S	100	78,00 HDG
10	x	100	S	100	89,00 HDG
10	x	120	S	50	108,00 HDG
10	x	140	S	50	131,00 HDG
10	x	150	S	50	211,00 HDG
12	x	70	S	50	110,00 HDG
12	x	80	S	50	115,00 HDG
12	x	100	S	50	142,00 HDG
12	x	120	S	50	172,00 HDG
12	x	140	S	50	193,00 HDG
12	x	150	S	50	245,00 HDG
12	x	180	S	25	350,00 HDG

DIN 580 — 00580.300 — 280

580 C 15 E



Lifting eye bolts

Caution! See user information.
→ DIN 580 or Technical Information

Dimensions → TI-32 Product information → TI-142

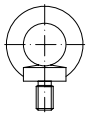
Stainless → pg. 472

RoHS ✓ REACh SVHC free

M 6	S	25	385,00
M 8	S	25	385,00
M 10	S	25	460,00
M 12	S	10	620,00
M 14	S	10	890,00
M 16	S	10	840,00
M 18	S	1	1210,00
M 20	S	1	1140,00
M 22	S	1	2230,00
M 24	S	1	2230,00
M 27	S	1	3700,00
M 30	S	1	3950,00
M 33	S	1	5400,00
M 36	S	1	5900,00
M 39	S	1	9600,00
M 42	S	1	10100,00
M 45	S	1	14400,00
M 48	S	1	15100,00
M 52	S	1	16500,00
M 56	S	1	27500,00
M 64	S	1	40200,00

Dimensions	PU	Pieces	€/100/Mat.
DIN 580 — 00580.310 — 280			

580 C 15 E zinc plated



Lifting eye bolts

Caution! See user information.
→ DIN 580 or Technical Information

Dimensions → TI-32 Product information → TI-142
Corrosion protection → TI-228

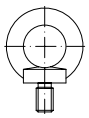
Stainless → pg. 472

RoHS ✓ REACh SVHC free

M 6	S	25	395,00 ZP
M 8	S	25	410,00 ZP
M 10	S	25	510,00 ZP
M 12	S	10	680,00 ZP
M 14	S	10	960,00 ZP
M 16	S	10	950,00 ZP
M 18	S	1	1380,00 ZP
M 20	S	1	1310,00 ZP
M 22	S	1	2400,00 ZP
M 24	S	1	2550,00 ZP
M 27	S	1	4300,00 ZP
M 30	S	1	4600,00 ZP
M 33	S	1	6600,00 ZP
M 36	S	1	6900,00 ZP
M 42	S	1	11200,00 ZP
M 48	S	1	16200,00 ZP
M 56	S	1	29000,00 ZP

DIN 580 — 00580.320 — 280

580 C 15 E hot dip galvanized



Lifting eye bolts

thread undersize (6az + HDG = U)

Caution! See user information.
→ DIN 580 or Technical Information

Dimensions → TI-32 Product information → TI-142
Corrosion protection → TI-231

Stainless → pg. 472

RoHS ✓ REACh SVHC free

M 8	S	25	710,00 HDG
M 10	S	25	880,00 HDG
M 12	S	10	1190,00 HDG
M 16	S	10	1660,00 HDG
M 20	S	1	2290,00 HDG
M 24	S	1	4400,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
DIN 582 — 00582.300 — 280			

582 C 15 E



Lifting eye nuts

Caution! See user information.
→ DIN 582 or Technical Information

Dimensions → TI-77 Product information → TI-142

Stainless → pg. 473

RoHS ✓ REACh SVHC free

M 6	S	25	390,00
M 8	S	25	390,00
M 10	S	25	475,00
M 12	S	10	620,00
M 14	S	10	840,00
M 16	S	10	820,00
M 18	S	1	1150,00
M 20	S	1	1110,00
M 22	S	1	2050,00
M 24	S	1	2350,00
M 27	S	1	2700,00
M 30	S	1	4150,00
M 33	S	1	5900,00
M 36	S	1	5900,00
M 42	S	1	12800,00
M 48	S	1	17200,00
M 56	S	1	29100,00

DIN 582 — 00582.310 — 280

582 C 15 E zinc plated



Lifting eye nuts

Caution! See user information.
→ DIN 582 or Technical Information

Dimensions → TI-77 Product information → TI-142
Corrosion protection → TI-228

Stainless → pg. 473

RoHS ✓ REACh SVHC free

M 6	S	25	415,00 ZP
M 8	S	25	415,00 ZP
M 10	S	25	510,00 ZP
M 12	S	10	680,00 ZP
M 14	S	10	890,00 ZP
M 16	S	10	890,00 ZP
M 18	S	1	1250,00 ZP
M 20	S	1	1240,00 ZP
M 24	S	1	2650,00 ZP
M 27	S	1	3200,00 ZP
M 30	S	1	4600,00 ZP
M 33	S	1	6400,00 ZP

DIN 582

Dimensions	PU	Pieces	€/100/Mat.
M 36	S	1	6800,00 ZP
M 42	S	1	13700,00 ZP
M 48	S	1	18100,00 ZP

DIN	00582.320	280

582 C 15 E hot dip galvanized



Lifting eye nuts

thread tolerance 6H

Caution! See user information.
➔ DIN 582 or Technical Information

Dimensions ➔ TI-77 Product information ➔ TI-142
Corrosion protection ➔ TI-231

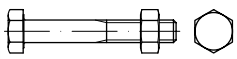
Stainless ➔ pg. 473

RoHS ✓ | REACh SVHC free

M 8	S	25	720,00 HDG
M 10	S	25	880,00 HDG
M 12	S	10	1190,00 HDG
M 16	S	10	1550,00 HDG
M 20	S	1	2440,00 HDG
M 24	S	1	4550,00 HDG

DIN	00601.400	290

601 Mu steel



Hexagon head bolts, Mu = with hexagon nut

Dimensions ➔ TI-15 REACH ➔ TI-262
Standard conversion ➔ TI-6

DIN 601 ➔ replaced by ISO 4016
➔ ISO dimensions M 10, 12, 14, 22 on request

RoHS ✓

M 5	x	16	S	500	15,00
M 5	x	20	S	500	15,00
M 5	x	25	S	500	17,30
M 5	x	30	S	500	17,30
M 5	x	40	S	200	19,30
M 5	x	50	S	200	23,60
M 5	x	80	S	200	94,00
M 6	x	16	S	500	7,10
M 6	x	20	S	500	7,10
M 6	x	25	S	500	7,30
M 6	x	30	S	500	8,10
M 6	x	35	S	200	13,20
M 6	x	40	S	200	13,80
M 6	x	45	S	200	19,50
M 6	x	50	S	200	19,50
M 6	x	55	S	200	26,00
M 6	x	60	S	200	26,00
M 6	x	65	S	200	36,00
M 6	x	70	S	200	32,50
M 6	x	75	S	200	39,00
M 6	x	80	S	200	36,00
M 6	x	90	S	100	48,00
M 6	x	100	S	100	48,00
M 8	x	16	S	200	11,50
M 8	x	20	S	200	11,50
M 8	x	25	S	200	12,20
M 8	x	30	S	200	12,70
M 8	x	35	S	200	14,30
M 8	x	40	S	200	14,70
M 8	x	45	S	200	15,90
M 8	x	50	S	200	16,90
M 8	x	55	S	200	27,00
M 8	x	60	S	200	27,00
M 8	x	65	S	200	41,00
M 8	x	70	S	200	40,50
M 8	x	75	S	200	57,00
M 8	x	80	S	200	55,00
M 8	x	90	S	100	67,00
M 8	x	100	S	100	72,00
M 8	x	110	S	100	78,00
M 8	x	120	S	100	78,00
M 8	x	130	S	100	105,00
M 8	x	140	S	50	111,00
M 8	x	150	S	50	126,00
M 10	x	16	S	200	46,50
M 10	x	20	S	200	21,10
M 10	x	25	S	200	21,20
M 10	x	30	S	200	22,00
M 10	x	35	S	100	23,00
M 10	x	40	S	100	24,20
M 10	x	45	S	100	26,00
M 10	x	50	S	100	26,50
M 10	x	55	S	100	31,50
M 10	x	60	S	100	31,50
M 10	x	65	S	100	36,00
M 10	x	70	S	100	36,00
M 10	x	75	S	100	59,00
M 10	x	80	S	100	56,00
M 10	x	90	S	100	82,00
M 10	x	100	S	100	88,00
M 10	x	110	S	50	101,00
M 10	x	120	S	50	143,00
M 10	x	130	S	50	170,00
M 10	x	140	S	50	170,00
M 10	x	150	S	50	177,00
M 10	x	160	S	50	221,00
M 10	x	170	S	50	249,00
M 10	x	190	S	50	275,00
M 10	x	200	S	50	275,00
M 10	x	220	S	25	340,00
M 10	x	240	S	25	360,00
M 12	x	20	S	100	30,50
M 12	x	25	S	100	30,00
M 12	x	30	S	100	31,50
M 12	x	35	S	100	33,00
M 12	x	40	S	100	34,50
M 12	x	45	S	100	36,50
M 12	x	50	S	100	38,00
M 12	x	55	S	100	41,50
M 12	x	60	S	100	43,50
M 12	x	65	S	50	49,00
M 12	x	70	S	50	47,50
M 12	x	75	S	50	80,00
M 12	x	80	S	50	76,00
M 12	x	85	S	50	113,00
M 12	x	90	S	50	103,00
M 12	x	100	S	50	113,00
M 12	x	110	S	50	152,00
M 12	x	120	S	50	160,00
M 12	x	130	S	50	232,00
M 12	x	140	S	50	255,00
M 12	x	150	S	50	250,00
M 12	x	160	S	50	244,00
M 12	x	170	S	50	285,00
M 12	x	180	S	50	285,00
M 12	x	190	S	50	315,00
M 12	x	200	S	50	315,00
M 12	x	220	S	25	350,00
M 12	x	240	S	25	380,00
M 12	x	260	S	25	395,00
M 12	x	280	S	25	430,00
M 12	x	300	S	25	455,00
M 12	x	320	S	25	475,00
M 12	x	340	S	25	485,00
M 12	x	360	S	25	510,00
M 12	x	380	S	25	530,00
M 12	x	400	S	25	560,00
M 12	x	420	S	25	610,00
M 12	x	440	S	25	640,00
M 14	x	30	S	100	123,00
M 14	x	35	S	100	126,00
M 14	x	40	S	100	126,00
M 14	x	45	S	50	130,00
M 14	x	50	S	50	142,00
M 14	x	60	S	50	147,00
M 14	x	65	S	50	192,00
M 14	x	70	S	50	157,00
M 14	x	80	S	50	175,00
M 14	x	100	S	50	200,00
M 14	x	140	S	25	740,00
M 16	x	30	S	50	62,00
M 16	x	35	S	50	64,00
M 16	x	40	S	50	65,00
M 16	x	45	S	50	82,00
M 16	x	50	S	50	72,00
M 16	x	55	S	50	73,00
M 16	x	60	S	50	75,00
M 16	x	65	S	25	78,00
M 16	x	70	S	25	115,00
M 16	x	75	S	25	88,00
M 16	x	80	S	25	92,00
M 16	x	85	S	25	107,00
M 16	x	90	S	25	102,00
M 16	x	95	S	25	113,00
M 16	x	100	S	25	107,00
M 16	x	110	S	25	113,00
M 16	x	120	S	25	137,00
M 16	x	130	S	25	142,00
M 16	x	140	S	25	152,00
M 16	x	150	S	25	223,00
M 16	x	160	S	25	430,00
M 16	x	170	S	25	455,00
M 16	x	180	S	25	455,00
M 16	x	190	S	25	470,00
M 16	x	200	S	25	470,00
M 16	x	220	S	25	550,00
M 16	x	240	S	25	590,00
M 16	x	250	S	25	770,00
M 16	x	260	S	25	620,00
M 16	x	280	S	25	660,00
M 16	x	300	S	25	690,00
M 16	x	320	S	10	730,00
M 16	x	340	S	10	770,00
M 16	x	360	S	10	810,00
M 16	x	380	S	10	820,00
M 16	x	400	S	10	840,00
M 16	x	420	S	10	870,00
M 16	x	440	S	10	880,00
M 16	x	460	S	10	910,00
M 16	x	480	S	10	950,00
M 16	x	500	S	10	990,00
M 16	x	520	S	10	1640,00
M 16	x	540	S	10	1690,00
M 16	x	560	S	10	1750,00
M 16	x	580	S	10	1820,00
M 18	x	50	S	50	470,00
M 18	x	60	S	25	480,00
M 18	x	70	S	25	480,00

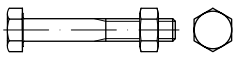
Dimensions	PU	Pieces	€/100/Mat.
M 18 x 80	S	25	495,00
M 18 x 100	S	25	580,00
M 18 x 110	S	25	600,00
M 20 x 30	S	25	305,00
M 20 x 35	S	25	305,00
M 20 x 40	S	25	130,00
M 20 x 45	S	25	137,00
M 20 x 50	S	25	137,00
M 20 x 55	S	25	138,00
M 20 x 60	S	25	138,00
M 20 x 65	S	25	142,00
M 20 x 70	S	25	142,00
M 20 x 75	S	25	147,00
M 20 x 80	S	25	152,00
M 20 x 85	S	25	176,00
M 20 x 90	S	25	161,00
M 20 x 95	S	25	186,00
M 20 x 100	S	25	176,00
M 20 x 110	S	25	186,00
M 20 x 120	S	25	197,00
M 20 x 130	S	25	223,00
M 20 x 140	S	25	233,00
M 20 x 150	S	25	375,00
M 20 x 160	S	10	690,00
M 20 x 170	S	10	690,00
M 20 x 180	S	10	720,00
M 20 x 190	S	10	730,00
M 20 x 200	S	10	760,00
M 20 x 220	S	10	780,00
M 20 x 240	S	10	790,00
M 20 x 250	S	10	840,00
M 20 x 260	S	10	840,00
M 20 x 280	S	10	880,00
M 20 x 300	S	10	900,00
M 20 x 320	S	10	920,00
M 20 x 340	S	10	950,00
M 20 x 360	S	10	1000,00
M 20 x 380	S	10	1040,00
M 20 x 400	S	10	1110,00
M 20 x 420	S	10	1260,00
M 20 x 440	S	10	1320,00
M 20 x 460	S	10	1370,00
M 20 x 480	S	1	1430,00
M 20 x 500	S	1	1480,00
M 20 x 520	S	1	2470,00
M 20 x 540	S	1	2600,00
M 20 x 600	S	1	2850,00
M 22 x 50	S	25	610,00
M 22 x 60	S	25	620,00
M 22 x 70	S	25	620,00
M 22 x 80	S	25	640,00
M 22 x 90	S	25	650,00
M 22 x 100	S	10	730,00
M 22 x 110	S	10	890,00
M 22 x 120	S	10	920,00
M 22 x 130	S	10	1080,00
M 22 x 140	S	10	1110,00
M 22 x 150	S	10	1130,00
M 22 x 300	S	1	2550,00
M 22 x 340	S	1	2750,00
M 22 x 400	S	1	3150,00
M 24 x 40	S	25	560,00
M 24 x 50	S	25	236,00
M 24 x 55	S	25	236,00
M 24 x 60	S	25	236,00
M 24 x 65	S	25	260,00
M 24 x 70	S	25	234,00
M 24 x 75	S	25	250,00
M 24 x 80	S	25	240,00
M 24 x 85	S	10	275,00
M 24 x 90	S	10	260,00
M 24 x 100	S	10	275,00
M 24 x 110	S	10	300,00
M 24 x 120	S	10	310,00
M 24 x 130	S	10	340,00

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 140	S	10	370,00
M 24 x 150	S	10	540,00
M 24 x 160	S	10	1060,00
M 24 x 170	S	10	1100,00
M 24 x 180	S	10	1100,00
M 24 x 200	S	10	1120,00
M 24 x 220	S	10	1130,00
M 24 x 240	S	10	1230,00
M 24 x 250	S	10	1310,00
M 24 x 260	S	10	1310,00
M 24 x 280	S	1	1400,00
M 24 x 300	S	1	1490,00
M 24 x 320	S	1	1640,00
M 24 x 340	S	1	1730,00
M 24 x 360	S	1	1820,00
M 24 x 380	S	1	1920,00
M 24 x 400	S	1	2010,00
M 24 x 440	S	1	2240,00
M 24 x 480	S	1	2420,00
M 24 x 500	S	1	2550,00
M 24 x 520	S	1	3850,00
M 24 x 540	S	1	4000,00
M 24 x 560	S	1	4150,00
M 24 x 580	S	1	4300,00
M 24 x 600	S	1	4400,00
M 27 x 60	S	10	760,00
M 27 x 70	S	10	760,00
M 27 x 75	S	10	760,00
M 27 x 80	S	10	760,00
M 27 x 85	S	10	860,00
M 27 x 90	S	10	800,00
M 27 x 100	S	10	860,00
M 27 x 110	S	10	910,00
M 27 x 120	S	10	910,00
M 27 x 130	S	10	990,00
M 27 x 140	S	10	990,00
M 27 x 150	S	10	1050,00
M 27 x 160	S	10	1330,00
M 27 x 180	S	10	1430,00
M 27 x 200	S	1	1500,00
M 27 x 220	S	1	2160,00
M 27 x 240	S	1	2380,00
M 27 x 260	S	1	2600,00
M 27 x 280	S	1	2850,00
M 27 x 300	S	1	3100,00
M 30 x 60	S	10	1030,00
M 30 x 65	S	10	1030,00
M 30 x 70	S	10	1030,00
M 30 x 80	S	10	1030,00
M 30 x 90	S	10	1070,00
M 30 x 100	S	10	1090,00
M 30 x 110	S	10	1190,00
M 30 x 120	S	10	1190,00
M 30 x 130	S	1	1280,00
M 30 x 140	S	1	1280,00
M 30 x 150	S	1	1320,00
M 30 x 160	S	1	1610,00
M 30 x 180	S	1	1670,00
M 30 x 200	S	1	1830,00
M 30 x 220	S	1	2700,00
M 30 x 240	S	1	3100,00
M 30 x 260	S	1	3500,00
M 30 x 280	S	1	3850,00
M 30 x 300	S	1	4200,00
M 30 x 320	S	1	4600,00
M 30 x 340	S	1	4950,00
M 30 x 360	S	1	5400,00
M 30 x 400	S	1	6200,00
M 33 x 80	S	1	1760,00
M 33 x 100	S	1	1880,00
M 33 x 110	S	1	1990,00
M 33 x 120	S	1	1990,00
M 33 x 130	S	1	2120,00
M 33 x 140	S	1	2120,00
M 33 x 150	S	1	2200,00

Dimensions	PU	Pieces	€/100/Mat.
M 33 x 160	S	1	2700,00
M 33 x 180	S	1	2900,00
M 33 x 200	S	1	3050,00
M 33 x 300	S	1	4450,00
M 36 x 80	S	1	2160,00
M 36 x 90	S	1	2160,00
M 36 x 100	S	1	2160,00
M 36 x 110	S	1	2330,00
M 36 x 120	S	1	2330,00
M 36 x 130	S	1	2480,00
M 36 x 140	S	1	2480,00
M 36 x 150	S	1	2600,00
M 36 x 160	S	1	3150,00
M 36 x 180	S	1	3350,00
M 36 x 200	S	1	3550,00
M 36 x 220	S	1	4100,00
M 36 x 240	S	1	4350,00
M 36 x 280	S	1	4850,00
M 39 x 140	S	1	3400,00
M 39 x 180	S	1	3750,00
M 42 x 120	S	1	3550,00
M 45 x 140	S	1	4800,00
M 48 x 200	S	1	6800,00

DIN	00601.410	290

601 **Mu steel zinc plated**



Hexagon screws, Mu = with hexagon nut

Dimensions ➔ TI-15 Standard conversion ➔ TI-6
Corrosion protection ➔ TI-228 REACH ➔ TI-262

DIN 601 ➔ replaced by ISO 4016
➔ ISO dimensions M 10, 12, 14, 22 on request
construction screws ➔ article 89601

RoHS ✓

M 5	x	16	S	500	16,50 ZP
M 5	x	16	K	100	20,20 ZP
M 5	x	20	S	500	17,00 ZP
M 5	x	20	K	100	20,70 ZP
M 5	x	25	S	500	19,50 ZP
M 5	x	25	K	100	23,20 ZP
M 5	x	30	S	500	19,70 ZP
M 5	x	30	K	100	23,50 ZP
M 5	x	35	S	200	21,60 ZP
M 5	x	40	S	200	22,30 ZP
M 5	x	45	S	200	26,00 ZP
M 5	x	50	S	200	27,50 ZP
M 5	x	55	S	200	31,50 ZP
M 5	x	60	S	200	32,50 ZP
M 5	x	70	S	200	41,50 ZP
M 6	x	10	S	500	10,20 ZP
M 6	x	10	K	100	16,10 ZP
M 6	x	12	S	500	10,20 ZP
M 6	x	12	K	100	16,10 ZP
M 6	x	16	S	500	8,80 ZP
M 6	x	16	K	100	14,80 ZP
M 6	x	20	S	500	8,90 ZP
M 6	x	20	K	100	15,00 ZP
M 6	x	25	S	500	9,50 ZP
M 6	x	25	K	100	15,50 ZP
M 6	x	30	S	500	10,50 ZP
M 6	x	30	K	100	16,50 ZP
M 6	x	35	S	200	15,90 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 40	S	200	16,70 ZP
M 6 x 45	S	200	23,20 ZP
M 6 x 50	S	200	23,60 ZP
M 6 x 55	S	200	30,00 ZP
M 6 x 60	S	200	30,50 ZP
M 6 x 65	S	200	41,00 ZP
M 6 x 70	S	200	38,00 ZP
M 6 x 75	S	200	44,50 ZP
M 6 x 80	S	200	42,00 ZP
M 6 x 90	S	100	55,00 ZP
M 6 x 100	S	100	56,00 ZP
M 8 x 16	S	200	15,30 ZP
M 8 x 20	S	200	15,70 ZP
M 8 x 25	S	200	16,70 ZP
M 8 x 30	S	200	17,70 ZP
M 8 x 35	S	200	19,70 ZP
M 8 x 40	S	200	20,60 ZP
M 8 x 45	S	200	22,30 ZP
M 8 x 50	S	200	23,80 ZP
M 8 x 55	S	200	34,50 ZP
M 8 x 60	S	200	35,00 ZP
M 8 x 65	S	200	51,00 ZP
M 8 x 70	S	200	51,00 ZP
M 8 x 75	S	200	68,00 ZP
M 8 x 80	S	200	66,00 ZP
M 8 x 90	S	100	80,00 ZP
M 8 x 100	S	100	86,00 ZP
M 8 x 110	S	100	93,00 ZP
M 8 x 120	S	100	94,00 ZP
M 8 x 130	S	100	123,00 ZP
M 8 x 140	S	50	132,00 ZP
M 8 x 150	S	50	148,00 ZP
M 8 x 160	S	50	186,00 ZP
M 10 x 16	S	200	56,00 ZP
M 10 x 20	S	200	29,50 ZP
M 10 x 25	S	200	30,00 ZP
M 10 x 30	S	200	31,50 ZP
M 10 x 35	S	100	33,00 ZP
M 10 x 40	S	100	35,50 ZP
M 10 x 45	S	100	37,50 ZP
M 10 x 50	S	100	39,00 ZP
M 10 x 55	S	100	44,50 ZP
M 10 x 60	S	100	45,00 ZP
M 10 x 65	S	100	51,00 ZP
M 10 x 70	S	100	52,00 ZP
M 10 x 75	S	100	75,00 ZP
M 10 x 80	S	100	73,00 ZP
M 10 x 90	S	100	104,00 ZP
M 10 x 100	S	100	111,00 ZP
M 10 x 110	S	50	126,00 ZP
M 10 x 120	S	50	170,00 ZP
M 10 x 130	S	50	197,00 ZP
M 10 x 140	S	50	200,00 ZP
M 10 x 150	S	50	211,00 ZP
M 10 x 160	S	50	255,00 ZP
M 10 x 170	S	50	285,00 ZP
M 10 x 180	S	50	285,00 ZP
M 10 x 200	S	50	315,00 ZP
M 10 x 220	S	25	380,00 ZP
M 10 x 240	S	25	410,00 ZP
M 10 x 260	S	25	445,00 ZP
M 10 x 280	S	25	530,00 ZP
M 10 x 300	S	25	530,00 ZP
M 12 x 20	S	100	42,00 ZP
M 12 x 25	S	100	43,00 ZP
M 12 x 30	S	100	45,00 ZP
M 12 x 35	S	100	47,50 ZP
M 12 x 40	S	100	50,00 ZP
M 12 x 45	S	100	53,00 ZP
M 12 x 50	S	100	56,00 ZP
M 12 x 55	S	100	60,00 ZP
M 12 x 60	S	100	63,00 ZP
M 12 x 65	S	50	68,00 ZP
M 12 x 70	S	50	69,00 ZP
M 12 x 75	S	50	103,00 ZP
M 12 x 80	S	50	100,00 ZP
M 12 x 85	S	50	143,00 ZP
M 12 x 90	S	50	134,00 ZP
M 12 x 110	S	50	187,00 ZP
M 12 x 130	S	50	275,00 ZP
M 12 x 250	S	25	470,00 ZP
M 14 x 30	S	100	147,00 ZP
M 14 x 35	S	100	152,00 ZP
M 14 x 40	S	100	155,00 ZP
M 14 x 45	S	50	160,00 ZP
M 14 x 50	S	50	174,00 ZP
M 14 x 55	S	50	176,00 ZP
M 14 x 60	S	50	183,00 ZP
M 14 x 65	S	50	229,00 ZP
M 14 x 70	S	50	197,00 ZP
M 14 x 80	S	50	217,00 ZP
M 14 x 90	S	50	234,00 ZP
M 14 x 100	S	50	250,00 ZP
M 14 x 110	S	50	270,00 ZP
M 14 x 120	S	50	315,00 ZP
M 14 x 130	S	50	840,00 ZP
M 14 x 180	S	25	950,00 ZP
M 14 x 200	S	25	1050,00 ZP
M 16 x 30	S	50	89,00 ZP
M 16 x 35	S	50	92,00 ZP
M 16 x 40	S	50	94,00 ZP
M 16 x 45	S	50	98,00 ZP
M 16 x 50	S	50	105,00 ZP
M 16 x 55	S	50	107,00 ZP
M 16 x 60	S	50	112,00 ZP
M 16 x 65	S	25	116,00 ZP
M 16 x 70	S	25	123,00 ZP
M 16 x 75	S	25	131,00 ZP
M 16 x 80	S	25	136,00 ZP
M 16 x 85	S	25	154,00 ZP
M 16 x 90	S	25	151,00 ZP
M 16 x 95	S	25	164,00 ZP
M 16 x 250	S	25	770,00 ZP
M 20 x 30	S	25	355,00 ZP
M 20 x 35	S	25	355,00 ZP
M 20 x 40	S	25	182,00 ZP
M 20 x 45	S	25	190,00 ZP
M 20 x 50	S	25	193,00 ZP
M 20 x 55	S	25	195,00 ZP
M 20 x 60	S	25	200,00 ZP
M 20 x 65	S	25	205,00 ZP
M 20 x 70	S	25	209,00 ZP
M 20 x 75	S	25	217,00 ZP
M 20 x 80	S	25	224,00 ZP
M 20 x 85	S	25	255,00 ZP
M 20 x 90	S	25	240,00 ZP
M 20 x 95	S	25	270,00 ZP
M 20 x 100	S	25	265,00 ZP
M 20 x 110	S	25	280,00 ZP
M 20 x 120	S	25	295,00 ZP
M 20 x 130	S	25	330,00 ZP
M 20 x 140	S	25	345,00 ZP
M 20 x 150	S	25	490,00 ZP
M 20 x 170	S	10	920,00 ZP
M 20 x 190	S	10	940,00 ZP
M 20 x 250	S	10	1050,00 ZP
M 22 x 90	S	25	770,00 ZP
M 24 x 45	S	25	660,00 ZP
M 24 x 50	S	25	330,00 ZP
M 24 x 55	S	25	330,00 ZP
M 24 x 60	S	25	335,00 ZP
M 24 x 65	S	25	360,00 ZP
M 24 x 70	S	25	345,00 ZP
M 24 x 75	S	25	360,00 ZP
M 24 x 80	S	25	355,00 ZP
M 24 x 85	S	10	395,00 ZP
M 24 x 90	S	10	380,00 ZP
M 24 x 100	S	10	410,00 ZP
M 24 x 110	S	10	440,00 ZP
M 24 x 120	S	10	460,00 ZP
M 24 x 130	S	10	495,00 ZP
M 24 x 140	S	10	540,00 ZP
M 24 x 150	S	10	710,00 ZP
M 24 x 160	S	10	1330,00 ZP
M 24 x 170	S	10	1360,00 ZP
M 24 x 180	S	10	1380,00 ZP
M 24 x 200	S	10	1390,00 ZP
M 27 x 60	S	10	920,00 ZP
M 27 x 65	S	10	930,00 ZP
M 27 x 70	S	10	930,00 ZP
M 27 x 75	S	10	940,00 ZP
M 27 x 80	S	10	950,00 ZP
M 27 x 85	S	10	1040,00 ZP
M 27 x 90	S	10	1000,00 ZP
M 27 x 100	S	10	1060,00 ZP
M 27 x 110	S	10	1130,00 ZP
M 27 x 120	S	10	1140,00 ZP
M 27 x 130	S	10	1230,00 ZP
M 27 x 140	S	10	1250,00 ZP
M 27 x 150	S	10	1320,00 ZP
M 27 x 200	S	1	1830,00 ZP
M 27 x 240	S	1	2800,00 ZP
M 27 x 260	S	1	3050,00 ZP
M 30 x 60	S	10	1240,00 ZP
M 30 x 70	S	10	1250,00 ZP
M 30 x 80	S	10	1270,00 ZP
M 30 x 90	S	10	1320,00 ZP
M 30 x 100	S	10	1360,00 ZP
M 30 x 110	S	10	1480,00 ZP
M 30 x 120	S	10	1490,00 ZP
M 30 x 130	S	1	1590,00 ZP
M 30 x 140	S	1	1610,00 ZP
M 30 x 150	S	1	1670,00 ZP
M 30 x 160	S	1	1970,00 ZP
M 30 x 180	S	1	2070,00 ZP
M 30 x 200	S	1	2260,00 ZP
M 30 x 260	S	1	4050,00 ZP
M 30 x 360	S	1	6100,00 ZP
M 33 x 110	S	1	2350,00 ZP
M 33 x 120	S	1	2370,00 ZP
M 33 x 130	S	1	2550,00 ZP
M 33 x 150	S	1	2650,00 ZP
M 33 x 200	S	1	3600,00 ZP
M 36 x 100	S	1	2600,00 ZP
M 36 x 110	S	1	2800,00 ZP
M 36 x 120	S	1	2800,00 ZP
M 36 x 140	S	1	3000,00 ZP
M 36 x 160	S	1	3700,00 ZP
M 36 x 180	S	1	3950,00 ZP

RIO® REYHER INTERNET ORDER

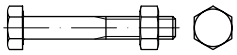
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€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
DIN	00601.420	291

601 Mu steel hot dip galvanized



Hexagon screws,
Mu = with hexagon nut

Caution! See information box.

Dimensions ➔ TI-15 Standard conversion ➔ TI-6
Corrosion protection ➔ TI-231 REACH ➔ TI-262

DIN 601 ➔ replaced by ISO 4016
➔ ISO dimensions M 10, 12, 14, 22 on request

RoHS ✓

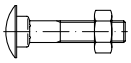
M 10	x	20	S	200	36,00 HDG
M 10	x	25	S	200	37,00 HDG
M 10	x	30	S	200	39,00 HDG
M 10	x	35	S	100	41,50 HDG
M 10	x	40	S	100	43,50 HDG
M 10	x	50	S	100	49,00 HDG
M 10	x	60	S	100	56,00 HDG
M 12	x	25	S	100	53,00 HDG
M 12	x	30	S	100	56,00 HDG
M 12	x	35	S	100	59,00 HDG
M 12	x	40	S	100	62,00 HDG
M 12	x	45	S	100	66,00 HDG
M 12	x	50	S	100	69,00 HDG
M 12	x	55	S	100	75,00 HDG
M 12	x	60	S	100	78,00 HDG
M 12	x	70	S	50	86,00 HDG
M 12	x	80	S	50	118,00 HDG
M 12	x	90	S	50	151,00 HDG
M 12	x	100	S	50	164,00 HDG
M 12	x	110	S	50	209,00 HDG
M 12	x	120	S	50	220,00 HDG
M 12	x	130	S	50	295,00 HDG
M 12	x	140	S	50	320,00 HDG
M 12	x	150	S	50	320,00 HDG
M 16	x	30	S	50	107,00 HDG
M 16	x	35	S	50	113,00 HDG
M 16	x	40	S	50	116,00 HDG
M 16	x	45	S	50	120,00 HDG
M 16	x	50	S	50	130,00 HDG
M 16	x	55	S	50	135,00 HDG
M 16	x	60	S	50	141,00 HDG
M 16	x	65	S	25	146,00 HDG
M 16	x	70	S	25	154,00 HDG
M 16	x	75	S	25	166,00 HDG
M 16	x	80	S	25	170,00 HDG
M 16	x	90	S	25	186,00 HDG
M 16	x	100	S	25	200,00 HDG
M 16	x	110	S	25	211,00 HDG
M 16	x	120	S	25	241,00 HDG
M 16	x	130	S	25	255,00 HDG
M 16	x	140	S	25	270,00 HDG
M 16	x	150	S	25	350,00 HDG
M 16	x	160	S	25	570,00 HDG
M 16	x	170	S	25	580,00 HDG
M 16	x	180	S	25	600,00 HDG
M 16	x	200	S	25	630,00 HDG
M 20	x	40	S	25	220,00 HDG
M 20	x	45	S	25	230,00 HDG
M 20	x	50	S	25	234,00 HDG
M 20	x	55	S	25	241,00 HDG
M 20	x	60	S	25	245,00 HDG
M 20	x	65	S	25	255,00 HDG
M 20	x	70	S	25	260,00 HDG
M 20	x	75	S	25	275,00 HDG
M 20	x	80	S	25	285,00 HDG
M 20	x	90	S	25	305,00 HDG
M 20	x	100	S	25	330,00 HDG
M 20	x	110	S	25	350,00 HDG
M 20	x	120	S	25	370,00 HDG
M 20	x	130	S	25	410,00 HDG
M 20	x	140	S	25	430,00 HDG
M 20	x	150	S	25	580,00 HDG
M 20	x	160	S	10	900,00 HDG
M 20	x	180	S	10	950,00 HDG
M 20	x	200	S	10	1020,00 HDG
M 20	x	220	S	10	1060,00 HDG
M 20	x	240	S	10	1090,00 HDG
M 20	x	260	S	10	1160,00 HDG
M 20	x	280	S	10	1220,00 HDG
M 20	x	300	S	10	1260,00 HDG
M 24	x	80	S	10	445,00 HDG
M 24	x	90	S	10	480,00 HDG
M 24	x	100	S	10	510,00 HDG
M 24	x	120	S	10	570,00 HDG
M 24	x	150	S	10	1020,00 HDG
M 24	x	180	S	10	1980,00 HDG
M 24	x	200	S	10	2010,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

DIN	00603.400	300

603 Mu steel



Cup head square neck bolts,
Mu = with hexagon nut

Dimensions ➔ TI-32 REACH ➔ TI-262

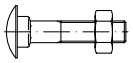
Stainless ➔ pg. 473
Brass ➔ pg. 621

RoHS ✓

M 5	x	16	S	500	21,30
M 5	x	20	S	500	21,40
M 5	x	25	S	500	21,50
M 5	x	30	S	500	22,50
M 5	x	35	S	200	23,00
M 5	x	40	S	200	26,00
M 5	x	45	S	200	27,00
M 5	x	50	S	200	28,00
M 5	x	60	S	200	33,00
M 5	x	70	S	200	47,50
M 6	x	16	S	500	8,60
M 6	x	20	S	500	8,40
M 6	x	25	S	500	8,60
M 6	x	30	S	500	8,90
M 6	x	35	S	200	9,80
M 6	x	40	S	200	10,60
M 6	x	45	S	200	10,90
M 6	x	50	S	200	11,40
M 6	x	55	S	200	13,80
M 6	x	60	S	200	12,60
M 6	x	65	S	200	23,90
M 6	x	70	S	200	22,20
M 6	x	80	S	200	35,00
M 6	x	90	S	100	37,50
M 6	x	100	S	100	45,00
M 6	x	110	S	100	59,00
M 6	x	120	S	100	59,00
M 6	x	130	S	100	98,00
M 8	x	16	S	200	13,50
M 8	x	20	S	200	13,50
M 8	x	25	S	200	13,60
M 8	x	30	S	200	14,00
M 8	x	35	S	200	15,10
M 8	x	40	S	200	15,80
M 8	x	45	S	200	17,50
M 8	x	50	S	200	16,90
M 8	x	55	S	200	19,50
M 8	x	60	S	200	19,50
M 8	x	65	S	200	24,20
M 8	x	70	S	200	22,10
M 8	x	75	S	200	27,50
M 8	x	80	S	200	25,50
M 8	x	90	S	100	38,50
M 8	x	100	S	100	46,00
M 8	x	110	S	100	57,00
M 8	x	120	S	100	70,00
M 8	x	130	S	100	73,00
M 8	x	140	S	100	73,00
M 8	x	150	S	100	142,00
M 8	x	160	S	100	142,00
M 8	x	170	S	50	163,00
M 8	x	180	S	50	163,00
M 10	x	20	S	200	22,90
M 10	x	25	S	200	22,90
M 10	x	30	S	200	23,80
M 10	x	35	S	100	25,50
M 10	x	40	S	100	27,50
M 10	x	45	S	100	32,00
M 10	x	50	S	100	27,50
M 10	x	55	S	100	32,50
M 10	x	60	S	100	34,00
M 10	x	65	S	100	36,00
M 10	x	70	S	100	34,50
M 10	x	80	S	100	38,50
M 10	x	90	S	100	58,00
M 10	x	100	S	100	67,00
M 10	x	110	S	50	77,00
M 10	x	120	S	50	95,00
M 10	x	130	S	50	105,00
M 10	x	140	S	50	110,00
M 10	x	150	S	50	142,00
M 10	x	160	S	50	167,00
M 10	x	170	S	50	217,00
M 10	x	180	S	50	222,00
M 10	x	190	S	50	239,00
M 10	x	200	S	50	239,00
M 10	x	220	S	25	315,00
M 10	x	240	S	25	345,00
M 10	x	260	S	25	375,00
M 10	x	280	S	25	400,00
M 10	x	300	S	25	430,00
M 12	x	25	S	100	84,00
M 12	x	30	S	100	101,00
M 12	x	35	S	100	101,00
M 12	x	40	S	100	87,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	45	S	100	92,00
M 12	x	50	S	100	95,00
M 12	x	55	S	100	99,00
M 12	x	60	S	100	102,00
M 12	x	65	S	50	121,00
M 12	x	70	S	50	107,00
M 12	x	75	S	50	130,00
M 12	x	80	S	50	118,00
M 12	x	90	S	50	136,00
M 12	x	100	S	50	142,00
M 12	x	110	S	50	160,00
M 12	x	120	S	50	170,00
M 12	x	130	S	50	182,00
M 12	x	140	S	50	197,00
M 12	x	150	S	50	215,00
M 12	x	160	S	25	234,00
M 12	x	170	S	25	260,00
M 12	x	180	S	25	260,00
M 12	x	190	S	25	290,00
M 12	x	200	S	25	290,00
M 12	x	220	S	25	330,00
M 12	x	240	S	25	355,00
M 12	x	250	S	25	380,00
M 12	x	260	S	25	380,00
M 12	x	280	S	25	410,00
M 12	x	300	S	25	440,00
M 12	x	320	S	25	520,00
M 12	x	340	S	25	560,00
M 12	x	360	S	25	630,00
M 12	x	380	S	25	700,00
M 12	x	400	S	25	810,00
M 16	x	40	S	50	265,00
M 16	x	45	S	50	265,00
M 16	x	50	S	50	239,00
M 16	x	55	S	50	260,00
M 16	x	60	S	50	260,00
M 16	x	65	S	25	295,00
M 16	x	70	S	25	275,00
M 16	x	75	S	25	330,00
M 16	x	80	S	25	275,00
M 16	x	90	S	25	285,00
M 16	x	100	S	25	295,00
M 16	x	110	S	25	330,00
M 16	x	120	S	25	335,00
M 16	x	130	S	25	400,00
M 16	x	140	S	25	400,00
M 16	x	150	S	25	410,00
M 16	x	160	S	25	450,00
M 16	x	170	S	25	475,00
M 16	x	180	S	25	475,00
M 16	x	200	S	25	495,00
M 16	x	220	S	25	590,00
M 16	x	240	S	25	640,00
M 16	x	260	S	25	690,00
M 16	x	280	S	25	740,00
M 16	x	300	S	25	780,00
M 16	x	320	S	10	810,00
M 16	x	340	S	10	850,00
M 16	x	360	S	10	890,00
M 16	x	400	S	10	980,00
M 20	x	80	S	25	890,00
M 20	x	100	S	25	960,00
M 20	x	120	S	25	1020,00
M 20	x	140	S	1	1090,00
M 20	x	160	S	1	1200,00
M 20	x	180	S	1	1250,00
M 20	x	200	S	1	1310,00
M 20	x	220	S	1	1350,00
M 20	x	240	S	1	1420,00
M 20	x	280	S	1	1600,00
M 20	x	300	S	1	1680,00

Dimensions			PU	Pieces	€/100/Mat.
DIN			00603.410		300
603			**Mu steel zinc plated**		



Cup head square neck bolts, Mu = with hexagon nut

Dimensions ➔ TI-32
Corrosion protection ➔ TI-228
REACH ➔ TI-262
Stainless ➔ pg. 473
Brass ➔ pg. 621

RoHS ✓

M 5	x	16	S	500	23,00 ZP
M 5	x	16	K	100	29,00 ZP
M 5	x	20	S	500	23,20 ZP
M 5	x	20	K	100	29,50 ZP
M 5	x	25	S	500	23,60 ZP
M 5	x	25	K	100	30,00 ZP
M 5	x	30	S	500	24,90 ZP
M 5	x	30	K	100	31,00 ZP
M 5	x	35	S	200	25,50 ZP
M 5	x	40	S	200	29,00 ZP
M 5	x	45	S	200	30,50 ZP
M 5	x	50	S	200	31,50 ZP
M 5	x	55	S	200	36,50 ZP
M 5	x	60	S	200	37,00 ZP
M 5	x	65	S	200	52,00 ZP
M 5	x	70	S	200	52,00 ZP
M 5	x	80	S	200	58,00 ZP
M 5	x	90	S	200	98,00 ZP
M 6	x	16	S	500	10,80 ZP
M 6	x	16	K	100	16,70 ZP
M 6	x	20	S	500	10,80 ZP
M 6	x	20	K	100	16,70 ZP
M 6	x	25	S	500	11,20 ZP
M 6	x	25	K	100	17,20 ZP
M 6	x	30	S	500	11,70 ZP
M 6	x	30	K	100	17,70 ZP
M 6	x	35	S	200	12,90 ZP
M 6	x	40	S	200	14,00 ZP
M 6	x	45	S	200	14,60 ZP
M 6	x	50	S	200	15,30 ZP
M 6	x	55	S	200	18,00 ZP
M 6	x	60	S	200	17,10 ZP
M 6	x	65	S	200	28,50 ZP
M 6	x	70	S	200	27,50 ZP
M 6	x	75	S	200	33,50 ZP
M 6	x	80	S	200	41,50 ZP
M 6	x	90	S	100	44,50 ZP
M 6	x	100	S	100	53,00 ZP
M 6	x	110	S	100	67,00 ZP
M 6	x	120	S	100	68,00 ZP
M 6	x	130	S	100	107,00 ZP
M 6	x	140	S	100	113,00 ZP
M 6	x	150	S	100	184,00 ZP
M 8	x	16	S	200	17,60 ZP
M 8	x	20	S	200	17,90 ZP
M 8	x	25	S	200	18,40 ZP
M 8	x	30	S	200	19,20 ZP
M 8	x	35	S	200	20,90 ZP
M 8	x	40	S	200	22,00 ZP
M 8	x	45	S	200	23,30 ZP
M 8	x	50	S	200	24,00 ZP
M 8	x	55	S	200	27,50 ZP

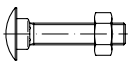
Dimensions			PU	Pieces	€/100/Mat.
M 8	x	60	S	200	28,00 ZP
M 8	x	65	S	200	32,00 ZP
M 8	x	70	S	200	31,50 ZP
M 8	x	75	S	200	37,00 ZP
M 8	x	80	S	200	35,50 ZP
M 8	x	90	S	100	49,50 ZP
M 8	x	100	S	100	58,00 ZP
M 8	x	110	S	100	70,00 ZP
M 8	x	120	S	100	87,00 ZP
M 8	x	130	S	100	90,00 ZP
M 8	x	140	S	100	92,00 ZP
M 8	x	150	S	100	161,00 ZP
M 8	x	160	S	100	163,00 ZP
M 8	x	170	S	50	184,00 ZP
M 8	x	180	S	50	184,00 ZP
M 8	x	190	S	50	205,00 ZP
M 8	x	200	S	50	206,00 ZP
M 10	x	20	S	200	31,00 ZP
M 10	x	25	S	200	31,50 ZP
M 10	x	30	S	200	33,00 ZP
M 10	x	35	S	100	34,00 ZP
M 10	x	40	S	100	36,00 ZP
M 10	x	45	S	100	38,00 ZP
M 10	x	50	S	100	39,50 ZP
M 10	x	55	S	100	41,00 ZP
M 10	x	60	S	100	43,50 ZP
M 10	x	65	S	100	48,50 ZP
M 10	x	70	S	100	49,50 ZP
M 10	x	75	S	100	58,00 ZP
M 10	x	80	S	100	55,00 ZP
M 10	x	90	S	100	77,00 ZP
M 10	x	100	S	100	87,00 ZP
M 10	x	110	S	50	97,00 ZP
M 10	x	120	S	50	123,00 ZP
M 10	x	130	S	50	134,00 ZP
M 10	x	140	S	50	142,00 ZP
M 10	x	150	S	50	174,00 ZP
M 10	x	160	S	50	201,00 ZP
M 10	x	170	S	50	255,00 ZP
M 10	x	180	S	50	260,00 ZP
M 10	x	190	S	50	280,00 ZP
M 10	x	200	S	50	280,00 ZP
M 10	x	220	S	25	360,00 ZP
M 10	x	240	S	25	390,00 ZP
M 10	x	260	S	25	425,00 ZP
M 10	x	280	S	25	455,00 ZP
M 10	x	300	S	25	490,00 ZP
M 12	x	30	S	100	119,00 ZP
M 12	x	35	S	100	120,00 ZP
M 12	x	40	S	100	107,00 ZP
M 12	x	45	S	100	113,00 ZP
M 12	x	50	S	100	116,00 ZP
M 12	x	55	S	100	123,00 ZP
M 12	x	60	S	100	126,00 ZP
M 12	x	65	S	50	147,00 ZP
M 12	x	70	S	50	135,00 ZP
M 12	x	75	S	50	158,00 ZP
M 12	x	80	S	50	148,00 ZP
M 12	x	90	S	50	167,00 ZP
M 12	x	100	S	50	176,00 ZP
M 12	x	110	S	50	195,00 ZP
M 12	x	120	S	50	209,00 ZP
M 12	x	130	S	50	223,00 ZP
M 12	x	140	S	50	241,00 ZP
M 12	x	150	S	50	265,00 ZP
M 12	x	160	S	25	285,00 ZP
M 12	x	170	S	25	310,00 ZP
M 12	x	180	S	25	310,00 ZP
M 12	x	190	S	25	345,00 ZP
M 12	x	200	S	25	350,00 ZP
M 12	x	220	S	25	395,00 ZP
M 12	x	240	S	25	425,00 ZP
M 12	x	250	S	25	455,00 ZP
M 12	x	260	S	25	460,00 ZP
M 12	x	280	S	25	490,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	300	S	25	530,00 ZP
M 12	x	320	S	25	610,00 ZP
M 12	x	340	S	25	670,00 ZP
M 12	x	360	S	25	740,00 ZP
M 12	x	380	S	25	810,00 ZP
M 12	x	400	S	25	930,00 ZP
M 16	x	35	S	50	325,00 ZP
M 16	x	40	S	50	305,00 ZP
M 16	x	45	S	50	305,00 ZP
M 16	x	50	S	50	285,00 ZP
M 16	x	55	S	50	305,00 ZP
M 16	x	60	S	50	305,00 ZP
M 16	x	65	S	25	345,00 ZP
M 16	x	70	S	25	325,00 ZP
M 16	x	75	S	25	380,00 ZP
M 16	x	80	S	25	330,00 ZP
M 16	x	90	S	25	350,00 ZP
M 16	x	100	S	25	360,00 ZP
M 16	x	110	S	25	400,00 ZP
M 16	x	120	S	25	410,00 ZP
M 16	x	130	S	25	475,00 ZP
M 16	x	140	S	25	485,00 ZP
M 16	x	150	S	25	500,00 ZP
M 16	x	160	S	25	540,00 ZP
M 16	x	170	S	25	570,00 ZP
M 16	x	180	S	25	580,00 ZP
M 16	x	190	S	25	600,00 ZP
M 16	x	200	S	25	610,00 ZP
M 16	x	220	S	25	710,00 ZP
M 16	x	240	S	25	770,00 ZP
M 16	x	260	S	25	840,00 ZP
M 16	x	280	S	25	880,00 ZP
M 16	x	300	S	25	940,00 ZP
M 16	x	320	S	10	990,00 ZP
M 16	x	340	S	10	1040,00 ZP
M 16	x	360	S	10	1080,00 ZP
M 16	x	380	S	10	1130,00 ZP
M 16	x	400	S	10	1190,00 ZP
M 20	x	80	S	25	990,00 ZP
M 20	x	100	S	25	1070,00 ZP
M 20	x	120	S	25	1150,00 ZP
M 20	x	140	S	1	1230,00 ZP
M 20	x	180	S	1	1420,00 ZP
M 20	x	200	S	1	1500,00 ZP
M 20	x	240	S	1	1630,00 ZP
M 20	x	280	S	1	1870,00 ZP
M 20	x	300	S	1	1960,00 ZP

DIN 00603.404 300

603 Mu steel F



Cup head square neck bolts,
Mu = with hexagon nut,
F = thread up to square neck

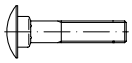
Dimensions ➔ TI-32
REACH ➔ TI-262

Stainless ➔ pg. 473
Brass ➔ pg. 621

RoHS ✓

M 8	x	70	S	200	56,00

Dimensions			PU	Pieces	€/100/Mat.
DIN		00603.814			302
603		**8.8 zinc plated**			



Cup head square neck bolts
(without nuts)

nuts ➔ DIN 934/ISO 4034
prop. class 8 ZP

Dimensions ➔ TI-32
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244

Stainless ➔ pg. 473
Brass ➔ pg. 621

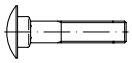
RoHS ✓ REACh SVHC free

M 6	x	10	S	500	28,00 ZP
M 6	x	16	S	500	28,50 ZP
M 6	x	20	S	500	29,50 ZP
M 6	x	25	S	500	31,50 ZP
M 6	x	30	S	500	34,50 ZP
M 6	x	35	S	200	37,00 ZP
M 6	x	40	S	200	39,50 ZP
M 6	x	45	S	200	42,50 ZP
M 6	x	50	S	200	45,50 ZP
M 6	x	60	S	200	48,00 ZP
M 6	x	70	S	200	51,00 ZP
M 8	x	16	S	200	47,00 ZP
M 8	x	20	S	200	51,00 ZP
M 8	x	25	S	200	54,00 ZP
M 8	x	30	S	200	57,00 ZP
M 8	x	35	S	200	62,00 ZP
M 8	x	40	S	200	66,00 ZP
M 8	x	45	S	200	69,00 ZP
M 8	x	50	S	200	76,00 ZP
M 8	x	55	S	200	79,00 ZP
M 8	x	60	S	200	84,00 ZP
M 8	x	65	S	200	91,00 ZP
M 8	x	70	S	200	97,00 ZP
M 8	x	80	S	200	112,00 ZP
M 8	x	90	S	100	125,00 ZP
M 8	x	100	S	100	137,00 ZP
M 8	x	110	S	100	146,00 ZP
M 8	x	120	S	100	146,00 ZP
M 8	x	140	S	100	158,00 ZP
M 10	x	20	S	200	78,00 ZP
M 10	x	25	S	200	83,00 ZP
M 10	x	30	S	200	86,00 ZP
M 10	x	35	S	100	92,00 ZP
M 10	x	40	S	100	103,00 ZP
M 10	x	45	S	100	111,00 ZP
M 10	x	50	S	100	117,00 ZP
M 10	x	55	S	100	121,00 ZP
M 10	x	60	S	100	131,00 ZP
M 10	x	65	S	100	138,00 ZP
M 10	x	70	S	100	146,00 ZP
M 10	x	75	S	100	153,00 ZP
M 10	x	80	S	100	157,00 ZP
M 10	x	90	S	100	177,00 ZP
M 10	x	100	S	100	197,00 ZP
M 10	x	110	S	100	200,00 ZP
M 10	x	120	S	100	206,00 ZP
M 12	x	25	S	100	115,00 ZP
M 12	x	30	S	100	118,00 ZP
M 12	x	35	S	100	124,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	40	S	100	132,00 ZP
M 12	x	45	S	100	141,00 ZP
M 12	x	50	S	100	148,00 ZP
M 12	x	60	S	100	166,00 ZP
M 12	x	70	S	50	181,00 ZP
M 12	x	75	S	50	182,00 ZP
M 12	x	80	S	50	203,00 ZP
M 12	x	90	S	50	230,00 ZP
M 12	x	100	S	50	244,00 ZP
M 12	x	110	S	50	260,00 ZP
M 12	x	120	S	50	275,00 ZP
M 12	x	130	S	50	295,00 ZP
M 16	x	40	S	50	630,00 ZP
M 16	x	45	S	50	660,00 ZP
M 16	x	50	S	50	660,00 ZP
M 16	x	60	S	50	680,00 ZP
M 16	x	65	S	25	720,00 ZP
M 16	x	70	S	25	720,00 ZP
M 16	x	80	S	25	760,00 ZP
M 16	x	90	S	25	780,00 ZP
M 16	x	100	S	25	820,00 ZP
M 16	x	110	S	25	830,00 ZP
M 16	x	120	S	25	840,00 ZP
M 16	x	130	S	25	860,00 ZP
M 16	x	140	S	25	880,00 ZP
M 16	x	160	S	25	910,00 ZP

DIN 00603.824 302

603 8.8 hot dip galvanized



Cup head square neck bolts
without nuts,
thread undersize (6az + HDG = U)

Caution! See information box.

nuts ➔ DIN 934/ISO 4034
prop. class 8 HDG

Dimensions ➔ TI-32
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244

Stainless ➔ pg. 473
Brass ➔ pg. 621

RoHS ✓ REACh SVHC free

M 10	x	25	S	100	89,00 HDG
M 10	x	30	S	100	92,00 HDG
M 10	x	35	S	100	99,00 HDG
M 10	x	40	S	100	109,00 HDG
M 12	x	25	S	100	121,00 HDG
M 12	x	30	S	100	124,00 HDG
M 12	x	35	S	100	130,00 HDG
M 12	x	40	S	100	138,00 HDG

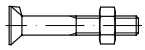
Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions	PU Pieces	€/100/Mat.
DIN	00604.400	310

604

Mu steel



Flat countersunk nib bolts,
Mu = with hexagon nut

Dimensions → TI-32 REACH → TI-262

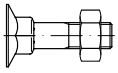
RoHS ✓

M 6	x	20	S	500	41,00
M 6	x	25	S	500	43,00
M 6	x	30	S	500	44,50
M 6	x	35	S	200	45,50
M 6	x	40	S	200	47,50
M 6	x	60	S	200	60,00
M 8	x	20	S	200	48,00
M 8	x	25	S	200	48,00
M 8	x	30	S	200	49,50
M 8	x	35	S	200	52,00
M 8	x	40	S	200	53,00
M 8	x	45	S	200	54,00
M 8	x	50	S	200	57,00
M 8	x	55	S	200	64,00
M 8	x	60	S	200	66,00
M 8	x	70	S	200	76,00
M 10	x	25	S	200	84,00
M 10	x	30	S	200	86,00
M 10	x	35	S	100	88,00
M 10	x	40	S	100	91,00
M 10	x	45	S	100	94,00
M 10	x	50	S	100	95,00
M 10	x	55	S	100	104,00
M 10	x	60	S	100	104,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	120,00
M 10	x	100	S	100	170,00
M 12	x	25	S	100	114,00
M 12	x	30	S	100	114,00
M 12	x	35	S	100	114,00
M 12	x	40	S	100	118,00
M 12	x	45	S	100	120,00
M 12	x	50	S	100	125,00
M 12	x	55	S	100	128,00
M 12	x	60	S	100	130,00
M 12	x	65	S	50	152,00
M 12	x	70	S	50	142,00
M 12	x	80	S	50	146,00
M 12	x	90	S	50	160,00
M 12	x	100	S	50	166,00
M 12	x	110	S	50	410,00
M 12	x	120	S	50	435,00
M 16	x	30	S	50	221,00
M 16	x	35	S	50	221,00
M 16	x	40	S	50	224,00
M 16	x	45	S	50	230,00
M 16	x	50	S	50	235,00
M 16	x	55	S	50	244,00
M 16	x	60	S	50	244,00
M 16	x	65	S	25	260,00
M 16	x	70	S	25	260,00
M 16	x	75	S	25	330,00
M 16	x	80	S	25	330,00
M 16	x	90	S	25	340,00
M 16	x	100	S	25	360,00
M 16	x	110	S	25	500,00
M 16	x	120	S	25	510,00
M 16	x	130	S	25	630,00
M 16	x	140	S	25	880,00
M 20	x	40	S	25	405,00
M 20	x	45	S	25	405,00
M 20	x	50	S	25	405,00
M 20	x	55	S	25	430,00
M 20	x	60	S	25	430,00
M 20	x	65	S	25	460,00
M 20	x	70	S	25	460,00
M 20	x	75	S	25	470,00
M 20	x	80	S	25	470,00
M 20	x	90	S	25	500,00
M 20	x	100	S	25	510,00
M 20	x	110	S	25	830,00
M 20	x	120	S	25	830,00
M 20	x	130	S	25	860,00
M 20	x	140	S	25	980,00
M 24	x	60	S	25	730,00
M 24	x	65	S	25	760,00
M 24	x	70	S	25	760,00
M 24	x	75	S	25	790,00
M 24	x	80	S	25	790,00
M 24	x	90	S	10	820,00
M 24	x	100	S	10	850,00
M 24	x	110	S	10	1090,00
M 24	x	120	S	10	1290,00
M 24	x	130	S	10	1500,00

DIN	00605.400	310

605

Mu steel



Flat countersunk square neck bolts
with long square,
Mu = with hexagon nut

Dimensions → TI-33 REACH → TI-262

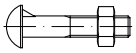
RoHS ✓

M 6	x	30	S	500	98,00
M 6	x	35	S	200	98,00
M 6	x	40	S	200	100,00
M 6	x	45	S	200	101,00
M 6	x	50	S	200	102,00
M 6	x	55	S	200	103,00
M 6	x	60	S	200	104,00
M 8	x	30	S	200	105,00
M 8	x	35	S	200	106,00
M 8	x	40	S	200	108,00
M 8	x	45	S	200	110,00
M 8	x	50	S	200	113,00
M 8	x	55	S	200	114,00
M 8	x	60	S	200	118,00
M 8	x	65	S	200	123,00
M 8	x	70	S	200	124,00
M 10	x	30	S	200	131,00
M 10	x	35	S	100	132,00
M 10	x	40	S	100	132,00
M 10	x	50	S	100	142,00
M 10	x	60	S	100	148,00
M 10	x	70	S	100	174,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00607.400	310

607

Mu steel



Cup head nib bolts,
Mu = with hexagon nut

Dimensions → TI-33 REACH → TI-262

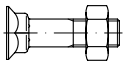
RoHS ✓

M 8	x	20	S	200	78,00
M 8	x	25	S	200	79,00
M 8	x	35	S	200	86,00
M 8	x	40	S	200	86,00
M 10	x	20	S	200	89,00
M 10	x	25	S	200	89,00
M 10	x	30	S	200	89,00
M 10	x	40	S	100	98,00
M 12	x	30	S	100	126,00
M 12	x	35	S	100	129,00
M 12	x	40	S	100	138,00
M 16	x	35	S	50	285,00
M 16	x	40	S	50	290,00
M 16	x	45	S	50	300,00
M 16	x	50	S	50	305,00
M 16	x	60	S	50	330,00

DIN	00608.800	310

608

Mu 8.8



Flat countersunk square neck bolts
with short square,
Mu = with hexagon nut

Dimensions → TI-33 Tightening torque → TI-244
Material properties → TI-232

RoHS ✓ REACh SVHC free

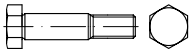
M 8	x	30	S	200	175,00
M 8	x	35	S	200	182,00
M 10	x	25	S	200	158,00
M 10	x	30	S	200	167,00
M 10	x	35	S	100	184,00
M 10	x	40	S	100	200,00
M 10	x	45	S	100	205,00
M 10	x	50	S	100	270,00
M 10	x	60	S	100	375,00
M 12	x	25	S	100	265,00
M 12	x	30	S	100	275,00
M 12	x	35	S	100	305,00
M 12	x	40	S	100	305,00
M 12	x	45	S	100	315,00
M 12	x	50	S	100	345,00
M 12	x	55	S	100	440,00
M 12	x	60	S	100	440,00
M 12	x	65	S	50	495,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	70	S	50	495,00
M 16	x	40	S	50	610,00
M 16	x	50	S	50	630,00
M 16	x	55	S	50	670,00
M 16	x	60	S	50	670,00
M 16	x	70	S	25	750,00
M 16	x	80	S	25	840,00

DIN	00609.800	320

609

8.8



Hexagon fit bolts with long thread

Dimensions ➔ TI-16
Material properties ➔ TI-232

Tightening torque ➔ TI-244

RoHS ✓

REACh SVHC free

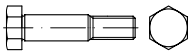
M 8	x	25	S	25	445,00
M 8	x	30	S	25	470,00
M 8	x	32	S	25	470,00
M 8	x	35	S	25	475,00
M 8	x	40	S	25	495,00
M 8	x	45	S	25	510,00
M 8	x	50	S	25	530,00
M 8	x	60	S	25	720,00
M 8	x	70	S	25	760,00
M 10	x	30	S	25	480,00
M 10	x	35	S	25	495,00
M 10	x	40	S	25	510,00
M 10	x	45	S	25	540,00
M 10	x	50	S	25	560,00
M 10	x	55	S	25	560,00
M 10	x	60	S	25	570,00
M 10	x	65	S	25	770,00
M 10	x	70	S	25	770,00
M 10	x	75	S	25	780,00
M 10	x	80	S	25	790,00
M 10	x	90	S	25	820,00
M 10	x	100	S	25	850,00
M 12	x	30	S	25	540,00
M 12	x	35	S	25	560,00
M 12	x	40	S	25	580,00
M 12	x	45	S	25	610,00
M 12	x	50	S	25	650,00
M 12	x	55	S	25	670,00
M 12	x	60	S	25	670,00
M 12	x	65	S	25	890,00
M 12	x	70	S	25	920,00
M 12	x	75	S	10	940,00
M 12	x	80	S	10	940,00
M 12	x	90	S	10	990,00
M 12	x	100	S	10	990,00
M 14	x	35	S	10	620,00
M 14	x	40	S	10	650,00
M 14	x	45	S	10	670,00
M 14	x	50	S	10	690,00
M 14	x	60	S	10	730,00
M 14	x	65	S	10	760,00
M 14	x	70	S	10	780,00
M 14	x	80	S	10	1120,00
M 16	x	40	S	10	690,00
M 16	x	45	S	10	730,00
M 16	x	50	S	10	760,00
M 16	x	55	S	10	780,00

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	60	S	10	820,00
M 16	x	65	S	10	830,00
M 16	x	70	S	10	860,00
M 16	x	75	S	10	880,00
M 16	x	80	S	10	910,00
M 16	x	85	S	10	990,00
M 16	x	90	S	10	990,00
M 16	x	100	S	10	1120,00
M 16	x	120	S	10	1340,00
M 20	x	45	S	10	1150,00
M 20	x	50	S	10	1240,00
M 20	x	55	S	10	1250,00
M 20	x	60	S	10	1280,00
M 20	x	65	S	10	1340,00
M 20	x	70	S	10	1350,00
M 20	x	75	S	10	1380,00
M 20	x	80	S	1	1430,00
M 20	x	85	S	1	1460,00
M 20	x	90	S	1	1520,00
M 20	x	100	S	1	1600,00
M 20	x	110	S	1	1720,00
M 20	x	120	S	1	1770,00
M 20	x	130	S	1	4450,00
M 20	x	140	S	1	4600,00
M 20	x	150	S	1	4800,00
M 20	x	160	S	1	4950,00
M 20	x	180	S	1	5400,00
M 20	x	200	S	1	5700,00
M 24	x	60	S	1	2300,00
M 24	x	65	S	1	2340,00
M 24	x	70	S	1	2400,00
M 24	x	75	S	1	2440,00
M 24	x	80	S	1	2500,00
M 24	x	85	S	1	2550,00
M 24	x	90	S	1	2600,00
M 24	x	100	S	1	2700,00
M 24	x	110	S	1	2850,00
M 24	x	120	S	1	2950,00
M 24	x	130	S	1	5100,00
M 24	x	140	S	1	5300,00
M 24	x	150	S	1	5400,00
M 24	x	160	S	1	5700,00
M 24	x	180	S	1	6200,00
M 24	x	200	S	1	6700,00
M 30	x	70	S	1	3650,00
M 30	x	75	S	1	3700,00
M 30	x	80	S	1	3850,00
M 30	x	85	S	1	3900,00
M 30	x	90	S	1	3950,00
M 30	x	100	S	1	4200,00
M 30	x	110	S	1	4400,00
M 30	x	120	S	1	4600,00
M 30	x	130	S	1	4750,00
M 30	x	140	S	1	4950,00
M 30	x	150	S	1	5200,00
M 30	x	160	S	1	5400,00
M 30	x	200	S	1	6300,00
M 36	x	90	S	1	4750,00
M 36	x	100	S	1	5100,00
M 36	x	110	S	1	5300,00
M 36	x	120	S	1	5600,00
M 36	x	130	S	1	5700,00
M 36	x	140	S	1	5900,00
M 36	x	150	S	1	6200,00
M 36	x	160	S	1	6400,00

Dimensions		PU	Pieces	€/100/Mat.
DIN	00609.100			320

609

10.9



Hexagon fit bolts with long thread

Dimensions ➔ TI-16
Material properties ➔ TI-232

Tightening torque ➔ TI-244

RoHS ✓

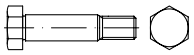
REACh SVHC free

M 8	x	25	S	25	580,00
M 8	x	30	S	25	610,00
M 8	x	35	S	25	620,00
M 8	x	40	S	25	640,00
M 8	x	45	S	25	670,00
M 8	x	50	S	50	680,00
M 10	x	30	S	25	630,00
M 10	x	35	S	25	710,00
M 10	x	40	S	25	670,00
M 10	x	45	S	25	700,00
M 10	x	50	S	25	720,00
M 10	x	55	S	25	730,00
M 10	x	60	S	25	740,00
M 12	x	30	S	25	700,00
M 12	x	35	S	25	720,00
M 12	x	40	S	25	750,00
M 12	x	45	S	25	790,00
M 12	x	50	S	25	840,00
M 12	x	55	S	25	870,00
M 12	x	60	S	25	870,00
M 16	x	40	S	10	900,00
M 16	x	45	S	10	950,00
M 16	x	50	S	10	980,00
M 16	x	55	S	10	1010,00
M 16	x	60	S	10	1060,00
M 16	x	65	S	10	1070,00
M 16	x	70	S	10	1120,00
M 16	x	80	S	10	1180,00
M 16	x	90	S	10	1280,00
M 16	x	100	S	10	1450,00
M 20	x	45	S	10	1500,00
M 20	x	50	S	10	1610,00
M 20	x	55	S	10	1630,00
M 20	x	60	S	10	1660,00
M 20	x	65	S	10	1740,00
M 20	x	70	S	10	1750,00
M 20	x	75	S	10	1800,00
M 20	x	80	S	1	1860,00
M 20	x	85	S	1	1890,00
M 20	x	90	S	1	1970,00
M 20	x	100	S	1	2080,00
M 20	x	110	S	1	2240,00
M 20	x	120	S	1	2300,00
M 24	x	60	S	1	3000,00
M 24	x	65	S	1	3050,00
M 24	x	70	S	1	3150,00
M 24	x	75	S	1	3200,00
M 24	x	80	S	1	3250,00
M 24	x	85	S	1	3350,00
M 24	x	90	S	1	3400,00
M 24	x	100	S	1	3550,00
M 24	x	110	S	1	3650,00
M 24	x	120	S	1	3850,00
M 24	x	130	S	1	6700,00
M 24	x	140	S	1	6900,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	00610.800	320

610

8.8



Hexagon fit bolts with short thread

Dimensions ➔ TI-17
Material properties ➔ TI-232
Tightening torque ➔ TI-244

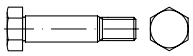
RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	25	S	25	445,00
M 8	x	30	S	25	470,00
M 8	x	35	S	25	475,00
M 8	x	40	S	25	495,00
M 8	x	45	S	25	510,00
M 8	x	50	S	25	530,00
M 8	x	60	S	25	720,00
M 8	x	70	S	25	760,00
M 8	x	80	S	25	830,00
M 10	x	30	S	25	480,00
M 10	x	35	S	25	495,00
M 10	x	40	S	25	510,00
M 10	x	45	S	25	540,00
M 10	x	50	S	25	560,00
M 10	x	55	S	25	560,00
M 10	x	60	S	25	570,00
M 10	x	65	S	25	770,00
M 10	x	70	S	25	770,00
M 10	x	80	S	25	790,00
M 10	x	90	S	25	820,00
M 10	x	100	S	25	850,00
M 12	x	30	S	25	540,00
M 12	x	35	S	25	560,00
M 12	x	40	S	25	580,00
M 12	x	45	S	25	610,00
M 12	x	50	S	25	650,00
M 12	x	55	S	25	670,00
M 12	x	60	S	25	670,00
M 12	x	65	S	25	890,00
M 12	x	70	S	25	920,00
M 12	x	75	S	10	940,00
M 12	x	80	S	10	940,00
M 12	x	90	S	10	990,00
M 12	x	100	S	10	990,00
M 14	x	35	S	10	620,00
M 14	x	40	S	10	650,00
M 14	x	45	S	10	670,00
M 14	x	50	S	10	690,00
M 14	x	55	S	10	720,00
M 14	x	60	S	10	730,00
M 14	x	65	S	10	760,00
M 14	x	70	S	10	780,00
M 14	x	80	S	10	1120,00
M 16	x	35	S	10	670,00
M 16	x	40	S	10	690,00
M 16	x	45	S	10	730,00
M 16	x	50	S	10	760,00
M 16	x	55	S	10	780,00
M 16	x	60	S	10	820,00
M 16	x	65	S	10	830,00
M 16	x	70	S	10	860,00
M 16	x	75	S	10	880,00
M 16	x	80	S	10	910,00
M 16	x	85	S	10	990,00
M 16	x	90	S	10	990,00
M 16	x	100	S	10	1120,00
M 16	x	110	S	10	1210,00
M 16	x	120	S	10	1340,00
M 20	x	40	S	10	1120,00
M 20	x	45	S	10	1150,00
M 20	x	50	S	10	1240,00
M 20	x	55	S	10	1250,00
M 20	x	60	S	10	1280,00
M 20	x	65	S	10	1340,00
M 20	x	70	S	10	1350,00
M 20	x	75	S	10	1380,00
M 20	x	80	S	1	1430,00
M 20	x	85	S	1	1460,00
M 20	x	90	S	1	1520,00
M 20	x	100	S	1	1600,00
M 20	x	110	S	1	1720,00
M 20	x	120	S	1	1770,00
M 20	x	130	S	1	4450,00
M 20	x	150	S	1	4800,00
M 24	x	60	S	1	2300,00
M 24	x	65	S	1	2340,00
M 24	x	70	S	1	2400,00
M 24	x	75	S	1	2440,00
M 24	x	80	S	1	2500,00
M 24	x	85	S	1	2550,00
M 24	x	90	S	1	2600,00
M 24	x	100	S	1	2700,00
M 24	x	110	S	1	2850,00
M 24	x	120	S	1	2950,00
M 24	x	130	S	1	5100,00
M 24	x	140	S	1	5300,00
M 24	x	150	S	1	5600,00
M 30	x	80	S	1	3850,00
M 30	x	90	S	1	3950,00
M 30	x	95	S	1	4150,00
M 30	x	100	S	1	4200,00
M 30	x	110	S	1	4400,00
M 30	x	120	S	1	4600,00
M 30	x	130	S	1	4750,00
M 36	x	90	S	1	4750,00
M 36	x	100	S	1	5100,00
M 36	x	110	S	1	5300,00
M 36	x	120	S	1	5600,00
M 36	x	130	S	1	5700,00
M 36	x	140	S	1	5900,00
M 36	x	150	S	1	6200,00
M 36	x	160	S	1	6400,00

~DIN	00610.100	320

610

10.9



Hexagon fit bolts with short thread

Dimensions ➔ TI-17
Material properties ➔ TI-232
Tightening torque ➔ TI-244

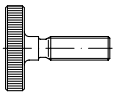
RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	25	S	25	580,00
M 8	x	30	S	25	610,00
M 8	x	35	S	25	620,00
M 8	x	40	S	25	640,00
M 8	x	45	S	25	670,00
M 8	x	50	S	25	680,00
M 10	x	30	S	25	630,00
M 10	x	35	S	25	640,00
M 10	x	40	S	25	670,00
M 10	x	45	S	25	700,00
M 10	x	50	S	25	720,00
M 10	x	55	S	25	730,00
M 10	x	60	S	25	740,00
M 12	x	30	S	25	700,00
M 12	x	35	S	25	455,00
M 12	x	40	S	25	750,00
M 12	x	45	S	25	790,00
M 12	x	50	S	25	840,00
M 12	x	55	S	25	870,00
M 12	x	60	S	25	870,00
M 16	x	35	S	10	870,00
M 16	x	40	S	10	900,00
M 16	x	45	S	10	950,00
M 16	x	50	S	10	980,00
M 16	x	55	S	10	1010,00
M 16	x	60	S	10	1060,00
M 16	x	65	S	10	1070,00
M 16	x	70	S	10	1120,00
M 16	x	75	S	10	1140,00
M 16	x	80	S	10	1180,00
M 16	x	85	S	10	1280,00
M 16	x	90	S	10	1280,00
M 16	x	100	S	10	1450,00
M 16	x	110	S	10	1580,00
M 20	x	40	S	10	1450,00
M 20	x	45	S	10	1500,00
M 20	x	50	S	10	1610,00
M 20	x	55	S	10	1630,00
M 20	x	60	S	10	1660,00
M 20	x	65	S	10	1740,00
M 20	x	70	S	10	1750,00
M 20	x	75	S	10	1800,00
M 20	x	80	S	1	1860,00
M 20	x	85	S	1	1890,00
M 20	x	90	S	1	1970,00
M 20	x	100	S	1	2080,00
M 20	x	110	S	1	2240,00
M 20	x	120	S	1	2300,00
M 24	x	60	S	1	3000,00
M 24	x	65	S	1	3050,00
M 24	x	70	S	1	3150,00
M 24	x	75	S	1	3200,00
M 24	x	80	S	1	3250,00
M 24	x	85	S	1	3350,00
M 24	x	90	S	1	3400,00
M 24	x	100	S	1	3550,00
M 24	x	110	S	1	3650,00
M 24	x	120	S	1	3850,00
M 24	x	130	S	1	6700,00
M 24	x	140	S	1	6900,00

DIN	00653.000	320

653

Steel



Knurled thumb screws, low type

Dimensions ➔ TI-33
REACH ➔ TI-262
Stainless ➔ pg. 474

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	50	83,00
M 3	x	8	S	50	84,00

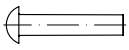
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	10	S	50	88,00
M 3	x	12	S	50	92,00
M 3	x	16	S	50	96,00
M 4	x	8	S	50	96,00
M 4	x	10	S	50	105,00
M 4	x	12	S	50	107,00
M 4	x	16	S	50	112,00
M 4	x	20	S	50	117,00
M 4	x	25	S	50	126,00
M 4	x	30	S	50	176,00
M 4	x	35	S	50	186,00
M 5	x	10	S	50	124,00
M 5	x	12	S	50	131,00
M 5	x	16	S	50	137,00
M 5	x	20	S	50	153,00
M 5	x	25	S	25	171,00
M 5	x	30	S	25	184,00
M 5	x	35	S	25	206,00
M 5	x	40	S	25	229,00
M 6	x	12	S	25	160,00
M 6	x	16	S	25	172,00
M 6	x	20	S	25	192,00
M 6	x	25	S	25	211,00
M 6	x	30	S	25	233,00
M 6	x	35	S	25	255,00
M 6	x	40	S	25	275,00
M 6	x	45	S	25	315,00
M 8	x	16	S	25	246,00
M 8	x	20	S	25	275,00
M 8	x	25	S	25	295,00
M 8	x	30	S	25	335,00
M 8	x	35	S	25	360,00
M 8	x	40	S	10	410,00
M 8	x	45	S	10	445,00
M 8	x	50	S	10	495,00
M 8	x	60	S	10	660,00
M 10	x	20	S	25	445,00
M 10	x	25	S	10	530,00
M 10	x	30	S	10	600,00
M 10	x	40	S	10	690,00
M 10	x	50	S	10	770,00
M 10	x	60	S	10	1010,00
M 10	x	70	S	1	1230,00
M 10	x	80	S	1	1430,00

DIN	00660.000	330

660

Steel



Round head rivets

Dimensions ➔ TI-134 REACH ➔ TI-262

Stainless ➔ pg. 474
Brass, Copper, Aluminium ➔ pg. 621

∅ ≤ 9 = DIN 660
∅ 10 = DIN 124

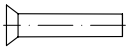
RoHS ✓

2	x	4	S	1000	1,85
2	x	5	S	1000	1,85
2	x	6	S	1000	1,85
2	x	8	S	1000	1,95
2	x	10	S	1000	2,00
2	x	12	S	1000	2,20
2	x	16	S	1000	2,40
2,5	x	6	S	1000	1,90
2,5	x	8	S	1000	1,95
2,5	x	10	S	1000	2,00
2,5	x	12	S	1000	2,20
2,5	x	16	S	1000	2,40
2,5	x	20	S	1000	2,90
3	x	4	S	1000	1,95
3	x	5	S	1000	1,95
3	x	6	S	1000	1,95
3	x	8	S	1000	2,15
3	x	10	S	1000	2,25
3	x	12	S	1000	2,40
3	x	16	S	1000	2,75
3	x	18	S	1000	2,90
3	x	20	S	1000	2,90
3	x	25	S	1000	4,85
3	x	30	S	1000	5,40
4	x	6	S	1000	2,60
4	x	8	S	1000	2,90
4	x	10	S	1000	3,30
4	x	12	S	1000	3,60
4	x	16	S	1000	4,25
4	x	18	S	1000	4,85
4	x	20	S	1000	4,85
4	x	22	S	500	6,60
4	x	25	S	500	6,60
4	x	30	S	500	7,40
4	x	35	S	500	8,20
4	x	40	S	250	9,10
4	x	45	S	250	9,70
4	x	50	S	250	10,60
5	x	6	S	1000	3,90
5	x	8	S	1000	3,90
5	x	10	S	1000	4,30
5	x	12	S	1000	4,70
5	x	16	S	1000	6,00
5	x	18	S	500	7,40
5	x	20	S	500	7,40
5	x	22	S	500	8,80
5	x	25	S	500	8,80
5	x	28	S	500	9,70
5	x	30	S	500	9,70
5	x	35	S	250	10,60
5	x	40	S	250	11,50
5	x	45	S	250	12,40
5	x	50	S	250	13,40
5	x	55	S	100	14,40
5	x	60	S	100	15,30
6	x	10	S	500	8,40
6	x	12	S	500	8,80
6	x	16	S	500	9,70
6	x	18	S	500	10,70
6	x	20	S	500	10,70
6	x	22	S	250	11,50
6	x	25	S	250	11,50
6	x	30	S	250	12,80
6	x	32	S	250	13,80
6	x	35	S	250	13,80
6	x	40	S	250	14,80
6	x	45	S	250	16,40
6	x	50	S	250	17,40
6	x	55	S	100	18,60
6	x	60	S	100	19,70
6	x	70	S	100	23,20
7	x	12	S	250	12,90
7	x	25	S	250	18,00
7	x	30	S	250	20,00
7	x	50	S	100	41,50
7	x	60	S	100	44,50
8	x	10	S	250	12,10
8	x	12	S	250	12,90
8	x	16	S	250	14,40
8	x	18	S	250	16,00
8	x	20	S	250	16,00
8	x	22	S	250	18,00
8	x	25	S	250	18,00
8	x	30	S	250	20,00
8	x	32	S	100	22,00
8	x	35	S	100	22,00
8	x	40	S	100	23,90
8	x	45	S	100	39,00
8	x	50	S	100	41,50
8	x	55	S	100	43,00
8	x	60	S	100	44,50
10	x	12	S	100	32,50
10	x	16	S	100	38,00
10	x	20	S	100	43,00
10	x	25	S	100	48,00
10	x	30	S	100	56,00
10	x	35	S	100	65,00
10	x	40	S	100	72,00
10	x	45	S	100	78,00
10	x	50	S	100	85,00
10	x	60	S	100	99,00

DIN	00661.000	330

661

Steel



Countersunk head rivets

Dimensions ➔ TI-134 REACH ➔ TI-262

Stainless ➔ pg. 475
Brass, Copper, Aluminium ➔ pg. 622

∅ ≤ 9 = DIN 661
∅ 10 = DIN 302

RoHS ✓

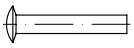
2	x	6	S	1000	1,85
2	x	8	S	1000	1,95
2	x	10	S	1000	2,00
2	x	12	S	1000	2,20
2	x	16	S	1000	2,40
2,5	x	6	S	1000	1,90
2,5	x	8	S	1000	2,00
2,5	x	10	S	1000	2,15
2,5	x	12	S	1000	2,20
2,5	x	20	S	1000	2,90
3	x	5	S	1000	1,95
3	x	6	S	1000	1,95
3	x	8	S	1000	2,15
3	x	10	S	1000	2,25
3	x	12	S	1000	2,40
3	x	16	S	1000	2,75
3	x	18	S	1000	2,90
3	x	20	S	1000	2,90
3	x	22	S	1000	4,85
3	x	25	S	1000	4,85
3	x	30	S	1000	5,40
4	x	6	S	1000	2,60
4	x	8	S	1000	2,90
4	x	10	S	1000	3,30
4	x	12	S	1000	3,60
4	x	16	S	1000	4,25
4	x	18	S	1000	4,85
4	x	20	S	1000	4,85
4	x	22	S	500	6,60
4	x	25	S	500	6,60
4	x	30	S	500	7,40
4	x	40	S	250	9,70
4	x	50	S	250	10,60
5	x	6	S	1000	3,90

Dimensions			PU	Pieces	€/100/Mat.
5	x	8	S	1000	3,90
5	x	10	S	1000	4,30
5	x	12	S	1000	4,70
5	x	16	S	1000	6,00
5	x	18	S	500	7,40
5	x	20	S	500	7,40
5	x	22	S	500	8,80
5	x	25	S	500	8,80
5	x	30	S	500	9,70
5	x	32	S	250	10,60
5	x	35	S	250	10,60
5	x	40	S	250	11,50
5	x	45	S	250	12,40
5	x	50	S	250	13,40
5	x	60	S	100	15,30
6	x	10	S	500	8,40
6	x	12	S	500	8,80
6	x	16	S	500	9,70
6	x	18	S	500	10,70
6	x	20	S	500	10,70
6	x	22	S	250	11,50
6	x	25	S	250	11,50
6	x	30	S	250	12,80
6	x	35	S	250	13,80
6	x	40	S	250	14,80
6	x	45	S	250	16,40
6	x	50	S	250	17,40
6	x	60	S	100	19,70
7	x	25	S	250	18,00
7	x	30	S	250	20,00
8	x	12	S	250	12,90
8	x	16	S	250	14,40
8	x	20	S	250	16,00
8	x	25	S	250	18,00
8	x	30	S	250	20,00
8	x	35	S	100	22,00
8	x	40	S	100	23,90
8	x	50	S	100	41,50
8	x	60	S	100	44,50

DIN | 00662.000 | 330

662

Steel



Mushroom head rivest (sheet metal rivets)

Dimensions → TI-134 REACH → TI-262

Copper, Aluminium → pg. 623

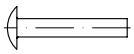
RoHS ✓

2	x	4	S	2000	1,75
2,5	x	5	S	1000	2,25
3	x	6	S	1000	1,95
3	x	8	S	1000	2,15
3,5	x	8	S	1000	2,70
4	x	8	S	1000	2,90
4	x	12	S	1000	3,60
5	x	16	S	500	6,00
6	x	16	S	500	9,70

Dimensions			PU	Pieces	€/100/Mat.
DIN			00674.000		330

674

Steel



Flat round head rivets

Dimensions → TI-135 REACH → TI-262

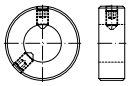
RoHS ✓

3	x	6	S	1000	2,15
3	x	8	S	1000	2,25
3	x	10	S	1000	2,40
3	x	16	S	1000	2,80
4	x	6	S	1000	2,75
4	x	8	S	1000	3,00
4	x	10	S	1000	3,40
4	x	12	S	1000	3,75
4	x	16	S	1000	4,40
5	x	10	S	1000	4,55
5	x	12	S	1000	4,95
5	x	16	S	1000	6,30

~DIN | 00703.000 | 340

703

Steel



Adjusting rings, heavy range, with set screw acc. to DIN 914 / ISO 4027

Dimensions → TI-111 REACH → TI-262

RoHS ✓

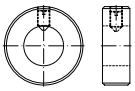
inside / nominal ∅ x outside ∅ x width

20	x	40	x	20	S	1	840,00
25	x	56	x	22	S	1	1150,00
30	x	63	x	22	S	1	1650,00
35	x	70	x	22	S	1	1840,00
40	x	80	x	28	S	1	3150,00
45	x	80	x	28	S	1	3150,00
50	x	90	x	28	S	1	3950,00
60	x	100	x	28	S	1	4950,00
70	x	110	x	32	S	1	6300,00
80	x	125	x	32	S	1	7800,00
90	x	125	x	32	S	1	7800,00
100	x	140	x	32	S	1	11300,00

Dimensions			PU	Pieces	€/100/Mat.
DIN			00705.001		340

705

Steel **type A**



Adjusting rings, light range, A = with grub screw acc. to DIN 553 / ISO 7434

from ∅ 75 with set screw DIN 914/ISO 4027

Dimensions → TI-111 REACH → TI-262

Stainless → pg. 475

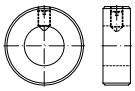
RoHS ✓

inside / nominal ∅ x outside ∅ x width

A 4	x	8	x	5	S	25	134,00
A 5	x	10	x	6	S	25	135,00
A 6	x	12	x	8	S	25	138,00
A 8	x	16	x	8	S	25	161,00
A 9	x	18	x	10	S	25	197,00
A 10	x	20	x	10	S	25	204,00
A 12	x	22	x	12	S	10	250,00
A 13	x	22	x	12	S	10	250,00
A 14	x	25	x	12	S	10	280,00
A 15	x	25	x	12	S	10	280,00
A 16	x	28	x	12	S	10	295,00
A 18	x	32	x	14	S	10	365,00
A 20	x	32	x	14	S	10	365,00
A 22	x	36	x	14	S	10	425,00
A 24	x	40	x	16	S	10	540,00
A 25	x	40	x	16	S	10	540,00
A 26	x	40	x	16	S	10	540,00
A 28	x	45	x	16	S	10	840,00
A 30	x	45	x	16	S	10	840,00
A 32	x	50	x	16	S	10	850,00
A 34	x	50	x	16	S	5	850,00
A 35	x	56	x	16	S	5	960,00
A 36	x	56	x	16	S	5	960,00
A 38	x	56	x	16	S	5	960,00
A 40	x	63	x	18	S	5	1230,00
A 42	x	63	x	18	S	5	1230,00
A 45	x	70	x	18	S	1	1460,00
A 50	x	80	x	18	S	1	1870,00
A 55	x	80	x	18	S	1	1870,00
A 60	x	90	x	20	S	1	2600,00
A 65	x	100	x	20	S	1	3250,00
A 70	x	100	x	20	S	1	3250,00
A 75	x	110	x	22	S	1	4300,00
A 80	x	110	x	22	S	1	4300,00
A 85	x	125	x	22	S	1	6700,00
A 90	x	125	x	22	S	1	6700,00
A 100	x	140	x	25	S	1	9500,00
A 110	x	160	x	25	S	1	12400,00
A 120	x	160	x	25	S	1	12400,00
A 125	x	180	x	28	S	1	17600,00
A 130	x	180	x	28	S	1	17600,00
A 140	x	200	x	28	S	1	26100,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00705.011	340

705 Steel zinc plated type A



Adjusting rings, light range, A = with grub screw acc. to DIN 553 / ISO 7434

from ∅ 75 with set screw DIN 914/ISO 4027

Dimensions ➔ TI-111 REACH ➔ TI-262
Corrosion protection ➔ TI-228
Stainless ➔ pg. 475

RoHS ✓

inside / nominal ∅ x outside ∅ x width

A 4	x	8	x	5	S	25	140,00 ZP
A 5	x	10	x	6	S	25	141,00 ZP
A 6	x	12	x	8	S	25	142,00 ZP
A 8	x	16	x	8	S	25	164,00 ZP
A 9	x	18	x	10	S	1	200,00 ZP
A 10	x	20	x	10	S	25	211,00 ZP
A 12	x	22	x	12	S	10	260,00 ZP
A 14	x	25	x	12	S	10	290,00 ZP
A 15	x	25	x	12	S	10	290,00 ZP
A 16	x	28	x	12	S	10	310,00 ZP
A 17	x	28	x	12	S	10	345,00 ZP
A 18	x	32	x	14	S	10	370,00 ZP
A 20	x	32	x	14	S	10	380,00 ZP
A 22	x	36	x	14	S	10	440,00 ZP
A 25	x	40	x	16	S	10	580,00 ZP
A 28	x	45	x	16	S	10	880,00 ZP
A 30	x	45	x	16	S	10	880,00 ZP
A 32	x	50	x	16	S	10	890,00 ZP
A 35	x	56	x	16	S	5	1010,00 ZP
A 36	x	56	x	16	S	5	1010,00 ZP
A 40	x	63	x	18	S	5	1300,00 ZP
A 42	x	63	x	18	S	5	1460,00 ZP
A 45	x	70	x	18	S	1	1540,00 ZP
A 50	x	80	x	18	S	1	1990,00 ZP
A 55	x	80	x	18	S	1	2240,00 ZP
A 60	x	90	x	20	S	1	2750,00 ZP
A 65	x	100	x	20	S	1	3300,00 ZP
A 70	x	100	x	20	S	1	3400,00 ZP
A 75	x	110	x	22	S	1	4000,00 ZP
A 80	x	110	x	22	S	1	4550,00 ZP
A 90	x	125	x	22	S	1	7400,00 ZP

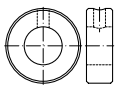
ROM® REYHER ORDER MANAGEMENT

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- Flexible labelling with product images

Dimensions	PU Pieces	€/100/Mat.
DIN	00705.002	340

705 Steel type B



Adjusting rings, light range, B = with drilling for taper pin

Dimensions ➔ TI-111 REACH ➔ TI-262

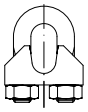
RoHS ✓

inside / nominal ∅ x outside ∅ x width

B 4	x	8	x	5	S	25	161,00
B 5	x	10	x	6	S	25	132,00
B 6	x	12	x	8	S	25	132,00
B 8	x	16	x	8	S	25	153,00
B 10	x	20	x	10	S	25	176,00
B 12	x	22	x	12	S	10	213,00
B 14	x	25	x	12	S	10	239,00
B 15	x	25	x	12	S	10	239,00
B 16	x	28	x	12	S	10	270,00
B 18	x	32	x	14	S	10	315,00
B 20	x	32	x	14	S	10	315,00
B 22	x	36	x	14	S	10	395,00
B 24	x	40	x	16	S	10	470,00
B 25	x	40	x	16	S	10	470,00
B 28	x	45	x	16	S	10	590,00
B 30	x	45	x	16	S	10	590,00
B 32	x	50	x	16	S	10	720,00
B 35	x	56	x	16	S	5	820,00
B 36	x	56	x	16	S	5	820,00
B 40	x	63	x	18	S	1	1150,00
B 45	x	70	x	18	S	1	1380,00
B 50	x	80	x	18	S	1	1810,00
B 55	x	80	x	18	S	1	1810,00
B 60	x	90	x	20	S	1	2550,00
B 65	x	100	x	20	S	1	3150,00
B 70	x	100	x	20	S	1	3150,00
B 80	x	110	x	22	S	1	4200,00
B 85	x	125	x	22	S	1	6600,00
B 90	x	125	x	22	S	1	6600,00
B 100	x	140	x	25	S	1	9400,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	00741.010	341

741 Steel zinc plated



Clips for free ends of wire ropes

thimbles ➔ DIN 6899
Dimensions ➔ TI-133 Corrosion protection ➔ TI-228
Stainless ➔ pg. 475

Safety wire rope grips
➔ DIN 1142/EN 13411-5 on request

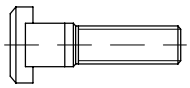
RoHS ✓ REACh SVHC free

for rope ∅ max. / thread ∅ U-bolt

3 MM / M 4	S	100	47,50 ZP
5 MM / M 5	S	100	51,00 ZP
6,5 MM / M 5	S	100	54,00 ZP
8 MM / M 6	S	100	73,00 ZP
11 MM / M 8	S	20	186,00 ZP
13 MM / M 10	S	10	249,00 ZP
16 MM / M 12	S	10	330,00 ZP

DIN	00787.800	340

787 8.8



T-slot screws

Dimensions ➔ TI-34 Tightening torque ➔ TI-244
Material properties ➔ TI-232
T-slot nuts ➔ DIN 508

RoHS ✓ REACh SVHC free

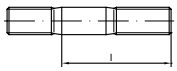
8 M 8	x	32	S	25	2290,00
8 M 8	x	40	S	25	2490,00
8 M 8	x	50	S	25	2550,00
10 M 10	x	40	S	25	2320,00
10 M 10	x	50	S	25	2420,00
10 M 10	x	65	S	25	2490,00
12 M 12	x	40	S	10	1610,00
12 M 12	x	50	S	10	1640,00
12 M 12	x	65	S	10	1750,00
12 M 12	x	80	S	10	2650,00
12 M 12	x	100	S	10	2850,00
12 M 12	x	125	S	10	3000,00
18 M 16	x	63	S	10	2110,00
16 M 16	x	80	S	10	2220,00
16 M 16	x	100	S	10	2350,00
18 M 16	x	100	S	10	2220,00
16 M 16	x	125	S	10	2700,00
16 M 16	x	160	S	10	2750,00
20 M 20	x	80	S	5	3100,00
20 M 20	x	100	S	5	3250,00
20 M 20	x	125	S	5	3400,00
20 M 20	x	160	S	5	3600,00

Dimensions			PU	Pieces	€/100/Mat.
20 M 20	x	200	S	5	4200,00
20 M 20	x	250	S	5	7600,00
28 M 24	x	100	S	5	7200,00
24 M 24	x	160	S	5	8500,00
28 M 24	x	160	S	5	8500,00

DIN 00835.500 340

835

5.8



Studs, metal end ≈ 2 d

Dimensions ➔ TI-18
Material properties ➔ TI-232
REACH ➔ TI-262

Stainless ➔ pg. 476

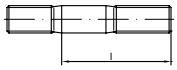
RoHS ✓

M 6	x	16	S	100	49,50
M 6	x	18	S	100	53,00
M 6	x	20	S	100	56,00
M 6	x	25	S	100	57,00
M 6	x	30	S	100	59,00
M 6	x	35	S	100	63,00
M 6	x	40	S	100	67,00
M 6	x	45	S	100	68,00
M 6	x	70	S	100	83,00
M 6	x	100	S	100	111,00
M 8	x	18	S	100	141,00
M 8	x	20	S	100	141,00
M 8	x	25	S	100	163,00
M 8	x	30	S	100	128,00
M 8	x	35	S	100	134,00
M 8	x	40	S	100	141,00
M 8	x	45	S	100	147,00
M 8	x	50	S	100	154,00
M 8	x	60	S	100	167,00
M 8	x	65	S	100	180,00
M 8	x	70	S	100	181,00
M 8	x	80	S	100	189,00
M 8	x	90	S	100	206,00
M 10	x	20	S	100	138,00
M 10	x	25	S	100	176,00
M 10	x	30	S	100	180,00
M 10	x	35	S	100	182,00
M 10	x	40	S	100	183,00
M 10	x	45	S	100	187,00
M 10	x	50	S	100	195,00
M 10	x	60	S	50	213,00
M 10	x	70	S	50	236,00
M 10	x	100	S	50	295,00
M 12	x	25	S	50	181,00
M 12	x	30	S	50	203,00
M 12	x	35	S	50	206,00
M 12	x	40	S	50	215,00
M 12	x	45	S	50	227,00
M 12	x	50	S	50	241,00
M 12	x	55	S	50	255,00
M 12	x	60	S	50	265,00
M 12	x	80	S	25	325,00
M 16	x	35	S	25	275,00
M 16	x	40	S	25	295,00
M 16	x	50	S	25	330,00
M 16	x	55	S	25	345,00
M 16	x	60	S	25	365,00
M 16	x	65	S	25	385,00
M 16	x	80	S	25	440,00
M 16	x	100	S	25	510,00

DIN 00835.800 340

835

8.8



Studs, metal end ≈ 2 d

Dimensions ➔ TI-18
Material properties ➔ TI-232
Tightening torque ➔ TI-244

Stainless ➔ pg. 476

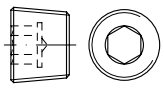
RoHS ✓ REACh SVHC free

M 8	x	16	S	100	115,00
M 8	x	18	S	100	115,00
M 8	x	20	S	100	177,00
M 8	x	25	S	100	204,00
M 8	x	30	S	100	220,00
M 8	x	35	S	100	234,00
M 8	x	40	S	100	250,00
M 10	x	25	S	100	222,00
M 10	x	30	S	100	226,00
M 10	x	35	S	100	230,00
M 10	x	40	S	50	234,00
M 10	x	50	S	50	249,00
M 10	x	55	S	50	255,00
M 10	x	60	S	50	295,00
M 12	x	35	S	50	260,00
M 12	x	40	S	50	275,00
M 12	x	45	S	50	295,00

DIN 00906.500 350

906

Steel **taper fine**



Hexagon socket pipe plugs with taper fine pitch thread

Dimensions ➔ TI-22
REACH ➔ TI-262

Stainless ➔ pg. 476
Brass ➔ pg. 624

RoHS ✓

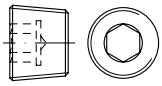
M 8	x	1	S	100	62,00
M 10	x	1	S	100	63,00
M 12	x	1,5	S	50	82,00
M 14	x	1,5	S	50	97,00
M 16	x	1,5	S	50	105,00
M 18	x	1,5	S	25	126,00
M 20	x	1,5	S	25	163,00
M 22	x	1,5	S	25	176,00
M 24	x	1,5	S	25	180,00
M 26	x	1,5	S	25	270,00

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	2	S	10	365,00
M 30	x	1,5	S	10	380,00
M 30	x	2	S	10	430,00
M 33	x	2	S	10	540,00
M 36	x	1,5	S	10	720,00
M 36	x	2	S	10	720,00
M 38	x	1,5	S	10	890,00
M 42	x	1,5	S	10	1060,00

DIN 00906.510 350

906

Steel **taper fine**
zinc plated



Hexagon socket pipe plugs with taper fine pitch thread

Dimensions ➔ TI-22
Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 476
Brass ➔ pg. 624

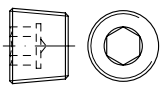
RoHS ✓

M 8	x	1	S	100	74,00 ZP
M 10	x	1	S	100	77,00 ZP
M 12	x	1,5	S	50	97,00 ZP
M 16	x	1,5	S	50	125,00 ZP
M 20	x	1,5	S	25	187,00 ZP
M 24	x	1,5	S	25	210,00 ZP
M 30	x	1,5	S	10	410,00 ZP
M 33	x	2	S	10	570,00 ZP

DIN 00906.504 350

906

Steel **taper pipe R**



Hexagon socket pipe plugs, R = with taper pipe thread

Dimensions ➔ TI-22
REACH ➔ TI-262

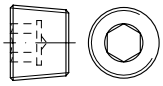
Stainless ➔ pg. 476
Brass ➔ pg. 624

RoHS ✓

R 1/8	S	100	63,00
R 1/4	S	100	85,00
R 3/8	S	50	108,00
R 1/2	S	50	147,00
R 3/4	S	25	265,00
R 1	S	25	365,00
R 1 1/4	S	10	970,00
R 1 1/2	S	1	1640,00
R 1 3/4	S	1	2360,00
R 2	S	1	3600,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00906.514		350

906 Steel zinc plated taper pipe R



Hexagon socket pipe plugs, R = with taper pipe thread

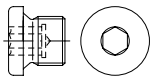
Dimensions ➔ TI-22 REACH ➔ TI-262
Corrosion protection ➔ TI-228
Stainless ➔ pg. 476
Brass ➔ pg. 624

RoHS ✓

R 1/8		S	100	67,00 ZP
R 1/4		S	100	89,00 ZP
R 3/8		S	50	114,00 ZP
R 1/2		S	50	158,00 ZP
R 3/4		S	25	295,00 ZP
R 1		S	25	390,00 ZP

DIN	00908.500	350

908 Steel cyl. fine



Hexagon socket screw plugs with cylindrical fine pitch thread

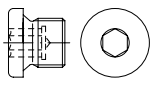
Dimensions ➔ TI-22 REACH ➔ TI-262
Stainless ➔ pg. 476

RoHS ✓

M 8	x	1	S	100	63,00
M 10	x	1	S	100	63,00
M 12	x	1,5	S	50	102,00
M 14	x	1,5	S	50	134,00
M 16	x	1,5	S	50	175,00
M 18	x	1,5	S	25	184,00
M 20	x	1,5	S	25	223,00
M 22	x	1,5	S	25	255,00
M 24	x	1,5	S	25	290,00
M 26	x	1,5	S	25	365,00
M 27	x	2	S	10	415,00
M 30	x	1,5	S	10	460,00
M 30	x	2	S	10	560,00
M 33	x	2	S	10	620,00
M 36	x	1,5	S	10	790,00
M 36	x	2	S	10	790,00
M 38	x	1,5	S	10	960,00
M 42	x	1,5	S	1	1120,00
M 45	x	1,5	S	1	1610,00
M 48	x	1,5	S	1	1630,00
M 52	x	1,5	S	1	2110,00
M 52	x	2	S	1	2320,00
M 56	x	2	S	1	2950,00
M 64	x	2	S	1	3900,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00908.510		350

908 Steel zinc plated cyl. fine



Hexagon socket screw plugs with cylindrical fine pitch thread

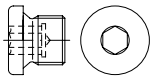
Dimensions ➔ TI-22 REACH ➔ TI-262
Corrosion protection ➔ TI-228
Stainless ➔ pg. 476

RoHS ✓

M 8	x	1	S	100	67,00 ZP
M 10	x	1	S	100	67,00 ZP
M 12	x	1,5	S	50	108,00 ZP
M 14	x	1,5	S	50	142,00 ZP
M 16	x	1,5	S	50	186,00 ZP
M 18	x	1,5	S	100	192,00 ZP
M 20	x	1,5	S	25	275,00 ZP
M 22	x	1,5	S	25	305,00 ZP
M 24	x	1,5	S	25	400,00 ZP
M 26	x	1,5	S	25	480,00 ZP
M 30	x	1,5	S	10	510,00 ZP
M 36	x	1,5	S	10	1260,00 ZP
M 38	x	1,5	S	10	1570,00 ZP
M 42	x	1,5	S	5	2040,00 ZP

DIN	00908.504	350

908 Steel cyl. pipe G



Hexagon socket screw plugs, G = with cylindrical pipe thread

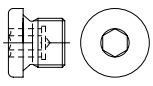
Dimensions ➔ TI-22 REACH ➔ TI-262
Stainless ➔ pg. 476
Brass ➔ pg. 624

RoHS ✓

G 1/8 A		S	100	92,00
G 1/4 A		S	100	132,00
G 3/8 A		S	50	157,00
G 1/2 A		S	50	223,00
G 3/4 A		S	25	340,00
G 1 A		S	25	590,00
G 1 1/8 A		S	10	1310,00
G 1 1/4 A		S	1	1410,00
G 1 1/2 A		S	1	1460,00
G 1 3/4 A		S	1	2230,00
G 2 A		S	1	2340,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00908.514		350

908 Steel zinc plated cyl. pipe G



Hexagon socket screw plugs, G = with cylindrical pipe thread

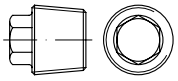
Dimensions ➔ TI-22 REACH ➔ TI-262
Corrosion protection ➔ TI-228
Stainless ➔ pg. 476
Brass ➔ pg. 624

RoHS ✓

G 1/8 A		S	100	97,00 ZP
G 1/4 A		S	100	141,00 ZP
G 3/8 A		S	50	167,00 ZP
G 1/2 A		S	50	246,00 ZP
G 3/4 A		S	25	385,00 ZP
G 1 A		S	25	660,00 ZP
G 1 1/4 A		S	1	1740,00 ZP
G 1 1/2 A		S	1	1910,00 ZP
G 2 A		S	1	3550,00 ZP

DIN	00909.500	350

909 Steel taper fine



Hexagon head pipe plugs with taper fine pitch thread

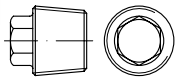
Dimensions ➔ TI-23 REACH ➔ TI-262

RoHS ✓

M 16	x	1,5	S	50	265,00
M 18	x	1,5	S	25	305,00
M 24	x	1,5	S	25	385,00
M 30	x	1,5	S	10	760,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00909.504	350

909 Steel taper pipe R



Hexagon head pipe plugs,
R = with taper pipe thread

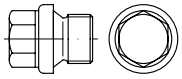
Dimensions ➔ TI-23 REACH ➔ TI-262

RoHS ✓

R 1/8	S	100	199,00
R 1/4	S	100	245,00
R 3/8	S	50	249,00
R 1/2	S	50	345,00
R 3/4	S	25	530,00
R 1	S	25	1230,00

DIN	00910.500	350

910 Steel cyl. fine



Hexagon head screw plugs,
heavy type,
cylindrical fine pitch thread

Dimensions ➔ TI-23 REACH ➔ TI-262

Stainless ➔ pg. 476
Brass ➔ pg. 624

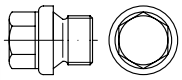
RoHS ✓

M 8	x 1	S	100	97,00
M 10	x 1	S	100	105,00
M 12	x 1,5	S	50	148,00
M 14	x 1,5	S	50	170,00
M 16	x 1,5	S	50	181,00
M 18	x 1,5	S	25	216,00
M 20	x 1,5	S	25	260,00
M 22	x 1,5	S	25	360,00
M 24	x 1,5	S	25	380,00
M 26	x 1,5	S	25	440,00
M 27	x 2	S	10	570,00
M 30	x 1,5	S	10	630,00
M 30	x 2	S	10	690,00
M 33	x 2	S	10	740,00
M 36	x 1,5	S	10	880,00
M 36	x 2	S	10	880,00
M 38	x 1,5	S	5	990,00
M 42	x 1,5	S	1	1370,00
M 42	x 2	S	1	1530,00
M 45	x 1,5	S	1	2110,00
M 45	x 2	S	1	1640,00
M 48	x 1,5	S	1	2110,00
M 48	x 2	S	1	2110,00

Dimensions	PU Pieces	€/100/Mat.
M 52 x 1,5	S 1	2340,00
M 56 x 2	S 1	2950,00
M 64 x 2	S 1	4250,00

DIN	00910.510	350

910 Steel zinc plated cyl. fine



Hexagon head screw plugs,
heavy type,
cylindrical fine pitch thread

Dimensions ➔ TI-23 REACH ➔ TI-262
Corrosion protection ➔ TI-228

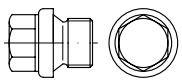
Stainless ➔ pg. 476
Brass ➔ pg. 624

RoHS ✓

M 10	x 1	S	100	111,00 ZP
M 12	x 1,5	S	50	158,00 ZP
M 14	x 1,5	S	50	180,00 ZP
M 16	x 1,5	S	50	197,00 ZP
M 18	x 1,5	S	25	240,00 ZP
M 20	x 1,5	S	25	290,00 ZP
M 22	x 1,5	S	25	395,00 ZP
M 24	x 1,5	S	25	420,00 ZP
M 26	x 1,5	S	25	480,00 ZP
M 27	x 2	S	10	860,00 ZP
M 30	x 1,5	S	10	680,00 ZP
M 30	x 2	S	10	1050,00 ZP
M 33	x 2	S	10	1110,00 ZP
M 36	x 1,5	S	10	1310,00 ZP
M 36	x 2	S	10	1310,00 ZP

DIN	00910.504	350

910 Steel cyl. pipe G



Hexagon head screw plugs,
heavy type,
G = with cylindrical pipe thread

Dimensions ➔ TI-23 REACH ➔ TI-262

Stainless ➔ pg. 477
Brass ➔ pg. 624

Type with ventilation and sealing
➔ DIN 5586

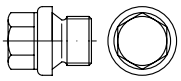
RoHS ✓

G 1/8 A	S	100	99,00
G 1/4 A	S	100	141,00
G 3/8 A	S	50	182,00
G 1/2 A	S	50	223,00
G 5/8 A	S	25	370,00

Dimensions	PU Pieces	€/100/Mat.
G 3/4 A	S 25	470,00
G 7/8 A	S 25	880,00
G 1 A	S 25	610,00
G 1 1/8 A	S 1	1230,00
G 1 1/4 A	S 1	1430,00
G 1 1/2 A	S 1	1820,00
G 1 3/4 A	S 1	2550,00
G 2 A	S 1	2900,00

DIN	00910.514	350

910 Steel zinc plated cyl. pipe G



Hexagon head screw plugs,
heavy type,
G = with cylindrical pipe thread

Dimensions ➔ TI-23 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 477
Brass ➔ pg. 624

Type with ventilation and sealing
➔ DIN 5586

RoHS ✓

G 1/8 A	S	100	115,00 ZP
G 1/4 A	S	100	152,00 ZP
G 3/8 A	S	50	199,00 ZP
G 1/2 A	S	50	255,00 ZP
G 3/4 A	S	25	540,00 ZP
G 1 A	S	25	730,00 ZP
G 1 1/4 A	S	1	1600,00 ZP
G 1 1/2 A	S	1	2010,00 ZP
G 2 A	S	1	3300,00 ZP

DIN 911
Hexagon socket screw keys

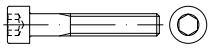


➔ ISO 2936

Dimensions	PU Pieces	€/100/Mat.
DIN	00912.800	360

912

8.8



Hexagon socket head cap screws

Dimensions ➔ TI-12 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	4	S	500	33,50
M 3	x	5	S	500	33,50
M 3	x	6	S	500	9,40
M 3	x	8	S	500	6,50
M 3	x	10	S	500	5,40
M 3	x	12	S	500	5,70
M 3	x	14	S	500	9,20
M 3	x	16	S	500	5,90
M 3	x	18	S	500	6,20
M 3	x	20	S	500	6,30
M 3	x	22	S	500	11,80
M 3	x	25	S	500	6,80
M 3	x	30	S	500	7,60
M 3	x	35	S	500	29,50
M 3	x	35	K	100	33,00
M 3	x	40	S	500	31,00
M 3	x	40	K	100	35,00
M 3	x	45	S	500	79,00
M 3	x	45	K	100	83,00
M 3	x	50	S	500	88,00
M 3	x	50	K	100	91,00
M 4	x	4	S	500	105,00
M 4	x	5	S	500	19,50
M 4	x	5	K	100	23,20
M 4	x	6	S	500	11,20
M 4	x	6	K	100	14,90
M 4	x	8	S	500	6,60
M 4	x	8	K	100	10,20
M 4	x	10	S	500	4,85
M 4	x	10	K	100	8,60
M 4	x	12	S	500	5,30
M 4	x	12	K	100	8,90
M 4	x	14	S	500	8,30
M 4	x	16	S	500	5,00
M 4	x	16	K	100	8,70
M 4	x	18	S	500	5,30
M 4	x	18	K	100	8,90
M 4	x	20	S	500	5,40
M 4	x	20	K	100	9,10
M 4	x	22	S	500	10,20
M 4	x	25	S	500	6,00
M 4	x	25	K	100	9,70
M 4	x	28	S	500	11,80
M 4	x	30	S	500	6,60
M 4	x	30	K	100	10,30
M 4	x	35	S	500	7,90
M 4	x	35	K	100	11,60
M 4	x	40	S	500	8,30
M 4	x	40	K	100	12,00
M 4	x	45	S	500	18,00
M 4	x	45	K	100	21,60
M 4	x	50	S	500	19,90
M 4	x	50	K	100	23,60
M 4	x	55	S	200	23,90
M 4	x	55	K	100	27,50
M 4	x	60	S	200	23,90
M 4	x	60	K	100	27,50
M 4	x	65	S	200	37,50
M 4	x	65	K	100	41,00
M 4	x	70	S	200	37,50
M 4	x	70	K	100	41,00
M 4	x	75	S	200	68,00
M 4	x	80	S	200	78,00
M 4	x	85	S	200	300,00
M 4	x	90	S	200	330,00
M 4	x	95	S	200	365,00
M 4	x	100	S	200	390,00
M 4	x	110	S	200	420,00
M 4	x	120	S	200	480,00
M 5	x	5	S	500	107,00
M 5	x	6	S	500	11,80
M 5	x	6	K	100	15,50
M 5	x	8	S	500	9,20
M 5	x	8	K	100	12,80
M 5	x	10	S	500	4,75
M 5	x	10	K	100	8,40
M 5	x	12	S	500	4,85
M 5	x	12	K	100	8,60
M 5	x	14	S	500	8,30
M 5	x	16	S	500	4,75
M 5	x	16	K	100	8,40
M 5	x	18	S	500	5,10
M 5	x	18	K	100	8,80
M 5	x	20	S	500	5,30
M 5	x	20	K	100	8,90
M 5	x	22	S	500	9,40
M 5	x	25	S	500	5,40
M 5	x	25	K	100	9,10
M 5	x	30	S	500	6,60
M 5	x	30	K	100	10,30
M 5	x	35	S	200	7,10
M 5	x	40	S	200	7,60
M 5	x	45	S	200	12,90
M 5	x	50	S	200	18,40
M 5	x	55	S	200	22,70
M 5	x	60	S	200	24,20
M 5	x	65	S	200	34,50
M 5	x	70	S	200	35,50
M 5	x	75	S	200	44,50
M 5	x	80	S	200	47,00
M 5	x	85	S	200	65,00
M 5	x	90	S	200	60,00
M 5	x	95	S	200	77,00
M 5	x	100	S	200	64,00
M 5	x	105	S	100	165,00
M 5	x	110	S	200	72,00
M 5	x	115	S	100	195,00
M 5	x	120	S	100	79,00
M 5	x	125	S	100	335,00
M 5	x	130	S	100	305,00
M 5	x	135	S	100	365,00
M 5	x	140	S	100	510,00
M 5	x	145	S	100	680,00
M 5	x	150	S	100	660,00
M 5	x	155	S	100	690,00
M 5	x	160	S	100	670,00
M 5	x	165	S	100	720,00
M 5	x	170	S	100	710,00
M 5	x	175	S	100	760,00
M 5	x	180	S	100	740,00
M 5	x	185	S	100	910,00
M 5	x	190	S	100	910,00
M 5	x	195	S	100	990,00
M 5	x	200	S	100	970,00
M 5	x	210	S	100	1150,00
M 5	x	220	S	100	1180,00
M 6	x	6	S	500	31,00
M 6	x	8	S	500	10,40
M 6	x	8	K	100	14,10
M 6	x	10	S	500	5,00
M 6	x	10	K	100	8,70
M 6	x	12	S	500	5,30
M 6	x	12	K	100	8,90
M 6	x	14	S	500	7,70
M 6	x	16	S	500	4,85
M 6	x	16	K	100	8,60
M 6	x	18	S	500	5,30
M 6	x	18	K	100	8,90
M 6	x	20	S	500	5,30
M 6	x	20	K	100	8,90
M 6	x	22	S	500	9,40
M 6	x	22	K	100	13,10
M 6	x	25	S	500	5,40
M 6	x	25	K	100	9,10
M 6	x	28	S	500	14,60
M 6	x	30	S	500	6,30
M 6	x	30	K	100	9,90
M 6	x	35	S	200	6,80
M 6	x	40	S	200	7,60
M 6	x	45	S	200	9,90
M 6	x	50	S	200	10,30
M 6	x	55	S	200	16,40
M 6	x	60	S	200	17,50
M 6	x	65	S	200	23,60
M 6	x	70	S	200	24,20
M 6	x	75	S	200	34,00
M 6	x	80	S	200	34,50
M 6	x	85	S	200	45,50
M 6	x	90	S	200	41,00
M 6	x	95	S	200	107,00
M 6	x	100	S	200	48,00
M 6	x	105	S	100	107,00
M 6	x	110	S	100	70,00
M 6	x	115	S	100	135,00
M 6	x	120	S	100	81,00
M 6	x	125	S	100	184,00
M 6	x	130	S	100	130,00
M 6	x	135	S	100	206,00
M 6	x	140	S	100	176,00
M 6	x	145	S	100	400,00
M 6	x	150	S	100	209,00
M 6	x	155	S	100	520,00
M 6	x	160	S	100	590,00
M 6	x	165	S	100	620,00
M 6	x	170	S	100	710,00
M 6	x	175	S	100	800,00
M 6	x	180	S	100	800,00
M 6	x	185	S	100	970,00
M 6	x	190	S	100	970,00
M 6	x	195	S	100	1060,00
M 6	x	200	S	100	1060,00
M 6	x	210	S	100	1120,00
M 6	x	220	S	100	1180,00
M 6	x	230	S	100	1270,00
M 6	x	240	S	100	1270,00
M 6	x	250	S	100	1330,00
M 6	x	280	S	100	1430,00
M 6	x	300	S	100	1590,00
M 8	x	8	S	200	27,50
M 8	x	10	S	200	12,30
M 8	x	12	S	200	12,80
M 8	x	14	S	200	12,90
M 8	x	16	S	200	7,90
M 8	x	18	S	200	8,40
M 8	x	20	S	200	8,00
M 8	x	22	S	200	14,30
M 8	x	25	S	200	8,80
M 8	x	30	S	200	9,20
M 8	x	35	S	200	10,50
M 8	x	40	S	200	11,90
M 8	x	45	S	200	12,60
M 8	x	50	S	200	13,00
M 8	x	55	S	200	15,30
M 8	x	60	S	200	17,00

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 65	S	200	24,70
M 8 x 70	S	200	25,50
M 8 x 75	S	200	31,50
M 8 x 80	S	200	40,50
M 8 x 85	S	100	60,00
M 8 x 90	S	100	50,00
M 8 x 95	S	100	83,00
M 8 x 100	S	100	56,00
M 8 x 105	S	100	83,00
M 8 x 110	S	100	66,00
M 8 x 115	S	100	129,00
M 8 x 120	S	100	78,00
M 8 x 125	S	100	164,00
M 8 x 130	S	100	102,00
M 8 x 135	S	100	174,00
M 8 x 140	S	100	114,00
M 8 x 145	S	100	300,00
M 8 x 150	S	100	192,00
M 8 x 155	S	100	330,00
M 8 x 160	S	100	242,00
M 8 x 165	S	100	355,00
M 8 x 170	S	100	375,00
M 8 x 180	S	100	335,00
M 8 x 190	S	100	440,00
M 8 x 200	S	100	355,00
M 8 x 210	S	100	490,00
M 8 x 220	S	100	510,00
M 8 x 230	S	100	550,00
M 8 x 240	S	100	590,00
M 8 x 250	S	100	610,00
M 8 x 260	S	100	650,00
M 8 x 270	S	100	670,00
M 8 x 280	S	100	690,00
M 8 x 300	S	100	730,00
M 10 x 10	S	200	104,00
M 10 x 12	S	200	45,50
M 10 x 14	S	200	35,50
M 10 x 16	S	200	23,20
M 10 x 18	S	200	47,50
M 10 x 20	S	200	14,50
M 10 x 22	S	200	28,50
M 10 x 25	S	200	14,90
M 10 x 28	S	200	32,50
M 10 x 30	S	200	16,10
M 10 x 35	S	100	17,50
M 10 x 40	S	100	18,60
M 10 x 45	S	100	20,50
M 10 x 50	S	100	21,80
M 10 x 55	S	100	23,60
M 10 x 60	S	100	25,50
M 10 x 65	S	100	27,50
M 10 x 70	S	100	28,50
M 10 x 75	S	100	35,00
M 10 x 80	S	100	36,00
M 10 x 85	S	100	71,00
M 10 x 90	S	100	47,50
M 10 x 95	S	100	124,00
M 10 x 100	S	100	52,00
M 10 x 105	S	100	136,00
M 10 x 110	S	100	60,00
M 10 x 115	S	100	147,00
M 10 x 120	S	50	73,00
M 10 x 125	S	50	166,00
M 10 x 130	S	50	108,00
M 10 x 135	S	50	204,00
M 10 x 140	S	50	131,00
M 10 x 150	S	50	180,00
M 10 x 155	S	50	285,00
M 10 x 160	S	50	197,00
M 10 x 170	S	50	325,00
M 10 x 180	S	50	300,00
M 10 x 185	S	50	440,00
M 10 x 190	S	50	355,00
M 10 x 200	S	50	330,00
M 10 x 210	S	50	650,00
M 10 x 220	S	50	650,00
M 10 x 230	S	50	670,00
M 10 x 240	S	50	670,00
M 10 x 250	S	50	830,00
M 10 x 260	S	50	800,00
M 10 x 270	S	50	880,00
M 10 x 280	S	50	880,00
M 10 x 290	S	50	960,00
M 10 x 300	S	50	960,00
M 10 x 320	S	50	1280,00
M 10 x 340	S	50	1440,00
M 12 x 14	S	100	137,00
M 12 x 16	S	100	29,00
M 12 x 18	S	100	50,00
M 12 x 20	S	100	27,00
M 12 x 22	S	100	46,00
M 12 x 25	S	100	23,50
M 12 x 30	S	100	23,40
M 12 x 35	S	100	24,70
M 12 x 40	S	100	27,00
M 12 x 45	S	100	29,00
M 12 x 50	S	100	29,50
M 12 x 55	S	100	33,50
M 12 x 60	S	100	35,00
M 12 x 65	S	50	39,00
M 12 x 70	S	50	40,00
M 12 x 75	S	50	42,00
M 12 x 80	S	50	45,00
M 12 x 85	S	50	94,00
M 12 x 90	S	50	53,00
M 12 x 95	S	50	147,00
M 12 x 100	S	50	66,00
M 12 x 105	S	50	158,00
M 12 x 110	S	50	75,00
M 12 x 115	S	50	174,00
M 12 x 120	S	50	88,00
M 12 x 125	S	50	195,00
M 12 x 130	S	50	125,00
M 12 x 135	S	50	215,00
M 12 x 140	S	50	148,00
M 12 x 145	S	50	241,00
M 12 x 150	S	50	190,00
M 12 x 155	S	50	260,00
M 12 x 160	S	50	229,00
M 12 x 165	S	50	380,00
M 12 x 170	S	50	310,00
M 12 x 180	S	50	310,00
M 12 x 190	S	50	360,00
M 12 x 200	S	50	360,00
M 12 x 210	S	25	920,00
M 12 x 220	S	25	670,00
M 12 x 230	S	25	990,00
M 12 x 240	S	25	750,00
M 12 x 250	S	25	1070,00
M 12 x 260	S	25	820,00
M 12 x 270	S	25	1140,00
M 12 x 280	S	25	880,00
M 12 x 290	S	25	1370,00
M 12 x 300	S	25	950,00
M 12 x 310	S	25	1190,00
M 12 x 320	S	25	1190,00
M 12 x 340	S	25	1410,00
M 12 x 360	S	25	1990,00
M 12 x 380	S	25	2120,00
M 12 x 400	S	25	2210,00
M 14 x 20	S	100	111,00
M 14 x 25	S	100	82,00
M 14 x 30	S	100	74,00
M 14 x 35	S	100	85,00
M 14 x 40	S	100	76,00
M 14 x 45	S	50	86,00
M 14 x 50	S	50	85,00
M 14 x 55	S	50	106,00
M 14 x 60	S	50	97,00
M 14 x 65	S	50	123,00
M 14 x 70	S	50	124,00
M 14 x 75	S	50	137,00
M 14 x 80	S	50	143,00
M 14 x 85	S	50	154,00
M 14 x 90	S	50	154,00
M 14 x 95	S	50	182,00
M 14 x 100	S	50	170,00
M 14 x 110	S	50	204,00
M 14 x 120	S	50	223,00
M 14 x 130	S	50	255,00
M 14 x 140	S	25	265,00
M 14 x 150	S	25	345,00
M 14 x 160	S	25	600,00
M 14 x 170	S	25	630,00
M 14 x 180	S	25	660,00
M 14 x 190	S	25	680,00
M 14 x 200	S	25	700,00
M 14 x 210	S	25	1060,00
M 14 x 220	S	25	850,00
M 14 x 230	S	25	1100,00
M 14 x 240	S	25	880,00
M 14 x 250	S	25	1160,00
M 14 x 260	S	25	920,00
M 14 x 270	S	25	1220,00
M 14 x 280	S	25	970,00
M 14 x 290	S	25	1410,00
M 14 x 300	S	25	1040,00
M 16 x 16	S	50	325,00
M 16 x 18	S	50	325,00
M 16 x 20	S	50	99,00
M 16 x 25	S	50	73,00
M 16 x 30	S	50	46,50
M 16 x 35	S	50	47,00
M 16 x 40	S	50	51,00
M 16 x 45	S	50	54,00
M 16 x 50	S	50	58,00
M 16 x 55	S	50	62,00
M 16 x 60	S	50	66,00
M 16 x 65	S	25	75,00
M 16 x 70	S	25	78,00
M 16 x 75	S	25	83,00
M 16 x 80	S	25	85,00
M 16 x 85	S	25	216,00
M 16 x 90	S	25	101,00
M 16 x 95	S	25	171,00
M 16 x 100	S	25	111,00
M 16 x 110	S	25	146,00
M 16 x 120	S	25	160,00
M 16 x 130	S	25	183,00
M 16 x 140	S	25	236,00
M 16 x 150	S	25	305,00
M 16 x 160	S	25	320,00
M 16 x 170	S	25	420,00
M 16 x 180	S	25	375,00
M 16 x 190	S	25	600,00
M 16 x 200	S	25	450,00
M 16 x 210	S	25	720,00
M 16 x 220	S	25	540,00
M 16 x 230	S	25	810,00
M 16 x 240	S	25	690,00
M 16 x 250	S	25	750,00
M 16 x 260	S	25	750,00
M 16 x 270	S	25	960,00
M 16 x 280	S	25	810,00
M 16 x 290	S	25	980,00
M 16 x 300	S	25	950,00
M 16 x 310	S	10	1750,00
M 16 x 320	S	10	1600,00
M 16 x 330	S	10	2050,00
M 16 x 340	S	10	1880,00
M 16 x 350	S	10	2440,00
M 16 x 360	S	10	2220,00
M 16 x 370	S	10	2750,00
M 16 x 380	S	10	2480,00
M 16 x 390	S	10	2950,00

€/100 = price in € plus VAT when ordering full package unit

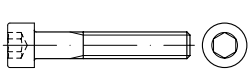
Dimensions	PU	Pieces	€/100/Mat.
M 16 x 400	S	10	2650,00
M 16 x 410	S	10	3200,00
M 16 x 420	S	10	2950,00
M 16 x 440	S	10	3100,00
M 16 x 460	S	10	3400,00
M 16 x 480	S	10	3550,00
M 16 x 500	S	10	4250,00
M 16 x 520	S	10	4450,00
M 16 x 540	S	10	4700,00
M 16 x 560	S	10	5100,00
M 16 x 580	S	10	5300,00
M 16 x 600	S	10	5700,00
M 18 x 30	S	50	242,00
M 18 x 35	S	50	242,00
M 18 x 40	S	50	212,00
M 18 x 45	S	50	226,00
M 18 x 50	S	50	230,00
M 18 x 55	S	25	239,00
M 18 x 60	S	25	244,00
M 18 x 65	S	25	270,00
M 18 x 70	S	25	280,00
M 18 x 75	S	25	290,00
M 18 x 80	S	25	295,00
M 18 x 85	S	25	320,00
M 18 x 90	S	25	320,00
M 18 x 100	S	25	355,00
M 18 x 110	S	25	465,00
M 18 x 120	S	25	510,00
M 18 x 130	S	25	540,00
M 18 x 140	S	25	630,00
M 18 x 150	S	25	740,00
M 18 x 160	S	25	800,00
M 18 x 170	S	25	840,00
M 18 x 180	S	25	880,00
M 18 x 190	S	25	920,00
M 18 x 200	S	1	1090,00
M 18 x 210	S	1	1420,00
M 18 x 220	S	1	1160,00
M 18 x 230	S	1	1590,00
M 18 x 240	S	1	1220,00
M 18 x 250	S	1	1700,00
M 18 x 260	S	1	1300,00
M 18 x 270	S	1	1820,00
M 18 x 280	S	1	1390,00
M 18 x 300	S	1	1490,00
M 18 x 320	S	1	1860,00
M 18 x 350	S	1	2600,00
M 20 x 20	S	25	400,00
M 20 x 25	S	25	400,00
M 20 x 30	S	25	184,00
M 20 x 35	S	25	184,00
M 20 x 40	S	25	105,00
M 20 x 45	S	25	109,00
M 20 x 50	S	25	112,00
M 20 x 55	S	25	119,00
M 20 x 60	S	25	119,00
M 20 x 65	S	25	131,00
M 20 x 70	S	25	131,00
M 20 x 75	S	25	138,00
M 20 x 80	S	25	140,00
M 20 x 85	S	25	1050,00
M 20 x 90	S	25	171,00
M 20 x 95	S	25	1100,00
M 20 x 100	S	25	182,00
M 20 x 110	S	25	197,00
M 20 x 120	S	25	212,00
M 20 x 130	S	25	310,00
M 20 x 140	S	25	455,00
M 20 x 150	S	25	530,00
M 20 x 160	S	10	530,00
M 20 x 170	S	10	650,00
M 20 x 180	S	10	650,00
M 20 x 190	S	10	770,00
M 20 x 200	S	1	770,00
M 20 x 210	S	1	870,00
M 20 x 220	S	1	870,00
M 20 x 230	S	1	1020,00
M 20 x 240	S	1	1020,00
M 20 x 250	S	1	1080,00
M 20 x 260	S	1	1080,00
M 20 x 270	S	1	1220,00
M 20 x 280	S	1	1220,00
M 20 x 290	S	1	1330,00
M 20 x 300	S	1	1330,00
M 20 x 310	S	1	1520,00
M 20 x 320	S	1	1160,00
M 20 x 330	S	1	1490,00
M 20 x 340	S	1	1510,00
M 20 x 350	S	1	1770,00
M 20 x 360	S	1	1610,00
M 20 x 370	S	1	2050,00
M 20 x 380	S	1	1860,00
M 20 x 390	S	1	2400,00
M 20 x 400	S	1	2180,00
M 20 x 410	S	1	2250,00
M 20 x 420	S	1	2250,00
M 20 x 440	S	1	2410,00
M 20 x 450	S	1	2850,00
M 20 x 460	S	1	2600,00
M 20 x 480	S	1	2750,00
M 20 x 500	S	1	2900,00
M 20 x 520	S	1	3850,00
M 20 x 540	S	1	4000,00
M 20 x 560	S	1	4150,00
M 20 x 580	S	1	4350,00
M 20 x 600	S	1	4600,00
M 22 x 35	S	25	630,00
M 22 x 40	S	25	630,00
M 22 x 45	S	25	630,00
M 22 x 50	S	25	790,00
M 22 x 55	S	25	790,00
M 22 x 60	S	25	790,00
M 22 x 65	S	25	820,00
M 22 x 70	S	25	820,00
M 22 x 75	S	25	850,00
M 22 x 80	S	25	850,00
M 22 x 85	S	25	850,00
M 22 x 90	S	25	910,00
M 22 x 100	S	10	930,00
M 22 x 110	S	1	950,00
M 22 x 120	S	1	970,00
M 22 x 130	S	1	1000,00
M 22 x 140	S	1	1040,00
M 22 x 150	S	1	1070,00
M 22 x 160	S	1	1090,00
M 22 x 170	S	1	1300,00
M 22 x 180	S	1	1180,00
M 22 x 190	S	1	1400,00
M 22 x 200	S	1	1270,00
M 22 x 210	S	1	1880,00
M 22 x 220	S	1	1500,00
M 22 x 240	S	1	1600,00
M 22 x 250	S	1	2100,00
M 22 x 260	S	1	1680,00
M 22 x 280	S	1	1770,00
M 22 x 300	S	1	1890,00
M 24 x 30	S	25	1250,00
M 24 x 35	S	25	1250,00
M 24 x 40	S	25	720,00
M 24 x 45	S	25	720,00
M 24 x 50	S	25	260,00
M 24 x 55	S	25	290,00
M 24 x 60	S	25	290,00
M 24 x 65	S	25	310,00
M 24 x 70	S	25	310,00
M 24 x 75	S	25	315,00
M 24 x 80	S	25	315,00
M 24 x 85	S	10	1060,00
M 24 x 90	S	10	380,00
M 24 x 95	S	10	1100,00
M 24 x 100	S	10	395,00
M 24 x 105	S	10	1060,00
M 24 x 110	S	10	460,00
M 24 x 120	S	10	495,00
M 24 x 125	S	10	1060,00
M 24 x 130	S	1	570,00
M 24 x 140	S	1	730,00
M 24 x 150	S	1	910,00
M 24 x 160	S	1	800,00
M 24 x 170	S	1	860,00
M 24 x 180	S	1	890,00
M 24 x 190	S	1	950,00
M 24 x 200	S	1	970,00
M 24 x 210	S	1	1660,00
M 24 x 220	S	1	1330,00
M 24 x 230	S	1	1760,00
M 24 x 240	S	1	1420,00
M 24 x 250	S	1	1870,00
M 24 x 260	S	1	1500,00
M 24 x 270	S	1	2010,00
M 24 x 280	S	1	1610,00
M 24 x 290	S	1	2190,00
M 24 x 300	S	1	1750,00
M 24 x 310	S	1	3000,00
M 24 x 320	S	1	2600,00
M 24 x 330	S	1	3050,00
M 24 x 340	S	1	2650,00
M 24 x 350	S	1	3100,00
M 24 x 360	S	1	3000,00
M 24 x 370	S	1	3200,00
M 24 x 380	S	1	3200,00
M 24 x 390	S	1	3400,00
M 24 x 400	S	1	3400,00
M 24 x 410	S	1	3650,00
M 24 x 420	S	1	3650,00
M 24 x 430	S	1	3900,00
M 24 x 440	S	1	3900,00
M 24 x 450	S	1	4150,00
M 24 x 460	S	1	4150,00
M 24 x 470	S	1	4400,00
M 24 x 480	S	1	4400,00
M 24 x 490	S	1	4700,00
M 24 x 500	S	1	4700,00
M 24 x 520	S	1	6400,00
M 24 x 530	S	1	6700,00
M 24 x 540	S	1	6900,00
M 24 x 560	S	1	7200,00
M 24 x 580	S	1	7500,00
M 24 x 600	S	1	7700,00
M 27 x 40	S	10	1550,00
M 27 x 45	S	10	1550,00
M 27 x 50	S	10	1080,00
M 27 x 55	S	10	1080,00
M 27 x 60	S	10	1080,00
M 27 x 65	S	10	1120,00
M 27 x 70	S	10	1120,00
M 27 x 75	S	10	1170,00
M 27 x 80	S	10	1170,00
M 27 x 85	S	10	1220,00
M 27 x 90	S	10	1220,00
M 27 x 100	S	10	1270,00
M 27 x 110	S	10	1310,00
M 27 x 120	S	10	1440,00
M 27 x 130	S	1	1500,00
M 27 x 140	S	1	1560,00
M 27 x 150	S	1	1620,00
M 27 x 160	S	1	1660,00
M 27 x 170	S	1	1910,00
M 27 x 180	S	1	1780,00
M 27 x 190	S	1	2020,00
M 27 x 200	S	1	1860,00
M 27 x 210	S	1	2800,00
M 27 x 220	S	1	2010,00
M 27 x 230	S	1	3000,00
M 27 x 240	S	1	2170,00

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	250	S	1	3200,00
M 27	x	260	S	1	2310,00
M 27	x	270	S	1	3450,00
M 27	x	280	S	1	2460,00
M 27	x	300	S	1	2650,00
M 27	x	320	S	1	5500,00
M 30	x	35	S	10	1990,00
M 30	x	40	S	10	1990,00
M 30	x	45	S	10	1990,00
M 30	x	50	S	10	1310,00
M 30	x	55	S	10	1310,00
M 30	x	60	S	10	1310,00
M 30	x	65	S	10	1340,00
M 30	x	70	S	10	1370,00
M 30	x	75	S	10	1430,00
M 30	x	80	S	10	1430,00
M 30	x	85	S	1	1480,00
M 30	x	90	S	1	1480,00
M 30	x	95	S	1	1480,00
M 30	x	100	S	1	1540,00
M 30	x	110	S	1	1590,00
M 30	x	120	S	1	1650,00
M 30	x	130	S	1	1710,00
M 30	x	140	S	1	1760,00
M 30	x	150	S	1	1850,00
M 30	x	160	S	1	1930,00
M 30	x	170	S	1	1990,00
M 30	x	180	S	1	2050,00
M 30	x	190	S	1	2130,00
M 30	x	200	S	1	2220,00
M 30	x	210	S	1	2390,00
M 30	x	220	S	1	2390,00
M 30	x	230	S	1	2500,00
M 30	x	240	S	1	2500,00
M 30	x	250	S	1	2650,00
M 30	x	260	S	1	2650,00
M 30	x	270	S	1	2800,00
M 30	x	280	S	1	2800,00
M 30	x	290	S	1	3800,00
M 30	x	300	S	1	3000,00
M 30	x	310	S	1	3800,00
M 30	x	320	S	1	3400,00
M 30	x	330	S	1	3850,00
M 30	x	340	S	1	3600,00
M 30	x	350	S	1	3850,00
M 30	x	360	S	1	4000,00
M 30	x	370	S	1	5400,00
M 30	x	380	S	1	5400,00
M 30	x	390	S	1	5900,00
M 30	x	400	S	1	5900,00
M 30	x	420	S	1	5900,00
M 30	x	430	S	1	5900,00
M 30	x	440	S	1	6400,00
M 30	x	450	S	1	6400,00
M 30	x	460	S	1	7500,00
M 30	x	470	S	1	7900,00
M 30	x	480	S	1	7900,00
M 30	x	490	S	1	8400,00
M 30	x	500	S	1	8400,00
M 30	x	540	S	1	15500,00
M 30	x	700	S	1	18400,00
M 33	x	50	S	1	3900,00
M 33	x	55	S	1	3900,00
M 33	x	60	S	1	1600,00
M 33	x	65	S	1	1600,00
M 33	x	70	S	1	1600,00
M 33	x	80	S	1	1600,00
M 33	x	90	S	1	1690,00
M 33	x	100	S	1	1820,00
M 33	x	110	S	1	1900,00
M 33	x	120	S	1	2040,00
M 33	x	130	S	1	2110,00
M 33	x	140	S	1	2230,00
M 33	x	150	S	1	2360,00
M 33	x	160	S	1	2410,00

Dimensions			PU	Pieces	€/100/Mat.
M 33	x	180	S	1	2650,00
M 33	x	190	S	1	3800,00
M 33	x	200	S	1	2850,00
M 36	x	50	S	1	2120,00
M 36	x	55	S	1	2120,00
M 36	x	60	S	1	2120,00
M 36	x	65	S	1	2120,00
M 36	x	70	S	1	2080,00
M 36	x	75	S	1	2080,00
M 36	x	80	S	1	2080,00
M 36	x	85	S	1	2140,00
M 36	x	90	S	1	2140,00
M 36	x	95	S	1	2200,00
M 36	x	100	S	1	2200,00
M 36	x	110	S	1	2250,00
M 36	x	120	S	1	2360,00
M 36	x	130	S	1	2430,00
M 36	x	140	S	1	2550,00
M 36	x	150	S	1	2650,00
M 36	x	160	S	1	2700,00
M 36	x	170	S	1	3100,00
M 36	x	180	S	1	2950,00
M 36	x	190	S	1	3350,00
M 36	x	200	S	1	3150,00
M 36	x	210	S	1	3700,00
M 36	x	220	S	1	3350,00
M 36	x	230	S	1	3900,00
M 36	x	240	S	1	3500,00
M 36	x	250	S	1	4100,00
M 36	x	260	S	1	3700,00
M 36	x	270	S	1	4350,00
M 36	x	280	S	1	3950,00
M 36	x	290	S	1	4750,00
M 36	x	300	S	1	4300,00
M 36	x	310	S	1	6400,00
M 36	x	320	S	1	5800,00
M 36	x	330	S	1	6900,00
M 36	x	340	S	1	6300,00
M 36	x	350	S	1	7600,00
M 36	x	360	S	1	6900,00
M 36	x	370	S	1	9400,00
M 36	x	380	S	1	8500,00
M 36	x	390	S	1	9900,00
M 36	x	400	S	1	9000,00
M 36	x	420	S	1	17500,00
M 36	x	430	S	1	17800,00
M 36	x	440	S	1	17800,00
M 36	x	500	S	1	18800,00
M 36	x	560	S	1	19800,00
M 36	x	600	S	1	20500,00
M 42	x	70	S	1	3600,00
M 42	x	80	S	1	3600,00
M 42	x	90	S	1	3600,00
M 42	x	100	S	1	3700,00
M 42	x	110	S	1	3700,00
M 42	x	120	S	1	3900,00
M 42	x	130	S	1	4050,00
M 42	x	140	S	1	4000,00
M 42	x	150	S	1	4500,00
M 42	x	160	S	1	4200,00
M 42	x	170	S	1	4850,00
M 42	x	180	S	1	4450,00
M 42	x	190	S	1	5400,00
M 42	x	200	S	1	5100,00
M 42	x	210	S	1	5800,00
M 42	x	220	S	1	5800,00
M 42	x	240	S	1	9600,00
M 42	x	260	S	1	10300,00
M 42	x	270	S	1	20200,00
M 42	x	280	S	1	10900,00
M 42	x	300	S	1	11800,00
M 42	x	350	S	1	22600,00
M 42	x	400	S	1	23900,00
M 42	x	500	S	1	27100,00
M 42	x	560	S	1	28900,00

Dimensions			PU	Pieces	€/100/Mat.
M 48	x	80	S	1	6600,00
M 48	x	90	S	1	6600,00
M 48	x	100	S	1	6600,00
M 48	x	110	S	1	7000,00
M 48	x	120	S	1	7300,00
M 48	x	130	S	1	7600,00
M 48	x	140	S	1	8000,00
M 48	x	150	S	1	8500,00
M 48	x	160	S	1	8900,00
M 48	x	170	S	1	9700,00
M 48	x	180	S	1	9700,00
M 48	x	190	S	1	10400,00
M 48	x	200	S	1	10400,00
M 48	x	210	S	1	13900,00
M 48	x	220	S	1	13900,00
M 48	x	240	S	1	15100,00
M 48	x	260	S	1	16300,00
M 48	x	270	S	1	25000,00
M 48	x	280	S	1	17400,00
M 48	x	300	S	1	18000,00
M 56	x	120	S	1	15800,00
M 56	x	130	S	1	17200,00
M 56	x	140	S	1	17900,00
M 56	x	150	S	1	19100,00
M 56	x	160	S	1	19900,00
M 56	x	180	S	1	20600,00
M 56	x	200	S	1	22000,00
M 56	x	210	S	1	24700,00
M 56	x	220	S	1	22400,00
M 56	x	230	S	1	26000,00
M 56	x	260	S	1	24400,00
M 56	x	280	S	1	25700,00
M 56	x	300	S	1	27700,00

DIN	00912.810	360
912	**8.8** **zinc plated**	



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6
Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓

REACh SVHC free

M 3	x	4	S	500	33,50 ZP
M 3	x	5	S	500	33,50 ZP
M 3	x	6	S	500	9,40 ZP
M 3	x	8	S	500	6,60 ZP
M 3	x	10	S	500	5,60 ZP
M 3	x	12	S	500	5,80 ZP
M 3	x	14	S	500	9,40 ZP
M 3	x	16	S	500	6,20 ZP
M 3	x	18	S	500	6,30 ZP
M 3	x	20	S	500	6,60 ZP
M 3	x	22	S	500	12,10 ZP
M 3	x	25	S	500	7,10 ZP
M 3	x	30	S	500	7,90 ZP
M 3	x	35	S	500	30,00 ZP
M 3	x	40	S	500	31,50 ZP
M 3	x	45	S	500	80,00 ZP
M 3	x	50	S	500	89,00 ZP
M 4	x	4	S	500	106,00 ZP
M 4	x	5	S	500	20,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 4 x 6	S	500	11,60 ZP
M 4 x 6	K	100	15,20 ZP
M 4 x 8	S	500	6,80 ZP
M 4 x 8	K	100	10,50 ZP
M 4 x 10	S	500	5,30 ZP
M 4 x 10	K	100	8,90 ZP
M 4 x 12	S	500	5,50 ZP
M 4 x 12	K	100	9,20 ZP
M 4 x 14	S	500	8,80 ZP
M 4 x 16	S	500	5,40 ZP
M 4 x 16	K	100	9,10 ZP
M 4 x 18	S	500	5,70 ZP
M 4 x 20	S	500	5,90 ZP
M 4 x 20	K	100	9,50 ZP
M 4 x 22	S	500	10,90 ZP
M 4 x 25	S	500	6,60 ZP
M 4 x 25	K	100	10,30 ZP
M 4 x 28	S	500	12,80 ZP
M 4 x 30	S	500	7,20 ZP
M 4 x 30	K	100	10,90 ZP
M 4 x 35	S	500	8,60 ZP
M 4 x 35	K	100	12,30 ZP
M 4 x 40	S	500	9,20 ZP
M 4 x 40	K	100	12,80 ZP
M 4 x 45	S	500	19,20 ZP
M 4 x 50	S	500	21,20 ZP
M 4 x 55	S	200	29,00 ZP
M 4 x 60	S	200	29,00 ZP
M 4 x 65	S	200	44,00 ZP
M 4 x 70	S	200	44,00 ZP
M 4 x 75	S	200	76,00 ZP
M 4 x 80	S	200	86,00 ZP
M 4 x 85	S	200	310,00 ZP
M 4 x 90	S	200	340,00 ZP
M 4 x 95	S	200	370,00 ZP
M 4 x 100	S	200	400,00 ZP
M 4 x 110	S	200	430,00 ZP
M 4 x 120	S	200	495,00 ZP
M 5 x 5	S	500	107,00 ZP
M 5 x 6	S	500	12,40 ZP
M 5 x 6	K	100	16,10 ZP
M 5 x 8	S	500	9,80 ZP
M 5 x 8	K	100	13,50 ZP
M 5 x 10	S	500	5,30 ZP
M 5 x 10	K	100	8,90 ZP
M 5 x 12	S	500	5,40 ZP
M 5 x 12	K	100	9,10 ZP
M 5 x 14	S	500	9,10 ZP
M 5 x 14	K	100	12,80 ZP
M 5 x 16	S	500	5,40 ZP
M 5 x 16	K	100	9,10 ZP
M 5 x 18	S	500	5,70 ZP
M 5 x 18	K	100	9,40 ZP
M 5 x 20	S	500	5,90 ZP
M 5 x 20	K	100	9,50 ZP
M 5 x 22	S	500	10,30 ZP
M 5 x 22	K	100	14,00 ZP
M 5 x 25	S	500	6,30 ZP
M 5 x 25	K	100	9,90 ZP
M 5 x 30	S	500	7,70 ZP
M 5 x 30	K	100	11,30 ZP
M 5 x 35	S	200	8,20 ZP
M 5 x 40	S	200	8,70 ZP
M 5 x 45	S	200	14,70 ZP
M 5 x 50	S	200	20,40 ZP
M 5 x 55	S	200	25,00 ZP
M 5 x 60	S	200	26,50 ZP
M 5 x 65	S	200	37,00 ZP
M 5 x 70	S	200	38,00 ZP
M 5 x 75	S	200	47,50 ZP
M 5 x 80	S	200	50,00 ZP
M 5 x 85	S	200	69,00 ZP
M 5 x 90	S	200	63,00 ZP
M 5 x 95	S	200	80,00 ZP
M 5 x 100	S	200	68,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 110	S	200	76,00 ZP
M 5 x 115	S	100	200,00 ZP
M 5 x 120	S	100	83,00 ZP
M 5 x 125	S	100	340,00 ZP
M 5 x 130	S	100	310,00 ZP
M 5 x 140	S	100	520,00 ZP
M 5 x 150	S	100	660,00 ZP
M 5 x 160	S	100	680,00 ZP
M 5 x 170	S	100	720,00 ZP
M 5 x 180	S	100	750,00 ZP
M 5 x 200	S	100	980,00 ZP
M 6 x 6	S	500	32,00 ZP
M 6 x 6	K	100	36,00 ZP
M 6 x 8	S	500	11,50 ZP
M 6 x 8	K	100	15,10 ZP
M 6 x 10	S	500	5,80 ZP
M 6 x 10	K	100	9,40 ZP
M 6 x 12	S	500	6,10 ZP
M 6 x 12	K	100	9,70 ZP
M 6 x 14	S	500	8,90 ZP
M 6 x 14	K	100	12,60 ZP
M 6 x 16	S	500	5,90 ZP
M 6 x 16	K	100	9,50 ZP
M 6 x 18	S	500	6,30 ZP
M 6 x 18	K	100	9,90 ZP
M 6 x 20	S	500	6,40 ZP
M 6 x 20	K	100	10,10 ZP
M 6 x 22	S	500	11,00 ZP
M 6 x 22	K	100	14,60 ZP
M 6 x 25	S	500	6,80 ZP
M 6 x 25	K	100	10,40 ZP
M 6 x 28	S	500	16,00 ZP
M 6 x 28	K	100	19,60 ZP
M 6 x 30	S	500	7,70 ZP
M 6 x 30	K	100	11,50 ZP
M 6 x 35	S	200	8,50 ZP
M 6 x 40	S	200	9,40 ZP
M 6 x 45	S	200	12,00 ZP
M 6 x 50	S	200	12,60 ZP
M 6 x 55	S	200	19,70 ZP
M 6 x 60	S	200	21,00 ZP
M 6 x 65	S	200	27,50 ZP
M 6 x 70	S	200	28,50 ZP
M 6 x 75	S	200	38,00 ZP
M 6 x 80	S	200	39,50 ZP
M 6 x 85	S	200	50,00 ZP
M 6 x 90	S	200	46,00 ZP
M 6 x 95	S	200	112,00 ZP
M 6 x 100	S	200	54,00 ZP
M 6 x 105	S	100	112,00 ZP
M 6 x 110	S	100	77,00 ZP
M 6 x 115	S	100	141,00 ZP
M 6 x 120	S	100	88,00 ZP
M 6 x 125	S	100	190,00 ZP
M 6 x 130	S	100	138,00 ZP
M 6 x 140	S	100	184,00 ZP
M 6 x 145	S	100	410,00 ZP
M 6 x 150	S	100	216,00 ZP
M 6 x 160	S	100	600,00 ZP
M 6 x 170	S	100	740,00 ZP
M 6 x 180	S	100	810,00 ZP
M 6 x 200	S	100	1080,00 ZP
M 6 x 210	S	100	1140,00 ZP
M 6 x 220	S	100	1190,00 ZP
M 6 x 230	S	100	1290,00 ZP
M 6 x 280	S	100	1450,00 ZP
M 6 x 300	S	100	1620,00 ZP
M 8 x 8	S	200	30,00 ZP
M 8 x 10	S	200	14,10 ZP
M 8 x 12	S	200	14,70 ZP
M 8 x 14	S	200	15,50 ZP
M 8 x 16	S	200	10,00 ZP
M 8 x 18	S	200	10,60 ZP
M 8 x 20	S	200	10,30 ZP
M 8 x 22	S	200	17,50 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 25	S	200	11,30 ZP
M 8 x 30	S	200	12,10 ZP
M 8 x 35	S	200	13,20 ZP
M 8 x 40	S	200	15,00 ZP
M 8 x 45	S	200	15,50 ZP
M 8 x 50	S	200	17,30 ZP
M 8 x 55	S	200	20,00 ZP
M 8 x 60	S	200	22,00 ZP
M 8 x 65	S	200	32,00 ZP
M 8 x 70	S	200	33,00 ZP
M 8 x 75	S	200	39,50 ZP
M 8 x 80	S	200	49,00 ZP
M 8 x 85	S	100	75,00 ZP
M 8 x 90	S	100	60,00 ZP
M 8 x 95	S	100	85,00 ZP
M 8 x 100	S	100	66,00 ZP
M 8 x 105	S	100	94,00 ZP
M 8 x 110	S	100	78,00 ZP
M 8 x 115	S	100	142,00 ZP
M 8 x 120	S	100	90,00 ZP
M 8 x 125	S	100	176,00 ZP
M 8 x 130	S	100	116,00 ZP
M 8 x 135	S	100	187,00 ZP
M 8 x 140	S	100	128,00 ZP
M 8 x 145	S	100	310,00 ZP
M 8 x 150	S	100	206,00 ZP
M 8 x 160	S	100	260,00 ZP
M 8 x 170	S	100	390,00 ZP
M 8 x 180	S	100	355,00 ZP
M 8 x 190	S	100	460,00 ZP
M 8 x 200	S	100	375,00 ZP
M 8 x 210	S	100	510,00 ZP
M 8 x 220	S	100	550,00 ZP
M 8 x 230	S	100	590,00 ZP
M 8 x 240	S	100	630,00 ZP
M 8 x 250	S	100	650,00 ZP
M 8 x 260	S	100	650,00 ZP
M 8 x 270	S	100	710,00 ZP
M 8 x 280	S	100	890,00 ZP
M 10 x 10	S	200	108,00 ZP
M 10 x 12	S	200	50,00 ZP
M 10 x 14	S	200	39,50 ZP
M 10 x 16	S	200	27,00 ZP
M 10 x 18	S	200	53,00 ZP
M 10 x 20	S	200	18,40 ZP
M 10 x 22	S	200	34,00 ZP
M 10 x 25	S	200	19,30 ZP
M 10 x 30	S	200	20,90 ZP
M 10 x 35	S	100	22,40 ZP
M 10 x 40	S	100	24,40 ZP
M 10 x 45	S	100	27,00 ZP
M 10 x 50	S	100	29,00 ZP
M 10 x 55	S	100	31,00 ZP
M 10 x 60	S	100	33,50 ZP
M 10 x 65	S	100	36,00 ZP
M 10 x 70	S	100	37,50 ZP
M 10 x 75	S	100	44,50 ZP
M 10 x 80	S	100	46,00 ZP
M 10 x 85	S	100	62,00 ZP
M 10 x 90	S	100	63,00 ZP
M 10 x 95	S	100	142,00 ZP
M 10 x 100	S	100	69,00 ZP
M 10 x 110	S	100	78,00 ZP
M 10 x 115	S	100	166,00 ZP
M 10 x 120	S	50	93,00 ZP
M 10 x 125	S	50	187,00 ZP
M 10 x 130	S	50	129,00 ZP
M 10 x 135	S	50	224,00 ZP
M 10 x 140	S	50	154,00 ZP
M 10 x 150	S	50	203,00 ZP
M 10 x 155	S	50	310,00 ZP
M 10 x 160	S	50	223,00 ZP
M 10 x 170	S	50	315,00 ZP
M 10 x 180	S	50	325,00 ZP
M 10 x 190	S	50	385,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 200	S	50	360,00 ZP
M 10 x 210	S	50	680,00 ZP
M 10 x 220	S	50	680,00 ZP
M 10 x 230	S	50	710,00 ZP
M 10 x 240	S	50	710,00 ZP
M 10 x 250	S	50	870,00 ZP
M 10 x 260	S	50	850,00 ZP
M 10 x 270	S	50	930,00 ZP
M 10 x 280	S	50	930,00 ZP
M 10 x 300	S	50	1010,00 ZP
M 12 x 14	S	100	143,00 ZP
M 12 x 16	S	100	34,00 ZP
M 12 x 20	S	100	32,50 ZP
M 12 x 22	S	100	54,00 ZP
M 12 x 25	S	100	29,00 ZP
M 12 x 30	S	100	30,50 ZP
M 12 x 35	S	100	31,50 ZP
M 12 x 40	S	100	33,00 ZP
M 12 x 45	S	100	35,00 ZP
M 12 x 50	S	100	38,50 ZP
M 12 x 55	S	100	42,00 ZP
M 12 x 60	S	100	45,00 ZP
M 12 x 65	S	50	51,00 ZP
M 12 x 70	S	50	53,00 ZP
M 12 x 75	S	50	56,00 ZP
M 12 x 80	S	50	57,00 ZP
M 12 x 85	S	50	118,00 ZP
M 12 x 90	S	50	69,00 ZP
M 12 x 95	S	50	163,00 ZP
M 12 x 100	S	50	83,00 ZP
M 12 x 110	S	50	101,00 ZP
M 12 x 115	S	50	200,00 ZP
M 12 x 120	S	50	115,00 ZP
M 12 x 125	S	50	222,00 ZP
M 12 x 130	S	50	155,00 ZP
M 12 x 135	S	50	241,00 ZP
M 12 x 140	S	50	181,00 ZP
M 12 x 145	S	50	275,00 ZP
M 12 x 150	S	50	223,00 ZP
M 12 x 155	S	50	295,00 ZP
M 12 x 160	S	50	265,00 ZP
M 12 x 170	S	50	350,00 ZP
M 12 x 180	S	50	350,00 ZP
M 12 x 190	S	50	405,00 ZP
M 12 x 200	S	50	405,00 ZP
M 12 x 210	S	25	970,00 ZP
M 12 x 220	S	25	720,00 ZP
M 12 x 230	S	25	1040,00 ZP
M 12 x 240	S	25	800,00 ZP
M 12 x 250	S	25	1130,00 ZP
M 12 x 260	S	25	880,00 ZP
M 12 x 270	S	25	1200,00 ZP
M 12 x 290	S	25	1430,00 ZP
M 12 x 300	S	25	1010,00 ZP
M 14 x 20	S	100	120,00 ZP
M 14 x 25	S	100	93,00 ZP
M 14 x 30	S	100	86,00 ZP
M 14 x 35	S	100	98,00 ZP
M 14 x 40	S	100	91,00 ZP
M 14 x 45	S	50	102,00 ZP
M 14 x 50	S	50	102,00 ZP
M 14 x 55	S	50	126,00 ZP
M 14 x 60	S	50	117,00 ZP
M 14 x 65	S	50	144,00 ZP
M 14 x 70	S	50	148,00 ZP
M 14 x 75	S	50	161,00 ZP
M 14 x 80	S	50	167,00 ZP
M 14 x 90	S	50	182,00 ZP
M 14 x 100	S	50	201,00 ZP
M 14 x 110	S	50	236,00 ZP
M 14 x 120	S	50	260,00 ZP
M 14 x 130	S	50	295,00 ZP
M 14 x 140	S	25	310,00 ZP
M 14 x 150	S	25	390,00 ZP
M 14 x 160	S	25	650,00 ZP

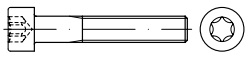
Dimensions	PU	Pieces	€/100/Mat.
M 14 x 200	S	25	760,00 ZP
M 16 x 20	S	50	114,00 ZP
M 16 x 25	S	50	89,00 ZP
M 16 x 30	S	50	60,00 ZP
M 16 x 35	S	50	62,00 ZP
M 16 x 40	S	50	65,00 ZP
M 16 x 45	S	50	70,00 ZP
M 16 x 50	S	50	76,00 ZP
M 16 x 55	S	50	82,00 ZP
M 16 x 60	S	50	86,00 ZP
M 16 x 65	S	25	97,00 ZP
M 16 x 70	S	25	98,00 ZP
M 16 x 75	S	25	109,00 ZP
M 16 x 80	S	25	111,00 ZP
M 16 x 85	S	25	250,00 ZP
M 16 x 90	S	25	131,00 ZP
M 16 x 95	S	25	205,00 ZP
M 16 x 100	S	25	144,00 ZP
M 16 x 110	S	25	193,00 ZP
M 16 x 120	S	25	211,00 ZP
M 16 x 130	S	25	236,00 ZP
M 16 x 140	S	25	295,00 ZP
M 16 x 150	S	25	370,00 ZP
M 16 x 160	S	25	385,00 ZP
M 16 x 170	S	25	485,00 ZP
M 16 x 180	S	25	445,00 ZP
M 16 x 190	S	25	690,00 ZP
M 16 x 200	S	25	530,00 ZP
M 16 x 210	S	25	820,00 ZP
M 16 x 220	S	25	630,00 ZP
M 16 x 230	S	25	920,00 ZP
M 16 x 240	S	25	780,00 ZP
M 16 x 250	S	25	850,00 ZP
M 16 x 260	S	25	850,00 ZP
M 16 x 270	S	25	1070,00 ZP
M 16 x 280	S	25	920,00 ZP
M 16 x 300	S	25	1070,00 ZP
M 16 x 320	S	10	1720,00 ZP
M 16 x 340	S	10	2010,00 ZP
M 16 x 360	S	10	2360,00 ZP
M 18 x 30	S	50	270,00 ZP
M 18 x 35	S	50	270,00 ZP
M 18 x 40	S	50	242,00 ZP
M 18 x 45	S	50	260,00 ZP
M 18 x 50	S	50	265,00 ZP
M 18 x 55	S	25	275,00 ZP
M 18 x 60	S	25	285,00 ZP
M 18 x 70	S	25	320,00 ZP
M 18 x 80	S	25	345,00 ZP
M 18 x 90	S	25	375,00 ZP
M 18 x 100	S	25	415,00 ZP
M 18 x 110	S	25	530,00 ZP
M 18 x 120	S	25	580,00 ZP
M 20 x 25	S	25	425,00 ZP
M 20 x 30	S	25	213,00 ZP
M 20 x 35	S	25	216,00 ZP
M 20 x 40	S	25	131,00 ZP
M 20 x 45	S	25	137,00 ZP
M 20 x 50	S	25	143,00 ZP
M 20 x 55	S	25	152,00 ZP
M 20 x 60	S	25	154,00 ZP
M 20 x 65	S	25	166,00 ZP
M 20 x 70	S	25	170,00 ZP
M 20 x 75	S	25	180,00 ZP
M 20 x 80	S	25	181,00 ZP
M 20 x 85	S	25	1090,00 ZP
M 20 x 90	S	25	217,00 ZP
M 20 x 100	S	25	232,00 ZP
M 20 x 110	S	25	270,00 ZP
M 20 x 120	S	25	295,00 ZP
M 20 x 130	S	25	395,00 ZP
M 20 x 140	S	25	550,00 ZP
M 20 x 150	S	25	620,00 ZP
M 20 x 160	S	10	640,00 ZP
M 20 x 170	S	10	770,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 180	S	10	770,00 ZP
M 20 x 190	S	10	890,00 ZP
M 20 x 200	S	1	900,00 ZP
M 20 x 210	S	1	1000,00 ZP
M 20 x 220	S	1	1010,00 ZP
M 20 x 230	S	1	1160,00 ZP
M 20 x 240	S	1	1160,00 ZP
M 20 x 250	S	1	1230,00 ZP
M 20 x 260	S	1	1230,00 ZP
M 20 x 270	S	1	1380,00 ZP
M 20 x 280	S	1	1390,00 ZP
M 20 x 300	S	1	1480,00 ZP
M 20 x 310	S	1	1710,00 ZP
M 20 x 320	S	1	1720,00 ZP
M 22 x 50	S	25	850,00 ZP
M 22 x 80	S	25	930,00 ZP
M 22 x 100	S	10	1030,00 ZP
M 24 x 30	S	25	1270,00 ZP
M 24 x 40	S	25	780,00 ZP
M 24 x 45	S	25	780,00 ZP
M 24 x 50	S	25	310,00 ZP
M 24 x 55	S	25	345,00 ZP
M 24 x 60	S	25	345,00 ZP
M 24 x 65	S	25	370,00 ZP
M 24 x 70	S	25	375,00 ZP
M 24 x 75	S	25	380,00 ZP
M 24 x 80	S	25	385,00 ZP
M 24 x 85	S	10	1130,00 ZP
M 24 x 90	S	10	455,00 ZP
M 24 x 100	S	10	475,00 ZP
M 24 x 110	S	10	580,00 ZP
M 24 x 120	S	10	620,00 ZP
M 24 x 130	S	1	710,00 ZP
M 24 x 140	S	1	870,00 ZP
M 24 x 150	S	1	1060,00 ZP
M 24 x 160	S	1	950,00 ZP
M 24 x 170	S	10	1020,00 ZP
M 24 x 180	S	1	1060,00 ZP
M 24 x 200	S	1	1160,00 ZP
M 24 x 210	S	1	1530,00 ZP
M 24 x 220	S	1	1530,00 ZP
M 24 x 230	S	1	1630,00 ZP
M 24 x 240	S	1	1630,00 ZP
M 24 x 250	S	1	1720,00 ZP
M 24 x 260	S	1	1730,00 ZP
M 24 x 280	S	1	1860,00 ZP
M 24 x 300	S	1	2010,00 ZP
M 25 x 50	S	10	1170,00 ZP
M 27 x 60	S	10	1180,00 ZP
M 27 x 65	S	10	1220,00 ZP
M 27 x 70	S	10	1220,00 ZP
M 27 x 80	S	10	1280,00 ZP
M 27 x 90	S	10	1340,00 ZP
M 27 x 100	S	10	1410,00 ZP
M 27 x 110	S	10	1450,00 ZP
M 27 x 120	S	10	1600,00 ZP
M 27 x 130	S	1	1670,00 ZP
M 27 x 140	S	1	1740,00 ZP
M 27 x 200	S	1	2100,00 ZP
M 30 x 35	S	10	2040,00 ZP
M 30 x 40	S	10	2040,00 ZP
M 30 x 50	S	10	1360,00 ZP
M 30 x 55	S	10	1360,00 ZP
M 30 x 60	S	10	1360,00 ZP
M 30 x 65	S	10	1390,00 ZP
M 30 x 70	S	10	1420,00 ZP
M 30 x 80	S	10	1480,00 ZP
M 30 x 85	S	1	1540,00 ZP
M 30 x 90	S	1	1540,00 ZP
M 30 x 100	S	1	1600,00 ZP
M 30 x 110	S	1	1660,00 ZP
M 30 x 120	S	1	1720,00 ZP
M 30 x 130	S	1	1780,00 ZP
M 30 x 140	S	1	1840,00 ZP
M 30 x 150	S	1	1950,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	160	S	1	2020,00 ZP
M 30	x	170	S	1	2110,00 ZP
M 30	x	180	S	1	2130,00 ZP
M 30	x	190	S	1	2240,00 ZP
M 30	x	200	S	1	2320,00 ZP
M 30	x	210	S	1	2500,00 ZP
M 30	x	220	S	1	2500,00 ZP
M 30	x	240	S	1	2650,00 ZP
M 30	x	250	S	1	2800,00 ZP
M 30	x	260	S	1	2800,00 ZP
M 30	x	280	S	1	2900,00 ZP
M 30	x	300	S	1	3200,00 ZP
M 36	x	50	S	1	2340,00 ZP
M 36	x	60	S	1	2340,00 ZP
M 36	x	65	S	1	2340,00 ZP
M 36	x	70	S	1	2300,00 ZP
M 36	x	80	S	1	2320,00 ZP
M 36	x	90	S	1	2400,00 ZP
M 36	x	100	S	1	2480,00 ZP
M 36	x	110	S	1	2600,00 ZP
M 36	x	120	S	1	2700,00 ZP
M 36	x	130	S	1	2800,00 ZP
M 36	x	140	S	1	2900,00 ZP
M 36	x	150	S	1	3000,00 ZP
M 36	x	160	S	1	3100,00 ZP
M 36	x	180	S	1	3350,00 ZP
M 36	x	200	S	1	3600,00 ZP
M 36	x	220	S	1	3850,00 ZP
M 36	x	230	S	1	4050,00 ZP
M 36	x	260	S	1	4250,00 ZP
M 36	x	310	S	1	7100,00 ZP
M 36	x	320	S	1	6500,00 ZP
M 42	x	70	S	1	3950,00 ZP
M 42	x	80	S	1	3950,00 ZP
M 42	x	90	S	1	4000,00 ZP
M 42	x	100	S	1	4150,00 ZP

~DIN	00912.814	1000
912	**8.8**	**ISR**
	zinc plated	



Hexalobular socket head cap screws, ISR = hexalobular socket

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

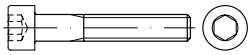
Identical to ISO 14579

RoHS ✓ | REACh SVHC free

M 6	x	16 -T30	S	200	8,80 ZP
M 6	x	20 -T30	S	200	9,60 ZP
M 8	x	20 -T45	S	200	15,50 ZP
M 8	x	25 -T45	S	200	16,90 ZP
M 8	x	30 -T45	S	200	18,10 ZP
M 8	x	35 -T45	S	200	19,80 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	500	11,80 ZP TLP
M 3	x	8	S	500	8,20 ZP TLP
M 3	x	10	S	500	7,00 ZP TLP
M 3	x	12	S	500	7,20 ZP TLP
M 3	x	16	S	500	7,70 ZP TLP
M 3	x	20	S	500	8,20 ZP TLP
M 4	x	6	S	500	14,40 ZP TLP
M 4	x	8	S	500	8,50 ZP TLP
M 4	x	10	S	500	6,60 ZP TLP
M 4	x	12	S	500	6,90 ZP TLP
M 4	x	16	S	500	6,70 ZP TLP
M 4	x	20	S	500	7,30 ZP TLP
M 4	x	25	S	500	8,30 ZP TLP
M 4	x	30	S	500	8,90 ZP TLP
M 4	x	35	S	500	10,90 ZP TLP
M 4	x	40	S	500	11,50 ZP TLP
M 5	x	6	S	500	15,50 ZP TLP
M 5	x	8	S	500	12,30 ZP TLP
M 5	x	10	S	500	6,60 ZP TLP
M 5	x	12	S	500	6,80 ZP TLP
M 5	x	16	S	500	6,80 ZP TLP
M 5	x	20	S	500	7,30 ZP TLP
M 5	x	25	S	500	7,90 ZP TLP
M 5	x	30	S	500	9,60 ZP TLP
M 5	x	35	S	200	10,30 ZP TLP
M 5	x	40	S	200	10,90 ZP TLP
M 5	x	45	S	200	20,00 ZP TLP
M 5	x	50	S	200	26,00 ZP TLP
M 6	x	8	S	500	14,40 ZP TLP
M 6	x	10	S	500	7,20 ZP TLP
M 6	x	12	S	500	7,60 ZP TLP
M 6	x	16	S	500	7,30 ZP TLP
M 6	x	20	S	500	8,10 ZP TLP
M 6	x	22	S	500	14,10 ZP TLP
M 6	x	25	S	500	9,60 ZP TLP
M 6	x	30	S	500	10,30 ZP TLP
M 6	x	35	S	200	10,80 ZP TLP
M 6	x	40	S	200	11,70 ZP TLP
M 6	x	45	S	200	15,00 ZP TLP
M 6	x	50	S	200	15,80 ZP TLP
M 6	x	55	S	200	24,60 ZP TLP
M 6	x	60	S	200	26,50 ZP TLP
M 6	x	65	S	200	38,00 ZP TLP
M 6	x	70	S	200	39,50 ZP TLP
M 6	x	75	S	200	52,00 ZP TLP
M 6	x	80	S	200	54,00 ZP TLP
M 6	x	100	S	200	67,00 ZP TLP
M 8	x	10	S	200	17,60 ZP TLP
M 8	x	12	S	200	18,40 ZP TLP
M 8	x	16	S	200	12,60 ZP TLP
M 8	x	20	S	200	12,90 ZP TLP

DIN	00912.362	360
912	**8.8**	
	zinc plated 8 TLP*	



Hexagon socket head cap screws

*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

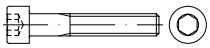
Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	25	S	200	14,10 ZP TLP
M 8	x	30	S	200	15,20 ZP TLP
M 8	x	35	S	200	16,60 ZP TLP
M 8	x	40	S	200	18,70 ZP TLP
M 8	x	45	S	200	19,40 ZP TLP
M 8	x	50	S	200	21,60 ZP TLP
M 8	x	55	S	200	33,00 ZP TLP
M 8	x	60	S	200	28,00 ZP TLP
M 8	x	65	S	200	47,00 ZP TLP
M 8	x	70	S	200	49,50 ZP TLP
M 8	x	80	S	200	69,00 ZP TLP
M 8	x	90	S	100	78,00 ZP TLP
M 8	x	100	S	100	94,00 ZP TLP
M 10	x	16	S	200	34,00 ZP TLP
M 10	x	20	S	200	23,00 ZP TLP
M 10	x	25	S	200	24,50 ZP TLP
M 10	x	30	S	200	26,50 ZP TLP
M 10	x	35	S	100	28,50 ZP TLP
M 10	x	40	S	100	31,00 ZP TLP
M 10	x	45	S	100	34,50 ZP TLP
M 10	x	50	S	100	36,00 ZP TLP
M 10	x	55	S	100	39,00 ZP TLP
M 10	x	60	S	100	42,00 ZP TLP
M 10	x	70	S	100	62,00 ZP TLP
M 10	x	80	S	100	75,00 ZP TLP
M 10	x	90	S	100	94,00 ZP TLP
M 10	x	100	S	100	101,00 ZP TLP
M 12	x	20	S	100	50,00 ZP TLP
M 12	x	25	S	100	36,50 ZP TLP
M 12	x	30	S	100	38,50 ZP TLP
M 12	x	35	S	100	39,50 ZP TLP
M 12	x	40	S	100	41,50 ZP TLP
M 12	x	45	S	100	44,50 ZP TLP
M 12	x	50	S	100	48,00 ZP TLP
M 12	x	60	S	100	57,00 ZP TLP
M 12	x	65	S	50	64,00 ZP TLP
M 12	x	70	S	50	66,00 ZP TLP
M 12	x	75	S	50	70,00 ZP TLP
M 12	x	80	S	50	71,00 ZP TLP
M 12	x	90	S	50	87,00 ZP TLP
M 16	x	25	S	50	107,00 ZP TLP
M 16	x	30	S	50	76,00 ZP TLP
M 16	x	35	S	50	77,00 ZP TLP
M 16	x	40	S	50	82,00 ZP TLP
M 16	x	50	S	50	95,00 ZP TLP
M 16	x	55	S	50	110,00 ZP TLP
M 16	x	60	S	50	141,00 ZP TLP
M 16	x	65	S	25	124,00 ZP TLP
M 16	x	70	S	25	125,00 ZP TLP
M 16	x	80	S	25	182,00 ZP TLP
M 16	x	90	S	25	212,00 ZP TLP
M 16	x	100	S	25	230,00 ZP TLP
M 16	x	120	S	25	310,00 ZP TLP

DIN	00912.422	360
912	8.8 zinc plated 8 TLP* + SL**	



Hexagon socket head cap screws

*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 – 0,18, salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	500	11,30
M 3	x	8	S	500	7,90
M 3	x	10	S	500	6,70
M 3	x	12	S	500	6,90
M 3	x	16	S	500	7,40
M 3	x	20	S	500	7,90
M 4	x	6	S	500	13,80
M 4	x	8	S	500	8,20
M 4	x	10	S	500	6,30
M 4	x	12	S	500	6,60
M 4	x	16	S	500	6,40
M 4	x	20	S	500	7,00
M 4	x	25	S	500	8,00
M 4	x	30	S	500	8,50
M 4	x	35	S	500	10,40
M 4	x	40	S	500	11,10
M 4	x	45	S	500	24,00
M 4	x	50	S	500	28,50
M 5	x	6	S	500	14,90
M 5	x	8	S	500	11,70
M 5	x	10	S	500	6,40
M 5	x	12	S	500	6,50
M 5	x	14	S	500	11,10
M 5	x	16	S	500	6,40
M 5	x	20	S	500	7,00
M 5	x	22	S	500	12,90
M 5	x	25	S	500	7,50
M 5	x	30	S	500	9,20
M 5	x	35	S	200	9,90
M 5	x	40	S	200	10,50
M 5	x	45	S	200	19,20
M 5	x	50	S	200	24,70
M 5	x	55	S	200	27,00
M 6	x	8	S	500	13,80
M 6	x	10	S	500	6,90
M 6	x	12	S	500	7,30
M 6	x	16	S	500	7,00
M 6	x	20	S	500	7,70
M 6	x	22	S	500	13,50
M 6	x	25	S	500	8,10
M 6	x	30	S	500	9,30
M 6	x	32	S	200	9,80
M 6	x	35	S	200	10,30
M 6	x	40	S	200	11,20
M 6	x	45	S	200	14,40
M 6	x	50	S	200	15,20
M 6	x	55	S	200	23,60
M 6	x	60	S	200	25,50
M 6	x	65	S	200	36,50
M 6	x	70	S	200	37,50
M 6	x	75	S	200	49,50
M 6	x	80	S	200	51,00
M 6	x	85	S	200	47,50
M 6	x	100	S	200	64,00
M 6	x	105	S	100	154,00
M 6	x	110	S	100	62,00
M 6	x	130	S	100	76,00
M 8	x	10	S	200	16,90
M 8	x	12	S	200	17,60
M 8	x	16	S	200	12,20
M 8	x	20	S	200	12,40
M 8	x	25	S	200	13,60
M 8	x	30	S	200	14,60
M 8	x	35	S	200	15,90
M 8	x	40	S	200	18,00
M 8	x	45	S	200	18,60
M 8	x	50	S	200	20,70
M 8	x	55	S	200	31,50
M 8	x	60	S	200	26,50
M 8	x	65	S	200	45,00
M 8	x	70	S	200	47,50
M 8	x	80	S	200	67,00
M 8	x	85	S	200	59,00
M 8	x	90	S	100	75,00
M 8	x	100	S	100	90,00
M 8	x	110	S	100	104,00
M 8	x	200	S	50	200,00
M 10	x	12	S	200	60,00
M 10	x	16	S	200	32,50
M 10	x	20	S	200	22,10
M 10	x	25	S	200	23,40
M 10	x	30	S	200	25,50
M 10	x	35	S	100	27,00
M 10	x	40	S	100	30,00
M 10	x	45	S	100	33,00
M 10	x	50	S	100	34,50
M 10	x	55	S	100	37,50
M 10	x	60	S	100	40,50
M 10	x	65	S	100	39,50
M 10	x	70	S	100	60,00
M 10	x	80	S	100	72,00
M 10	x	90	S	100	90,00
M 10	x	100	S	100	97,00
M 10	x	110	S	100	108,00
M 10	x	120	S	50	128,00
M 10	x	135	S	50	152,00
M 12	x	20	S	100	48,00
M 12	x	25	S	100	35,00
M 12	x	30	S	100	37,00
M 12	x	35	S	100	37,50
M 12	x	40	S	100	40,00
M 12	x	45	S	100	42,50
M 12	x	50	S	100	106,00
M 12	x	60	S	100	54,00
M 12	x	65	S	50	61,00
M 12	x	70	S	50	64,00
M 12	x	75	S	50	67,00
M 12	x	80	S	50	68,00
M 12	x	90	S	50	83,00
M 12	x	100	S	50	106,00
M 12	x	110	S	50	105,00
M 12	x	120	S	50	128,00
M 14	x	30	S	100	79,00
M 16	x	25	S	50	103,00
M 16	x	30	S	50	73,00
M 16	x	35	S	50	74,00
M 16	x	40	S	50	78,00
M 16	x	45	S	50	87,00
M 16	x	50	S	50	92,00
M 16	x	55	S	50	105,00
M 16	x	60	S	50	135,00
M 16	x	65	S	25	118,00
M 16	x	70	S	25	120,00
M 16	x	75	S	25	137,00
M 16	x	80	S	25	175,00
M 16	x	85	S	25	305,00
M 16	x	90	S	25	204,00
M 16	x	100	S	25	221,00
M 16	x	120	S	25	295,00
M 16	x	130	S	25	330,00
M 16	x	140	S	25	365,00
M 16	x	150	S	25	455,00
M 16	x	180	S	25	540,00
M 16	x	300	S	25	1070,00
M 20	x	35	S	25	136,00
M 20	x	50	S	25	172,00
M 20	x	55	S	25	147,00
M 20	x	60	S	25	185,00
M 20	x	65	S	25	199,00
M 20	x	70	S	25	195,00
M 20	x	100	S	25	236,00
M 20	x	120	S	25	345,00
M 20	x	150	S	25	760,00
M 20	x	180	S	25	770,00

DIN	00912.453	1570
912	8.8 flZn/TL480h	



Hexagon socket head cap screws

TL = lubricant in topcoat with µ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-12
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

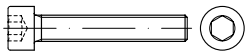
RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	S	500	10,30 flZn
M 6	x	14	S	500	15,30 flZn
M 6	x	16	S	500	9,90 flZn
M 6	x	18	S	500	10,70 flZn
M 6	x	20	S	500	10,80 flZn
M 6	x	22	S	500	18,60 flZn
M 6	x	25	S	500	11,50 flZn
M 6	x	28	S	500	27,00 flZn
M 6	x	30	S	500	13,20 flZn
M 6	x	35	S	200	14,30 flZn
M 6	x	40	S	200	15,90 flZn
M 6	x	45	S	200	20,50 flZn
M 6	x	50	S	200	21,40 flZn
M 6	x	55	S	200	34,00 flZn
M 6	x	60	S	200	36,00 flZn
M 6	x	65	S	200	47,00 flZn
M 6	x	70	S	200	48,50 flZn
M 6	x	75	S	200	65,00 flZn
M 6	x	80	S	200	67,00 flZn
M 8	x	16	S	200	17,10 flZn
M 8	x	20	S	200	17,50 flZn
M 8	x	25	S	200	19,20 flZn
M 8	x	30	S	200	20,50 flZn
M 8	x	35	S	200	22,40 flZn
M 8	x	40	S	200	25,50 flZn
M 8	x	45	S	200	26,50 flZn

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	50	S	200	29,50 flZn
M 8	x	55	S	200	34,00 flZn
M 8	x	60	S	200	38,00 flZn
M 8	x	65	S	200	54,00 flZn
M 8	x	70	S	200	56,00 flZn
M 8	x	75	S	200	68,00 flZn
M 8	x	80	S	200	84,00 flZn
M 8	x	90	S	100	102,00 flZn
M 10	x	20	S	200	31,50 flZn
M 10	x	25	S	200	33,50 flZn
M 10	x	30	S	200	36,00 flZn
M 10	x	35	S	100	38,50 flZn
M 10	x	40	S	100	42,00 flZn
M 10	x	45	S	100	45,50 flZn
M 10	x	50	S	100	49,00 flZn
M 10	x	55	S	100	53,00 flZn
M 10	x	60	S	100	57,00 flZn
M 10	x	65	S	100	62,00 flZn
M 10	x	70	S	100	64,00 flZn
M 10	x	75	S	100	76,00 flZn
M 10	x	80	S	100	78,00 flZn
M 10	x	90	S	100	107,00 flZn
M 12	x	20	S	100	55,00 flZn
M 12	x	25	S	100	49,50 flZn
M 12	x	30	S	100	52,00 flZn
M 12	x	35	S	100	54,00 flZn
M 12	x	40	S	100	56,00 flZn
M 12	x	45	S	100	60,00 flZn
M 12	x	50	S	100	65,00 flZn
M 12	x	55	S	100	72,00 flZn
M 12	x	60	S	100	77,00 flZn
M 12	x	65	S	50	86,00 flZn
M 12	x	70	S	50	90,00 flZn
M 12	x	75	S	50	94,00 flZn
M 12	x	80	S	50	97,00 flZn
M 12	x	90	S	50	118,00 flZn
M 12	x	100	S	50	141,00 flZn
M 16	x	30	S	50	102,00 flZn
M 16	x	35	S	50	105,00 flZn
M 16	x	40	S	50	111,00 flZn
M 16	x	45	S	50	119,00 flZn
M 16	x	50	S	50	129,00 flZn
M 16	x	55	S	50	138,00 flZn
M 16	x	60	S	50	145,00 flZn
M 16	x	65	S	25	164,00 flZn
M 16	x	70	S	25	167,00 flZn
M 16	x	75	S	25	185,00 flZn
M 16	x	80	S	25	188,00 flZn
M 16	x	90	S	25	223,00 flZn
M 16	x	100	S	25	245,00 flZn
M 16	x	110	S	25	335,00 flZn
M 16	x	120	S	25	360,00 flZn
M 20	x	65	S	25	285,00 flZn
M 20	x	70	S	25	290,00 flZn
M 20	x	75	S	25	305,00 flZn
M 20	x	80	S	25	310,00 flZn
M 20	x	90	S	25	375,00 flZn
M 20	x	100	S	25	400,00 flZn
M 20	x	110	S	25	465,00 flZn
M 20	x	120	S	25	495,00 flZn
M 20	x	130	S	25	680,00 flZn
M 20	x	140	S	25	930,00 flZn
M 20	x	150	S	25	1060,00 flZn
M 20	x	160	S	10	1080,00 flZn
M 20	x	170	S	10	1290,00 flZn
M 20	x	180	S	10	1290,00 flZn
M 24	x	75	S	25	650,00 flZn
M 24	x	80	S	25	650,00 flZn
M 24	x	90	S	10	770,00 flZn
M 24	x	100	S	10	810,00 flZn
M 24	x	110	S	10	980,00 flZn
M 24	x	120	S	10	1060,00 flZn
M 24	x	130	S	1	1200,00 flZn
M 24	x	140	S	1	1470,00 flZn
M 24	x	150	S	1	1790,00 flZn
M 24	x	160	S	1	1620,00 flZn
M 24	x	170	S	1	1720,00 flZn
M 24	x	180	S	1	1800,00 flZn

~DIN	00912.807	364
912	8.8	FT



Hexagon socket head cap screws, FT = full thread (thread up to head)

Dimensions ➔ TI-12
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Design and other dimensions identical to ISO 4762

RoHS ✓ | REACh SVHC free

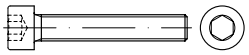
Dimensions			PU	Pieces	€/100/Mat.
M 5	x	40	S	200	24,60
M 5	x	50	S	200	28,50
M 5	x	60	S	200	31,50
M 5	x	70	S	200	35,00
M 5	x	80	S	200	38,50
M 6	x	40	S	200	27,50
M 6	x	50	S	200	34,00
M 6	x	60	S	200	41,00
M 6	x	70	S	200	46,50
M 6	x	80	S	200	52,00
M 6	x	90	S	200	67,00
M 6	x	100	S	200	138,00
M 8	x	50	S	200	52,00
M 8	x	60	S	200	59,00
M 8	x	70	S	200	73,00
M 8	x	80	S	200	88,00
M 8	x	90	S	100	95,00
M 8	x	100	S	100	111,00
M 10	x	50	S	100	80,00
M 10	x	60	S	100	131,00
M 10	x	70	S	100	152,00
M 10	x	80	S	100	177,00
M 10	x	90	S	100	255,00
M 10	x	100	S	100	295,00
M 12	x	70	S	50	182,00
M 12	x	80	S	50	218,00
M 12	x	90	S	50	295,00
M 12	x	100	S	50	415,00
M 16	x	70	S	25	242,00
M 16	x	80	S	25	295,00
M 16	x	90	S	25	390,00
M 16	x	100	S	25	550,00
M 16	x	120	S	25	660,00

RKP® REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions			PU	Pieces	€/100/Mat.
~DIN			00912.815		364
912			8.8 zinc plated		FT



Hexagon socket head cap screws, FT = full thread (thread up to head)

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Design and other dimensions identical to ISO 4762

RoHS ✓ | REACh SVHC free

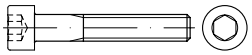
Dimensions			PU	Pieces	€/100/Mat.
M 4	x	30	S	500	35,50 ZP
M 5	x	40	S	200	35,50 ZP
M 5	x	45	S	200	38,00 ZP
M 5	x	50	S	200	40,50 ZP
M 5	x	60	S	200	45,00 ZP
M 5	x	70	S	200	50,00 ZP
M 5	x	80	S	200	55,00 ZP
M 6	x	40	S	200	39,00 ZP
M 6	x	50	S	200	48,50 ZP
M 6	x	60	S	200	58,00 ZP
M 6	x	70	S	200	67,00 ZP
M 6	x	75	S	200	91,00 ZP
M 6	x	80	S	200	74,00 ZP
M 6	x	90	S	200	95,00 ZP
M 6	x	100	S	200	197,00 ZP
M 8	x	45	S	200	71,00 ZP
M 8	x	50	S	200	74,00 ZP
M 8	x	60	S	200	85,00 ZP
M 8	x	70	S	200	105,00 ZP
M 8	x	75	S	200	115,00 ZP
M 8	x	80	S	200	125,00 ZP
M 8	x	90	S	100	136,00 ZP
M 8	x	100	S	100	159,00 ZP
M 10	x	50	S	100	114,00 ZP
M 10	x	60	S	100	187,00 ZP
M 10	x	80	S	100	255,00 ZP
M 10	x	90	S	100	360,00 ZP
M 10	x	100	S	100	420,00 ZP
M 12	x	60	S	100	222,00 ZP
M 12	x	80	S	50	315,00 ZP
M 12	x	100	S	50	590,00 ZP

RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions	PU Pieces	€/100/Mat.
DIN	00912.805	364
912	**8.8**	**fine**



Hexagon socket head cap screws with metrical fine pitch thread

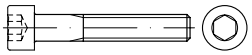
Dimensions ➔ TI-12
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

DIN 912 fine thread ➔ replaced by ISO 12474

RoHS ✓ | REACh SVHC free

Dimensions					PU	Pieces	€/100/Mat.
M 8	x	1	x	12	S	200	138,00
M 8	x	1	x	16	S	200	143,00
M 8	x	1	x	20	S	200	148,00
M 8	x	1	x	25	S	200	152,00
M 8	x	1	x	30	S	200	158,00
M 10	x	1	x	16	S	200	102,00
M 10	x	1	x	20	S	200	110,00
M 10	x	1,25	x	20	S	200	85,00
M 10	x	1	x	25	S	200	121,00
M 10	x	1,25	x	25	S	200	121,00
M 10	x	1	x	30	S	200	126,00
M 10	x	1,25	x	30	S	200	126,00
M 10	x	1	x	40	S	100	138,00
M 10	x	1,25	x	40	S	100	138,00
M 10	x	1	x	50	S	100	149,00
M 10	x	1	x	60	S	100	160,00
M 10	x	1	x	70	S	100	171,00
M 10	x	1	x	80	S	100	184,00
M 10	x	1	x	90	S	100	199,00
M 10	x	1	x	100	S	100	209,00
M 12	x	1,5	x	20	S	100	140,00
M 12	x	1,5	x	25	S	100	157,00
M 12	x	1,5	x	30	S	100	167,00
M 12	x	1,5	x	35	S	100	182,00
M 12	x	1,25	x	40	S	100	242,00
M 12	x	1,5	x	40	S	100	195,00
M 12	x	1,5	x	50	S	100	212,00
M 14	x	1,5	x	30	S	100	223,00
M 14	x	1,5	x	35	S	100	255,00
M 14	x	1,5	x	40	S	100	270,00
M 14	x	1,5	x	45	S	50	285,00
M 16	x	1,5	x	30	S	50	335,00
M 16	x	1,5	x	35	S	50	355,00
M 16	x	1,5	x	40	S	50	390,00
M 16	x	1,5	x	45	S	50	410,00
M 16	x	1,5	x	50	S	50	450,00
M 16	x	1,5	x	55	S	50	485,00
M 16	x	1,5	x	60	S	50	520,00
M 16	x	1,5	x	70	S	25	580,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00912.100	362
912	**10.9**	



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ | REACh SVHC free

Dimensions					PU	Pieces	€/100/Mat.
M 3	x	6			S	500	10,10
M 3	x	8			S	500	8,00
M 3	x	10			S	500	6,60
M 3	x	12			S	500	6,90
M 3	x	14			S	500	16,30
M 3	x	16			S	500	7,10
M 3	x	20			S	500	7,60
M 3	x	25			S	500	8,20
M 3	x	30			S	500	9,40
M 4	x	6			S	500	20,20
M 4	x	8			S	500	7,70
M 4	x	10			S	500	7,10
M 4	x	12			S	500	7,20
M 4	x	14			S	500	20,40
M 4	x	16			S	500	7,30
M 4	x	18			S	500	7,60
M 4	x	20			S	500	7,70
M 4	x	22			S	500	20,50
M 4	x	25			S	500	8,00
M 4	x	30			S	500	8,60
M 4	x	35			S	500	8,90
M 4	x	40			S	500	9,70
M 4	x	45			S	500	25,00
M 4	x	50			S	500	26,00
M 4	x	55			S	200	28,50
M 4	x	60			S	200	30,50
M 4	x	65			S	200	31,00
M 4	x	70			S	200	34,50
M 5	x	6			S	500	23,50
M 5	x	8			S	500	16,70
M 5	x	10			S	500	6,20
M 5	x	12			S	500	6,50
M 5	x	14			S	500	17,00
M 5	x	16			S	500	6,60
M 5	x	18			S	500	8,00
M 5	x	20			S	500	6,90
M 5	x	22			S	500	17,70
M 5	x	25			S	500	7,30
M 5	x	30			S	500	7,80
M 5	x	35			S	200	10,40
M 5	x	40			S	200	10,60
M 5	x	45			S	200	18,00
M 5	x	50			S	200	24,20
M 5	x	55			S	200	27,50
M 5	x	60			S	200	29,00
M 5	x	65			S	200	40,00
M 5	x	70			S	200	40,50
M 5	x	75			S	200	64,00
M 5	x	80			S	200	64,00
M 5	x	85			S	200	136,00
M 5	x	90			S	200	70,00
M 5	x	95			S	200	194,00
M 5	x	100			S	200	78,00
M 5	x	110			S	100	181,00

Dimensions					PU	Pieces	€/100/Mat.
M 5	x	120			S	100	186,00
M 5	x	130			S	100	530,00
M 5	x	135			S	100	640,00
M 5	x	140			S	100	640,00
M 5	x	150			S	100	650,00
M 5	x	160			S	100	660,00
M 5	x	170			S	100	700,00
M 5	x	180			S	100	720,00
M 5	x	190			S	100	830,00
M 5	x	200			S	100	910,00
M 6	x	8			S	500	18,60
M 6	x	10			S	500	6,30
M 6	x	12			S	500	6,50
M 6	x	14			S	500	14,60
M 6	x	16			S	500	6,60
M 6	x	18			S	500	7,40
M 6	x	20			S	500	6,70
M 6	x	22			S	500	18,10
M 6	x	25			S	500	6,90
M 6	x	30			S	500	7,90
M 6	x	35			S	200	8,40
M 6	x	40			S	200	9,40
M 6	x	45			S	200	12,30
M 6	x	50			S	200	14,60
M 6	x	55			S	200	23,20
M 6	x	60			S	200	23,60
M 6	x	65			S	200	30,00
M 6	x	70			S	200	39,50
M 6	x	75			S	200	49,00
M 6	x	80			S	200	54,00
M 6	x	85			S	200	96,00
M 6	x	90			S	200	66,00
M 6	x	95			S	200	115,00
M 6	x	100			S	200	79,00
M 6	x	110			S	100	108,00
M 6	x	120			S	100	117,00
M 6	x	130			S	100	360,00
M 6	x	135			S	100	420,00
M 6	x	140			S	100	380,00
M 6	x	145			S	100	520,00
M 6	x	150			S	100	425,00
M 6	x	160			S	100	720,00
M 6	x	170			S	100	790,00
M 6	x	180			S	100	840,00
M 6	x	190			S	100	1030,00
M 6	x	200			S	100	1140,00
M 6	x	210			S	50	1170,00
M 6	x	220			S	50	1190,00
M 6	x	230			S	50	1290,00
M 6	x	240			S	50	1290,00
M 8	x	10			S	200	15,30
M 8	x	12			S	200	15,30
M 8	x	14			S	200	22,70
M 8	x	16			S	200	10,80
M 8	x	18			S	200	11,70
M 8	x	20			S	200	10,20
M 8	x	22			S	200	23,50
M 8	x	25			S	200	11,00
M 8	x	30			S	200	11,60
M 8	x	35			S	200	12,90
M 8	x	40			S	200	14,30
M 8	x	45			S	200	15,10
M 8	x	50			S	200	16,60
M 8	x	55			S	200	22,50
M 8	x	60			S	200	23,00
M 8	x	65			S	200	31,00
M 8	x	70			S	200	32,00
M 8	x	75			S	200	39,50
M 8	x	80			S	200	52,00
M 8	x	85			S	100	78,00
M 8	x	90			S	100	63,00
M 8	x	95			S	100	90,00
M 8	x	100			S	100	74,00
M 8	x	110			S	100	96,00
M 8	x	120			S	100	97,00

€/100 = price in € plus VAT when ordering full package unit

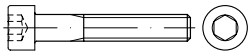
Dimensions	PU	Pieces	€/100/Mat.
M 8 x 125	S	100	209,00
M 8 x 130	S	100	148,00
M 8 x 135	S	100	224,00
M 8 x 140	S	50	163,00
M 8 x 150	S	50	275,00
M 8 x 160	S	50	310,00
M 8 x 170	S	50	355,00
M 8 x 180	S	50	375,00
M 8 x 190	S	50	590,00
M 8 x 200	S	50	590,00
M 8 x 220	S	50	660,00
M 8 x 240	S	50	830,00
M 8 x 250	S	50	880,00
M 8 x 260	S	50	880,00
M 8 x 270	S	50	950,00
M 8 x 280	S	50	950,00
M 8 x 300	S	50	1000,00
M 10 x 10	S	200	70,00
M 10 x 12	S	200	70,00
M 10 x 16	S	200	31,00
M 10 x 18	S	200	72,00
M 10 x 20	S	200	18,70
M 10 x 22	S	200	53,00
M 10 x 25	S	200	20,30
M 10 x 30	S	200	21,00
M 10 x 35	S	100	22,30
M 10 x 40	S	100	23,20
M 10 x 45	S	100	26,00
M 10 x 50	S	100	27,50
M 10 x 55	S	100	30,00
M 10 x 60	S	100	30,50
M 10 x 65	S	100	32,00
M 10 x 70	S	100	33,00
M 10 x 75	S	100	45,00
M 10 x 80	S	100	46,00
M 10 x 85	S	100	104,00
M 10 x 90	S	100	60,00
M 10 x 95	S	100	113,00
M 10 x 100	S	100	67,00
M 10 x 110	S	50	111,00
M 10 x 115	S	50	229,00
M 10 x 120	S	50	146,00
M 10 x 125	S	50	229,00
M 10 x 130	S	50	172,00
M 10 x 135	S	50	260,00
M 10 x 140	S	50	193,00
M 10 x 145	S	50	380,00
M 10 x 150	S	50	285,00
M 10 x 160	S	50	320,00
M 10 x 170	S	50	375,00
M 10 x 180	S	50	395,00
M 10 x 190	S	50	445,00
M 10 x 200	S	50	445,00
M 10 x 210	S	50	560,00
M 10 x 220	S	50	540,00
M 10 x 230	S	50	650,00
M 10 x 240	S	50	630,00
M 10 x 250	S	50	690,00
M 10 x 260	S	50	710,00
M 10 x 270	S	50	960,00
M 10 x 280	S	50	800,00
M 10 x 290	S	50	1070,00
M 10 x 300	S	50	890,00
M 10 x 310	S	50	2180,00
M 10 x 320	S	50	2350,00
M 10 x 340	S	50	2850,00
M 10 x 350	S	50	3700,00
M 10 x 400	S	50	4900,00
M 12 x 12	S	100	285,00
M 12 x 14	S	100	83,00
M 12 x 16	S	100	83,00
M 12 x 18	S	100	83,00
M 12 x 20	S	100	37,00
M 12 x 25	S	100	31,00
M 12 x 30	S	100	32,50
M 12 x 35	S	100	33,50
M 12 x 40	S	100	34,00
M 12 x 45	S	100	36,00
M 12 x 50	S	100	37,50
M 12 x 55	S	100	41,50
M 12 x 60	S	100	43,50
M 12 x 65	S	50	48,00
M 12 x 70	S	50	50,00
M 12 x 75	S	50	53,00
M 12 x 80	S	50	54,00
M 12 x 85	S	50	144,00
M 12 x 90	S	50	68,00
M 12 x 95	S	50	160,00
M 12 x 100	S	50	76,00
M 12 x 110	S	50	116,00
M 12 x 120	S	50	130,00
M 12 x 125	S	50	265,00
M 12 x 130	S	50	200,00
M 12 x 135	S	50	315,00
M 12 x 140	S	50	234,00
M 12 x 150	S	50	305,00
M 12 x 160	S	25	340,00
M 12 x 170	S	25	365,00
M 12 x 180	S	25	390,00
M 12 x 190	S	25	770,00
M 12 x 200	S	25	500,00
M 12 x 210	S	25	740,00
M 12 x 220	S	25	740,00
M 12 x 230	S	25	860,00
M 12 x 240	S	25	840,00
M 12 x 250	S	25	1240,00
M 12 x 260	S	25	920,00
M 12 x 270	S	25	1260,00
M 12 x 280	S	25	980,00
M 12 x 290	S	25	1280,00
M 12 x 300	S	25	1060,00
M 12 x 310	S	25	2080,00
M 12 x 320	S	25	2280,00
M 12 x 330	S	25	2700,00
M 12 x 340	S	25	2700,00
M 12 x 360	S	25	3400,00
M 12 x 380	S	25	4050,00
M 12 x 400	S	25	4400,00
M 14 x 20	S	100	197,00
M 14 x 25	S	100	152,00
M 14 x 30	S	100	146,00
M 14 x 35	S	100	151,00
M 14 x 40	S	100	120,00
M 14 x 45	S	50	124,00
M 14 x 50	S	50	131,00
M 14 x 55	S	50	197,00
M 14 x 60	S	50	144,00
M 14 x 65	S	50	176,00
M 14 x 70	S	50	182,00
M 14 x 75	S	50	206,00
M 14 x 80	S	50	206,00
M 14 x 90	S	50	221,00
M 14 x 100	S	50	249,00
M 14 x 110	S	50	265,00
M 14 x 120	S	50	300,00
M 14 x 125	S	50	660,00
M 14 x 130	S	50	335,00
M 14 x 140	S	25	425,00
M 14 x 150	S	25	485,00
M 14 x 160	S	25	780,00
M 14 x 170	S	25	820,00
M 14 x 180	S	25	860,00
M 14 x 190	S	25	880,00
M 14 x 200	S	25	910,00
M 16 x 20	S	50	197,00
M 16 x 25	S	50	143,00
M 16 x 30	S	50	66,00
M 16 x 35	S	50	69,00
M 16 x 40	S	50	71,00
M 16 x 45	S	50	73,00
M 16 x 50	S	50	75,00
M 16 x 55	S	50	78,00
M 16 x 60	S	50	81,00
M 16 x 65	S	25	93,00
M 16 x 70	S	25	93,00
M 16 x 75	S	25	106,00
M 16 x 80	S	25	106,00
M 16 x 85	S	25	375,00
M 16 x 90	S	25	129,00
M 16 x 100	S	25	141,00
M 16 x 110	S	25	170,00
M 16 x 120	S	25	205,00
M 16 x 125	S	25	450,00
M 16 x 130	S	25	290,00
M 16 x 140	S	25	375,00
M 16 x 150	S	25	425,00
M 16 x 160	S	25	520,00
M 16 x 170	S	25	610,00
M 16 x 180	S	25	610,00
M 16 x 190	S	25	760,00
M 16 x 200	S	25	860,00
M 16 x 210	S	25	1360,00
M 16 x 220	S	25	920,00
M 16 x 230	S	25	1410,00
M 16 x 240	S	25	920,00
M 16 x 250	S	25	1500,00
M 16 x 260	S	25	1030,00
M 16 x 270	S	25	1590,00
M 16 x 280	S	25	1130,00
M 16 x 290	S	25	1830,00
M 16 x 300	S	25	1270,00
M 16 x 320	S	10	1700,00
M 16 x 330	S	10	1700,00
M 16 x 340	S	10	1840,00
M 16 x 350	S	10	1860,00
M 16 x 360	S	10	1980,00
M 16 x 380	S	10	2800,00
M 16 x 400	S	10	2950,00
M 18 x 35	S	50	375,00
M 18 x 40	S	50	315,00
M 18 x 45	S	50	320,00
M 18 x 50	S	50	320,00
M 18 x 55	S	25	320,00
M 18 x 60	S	25	320,00
M 18 x 65	S	25	345,00
M 18 x 70	S	25	345,00
M 18 x 75	S	25	385,00
M 18 x 80	S	25	380,00
M 18 x 90	S	25	385,00
M 18 x 120	S	25	495,00
M 18 x 130	S	25	850,00
M 18 x 140	S	25	930,00
M 18 x 150	S	25	1040,00
M 18 x 160	S	25	1140,00
M 18 x 180	S	25	1260,00
M 18 x 200	S	25	1260,00
M 18 x 210	S	10	1500,00
M 18 x 220	S	10	1500,00
M 18 x 240	S	10	1590,00
M 18 x 250	S	10	1700,00
M 18 x 260	S	10	1700,00
M 18 x 280	S	10	1820,00
M 18 x 300	S	10	1930,00
M 20 x 20	S	25	570,00
M 20 x 25	S	25	570,00
M 20 x 30	S	25	315,00
M 20 x 35	S	25	315,00
M 20 x 40	S	25	136,00
M 20 x 45	S	25	137,00
M 20 x 50	S	25	138,00
M 20 x 55	S	25	147,00
M 20 x 60	S	25	152,00
M 20 x 65	S	25	165,00
M 20 x 70	S	25	165,00
M 20 x 75	S	25	172,00

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 80	S	25	172,00
M 20 x 85	S	25	425,00
M 20 x 90	S	25	201,00
M 20 x 95	S	25	780,00
M 20 x 100	S	25	220,00
M 20 x 110	S	25	249,00
M 20 x 120	S	25	305,00
M 20 x 125	S	25	1420,00
M 20 x 130	S	25	390,00
M 20 x 135	S	25	1450,00
M 20 x 140	S	25	570,00
M 20 x 145	S	25	1480,00
M 20 x 150	S	25	660,00
M 20 x 160	S	10	860,00
M 20 x 170	S	10	1050,00
M 20 x 180	S	10	920,00
M 20 x 190	S	10	1020,00
M 20 x 200	S	10	860,00
M 20 x 210	S	1	1780,00
M 20 x 220	S	1	1250,00
M 20 x 230	S	1	2000,00
M 20 x 240	S	1	1330,00
M 20 x 250	S	1	2140,00
M 20 x 260	S	1	1400,00
M 20 x 270	S	1	2290,00
M 20 x 280	S	1	1470,00
M 20 x 290	S	1	2650,00
M 20 x 300	S	1	1630,00
M 20 x 310	S	1	2060,00
M 20 x 320	S	1	2120,00
M 20 x 330	S	1	2330,00
M 20 x 340	S	1	2400,00
M 20 x 350	S	1	2600,00
M 20 x 360	S	1	2650,00
M 20 x 380	S	1	2900,00
M 20 x 400	S	1	3200,00
M 22 x 40	S	25	1070,00
M 22 x 45	S	25	860,00
M 22 x 50	S	25	1070,00
M 22 x 60	S	25	1130,00
M 22 x 65	S	25	1160,00
M 22 x 70	S	25	1160,00
M 22 x 75	S	25	1220,00
M 22 x 80	S	25	1220,00
M 22 x 90	S	25	1300,00
M 22 x 100	S	10	1330,00
M 22 x 110	S	10	1360,00
M 22 x 120	S	10	1360,00
M 22 x 130	S	10	1430,00
M 22 x 140	S	10	1490,00
M 22 x 150	S	10	1530,00
M 22 x 160	S	10	1560,00
M 22 x 180	S	10	1750,00
M 22 x 200	S	10	2050,00
M 22 x 220	S	10	2120,00
M 24 x 30	S	25	930,00
M 24 x 35	S	25	930,00
M 24 x 40	S	25	840,00
M 24 x 45	S	25	860,00
M 24 x 50	S	25	420,00
M 24 x 55	S	25	445,00
M 24 x 60	S	25	445,00
M 24 x 65	S	25	460,00
M 24 x 70	S	25	460,00
M 24 x 75	S	25	480,00
M 24 x 80	S	25	480,00
M 24 x 85	S	10	870,00
M 24 x 90	S	10	550,00
M 24 x 95	S	10	900,00
M 24 x 100	S	10	570,00
M 24 x 110	S	10	630,00
M 24 x 120	S	10	650,00
M 24 x 130	S	10	850,00
M 24 x 140	S	10	1080,00
M 24 x 150	S	10	1270,00
M 24 x 160	S	10	1360,00
M 24 x 170	S	10	1630,00
M 24 x 180	S	10	1690,00
M 24 x 190	S	10	2060,00
M 24 x 200	S	10	1810,00
M 24 x 210	S	1	2320,00
M 24 x 220	S	1	2110,00
M 24 x 230	S	1	2550,00
M 24 x 240	S	1	2300,00
M 24 x 250	S	1	2750,00
M 24 x 260	S	1	2460,00
M 24 x 270	S	1	2900,00
M 24 x 280	S	1	2550,00
M 24 x 290	S	1	3050,00
M 24 x 300	S	1	2650,00
M 24 x 310	S	1	2850,00
M 24 x 320	S	1	2850,00
M 24 x 330	S	1	3200,00
M 24 x 340	S	1	3200,00
M 24 x 350	S	1	3500,00
M 24 x 360	S	1	3500,00
M 24 x 380	S	1	3750,00
M 24 x 400	S	1	4100,00
M 24 x 420	S	1	5400,00
M 24 x 440	S	1	5900,00
M 24 x 450	S	1	6000,00
M 24 x 460	S	1	6300,00
M 24 x 480	S	1	6800,00
M 24 x 500	S	1	7300,00
M 24 x 520	S	1	7700,00
M 27 x 40	S	10	1660,00
M 27 x 45	S	10	1660,00
M 27 x 50	S	10	1350,00
M 27 x 55	S	10	1350,00
M 27 x 60	S	10	1350,00
M 27 x 65	S	10	1410,00
M 27 x 70	S	10	1410,00
M 27 x 75	S	10	1470,00
M 27 x 80	S	10	1470,00
M 27 x 85	S	10	1520,00
M 27 x 90	S	10	1520,00
M 27 x 95	S	10	1590,00
M 27 x 100	S	10	1590,00
M 27 x 110	S	10	1630,00
M 27 x 120	S	10	1800,00
M 27 x 130	S	1	1880,00
M 27 x 140	S	1	1950,00
M 27 x 150	S	1	2020,00
M 27 x 160	S	1	2080,00
M 27 x 170	S	1	2600,00
M 27 x 180	S	1	2230,00
M 27 x 190	S	1	2800,00
M 27 x 200	S	1	2330,00
M 27 x 210	S	1	3600,00
M 27 x 220	S	1	2650,00
M 27 x 230	S	1	3900,00
M 27 x 240	S	1	2850,00
M 27 x 250	S	1	4150,00
M 27 x 260	S	1	3050,00
M 27 x 270	S	1	3150,00
M 27 x 280	S	1	3200,00
M 27 x 290	S	1	3300,00
M 27 x 300	S	1	3450,00
M 27 x 320	S	1	5000,00
M 27 x 340	S	1	5400,00
M 27 x 360	S	1	5800,00
M 27 x 380	S	1	6600,00
M 27 x 400	S	1	7800,00
M 30 x 40	S	10	1670,00
M 30 x 45	S	10	1670,00
M 30 x 50	S	10	1530,00
M 30 x 55	S	10	1530,00
M 30 x 60	S	10	1530,00
M 30 x 65	S	10	1590,00
M 30 x 70	S	10	1590,00
M 30 x 75	S	10	1630,00
M 30 x 80	S	10	1630,00
M 30 x 85	S	10	1700,00
M 30 x 90	S	10	1700,00
M 30 x 95	S	10	1800,00
M 30 x 100	S	10	1800,00
M 30 x 110	S	10	1890,00
M 30 x 120	S	10	1980,00
M 30 x 130	S	10	2050,00
M 30 x 140	S	10	2130,00
M 30 x 150	S	10	2240,00
M 30 x 160	S	10	2340,00
M 30 x 170	S	10	2460,00
M 30 x 180	S	10	2480,00
M 30 x 190	S	10	2650,00
M 30 x 200	S	10	2700,00
M 30 x 210	S	1	2950,00
M 30 x 220	S	1	2950,00
M 30 x 230	S	1	3250,00
M 30 x 240	S	1	3250,00
M 30 x 250	S	1	3500,00
M 30 x 260	S	1	3500,00
M 30 x 270	S	1	3750,00
M 30 x 280	S	1	3400,00
M 30 x 290	S	1	4300,00
M 30 x 300	S	1	3700,00
M 30 x 310	S	1	5500,00
M 30 x 320	S	1	4800,00
M 30 x 330	S	1	5900,00
M 30 x 340	S	1	6100,00
M 30 x 350	S	1	7000,00
M 30 x 360	S	1	6600,00
M 30 x 380	S	1	7200,00
M 30 x 400	S	1	7900,00
M 30 x 420	S	1	8400,00
M 30 x 440	S	1	10900,00
M 30 x 450	S	1	11900,00
M 30 x 460	S	1	11900,00
M 30 x 480	S	1	13300,00
M 30 x 500	S	1	13900,00
M 30 x 520	S	1	14200,00
M 33 x 60	S	1	2000,00
M 33 x 70	S	1	2000,00
M 33 x 80	S	1	2000,00
M 33 x 90	S	1	2120,00
M 33 x 100	S	1	2280,00
M 33 x 110	S	1	2380,00
M 33 x 120	S	1	2550,00
M 33 x 130	S	1	2650,00
M 33 x 140	S	1	2800,00
M 33 x 150	S	1	2950,00
M 33 x 160	S	1	3050,00
M 33 x 170	S	1	3950,00
M 33 x 180	S	1	3350,00
M 33 x 190	S	1	4250,00
M 33 x 200	S	1	3550,00
M 33 x 220	S	1	3850,00
M 33 x 240	S	1	4100,00
M 33 x 260	S	1	4400,00
M 33 x 280	S	1	4600,00
M 33 x 300	S	1	4950,00
M 33 x 320	S	1	5700,00
M 33 x 340	S	1	6200,00
M 33 x 360	S	1	6500,00
M 33 x 380	S	1	7100,00
M 33 x 400	S	1	7700,00
M 36 x 50	S	1	4000,00
M 36 x 55	S	1	4000,00
M 36 x 60	S	1	2700,00
M 36 x 65	S	1	2700,00
M 36 x 70	S	1	2700,00
M 36 x 75	S	1	2700,00
M 36 x 80	S	1	2700,00
M 36 x 90	S	1	2800,00
M 36 x 100	S	1	2850,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 36 x 110	S	1	2950,00
M 36 x 120	S	1	3050,00
M 36 x 130	S	1	3200,00
M 36 x 140	S	1	3300,00
M 36 x 150	S	1	3400,00
M 36 x 160	S	1	3500,00
M 36 x 170	S	1	4350,00
M 36 x 180	S	1	3800,00
M 36 x 190	S	1	3950,00
M 36 x 200	S	1	4100,00
M 36 x 210	S	1	4350,00
M 36 x 220	S	1	4350,00
M 36 x 230	S	1	4550,00
M 36 x 240	S	1	4550,00
M 36 x 250	S	1	4800,00
M 36 x 260	S	1	4800,00
M 36 x 270	S	1	4850,00
M 36 x 280	S	1	5100,00
M 36 x 290	S	1	5400,00
M 36 x 300	S	1	5600,00
M 36 x 310	S	1	6200,00
M 36 x 320	S	1	6600,00
M 36 x 330	S	1	6900,00
M 36 x 340	S	1	7000,00
M 36 x 350	S	1	7200,00
M 36 x 360	S	1	7300,00
M 36 x 380	S	1	7700,00
M 36 x 400	S	1	8300,00
M 36 x 420	S	1	10600,00
M 36 x 440	S	1	12800,00
M 36 x 450	S	1	13300,00
M 36 x 460	S	1	13300,00
M 36 x 480	S	1	13900,00
M 36 x 500	S	1	14300,00
M 42 x 80	S	1	9100,00
M 42 x 90	S	1	9100,00
M 42 x 100	S	1	4500,00
M 42 x 110	S	1	4650,00
M 42 x 120	S	1	4950,00
M 42 x 130	S	1	5000,00
M 42 x 140	S	1	5600,00
M 42 x 150	S	1	5900,00
M 42 x 160	S	1	6100,00
M 42 x 170	S	1	6300,00
M 42 x 180	S	1	6400,00
M 42 x 190	S	1	6700,00
M 42 x 200	S	1	7000,00
M 42 x 220	S	1	8100,00
M 42 x 240	S	1	8800,00
M 42 x 260	S	1	9500,00
M 42 x 280	S	1	10000,00
M 42 x 300	S	1	10900,00
M 42 x 320	S	1	19000,00
M 42 x 400	S	1	22800,00
M 42 x 420	S	1	23200,00
M 48 x 110	S	1	8800,00
M 48 x 160	S	1	10700,00
M 48 x 200	S	1	12500,00
M 48 x 400	S	1	51500,00

Dimensions	PU	Pieces	€/100/Mat.
DIN 00912.110			362
912 10.9 zinc plated*			



Hexagon socket head cap screws

(*baked)

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ REACh SVHC free

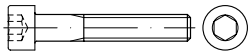
Dimensions	PU	Pieces	€/100/Mat.
M 3 x 6	S	500	10,50 ZP
M 3 x 8	S	500	8,50 ZP
M 3 x 10	S	500	7,10 ZP
M 3 x 12	S	500	7,50 ZP
M 3 x 16	S	500	7,90 ZP
M 3 x 20	S	500	8,40 ZP
M 3 x 25	S	500	9,20 ZP
M 3 x 30	S	500	10,60 ZP
M 4 x 6	S	500	14,80 ZP
M 4 x 8	S	500	8,70 ZP
M 4 x 10	S	500	8,20 ZP
M 4 x 12	S	500	8,30 ZP
M 4 x 14	S	500	21,70 ZP
M 4 x 16	S	500	8,60 ZP
M 4 x 18	S	500	8,80 ZP
M 4 x 20	S	500	9,10 ZP
M 4 x 25	S	500	9,70 ZP
M 4 x 30	S	500	10,60 ZP
M 4 x 35	S	500	11,50 ZP
M 4 x 40	S	500	12,50 ZP
M 4 x 45	S	500	28,00 ZP
M 4 x 50	S	500	29,50 ZP
M 4 x 60	S	200	33,50 ZP
M 4 x 65	S	200	34,50 ZP
M 5 x 6	S	500	24,90 ZP
M 5 x 8	S	500	18,20 ZP
M 5 x 10	S	500	7,70 ZP
M 5 x 12	S	500	8,20 ZP
M 5 x 14	S	500	18,20 ZP
M 5 x 16	S	500	8,60 ZP
M 5 x 18	S	500	10,30 ZP
M 5 x 20	S	500	9,20 ZP
M 5 x 25	S	500	9,90 ZP
M 5 x 30	S	500	10,80 ZP
M 5 x 35	S	200	13,70 ZP
M 5 x 40	S	200	14,40 ZP
M 5 x 45	S	200	22,10 ZP
M 5 x 50	S	200	29,00 ZP
M 5 x 55	S	200	32,50 ZP
M 5 x 60	S	200	34,50 ZP
M 5 x 65	S	200	46,00 ZP
M 5 x 70	S	200	47,00 ZP
M 5 x 75	S	200	71,00 ZP
M 5 x 80	S	200	71,00 ZP
M 5 x 85	S	200	143,00 ZP
M 5 x 90	S	200	77,00 ZP
M 5 x 95	S	200	201,00 ZP
M 5 x 100	S	200	85,00 ZP
M 5 x 110	S	100	189,00 ZP
M 5 x 120	S	100	193,00 ZP
M 5 x 130	S	100	540,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 140	S	100	540,00 ZP
M 5 x 150	S	100	660,00 ZP
M 5 x 160	S	100	670,00 ZP
M 6 x 8	S	500	23,00 ZP
M 6 x 10	S	500	11,80 ZP
M 6 x 12	S	500	12,30 ZP
M 6 x 14	S	500	20,00 ZP
M 6 x 16	S	500	12,60 ZP
M 6 x 18	S	500	13,90 ZP
M 6 x 20	S	500	13,20 ZP
M 6 x 22	S	500	24,60 ZP
M 6 x 25	S	500	14,00 ZP
M 6 x 30	S	500	15,90 ZP
M 6 x 35	S	200	16,70 ZP
M 6 x 40	S	200	19,50 ZP
M 6 x 45	S	200	21,00 ZP
M 6 x 50	S	200	22,10 ZP
M 6 x 55	S	200	31,00 ZP
M 6 x 60	S	200	32,50 ZP
M 6 x 65	S	200	38,00 ZP
M 6 x 70	S	200	49,50 ZP
M 6 x 75	S	200	59,00 ZP
M 6 x 80	S	200	63,00 ZP
M 6 x 85	S	200	106,00 ZP
M 6 x 90	S	200	76,00 ZP
M 6 x 100	S	200	88,00 ZP
M 6 x 110	S	100	118,00 ZP
M 6 x 120	S	100	128,00 ZP
M 6 x 125	S	100	221,00 ZP
M 6 x 130	S	100	375,00 ZP
M 6 x 140	S	100	395,00 ZP
M 6 x 150	S	100	445,00 ZP
M 6 x 160	S	100	750,00 ZP
M 8 x 10	S	200	20,10 ZP
M 8 x 12	S	200	20,10 ZP
M 8 x 14	S	200	28,50 ZP
M 8 x 16	S	200	16,10 ZP
M 8 x 20	S	200	21,70 ZP
M 8 x 22	S	200	35,00 ZP
M 8 x 25	S	200	23,60 ZP
M 8 x 30	S	200	25,00 ZP
M 8 x 35	S	200	28,00 ZP
M 8 x 40	S	200	31,00 ZP
M 8 x 45	S	200	32,50 ZP
M 8 x 50	S	200	36,00 ZP
M 8 x 55	S	200	43,50 ZP
M 8 x 60	S	200	45,00 ZP
M 8 x 65	S	200	53,00 ZP
M 8 x 70	S	200	50,00 ZP
M 8 x 75	S	200	57,00 ZP
M 8 x 80	S	200	72,00 ZP
M 8 x 90	S	100	84,00 ZP
M 8 x 100	S	100	95,00 ZP
M 8 x 110	S	100	119,00 ZP
M 8 x 120	S	100	128,00 ZP
M 8 x 125	S	100	240,00 ZP
M 8 x 130	S	100	178,00 ZP
M 8 x 140	S	50	193,00 ZP
M 8 x 150	S	50	305,00 ZP
M 8 x 160	S	50	345,00 ZP
M 8 x 170	S	50	390,00 ZP
M 8 x 180	S	50	415,00 ZP
M 8 x 200	S	50	640,00 ZP
M 10 x 10	S	200	80,00 ZP
M 10 x 12	S	200	80,00 ZP
M 10 x 16	S	200	42,50 ZP
M 10 x 20	S	200	39,00 ZP
M 10 x 25	S	200	43,00 ZP
M 10 x 30	S	200	45,00 ZP
M 10 x 35	S	100	48,00 ZP
M 10 x 40	S	100	51,00 ZP
M 10 x 45	S	100	42,50 ZP
M 10 x 50	S	100	45,50 ZP
M 10 x 55	S	100	54,00 ZP
M 10 x 60	S	100	57,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	65	S	100	58,00 ZP
M 10	x	70	S	100	63,00 ZP
M 10	x	75	S	100	76,00 ZP
M 10	x	80	S	100	78,00 ZP
M 10	x	85	S	100	134,00 ZP
M 10	x	90	S	100	94,00 ZP
M 10	x	95	S	100	147,00 ZP
M 10	x	100	S	100	104,00 ZP
M 10	x	110	S	50	152,00 ZP
M 10	x	120	S	50	190,00 ZP
M 10	x	130	S	50	218,00 ZP
M 10	x	140	S	50	239,00 ZP
M 10	x	160	S	50	365,00 ZP
M 10	x	170	S	50	420,00 ZP
M 10	x	180	S	50	445,00 ZP
M 10	x	210	S	50	610,00 ZP
M 10	x	220	S	50	610,00 ZP
M 12	x	20	S	100	51,00 ZP
M 12	x	25	S	100	64,00 ZP
M 12	x	30	S	100	67,00 ZP
M 12	x	35	S	100	70,00 ZP
M 12	x	40	S	100	72,00 ZP
M 12	x	45	S	100	65,00 ZP
M 12	x	50	S	100	82,00 ZP
M 12	x	55	S	100	89,00 ZP
M 12	x	60	S	100	94,00 ZP
M 12	x	65	S	50	103,00 ZP
M 12	x	70	S	50	107,00 ZP
M 12	x	75	S	50	114,00 ZP
M 12	x	80	S	50	115,00 ZP
M 12	x	85	S	50	187,00 ZP
M 12	x	90	S	50	116,00 ZP
M 12	x	95	S	50	206,00 ZP
M 12	x	100	S	50	132,00 ZP
M 12	x	110	S	50	188,00 ZP
M 12	x	120	S	50	193,00 ZP
M 12	x	125	S	50	325,00 ZP
M 12	x	130	S	50	295,00 ZP
M 12	x	135	S	50	375,00 ZP
M 12	x	140	S	50	335,00 ZP
M 12	x	150	S	50	410,00 ZP
M 12	x	160	S	25	450,00 ZP
M 12	x	170	S	25	485,00 ZP
M 12	x	180	S	25	520,00 ZP
M 12	x	190	S	25	910,00 ZP
M 12	x	200	S	25	640,00 ZP
M 12	x	210	S	25	880,00 ZP
M 12	x	220	S	25	890,00 ZP
M 12	x	230	S	25	1020,00 ZP
M 12	x	240	S	25	1010,00 ZP
M 12	x	250	S	25	1410,00 ZP
M 12	x	260	S	25	1100,00 ZP
M 12	x	270	S	25	1440,00 ZP
M 12	x	280	S	25	1170,00 ZP
M 12	x	290	S	25	1480,00 ZP
M 12	x	300	S	25	1270,00 ZP
M 12	x	310	S	25	2290,00 ZP
M 12	x	320	S	25	2500,00 ZP
M 12	x	330	S	25	2950,00 ZP
M 12	x	340	S	25	2950,00 ZP
M 12	x	360	S	25	3600,00 ZP
M 12	x	380	S	25	4300,00 ZP
M 14	x	30	S	100	171,00 ZP
M 14	x	35	S	100	178,00 ZP
M 14	x	40	S	100	151,00 ZP
M 14	x	45	S	50	158,00 ZP
M 14	x	50	S	50	167,00 ZP
M 14	x	55	S	50	236,00 ZP
M 14	x	60	S	50	187,00 ZP
M 14	x	65	S	50	221,00 ZP
M 14	x	70	S	50	229,00 ZP
M 14	x	80	S	50	260,00 ZP
M 14	x	90	S	50	280,00 ZP
M 14	x	100	S	50	315,00 ZP
M 14	x	110	S	50	335,00 ZP
M 14	x	120	S	50	375,00 ZP
M 14	x	130	S	50	415,00 ZP
M 16	x	20	S	50	228,00 ZP
M 16	x	25	S	50	178,00 ZP
M 16	x	30	S	50	109,00 ZP
M 16	x	35	S	50	116,00 ZP
M 16	x	40	S	50	111,00 ZP
M 16	x	45	S	50	116,00 ZP
M 16	x	50	S	50	123,00 ZP
M 16	x	55	S	50	143,00 ZP
M 16	x	60	S	50	149,00 ZP
M 16	x	65	S	25	163,00 ZP
M 16	x	70	S	25	166,00 ZP
M 16	x	75	S	25	175,00 ZP
M 16	x	80	S	25	175,00 ZP
M 16	x	85	S	25	445,00 ZP
M 16	x	90	S	25	213,00 ZP
M 16	x	100	S	25	244,00 ZP
M 16	x	110	S	25	280,00 ZP
M 16	x	120	S	25	330,00 ZP
M 16	x	125	S	25	560,00 ZP
M 16	x	130	S	25	420,00 ZP
M 16	x	140	S	25	510,00 ZP
M 16	x	150	S	25	560,00 ZP
M 16	x	160	S	25	720,00 ZP
M 16	x	170	S	25	830,00 ZP
M 16	x	180	S	25	840,00 ZP
M 16	x	200	S	25	1110,00 ZP
M 16	x	210	S	25	1630,00 ZP
M 16	x	230	S	25	1600,00 ZP
M 16	x	240	S	25	1120,00 ZP
M 16	x	250	S	25	1710,00 ZP
M 16	x	270	S	25	1810,00 ZP
M 18	x	50	S	50	395,00 ZP
M 18	x	55	S	25	400,00 ZP
M 18	x	60	S	25	400,00 ZP
M 18	x	65	S	25	425,00 ZP
M 18	x	70	S	25	430,00 ZP
M 18	x	80	S	25	480,00 ZP
M 18	x	90	S	25	500,00 ZP
M 18	x	120	S	25	640,00 ZP
M 18	x	130	S	25	1000,00 ZP
M 18	x	140	S	25	1080,00 ZP
M 18	x	150	S	25	1200,00 ZP
M 18	x	160	S	25	1320,00 ZP
M 18	x	180	S	25	1460,00 ZP
M 20	x	20	S	25	660,00 ZP
M 20	x	30	S	25	400,00 ZP
M 20	x	35	S	25	400,00 ZP
M 20	x	40	S	25	221,00 ZP
M 20	x	45	S	25	224,00 ZP
M 20	x	50	S	25	236,00 ZP
M 20	x	55	S	25	260,00 ZP
M 20	x	60	S	25	265,00 ZP
M 20	x	65	S	25	285,00 ZP
M 20	x	70	S	25	290,00 ZP
M 20	x	75	S	25	285,00 ZP
M 20	x	80	S	25	310,00 ZP
M 20	x	90	S	25	340,00 ZP
M 20	x	100	S	25	385,00 ZP
M 20	x	110	S	25	420,00 ZP
M 20	x	120	S	25	485,00 ZP
M 20	x	130	S	25	590,00 ZP
M 20	x	140	S	25	780,00 ZP
M 20	x	150	S	25	880,00 ZP
M 20	x	160	S	10	1100,00 ZP
M 20	x	170	S	10	1290,00 ZP
M 20	x	180	S	10	1180,00 ZP
M 20	x	190	S	10	1400,00 ZP
M 20	x	200	S	10	1250,00 ZP
M 20	x	210	S	1	2200,00 ZP
M 20	x	220	S	1	1680,00 ZP
M 20	x	230	S	1	2430,00 ZP
M 20	x	240	S	1	2430,00 ZP
M 20	x	260	S	1	1840,00 ZP
M 24	x	40	S	25	990,00 ZP
M 24	x	45	S	25	1000,00 ZP
M 24	x	50	S	25	580,00 ZP
M 24	x	60	S	25	630,00 ZP
M 24	x	65	S	25	630,00 ZP
M 24	x	70	S	25	660,00 ZP
M 24	x	80	S	25	700,00 ZP
M 24	x	90	S	10	790,00 ZP
M 24	x	100	S	10	830,00 ZP
M 24	x	110	S	10	910,00 ZP
M 24	x	120	S	10	950,00 ZP
M 24	x	130	S	10	1170,00 ZP
M 24	x	140	S	10	1420,00 ZP
M 24	x	150	S	10	1630,00 ZP
M 24	x	160	S	10	1740,00 ZP
M 24	x	170	S	10	2020,00 ZP
M 24	x	180	S	10	2110,00 ZP
M 24	x	190	S	10	2490,00 ZP
M 24	x	200	S	10	2270,00 ZP
M 24	x	210	S	1	2750,00 ZP
M 24	x	220	S	1	2600,00 ZP
M 24	x	230	S	1	3000,00 ZP
M 24	x	240	S	1	2800,00 ZP
M 24	x	260	S	1	2950,00 ZP
M 24	x	280	S	1	3050,00 ZP
M 24	x	300	S	1	3150,00 ZP
M 24	x	320	S	1	4400,00 ZP
M 24	x	330	S	1	3800,00 ZP
M 27	x	50	S	10	1530,00 ZP
M 27	x	60	S	10	1550,00 ZP
M 27	x	65	S	10	1610,00 ZP
M 27	x	70	S	10	1620,00 ZP
M 30	x	40	S	10	1900,00 ZP
M 30	x	50	S	10	1780,00 ZP
M 30	x	60	S	10	1810,00 ZP
M 30	x	65	S	10	1880,00 ZP
M 30	x	70	S	10	1890,00 ZP
M 30	x	80	S	10	1970,00 ZP
M 30	x	90	S	10	2060,00 ZP
M 30	x	100	S	10	2200,00 ZP
M 30	x	110	S	10	2300,00 ZP
M 30	x	120	S	10	2420,00 ZP
M 30	x	130	S	10	2550,00 ZP
M 30	x	150	S	10	2800,00 ZP
M 30	x	160	S	10	2900,00 ZP
M 30	x	170	S	10	3050,00 ZP
M 30	x	180	S	10	3100,00 ZP
M 30	x	200	S	10	3350,00 ZP
M 30	x	220	S	1	3650,00 ZP
M 30	x	230	S	1	4000,00 ZP
M 30	x	240	S	1	4000,00 ZP
M 30	x	250	S	1	4250,00 ZP
M 30	x	260	S	1	4300,00 ZP
M 30	x	280	S	1	4300,00 ZP
M 30	x	300	S	1	4600,00 ZP
M 30	x	320	S	1	5800,00 ZP
M 30	x	340	S	1	7300,00 ZP
M 30	x	350	S	1	8000,00 ZP
M 36	x	50	S	1	4450,00 ZP
M 36	x	60	S	1	3150,00 ZP
M 36	x	70	S	1	3200,00 ZP
M 36	x	80	S	1	3200,00 ZP
M 36	x	90	S	1	3350,00 ZP
M 36	x	100	S	1	3450,00 ZP
M 36	x	110	S	1	3600,00 ZP
M 36	x	130	S	1	3900,00 ZP
M 36	x	140	S	1	4000,00 ZP
M 36	x	150	S	1	4200,00 ZP
M 36	x	160	S	1	4350,00 ZP
M 36	x	170	S	1	4550,00 ZP
M 36	x	180	S	1	4700,00 ZP
M 36	x	200	S	1	5400,00 ZP
M 36	x	220	S	1	5400,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
DIN	00912.454	1580
912	**10.9 flZn/TL480h**	



Hexagon socket head cap screws

TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ | REACh SVHC free

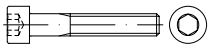
Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	S	500	14,10 flZn
M 6	x	14	S	500	23,60 flZn
M 6	x	16	S	500	14,60 flZn
M 6	x	18	S	500	16,00 flZn
M 6	x	20	S	500	15,20 flZn
M 6	x	22	S	500	28,50 flZn
M 6	x	25	S	500	16,10 flZn
M 6	x	30	S	500	18,30 flZn
M 6	x	35	S	200	19,20 flZn
M 6	x	40	S	200	22,50 flZn
M 6	x	45	S	200	24,10 flZn
M 6	x	50	S	200	25,50 flZn
M 6	x	55	S	200	35,50 flZn
M 6	x	60	S	200	37,50 flZn
M 6	x	65	S	200	43,50 flZn
M 6	x	70	S	200	57,00 flZn
M 6	x	75	S	200	68,00 flZn
M 6	x	80	S	200	73,00 flZn
M 8	x	16	S	200	18,50 flZn
M 8	x	20	S	200	25,00 flZn
M 8	x	25	S	200	27,50 flZn
M 8	x	30	S	200	29,00 flZn
M 8	x	35	S	200	32,50 flZn
M 8	x	40	S	200	36,00 flZn
M 8	x	45	S	200	37,50 flZn
M 8	x	50	S	200	41,50 flZn
M 8	x	55	S	200	50,00 flZn
M 8	x	60	S	200	52,00 flZn
M 8	x	65	S	200	61,00 flZn
M 8	x	70	S	200	58,00 flZn
M 8	x	75	S	200	66,00 flZn
M 8	x	80	S	200	83,00 flZn
M 8	x	90	S	100	97,00 flZn
M 10	x	20	S	200	45,00 flZn
M 10	x	25	S	200	49,50 flZn
M 10	x	30	S	200	52,00 flZn
M 10	x	35	S	100	55,00 flZn
M 10	x	40	S	100	59,00 flZn
M 10	x	45	S	100	49,00 flZn
M 10	x	50	S	100	52,00 flZn
M 10	x	55	S	100	62,00 flZn
M 10	x	60	S	100	66,00 flZn
M 10	x	65	S	100	67,00 flZn
M 10	x	70	S	100	72,00 flZn
M 10	x	75	S	100	88,00 flZn
M 10	x	80	S	100	89,00 flZn
M 10	x	90	S	100	108,00 flZn
M 12	x	20	S	100	59,00 flZn
M 12	x	25	S	100	74,00 flZn
M 12	x	30	S	100	77,00 flZn
M 12	x	35	S	100	81,00 flZn
M 12	x	40	S	100	83,00 flZn
M 12	x	45	S	100	75,00 flZn
M 12	x	50	S	100	94,00 flZn
M 12	x	55	S	100	103,00 flZn
M 12	x	60	S	100	109,00 flZn
M 12	x	65	S	50	118,00 flZn
M 12	x	70	S	50	123,00 flZn
M 12	x	75	S	50	132,00 flZn
M 12	x	80	S	50	132,00 flZn
M 12	x	90	S	50	135,00 flZn
M 12	x	100	S	50	153,00 flZn
M 16	x	30	S	50	126,00 flZn
M 16	x	35	S	50	135,00 flZn
M 16	x	40	S	50	128,00 flZn
M 16	x	45	S	50	134,00 flZn
M 16	x	50	S	50	142,00 flZn
M 16	x	55	S	50	165,00 flZn
M 16	x	60	S	50	172,00 flZn
M 16	x	65	S	25	188,00 flZn
M 16	x	70	S	25	192,00 flZn
M 16	x	75	S	25	201,00 flZn
M 16	x	80	S	25	201,00 flZn
M 16	x	90	S	25	246,00 flZn
M 16	x	100	S	25	285,00 flZn
M 16	x	110	S	25	320,00 flZn
M 16	x	120	S	25	380,00 flZn
M 20	x	65	S	25	325,00 flZn
M 20	x	70	S	25	335,00 flZn
M 20	x	75	S	25	330,00 flZn
M 20	x	80	S	25	360,00 flZn
M 20	x	90	S	25	390,00 flZn
M 20	x	100	S	25	445,00 flZn
M 20	x	110	S	25	480,00 flZn
M 20	x	120	S	25	560,00 flZn
M 20	x	130	S	25	670,00 flZn
M 20	x	140	S	25	890,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1260,00 flZn
M 20	x	170	S	10	1490,00 flZn
M 20	x	180	S	10	1360,00 flZn
M 24	x	80	S	25	810,00 flZn
M 24	x	90	S	10	910,00 flZn
M 24	x	100	S	10	950,00 flZn
M 24	x	110	S	10	1050,00 flZn
M 24	x	120	S	10	1090,00 flZn
M 24	x	130	S	10	1350,00 flZn
M 24	x	140	S	10	1630,00 flZn
M 24	x	150	S	10	1880,00 flZn
M 24	x	160	S	10	2010,00 flZn
M 24	x	170	S	10	2320,00 flZn
M 24	x	180	S	10	2420,00 flZn

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU Pieces	€/100/Mat.
DIN	00912.435	1580
912	**10.9 flZnL480h**	



Hexagon socket head cap screws

flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

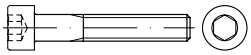
RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	35	S	500	21,20 flZn
M 5	x	30	S	500	11,90 flZn
M 5	x	35	S	200	16,40 flZn
M 5	x	40	S	200	18,40 flZn
M 5	x	45	S	200	22,00 flZn
M 6	x	12	S	500	14,10 flZn
M 6	x	14	S	500	23,60 flZn
M 6	x	16	S	500	14,60 flZn
M 6	x	18	S	500	16,00 flZn
M 6	x	20	S	500	15,20 flZn
M 6	x	22	S	500	28,50 flZn
M 6	x	25	S	500	16,10 flZn
M 6	x	30	S	500	18,30 flZn
M 6	x	35	S	200	19,20 flZn
M 6	x	40	S	200	22,50 flZn
M 6	x	45	S	200	24,10 flZn
M 6	x	50	S	200	25,50 flZn
M 6	x	55	S	200	35,50 flZn
M 6	x	60	S	200	37,50 flZn
M 6	x	65	S	200	43,50 flZn
M 6	x	70	S	200	57,00 flZn
M 6	x	75	S	200	68,00 flZn
M 6	x	80	S	200	73,00 flZn
M 8	x	16	S	200	18,50 flZn
M 8	x	20	S	200	25,00 flZn
M 8	x	25	S	200	27,50 flZn
M 8	x	30	S	200	29,00 flZn
M 8	x	35	S	200	32,50 flZn
M 8	x	40	S	200	36,00 flZn
M 8	x	45	S	200	37,50 flZn
M 8	x	50	S	200	41,50 flZn
M 8	x	55	S	200	50,00 flZn
M 8	x	60	S	200	52,00 flZn
M 8	x	65	S	200	61,00 flZn
M 8	x	70	S	200	58,00 flZn
M 8	x	75	S	200	66,00 flZn
M 8	x	80	S	200	83,00 flZn
M 8	x	90	S	100	97,00 flZn
M 10	x	20	S	200	45,00 flZn
M 10	x	25	S	200	49,50 flZn
M 10	x	30	S	200	52,00 flZn
M 10	x	35	S	100	55,00 flZn
M 10	x	40	S	100	59,00 flZn
M 10	x	45	S	100	49,00 flZn
M 10	x	50	S	100	52,00 flZn
M 10	x	55	S	100	62,00 flZn
M 10	x	60	S	100	66,00 flZn
M 10	x	65	S	100	67,00 flZn
M 10	x	70	S	100	72,00 flZn
M 10	x	75	S	100	88,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	80	S	100	89,00 fIZn
M 10	x	90	S	100	108,00 fIZn
M 10	x	100	S	100	128,00 fIZn
M 12	x	20	S	100	59,00 fIZn
M 12	x	25	S	100	74,00 fIZn
M 12	x	30	S	100	77,00 fIZn
M 12	x	35	S	100	81,00 fIZn
M 12	x	40	S	100	83,00 fIZn
M 12	x	45	S	100	75,00 fIZn
M 12	x	50	S	100	94,00 fIZn
M 12	x	55	S	100	103,00 fIZn
M 12	x	60	S	100	109,00 fIZn
M 12	x	65	S	50	118,00 fIZn
M 12	x	70	S	50	123,00 fIZn
M 12	x	75	S	50	132,00 fIZn
M 12	x	80	S	50	132,00 fIZn
M 12	x	90	S	50	135,00 fIZn
M 12	x	100	S	50	153,00 fIZn
M 12	x	110	S	50	171,00 fIZn
M 12	x	140	S	50	209,00 fIZn
M 14	x	60	S	50	125,00 fIZn
M 14	x	70	S	50	152,00 fIZn
M 16	x	30	S	50	126,00 fIZn
M 16	x	35	S	50	135,00 fIZn
M 16	x	40	S	50	128,00 fIZn
M 16	x	45	S	50	134,00 fIZn
M 16	x	50	S	50	142,00 fIZn
M 16	x	55	S	50	165,00 fIZn
M 16	x	60	S	50	172,00 fIZn
M 16	x	65	S	25	188,00 fIZn
M 16	x	70	S	25	192,00 fIZn
M 16	x	75	S	25	201,00 fIZn
M 16	x	80	S	25	201,00 fIZn
M 16	x	90	S	25	246,00 fIZn
M 16	x	100	S	25	285,00 fIZn
M 16	x	110	S	25	320,00 fIZn
M 16	x	120	S	25	380,00 fIZn
M 16	x	180	S	25	580,00 fIZn
M 16	x	200	S	25	620,00 fIZn
M 20	x	45	S	25	285,00 fIZn
M 20	x	55	S	25	300,00 fIZn
M 20	x	60	S	25	305,00 fIZn
M 20	x	65	S	25	325,00 fIZn
M 20	x	70	S	25	335,00 fIZn
M 20	x	75	S	25	330,00 fIZn
M 20	x	80	S	25	360,00 fIZn
M 20	x	90	S	25	390,00 fIZn
M 20	x	100	S	25	445,00 fIZn
M 20	x	110	S	25	480,00 fIZn
M 20	x	120	S	25	560,00 fIZn
M 20	x	130	S	25	670,00 fIZn
M 20	x	140	S	25	890,00 fIZn
M 20	x	150	S	25	1010,00 fIZn
M 20	x	160	S	10	1260,00 fIZn
M 20	x	170	S	10	1490,00 fIZn
M 20	x	180	S	10	1360,00 fIZn
M 24	x	80	S	25	810,00 fIZn
M 24	x	90	S	10	910,00 fIZn
M 24	x	100	S	10	950,00 fIZn
M 24	x	110	S	10	1050,00 fIZn
M 24	x	120	S	10	1090,00 fIZn
M 24	x	130	S	10	1350,00 fIZn
M 24	x	140	S	10	1630,00 fIZn
M 24	x	150	S	10	1880,00 fIZn
M 24	x	160	S	10	2010,00 fIZn
M 24	x	170	S	10	2320,00 fIZn
M 24	x	180	S	10	2420,00 fIZn
M 24	x	300	S	1	3750,00 fIZn

Dimensions	PU	Pieces	€/100/Mat.
DIN	00912.200		363

912 **12.9**



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓

REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 1,4	x	6	S	100	155,00
M 1,4	x	10	S	100	184,00
M 1,6	x	3	S	100	114,00
M 1,6	x	4	S	100	126,00
M 1,6	x	5	S	100	134,00
M 1,6	x	6	S	100	137,00
M 2	x	3	S	100	95,00
M 2	x	4	S	100	98,00
M 2	x	5	S	100	99,00
M 2	x	6	S	100	105,00
M 2	x	8	S	100	108,00
M 2	x	10	S	100	113,00
M 2	x	12	S	100	135,00
M 2,5	x	4	S	100	81,00
M 2,5	x	5	S	100	85,00
M 2,5	x	6	S	100	90,00
M 2,5	x	8	S	100	91,00
M 2,5	x	10	S	100	95,00
M 2,5	x	12	S	100	115,00
M 2,5	x	16	S	100	137,00
M 2,5	x	20	S	100	158,00
M 3	x	4	S	500	36,00
M 3	x	5	S	500	36,00
M 3	x	5	K	100	39,50
M 3	x	6	S	500	10,10
M 3	x	6	K	100	13,70
M 3	x	8	S	500	8,00
M 3	x	8	K	100	11,70
M 3	x	10	S	500	6,60
M 3	x	10	K	100	10,20
M 3	x	12	S	500	6,90
M 3	x	12	K	100	10,50
M 3	x	14	S	500	7,10
M 3	x	14	K	100	10,80
M 3	x	16	S	500	7,10
M 3	x	16	K	100	10,80
M 3	x	18	S	500	7,60
M 3	x	18	K	100	11,20
M 3	x	20	S	500	7,60
M 3	x	20	K	100	11,20
M 3	x	22	S	500	8,20
M 3	x	22	K	100	11,80
M 3	x	25	S	500	8,20
M 3	x	25	K	100	11,80
M 3	x	30	S	500	9,40
M 3	x	30	K	100	13,10
M 3	x	35	S	500	26,50
M 3	x	35	K	100	30,50
M 3	x	40	S	500	44,00
M 3	x	45	S	500	58,00
M 3	x	50	S	500	65,00
M 4	x	5	S	500	37,00
M 4	x	5	K	100	40,50
M 4	x	6	S	500	20,40

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6	K	100	24,10
M 4	x	8	S	500	7,70
M 4	x	8	K	100	11,40
M 4	x	10	S	500	7,10
M 4	x	10	K	100	10,80
M 4	x	12	S	500	7,20
M 4	x	12	K	100	10,90
M 4	x	14	S	500	20,00
M 4	x	14	K	100	23,60
M 4	x	16	S	500	7,30
M 4	x	16	K	100	11,00
M 4	x	18	S	500	7,60
M 4	x	18	K	100	11,20
M 4	x	20	S	500	7,70
M 4	x	20	K	100	11,40
M 4	x	22	S	500	19,70
M 4	x	22	K	100	23,40
M 4	x	25	S	500	8,00
M 4	x	25	K	100	11,70
M 4	x	30	S	500	8,60
M 4	x	30	K	100	12,20
M 4	x	35	S	500	8,90
M 4	x	35	K	100	12,60
M 4	x	40	S	500	9,70
M 4	x	40	K	100	13,40
M 4	x	45	S	500	23,80
M 4	x	45	K	100	27,50
M 4	x	50	S	500	23,80
M 4	x	50	K	100	27,50
M 4	x	55	S	200	28,50
M 4	x	60	S	200	29,50
M 4	x	65	S	200	36,50
M 4	x	70	S	200	42,50
M 4	x	75	S	500	105,00
M 4	x	80	S	200	113,00
M 4	x	90	S	200	375,00
M 4	x	100	S	200	410,00
M 4	x	110	S	200	600,00
M 4	x	120	S	200	620,00
M 5	x	6	S	500	23,50
M 5	x	6	K	100	27,50
M 5	x	8	S	500	16,70
M 5	x	8	K	100	20,40
M 5	x	10	S	500	6,20
M 5	x	10	K	100	9,80
M 5	x	12	S	500	6,50
M 5	x	12	K	100	10,20
M 5	x	14	S	500	17,00
M 5	x	14	K	100	20,60
M 5	x	16	S	500	6,60
M 5	x	16	K	100	10,20
M 5	x	18	S	500	8,00
M 5	x	18	K	100	11,70
M 5	x	20	S	500	6,90
M 5	x	20	K	100	10,60
M 5	x	22	S	500	17,70
M 5	x	22	K	100	21,30
M 5	x	25	S	500	7,30
M 5	x	25	K	100	11,00
M 5	x	30	S	500	7,80
M 5	x	30	K	100	11,50
M 5	x	35	S	200	10,40
M 5	x	40	S	200	10,60
M 5	x	45	S	200	18,00
M 5	x	50	S	200	24,20
M 5	x	55	S	200	27,50
M 5	x	60	S	200	29,00
M 5	x	65	S	200	40,00
M 5	x	70	S	200	40,50
M 5	x	75	S	200	63,00
M 5	x	80	S	200	64,00
M 5	x	85	S	200	73,00
M 5	x	90	S	200	70,00
M 5	x	95	S	200	82,00
M 5	x	100	S	200	78,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 105	S	100	182,00
M 5 x 110	S	100	87,00
M 5 x 115	S	100	212,00
M 5 x 120	S	100	128,00
M 5 x 125	S	100	590,00
M 5 x 130	S	100	530,00
M 5 x 135	S	100	650,00
M 5 x 140	S	100	670,00
M 5 x 145	S	100	650,00
M 5 x 150	S	100	670,00
M 5 x 155	S	100	660,00
M 5 x 160	S	100	710,00
M 5 x 165	S	100	700,00
M 5 x 170	S	100	750,00
M 5 x 175	S	100	750,00
M 5 x 180	S	100	750,00
M 5 x 190	S	100	910,00
M 5 x 200	S	100	910,00
M 5 x 210	S	100	1150,00
M 5 x 220	S	100	1150,00
M 5 x 230	S	100	1170,00
M 5 x 240	S	100	1220,00
M 6 x 6	S	500	192,00
M 6 x 6	K	100	195,00
M 6 x 8	S	500	18,60
M 6 x 8	K	100	22,20
M 6 x 10	S	500	6,30
M 6 x 10	K	100	10,00
M 6 x 12	S	500	14,20
M 6 x 12	K	100	17,90
M 6 x 14	S	500	14,60
M 6 x 16	S	500	6,60
M 6 x 16	K	100	10,20
M 6 x 18	S	500	7,40
M 6 x 18	K	100	11,10
M 6 x 20	S	500	6,60
M 6 x 20	K	100	10,30
M 6 x 22	S	500	16,20
M 6 x 22	K	100	19,90
M 6 x 25	S	500	6,90
M 6 x 25	K	100	10,60
M 6 x 30	S	500	7,80
M 6 x 30	K	100	11,50
M 6 x 35	S	200	8,40
M 6 x 40	S	200	9,40
M 6 x 45	S	200	12,30
M 6 x 50	S	200	14,60
M 6 x 55	S	200	23,20
M 6 x 60	S	200	23,60
M 6 x 65	S	200	30,00
M 6 x 70	S	200	39,50
M 6 x 75	S	200	49,00
M 6 x 80	S	200	54,00
M 6 x 85	S	200	101,00
M 6 x 90	S	100	66,00
M 6 x 95	S	100	130,00
M 6 x 100	S	100	79,00
M 6 x 105	S	100	160,00
M 6 x 110	S	100	108,00
M 6 x 115	S	100	209,00
M 6 x 120	S	100	117,00
M 6 x 125	S	100	330,00
M 6 x 130	S	100	350,00
M 6 x 135	S	100	460,00
M 6 x 140	S	100	365,00
M 6 x 145	S	100	650,00
M 6 x 150	S	100	700,00
M 6 x 155	S	100	720,00
M 6 x 160	S	100	700,00
M 6 x 165	S	100	750,00
M 6 x 170	S	100	770,00
M 6 x 175	S	100	830,00
M 6 x 180	S	100	820,00
M 6 x 185	S	100	1020,00
M 6 x 190	S	100	1000,00

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 200	S	100	1110,00
M 6 x 210	S	100	1160,00
M 6 x 220	S	100	1200,00
M 6 x 230	S	100	1300,00
M 6 x 240	S	100	1320,00
M 6 x 250	S	100	1440,00
M 6 x 260	S	100	1470,00
M 6 x 270	S	100	1620,00
M 6 x 280	S	100	2040,00
M 6 x 290	S	100	2370,00
M 6 x 300	S	100	2800,00
M 8 x 8	S	200	181,00
M 8 x 10	S	200	15,30
M 8 x 12	S	200	15,30
M 8 x 14	S	200	22,60
M 8 x 16	S	200	10,80
M 8 x 18	S	200	11,70
M 8 x 20	S	200	10,20
M 8 x 22	S	200	23,50
M 8 x 25	S	200	11,00
M 8 x 30	S	200	11,60
M 8 x 35	S	200	12,90
M 8 x 40	S	200	14,30
M 8 x 45	S	200	15,10
M 8 x 50	S	200	16,60
M 8 x 55	S	200	22,50
M 8 x 60	S	200	23,00
M 8 x 65	S	200	31,00
M 8 x 70	S	200	32,00
M 8 x 75	S	200	39,50
M 8 x 80	S	200	52,00
M 8 x 90	S	100	63,00
M 8 x 100	S	100	74,00
M 8 x 110	S	100	96,00
M 8 x 120	S	100	97,00
M 8 x 130	S	100	148,00
M 8 x 140	S	50	163,00
M 8 x 150	S	50	275,00
M 8 x 160	S	50	325,00
M 8 x 170	S	50	375,00
M 8 x 180	S	50	400,00
M 8 x 190	S	50	660,00
M 8 x 200	S	50	570,00
M 8 x 210	S	50	710,00
M 8 x 220	S	50	730,00
M 8 x 230	S	50	770,00
M 8 x 240	S	50	800,00
M 8 x 250	S	50	850,00
M 8 x 260	S	50	890,00
M 8 x 270	S	50	920,00
M 8 x 280	S	50	950,00
M 8 x 290	S	50	1220,00
M 8 x 300	S	50	1300,00
M 8 x 310	S	50	1640,00
M 10 x 10	S	200	235,00
M 10 x 12	S	200	79,00
M 10 x 16	S	200	31,00
M 10 x 18	S	200	31,00
M 10 x 20	S	200	18,70
M 10 x 22	S	200	52,00
M 10 x 25	S	200	20,30
M 10 x 30	S	200	21,00
M 10 x 35	S	100	22,30
M 10 x 40	S	100	23,20
M 10 x 45	S	100	26,00
M 10 x 50	S	100	27,50
M 10 x 55	S	100	30,00
M 10 x 60	S	100	33,00
M 10 x 65	S	100	37,00
M 10 x 70	S	100	33,00
M 10 x 75	S	100	45,00
M 10 x 80	S	100	46,00
M 10 x 85	S	100	104,00
M 10 x 90	S	100	60,00
M 10 x 100	S	100	67,00

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 110	S	50	111,00
M 10 x 120	S	50	146,00
M 10 x 130	S	50	172,00
M 10 x 140	S	50	193,00
M 10 x 150	S	50	285,00
M 10 x 160	S	50	355,00
M 10 x 170	S	50	420,00
M 10 x 180	S	50	445,00
M 10 x 190	S	50	600,00
M 10 x 200	S	50	500,00
M 10 x 210	S	50	560,00
M 10 x 220	S	50	540,00
M 10 x 230	S	50	650,00
M 10 x 240	S	50	630,00
M 10 x 250	S	50	690,00
M 10 x 260	S	50	710,00
M 10 x 270	S	50	960,00
M 10 x 280	S	50	800,00
M 10 x 290	S	50	1070,00
M 10 x 300	S	50	890,00
M 12 x 12	S	100	325,00
M 12 x 16	S	100	42,00
M 12 x 18	S	100	42,00
M 12 x 20	S	100	37,00
M 12 x 22	S	100	102,00
M 12 x 25	S	100	31,00
M 12 x 30	S	100	32,50
M 12 x 35	S	100	33,50
M 12 x 40	S	100	34,00
M 12 x 45	S	100	36,00
M 12 x 50	S	100	37,50
M 12 x 55	S	100	41,50
M 12 x 60	S	100	43,50
M 12 x 65	S	50	48,00
M 12 x 70	S	50	50,00
M 12 x 75	S	50	59,00
M 12 x 80	S	50	60,00
M 12 x 90	S	50	68,00
M 12 x 100	S	50	76,00
M 12 x 110	S	50	116,00
M 12 x 120	S	50	130,00
M 12 x 130	S	50	200,00
M 12 x 140	S	50	234,00
M 12 x 150	S	50	310,00
M 12 x 160	S	25	345,00
M 12 x 170	S	25	390,00
M 12 x 180	S	25	395,00
M 12 x 190	S	25	510,00
M 12 x 200	S	25	510,00
M 12 x 220	S	25	790,00
M 12 x 230	S	25	1130,00
M 12 x 240	S	25	840,00
M 12 x 250	S	25	1240,00
M 12 x 260	S	25	920,00
M 12 x 280	S	25	980,00
M 12 x 300	S	25	1060,00
M 12 x 310	S	25	2900,00
M 12 x 320	S	1	2900,00
M 12 x 340	S	1	3150,00
M 12 x 360	S	1	3600,00
M 12 x 380	S	1	5600,00
M 12 x 400	S	1	6400,00
M 14 x 20	S	100	193,00
M 14 x 25	S	100	152,00
M 14 x 30	S	100	146,00
M 14 x 35	S	100	151,00
M 14 x 40	S	100	135,00
M 14 x 45	S	50	138,00
M 14 x 50	S	50	147,00
M 14 x 55	S	50	197,00
M 14 x 60	S	50	161,00
M 14 x 65	S	50	176,00
M 14 x 70	S	50	182,00
M 14 x 75	S	50	206,00
M 14 x 80	S	50	206,00

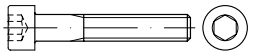
Dimensions	PU	Pieces	€/100/Mat.
M 14 x 90	S	50	221,00
M 14 x 100	S	50	249,00
M 14 x 110	S	50	265,00
M 14 x 120	S	50	300,00
M 14 x 130	S	50	335,00
M 14 x 140	S	25	425,00
M 14 x 150	S	25	485,00
M 14 x 160	S	25	780,00
M 14 x 170	S	25	820,00
M 14 x 180	S	25	860,00
M 14 x 190	S	25	880,00
M 14 x 200	S	25	910,00
M 14 x 220	S	10	1100,00
M 14 x 240	S	10	1140,00
M 14 x 260	S	10	1190,00
M 14 x 280	S	10	1260,00
M 14 x 300	S	10	1340,00
M 16 x 20	S	50	197,00
M 16 x 22	S	50	480,00
M 16 x 25	S	50	143,00
M 16 x 30	S	50	66,00
M 16 x 35	S	50	69,00
M 16 x 40	S	50	71,00
M 16 x 45	S	50	73,00
M 16 x 50	S	50	75,00
M 16 x 55	S	50	78,00
M 16 x 60	S	50	81,00
M 16 x 65	S	25	93,00
M 16 x 70	S	25	93,00
M 16 x 75	S	25	106,00
M 16 x 80	S	25	106,00
M 16 x 85	S	25	129,00
M 16 x 90	S	25	129,00
M 16 x 100	S	25	141,00
M 16 x 110	S	25	170,00
M 16 x 120	S	25	205,00
M 16 x 130	S	25	305,00
M 16 x 140	S	25	335,00
M 16 x 150	S	25	395,00
M 16 x 160	S	25	440,00
M 16 x 170	S	25	540,00
M 16 x 180	S	25	540,00
M 16 x 190	S	25	710,00
M 16 x 200	S	25	610,00
M 16 x 210	S	25	1380,00
M 16 x 220	S	25	920,00
M 16 x 230	S	25	1440,00
M 16 x 240	S	25	920,00
M 16 x 250	S	25	1500,00
M 16 x 260	S	25	1030,00
M 16 x 270	S	25	1590,00
M 16 x 280	S	25	1130,00
M 16 x 290	S	25	1830,00
M 16 x 300	S	25	1270,00
M 16 x 310	S	1	1560,00
M 16 x 320	S	1	1700,00
M 16 x 330	S	1	1700,00
M 16 x 340	S	1	1840,00
M 16 x 350	S	1	1860,00
M 16 x 360	S	1	1980,00
M 16 x 370	S	1	2900,00
M 16 x 380	S	1	2800,00
M 16 x 390	S	1	3350,00
M 16 x 400	S	1	2950,00
M 16 x 420	S	1	3750,00
M 18 x 30	S	50	415,00
M 18 x 35	S	50	415,00
M 18 x 40	S	50	315,00
M 18 x 45	S	50	320,00
M 18 x 50	S	50	320,00
M 18 x 55	S	25	320,00
M 18 x 60	S	25	320,00
M 18 x 65	S	25	345,00
M 18 x 70	S	25	345,00
M 18 x 75	S	25	380,00
M 18 x 80	S	25	380,00
M 18 x 90	S	25	385,00
M 18 x 100	S	25	420,00
M 18 x 110	S	25	450,00
M 18 x 120	S	25	495,00
M 18 x 130	S	25	550,00
M 18 x 140	S	25	650,00
M 18 x 150	S	25	760,00
M 18 x 160	S	25	1040,00
M 18 x 170	S	25	1100,00
M 18 x 180	S	25	1150,00
M 18 x 190	S	25	1190,00
M 18 x 200	S	10	1230,00
M 18 x 220	S	10	1500,00
M 18 x 240	S	10	1590,00
M 18 x 260	S	1	1700,00
M 18 x 280	S	1	1820,00
M 18 x 300	S	1	1930,00
M 20 x 30	S	25	355,00
M 20 x 35	S	25	355,00
M 20 x 40	S	25	136,00
M 20 x 45	S	25	137,00
M 20 x 50	S	25	138,00
M 20 x 55	S	25	147,00
M 20 x 60	S	25	152,00
M 20 x 65	S	25	165,00
M 20 x 70	S	25	165,00
M 20 x 75	S	25	172,00
M 20 x 80	S	25	192,00
M 20 x 90	S	25	201,00
M 20 x 100	S	25	220,00
M 20 x 110	S	25	249,00
M 20 x 120	S	25	305,00
M 20 x 130	S	25	390,00
M 20 x 140	S	25	570,00
M 20 x 150	S	25	660,00
M 20 x 160	S	10	670,00
M 20 x 170	S	10	940,00
M 20 x 180	S	10	920,00
M 20 x 190	S	10	1020,00
M 20 x 200	S	10	860,00
M 20 x 210	S	10	1780,00
M 20 x 220	S	10	1250,00
M 20 x 230	S	10	2000,00
M 20 x 240	S	10	1330,00
M 20 x 250	S	10	2140,00
M 20 x 260	S	10	1400,00
M 20 x 270	S	10	2290,00
M 20 x 280	S	10	1470,00
M 20 x 290	S	10	2650,00
M 20 x 300	S	10	1630,00
M 20 x 310	S	1	2060,00
M 20 x 320	S	1	2120,00
M 20 x 330	S	1	2330,00
M 20 x 340	S	1	2400,00
M 20 x 350	S	1	2600,00
M 20 x 360	S	1	2650,00
M 20 x 380	S	1	2900,00
M 20 x 400	S	1	3200,00
M 20 x 420	S	1	3550,00
M 20 x 440	S	1	3900,00
M 20 x 460	S	1	4250,00
M 20 x 480	S	1	4600,00
M 20 x 500	S	1	4950,00
M 22 x 40	S	25	820,00
M 22 x 45	S	25	820,00
M 22 x 50	S	25	1030,00
M 22 x 55	S	25	1170,00
M 22 x 60	S	25	1170,00
M 22 x 65	S	25	1210,00
M 22 x 70	S	25	1210,00
M 22 x 75	S	25	1270,00
M 22 x 80	S	25	1270,00
M 22 x 90	S	25	1360,00
M 22 x 100	S	10	1390,00
M 22 x 110	S	10	1420,00
M 22 x 120	S	10	1450,00
M 22 x 130	S	1	1490,00
M 22 x 140	S	1	1550,00
M 22 x 150	S	1	1590,00
M 22 x 160	S	1	1630,00
M 22 x 170	S	1	1700,00
M 22 x 180	S	1	1750,00
M 22 x 200	S	1	2050,00
M 22 x 220	S	1	2120,00
M 22 x 240	S	1	2230,00
M 22 x 260	S	1	2310,00
M 22 x 280	S	1	2390,00
M 22 x 300	S	1	2460,00
M 24 x 40	S	25	840,00
M 24 x 45	S	25	860,00
M 24 x 50	S	25	420,00
M 24 x 55	S	25	445,00
M 24 x 60	S	25	445,00
M 24 x 65	S	25	460,00
M 24 x 70	S	25	460,00
M 24 x 75	S	25	480,00
M 24 x 80	S	25	480,00
M 24 x 90	S	10	550,00
M 24 x 100	S	10	570,00
M 24 x 110	S	10	630,00
M 24 x 120	S	10	650,00
M 24 x 130	S	1	1080,00
M 24 x 140	S	1	1100,00
M 24 x 150	S	1	1290,00
M 24 x 160	S	1	1700,00
M 24 x 170	S	1	1900,00
M 24 x 180	S	1	2130,00
M 24 x 190	S	1	2240,00
M 24 x 200	S	1	2240,00
M 24 x 210	S	1	2440,00
M 24 x 220	S	1	2300,00
M 24 x 230	S	1	2600,00
M 24 x 240	S	1	2390,00
M 24 x 250	S	1	2750,00
M 24 x 260	S	1	2470,00
M 24 x 270	S	1	2900,00
M 24 x 280	S	1	2550,00
M 24 x 290	S	1	3050,00
M 24 x 300	S	1	2650,00
M 24 x 310	S	1	2850,00
M 24 x 320	S	1	2850,00
M 24 x 330	S	1	3200,00
M 24 x 340	S	1	3200,00
M 24 x 350	S	1	3500,00
M 24 x 360	S	1	3500,00
M 24 x 380	S	1	3750,00
M 24 x 400	S	1	4100,00
M 24 x 420	S	1	5400,00
M 24 x 440	S	1	5900,00
M 24 x 450	S	1	6500,00
M 24 x 460	S	1	6300,00
M 24 x 480	S	1	6800,00
M 24 x 500	S	1	7300,00
M 27 x 50	S	10	1410,00
M 27 x 55	S	10	1410,00
M 27 x 60	S	10	1410,00
M 27 x 65	S	10	1460,00
M 27 x 70	S	10	1460,00
M 27 x 75	S	10	1520,00
M 27 x 80	S	10	1520,00
M 27 x 90	S	10	1580,00
M 27 x 100	S	10	1660,00
M 27 x 110	S	10	1700,00
M 27 x 120	S	10	1870,00
M 27 x 130	S	1	1950,00
M 27 x 140	S	1	2030,00
M 27 x 150	S	1	2110,00
M 27 x 160	S	1	2160,00
M 27 x 170	S	1	3100,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	180	S	1	2310,00
M 27	x	190	S	1	3400,00
M 27	x	200	S	1	2420,00
M 27	x	210	S	1	3650,00
M 27	x	220	S	1	2650,00
M 27	x	230	S	1	3900,00
M 27	x	240	S	1	2850,00
M 27	x	250	S	1	4150,00
M 27	x	260	S	1	3050,00
M 27	x	280	S	1	3200,00
M 27	x	300	S	1	3450,00
M 30	x	45	S	1	1570,00
M 30	x	50	S	1	1570,00
M 30	x	55	S	1	1570,00
M 30	x	60	S	1	1570,00
M 30	x	65	S	1	1610,00
M 30	x	70	S	1	1640,00
M 30	x	75	S	1	1640,00
M 30	x	80	S	1	1710,00
M 30	x	90	S	1	1780,00
M 30	x	100	S	1	1850,00
M 30	x	110	S	1	1920,00
M 30	x	120	S	1	1990,00
M 30	x	130	S	1	2060,00
M 30	x	140	S	1	2130,00
M 30	x	150	S	1	2240,00
M 30	x	160	S	1	2340,00
M 30	x	170	S	1	2460,00
M 30	x	180	S	1	2480,00
M 30	x	190	S	1	2650,00
M 30	x	200	S	1	2700,00
M 30	x	210	S	1	2950,00
M 30	x	220	S	1	2950,00
M 30	x	230	S	1	3250,00
M 30	x	240	S	1	3050,00
M 30	x	250	S	1	3500,00
M 30	x	260	S	1	3500,00
M 30	x	270	S	1	3750,00
M 30	x	280	S	1	3400,00
M 30	x	290	S	1	4300,00
M 30	x	300	S	1	3700,00
M 30	x	320	S	1	4800,00
M 30	x	340	S	1	6100,00
M 30	x	360	S	1	6600,00
M 30	x	380	S	1	7200,00
M 30	x	400	S	1	7900,00
M 30	x	420	S	1	8400,00
M 30	x	440	S	1	10900,00
M 30	x	460	S	1	11900,00
M 33	x	60	S	1	2080,00
M 33	x	70	S	1	2080,00
M 33	x	80	S	1	2080,00
M 33	x	90	S	1	2200,00
M 33	x	100	S	1	2370,00
M 33	x	110	S	1	2470,00
M 33	x	120	S	1	2650,00
M 33	x	130	S	1	2750,00
M 33	x	140	S	1	2900,00
M 33	x	150	S	1	3100,00
M 33	x	160	S	1	3150,00
M 33	x	170	S	1	4650,00
M 33	x	180	S	1	3450,00
M 33	x	200	S	1	3650,00
M 33	x	210	S	1	5500,00
M 33	x	220	S	1	3950,00
M 33	x	240	S	1	4300,00
M 33	x	260	S	1	4600,00
M 33	x	280	S	1	4900,00
M 33	x	300	S	1	5200,00
M 36	x	60	S	1	2700,00
M 36	x	70	S	1	2700,00
M 36	x	80	S	1	2700,00
M 36	x	90	S	1	2800,00
M 36	x	100	S	1	2850,00
M 36	x	110	S	1	2950,00

Dimensions			PU	Pieces	€/100/Mat.
M 36	x	120	S	1	3050,00
M 36	x	130	S	1	3200,00
M 36	x	140	S	1	3300,00
M 36	x	150	S	1	3400,00
M 36	x	160	S	1	3500,00
M 36	x	170	S	1	4350,00
M 36	x	180	S	1	3800,00
M 36	x	200	S	1	4100,00
M 36	x	220	S	1	4350,00
M 36	x	240	S	1	4550,00
M 36	x	260	S	1	4800,00
M 36	x	280	S	1	5100,00
M 36	x	300	S	1	5600,00
M 36	x	320	S	1	6600,00
M 36	x	340	S	1	7000,00
M 36	x	360	S	1	7300,00
M 36	x	380	S	1	7700,00
M 36	x	400	S	1	8300,00
M 36	x	420	S	1	10600,00
M 39	x	100	S	1	4750,00
M 39	x	110	S	1	5200,00
M 39	x	120	S	1	5400,00
M 39	x	130	S	1	5700,00
M 39	x	140	S	1	6000,00
M 39	x	150	S	1	6300,00
M 39	x	160	S	1	6400,00
M 39	x	170	S	1	6800,00
M 39	x	180	S	1	7000,00
M 39	x	200	S	1	7600,00
M 39	x	220	S	1	8200,00
M 39	x	240	S	1	8800,00
M 39	x	260	S	1	9800,00
M 39	x	280	S	1	10300,00
M 39	x	300	S	1	10900,00
M 42	x	120	S	1	4950,00
M 42	x	130	S	1	5000,00
M 42	x	140	S	1	5600,00
M 42	x	150	S	1	5900,00
M 42	x	160	S	1	6100,00
M 42	x	170	S	1	6300,00
M 42	x	180	S	1	6400,00
M 42	x	190	S	1	6700,00
M 42	x	200	S	1	7000,00
M 42	x	220	S	1	8100,00
M 42	x	240	S	1	8800,00
M 42	x	260	S	1	9500,00
M 42	x	280	S	1	10000,00
M 42	x	300	S	1	10900,00
M 48	x	120	S	1	8800,00
M 48	x	130	S	1	9100,00
M 48	x	140	S	1	9600,00
M 48	x	150	S	1	10100,00
M 48	x	160	S	1	10700,00
M 48	x	180	S	1	11700,00
M 48	x	200	S	1	12500,00
M 48	x	220	S	1	16700,00
M 48	x	240	S	1	18100,00
M 48	x	260	S	1	19600,00
M 48	x	280	S	1	20900,00
M 48	x	300	S	1	21700,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00912.201		1580
912	**12.9 flZn/TL480h**		



Hexagon socket head cap screws

TL = lubricant in topcoat with μ = 0,09 - 0,14, salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 477

DIN 912 ➔ replaced by ISO 4762

RoHS ✓

REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	S	500	15,60 flZn
M 6	x	14	S	500	26,00 flZn
M 6	x	16	S	500	16,00 flZn
M 6	x	18	S	500	17,70 flZn
M 6	x	20	S	500	16,70 flZn
M 6	x	22	S	500	31,50 flZn
M 6	x	25	S	500	17,70 flZn
M 6	x	30	S	500	20,10 flZn
M 6	x	35	S	200	21,20 flZn
M 6	x	40	S	200	24,70 flZn
M 6	x	45	S	200	26,50 flZn
M 6	x	50	S	200	28,00 flZn
M 6	x	55	S	200	39,00 flZn
M 6	x	60	S	200	41,00 flZn
M 6	x	65	S	200	47,50 flZn
M 6	x	70	S	200	63,00 flZn
M 6	x	75	S	200	75,00 flZn
M 6	x	80	S	200	80,00 flZn
M 8	x	16	S	200	20,40 flZn
M 8	x	20	S	200	27,50 flZn
M 8	x	25	S	200	30,00 flZn
M 8	x	30	S	200	32,00 flZn
M 8	x	35	S	200	35,50 flZn
M 8	x	40	S	200	39,50 flZn
M 8	x	45	S	200	41,50 flZn
M 8	x	50	S	200	46,00 flZn
M 8	x	55	S	200	55,00 flZn
M 8	x	60	S	200	57,00 flZn
M 8	x	65	S	200	67,00 flZn
M 8	x	70	S	200	64,00 flZn
M 8	x	75	S	200	72,00 flZn
M 8	x	80	S	200	91,00 flZn
M 8	x	90	S	100	106,00 flZn
M 10	x	20	S	200	49,50 flZn
M 10	x	25	S	200	54,00 flZn
M 10	x	30	S	200	57,00 flZn
M 10	x	35	S	100	61,00 flZn
M 10	x	40	S	100	65,00 flZn
M 10	x	45	S	100	54,00 flZn
M 10	x	55	S	100	68,00 flZn
M 10	x	60	S	100	72,00 flZn
M 10	x	65	S	100	74,00 flZn
M 10	x	70	S	100	79,00 flZn
M 10	x	75	S	100	97,00 flZn
M 10	x	80	S	100	98,00 flZn
M 10	x	90	S	100	119,00 flZn
M 12	x	20	S	100	65,00 flZn

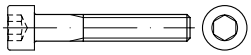
Dimensions			PU	Pieces	€/100/Mat.
M 12	x	25	S	100	81,00 fIZn
M 12	x	30	S	100	85,00 fIZn
M 12	x	35	S	100	89,00 fIZn
M 12	x	40	S	100	92,00 fIZn
M 12	x	45	S	100	82,00 fIZn
M 12	x	50	S	100	104,00 fIZn
M 12	x	55	S	100	113,00 fIZn
M 12	x	60	S	100	119,00 fIZn
M 12	x	65	S	50	130,00 fIZn
M 12	x	70	S	50	136,00 fIZn
M 12	x	75	S	50	146,00 fIZn
M 12	x	80	S	50	146,00 fIZn
M 12	x	90	S	50	149,00 fIZn
M 12	x	100	S	50	169,00 fIZn
M 16	x	30	S	50	140,00 fIZn
M 16	x	35	S	50	149,00 fIZn
M 16	x	40	S	50	141,00 fIZn
M 16	x	45	S	50	147,00 fIZn
M 16	x	50	S	50	157,00 fIZn
M 16	x	55	S	50	182,00 fIZn
M 16	x	60	S	50	190,00 fIZn
M 16	x	65	S	25	207,00 fIZn
M 16	x	70	S	25	211,00 fIZn
M 16	x	75	S	25	222,00 fIZn
M 16	x	80	S	25	222,00 fIZn
M 16	x	90	S	25	275,00 fIZn
M 16	x	100	S	25	310,00 fIZn
M 16	x	110	S	25	355,00 fIZn
M 16	x	120	S	25	420,00 fIZn
M 20	x	65	S	25	360,00 fIZn
M 20	x	70	S	25	370,00 fIZn
M 20	x	75	S	25	365,00 fIZn
M 20	x	80	S	25	395,00 fIZn
M 20	x	90	S	25	430,00 fIZn
M 20	x	100	S	25	490,00 fIZn
M 20	x	110	S	25	530,00 fIZn
M 20	x	120	S	25	610,00 fIZn
M 20	x	130	S	25	740,00 fIZn
M 20	x	140	S	25	980,00 fIZn
M 20	x	150	S	25	1110,00 fIZn
M 20	x	160	S	10	1390,00 fIZn
M 20	x	170	S	10	1640,00 fIZn
M 20	x	180	S	10	1500,00 fIZn
M 24	x	80	S	25	890,00 fIZn
M 24	x	90	S	10	1000,00 fIZn
M 24	x	100	S	10	1050,00 fIZn
M 24	x	110	S	10	1150,00 fIZn
M 24	x	120	S	10	1200,00 fIZn
M 24	x	130	S	10	1480,00 fIZn
M 24	x	140	S	10	1800,00 fIZn
M 24	x	150	S	10	2070,00 fIZn
M 24	x	160	S	10	2210,00 fIZn
M 24	x	170	S	10	2550,00 fIZn
M 24	x	180	S	10	2700,00 fIZn

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Dimensions			PU	Pieces	€/100/Mat.
DIN	00912.205				364
912	**12.9**				**fine**



Hexagon socket head cap screws with metric fine pitch thread

Dimensions ➔ TI-12 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

DIN 912 fine thread ➔ replaced by ISO 12474

RoHS ✓ REACh SVHC free

M 8	x	1	x	20	S	200	165,00
M 8	x	1	x	25	S	200	170,00
M 8	x	1	x	30	S	200	204,00
M 8	x	1	x	35	S	200	236,00
M 10	x	1,25	x	20	S	200	128,00
M 10	x	1,25	x	25	S	200	134,00
M 10	x	1	x	30	S	200	163,00
M 10	x	1,25	x	30	S	200	163,00
M 10	x	1	x	35	S	100	213,00
M 10	x	1	x	40	S	100	205,00
M 10	x	1,25	x	40	S	100	205,00
M 10	x	1	x	45	S	100	223,00
M 10	x	1	x	50	S	100	235,00
M 10	x	1,25	x	50	S	100	235,00
M 10	x	1	x	60	S	100	255,00
M 10	x	1,25	x	60	S	100	285,00
M 10	x	1	x	70	S	100	265,00
M 10	x	1	x	80	S	100	275,00
M 10	x	1	x	90	S	100	280,00
M 10	x	1	x	100	S	100	355,00
M 12	x	1,5	x	30	S	100	205,00
M 12	x	1,5	x	35	S	100	223,00
M 12	x	1,5	x	40	S	100	235,00
M 12	x	1,5	x	50	S	100	275,00
M 12	x	1,5	x	60	S	100	320,00
M 12	x	1,5	x	65	S	100	345,00
M 12	x	1,5	x	70	S	50	345,00
M 12	x	1,5	x	80	S	50	370,00
M 14	x	1,5	x	35	S	100	300,00
M 14	x	1,5	x	40	S	100	325,00
M 14	x	1,5	x	45	S	50	355,00
M 14	x	1,5	x	50	S	50	385,00
M 14	x	1,5	x	60	S	50	415,00
M 14	x	1,5	x	80	S	50	445,00
M 14	x	1,5	x	100	S	25	485,00
M 16	x	1,5	x	30	S	50	390,00
M 16	x	1,5	x	35	S	50	410,00
M 16	x	1,5	x	40	S	50	450,00
M 16	x	1,5	x	45	S	50	485,00
M 16	x	1,5	x	50	S	50	520,00
M 16	x	1,5	x	60	S	50	610,00
M 16	x	1,5	x	70	S	25	700,00
M 16	x	1,5	x	80	S	25	760,00
M 16	x	1,5	x	90	S	25	860,00
M 16	x	1,5	x	100	S	25	860,00
M 16	x	1,5	x	110	S	25	910,00
M 16	x	1,5	x	120	S	25	940,00
M 16	x	1,5	x	130	S	25	1010,00
M 16	x	1,5	x	140	S	25	1060,00
M 16	x	1,5	x	150	S	25	1110,00
M 16	x	1,5	x	160	S	25	1150,00
M 20	x	1,5	x	40	S	25	760,00
M 20	x	1,5	x	45	S	25	850,00
M 20	x	1,5	x	50	S	25	850,00

Dimensions					PU	Pieces	€/100/Mat.
M 20	x	1,5	x	55	S	25	940,00
M 20	x	1,5	x	60	S	25	940,00
M 20	x	1,5	x	70	S	25	1050,00
M 20	x	1,5	x	80	S	25	1140,00
M 20	x	1,5	x	90	S	25	1280,00
M 20	x	1,5	x	100	S	25	1410,00
M 24	x	1,5	x	50	S	25	1630,00
M 24	x	2	x	50	S	25	1190,00
M 24	x	2	x	55	S	25	1360,00
M 24	x	1,5	x	60	S	25	1980,00
M 24	x	2	x	60	S	25	1360,00
M 24	x	1,5	x	70	S	25	2230,00
M 24	x	2	x	70	S	25	1510,00
M 24	x	2	x	80	S	25	1670,00
M 24	x	2	x	90	S	10	1840,00
M 24	x	2	x	100	S	10	2040,00

DIN	00913.200	370
913	**45 H**	



Hexagon socket set screws with flat point

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-232

Stainless ➔ pg. 481

DIN 913 ➔ replaced by ISO 4026 (compatible)

RoHS ✓ REACh SVHC free

M 1,6	x	2	S	500	305,00
M 1,6	x	2,5	S	500	128,00
M 1,6	x	3	S	500	113,00
M 1,6	x	4	S	500	112,00
M 1,6	x	5	S	500	118,00
M 1,6	x	6	S	500	118,00
M 1,6	x	8	S	500	119,00
M 1,6	x	10	S	500	119,00
M 2	x	2	S	500	112,00
M 2	x	3	S	500	101,00
M 2	x	4	S	500	103,00
M 2	x	5	S	500	105,00
M 2	x	6	S	500	108,00
M 2	x	8	S	500	114,00
M 2	x	10	S	500	123,00
M 2,5	x	3	S	500	83,00
M 2,5	x	4	S	500	86,00
M 2,5	x	5	S	500	89,00
M 2,5	x	6	S	500	94,00
M 2,5	x	8	S	500	97,00
M 2,5	x	10	S	500	101,00
M 3	x	3	S	1000	9,40
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	6	K	200	9,10
M 3	x	8	S	1000	9,50
M 3	x	8	K	200	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	3	S	1000	7,70
M 4	x	4	S	1000	8,20

Dimensions	PU	Pieces	€/100/Mat.
M 4 x 5	S	1000	7,80
M 4 x 6	S	1000	7,90
M 4 x 6	K	200	7,90
M 4 x 8	S	1000	8,20
M 4 x 8	K	200	8,20
M 4 x 10	S	1000	8,40
M 4 x 10	K	200	8,40
M 4 x 12	S	1000	8,90
M 4 x 16	S	1000	10,10
M 4 x 16	K	200	10,10
M 4 x 20	S	500	10,30
M 4 x 25	S	500	17,00
M 4 x 30	S	200	45,00
M 4 x 35	S	200	62,00
M 4 x 40	S	200	73,00
M 5 x 4	S	1000	11,90
M 5 x 5	S	1000	8,90
M 5 x 6	S	1000	8,60
M 5 x 8	S	1000	8,90
M 5 x 8	K	200	8,90
M 5 x 10	S	1000	9,20
M 5 x 10	K	200	9,20
M 5 x 12	S	1000	9,90
M 5 x 16	S	1000	10,70
M 5 x 18	S	500	11,80
M 5 x 20	S	500	11,80
M 5 x 25	S	500	17,20
M 5 x 30	S	200	19,00
M 5 x 35	S	200	26,00
M 5 x 40	S	200	29,50
M 6 x 4	S	1000	19,40
M 6 x 5	S	1000	13,20
M 6 x 6	S	1000	10,10
M 6 x 6	K	200	10,10
M 6 x 8	S	1000	9,40
M 6 x 8	K	200	9,40
M 6 x 10	S	1000	9,60
M 6 x 10	K	200	9,60
M 6 x 12	S	1000	10,10
M 6 x 12	K	200	10,10
M 6 x 16	S	500	11,30
M 6 x 16	K	200	11,30
M 6 x 18	S	500	12,90
M 6 x 20	S	500	12,90
M 6 x 20	K	200	12,90
M 6 x 25	S	200	17,60
M 6 x 30	S	200	19,30
M 6 x 35	S	200	23,50
M 6 x 40	S	200	28,00
M 6 x 45	S	200	33,00
M 6 x 50	S	200	36,50
M 6 x 55	S	100	91,00
M 6 x 60	S	100	41,00
M 6 x 70	S	100	184,00
M 8 x 6	S	500	15,30
M 8 x 8	S	500	11,70
M 8 x 8	K	200	11,70
M 8 x 10	S	500	10,90
M 8 x 12	S	500	11,80
M 8 x 16	S	200	13,00
M 8 x 18	S	200	15,50
M 8 x 20	S	200	15,50
M 8 x 25	S	200	20,30
M 8 x 30	S	200	24,60
M 8 x 35	S	200	27,00
M 8 x 40	S	200	34,50
M 8 x 45	S	100	41,50
M 8 x 50	S	100	47,50
M 8 x 55	S	100	68,00
M 8 x 60	S	100	68,00
M 8 x 70	S	100	78,00
M 8 x 80	S	100	92,00
M 10 x 8	S	200	22,80
M 10 x 10	S	200	17,20
M 10 x 12	S	200	15,90
M 10 x 16	S	200	18,20
M 10 x 18	S	200	21,50
M 10 x 20	S	200	21,50
M 10 x 25	S	100	25,50
M 10 x 30	S	100	29,50
M 10 x 35	S	100	34,00
M 10 x 40	S	100	42,00
M 10 x 45	S	100	54,00
M 10 x 50	S	100	60,00
M 10 x 55	S	100	92,00
M 10 x 60	S	100	92,00
M 10 x 70	S	100	112,00
M 10 x 80	S	100	134,00
M 10 x 90	S	100	136,00
M 10 x 100	S	100	155,00
M 12 x 10	S	200	42,50
M 12 x 12	S	200	32,50
M 12 x 16	S	200	29,50
M 12 x 18	S	100	34,00
M 12 x 20	S	100	34,00
M 12 x 25	S	100	38,00
M 12 x 30	S	100	42,00
M 12 x 35	S	100	45,50
M 12 x 40	S	100	50,00
M 12 x 45	S	100	57,00
M 12 x 50	S	100	68,00
M 12 x 55	S	100	82,00
M 12 x 60	S	50	82,00
M 12 x 70	S	50	114,00
M 12 x 80	S	50	136,00
M 12 x 90	S	50	355,00
M 12 x 100	S	50	610,00
M 14 x 16	S	100	310,00
M 14 x 20	S	100	91,00
M 14 x 30	S	100	105,00
M 14 x 40	S	50	118,00
M 14 x 50	S	50	151,00
M 16 x 12	S	100	255,00
M 16 x 16	S	100	63,00
M 16 x 18	S	100	68,00
M 16 x 20	S	100	68,00
M 16 x 25	S	100	74,00
M 16 x 30	S	100	79,00
M 16 x 35	S	100	85,00
M 16 x 40	S	50	89,00
M 16 x 45	S	50	101,00
M 16 x 50	S	50	113,00
M 16 x 55	S	50	129,00
M 16 x 60	S	50	159,00
M 16 x 70	S	50	181,00
M 16 x 80	S	50	204,00
M 16 x 90	S	25	227,00
M 16 x 100	S	25	580,00
M 20 x 20	S	100	124,00
M 20 x 25	S	100	132,00
M 20 x 30	S	50	141,00
M 20 x 35	S	50	148,00
M 20 x 40	S	50	157,00
M 20 x 45	S	50	165,00
M 20 x 50	S	50	177,00
M 20 x 60	S	25	230,00
M 20 x 70	S	25	290,00
M 20 x 80	S	25	315,00
M 20 x 90	S	25	370,00
M 24 x 20	S	50	680,00
M 24 x 25	S	50	610,00
M 24 x 30	S	50	255,00
M 24 x 35	S	50	265,00
M 24 x 40	S	25	280,00
M 24 x 45	S	25	550,00
M 24 x 50	S	25	325,00
M 24 x 60	S	25	480,00
M 24 x 70	S	25	530,00
M 24 x 80	S	25	570,00
M 24 x 90	S	25	620,00
M 24 x 100	S	25	890,00

DIN	00913.210	370
913	**45 H** **zinc plated**	



Hexagon socket set screws with flat point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Corrosion protection ➔ TI-228
Material properties ➔ TI-232
Standard conversion ➔ TI-6

Stainless ➔ pg. 481

DIN 913 ➔ replaced by ISO 4026 (compatible)

RoHS ✓

REACh SVHC free

M 2	x 4	S	500	182,00 ZP
M 2	x 6	S	500	195,00 ZP
M 2	x 8	S	500	201,00 ZP
M 2	x 10	S	500	225,00 ZP
M 3	x 3	S	1000	14,60 ZP
M 3	x 4	S	1000	13,20 ZP
M 3	x 5	S	1000	13,40 ZP
M 3	x 6	S	1000	13,60 ZP
M 3	x 8	S	1000	14,20 ZP
M 3	x 10	S	1000	14,70 ZP
M 3	x 12	S	1000	15,70 ZP
M 3	x 16	S	500	18,10 ZP
M 3	x 20	S	500	18,70 ZP
M 4	x 4	S	1000	10,50 ZP
M 4	x 5	S	1000	10,10 ZP
M 4	x 6	S	1000	10,30 ZP
M 4	x 8	S	1000	12,10 ZP
M 4	x 10	S	1000	12,60 ZP
M 4	x 12	S	1000	13,40 ZP
M 4	x 14	S	1000	30,00 ZP
M 4	x 16	S	1000	15,00 ZP
M 4	x 18	S	1000	15,50 ZP
M 4	x 20	S	500	15,50 ZP
M 4	x 25	S	500	25,50 ZP
M 4	x 30	S	500	68,00 ZP
M 4	x 35	S	500	92,00 ZP
M 4	x 40	S	500	108,00 ZP
M 5	x 4	S	1000	17,80 ZP
M 5	x 5	S	1000	17,90 ZP
M 5	x 6	S	1000	11,30 ZP
M 5	x 8	S	1000	11,80 ZP
M 5	x 10	S	1000	12,40 ZP
M 5	x 12	S	1000	14,10 ZP
M 5	x 16	S	1000	15,20 ZP
M 5	x 18	S	500	17,10 ZP
M 5	x 20	S	500	17,10 ZP
M 5	x 25	S	500	26,00 ZP
M 5	x 30	S	200	31,00 ZP
M 5	x 35	S	200	39,00 ZP
M 5	x 40	S	200	44,50 ZP
M 6	x 5	S	1000	23,50 ZP
M 6	x 6	S	1000	13,40 ZP
M 6	x 8	S	1000	12,60 ZP
M 6	x 10	S	1000	13,10 ZP
M 6	x 12	S	1000	14,10 ZP
M 6	x 14	S	1000	17,50 ZP
M 6	x 16	S	500	16,70 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	18	S	500	35,50 ZP
M 6	x	20	S	500	19,50 ZP
M 6	x	25	S	200	26,50 ZP
M 6	x	30	S	200	29,50 ZP
M 6	x	35	S	200	37,00 ZP
M 6	x	40	S	200	42,50 ZP
M 6	x	45	S	200	53,00 ZP
M 6	x	50	S	200	67,00 ZP
M 6	x	60	S	100	72,00 ZP
M 8	x	6	S	500	30,50 ZP
M 8	x	8	S	500	16,00 ZP
M 8	x	10	S	500	15,40 ZP
M 8	x	12	S	500	16,70 ZP
M 8	x	16	S	200	19,30 ZP
M 8	x	18	S	200	27,50 ZP
M 8	x	20	S	200	23,20 ZP
M 8	x	25	S	200	33,00 ZP
M 8	x	30	S	200	39,50 ZP
M 8	x	35	S	200	35,50 ZP
M 8	x	40	S	200	52,00 ZP
M 8	x	45	S	100	62,00 ZP
M 8	x	50	S	100	72,00 ZP
M 8	x	55	S	100	108,00 ZP
M 8	x	60	S	100	118,00 ZP
M 8	x	70	S	100	132,00 ZP
M 8	x	80	S	100	194,00 ZP
M 8	x	90	S	100	345,00 ZP
M 8	x	100	S	100	385,00 ZP
M 8	x	130	S	50	480,00 ZP
M 10	x	8	S	200	34,50 ZP
M 10	x	10	S	200	24,20 ZP
M 10	x	12	S	200	23,20 ZP
M 10	x	16	S	200	27,50 ZP
M 10	x	20	S	200	35,50 ZP
M 10	x	25	S	100	42,50 ZP
M 10	x	30	S	100	51,00 ZP
M 10	x	35	S	100	57,00 ZP
M 10	x	40	S	100	71,00 ZP
M 10	x	45	S	100	86,00 ZP
M 10	x	50	S	100	96,00 ZP
M 10	x	60	S	100	164,00 ZP
M 10	x	70	S	100	195,00 ZP
M 10	x	80	S	100	233,00 ZP
M 10	x	90	S	100	590,00 ZP
M 10	x	100	S	100	670,00 ZP
M 12	x	10	S	200	77,00 ZP
M 12	x	12	S	200	48,00 ZP
M 12	x	14	S	200	44,00 ZP
M 12	x	16	S	200	44,00 ZP
M 12	x	20	S	200	54,00 ZP
M 12	x	25	S	100	62,00 ZP
M 12	x	30	S	100	72,00 ZP
M 12	x	35	S	100	78,00 ZP
M 12	x	40	S	100	91,00 ZP
M 12	x	45	S	100	105,00 ZP
M 12	x	50	S	100	120,00 ZP
M 12	x	55	S	100	143,00 ZP
M 12	x	60	S	50	146,00 ZP
M 12	x	70	S	50	201,00 ZP
M 12	x	80	S	50	242,00 ZP
M 12	x	90	S	50	340,00 ZP
M 12	x	100	S	50	1060,00 ZP
M 14	x	20	S	100	140,00 ZP
M 14	x	50	S	50	199,00 ZP
M 14	x	60	S	50	275,00 ZP
M 16	x	16	S	100	111,00 ZP
M 16	x	20	S	100	120,00 ZP
M 16	x	25	S	100	132,00 ZP
M 16	x	30	S	100	138,00 ZP
M 16	x	35	S	100	149,00 ZP
M 16	x	40	S	50	160,00 ZP
M 16	x	45	S	50	182,00 ZP
M 16	x	50	S	50	206,00 ZP
M 16	x	55	S	50	249,00 ZP
M 16	x	60	S	50	249,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	70	S	50	335,00 ZP
M 16	x	80	S	50	365,00 ZP
M 16	x	90	S	25	410,00 ZP
M 20	x	20	S	100	216,00 ZP
M 20	x	25	S	100	232,00 ZP
M 20	x	30	S	50	250,00 ZP
M 20	x	35	S	50	260,00 ZP
M 20	x	40	S	50	280,00 ZP
M 20	x	50	S	50	315,00 ZP
M 20	x	60	S	25	340,00 ZP
M 20	x	70	S	25	640,00 ZP
M 20	x	80	S	25	710,00 ZP
M 20	x	90	S	25	790,00 ZP
M 24	x	25	S	50	800,00 ZP
M 24	x	30	S	50	450,00 ZP
M 24	x	35	S	50	460,00 ZP
M 24	x	40	S	25	495,00 ZP
M 24	x	60	S	25	840,00 ZP
M 24	x	70	S	25	950,00 ZP
M 24	x	80	S	25	1050,00 ZP

~DIN	00913.205	370

913

45 H **fine**



Hexagon socket set screws with flat point, with metric fine pitch thread

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-232

DIN 913 ➔ replaced by ISO 4026 (compatible)

RoHS ✓ REACh SVHC free

M 4	x	0,5	x	4	S	1000	236,00
M 4	x	0,5	x	5	S	1000	265,00
M 4	x	0,5	x	6	S	1000	280,00
M 5	x	0,5	x	6	S	1000	158,00
M 5	x	0,5	x	8	S	1000	170,00
M 5	x	0,5	x	10	S	1000	255,00
M 5	x	0,5	x	12	S	1000	187,00
M 5	x	0,5	x	16	S	1000	212,00
M 5	x	0,5	x	20	S	500	590,00
M 5	x	0,5	x	25	S	500	620,00
M 5	x	0,5	x	30	S	200	650,00
M 6	x	0,75	x	5	S	1000	128,00
M 6	x	0,5	x	6	S	1000	210,00
M 6	x	0,75	x	6	S	1000	188,00
M 6	x	0,5	x	8	S	1000	230,00
M 6	x	0,75	x	8	S	1000	265,00
M 6	x	0,5	x	10	S	1000	178,00
M 6	x	0,75	x	10	S	1000	295,00
M 6	x	0,5	x	12	S	1000	315,00
M 6	x	0,75	x	12	S	1000	295,00
M 6	x	0,5	x	16	S	500	238,00
M 6	x	0,5	x	20	S	500	217,00
M 6	x	0,75	x	20	S	500	325,00
M 8	x	1	x	5	S	500	102,00
M 8	x	1	x	6	S	500	55,00
M 8	x	0,75	x	8	S	500	204,00
M 8	x	1	x	8	S	500	140,00
M 8	x	0,5	x	10	S	500	345,00
M 8	x	0,75	x	10	S	500	290,00
M 8	x	1	x	10	S	500	200,00

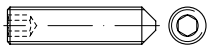
Dimensions					PU	Pieces	€/100/Mat.
M 8	x	0,5	x	12	S	500	209,00
M 8	x	0,75	x	12	S	500	111,00
M 8	x	1	x	12	S	500	230,00
M 8	x	0,5	x	16	S	200	580,00
M 8	x	0,75	x	16	S	200	158,00
M 8	x	1	x	16	S	200	236,00
M 8	x	0,75	x	20	S	200	199,00
M 8	x	1	x	20	S	200	265,00
M 8	x	0,75	x	25	S	200	216,00
M 8	x	1	x	25	S	200	121,00
M 8	x	0,75	x	30	S	200	242,00
M 8	x	1	x	30	S	200	128,00
M 8	x	1	x	35	S	200	131,00
M 8	x	1	x	40	S	200	140,00
M 8	x	1	x	50	S	100	182,00
M 8	x	1	x	60	S	100	242,00
M 8	x	1	x	70	S	100	280,00
M 8	x	1	x	80	S	100	325,00
M 8	x	1	x	90	S	100	380,00
M 8	x	1	x	100	S	100	420,00
M 10	x	1	x	8	S	200	250,00
M 10	x	1,25	x	8	S	200	325,00
M 10	x	1	x	10	S	200	250,00
M 10	x	1,25	x	10	S	200	138,00
M 10	x	1	x	12	S	200	233,00
M 10	x	1,25	x	12	S	200	157,00
M 10	x	1	x	16	S	200	335,00
M 10	x	1,25	x	16	S	200	192,00
M 10	x	1	x	20	S	200	345,00
M 10	x	1,25	x	20	S	200	205,00
M 10	x	1	x	25	S	100	119,00
M 10	x	1,25	x	25	S	100	228,00
M 10	x	1	x	30	S	100	136,00
M 10	x	1,25	x	30	S	100	234,00
M 10	x	1	x	35	S	100	146,00
M 10	x	1,25	x	35	S	100	247,00
M 10	x	1	x	40	S	100	221,00
M 10	x	1,25	x	40	S	100	265,00
M 10	x	1	x	45	S	100	221,00
M 10	x	1	x	50	S	100	232,00
M 10	x	1,25	x	50	S	100	340,00
M 10	x	1	x	60	S	100	255,00
M 10	x	1,25	x	60	S	100	345,00
M 12	x	1	x	8	S	100	182,00
M 12	x	1	x	10	S	200	560,00
M 12	x	1,25	x	10	S	200	186,00
M 12	x	1,5	x	10	S	200	600,00
M 12	x	1,25	x	12	S	200	171,00
M 12	x	1,5	x	12	S	200	131,00
M 12	x	1	x	16	S	200	620,00
M 12	x	1,25	x	16	S	200	188,00
M 12	x	1,5	x	16	S	200	137,00
M 12	x	1	x	20	S	100	640,00
M 12	x	1,25	x	20	S	100	199,00
M 12	x	1,5	x	20	S	100	147,00
M 12	x	1	x	25	S	100	790,00
M 12	x	1,25	x	25	S	100	212,00
M 12	x	1,5	x	25	S	100	155,00
M 12	x	1	x	30	S	100	157,00
M 12	x	1,25	x	30	S	100	224,00
M 12	x	1,5	x	30	S	100	165,00
M 12	x	1	x	40	S	100	201,00
M 12	x	1,25	x	40	S	100	236,00
M 12	x	1,5	x	40	S	100	201,00
M 12	x	1	x	45	S	100	245,00
M 12	x	1,5	x	45	S	100	245,00
M 12	x	1	x	50	S	100	249,00
M 12	x	1,5	x	55	S	100	300,00
M 12	x	1	x	60	S	50	385,00
M 12	x	1,5	x	70	S	50	520,00
M 14	x	1	x	10	S	200	415,00
M 14	x	1,5	x	10	S	200	485,00
M 14	x	1	x	12	S	200	425,00
M 14	x	1,5	x	12	S	200	355,00
M 14	x	1	x	16	S	100	490,00

Dimensions					PU	Pieces	€/100/Mat.
M 14	x	1,5	x	16	S	100	325,00
M 14	x	1	x	20	S	100	720,00
M 14	x	1,5	x	20	S	100	295,00
M 14	x	1,5	x	25	S	100	305,00
M 14	x	1,5	x	30	S	100	320,00
M 14	x	1,5	x	35	S	50	335,00
M 14	x	1,5	x	40	S	50	345,00
M 14	x	1,5	x	45	S	50	360,00
M 14	x	1,5	x	50	S	50	415,00
M 14	x	1,5	x	60	S	50	460,00
M 16	x	1	x	12	S	100	530,00
M 16	x	1,5	x	12	S	100	260,00
M 16	x	1	x	16	S	100	425,00
M 16	x	1,5	x	16	S	100	320,00
M 16	x	1	x	20	S	100	510,00
M 16	x	1,5	x	20	S	100	325,00
M 16	x	1,5	x	25	S	100	340,00
M 16	x	1,5	x	30	S	100	345,00
M 16	x	1,5	x	40	S	50	380,00
M 16	x	1,5	x	50	S	50	395,00
M 16	x	1,5	x	60	S	50	415,00
M 16	x	1,5	x	70	S	50	460,00
M 20	x	1,5	x	20	S	100	590,00
M 20	x	1,5	x	25	S	100	630,00
M 20	x	1,5	x	30	S	50	670,00
M 20	x	1,5	x	35	S	50	710,00
M 20	x	1,5	x	40	S	50	740,00
M 20	x	1,5	x	45	S	50	790,00
M 20	x	1,5	x	50	S	50	850,00
M 20	x	1,5	x	60	S	25	920,00
M 20	x	1,5	x	70	S	25	1020,00
M 20	x	1,5	x	80	S	25	1120,00
M 20	x	1,5	x	100	S	25	1230,00
M 24	x	1,5	x	25	S	50	1120,00
M 24	x	1,5	x	30	S	50	1170,00
M 24	x	1,5	x	40	S	25	1350,00
M 24	x	1,5	x	60	S	25	1470,00

DIN	00914.200	370

914

45 H



Hexagon socket set screws with cone point

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-232

Stainless ➔ pg. 482

DIN 914 ➔ replaced by ISO 4027 (compatible)

RoHS ✓ REACh SVHC free

M 2	x	2		S	500	129,00
M 2	x	3		S	500	117,00
M 2	x	4		S	500	119,00
M 2	x	5		S	500	121,00
M 2	x	6		S	500	126,00
M 2	x	8		S	500	134,00
M 2	x	10		S	500	143,00
M 2,5	x	3		S	500	97,00
M 2,5	x	4		S	500	100,00
M 2,5	x	5		S	500	102,00
M 2,5	x	6		S	500	109,00
M 2,5	x	8		S	500	114,00
M 2,5	x	10		S	500	117,00

Dimensions					PU	Pieces	€/100/Mat.
M 3	x	3		S	1000	10,30
M 3	x	4		S	1000	8,80
M 3	x	5		S	1000	8,90
M 3	x	6		S	1000	9,10
M 3	x	8		S	1000	9,50
M 3	x	10		S	1000	9,90
M 3	x	12		S	1000	10,50
M 3	x	16		S	500	11,70
M 3	x	20		S	500	12,40
M 4	x	4		S	1000	8,90
M 4	x	5		S	1000	7,80
M 4	x	6		S	1000	7,90
M 4	x	8		S	1000	8,20
M 4	x	10		S	1000	8,40
M 4	x	12		S	1000	8,90
M 4	x	16		S	1000	10,10
M 4	x	18		S	1000	10,30
M 4	x	20		S	500	10,30
M 4	x	25		S	500	17,00
M 4	x	30		S	200	45,00
M 4	x	35		S	200	62,00
M 4	x	40		S	200	73,00
M 5	x	4		S	1000	11,90
M 5	x	5		S	1000	9,90
M 5	x	6		S	1000	8,60
M 5	x	8		S	1000	8,90
M 5	x	10		S	1000	9,20
M 5	x	12		S	1000	9,90
M 5	x	16		S	1000	10,70
M 5	x	18		S	500	11,80
M 5	x	20		S	500	11,80
M 5	x	25		S	500	17,20
M 5	x	30		S	200	19,00
M 5	x	35		S	200	26,00
M 5	x	40		S	200	29,50
M 6	x	5		S	1000	13,20
M 6	x	6		S	1000	11,10
M 6	x	8		S	1000	9,40
M 6	x	10		S	1000	9,60
M 6	x	12		S	500	10,10
M 6	x	16		S	500	11,30
M 6	x	18		S	500	12,90
M 6	x	20		S	500	12,90
M 6	x	25		S	200	17,60
M 6	x	30		S	200	19,30
M 6	x	35		S	200	23,50
M 6	x	40		S	200	28,00
M 6	x	45		S	200	33,00
M 6	x	50		S	200	36,50
M 8	x	6		S	500	15,30
M 8	x	8		S	500	12,90
M 8	x	10		S	500	10,90
M 8	x	12		S	500	11,80
M 8	x	16		S	500	13,00
M 8	x	18		S	200	15,50
M 8	x	20		S	200	15,50
M 8	x	25		S	200	20,30
M 8	x	30		S	200	24,60
M 8	x	35		S	200	27,00
M 8	x	40		S	200	34,50
M 8	x	45		S	100	41,50
M 8	x	50		S	100	47,50
M 8	x	55		S	100	68,00
M 8	x	60		S	100	68,00
M 8	x	70		S	100	78,00
M 8	x	80		S	100	92,00
M 10	x	8		S	200	22,80
M 10	x	10		S	200	18,90
M 10	x	12		S	200	15,90
M 10	x	16		S	200	18,20
M 10	x	18		S	200	21,50
M 10	x	20		S	200	21,50
M 10	x	25		S	100	25,50
M 10	x	30		S	100	29,50
M 10	x	35		S	100	34,00

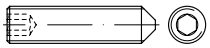
Dimensions					PU	Pieces	€/100/Mat.
M 10	x	40		S	100	42,00
M 10	x	45		S	100	54,00
M 10	x	50		S	100	60,00
M 10	x	60		S	100	92,00
M 10	x	70		S	100	112,00
M 10	x	80		S	100	134,00
M 10	x	100		S	100	229,00
M 12	x	10		S	200	42,50
M 12	x	12		S	200	35,50
M 12	x	16		S	200	29,50
M 12	x	20		S	100	34,00
M 12	x	25		S	100	38,00
M 12	x	30		S	100	42,00
M 12	x	35		S	100	45,50
M 12	x	40		S	100	50,00
M 12	x	45		S	100	57,00
M 12	x	50		S	100	68,00
M 12	x	55		S	100	82,00
M 12	x	60		S	50	82,00
M 12	x	70		S	50	114,00
M 12	x	80		S	50	136,00
M 14	x	20		S	100	91,00
M 14	x	30		S	100	105,00
M 14	x	40		S	50	118,00
M 16	x	16		S	100	69,00
M 16	x	20		S	100	68,00
M 16	x	25		S	100	74,00
M 16	x	30		S	100	79,00
M 16	x	35		S	100	85,00
M 16	x	40		S	50	89,00
M 16	x	45		S	50	121,00
M 16	x	50		S	50	133,00
M 16	x	55		S	50	149,00
M 16	x	60		S	50	149,00
M 16	x	70		S	50	181,00
M 16	x	80		S	50	204,00
M 16	x	90		S	25	227,00
M 20	x	20		S	100	136,00
M 20	x	25		S	100	132,00
M 20	x	30		S	50	141,00
M 20	x	35		S	50	148,00
M 20	x	40		S	50	157,00
M 20	x	45		S	50	195,00
M 20	x	50		S	50	207,00
M 20	x	60		S	25	223,00
M 20	x	70		S	25	300,00
M 20	x	80		S	25	345,00
M 20	x	90		S	25	385,00
M 24	x	30		S	50	255,00
M 24	x	35		S	50	265,00
M 24	x	40		S	25	280,00
M 24	x	50		S	25	325,00
M 24	x	60		S	25	480,00
M 24	x	80		S	25	570,00
M 24	x	100		S	25	890,00

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DIN	00914.210	370
914	**45 H** **zinc plated**	



Hexagon socket set screws with cone point

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Corrosion protection ➔ TI-228
Material properties ➔ TI-232 Standard conversion ➔ TI-6

Stainless ➔ pg. 482

DIN 914 ➔ replaced by ISO 4027 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	3	S	1000	18,20 ZP
M 3	x	4	S	1000	11,30 ZP
M 3	x	5	S	1000	11,40 ZP
M 3	x	6	S	1000	11,70 ZP
M 3	x	8	S	1000	12,30 ZP
M 3	x	10	S	1000	13,20 ZP
M 4	x	4	S	1000	11,40 ZP
M 4	x	5	S	1000	10,30 ZP
M 4	x	6	S	1000	10,30 ZP
M 4	x	8	S	1000	10,60 ZP
M 4	x	10	S	1000	11,20 ZP
M 4	x	12	S	1000	12,30 ZP
M 4	x	16	S	1000	13,80 ZP
M 4	x	18	S	1000	18,20 ZP
M 4	x	20	S	500	15,50 ZP
M 4	x	25	S	500	30,00 ZP
M 4	x	30	S	500	79,00 ZP
M 4	x	35	S	500	108,00 ZP
M 5	x	4	S	1000	20,80 ZP
M 5	x	5	S	1000	17,60 ZP
M 5	x	6	S	1000	11,30 ZP
M 5	x	8	S	1000	11,80 ZP
M 5	x	10	S	1000	12,30 ZP
M 5	x	12	S	1000	13,40 ZP
M 5	x	16	S	1000	14,60 ZP
M 5	x	20	S	500	16,30 ZP
M 5	x	25	S	500	55,00 ZP
M 5	x	30	S	200	61,00 ZP
M 6	x	5	S	1000	16,30 ZP
M 6	x	6	S	1000	14,10 ZP
M 6	x	8	S	1000	12,50 ZP
M 6	x	10	S	1000	13,10 ZP
M 6	x	12	S	1000	13,80 ZP
M 6	x	16	S	500	16,00 ZP
M 6	x	18	S	500	22,50 ZP
M 6	x	20	S	500	18,30 ZP
M 6	x	25	S	200	26,50 ZP
M 6	x	30	S	200	29,50 ZP
M 6	x	40	S	200	49,00 ZP
M 6	x	45	S	200	58,00 ZP
M 8	x	8	S	500	20,00 ZP
M 8	x	10	S	500	15,30 ZP
M 8	x	12	S	500	17,60 ZP
M 8	x	16	S	200	19,20 ZP
M 8	x	20	S	200	23,00 ZP
M 8	x	25	S	200	33,00 ZP
M 8	x	30	S	200	39,50 ZP
M 8	x	35	S	200	44,00 ZP
M 8	x	40	S	200	61,00 ZP
M 8	x	45	S	100	72,00 ZP
M 8	x	50	S	100	83,00 ZP
M 8	x	60	S	100	119,00 ZP
M 10	x	10	S	200	27,50 ZP
M 10	x	12	S	200	24,50 ZP
M 10	x	16	S	200	27,50 ZP
M 10	x	20	S	200	38,50 ZP
M 10	x	25	S	100	42,50 ZP
M 10	x	30	S	100	51,00 ZP
M 10	x	35	S	100	63,00 ZP
M 10	x	40	S	100	77,00 ZP
M 10	x	45	S	100	97,00 ZP
M 10	x	50	S	100	105,00 ZP
M 12	x	10	S	200	60,00 ZP
M 12	x	12	S	200	52,00 ZP
M 12	x	16	S	200	46,00 ZP
M 12	x	20	S	100	54,00 ZP
M 12	x	25	S	100	62,00 ZP
M 12	x	30	S	100	72,00 ZP
M 12	x	35	S	100	92,00 ZP
M 12	x	40	S	100	77,00 ZP
M 12	x	50	S	100	120,00 ZP
M 12	x	60	S	50	134,00 ZP
M 16	x	16	S	100	121,00 ZP
M 16	x	20	S	100	120,00 ZP
M 16	x	25	S	100	132,00 ZP
M 16	x	30	S	100	138,00 ZP
M 16	x	35	S	100	144,00 ZP
M 16	x	40	S	50	158,00 ZP
M 16	x	45	S	50	182,00 ZP
M 16	x	50	S	50	200,00 ZP
M 16	x	60	S	50	230,00 ZP
M 16	x	70	S	50	325,00 ZP
M 16	x	80	S	50	360,00 ZP
M 16	x	90	S	25	400,00 ZP
M 20	x	20	S	100	238,00 ZP
M 20	x	30	S	50	265,00 ZP
M 20	x	40	S	50	280,00 ZP
M 20	x	50	S	50	315,00 ZP
M 20	x	60	S	25	345,00 ZP

DIN	00915.200	370
915	**45 H**	



Hexagon socket set screws with full dog point

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-232

Stainless ➔ pg. 483

DIN 915 ➔ replaced by ISO 4028 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	3	S	1000	10,30
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	8	S	1000	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	4	S	1000	8,90
M 4	x	5	S	1000	7,80
M 4	x	6	S	1000	7,90
M 4	x	8	S	1000	8,20
M 4	x	10	S	1000	8,40
M 4	x	12	S	1000	8,90
M 4	x	16	S	1000	10,10
M 4	x	20	S	500	10,30
M 4	x	25	S	500	17,00
M 4	x	30	S	200	45,00
M 4	x	35	S	200	62,00
M 4	x	40	S	200	73,00
M 5	x	4	S	1000	11,90
M 5	x	5	S	1000	9,90
M 5	x	6	S	1000	8,60
M 5	x	8	S	1000	8,90
M 5	x	10	S	1000	9,20
M 5	x	12	S	1000	9,90
M 5	x	16	S	1000	10,70
M 5	x	18	S	500	11,80
M 5	x	20	S	500	11,80
M 5	x	25	S	500	17,20
M 5	x	30	S	200	19,00
M 5	x	35	S	200	26,00
M 5	x	40	S	200	29,50
M 6	x	5	S	1000	13,20
M 6	x	6	S	1000	11,10
M 6	x	8	S	1000	9,40
M 6	x	10	S	1000	9,60
M 6	x	12	S	1000	10,10
M 6	x	16	S	500	11,30
M 6	x	18	S	500	12,90
M 6	x	20	S	500	12,90
M 6	x	25	S	500	17,60
M 6	x	30	S	200	19,30
M 6	x	35	S	200	23,50
M 6	x	40	S	200	28,00
M 6	x	45	S	200	33,00
M 6	x	50	S	200	36,50
M 8	x	6	S	500	15,30
M 8	x	8	S	500	12,90
M 8	x	10	S	500	10,90
M 8	x	12	S	500	11,80
M 8	x	16	S	200	13,00
M 8	x	18	S	200	15,50
M 8	x	20	S	200	15,50
M 8	x	25	S	200	20,30
M 8	x	30	S	200	24,60
M 8	x	35	S	200	27,00
M 8	x	40	S	200	34,50
M 8	x	45	S	100	41,50
M 8	x	50	S	100	47,50
M 8	x	55	S	100	68,00
M 8	x	60	S	100	68,00
M 8	x	70	S	100	78,00
M 8	x	80	S	100	92,00
M 10	x	8	S	200	22,80
M 10	x	10	S	200	18,90
M 10	x	12	S	200	15,90
M 10	x	16	S	200	18,20
M 10	x	18	S	200	21,50
M 10	x	20	S	200	21,50
M 10	x	25	S	100	25,50
M 10	x	30	S	100	29,50
M 10	x	35	S	100	34,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	54,00
M 10	x	50	S	100	60,00
M 10	x	55	S	100	99,00
M 10	x	60	S	100	92,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	134,00
M 12	x	10	S	200	42,50
M 12	x	12	S	200	35,50
M 12	x	16	S	200	29,50
M 12	x	18	S	100	34,00
M 12	x	20	S	100	34,00
M 12	x	25	S	100	38,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	30	S	100	42,00
M 12	x	35	S	100	45,50
M 12	x	40	S	100	50,00
M 12	x	45	S	100	57,00
M 12	x	50	S	100	68,00
M 12	x	55	S	100	82,00
M 12	x	60	S	50	82,00
M 12	x	70	S	50	114,00
M 12	x	80	S	50	136,00
M 14	x	20	S	100	91,00
M 14	x	30	S	100	105,00
M 14	x	40	S	50	118,00
M 16	x	16	S	100	69,00
M 16	x	20	S	100	68,00
M 16	x	25	S	100	74,00
M 16	x	30	S	100	79,00
M 16	x	35	S	100	85,00
M 16	x	40	S	50	89,00
M 16	x	45	S	50	101,00
M 16	x	50	S	50	113,00
M 16	x	55	S	50	129,00
M 16	x	60	S	50	149,00
M 16	x	70	S	50	181,00
M 16	x	80	S	50	204,00
M 16	x	90	S	25	227,00
M 16	x	100	S	25	265,00
M 20	x	20	S	100	136,00
M 20	x	25	S	100	132,00
M 20	x	30	S	50	141,00
M 20	x	35	S	50	148,00
M 20	x	40	S	50	157,00
M 20	x	45	S	50	230,00
M 20	x	50	S	50	177,00
M 20	x	60	S	25	255,00
M 20	x	70	S	25	270,00
M 20	x	80	S	25	340,00
M 20	x	90	S	25	395,00
M 24	x	30	S	50	255,00
M 24	x	35	S	50	265,00
M 24	x	40	S	25	280,00
M 24	x	45	S	25	315,00
M 24	x	50	S	25	325,00
M 24	x	60	S	25	480,00
M 24	x	70	S	25	530,00
M 24	x	80	S	25	570,00
M 24	x	90	S	25	620,00
M 24	x	100	S	25	890,00

DIN	00915.210	370

915

45 H
zinc plated



Hexagon socket set screws with full dog point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Corrosion protection ➔ TI-228
Material properties ➔ TI-232
Standard conversion ➔ TI-6

Stainless ➔ pg. 483

DIN 915 ➔ replaced by ISO 4028 (compatible)

RoHS ✓

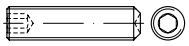
REACh SVHC free

M 3	x	6	S	1000	12,00 ZP
M 3	x	8	S	1000	12,40 ZP
M 3	x	10	S	1000	12,80 ZP
M 3	x	12	S	1000	13,40 ZP
M 3	x	16	S	1000	14,60 ZP
M 3	x	20	S	500	15,00 ZP
M 4	x	4	S	1000	19,70 ZP
M 4	x	5	S	1000	18,20 ZP
M 4	x	6	S	1000	16,70 ZP
M 4	x	8	S	1000	11,10 ZP
M 4	x	10	S	1000	11,50 ZP
M 4	x	12	S	1000	18,20 ZP
M 4	x	16	S	1000	21,80 ZP
M 4	x	20	S	500	27,00 ZP
M 4	x	25	S	500	30,50 ZP
M 4	x	30	S	500	79,00 ZP
M 5	x	5	S	1000	13,20 ZP
M 5	x	6	S	1000	17,60 ZP
M 5	x	8	S	1000	18,00 ZP
M 5	x	10	S	1000	12,60 ZP
M 5	x	12	S	1000	13,80 ZP
M 5	x	16	S	1000	15,20 ZP
M 5	x	20	S	500	29,50 ZP
M 5	x	25	S	500	20,60 ZP
M 5	x	30	S	200	22,60 ZP
M 6	x	6	S	1000	22,10 ZP
M 6	x	8	S	1000	18,70 ZP
M 6	x	10	S	1000	13,50 ZP
M 6	x	12	S	1000	14,40 ZP
M 6	x	16	S	500	16,60 ZP
M 6	x	20	S	500	32,50 ZP
M 6	x	25	S	200	37,50 ZP
M 6	x	30	S	200	41,00 ZP
M 6	x	35	S	200	47,50 ZP
M 6	x	40	S	200	33,50 ZP
M 6	x	45	S	200	38,00 ZP
M 6	x	50	S	200	42,00 ZP
M 8	x	8	S	500	18,70 ZP
M 8	x	10	S	500	16,70 ZP
M 8	x	12	S	500	17,60 ZP
M 8	x	16	S	200	20,30 ZP
M 8	x	20	S	200	24,50 ZP
M 8	x	25	S	200	52,00 ZP
M 8	x	30	S	200	59,00 ZP
M 8	x	35	S	200	36,00 ZP
M 8	x	40	S	200	78,00 ZP
M 8	x	50	S	100	107,00 ZP
M 10	x	8	S	200	36,50 ZP
M 10	x	12	S	200	30,00 ZP
M 10	x	16	S	200	32,00 ZP
M 10	x	20	S	200	35,50 ZP
M 10	x	25	S	100	42,50 ZP
M 10	x	30	S	100	56,00 ZP
M 10	x	35	S	100	44,00 ZP
M 10	x	40	S	100	77,00 ZP
M 10	x	50	S	100	148,00 ZP
M 10	x	55	S	100	113,00 ZP
M 10	x	60	S	100	213,00 ZP
M 12	x	12	S	200	56,00 ZP
M 12	x	16	S	200	59,00 ZP
M 12	x	20	S	100	54,00 ZP
M 12	x	25	S	100	66,00 ZP
M 12	x	30	S	100	74,00 ZP
M 12	x	35	S	100	81,00 ZP
M 12	x	40	S	100	87,00 ZP
M 12	x	50	S	100	136,00 ZP
M 12	x	55	S	100	102,00 ZP
M 12	x	60	S	50	102,00 ZP
M 12	x	70	S	50	134,00 ZP
M 12	x	80	S	50	156,00 ZP
M 16	x	16	S	100	134,00 ZP
M 16	x	20	S	100	131,00 ZP
M 16	x	25	S	100	148,00 ZP
M 16	x	30	S	100	161,00 ZP
M 16	x	35	S	100	175,00 ZP
M 16	x	40	S	50	189,00 ZP
M 16	x	45	S	50	211,00 ZP
M 16	x	50	S	50	226,00 ZP
M 16	x	55	S	50	242,00 ZP
M 16	x	60	S	50	255,00 ZP
M 16	x	70	S	50	365,00 ZP
M 20	x	25	S	100	231,00 ZP
M 20	x	35	S	50	260,00 ZP
M 20	x	40	S	50	275,00 ZP
M 20	x	50	S	50	310,00 ZP
M 20	x	60	S	25	340,00 ZP
M 20	x	70	S	25	450,00 ZP
M 20	x	80	S	25	500,00 ZP
M 24	x	30	S	50	255,00 ZP
M 24	x	40	S	25	270,00 ZP

DIN	00916.200	370

916

45 H



Hexagon socket set screws with cup point

Caution! Not for tensile loading.

Dimensions ➔ TI-21
Standard conversion ➔ TI-6
Material properties ➔ TI-232

Stainless ➔ pg. 484

DIN 916 ➔ replaced by ISO 4029 (compatible)

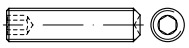
RoHS ✓

REACh SVHC free

M 2	x	2,5	S	500	112,00
M 2	x	3	S	500	101,00
M 2	x	4	S	500	103,00
M 2	x	5	S	500	105,00
M 2	x	6	S	500	108,00
M 2,5	x	3	S	500	83,00
M 2,5	x	4	S	500	86,00
M 2,5	x	5	S	500	89,00
M 2,5	x	6	S	500	94,00
M 2,5	x	10	S	500	101,00
M 3	x	3	S	1000	9,40
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	8	S	1000	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	4	S	1000	8,20
M 4	x	5	S	1000	7,80
M 4	x	6	S	1000	7,90
M 4	x	8	S	1000	8,20
M 4	x	10	S	1000	8,40
M 4	x	12	S	1000	8,90
M 4	x	16	S	1000	10,10
M 4	x	20	S	500	10,30
M 4	x	25	S	500	17,00
M 4	x	30	S	200	45,00
M 4	x	40	S	200	73,00
M 5	x	4	S	1000	11,90
M 5	x	5	S	1000	8,90
M 5	x	6	S	1000	8,60
M 5	x	8	S	1000	7,80
M 5	x	8	K	200	8,90
M 5	x	10	S	1000	9,20
M 5	x	12	S	1000	9,90
M 5	x	16	S	1000	10,70

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	18	S	500	11,80
M 5	x	20	S	500	11,80
M 5	x	25	S	500	16,70
M 5	x	30	S	200	19,00
M 5	x	35	S	200	26,00
M 5	x	40	S	200	29,50
M 6	x	5	S	1000	13,20
M 6	x	6	S	1000	8,80
M 6	x	6	K	200	10,10
M 6	x	8	S	1000	8,20
M 6	x	8	K	200	9,40
M 6	x	10	S	1000	8,30
M 6	x	10	K	200	9,60
M 6	x	12	S	1000	8,80
M 6	x	12	K	200	10,10
M 6	x	16	S	500	9,90
M 6	x	16	K	200	11,30
M 6	x	18	S	500	12,90
M 6	x	20	S	500	12,90
M 6	x	25	S	200	17,60
M 6	x	30	S	200	19,30
M 6	x	35	S	200	23,50
M 6	x	40	S	200	28,00
M 6	x	45	S	200	33,00
M 6	x	50	S	200	36,50
M 8	x	6	S	500	15,30
M 8	x	8	S	500	10,20
M 8	x	8	K	200	11,70
M 8	x	10	S	500	10,90
M 8	x	12	S	500	11,80
M 8	x	16	S	200	13,00
M 8	x	18	S	200	15,50
M 8	x	20	S	200	15,50
M 8	x	25	S	200	20,30
M 8	x	30	S	200	24,60
M 8	x	35	S	200	27,00
M 8	x	40	S	200	34,50
M 8	x	45	S	100	41,50
M 8	x	50	S	100	47,50
M 8	x	55	S	100	68,00
M 8	x	60	S	100	68,00
M 8	x	70	S	100	78,00
M 8	x	80	S	100	92,00
M 10	x	8	S	200	22,80
M 10	x	10	S	200	17,20
M 10	x	12	S	200	15,90
M 10	x	16	S	200	18,20
M 10	x	20	S	200	21,50
M 10	x	25	S	100	25,50
M 10	x	30	S	100	29,50
M 10	x	35	S	100	34,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	54,00
M 10	x	50	S	100	60,00
M 10	x	60	S	100	92,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	134,00
M 12	x	10	S	200	42,50
M 12	x	12	S	200	32,50
M 12	x	16	S	200	29,50
M 12	x	20	S	100	34,00
M 12	x	25	S	100	38,00
M 12	x	30	S	100	42,00
M 12	x	35	S	100	45,50
M 12	x	40	S	100	50,00
M 12	x	45	S	100	57,00
M 12	x	50	S	100	68,00
M 12	x	55	S	100	82,00
M 12	x	60	S	50	82,00
M 12	x	70	S	50	114,00
M 12	x	80	S	50	136,00
M 14	x	20	S	100	91,00
M 14	x	30	S	100	105,00
M 14	x	40	S	50	118,00
M 14	x	50	S	50	151,00
M 16	x	16	S	100	63,00
M 16	x	20	S	100	68,00
M 16	x	25	S	100	74,00
M 16	x	30	S	100	79,00
M 16	x	35	S	100	85,00
M 16	x	40	S	50	89,00
M 16	x	45	S	50	101,00
M 16	x	50	S	50	113,00
M 16	x	55	S	50	129,00
M 16	x	60	S	50	129,00
M 16	x	70	S	50	181,00
M 16	x	80	S	50	204,00
M 16	x	90	S	25	227,00
M 16	x	100	S	25	495,00
M 20	x	20	S	100	124,00
M 20	x	25	S	100	132,00
M 20	x	30	S	50	141,00
M 20	x	35	S	50	148,00
M 20	x	40	S	50	157,00
M 20	x	45	S	50	165,00
M 20	x	50	S	50	177,00
M 20	x	60	S	25	193,00
M 20	x	70	S	25	260,00
M 20	x	80	S	25	285,00
M 20	x	90	S	25	315,00
M 24	x	30	S	50	255,00
M 24	x	35	S	50	265,00
M 24	x	50	S	25	325,00
M 24	x	60	S	25	480,00
M 24	x	70	S	25	530,00
M 24	x	90	S	25	620,00
M 24	x	100	S	25	890,00

DIN	00916.210	370
916	**45 H** **zinc plated**	



Hexagon socket set screws with cup point

Caution! Not for tensile loading.

Dimensions ➔ TI-21
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
Stainless ➔ pg. 484

DIN 916 ➔ replaced by ISO 4029 (compatible)

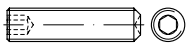
RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	3	S	1000	11,80 ZP
M 3	x	4	S	1000	11,20 ZP
M 3	x	5	S	1000	11,40 ZP
M 3	x	6	S	1000	11,70 ZP
M 3	x	8	S	1000	12,10 ZP
M 3	x	10	S	1000	12,40 ZP
M 3	x	12	S	1000	13,10 ZP
M 3	x	16	S	500	14,20 ZP
M 3	x	20	S	500	15,00 ZP
M 4	x	4	S	1000	10,30 ZP
M 4	x	5	S	1000	10,30 ZP
M 4	x	6	S	1000	10,30 ZP
M 4	x	8	S	1000	10,60 ZP
M 4	x	10	S	1000	15,30 ZP
M 4	x	12	S	1000	16,60 ZP
M 4	x	16	S	1000	18,10 ZP
M 4	x	20	S	500	18,70 ZP
M 5	x	5	S	1000	11,70 ZP
M 5	x	6	S	1000	11,30 ZP
M 5	x	8	S	1000	11,80 ZP
M 5	x	10	S	1000	12,40 ZP
M 5	x	12	S	1000	18,10 ZP
M 5	x	16	S	1000	18,70 ZP
M 5	x	20	S	500	20,70 ZP
M 5	x	25	S	500	31,00 ZP
M 5	x	30	S	200	33,50 ZP
M 5	x	40	S	200	43,50 ZP
M 6	x	5	S	1000	23,60 ZP
M 6	x	6	S	1000	16,10 ZP
M 6	x	8	S	1000	12,60 ZP
M 6	x	10	S	1000	13,10 ZP
M 6	x	12	S	1000	13,80 ZP
M 6	x	16	S	500	16,00 ZP
M 6	x	20	S	500	19,50 ZP
M 6	x	25	S	200	26,50 ZP
M 6	x	30	S	200	34,50 ZP
M 6	x	35	S	200	41,50 ZP
M 6	x	40	S	200	60,00 ZP
M 6	x	45	S	200	58,00 ZP
M 6	x	50	S	200	67,00 ZP
M 8	x	6	S	500	28,00 ZP
M 8	x	8	S	500	16,00 ZP
M 8	x	10	S	500	15,40 ZP
M 8	x	12	S	500	16,70 ZP
M 8	x	16	S	200	19,30 ZP
M 8	x	20	S	200	24,90 ZP
M 8	x	25	S	200	33,00 ZP
M 8	x	30	S	200	39,50 ZP
M 8	x	35	S	200	42,00 ZP
M 8	x	40	S	200	49,50 ZP
M 8	x	45	S	100	72,00 ZP
M 8	x	50	S	100	83,00 ZP
M 10	x	8	S	200	27,00 ZP
M 10	x	10	S	200	26,00 ZP
M 10	x	12	S	200	23,20 ZP
M 10	x	14	S	200	36,50 ZP
M 10	x	16	S	200	27,50 ZP
M 10	x	20	S	200	33,00 ZP
M 10	x	25	S	100	44,50 ZP
M 10	x	30	S	100	48,50 ZP
M 10	x	35	S	100	63,00 ZP
M 10	x	40	S	100	77,00 ZP
M 10	x	50	S	100	105,00 ZP
M 10	x	60	S	100	128,00 ZP
M 10	x	70	S	100	147,00 ZP
M 10	x	80	S	100	147,00 ZP
M 12	x	10	S	200	47,50 ZP
M 12	x	12	S	200	38,00 ZP
M 12	x	16	S	200	47,00 ZP
M 12	x	20	S	100	54,00 ZP
M 12	x	25	S	100	62,00 ZP
M 12	x	30	S	100	72,00 ZP
M 12	x	35	S	100	78,00 ZP
M 12	x	40	S	100	85,00 ZP
M 12	x	45	S	100	100,00 ZP
M 12	x	50	S	100	94,00 ZP
M 12	x	60	S	50	102,00 ZP
M 16	x	16	S	100	111,00 ZP
M 16	x	20	S	100	120,00 ZP
M 16	x	25	S	100	132,00 ZP
M 16	x	30	S	100	138,00 ZP
M 16	x	35	S	100	147,00 ZP
M 16	x	40	S	50	160,00 ZP
M 16	x	50	S	50	184,00 ZP
M 16	x	60	S	50	200,00 ZP
M 16	x	70	S	50	255,00 ZP
M 16	x	90	S	25	305,00 ZP
M 20	x	20	S	100	197,00 ZP
M 20	x	30	S	50	213,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00916.302		370

916

45 H **fine**



Hexagon socket set screws with cup point, with metric fine pitch thread

Caution! Not for tensile loading.

Dimensions ➔ TI-21
Material properties ➔ TI-232
Standard conversion ➔ TI-6

DIN 916 ➔ replaced by ISO 4029 (compatible)

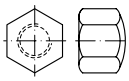
RoHS ✓ | REACh SVHC free

M 6	x	0,75	x	6	S	1000	111,00
M 6	x	0,75	x	8	S	1000	119,00
M 6	x	0,75	x	10	S	1000	130,00
M 6	x	0,75	x	12	S	1000	136,00
M 6	x	0,75	x	16	S	500	144,00
M 6	x	0,75	x	20	S	500	146,00
M 8	x	1	x	6	S	500	57,00
M 8	x	1	x	8	S	500	39,00
M 8	x	1	x	10	S	200	50,00
M 8	x	1	x	12	S	200	60,00
M 8	x	1	x	16	S	200	89,00
M 8	x	1	x	20	S	200	99,00
M 8	x	1	x	25	S	200	124,00
M 8	x	1	x	30	S	200	134,00
M 8	x	1	x	40	S	200	169,00
M 8	x	1	x	50	S	100	210,00
M 10	x	1	x	8	S	200	78,00
M 10	x	1,25	x	8	S	200	365,00
M 10	x	1	x	10	S	200	59,00
M 10	x	1,25	x	10	S	200	192,00
M 10	x	1	x	12	S	200	80,00
M 10	x	1,25	x	12	S	200	236,00
M 10	x	1	x	16	S	200	100,00
M 10	x	1,25	x	16	S	200	260,00
M 10	x	1	x	20	S	200	147,00
M 10	x	1,25	x	20	S	200	265,00
M 10	x	1	x	25	S	100	151,00
M 10	x	1,25	x	25	S	100	270,00
M 10	x	1	x	30	S	100	157,00
M 10	x	1,25	x	30	S	100	285,00
M 12	x	1	x	10	S	200	410,00
M 12	x	1,5	x	10	S	200	211,00
M 12	x	1	x	12	S	200	160,00
M 12	x	1,25	x	12	S	200	244,00
M 12	x	1,5	x	12	S	200	215,00
M 12	x	1	x	16	S	200	175,00
M 12	x	1,25	x	16	S	200	250,00
M 12	x	1,25	x	20	S	100	270,00
M 12	x	1,5	x	20	S	100	244,00
M 12	x	1,25	x	25	S	100	285,00
M 12	x	1,5	x	25	S	100	255,00
M 12	x	1,25	x	30	S	100	300,00
M 16	x	1,5	x	16	S	100	365,00
M 16	x	1,5	x	20	S	100	370,00
M 16	x	1,5	x	25	S	100	380,00
M 16	x	1,5	x	30	S	100	400,00
M 16	x	1,5	x	40	S	50	425,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00917.300		380

917

6



Hexagon cap nuts, low type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262
Stainless ➔ pg. 485
Brass ➔ pg. 624

RoHS ✓

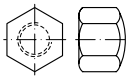
SW = wrench size

M 4	S	1000	12,40
M 5	S	1000	12,60
M 6	S	1000	19,70
M 8	S	500	34,00
M 10 s = 17	S	500	62,00
M 12 s = 19	S	250	89,00
M 16	S	250	151,00
M 20	S	25	295,00
M 24	S	10	620,00
M 30	S	1	1110,00
M 36	S	1	2650,00

DIN	00917.310	380

917

6
zinc plated



Hexagon cap nuts, low type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262
Stainless ➔ pg. 485
Brass ➔ pg. 624

RoHS ✓

SW = wrench size

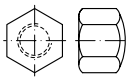
M 4	S	1000	15,40 ZP
M 4	K	100	18,60 ZP
M 5	S	1000	16,00 ZP
M 5	K	100	19,20 ZP
M 6	S	1000	24,10 ZP
M 6	K	100	27,50 ZP
M 8	S	500	42,00 ZP
M 8	K	100	45,50 ZP
M 10 s = 17	S	500	78,00 ZP
M 10 s = 17	K	100	82,00 ZP
M 12 s = 19	S	250	114,00 ZP
M 12 s = 19	K	100	117,00 ZP
M 14 s = 22	S	50	163,00 ZP
M 16	S	50	190,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 20	S	25	345,00 ZP
M 24	S	10	610,00 ZP
M 30	S	1	1460,00 ZP
M 36	S	1	5400,00 ZP

DIN	00917.305	380

917

6 **fine**



Hexagon cap nuts, low type, with metric fine pitch thread

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

RoHS ✓

SW = wrench size

M 8	x 1		S	100	55,00
M 10	x 1	s = 17	S	100	83,00
M 12	x 1,5	s = 19	S	50	118,00
M 16	x 1,5		S	50	193,00
M 20	x 1,5		S	25	345,00
M 24	x 2		S	10	620,00

DIN	00920.500	380

920

4.8/5.8



Slotted small cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
REACH ➔ TI-262

RoHS ✓

M 3	x	3	S	100	11,40
M 3	x	4	S	100	11,30
M 3	x	5	S	100	11,50
M 3	x	6	S	100	11,80
M 3	x	8	S	100	12,10
M 3	x	10	S	100	12,40
M 3	x	12	S	100	12,60
M 3	x	16	S	100	13,40
M 4	x	6	S	100	15,30
M 4	x	8	S	100	15,50
M 4	x	10	S	100	15,80
M 4	x	12	S	100	16,10
M 4	x	16	S	100	16,40
M 5	x	8	S	100	19,40
M 5	x	10	S	100	20,00
M 5	x	12	S	100	21,20
M 5	x	16	S	100	29,00
M 5	x	25	S	100	61,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00920.510	380
920	**4.8/5.8 zinc plated**	



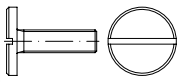
Slotted small cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
REACH ➔ TI-262

RoHS ✓

M 3	x	3	S	100	15,80 ZP
M 3	x	4	S	100	14,60 ZP
M 3	x	5	S	100	15,80 ZP
M 3	x	6	S	100	16,00 ZP
M 3	x	8	S	100	16,40 ZP
M 3	x	10	S	100	16,70 ZP
M 3	x	12	S	100	17,00 ZP
M 3	x	16	S	100	18,20 ZP
M 4	x	6	S	100	20,00 ZP
M 4	x	8	S	100	20,40 ZP
M 4	x	10	S	100	14,30 ZP
M 4	x	12	S	100	21,00 ZP
M 4	x	16	S	100	21,60 ZP

DIN	00921.500	380
921	**4.8/5.8**	



Slotted large cheese head screws, pressed finish

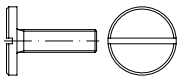
Dimensions ➔ TI-38
Material properties ➔ TI-232
REACH ➔ TI-262
Stainless ➔ pg. 485

RoHS ✓

M 3	x	4	S	100	26,50
M 3	x	5	S	100	21,20
M 3	x	6	S	100	21,60
M 3	x	8	S	100	22,20
M 3	x	10	S	100	41,00
M 4	x	5	S	100	31,50
M 4	x	6	S	100	31,00
M 4	x	8	S	100	31,50
M 4	x	10	S	100	32,50
M 4	x	12	S	100	33,00
M 4	x	16	S	100	34,00
M 5	x	6	S	100	57,00
M 5	x	8	S	100	47,00
M 5	x	10	S	100	48,50
M 5	x	12	S	100	57,00
M 5	x	16	S	100	94,00
M 6	x	8	S	100	176,00
M 6	x	10	S	100	102,00
M 6	x	12	S	100	106,00
M 6	x	16	S	100	118,00

Dimensions	PU Pieces	€/100/Mat.
M 6 x 20	S 100	132,00
M 8 x 10	S 100	230,00
M 8 x 12	S 100	234,00
M 8 x 16	S 100	270,00
M 8 x 20	S 100	280,00

DIN	00921.510	380
921	**4.8/5.8 zinc plated**	



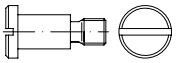
Slotted large cheese head screws

Dimensions ➔ TI-38
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
REACH ➔ TI-262
Stainless ➔ pg. 485

RoHS ✓

M 3	x	4	S	100	28,50 ZP
M 3	x	5	S	100	23,00 ZP
M 3	x	6	S	100	23,60 ZP
M 3	x	8	S	100	24,00 ZP
M 3	x	10	S	100	42,50 ZP
M 4	x	5	S	100	33,50 ZP
M 4	x	6	S	100	33,00 ZP
M 4	x	8	S	100	33,50 ZP
M 4	x	10	S	100	34,00 ZP
M 4	x	12	S	100	34,50 ZP
M 4	x	16	S	100	36,50 ZP
M 5	x	6	S	100	59,00 ZP
M 5	x	8	S	100	48,50 ZP
M 5	x	10	S	100	52,00 ZP
M 5	x	12	S	100	60,00 ZP
M 5	x	16	S	100	96,00 ZP
M 6	x	8	S	100	180,00 ZP
M 6	x	10	S	100	106,00 ZP
M 6	x	12	S	100	111,00 ZP
M 6	x	16	S	100	123,00 ZP
M 6	x	20	S	100	140,00 ZP
M 8	x	10	S	100	234,00 ZP
M 8	x	12	S	100	239,00 ZP
M 8	x	16	S	100	275,00 ZP
M 8	x	20	S	100	280,00 ZP
M 10	x	12	S	100	520,00 ZP
M 10	x	16	S	100	550,00 ZP
M 10	x	20	S	100	640,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00923.500	380
923	**4.8/5.8**	



Slotted cheese head shoulder screws, without undercut

Dimensions ➔ TI-38
Material properties ➔ TI-232
REACH ➔ TI-262
Stainless ➔ pg. 485

RoHS ✓

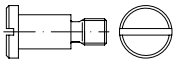
thread ∅ x shank length x thread length

M 3	x	2	x	4,5	S	100	22,20
M 3	x	3	x	4,5	S	100	32,50
M 3	x	4	x	4,5	S	100	24,20
M 3	x	5	x	4,5	S	100	36,50
M 3	x	6	x	4,5	S	100	26,50
M 3	x	8	x	4,5	S	100	39,00
M 3	x	10	x	4,5	S	100	30,50
M 4	x	2,5	x	6,0	S	100	24,20
M 4	x	3	x	6,0	S	100	24,90
M 4	x	4	x	6,0	S	100	26,00
M 4	x	5	x	6,0	S	100	26,50
M 4	x	6	x	6,0	S	100	27,50
M 4	x	8	x	6,0	S	100	30,00
M 4	x	10	x	6,0	S	100	33,50
M 4	x	12	x	6,0	S	100	37,00
M 4	x	16	x	6,0	S	100	58,00
M 5	x	2,5	x	7,0	S	100	48,50
M 5	x	3	x	7,0	S	100	36,50
M 5	x	4	x	7,0	S	100	38,00
M 5	x	5	x	7,0	S	100	39,00
M 5	x	6	x	7,0	S	100	41,50
M 5	x	8	x	7,0	S	100	44,50
M 5	x	10	x	7,0	S	100	46,00
M 5	x	12	x	7,0	S	100	49,50
M 5	x	16	x	7,0	S	100	57,00
M 5	x	20	x	7,0	S	100	66,00
M 6	x	3	x	9,0	S	100	54,00
M 6	x	4	x	9,0	S	100	56,00
M 6	x	5	x	9,0	S	100	57,00
M 6	x	6	x	9,0	S	100	58,00
M 6	x	8	x	9,0	S	100	67,00
M 6	x	10	x	9,0	S	100	68,00
M 6	x	12	x	9,0	S	100	69,00
M 6	x	16	x	9,0	S	100	89,00
M 6	x	20	x	9,0	S	100	95,00
M 8	x	4	x	11,0	S	100	99,00
M 8	x	5	x	11,0	S	100	141,00
M 8	x	6	x	11,0	S	100	103,00
M 8	x	8	x	11,0	S	100	113,00
M 8	x	10	x	11,0	S	100	118,00
M 8	x	12	x	11,0	S	100	125,00
M 8	x	16	x	11,0	S	100	146,00
M 8	x	20	x	11,0	S	50	160,00
M 8	x	25	x	11,0	S	50	180,00
M10	x	6	x	13,5	S	50	270,00
M10	x	10	x	13,5	S	50	280,00
M10	x	12	x	13,5	S	50	260,00
M10	x	16	x	13,5	S	50	300,00
M10	x	20	x	13,5	S	50	475,00
M10	x	25	x	13,5	S	50	485,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00923.510	380

923

4.8/5.8
zinc plated



Slotted cheese head shoulder screws, without undercut

Dimensions ➔ TI-38
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 485

RoHS ✓

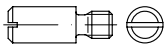
thread ∅ x shank length x thread length

M 3	x	2	x	4,5	S	100	25,50 ZP
M 3	x	3	x	4,5	S	100	34,00 ZP
M 3	x	4	x	4,5	S	100	26,50 ZP
M 3	x	5	x	4,5	S	100	38,50 ZP
M 3	x	6	x	4,5	S	100	28,00 ZP
M 3	x	8	x	4,5	S	100	41,00 ZP
M 3	x	10	x	4,5	S	100	32,50 ZP
M 4	x	2,5	x	6,0	S	100	26,50 ZP
M 4	x	3	x	6,0	S	100	27,00 ZP
M 4	x	4	x	6,0	S	100	28,00 ZP
M 4	x	5	x	6,0	S	100	28,50 ZP
M 4	x	6	x	6,0	S	100	29,50 ZP
M 4	x	8	x	6,0	S	100	32,50 ZP
M 4	x	10	x	6,0	S	100	35,50 ZP
M 4	x	12	x	6,0	S	100	39,00 ZP
M 4	x	16	x	6,0	S	100	60,00 ZP
M 5	x	2,5	x	7,0	S	100	51,00 ZP
M 5	x	3	x	7,0	S	100	38,50 ZP
M 5	x	4	x	7,0	S	100	39,50 ZP
M 5	x	5	x	7,0	S	100	41,00 ZP
M 5	x	6	x	7,0	S	100	43,00 ZP
M 5	x	8	x	7,0	S	100	47,50 ZP
M 5	x	10	x	7,0	S	100	48,50 ZP
M 5	x	12	x	7,0	S	100	53,00 ZP
M 5	x	16	x	7,0	S	100	59,00 ZP
M 6	x	3	x	9,0	S	100	58,00 ZP
M 6	x	4	x	9,0	S	100	59,00 ZP
M 6	x	5	x	9,0	S	100	61,00 ZP
M 6	x	6	x	9,0	S	100	62,00 ZP
M 6	x	8	x	9,0	S	100	71,00 ZP
M 6	x	10	x	9,0	S	100	72,00 ZP
M 6	x	12	x	9,0	S	100	74,00 ZP
M 6	x	16	x	9,0	S	100	94,00 ZP
M 6	x	20	x	9,0	S	100	99,00 ZP
M 8	x	4	x	11,0	S	100	102,00 ZP
M 8	x	5	x	11,0	S	100	144,00 ZP
M 8	x	6	x	11,0	S	100	107,00 ZP
M 8	x	8	x	11,0	S	100	117,00 ZP
M 8	x	10	x	11,0	S	100	123,00 ZP
M 8	x	12	x	11,0	S	100	130,00 ZP
M 8	x	16	x	11,0	S	100	151,00 ZP
M 8	x	20	x	11,0	S	100	166,00 ZP
M 8	x	25	x	11,0	S	50	188,00 ZP
M10	x	10	x	13,5	S	50	280,00 ZP
M10	x	12	x	13,5	S	50	325,00 ZP
M10	x	16	x	13,5	S	50	310,00 ZP
M10	x	20	x	13,5	S	50	485,00 ZP
M10	x	25	x	13,5	S	50	500,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00927.000	380

927

14 H



Slotted shoulder screws

Dimensions ➔ TI-38
Material properties ➔ TI-232
REACH ➔ TI-262

RoHS ✓

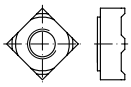
thread ∅ x bolt length

M 3	x	3	S	100	22,80
M 3	x	4	S	100	24,00
M 3	x	5	S	100	24,70
M 3	x	6	S	100	26,00
M 3	x	8	S	100	26,50
M 4	x	4	S	100	33,50
M 4	x	5	S	100	31,00
M 4	x	6	S	100	42,50
M 4	x	8	S	100	34,50
M 4	x	10	S	100	38,00
M 5	x	5	S	100	40,50
M 5	x	6	S	100	42,50
M 5	x	8	S	100	44,00
M 5	x	10	S	100	44,50
M 5	x	12	S	100	47,00
M 6	x	8	S	100	56,00
M 6	x	10	S	100	62,00
M 6	x	12	S	100	67,00
M 8	x	16	S	100	107,00

DIN	00928.000	390

928

Steel



Square weld nuts

Dimensions ➔ TI-71

with fine thread or with flange (DIN 977) on request

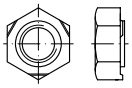
RoHS ✓ | REACh SVHC free

M 4	S	1000	6,20
M 5	S	1000	6,60
M 6	S	1000	7,40
M 8	S	500	11,90
M 10	S	500	18,20
M 12	S	500	22,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00929.000	390

929

Steel



Hexagon weld nuts

Dimensions ➔ TI-71

Stainless ➔ pg. 486

with fine thread or with flange (DIN 977) on request

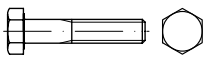
RoHS ✓ | REACh SVHC free

M 3	S	1000	3,95
M 3	K	500	4,85
M 4	S	1000	4,30
M 4	K	500	5,30
M 5	S	1000	4,75
M 5	K	500	5,70
M 6	S	1000	5,60
M 6	K	250	7,20
M 8	S	1000	8,80
M 8	K	250	10,60
M 10	S	500	13,20
M 10	K	100	18,00
M 12	S	100	23,60
M 14	S	100	39,50
M 16	S	100	43,00

DIN	00931.800	401

931

8.8



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

M 3	x	30	S	500	14,30
M 3	x	30	K	100	17,90
M 3	x	35	S	500	14,60
M 3	x	35	K	100	18,30
M 3	x	40	S	500	15,30
M 3	x	40	K	100	19,00
M 4	x	25	S	500	12,30
M 4	x	25	K	100	16,00
M 4	x	30	S	500	12,30
M 4	x	30	K	100	16,00
M 4	x	35	S	500	13,70
M 4	x	40	S	500	14,60
M 4	x	40	K	100	18,10
M 4	x	45	S	500	14,80

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 230	S	100	385,00
M 8 x 240	S	100	385,00
M 8 x 250	S	100	465,00
M 8 x 260	S	100	465,00
M 8 x 280	S	100	550,00
M 8 x 300	S	100	600,00
M 10 x 40	S	100	21,20
M 10 x 45	S	100	22,10
M 10 x 50	S	100	23,10
M 10 x 55	S	100	25,50
M 10 x 60	S	100	26,00
M 10 x 65	S	100	28,00
M 10 x 70	S	100	28,50
M 10 x 75	S	100	31,50
M 10 x 80	S	100	31,50
M 10 x 85	S	100	42,50
M 10 x 90	S	100	42,50
M 10 x 95	S	100	49,00
M 10 x 100	S	100	49,00
M 10 x 105	S	50	110,00
M 10 x 110	S	50	75,00
M 10 x 115	S	50	141,00
M 10 x 120	S	50	85,00
M 10 x 125	S	50	176,00
M 10 x 130	S	50	96,00
M 10 x 135	S	50	212,00
M 10 x 140	S	50	142,00
M 10 x 145	S	50	275,00
M 10 x 150	S	50	171,00
M 10 x 160	S	50	213,00
M 10 x 170	S	50	213,00
M 10 x 180	S	50	236,00
M 10 x 190	S	50	300,00
M 10 x 200	S	50	300,00
M 10 x 210	S	50	310,00
M 10 x 220	S	50	600,00
M 10 x 230	S	50	810,00
M 10 x 240	S	50	650,00
M 10 x 250	S	50	880,00
M 10 x 260	S	50	700,00
M 10 x 270	S	50	940,00
M 10 x 280	S	50	750,00
M 10 x 300	S	50	790,00
M 10 x 320	S	50	940,00
M 10 x 340	S	50	1080,00
M 10 x 360	S	50	1140,00
M 10 x 380	S	50	1820,00
M 10 x 400	S	50	1900,00
M 12 x 45	S	100	33,00
M 12 x 50	S	100	34,00
M 12 x 55	S	100	35,00
M 12 x 60	S	100	37,50
M 12 x 65	S	50	40,50
M 12 x 70	S	50	41,00
M 12 x 75	S	50	44,00
M 12 x 80	S	50	45,50
M 12 x 85	S	50	61,00
M 12 x 90	S	50	53,00
M 12 x 95	S	50	66,00
M 12 x 100	S	50	66,00
M 12 x 105	S	50	183,00
M 12 x 110	S	50	99,00
M 12 x 115	S	50	190,00
M 12 x 120	S	50	107,00
M 12 x 130	S	50	120,00
M 12 x 140	S	50	175,00
M 12 x 150	S	50	200,00
M 12 x 160	S	25	265,00
M 12 x 170	S	25	300,00
M 12 x 180	S	25	335,00
M 12 x 190	S	25	355,00
M 12 x 200	S	25	390,00
M 12 x 210	S	25	440,00
M 12 x 220	S	25	440,00
M 12 x 230	S	25	610,00

Dimensions	PU	Pieces	€/100/Mat.
M 12 x 240	S	25	610,00
M 12 x 250	S	25	670,00
M 12 x 260	S	25	670,00
M 12 x 270	S	25	730,00
M 12 x 280	S	25	730,00
M 12 x 290	S	25	800,00
M 12 x 300	S	25	800,00
M 12 x 310	S	25	1250,00
M 12 x 320	S	25	1150,00
M 12 x 330	S	25	1450,00
M 12 x 340	S	25	1260,00
M 12 x 350	S	25	1530,00
M 12 x 360	S	25	1420,00
M 12 x 380	S	25	1530,00
M 12 x 400	S	25	1910,00
M 12 x 420	S	25	2370,00
M 12 x 440	S	25	2650,00
M 12 x 460	S	25	3150,00
M 12 x 480	S	25	3450,00
M 12 x 500	S	25	3800,00
M 14 x 50	S	100	88,00
M 14 x 55	S	50	94,00
M 14 x 60	S	50	94,00
M 14 x 65	S	50	103,00
M 14 x 70	S	50	103,00
M 14 x 75	S	50	129,00
M 14 x 80	S	50	134,00
M 14 x 85	S	50	151,00
M 14 x 90	S	50	151,00
M 14 x 95	S	50	170,00
M 14 x 100	S	50	170,00
M 14 x 110	S	50	195,00
M 14 x 120	S	50	223,00
M 14 x 130	S	50	255,00
M 14 x 140	S	25	280,00
M 14 x 150	S	25	305,00
M 14 x 160	S	25	345,00
M 14 x 170	S	25	395,00
M 14 x 180	S	25	395,00
M 14 x 190	S	25	470,00
M 14 x 200	S	25	470,00
M 14 x 210	S	25	610,00
M 14 x 220	S	25	610,00
M 14 x 230	S	25	670,00
M 14 x 240	S	25	670,00
M 14 x 250	S	25	940,00
M 14 x 260	S	25	940,00
M 14 x 270	S	25	990,00
M 14 x 280	S	25	990,00
M 14 x 290	S	25	1060,00
M 14 x 300	S	25	1060,00
M 14 x 310	S	25	1360,00
M 14 x 320	S	25	1620,00
M 16 x 55	S	50	62,00
M 16 x 60	S	50	64,00
M 16 x 65	S	25	70,00
M 16 x 70	S	25	74,00
M 16 x 75	S	25	78,00
M 16 x 80	S	25	82,00
M 16 x 85	S	25	103,00
M 16 x 90	S	25	90,00
M 16 x 95	S	25	111,00
M 16 x 100	S	25	111,00
M 16 x 110	S	25	167,00
M 16 x 120	S	25	186,00
M 16 x 130	S	25	199,00
M 16 x 140	S	25	270,00
M 16 x 150	S	25	305,00
M 16 x 160	S	25	345,00
M 16 x 170	S	25	425,00
M 16 x 180	S	25	425,00
M 16 x 190	S	25	500,00
M 16 x 200	S	25	500,00
M 16 x 210	S	25	650,00
M 16 x 220	S	25	650,00

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 230	S	25	730,00
M 16 x 240	S	25	730,00
M 16 x 250	S	25	820,00
M 16 x 260	S	25	820,00
M 16 x 270	S	25	1130,00
M 16 x 280	S	1	1130,00
M 16 x 290	S	1	1270,00
M 16 x 300	S	1	1270,00
M 16 x 310	S	1	1480,00
M 16 x 320	S	1	1350,00
M 16 x 330	S	1	1580,00
M 16 x 340	S	1	1440,00
M 16 x 350	S	1	1780,00
M 16 x 360	S	1	1610,00
M 16 x 370	S	1	2170,00
M 16 x 380	S	1	1970,00
M 16 x 390	S	1	2460,00
M 16 x 400	S	1	2240,00
M 16 x 410	S	1	2750,00
M 16 x 420	S	1	2550,00
M 16 x 430	S	1	3150,00
M 16 x 440	S	1	2900,00
M 16 x 450	S	1	3250,00
M 16 x 460	S	1	3600,00
M 16 x 480	S	1	3950,00
M 16 x 500	S	1	4300,00
M 18 x 65	S	25	265,00
M 18 x 70	S	25	275,00
M 18 x 75	S	25	285,00
M 18 x 80	S	25	285,00
M 18 x 85	S	25	310,00
M 18 x 90	S	25	310,00
M 18 x 95	S	25	335,00
M 18 x 100	S	25	335,00
M 18 x 110	S	25	385,00
M 18 x 120	S	25	385,00
M 18 x 130	S	25	420,00
M 18 x 140	S	25	520,00
M 18 x 150	S	25	520,00
M 18 x 160	S	25	580,00
M 18 x 170	S	25	790,00
M 18 x 180	S	25	790,00
M 18 x 190	S	1	1110,00
M 18 x 200	S	1	1110,00
M 18 x 210	S	1	1290,00
M 18 x 220	S	1	1290,00
M 18 x 230	S	1	1440,00
M 18 x 240	S	1	1440,00
M 18 x 250	S	1	1580,00
M 18 x 260	S	1	1580,00
M 18 x 270	S	1	1800,00
M 18 x 280	S	1	1800,00
M 18 x 290	S	1	2060,00
M 18 x 300	S	1	2060,00
M 20 x 60	S	25	118,00
M 20 x 65	S	25	121,00
M 20 x 70	S	25	124,00
M 20 x 75	S	25	129,00
M 20 x 80	S	25	140,00
M 20 x 85	S	25	152,00
M 20 x 90	S	25	152,00
M 20 x 95	S	25	182,00
M 20 x 100	S	25	182,00
M 20 x 110	S	25	285,00
M 20 x 120	S	25	295,00
M 20 x 130	S	25	300,00
M 20 x 140	S	25	410,00
M 20 x 150	S	25	455,00
M 20 x 160	S	10	520,00
M 20 x 170	S	10	660,00
M 20 x 180	S	10	660,00
M 20 x 190	S	1	1030,00
M 20 x 200	S	1	1030,00
M 20 x 210	S	1	1290,00
M 20 x 220	S	1	1290,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 230	S	1	1440,00
M 20 x 240	S	1	1440,00
M 20 x 250	S	1	1580,00
M 20 x 260	S	1	1580,00
M 20 x 270	S	1	1800,00
M 20 x 280	S	1	1800,00
M 20 x 290	S	1	2060,00
M 20 x 300	S	1	2060,00
M 20 x 310	S	1	2190,00
M 20 x 320	S	1	2190,00
M 20 x 330	S	1	2340,00
M 20 x 340	S	1	2340,00
M 20 x 350	S	1	2490,00
M 20 x 360	S	1	2490,00
M 20 x 370	S	1	2700,00
M 20 x 380	S	1	2700,00
M 20 x 390	S	1	2800,00
M 20 x 400	S	1	2800,00
M 20 x 410	S	1	2900,00
M 20 x 420	S	1	2900,00
M 20 x 430	S	1	3600,00
M 20 x 440	S	1	3600,00
M 20 x 450	S	1	3600,00
M 20 x 460	S	1	3600,00
M 20 x 480	S	1	3650,00
M 20 x 500	S	1	3700,00
M 22 x 70	S	25	510,00
M 22 x 75	S	25	530,00
M 22 x 80	S	25	530,00
M 22 x 90	S	25	550,00
M 22 x 100	S	10	600,00
M 22 x 110	S	10	640,00
M 22 x 120	S	10	690,00
M 22 x 130	S	10	730,00
M 22 x 140	S	10	730,00
M 22 x 150	S	10	870,00
M 22 x 160	S	10	980,00
M 22 x 170	S	1	1220,00
M 22 x 180	S	1	1220,00
M 22 x 190	S	1	1550,00
M 22 x 200	S	1	1550,00
M 22 x 210	S	1	1740,00
M 22 x 220	S	1	1740,00
M 22 x 230	S	1	1940,00
M 22 x 240	S	1	1940,00
M 22 x 250	S	1	2380,00
M 22 x 260	S	1	2380,00
M 22 x 270	S	1	2700,00
M 22 x 280	S	1	2700,00
M 22 x 300	S	1	2950,00
M 22 x 320	S	1	3550,00
M 24 x 75	S	25	220,00
M 24 x 80	S	25	220,00
M 24 x 85	S	10	290,00
M 24 x 90	S	10	270,00
M 24 x 95	S	10	295,00
M 24 x 100	S	10	295,00
M 24 x 110	S	10	445,00
M 24 x 120	S	10	475,00
M 24 x 130	S	10	485,00
M 24 x 140	S	10	670,00
M 24 x 150	S	10	730,00
M 24 x 160	S	10	810,00
M 24 x 170	S	1	1030,00
M 24 x 180	S	1	1030,00
M 24 x 190	S	1	1460,00
M 24 x 200	S	1	1460,00
M 24 x 210	S	1	1730,00
M 24 x 220	S	1	1870,00
M 24 x 230	S	1	1920,00
M 24 x 240	S	1	2010,00
M 24 x 250	S	1	2070,00
M 24 x 260	S	1	2070,00
M 24 x 270	S	1	2440,00
M 24 x 280	S	1	2440,00
M 24 x 290	S	1	2700,00
M 24 x 300	S	1	2700,00
M 24 x 310	S	1	2750,00
M 24 x 320	S	1	2750,00
M 24 x 330	S	1	2800,00
M 24 x 340	S	1	2800,00
M 24 x 350	S	1	2900,00
M 24 x 360	S	1	2900,00
M 24 x 370	S	1	3100,00
M 24 x 380	S	1	3100,00
M 24 x 390	S	1	3350,00
M 24 x 400	S	1	3350,00
M 24 x 410	S	1	3550,00
M 24 x 420	S	1	3550,00
M 24 x 430	S	1	3850,00
M 24 x 440	S	1	3850,00
M 24 x 450	S	1	4100,00
M 24 x 460	S	1	4100,00
M 24 x 480	S	1	4350,00
M 24 x 500	S	1	4600,00
M 24 x 560	S	1	9800,00
M 24 x 600	S	1	10300,00
M 24 x 640	S	1	10700,00
M 27 x 75	S	10	600,00
M 27 x 80	S	10	600,00
M 27 x 85	S	10	750,00
M 27 x 90	S	10	750,00
M 27 x 100	S	10	890,00
M 27 x 110	S	1	1030,00
M 27 x 120	S	1	1030,00
M 27 x 130	S	1	1110,00
M 27 x 140	S	1	1110,00
M 27 x 150	S	1	1140,00
M 27 x 160	S	1	1140,00
M 27 x 170	S	1	1200,00
M 27 x 180	S	1	1200,00
M 27 x 190	S	1	1430,00
M 27 x 200	S	1	1430,00
M 27 x 210	S	1	2110,00
M 27 x 220	S	1	2110,00
M 27 x 230	S	1	2280,00
M 27 x 240	S	1	2280,00
M 27 x 250	S	1	2460,00
M 27 x 260	S	1	2460,00
M 27 x 270	S	1	2650,00
M 27 x 280	S	1	2650,00
M 27 x 290	S	1	3050,00
M 27 x 300	S	1	3050,00
M 27 x 320	S	1	3850,00
M 27 x 340	S	1	4250,00
M 27 x 360	S	1	4650,00
M 27 x 380	S	1	5000,00
M 27 x 400	S	1	5300,00
M 27 x 420	S	1	5700,00
M 27 x 440	S	1	6000,00
M 27 x 460	S	1	6300,00
M 27 x 480	S	1	6700,00
M 27 x 500	S	1	7100,00
M 27 x 520	S	1	9800,00
M 27 x 540	S	1	10600,00
M 27 x 560	S	1	11300,00
M 30 x 80	S	1	1570,00
M 30 x 90	S	1	1570,00
M 30 x 100	S	1	1570,00
M 30 x 110	S	1	1860,00
M 30 x 120	S	1	1860,00
M 30 x 130	S	1	2060,00
M 30 x 140	S	1	2060,00
M 30 x 150	S	1	2140,00
M 30 x 160	S	1	2140,00
M 30 x 170	S	1	2360,00
M 30 x 180	S	1	2360,00
M 30 x 190	S	1	2550,00
M 30 x 200	S	1	2550,00
M 30 x 210	S	1	2600,00
M 30 x 220	S	1	2600,00
M 30 x 240	S	1	2800,00
M 30 x 250	S	1	3100,00
M 30 x 260	S	1	3100,00
M 30 x 270	S	1	3100,00
M 30 x 280	S	1	3100,00
M 30 x 290	S	1	3250,00
M 30 x 300	S	1	3250,00
M 30 x 310	S	1	3750,00
M 30 x 320	S	1	3750,00
M 30 x 330	S	1	3850,00
M 30 x 340	S	1	3850,00
M 30 x 350	S	1	4100,00
M 30 x 360	S	1	4100,00
M 30 x 370	S	1	4400,00
M 30 x 380	S	1	4400,00
M 30 x 390	S	1	4800,00
M 30 x 400	S	1	4800,00
M 30 x 420	S	1	5000,00
M 30 x 440	S	1	5900,00
M 30 x 450	S	1	6700,00
M 30 x 460	S	1	6700,00
M 30 x 480	S	1	7900,00
M 30 x 500	S	1	8500,00
M 30 x 520	S	1	14600,00
M 30 x 560	S	1	15400,00
M 30 x 580	S	1	15700,00
M 30 x 600	S	1	16100,00
M 33 x 90	S	1	1790,00
M 33 x 100	S	1	1790,00
M 33 x 110	S	1	1900,00
M 33 x 120	S	1	1990,00
M 33 x 130	S	1	2080,00
M 33 x 140	S	1	2180,00
M 33 x 150	S	1	2260,00
M 33 x 160	S	1	2700,00
M 33 x 170	S	1	2750,00
M 33 x 180	S	1	2750,00
M 33 x 190	S	1	2850,00
M 33 x 200	S	1	2850,00
M 33 x 210	S	1	2950,00
M 33 x 220	S	1	2950,00
M 33 x 230	S	1	3100,00
M 33 x 240	S	1	3100,00
M 33 x 250	S	1	3650,00
M 33 x 260	S	1	3650,00
M 33 x 270	S	1	3800,00
M 33 x 280	S	1	3800,00
M 33 x 300	S	1	4000,00
M 33 x 400	S	1	12400,00
M 36 x 100	S	1	2260,00
M 36 x 110	S	1	2260,00
M 36 x 120	S	1	2380,00
M 36 x 130	S	1	2550,00
M 36 x 140	S	1	2650,00
M 36 x 150	S	1	2750,00
M 36 x 160	S	1	3100,00
M 36 x 170	S	1	3300,00
M 36 x 180	S	1	3300,00
M 36 x 190	S	1	3450,00
M 36 x 200	S	1	3450,00
M 36 x 210	S	1	3600,00
M 36 x 220	S	1	3600,00
M 36 x 230	S	1	3950,00
M 36 x 240	S	1	3950,00
M 36 x 250	S	1	4200,00
M 36 x 260	S	1	4200,00
M 36 x 270	S	1	4400,00
M 36 x 280	S	1	4400,00
M 36 x 290	S	1	4600,00
M 36 x 300	S	1	4600,00
M 36 x 310	S	1	5300,00
M 36 x 320	S	1	5300,00
M 36 x 330	S	1	5500,00
M 36 x 340	S	1	5500,00

Dimensions	PU	Pieces	€/100/Mat.
M 36 x 350	S	1	5700,00
M 36 x 360	S	1	5700,00
M 36 x 380	S	1	5900,00
M 36 x 400	S	1	5900,00
M 36 x 420	S	1	6000,00
M 36 x 440	S	1	6400,00
M 36 x 460	S	1	6900,00
M 36 x 480	S	1	7200,00
M 36 x 500	S	1	7500,00
M 36 x 540	S	1	18000,00
M 36 x 580	S	1	18500,00
M 39 x 110	S	1	3700,00
M 39 x 120	S	1	3700,00
M 39 x 130	S	1	3900,00
M 39 x 140	S	1	4050,00
M 39 x 150	S	1	4300,00
M 39 x 160	S	1	4400,00
M 39 x 170	S	1	4550,00
M 39 x 180	S	1	4800,00
M 39 x 190	S	1	5100,00
M 39 x 200	S	1	5300,00
M 39 x 220	S	1	5600,00
M 39 x 240	S	1	6000,00
M 39 x 250	S	1	15400,00
M 39 x 260	S	1	15600,00
M 39 x 280	S	1	16000,00
M 39 x 300	S	1	16400,00
M 42 x 120	S	1	3900,00
M 42 x 130	S	1	4100,00
M 42 x 140	S	1	4300,00
M 42 x 150	S	1	4550,00
M 42 x 160	S	1	4650,00
M 42 x 170	S	1	4850,00
M 42 x 180	S	1	5200,00
M 42 x 190	S	1	5500,00
M 42 x 200	S	1	5500,00
M 42 x 210	S	5	5900,00
M 42 x 220	S	1	6300,00
M 42 x 240	S	1	6700,00
M 42 x 250	S	1	7200,00
M 42 x 260	S	1	7200,00
M 42 x 280	S	1	8100,00
M 42 x 300	S	1	8500,00
M 42 x 320	S	1	9300,00
M 42 x 340	S	1	9900,00
M 42 x 360	S	1	10800,00
M 42 x 380	S	1	11600,00
M 42 x 400	S	1	12200,00
M 42 x 420	S	1	13100,00
M 45 x 120	S	1	5200,00
M 45 x 130	S	1	5500,00
M 45 x 140	S	1	5700,00
M 45 x 150	S	1	5900,00
M 45 x 160	S	1	6300,00
M 45 x 170	S	1	6500,00
M 45 x 180	S	1	6800,00
M 45 x 190	S	1	7100,00
M 45 x 200	S	1	7400,00
M 45 x 220	S	1	17100,00
M 48 x 130	S	1	6600,00
M 48 x 140	S	1	6900,00
M 48 x 150	S	1	7400,00
M 48 x 160	S	1	7700,00
M 48 x 170	S	1	7900,00
M 48 x 180	S	1	7900,00
M 48 x 190	S	1	8400,00
M 48 x 200	S	1	8400,00
M 48 x 220	S	1	8800,00
M 48 x 240	S	1	9300,00
M 48 x 250	S	1	9800,00
M 48 x 260	S	1	9800,00
M 48 x 280	S	1	10500,00
M 48 x 290	S	1	11600,00
M 48 x 300	S	1	11600,00
M 48 x 320	S	1	13100,00
M 48 x 340	S	1	13800,00
M 48 x 360	S	1	14600,00
M 48 x 380	S	1	15200,00
M 48 x 400	S	1	16000,00
M 48 x 420	S	1	21900,00
M 48 x 480	S	1	28600,00
M 52 x 140	S	1	19600,00
M 52 x 150	S	1	19800,00
M 52 x 160	S	1	20200,00
M 52 x 170	S	1	20600,00
M 52 x 180	S	1	21000,00
M 52 x 190	S	1	21400,00
M 52 x 200	S	1	21800,00
M 52 x 220	S	1	22500,00
M 52 x 240	S	1	23300,00
M 52 x 250	S	1	23700,00
M 52 x 260	S	1	24100,00
M 52 x 280	S	1	24800,00
M 52 x 300	S	1	25600,00
M 56 x 130	S	1	11600,00
M 56 x 140	S	1	12100,00
M 56 x 150	S	1	12200,00
M 56 x 160	S	1	12800,00
M 56 x 170	S	1	13100,00
M 56 x 180	S	1	13700,00
M 56 x 190	S	1	13900,00
M 56 x 200	S	1	14500,00
M 56 x 220	S	1	14500,00
M 56 x 240	S	1	15600,00
M 56 x 250	S	1	16600,00
M 56 x 260	S	1	16600,00
M 56 x 280	S	1	17700,00
M 56 x 300	S	1	18500,00
M 56 x 380	S	1	30100,00
M 64 x 300	S	1	34600,00

DIN	00931.810	401
931	**8.8** **zinc plated**	



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 30	S	500	15,10 ZP
M 3 x 35	S	500	15,60 ZP
M 3 x 40	S	500	16,40 ZP
M 4 x 25	S	500	13,30 ZP
M 4 x 30	S	500	13,50 ZP
M 4 x 35	S	500	15,00 ZP
M 4 x 40	S	500	16,00 ZP
M 4 x 40	K	100	19,50 ZP
M 4 x 45	S	500	16,30 ZP
M 4 x 50	S	500	18,10 ZP
M 4 x 55	S	200	54,00 ZP
M 4 x 60	S	200	61,00 ZP
M 4 x 70	S	200	78,00 ZP
M 4 x 80	S	200	107,00 ZP
M 5 x 30	S	500	14,00 ZP
M 5 x 30	K	100	17,70 ZP
M 5 x 35	S	200	15,70 ZP
M 5 x 40	S	200	16,70 ZP
M 5 x 45	S	200	17,20 ZP
M 5 x 50	S	200	19,10 ZP
M 5 x 55	S	200	20,40 ZP
M 5 x 60	S	200	22,00 ZP
M 5 x 65	S	200	28,50 ZP
M 5 x 70	S	200	30,00 ZP
M 5 x 80	S	200	35,50 ZP
M 5 x 85	S	200	79,00 ZP
M 5 x 90	S	200	80,00 ZP
M 5 x 95	S	200	88,00 ZP
M 5 x 100	S	200	91,00 ZP
M 5 x 120	S	200	151,00 ZP
M 5 x 130	S	200	260,00 ZP
M 6 x 30	S	500	8,40 ZP
M 6 x 30	K	100	12,10 ZP
M 6 x 35	S	200	9,40 ZP
M 6 x 40	S	200	10,60 ZP
M 6 x 45	S	200	11,80 ZP
M 6 x 50	S	200	13,80 ZP
M 6 x 55	S	200	17,10 ZP
M 6 x 60	S	200	18,30 ZP
M 6 x 65	S	200	28,50 ZP
M 6 x 70	S	200	29,00 ZP
M 6 x 75	S	200	31,50 ZP
M 6 x 80	S	200	38,50 ZP
M 6 x 85	S	100	49,50 ZP
M 6 x 90	S	100	50,00 ZP
M 6 x 95	S	100	62,00 ZP
M 6 x 100	S	100	63,00 ZP
M 6 x 105	S	100	151,00 ZP
M 6 x 110	S	100	64,00 ZP
M 6 x 120	S	100	78,00 ZP
M 6 x 130	S	100	101,00 ZP
M 6 x 140	S	100	116,00 ZP
M 6 x 150	S	100	300,00 ZP
M 6 x 160	S	100	305,00 ZP
M 6 x 170	S	100	325,00 ZP
M 6 x 180	S	100	360,00 ZP
M 6 x 190	S	100	400,00 ZP
M 6 x 200	S	100	460,00 ZP
M 7 x 40	S	200	32,50 ZP
M 7 x 50	S	200	35,00 ZP
M 7 x 60	S	200	51,00 ZP
M 8 x 35	S	200	15,50 ZP
M 8 x 40	S	200	17,50 ZP
M 8 x 45	S	200	19,60 ZP
M 8 x 50	S	200	20,90 ZP
M 8 x 55	S	200	21,60 ZP
M 8 x 60	S	200	23,00 ZP
M 8 x 65	S	200	26,00 ZP
M 8 x 70	S	200	26,50 ZP
M 8 x 75	S	200	32,00 ZP
M 8 x 80	S	200	34,00 ZP
M 8 x 85	S	100	52,00 ZP
M 8 x 90	S	100	53,00 ZP
M 8 x 95	S	100	59,00 ZP
M 8 x 100	S	100	71,00 ZP
M 8 x 110	S	100	82,00 ZP
M 8 x 115	S	100	147,00 ZP
M 8 x 120	S	100	95,00 ZP
M 8 x 125	S	100	161,00 ZP
M 8 x 130	S	100	104,00 ZP
M 8 x 135	S	100	201,00 ZP
M 8 x 140	S	100	116,00 ZP
M 8 x 145	S	100	232,00 ZP
M 8 x 150	S	100	147,00 ZP
M 8 x 160	S	100	155,00 ZP
M 8 x 170	S	100	174,00 ZP
M 8 x 180	S	100	204,00 ZP
M 8 x 190	S	100	233,00 ZP
M 8 x 200	S	100	250,00 ZP
M 8 x 210	S	100	290,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 220	S	100	370,00 ZP
M 10 x 40	S	100	29,50 ZP
M 10 x 45	S	100	31,00 ZP
M 10 x 50	S	100	32,50 ZP
M 10 x 55	S	100	35,50 ZP
M 10 x 60	S	100	36,50 ZP
M 10 x 65	S	100	39,50 ZP
M 10 x 70	S	100	40,50 ZP
M 10 x 75	S	100	44,50 ZP
M 10 x 80	S	100	45,00 ZP
M 10 x 85	S	100	57,00 ZP
M 10 x 90	S	100	58,00 ZP
M 10 x 95	S	100	65,00 ZP
M 10 x 100	S	100	65,00 ZP
M 10 x 105	S	50	130,00 ZP
M 10 x 110	S	50	98,00 ZP
M 10 x 115	S	50	176,00 ZP
M 10 x 120	S	50	110,00 ZP
M 10 x 130	S	50	124,00 ZP
M 10 x 140	S	50	171,00 ZP
M 10 x 150	S	50	203,00 ZP
M 10 x 160	S	50	246,00 ZP
M 10 x 170	S	50	250,00 ZP
M 10 x 180	S	50	275,00 ZP
M 10 x 190	S	50	335,00 ZP
M 10 x 200	S	50	340,00 ZP
M 10 x 210	S	50	355,00 ZP
M 10 x 220	S	50	650,00 ZP
M 10 x 230	S	50	860,00 ZP
M 10 x 240	S	50	700,00 ZP
M 10 x 250	S	50	930,00 ZP
M 10 x 260	S	50	760,00 ZP
M 10 x 270	S	50	990,00 ZP
M 10 x 280	S	50	810,00 ZP
M 10 x 290	S	50	1170,00 ZP
M 10 x 300	S	50	850,00 ZP
M 12 x 45	S	100	45,50 ZP
M 12 x 50	S	100	47,50 ZP
M 12 x 55	S	100	49,50 ZP
M 12 x 60	S	100	53,00 ZP
M 12 x 65	S	50	57,00 ZP
M 12 x 70	S	50	59,00 ZP
M 12 x 75	S	50	62,00 ZP
M 12 x 80	S	50	65,00 ZP
M 12 x 85	S	50	81,00 ZP
M 12 x 90	S	50	74,00 ZP
M 12 x 95	S	50	88,00 ZP
M 12 x 100	S	50	90,00 ZP
M 12 x 110	S	50	132,00 ZP
M 12 x 115	S	50	233,00 ZP
M 12 x 120	S	50	144,00 ZP
M 12 x 130	S	50	160,00 ZP
M 12 x 140	S	50	216,00 ZP
M 12 x 150	S	50	242,00 ZP
M 12 x 160	S	25	315,00 ZP
M 12 x 170	S	25	350,00 ZP
M 12 x 180	S	25	385,00 ZP
M 12 x 190	S	25	410,00 ZP
M 12 x 200	S	25	445,00 ZP
M 12 x 210	S	25	500,00 ZP
M 12 x 220	S	25	500,00 ZP
M 12 x 230	S	25	670,00 ZP
M 12 x 240	S	25	680,00 ZP
M 12 x 250	S	25	760,00 ZP
M 12 x 260	S	25	740,00 ZP
M 12 x 270	S	25	820,00 ZP
M 12 x 280	S	25	810,00 ZP
M 12 x 290	S	25	840,00 ZP
M 12 x 300	S	25	880,00 ZP
M 12 x 310	S	25	1360,00 ZP
M 12 x 320	S	25	1260,00 ZP
M 12 x 330	S	1	1780,00 ZP
M 14 x 50	S	100	113,00 ZP
M 14 x 55	S	50	120,00 ZP
M 14 x 60	S	50	123,00 ZP
M 14 x 65	S	50	134,00 ZP
M 14 x 70	S	50	136,00 ZP
M 14 x 75	S	50	163,00 ZP
M 14 x 80	S	50	170,00 ZP
M 14 x 85	S	50	187,00 ZP
M 14 x 90	S	50	189,00 ZP
M 14 x 95	S	50	210,00 ZP
M 14 x 100	S	50	211,00 ZP
M 14 x 110	S	50	241,00 ZP
M 14 x 120	S	50	275,00 ZP
M 14 x 130	S	50	310,00 ZP
M 14 x 140	S	25	335,00 ZP
M 14 x 150	S	25	365,00 ZP
M 14 x 160	S	25	405,00 ZP
M 14 x 170	S	25	460,00 ZP
M 14 x 180	S	25	465,00 ZP
M 14 x 190	S	25	550,00 ZP
M 14 x 200	S	25	550,00 ZP
M 14 x 220	S	25	690,00 ZP
M 14 x 240	S	25	760,00 ZP
M 16 x 50	S	50	89,00 ZP
M 16 x 55	S	50	89,00 ZP
M 16 x 60	S	50	92,00 ZP
M 16 x 65	S	25	99,00 ZP
M 16 x 70	S	25	104,00 ZP
M 16 x 75	S	25	110,00 ZP
M 16 x 80	S	25	116,00 ZP
M 16 x 85	S	25	142,00 ZP
M 16 x 90	S	25	130,00 ZP
M 16 x 95	S	25	154,00 ZP
M 16 x 100	S	25	155,00 ZP
M 16 x 110	S	25	229,00 ZP
M 16 x 120	S	25	255,00 ZP
M 16 x 130	S	25	270,00 ZP
M 16 x 140	S	25	345,00 ZP
M 16 x 150	S	25	385,00 ZP
M 16 x 160	S	25	430,00 ZP
M 16 x 170	S	25	520,00 ZP
M 16 x 180	S	25	520,00 ZP
M 16 x 190	S	25	600,00 ZP
M 16 x 200	S	25	610,00 ZP
M 16 x 210	S	25	760,00 ZP
M 16 x 220	S	1	760,00 ZP
M 16 x 230	S	1	840,00 ZP
M 16 x 240	S	1	850,00 ZP
M 16 x 250	S	1	950,00 ZP
M 16 x 260	S	1	950,00 ZP
M 16 x 270	S	1	1260,00 ZP
M 16 x 280	S	1	1270,00 ZP
M 16 x 290	S	1	1410,00 ZP
M 16 x 300	S	1	1420,00 ZP
M 16 x 310	S	1	1670,00 ZP
M 16 x 320	S	1	1590,00 ZP
M 16 x 330	S	1	1780,00 ZP
M 16 x 340	S	1	1610,00 ZP
M 16 x 350	S	1	1990,00 ZP
M 16 x 360	S	1	1790,00 ZP
M 16 x 370	S	1	2390,00 ZP
M 16 x 380	S	1	2200,00 ZP
M 16 x 390	S	1	2700,00 ZP
M 16 x 400	S	1	2480,00 ZP
M 16 x 420	S	1	2800,00 ZP
M 16 x 430	S	1	3400,00 ZP
M 16 x 440	S	1	3150,00 ZP
M 18 x 65	S	25	320,00 ZP
M 18 x 70	S	25	335,00 ZP
M 18 x 75	S	25	345,00 ZP
M 18 x 80	S	25	345,00 ZP
M 18 x 90	S	25	375,00 ZP
M 18 x 95	S	25	405,00 ZP
M 18 x 100	S	25	410,00 ZP
M 18 x 110	S	25	460,00 ZP
M 18 x 120	S	25	470,00 ZP
M 18 x 130	S	25	510,00 ZP
M 18 x 140	S	25	610,00 ZP
M 18 x 150	S	25	620,00 ZP
M 18 x 160	S	25	690,00 ZP
M 18 x 170	S	25	910,00 ZP
M 18 x 180	S	25	910,00 ZP
M 18 x 190	S	1	1230,00 ZP
M 18 x 200	S	1	1240,00 ZP
M 18 x 220	S	1	1460,00 ZP
M 18 x 230	S	1	1620,00 ZP
M 18 x 240	S	1	1630,00 ZP
M 20 x 60	S	25	172,00 ZP
M 20 x 65	S	25	172,00 ZP
M 20 x 70	S	25	177,00 ZP
M 20 x 75	S	25	186,00 ZP
M 20 x 80	S	25	193,00 ZP
M 20 x 85	S	25	210,00 ZP
M 20 x 90	S	25	212,00 ZP
M 20 x 95	S	25	250,00 ZP
M 20 x 100	S	25	255,00 ZP
M 20 x 110	S	25	385,00 ZP
M 20 x 120	S	25	405,00 ZP
M 20 x 130	S	25	410,00 ZP
M 20 x 140	S	25	530,00 ZP
M 20 x 150	S	25	590,00 ZP
M 20 x 160	S	10	650,00 ZP
M 20 x 170	S	10	810,00 ZP
M 20 x 180	S	10	810,00 ZP
M 20 x 190	S	1	1190,00 ZP
M 20 x 200	S	1	1200,00 ZP
M 20 x 210	S	1	1460,00 ZP
M 20 x 220	S	1	1470,00 ZP
M 20 x 230	S	1	1620,00 ZP
M 20 x 240	S	1	1630,00 ZP
M 20 x 250	S	1	1780,00 ZP
M 20 x 260	S	1	1790,00 ZP
M 20 x 270	S	1	1870,00 ZP
M 20 x 280	S	1	2020,00 ZP
M 20 x 290	S	1	2150,00 ZP
M 20 x 300	S	1	2300,00 ZP
M 20 x 310	S	1	2490,00 ZP
M 20 x 320	S	1	2440,00 ZP
M 20 x 330	S	1	2550,00 ZP
M 20 x 340	S	1	2650,00 ZP
M 20 x 350	S	1	2850,00 ZP
M 20 x 360	S	1	2850,00 ZP
M 20 x 380	S	1	3050,00 ZP
M 20 x 390	S	1	3200,00 ZP
M 20 x 400	S	1	3200,00 ZP
M 20 x 420	S	1	3250,00 ZP
M 20 x 430	S	1	4000,00 ZP
M 20 x 440	S	1	4000,00 ZP
M 20 x 450	S	1	4050,00 ZP
M 20 x 460	S	1	4050,00 ZP
M 20 x 480	S	1	4100,00 ZP
M 20 x 500	S	1	4150,00 ZP
M 22 x 70	S	25	590,00 ZP
M 22 x 75	S	25	620,00 ZP
M 22 x 80	S	25	620,00 ZP
M 22 x 90	S	25	650,00 ZP
M 22 x 100	S	10	710,00 ZP
M 22 x 110	S	10	760,00 ZP
M 22 x 120	S	10	820,00 ZP
M 22 x 130	S	10	870,00 ZP
M 22 x 140	S	10	880,00 ZP
M 22 x 150	S	10	1020,00 ZP
M 22 x 160	S	10	1140,00 ZP
M 22 x 180	S	1	1410,00 ZP
M 22 x 200	S	1	1740,00 ZP
M 22 x 240	S	1	2180,00 ZP
M 22 x 260	S	1	2650,00 ZP
M 22 x 280	S	1	2950,00 ZP
M 22 x 300	S	1	3250,00 ZP
M 24 x 75	S	25	305,00 ZP
M 24 x 80	S	25	310,00 ZP
M 24 x 85	S	10	385,00 ZP
M 24 x 90	S	10	370,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	95	S	10	395,00 ZP
M 24	x	100	S	10	400,00 ZP
M 24	x	110	S	10	600,00 ZP
M 24	x	120	S	10	640,00 ZP
M 24	x	130	S	10	660,00 ZP
M 24	x	140	S	10	850,00 ZP
M 24	x	150	S	10	920,00 ZP
M 24	x	160	S	10	1010,00 ZP
M 24	x	170	S	1	1240,00 ZP
M 24	x	180	S	1	1250,00 ZP
M 24	x	190	S	1	1700,00 ZP
M 24	x	200	S	1	1710,00 ZP
M 24	x	210	S	1	1980,00 ZP
M 24	x	220	S	1	2140,00 ZP
M 24	x	230	S	1	2190,00 ZP
M 24	x	240	S	1	2300,00 ZP
M 24	x	250	S	1	2420,00 ZP
M 24	x	260	S	1	2370,00 ZP
M 24	x	270	S	1	2850,00 ZP
M 24	x	280	S	1	2800,00 ZP
M 24	x	300	S	1	3050,00 ZP
M 24	x	310	S	1	3200,00 ZP
M 24	x	320	S	1	3100,00 ZP
M 24	x	330	S	1	3250,00 ZP
M 24	x	340	S	1	3200,00 ZP
M 24	x	350	S	1	3400,00 ZP
M 24	x	360	S	1	3350,00 ZP
M 24	x	380	S	1	3550,00 ZP
M 24	x	390	S	1	3850,00 ZP
M 24	x	400	S	1	3900,00 ZP
M 24	x	410	S	1	4150,00 ZP
M 24	x	420	S	1	4150,00 ZP
M 24	x	430	S	1	4400,00 ZP
M 24	x	440	S	1	4400,00 ZP
M 24	x	450	S	1	4700,00 ZP
M 27	x	80	S	10	760,00 ZP
M 27	x	90	S	10	920,00 ZP
M 27	x	100	S	10	1070,00 ZP
M 27	x	110	S	1	1230,00 ZP
M 27	x	120	S	1	1240,00 ZP
M 27	x	130	S	1	1320,00 ZP
M 27	x	140	S	1	1340,00 ZP
M 27	x	150	S	1	1390,00 ZP
M 27	x	160	S	1	1400,00 ZP
M 27	x	170	S	1	1470,00 ZP
M 27	x	180	S	1	1480,00 ZP
M 27	x	190	S	1	1730,00 ZP
M 27	x	200	S	1	1740,00 ZP
M 27	x	220	S	1	2450,00 ZP
M 27	x	230	S	1	2550,00 ZP
M 27	x	240	S	1	2650,00 ZP
M 27	x	260	S	1	2850,00 ZP
M 27	x	270	S	1	3050,00 ZP
M 27	x	280	S	1	3100,00 ZP
M 27	x	300	S	1	3500,00 ZP
M 27	x	320	S	1	4450,00 ZP
M 30	x	80	S	1	1810,00 ZP
M 30	x	90	S	1	1780,00 ZP
M 30	x	100	S	1	1800,00 ZP
M 30	x	110	S	1	2110,00 ZP
M 30	x	120	S	1	2130,00 ZP
M 30	x	130	S	1	2340,00 ZP
M 30	x	140	S	1	2360,00 ZP
M 30	x	150	S	1	2450,00 ZP
M 30	x	160	S	1	2460,00 ZP
M 30	x	170	S	1	2700,00 ZP
M 30	x	180	S	1	2750,00 ZP
M 30	x	190	S	1	2900,00 ZP
M 30	x	200	S	1	2950,00 ZP
M 30	x	210	S	1	3050,00 ZP
M 30	x	220	S	1	3050,00 ZP
M 30	x	230	S	1	3100,00 ZP
M 30	x	240	S	1	3250,00 ZP
M 30	x	250	S	1	3500,00 ZP
M 30	x	260	S	1	3600,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	280	S	1	3650,00 ZP
M 30	x	290	S	1	3300,00 ZP
M 30	x	300	S	1	3800,00 ZP
M 30	x	310	S	1	4100,00 ZP
M 30	x	320	S	1	4350,00 ZP
M 30	x	330	S	1	4600,00 ZP
M 30	x	340	S	1	4600,00 ZP
M 30	x	350	S	1	4900,00 ZP
M 30	x	360	S	1	4900,00 ZP
M 30	x	380	S	1	5200,00 ZP
M 33	x	100	S	1	2080,00 ZP
M 33	x	110	S	1	2200,00 ZP
M 33	x	120	S	1	2320,00 ZP
M 33	x	130	S	1	2430,00 ZP
M 33	x	140	S	1	2550,00 ZP
M 33	x	150	S	1	2650,00 ZP
M 33	x	160	S	1	3100,00 ZP
M 33	x	170	S	1	3200,00 ZP
M 33	x	180	S	1	3200,00 ZP
M 33	x	190	S	1	3300,00 ZP
M 33	x	200	S	1	3350,00 ZP
M 33	x	210	S	1	3450,00 ZP
M 33	x	220	S	1	3450,00 ZP
M 33	x	240	S	1	3700,00 ZP
M 33	x	260	S	1	4250,00 ZP
M 33	x	280	S	1	4450,00 ZP
M 33	x	300	S	1	4700,00 ZP
M 36	x	110	S	1	2650,00 ZP
M 36	x	120	S	1	2800,00 ZP
M 36	x	130	S	1	2950,00 ZP
M 36	x	140	S	1	3100,00 ZP
M 36	x	150	S	1	3250,00 ZP
M 36	x	160	S	1	3550,00 ZP
M 36	x	170	S	1	3800,00 ZP
M 36	x	180	S	1	3800,00 ZP
M 36	x	190	S	1	4050,00 ZP
M 36	x	200	S	1	4050,00 ZP
M 36	x	210	S	1	4250,00 ZP
M 36	x	220	S	1	4250,00 ZP
M 36	x	230	S	1	4650,00 ZP
M 36	x	240	S	1	4650,00 ZP
M 36	x	250	S	1	4900,00 ZP
M 36	x	260	S	1	4900,00 ZP
M 36	x	270	S	1	5300,00 ZP
M 36	x	280	S	1	5200,00 ZP
M 36	x	300	S	1	5400,00 ZP
M 36	x	320	S	1	6600,00 ZP
M 36	x	360	S	1	7100,00 ZP
M 36	x	400	S	1	7500,00 ZP
M 39	x	140	S	1	4650,00 ZP
M 39	x	150	S	1	4900,00 ZP
M 39	x	160	S	1	5100,00 ZP
M 39	x	170	S	1	5300,00 ZP
M 39	x	180	S	1	5600,00 ZP
M 39	x	190	S	1	5800,00 ZP
M 39	x	200	S	1	6100,00 ZP
M 42	x	120	S	1	4600,00 ZP
M 42	x	130	S	1	5000,00 ZP
M 42	x	140	S	1	5200,00 ZP
M 42	x	150	S	1	5600,00 ZP
M 42	x	160	S	1	5700,00 ZP
M 42	x	170	S	1	6000,00 ZP
M 42	x	180	S	1	6300,00 ZP
M 42	x	190	S	1	6500,00 ZP
M 42	x	200	S	1	6700,00 ZP
M 42	x	220	S	1	7400,00 ZP
M 42	x	240	S	1	7900,00 ZP
M 42	x	250	S	1	8400,00 ZP
M 42	x	260	S	1	8400,00 ZP
M 42	x	280	S	1	9300,00 ZP
M 48	x	140	S	1	8100,00 ZP
M 48	x	150	S	1	8700,00 ZP
M 48	x	160	S	1	9100,00 ZP
M 48	x	170	S	1	9400,00 ZP
M 48	x	180	S	1	9500,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 48	x	200	S	1	10100,00 ZP
M 48	x	220	S	1	10700,00 ZP
M 48	x	240	S	1	11400,00 ZP

DIN	00931.328	401
931	**8.8** **zinc plated 8 TLP***	



Hexagon head bolts

short dimensions partly thread nearly to head,
*< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	40	S	200	20,90 ZP TLP
M 5	x	45	S	200	21,60 ZP TLP
M 5	x	50	S	200	23,90 ZP TLP
M 6	x	30	S	500	10,50 ZP TLP
M 6	x	35	S	200	11,80 ZP TLP
M 6	x	40	S	200	13,30 ZP TLP
M 6	x	45	S	200	14,80 ZP TLP
M 6	x	50	S	200	17,30 ZP TLP
M 6	x	55	S	200	21,40 ZP TLP
M 6	x	60	S	200	22,90 ZP TLP
M 6	x	65	S	200	36,00 ZP TLP
M 6	x	70	S	200	36,50 ZP TLP
M 6	x	75	S	200	39,50 ZP TLP
M 6	x	80	S	200	48,00 ZP TLP
M 6	x	90	S	100	63,00 ZP TLP
M 6	x	100	S	100	78,00 ZP TLP
M 6	x	110	S	100	80,00 ZP TLP
M 6	x	120	S	100	98,00 ZP TLP
M 8	x	35	S	200	19,40 ZP TLP
M 8	x	40	S	200	21,80 ZP TLP
M 8	x	45	S	200	24,50 ZP TLP
M 8	x	50	S	200	26,50 ZP TLP
M 8	x	55	S	200	27,00 ZP TLP
M 8	x	60	S	200	29,00 ZP TLP
M 8	x	65	S	200	32,50 ZP TLP
M 8	x	70	S	200	33,50 ZP TLP
M 8	x	75	S	200	40,00 ZP TLP
M 8	x	80	S	200	42,00 ZP TLP
M 8	x	85	S	100	65,00 ZP TLP
M 8	x	90	S	100	67,00 ZP TLP
M 8	x	100	S	100	89,00 ZP TLP
M 8	x	110	S	100	102,00 ZP TLP
M 8	x	120	S	100	119,00 ZP TLP
M 8	x	130	S	100	130,00 ZP TLP
M 8	x	140	S	50	93,00 ZP TLP
M 8	x	150	S	100	184,00 ZP TLP
M 10	x	40	S	100	37,00 ZP TLP
M 10	x	45	S	100	39,00 ZP TLP
M 10	x	50	S	100	41,00 ZP TLP
M 10	x	55	S	100	44,50 ZP TLP
M 10	x	60	S	100	46,00 ZP TLP
M 10	x	65	S	100	49,50 ZP TLP
M 10	x	70	S	100	51,00 ZP TLP
M 10	x	75	S	100	56,00 ZP TLP
M 10	x	80	S	100	57,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	85	S	100	71,00 ZP TLP
M 10	x	90	S	100	72,00 ZP TLP
M 10	x	95	S	100	81,00 ZP TLP
M 10	x	100	S	100	82,00 ZP TLP
M 10	x	110	S	50	123,00 ZP TLP
M 10	x	120	S	50	138,00 ZP TLP
M 10	x	130	S	50	155,00 ZP TLP
M 10	x	140	S	50	215,00 ZP TLP
M 10	x	150	S	50	255,00 ZP TLP
M 12	x	45	S	100	57,00 ZP TLP
M 12	x	40	S	100	59,00 ZP TLP
M 12	x	55	S	100	62,00 ZP TLP
M 12	x	60	S	100	66,00 ZP TLP
M 12	x	65	S	50	71,00 ZP TLP
M 12	x	70	S	50	73,00 ZP TLP
M 12	x	75	S	50	78,00 ZP TLP
M 12	x	80	S	50	81,00 ZP TLP
M 12	x	85	S	50	101,00 ZP TLP
M 12	x	90	S	50	92,00 ZP TLP
M 12	x	100	S	50	112,00 ZP TLP
M 12	x	110	S	50	166,00 ZP TLP
M 12	x	120	S	50	181,00 ZP TLP
M 12	x	130	S	50	200,00 ZP TLP
M 12	x	140	S	50	270,00 ZP TLP
M 12	x	150	S	50	305,00 ZP TLP
M 12	x	160	S	25	390,00 ZP TLP
M 12	x	180	S	25	485,00 ZP TLP
M 16	x	55	S	50	111,00 ZP TLP
M 16	x	60	S	50	115,00 ZP TLP
M 16	x	65	S	25	124,00 ZP TLP
M 16	x	70	S	25	131,00 ZP TLP
M 16	x	75	S	25	137,00 ZP TLP
M 16	x	80	S	25	146,00 ZP TLP
M 16	x	90	S	25	163,00 ZP TLP
M 16	x	100	S	25	194,00 ZP TLP
M 16	x	110	S	25	290,00 ZP TLP
M 16	x	120	S	25	315,00 ZP TLP
M 16	x	130	S	25	340,00 ZP TLP
M 16	x	140	S	25	430,00 ZP TLP
M 16	x	150	S	25	480,00 ZP TLP
M 16	x	160	S	25	540,00 ZP TLP
M 16	x	180	S	25	650,00 ZP TLP
M 16	x	190	S	25	750,00 ZP TLP
M 16	x	200	S	25	760,00 ZP TLP
M 20	x	70	S	25	222,00 ZP TLP
M 20	x	75	S	25	233,00 ZP TLP
M 20	x	80	S	25	241,00 ZP TLP
M 20	x	100	S	25	315,00 ZP TLP
M 20	x	110	S	25	480,00 ZP TLP
M 20	x	120	S	25	510,00 ZP TLP
M 20	x	130	S	25	520,00 ZP TLP
M 20	x	140	S	25	660,00 ZP TLP
M 20	x	160	S	10	810,00 ZP TLP
M 20	x	240	S	1	2040,00 ZP TLP
M 24	x	75	S	25	380,00 ZP TLP
M 24	x	80	S	25	390,00 ZP TLP
M 24	x	90	S	10	460,00 ZP TLP
M 24	x	100	S	10	500,00 ZP TLP
M 24	x	110	S	10	740,00 ZP TLP
M 24	x	120	S	10	800,00 ZP TLP
M 24	x	130	S	10	820,00 ZP TLP
M 24	x	140	S	10	1060,00 ZP TLP
M 24	x	150	S	10	1150,00 ZP TLP
M 24	x	180	S	1	1560,00 ZP TLP
M 24	x	200	S	1	2130,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00931.428		401
931	**8.8 zinc plated 8 TLP* + SL****		



Hexagon head bolts

*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 – 0,18, salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

- DIN 931 ➔ replaced by ISO 4014
- ∅ M 10, 12, 14, 22 with ISO wrench sizes under ISO 4014 on stock

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	50	S	200	22,90 ZP TLP
M 6	x	30	S	500	10,10 ZP TLP
M 6	x	35	S	200	11,30 ZP TLP
M 6	x	40	S	200	12,80 ZP TLP
M 6	x	45	S	200	14,10 ZP TLP
M 6	x	50	S	200	16,60 ZP TLP
M 6	x	55	S	200	20,50 ZP TLP
M 6	x	60	S	200	22,00 ZP TLP
M 6	x	65	S	200	34,50 ZP TLP
M 6	x	70	S	200	35,00 ZP TLP
M 6	x	75	S	200	38,00 ZP TLP
M 6	x	80	S	200	46,00 ZP TLP
M 6	x	90	S	100	60,00 ZP TLP
M 6	x	95	S	100	79,00 ZP TLP
M 6	x	100	S	100	75,00 ZP TLP
M 6	x	110	S	100	77,00 ZP TLP
M 6	x	120	S	100	94,00 ZP TLP
M 6	x	130	S	100	107,00 ZP TLP
M 6	x	140	S	100	151,00 ZP TLP
M 6	x	175	S	100	222,00 ZP TLP
M 6	x	220	S	100	1020,00 ZP TLP
M 8	x	35	S	200	18,60 ZP TLP
M 8	x	40	S	200	22,50 ZP TLP
M 8	x	45	S	200	23,50 ZP TLP
M 8	x	50	S	200	25,00 ZP TLP
M 8	x	55	S	200	26,00 ZP TLP
M 8	x	60	S	200	28,00 ZP TLP
M 8	x	65	S	200	31,00 ZP TLP
M 8	x	70	S	200	32,00 ZP TLP
M 8	x	75	S	200	38,50 ZP TLP
M 8	x	80	S	200	40,50 ZP TLP
M 8	x	85	S	100	62,00 ZP TLP
M 8	x	90	S	100	64,00 ZP TLP
M 8	x	95	S	100	85,00 ZP TLP
M 8	x	100	S	100	85,00 ZP TLP
M 8	x	110	S	100	98,00 ZP TLP
M 8	x	115	S	100	176,00 ZP TLP
M 8	x	120	S	100	114,00 ZP TLP
M 8	x	130	S	100	124,00 ZP TLP
M 8	x	140	S	100	90,00 ZP TLP
M 8	x	150	S	100	176,00 ZP TLP
M 8	x	160	S	100	194,00 ZP TLP
M 8	x	180	S	100	255,00 ZP TLP
M 16	x	55	S	50	107,00 ZP TLP
M 16	x	60	S	50	110,00 ZP TLP
M 16	x	65	S	25	118,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	70	S	25	125,00 ZP TLP
M 16	x	75	S	25	131,00 ZP TLP
M 16	x	80	S	25	139,00 ZP TLP
M 16	x	90	S	25	156,00 ZP TLP
M 16	x	100	S	25	186,00 ZP TLP
M 16	x	110	S	25	275,00 ZP TLP
M 16	x	120	S	25	305,00 ZP TLP
M 16	x	130	S	25	325,00 ZP TLP
M 16	x	140	S	25	410,00 ZP TLP
M 16	x	150	S	25	460,00 ZP TLP
M 16	x	160	S	25	520,00 ZP TLP
M 14	x	130	S	25	610,00 ZP TLP
M 16	x	180	S	25	630,00 ZP TLP
M 16	x	190	S	25	720,00 ZP TLP
M 16	x	200	S	25	730,00 ZP TLP
M 16	x	220	S	25	780,00 ZP TLP
M 16	x	230	S	25	880,00 ZP TLP
M 16	x	260	S	25	1180,00 ZP TLP
M 16	x	280	S	25	1280,00 ZP TLP
M 16	x	300	S	25	1540,00 ZP TLP
M 16	x	320	S	10	1800,00 ZP TLP
M 16	x	360	S	10	2050,00 ZP TLP
M 16	x	480	S	10	2850,00 ZP TLP
M 18	x	70	S	25	425,00 ZP TLP
M 20	x	65	S	25	207,00 ZP TLP
M 20	x	70	S	25	212,00 ZP TLP
M 20	x	75	S	25	223,00 ZP TLP
M 20	x	80	S	25	231,00 ZP TLP
M 20	x	90	S	25	255,00 ZP TLP
M 20	x	100	S	25	305,00 ZP TLP
M 20	x	105	S	25	370,00 ZP TLP
M 20	x	110	S	25	460,00 ZP TLP
M 20	x	120	S	25	485,00 ZP TLP
M 20	x	130	S	25	495,00 ZP TLP
M 20	x	140	S	25	640,00 ZP TLP
M 20	x	150	S	25	660,00 ZP TLP
M 20	x	160	S	25	770,00 ZP TLP
M 20	x	170	S	25	860,00 ZP TLP
M 20	x	180	S	10	950,00 ZP TLP
M 20	x	190	S	10	1460,00 ZP TLP
M 20	x	200	S	1	1580,00 ZP TLP
M 20	x	210	S	1	1710,00 ZP TLP
M 20	x	220	S	1	1850,00 ZP TLP
M 20	x	230	S	10	1930,00 ZP TLP
M 20	x	240	S	1	1960,00 ZP TLP
M 20	x	260	S	10	2130,00 ZP TLP
M 20	x	280	S	10	2290,00 ZP TLP
M 20	x	300	S	10	2600,00 ZP TLP
M 24	x	75	S	25	365,00 ZP TLP
M 24	x	80	S	25	375,00 ZP TLP
M 24	x	90	S	10	440,00 ZP TLP
M 24	x	100	S	10	480,00 ZP TLP
M 24	x	110	S	10	710,00 ZP TLP
M 24	x	120	S	10	770,00 ZP TLP
M 24	x	130	S	10	790,00 ZP TLP
M 24	x	140	S	10	1020,00 ZP TLP
M 24	x	150	S	10	1100,00 ZP TLP
M 24	x	180	S	1	1500,00 ZP TLP
M 24	x	200	S	1	2050,00 ZP TLP
M 24	x	300	S	1	4250,00 ZP TLP
M 27	x	180	S	1	1720,00 ZP TLP
M 30	x	170	S	1	3400,00 ZP TLP

DIN 931

Dimensions	PU Pieces	€/100/Mat.
DIN	00931.353	1530
931	**8.8 flZn/TL480h**	



Hexagon head bolts

short dimensions partly thread nearly to head,
TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	10,90 flZn
M 6	x	35	S	200	12,30 flZn
M 6	x	40	S	200	13,80 flZn
M 6	x	45	S	200	15,40 flZn
M 6	x	50	S	200	18,00 flZn
M 6	x	55	S	200	22,30 flZn
M 6	x	60	S	200	23,80 flZn
M 6	x	65	S	200	37,50 flZn
M 6	x	70	S	200	37,50 flZn
M 6	x	75	S	200	41,00 flZn
M 6	x	80	S	200	50,00 flZn
M 8	x	35	S	200	21,20 flZn
M 8	x	40	S	200	22,70 flZn
M 8	x	45	S	200	25,50 flZn
M 8	x	50	S	200	27,50 flZn
M 8	x	55	S	200	28,50 flZn
M 8	x	60	S	200	30,00 flZn
M 8	x	65	S	200	33,50 flZn
M 8	x	70	S	200	34,50 flZn
M 8	x	75	S	200	42,00 flZn
M 8	x	80	S	200	44,00 flZn
M 8	x	90	S	100	69,00 flZn
M 8	x	100	S	100	92,00 flZn
M 16	x	55	S	50	116,00 flZn
M 16	x	60	S	50	133,00 flZn
M 16	x	65	S	25	136,00 flZn
M 16	x	70	S	25	139,00 flZn
M 16	x	75	S	25	143,00 flZn
M 16	x	80	S	25	152,00 flZn
M 16	x	90	S	25	170,00 flZn
M 16	x	100	S	25	203,00 flZn
M 16	x	110	S	25	300,00 flZn
M 16	x	120	S	25	330,00 flZn
M 16	x	130	S	25	350,00 flZn
M 16	x	140	S	25	445,00 flZn
M 20	x	65	S	25	224,00 flZn
M 20	x	70	S	25	230,00 flZn
M 20	x	75	S	25	241,00 flZn
M 20	x	80	S	25	255,00 flZn
M 20	x	90	S	25	310,00 flZn
M 20	x	100	S	25	330,00 flZn
M 20	x	110	S	25	500,00 flZn
M 20	x	120	S	25	530,00 flZn
M 20	x	130	S	25	540,00 flZn
M 20	x	140	S	25	690,00 flZn
M 20	x	150	S	25	760,00 flZn
M 20	x	160	S	10	840,00 flZn
M 20	x	170	S	10	1050,00 flZn
M 20	x	180	S	10	1060,00 flZn
M 24	x	75	S	25	395,00 flZn
M 24	x	80	S	25	530,00 flZn
M 24	x	90	S	10	560,00 flZn
M 24	x	100	S	10	770,00 flZn
M 24	x	110	S	10	800,00 flZn
M 24	x	120	S	10	830,00 flZn
M 24	x	130	S	10	850,00 flZn
M 24	x	140	S	10	1100,00 flZn
M 24	x	150	S	10	1200,00 flZn
M 24	x	160	S	10	1310,00 flZn
M 24	x	170	S	1	1610,00 flZn
M 24	x	180	S	1	1630,00 flZn

DIN	00931.820	403
931	**8.8 hot dip galvanized**	



Hexagon head bolts

short dimensions partly thread nearly to head,
thread undersize (6az + HDG = U)

Caution!
Note information about hot dip galvanizing.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	35	S	200	115,00 HDG
M 8	x	40	S	200	126,00 HDG
M 8	x	45	S	200	132,00 HDG
M 8	x	50	S	200	151,00 HDG
M 8	x	60	S	200	167,00 HDG
M 8	x	65	S	200	184,00 HDG
M 8	x	70	S	200	195,00 HDG
M 8	x	80	S	200	315,00 HDG
M 8	x	100	S	200	350,00 HDG
M 10	x	40	S	100	78,00 HDG
M 10	x	45	S	100	84,00 HDG
M 10	x	50	S	100	88,00 HDG
M 10	x	55	S	100	95,00 HDG
M 10	x	60	S	100	99,00 HDG
M 10	x	65	S	100	107,00 HDG
M 10	x	70	S	100	110,00 HDG
M 10	x	75	S	100	119,00 HDG
M 10	x	80	S	100	123,00 HDG
M 10	x	90	S	100	153,00 HDG
M 10	x	100	S	100	172,00 HDG
M 10	x	110	S	50	230,00 HDG
M 10	x	120	S	50	260,00 HDG
M 12	x	45	S	100	121,00 HDG
M 12	x	50	S	100	128,00 HDG
M 12	x	55	S	100	138,00 HDG
M 12	x	60	S	100	143,00 HDG
M 12	x	65	S	50	153,00 HDG
M 12	x	70	S	50	158,00 HDG
M 12	x	75	S	50	167,00 HDG
M 12	x	80	S	50	176,00 HDG
M 12	x	90	S	50	200,00 HDG
M 12	x	100	S	50	236,00 HDG
M 12	x	110	S	50	315,00 HDG
M 12	x	120	S	50	340,00 HDG
M 12	x	130	S	50	375,00 HDG
M 12	x	140	S	50	495,00 HDG
M 12	x	150	S	50	560,00 HDG
M 12	x	160	S	25	700,00 HDG
M 12	x	180	S	25	860,00 HDG
M 12	x	200	S	25	990,00 HDG
M 16	x	55	S	50	241,00 HDG
M 16	x	60	S	50	255,00 HDG
M 16	x	65	S	25	275,00 HDG
M 16	x	70	S	25	285,00 HDG
M 16	x	75	S	25	305,00 HDG
M 16	x	80	S	25	320,00 HDG
M 16	x	90	S	25	385,00 HDG
M 16	x	100	S	25	415,00 HDG
M 16	x	110	S	25	550,00 HDG
M 16	x	120	S	25	600,00 HDG
M 16	x	130	S	25	630,00 HDG
M 16	x	140	S	25	800,00 HDG
M 16	x	150	S	25	880,00 HDG
M 16	x	160	S	25	980,00 HDG
M 16	x	180	S	25	1180,00 HDG
M 16	x	190	S	25	1400,00 HDG
M 16	x	200	S	25	1360,00 HDG
M 16	x	220	S	1	1700,00 HDG
M 16	x	240	S	1	1910,00 HDG
M 16	x	260	S	1	2140,00 HDG
M 16	x	300	S	1	3150,00 HDG
M 20	x	65	S	25	470,00 HDG
M 20	x	70	S	25	480,00 HDG
M 20	x	75	S	25	510,00 HDG
M 20	x	80	S	25	530,00 HDG
M 20	x	85	S	25	1050,00 HDG
M 20	x	90	S	25	580,00 HDG
M 20	x	100	S	25	670,00 HDG
M 20	x	110	S	25	910,00 HDG
M 20	x	120	S	25	960,00 HDG
M 20	x	130	S	25	980,00 HDG
M 20	x	140	S	25	1230,00 HDG
M 20	x	150	S	25	1350,00 HDG
M 20	x	160	S	10	1490,00 HDG
M 20	x	170	S	10	1650,00 HDG
M 20	x	180	S	10	1850,00 HDG
M 20	x	200	S	10	2700,00 HDG
M 20	x	210	S	1	3150,00 HDG
M 20	x	220	S	1	3250,00 HDG
M 20	x	240	S	1	3600,00 HDG
M 20	x	260	S	1	4000,00 HDG
M 20	x	300	S	1	5100,00 HDG
M 24	x	75	S	25	810,00 HDG
M 24	x	80	S	25	840,00 HDG
M 24	x	85	S	10	2550,00 HDG
M 24	x	90	S	10	980,00 HDG
M 24	x	95	S	10	2550,00 HDG
M 24	x	100	S	10	1050,00 HDG
M 24	x	110	S	10	1400,00 HDG
M 24	x	120	S	10	1500,00 HDG
M 24	x	130	S	10	1550,00 HDG
M 24	x	140	S	10	1990,00 HDG
M 24	x	150	S	10	2140,00 HDG
M 24	x	160	S	10	2320,00 HDG
M 24	x	180	S	1	2850,00 HDG
M 24	x	200	S	1	3850,00 HDG
M 24	x	220	S	1	4750,00 HDG
M 24	x	240	S	1	5100,00 HDG
M 24	x	260	S	1	5300,00 HDG
M 24	x	300	S	1	6700,00 HDG
M 27	x	90	S	10	2080,00 HDG
M 27	x	100	S	10	2470,00 HDG
M 27	x	110	S	1	2900,00 HDG
M 27	x	120	S	1	3000,00 HDG
M 27	x	130	S	1	3000,00 HDG
M 27	x	140	S	1	3100,00 HDG

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	150	S	1	3150,00 HDG
M 27	x	160	S	1	3200,00 HDG
M 27	x	180	S	1	3600,00 HDG
M 27	x	200	S	1	4600,00 HDG
M 30	x	90	S	1	4000,00 HDG
M 30	x	100	S	1	4000,00 HDG
M 30	x	110	S	1	4650,00 HDG
M 30	x	120	S	1	4750,00 HDG
M 30	x	130	S	1	5200,00 HDG
M 30	x	140	S	1	5300,00 HDG
M 30	x	150	S	1	5500,00 HDG
M 30	x	160	S	1	5500,00 HDG
M 30	x	180	S	1	6100,00 HDG
M 30	x	200	S	1	6600,00 HDG
M 30	x	220	S	1	7500,00 HDG
M 30	x	240	S	1	8700,00 HDG
M 30	x	260	S	1	9800,00 HDG
M 30	x	280	S	1	10900,00 HDG
M 30	x	300	S	1	12300,00 HDG
M 33	x	120	S	1	5600,00 HDG
M 33	x	130	S	1	6000,00 HDG
M 33	x	140	S	1	6100,00 HDG
M 33	x	150	S	1	6300,00 HDG
M 33	x	180	S	1	7100,00 HDG
M 33	x	200	S	1	7500,00 HDG
M 36	x	120	S	1	6200,00 HDG
M 36	x	130	S	1	6600,00 HDG
M 36	x	140	S	1	6900,00 HDG
M 36	x	150	S	1	7200,00 HDG
M 36	x	160	S	1	7900,00 HDG
M 36	x	180	S	1	8400,00 HDG
M 36	x	190	S	1	8800,00 HDG
M 36	x	200	S	1	8900,00 HDG
M 36	x	220	S	1	9200,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions	PU	Pieces	€/100/Mat.
DIN	00931.100		405

931

10.9



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25	S	500	24,60
M 5	x	30	S	500	26,00
M 5	x	35	S	200	27,50
M 5	x	40	S	200	29,50
M 5	x	45	S	200	31,50
M 5	x	50	S	200	33,00
M 5	x	55	S	200	35,00
M 5	x	60	S	200	38,00
M 5	x	65	S	200	51,00
M 5	x	70	S	200	52,00
M 5	x	75	S	200	58,00
M 5	x	80	S	200	63,00
M 6	x	30	S	500	14,90
M 6	x	35	S	200	15,70
M 6	x	40	S	200	16,70
M 6	x	45	S	200	19,70
M 6	x	50	S	200	22,00
M 6	x	55	S	200	24,20
M 6	x	60	S	200	26,50
M 6	x	65	S	200	32,00
M 6	x	70	S	200	32,00
M 6	x	80	S	200	70,00
M 6	x	90	S	200	120,00
M 6	x	100	S	100	129,00
M 6	x	110	S	100	138,00
M 6	x	120	S	100	152,00
M 6	x	130	S	100	189,00
M 6	x	140	S	100	209,00
M 8	x	35	S	200	27,00
M 8	x	40	S	200	29,50
M 8	x	45	S	200	33,00
M 8	x	50	S	200	33,50
M 8	x	55	S	200	33,50
M 8	x	60	S	200	35,00
M 8	x	65	S	200	39,50
M 8	x	70	S	200	42,50
M 8	x	75	S	200	54,00
M 8	x	80	S	200	54,00
M 8	x	90	S	100	59,00
M 8	x	100	S	100	68,00
M 8	x	110	S	100	83,00
M 8	x	120	S	100	92,00
M 8	x	130	S	100	148,00
M 8	x	140	S	100	176,00
M 8	x	150	S	100	199,00
M 8	x	160	S	100	224,00
M 8	x	170	S	100	275,00
M 8	x	180	S	100	246,00
M 8	x	190	S	100	320,00
M 8	x	200	S	100	295,00
M 8	x	220	S	100	395,00

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	240	S	100	465,00
M 10	x	35	S	100	42,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	45,00
M 10	x	50	S	100	48,50
M 10	x	55	S	100	50,00
M 10	x	60	S	100	53,00
M 10	x	65	S	100	53,00
M 10	x	70	S	100	58,00
M 10	x	75	S	100	64,00
M 10	x	80	S	100	64,00
M 10	x	90	S	100	78,00
M 10	x	100	S	100	88,00
M 10	x	110	S	50	110,00
M 10	x	120	S	50	123,00
M 10	x	130	S	50	161,00
M 10	x	140	S	50	174,00
M 10	x	150	S	50	197,00
M 10	x	160	S	50	470,00
M 10	x	170	S	50	500,00
M 10	x	180	S	50	530,00
M 10	x	190	S	50	550,00
M 10	x	200	S	50	560,00
M 10	x	210	S	25	750,00
M 10	x	220	S	50	600,00
M 10	x	240	S	50	650,00
M 10	x	260	S	50	710,00
M 10	x	280	S	50	750,00
M 10	x	300	S	50	790,00
M 12	x	40	S	100	63,00
M 12	x	45	S	100	63,00
M 12	x	50	S	100	71,00
M 12	x	55	S	100	71,00
M 12	x	60	S	100	75,00
M 12	x	65	S	50	78,00
M 12	x	70	S	50	86,00
M 12	x	75	S	50	95,00
M 12	x	80	S	50	95,00
M 12	x	85	S	50	108,00
M 12	x	90	S	50	108,00
M 12	x	95	S	50	119,00
M 12	x	100	S	50	119,00
M 12	x	110	S	50	142,00
M 12	x	120	S	50	158,00
M 12	x	130	S	50	187,00
M 12	x	140	S	50	213,00
M 12	x	150	S	50	236,00
M 12	x	160	S	25	470,00
M 12	x	170	S	25	500,00
M 12	x	180	S	25	530,00
M 12	x	190	S	25	550,00
M 12	x	200	S	25	560,00
M 12	x	210	S	25	750,00
M 12	x	220	S	25	600,00
M 12	x	240	S	25	650,00
M 12	x	260	S	25	710,00
M 12	x	280	S	25	750,00
M 12	x	300	S	25	790,00
M 12	x	320	S	25	940,00
M 14	x	45	S	100	108,00
M 14	x	50	S	50	108,00
M 14	x	55	S	50	108,00
M 14	x	60	S	50	112,00
M 14	x	65	S	50	130,00
M 14	x	70	S	50	130,00
M 14	x	75	S	50	143,00
M 14	x	80	S	50	143,00
M 14	x	90	S	50	161,00
M 14	x	100	S	50	170,00
M 14	x	110	S	50	199,00
M 14	x	120	S	50	226,00
M 14	x	130	S	50	280,00
M 14	x	140	S	25	300,00
M 14	x	150	S	25	325,00
M 14	x	160	S	25	630,00

Dimensions	PU	Pieces	€/100/Mat.
M 14 x 170	S	25	690,00
M 14 x 180	S	25	720,00
M 14 x 190	S	25	730,00
M 14 x 200	S	25	760,00
M 14 x 220	S	25	810,00
M 14 x 240	S	25	870,00
M 16 x 55	S	50	143,00
M 16 x 60	S	50	151,00
M 16 x 65	S	25	166,00
M 16 x 70	S	25	174,00
M 16 x 75	S	25	187,00
M 16 x 80	S	25	189,00
M 16 x 85	S	25	195,00
M 16 x 90	S	25	195,00
M 16 x 95	S	25	209,00
M 16 x 100	S	25	209,00
M 16 x 110	S	25	255,00
M 16 x 120	S	25	255,00
M 16 x 130	S	25	285,00
M 16 x 140	S	25	305,00
M 16 x 150	S	25	540,00
M 16 x 160	S	25	630,00
M 16 x 170	S	25	690,00
M 16 x 180	S	25	720,00
M 16 x 190	S	25	730,00
M 16 x 200	S	25	760,00
M 16 x 210	S	25	960,00
M 16 x 220	S	25	810,00
M 16 x 230	S	25	1020,00
M 16 x 240	S	25	870,00
M 16 x 250	S	25	1100,00
M 16 x 260	S	25	920,00
M 16 x 270	S	25	1240,00
M 16 x 280	S	25	1160,00
M 16 x 290	S	1	1430,00
M 16 x 300	S	1	1590,00
M 16 x 310	S	1	1700,00
M 16 x 320	S	1	1680,00
M 16 x 330	S	1	1780,00
M 16 x 340	S	1	1950,00
M 16 x 350	S	1	2070,00
M 16 x 360	S	1	1930,00
M 16 x 380	S	1	2470,00
M 16 x 400	S	1	2750,00
M 16 x 420	S	1	3450,00
M 18 x 65	S	25	340,00
M 18 x 70	S	25	350,00
M 18 x 75	S	25	370,00
M 18 x 80	S	25	375,00
M 18 x 90	S	25	420,00
M 18 x 100	S	25	440,00
M 18 x 110	S	25	455,00
M 18 x 120	S	25	470,00
M 18 x 130	S	25	560,00
M 18 x 140	S	25	610,00
M 18 x 150	S	25	680,00
M 18 x 160	S	25	960,00
M 18 x 170	S	25	980,00
M 18 x 180	S	25	1030,00
M 18 x 190	S	1	1090,00
M 18 x 200	S	1	1110,00
M 18 x 220	S	1	1160,00
M 18 x 240	S	1	1760,00
M 18 x 260	S	1	1830,00
M 18 x 280	S	1	1950,00
M 18 x 300	S	1	2120,00
M 18 x 320	S	1	2420,00
M 20 x 65	S	25	340,00
M 20 x 70	S	25	350,00
M 20 x 75	S	25	370,00
M 20 x 80	S	25	375,00
M 20 x 85	S	25	420,00
M 20 x 90	S	25	420,00
M 20 x 95	S	25	440,00
M 20 x 100	S	25	440,00

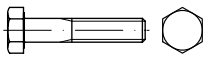
Dimensions	PU	Pieces	€/100/Mat.
M 20 x 110	S	25	455,00
M 20 x 120	S	25	470,00
M 20 x 130	S	25	560,00
M 20 x 140	S	25	610,00
M 20 x 150	S	25	680,00
M 20 x 160	S	10	960,00
M 20 x 170	S	10	980,00
M 20 x 180	S	10	1030,00
M 20 x 190	S	1	1090,00
M 20 x 200	S	1	1110,00
M 20 x 210	S	1	1350,00
M 20 x 220	S	1	1160,00
M 20 x 230	S	1	1450,00
M 20 x 240	S	1	1240,00
M 20 x 250	S	1	1580,00
M 20 x 260	S	1	1330,00
M 20 x 270	S	1	1680,00
M 20 x 280	S	1	1400,00
M 20 x 290	S	1	1950,00
M 20 x 300	S	1	1500,00
M 20 x 310	S	1	2250,00
M 20 x 320	S	1	1730,00
M 20 x 330	S	1	2380,00
M 20 x 340	S	1	1880,00
M 20 x 350	S	1	2700,00
M 20 x 360	S	1	2050,00
M 20 x 370	S	1	3350,00
M 20 x 380	S	1	3350,00
M 20 x 390	S	1	3750,00
M 20 x 400	S	1	3750,00
M 22 x 70	S	25	1170,00
M 22 x 75	S	25	1170,00
M 22 x 80	S	25	850,00
M 22 x 90	S	25	970,00
M 22 x 100	S	10	1030,00
M 22 x 110	S	10	1110,00
M 22 x 120	S	10	1140,00
M 22 x 130	S	10	1190,00
M 22 x 140	S	10	1240,00
M 22 x 150	S	10	1290,00
M 22 x 160	S	10	1340,00
M 22 x 170	S	1	1380,00
M 22 x 180	S	1	1420,00
M 22 x 200	S	1	1500,00
M 22 x 220	S	1	1590,00
M 22 x 230	S	1	1880,00
M 22 x 240	S	1	1680,00
M 22 x 260	S	1	1760,00
M 22 x 280	S	1	1860,00
M 22 x 300	S	1	3000,00
M 22 x 320	S	1	3400,00
M 24 x 75	S	25	850,00
M 24 x 80	S	25	850,00
M 24 x 85	S	10	970,00
M 24 x 90	S	10	970,00
M 24 x 100	S	10	1080,00
M 24 x 105	S	10	1080,00
M 24 x 110	S	10	1110,00
M 24 x 120	S	10	1140,00
M 24 x 130	S	10	1190,00
M 24 x 140	S	10	1240,00
M 24 x 150	S	10	1290,00
M 24 x 160	S	10	1340,00
M 24 x 170	S	1	1380,00
M 24 x 180	S	1	1420,00
M 24 x 190	S	1	1460,00
M 24 x 200	S	1	1500,00
M 24 x 210	S	1	1770,00
M 24 x 220	S	1	1590,00
M 24 x 230	S	1	1880,00
M 24 x 240	S	1	1680,00
M 24 x 250	S	1	2030,00
M 24 x 260	S	1	1760,00
M 24 x 270	S	1	2140,00
M 24 x 280	S	1	1860,00

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 290	S	1	2380,00
M 24 x 300	S	1	1990,00
M 24 x 310	S	1	2850,00
M 24 x 320	S	1	2320,00
M 24 x 330	S	1	3000,00
M 24 x 340	S	1	2600,00
M 24 x 350	S	1	3250,00
M 24 x 360	S	1	2800,00
M 24 x 370	S	1	4350,00
M 24 x 380	S	1	4350,00
M 24 x 390	S	1	4650,00
M 24 x 400	S	1	4650,00
M 27 x 80	S	10	1200,00
M 27 x 90	S	10	1230,00
M 27 x 100	S	10	1290,00
M 27 x 110	S	10	1340,00
M 27 x 120	S	10	1400,00
M 27 x 130	S	10	1460,00
M 27 x 140	S	1	1530,00
M 27 x 150	S	1	1600,00
M 27 x 160	S	1	1690,00
M 27 x 170	S	1	1780,00
M 27 x 180	S	1	1860,00
M 27 x 190	S	1	1950,00
M 27 x 200	S	1	2040,00
M 27 x 210	S	1	2700,00
M 27 x 220	S	1	2190,00
M 27 x 230	S	1	3000,00
M 27 x 240	S	1	2380,00
M 27 x 250	S	1	3200,00
M 27 x 260	S	1	2550,00
M 27 x 270	S	1	3400,00
M 27 x 280	S	1	2750,00
M 27 x 290	S	1	3950,00
M 27 x 300	S	1	2950,00
M 27 x 320	S	1	3250,00
M 30 x 80	S	1	1420,00
M 30 x 90	S	1	1470,00
M 30 x 100	S	1	1500,00
M 30 x 110	S	1	1540,00
M 30 x 120	S	1	1660,00
M 30 x 130	S	1	1740,00
M 30 x 140	S	1	1850,00
M 30 x 150	S	1	1910,00
M 30 x 160	S	1	1990,00
M 30 x 170	S	1	2090,00
M 30 x 180	S	1	2190,00
M 30 x 190	S	1	2290,00
M 30 x 200	S	1	2370,00
M 30 x 210	S	1	2700,00
M 30 x 220	S	1	2450,00
M 30 x 230	S	1	3000,00
M 30 x 240	S	1	2700,00
M 30 x 250	S	1	3200,00
M 30 x 260	S	1	2900,00
M 30 x 270	S	1	3400,00
M 30 x 280	S	1	3100,00
M 30 x 290	S	1	3950,00
M 30 x 300	S	1	3300,00
M 30 x 320	S	1	3800,00
M 30 x 330	S	1	4850,00
M 30 x 340	S	1	4050,00
M 30 x 350	S	1	5100,00
M 30 x 360	S	1	4400,00
M 30 x 380	S	1	4650,00
M 30 x 400	S	1	4900,00
M 33 x 100	S	1	1800,00
M 33 x 110	S	1	1910,00
M 33 x 120	S	1	2050,00
M 33 x 130	S	1	2160,00
M 33 x 140	S	1	2290,00
M 33 x 150	S	1	2420,00
M 33 x 160	S	1	2550,00
M 33 x 170	S	1	2700,00
M 33 x 180	S	1	2800,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 33	x	190	S	1	2950,00
M 33	x	200	S	1	3050,00
M 33	x	220	S	1	3200,00
M 33	x	240	S	1	3400,00
M 33	x	250	S	1	4750,00
M 33	x	260	S	1	3650,00
M 33	x	280	S	1	3900,00
M 33	x	300	S	1	4150,00
M 33	x	320	S	1	4750,00
M 36	x	110	S	1	2280,00
M 36	x	120	S	1	2430,00
M 36	x	130	S	1	2600,00
M 36	x	140	S	1	2750,00
M 36	x	150	S	1	2900,00
M 36	x	160	S	1	3000,00
M 36	x	170	S	1	3150,00
M 36	x	180	S	1	3300,00
M 36	x	190	S	1	3450,00
M 36	x	200	S	1	3600,00
M 36	x	210	S	1	4100,00
M 36	x	220	S	1	3750,00
M 36	x	230	S	1	4400,00
M 36	x	240	S	1	4000,00
M 36	x	250	S	1	4750,00
M 36	x	260	S	1	4350,00
M 36	x	270	S	1	5100,00
M 36	x	280	S	1	4600,00
M 36	x	290	S	1	5900,00
M 36	x	300	S	1	4900,00
M 36	x	320	S	1	5600,00
M 36	x	340	S	1	6000,00
M 36	x	360	S	1	6300,00
M 36	x	380	S	1	6700,00
M 36	x	400	S	1	7300,00
M 39	x	110	S	1	3250,00
M 39	x	120	S	1	3250,00
M 39	x	130	S	1	3450,00
M 39	x	140	S	1	3600,00
M 39	x	150	S	1	3800,00
M 39	x	160	S	1	3900,00
M 39	x	170	S	1	4050,00
M 39	x	180	S	1	4250,00
M 39	x	200	S	1	4600,00
M 39	x	220	S	1	4950,00
M 39	x	240	S	1	5300,00
M 39	x	260	S	1	5700,00
M 39	x	280	S	1	6000,00
M 39	x	300	S	1	6400,00
M 39	x	320	S	1	7100,00
M 42	x	120	S	1	3850,00
M 42	x	130	S	1	4050,00
M 42	x	140	S	1	4250,00
M 42	x	150	S	1	4450,00
M 42	x	160	S	1	4550,00
M 42	x	170	S	1	4750,00
M 42	x	180	S	1	4950,00
M 42	x	190	S	1	5200,00
M 42	x	200	S	1	5400,00
M 42	x	220	S	1	5800,00
M 42	x	240	S	1	6200,00
M 42	x	260	S	1	6600,00
M 42	x	280	S	1	7000,00
M 42	x	300	S	1	7500,00
M 42	x	320	S	1	8300,00
M 45	x	130	S	1	9700,00
M 45	x	140	S	1	10100,00
M 45	x	150	S	1	10500,00
M 45	x	160	S	1	11200,00
M 45	x	180	S	1	12000,00
M 45	x	200	S	1	13100,00
M 45	x	220	S	1	14000,00
M 45	x	240	S	1	14900,00
M 45	x	260	S	1	15900,00
M 45	x	280	S	1	16800,00
M 45	x	300	S	1	17700,00
M 45	x	320	S	1	21400,00
M 48	x	140	S	1	12200,00
M 48	x	150	S	1	13100,00
M 48	x	160	S	1	13700,00
M 48	x	180	S	1	14000,00
M 48	x	200	S	1	15700,00
M 48	x	220	S	1	16400,00
M 48	x	240	S	1	17400,00
M 48	x	260	S	1	18700,00
M 48	x	280	S	1	20500,00
M 48	x	300	S	1	23200,00
M 48	x	320	S	1	26100,00

DIN	00931.110	405
931	**10.9 zinc plated**	



Hexagon head bolts

short dimensions partly thread nearly to head, baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	20,00 ZP
M 6	x	35	S	200	20,80 ZP
M 6	x	40	S	200	21,80 ZP
M 6	x	45	S	200	25,50 ZP
M 6	x	50	S	200	28,00 ZP
M 6	x	55	S	200	31,00 ZP
M 6	x	60	S	200	33,50 ZP
M 6	x	65	S	200	39,50 ZP
M 6	x	70	S	200	41,50 ZP
M 6	x	80	S	200	79,00 ZP
M 6	x	90	S	200	134,00 ZP
M 6	x	100	S	100	140,00 ZP
M 8	x	35	S	200	36,50 ZP
M 8	x	40	S	200	39,50 ZP
M 8	x	45	S	200	44,00 ZP
M 8	x	50	S	200	46,00 ZP
M 8	x	55	S	200	46,50 ZP
M 8	x	60	S	200	48,00 ZP
M 8	x	65	S	200	54,00 ZP
M 8	x	70	S	200	58,00 ZP
M 8	x	75	S	200	69,00 ZP
M 8	x	80	S	200	70,00 ZP
M 8	x	100	S	100	89,00 ZP
M 8	x	110	S	100	106,00 ZP
M 8	x	120	S	100	117,00 ZP
M 8	x	130	S	100	176,00 ZP
M 8	x	140	S	100	206,00 ZP
M 8	x	150	S	100	230,00 ZP
M 10	x	40	S	100	60,00 ZP
M 10	x	45	S	100	64,00 ZP
M 10	x	50	S	100	68,00 ZP
M 10	x	55	S	100	72,00 ZP
M 10	x	60	S	100	74,00 ZP
M 10	x	65	S	100	77,00 ZP
M 10	x	70	S	100	83,00 ZP
M 10	x	75	S	100	91,00 ZP
M 10	x	80	S	100	92,00 ZP
M 10	x	90	S	100	109,00 ZP
M 10	x	100	S	100	123,00 ZP
M 10	x	110	S	50	147,00 ZP
M 10	x	120	S	50	163,00 ZP
M 10	x	130	S	50	205,00 ZP
M 10	x	140	S	100	224,00 ZP
M 10	x	150	S	50	249,00 ZP
M 10	x	160	S	50	530,00 ZP
M 10	x	170	S	50	560,00 ZP
M 10	x	180	S	50	590,00 ZP
M 12	x	45	S	100	88,00 ZP
M 12	x	50	S	100	93,00 ZP
M 12	x	55	S	100	101,00 ZP
M 12	x	60	S	100	101,00 ZP
M 12	x	65	S	50	104,00 ZP
M 12	x	70	S	50	113,00 ZP
M 12	x	75	S	50	126,00 ZP
M 12	x	80	S	50	129,00 ZP
M 12	x	85	S	50	143,00 ZP
M 12	x	90	S	50	147,00 ZP
M 12	x	95	S	50	165,00 ZP
M 12	x	100	S	50	161,00 ZP
M 12	x	110	S	50	186,00 ZP
M 12	x	120	S	50	205,00 ZP
M 12	x	130	S	50	240,00 ZP
M 12	x	140	S	50	280,00 ZP
M 12	x	150	S	50	305,00 ZP
M 12	x	160	S	25	550,00 ZP
M 12	x	170	S	25	590,00 ZP
M 12	x	180	S	25	620,00 ZP
M 12	x	190	S	25	630,00 ZP
M 12	x	200	S	25	650,00 ZP
M 14	x	45	S	100	140,00 ZP
M 14	x	50	S	50	144,00 ZP
M 14	x	55	S	50	148,00 ZP
M 14	x	60	S	50	154,00 ZP
M 14	x	70	S	50	177,00 ZP
M 14	x	75	S	50	197,00 ZP
M 14	x	80	S	50	195,00 ZP
M 14	x	90	S	50	217,00 ZP
M 14	x	100	S	50	230,00 ZP
M 14	x	110	S	50	270,00 ZP
M 14	x	120	S	50	305,00 ZP
M 14	x	130	S	50	365,00 ZP
M 14	x	140	S	25	390,00 ZP
M 14	x	150	S	25	420,00 ZP
M 16	x	55	S	50	197,00 ZP
M 16	x	60	S	50	200,00 ZP
M 16	x	65	S	25	227,00 ZP
M 16	x	70	S	25	222,00 ZP
M 16	x	75	S	25	246,00 ZP
M 16	x	80	S	25	260,00 ZP
M 16	x	85	S	25	270,00 ZP
M 16	x	90	S	25	270,00 ZP

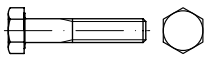
Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	100	S	25	290,00 ZP
M 16	x	110	S	25	345,00 ZP
M 16	x	120	S	25	350,00 ZP
M 16	x	130	S	25	410,00 ZP
M 16	x	140	S	25	420,00 ZP
M 16	x	150	S	25	660,00 ZP
M 16	x	160	S	25	760,00 ZP
M 16	x	170	S	25	830,00 ZP
M 16	x	180	S	25	860,00 ZP
M 16	x	190	S	25	890,00 ZP
M 16	x	200	S	25	930,00 ZP
M 16	x	210	S	25	1140,00 ZP
M 16	x	230	S	25	1210,00 ZP
M 16	x	240	S	25	1060,00 ZP
M 16	x	250	S	25	1320,00 ZP
M 16	x	260	S	25	1130,00 ZP
M 16	x	270	S	25	1460,00 ZP
M 16	x	280	S	25	1400,00 ZP
M 18	x	65	S	25	420,00 ZP
M 18	x	70	S	25	445,00 ZP
M 18	x	80	S	25	470,00 ZP
M 18	x	90	S	25	530,00 ZP
M 18	x	100	S	25	550,00 ZP
M 18	x	110	S	25	590,00 ZP
M 18	x	120	S	25	620,00 ZP
M 18	x	130	S	25	690,00 ZP
M 18	x	140	S	25	760,00 ZP
M 18	x	160	S	25	1130,00 ZP
M 20	x	65	S	25	445,00 ZP
M 20	x	70	S	25	440,00 ZP
M 20	x	75	S	25	460,00 ZP
M 20	x	80	S	25	475,00 ZP
M 20	x	85	S	25	550,00 ZP
M 20	x	90	S	25	530,00 ZP
M 20	x	100	S	25	560,00 ZP
M 20	x	110	S	25	610,00 ZP
M 20	x	115	S	25	630,00 ZP
M 20	x	120	S	25	640,00 ZP
M 20	x	130	S	25	740,00 ZP
M 20	x	140	S	25	790,00 ZP
M 20	x	150	S	25	870,00 ZP
M 20	x	160	S	10	1270,00 ZP
M 20	x	170	S	10	1210,00 ZP
M 20	x	180	S	10	1360,00 ZP
M 20	x	200	S	10	1370,00 ZP
M 20	x	220	S	1	1440,00 ZP
M 20	x	230	S	1	1750,00 ZP
M 20	x	240	S	1	1540,00 ZP
M 20	x	250	S	1	1890,00 ZP
M 20	x	260	S	1	1670,00 ZP
M 20	x	270	S	1	2030,00 ZP
M 20	x	280	S	1	1760,00 ZP
M 20	x	290	S	1	2330,00 ZP
M 20	x	300	S	1	1880,00 ZP
M 20	x	310	S	1	2650,00 ZP
M 20	x	320	S	1	2130,00 ZP
M 20	x	340	S	1	2180,00 ZP
M 24	x	75	S	25	1010,00 ZP
M 24	x	80	S	25	1030,00 ZP
M 24	x	90	S	10	1170,00 ZP
M 24	x	100	S	10	1240,00 ZP
M 24	x	110	S	10	1350,00 ZP
M 24	x	120	S	10	1390,00 ZP
M 24	x	130	S	10	1450,00 ZP
M 24	x	140	S	10	1500,00 ZP
M 24	x	145	S	10	1590,00 ZP
M 24	x	150	S	10	1590,00 ZP
M 24	x	160	S	10	1660,00 ZP
M 24	x	170	S	1	1720,00 ZP
M 24	x	180	S	1	1760,00 ZP
M 24	x	190	S	1	1810,00 ZP
M 24	x	200	S	1	1880,00 ZP
M 24	x	220	S	1	2130,00 ZP
M 24	x	240	S	1	2260,00 ZP
M 24	x	250	S	1	2370,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	260	S	1	2380,00 ZP
M 24	x	270	S	1	2470,00 ZP
M 24	x	280	S	1	2550,00 ZP
M 24	x	290	S	1	2600,00 ZP
M 24	x	300	S	1	2550,00 ZP
M 27	x	80	S	10	1440,00 ZP
M 27	x	90	S	10	1490,00 ZP
M 27	x	100	S	10	1580,00 ZP
M 27	x	110	S	10	1650,00 ZP
M 27	x	120	S	10	1740,00 ZP
M 27	x	130	S	10	1790,00 ZP
M 27	x	140	S	1	1890,00 ZP
M 30	x	80	S	1	1730,00 ZP
M 30	x	90	S	1	1810,00 ZP
M 30	x	100	S	1	1860,00 ZP
M 30	x	110	S	1	1930,00 ZP
M 30	x	120	S	1	2070,00 ZP
M 30	x	130	S	1	2180,00 ZP
M 30	x	140	S	1	2300,00 ZP
M 30	x	150	S	1	2400,00 ZP
M 30	x	160	S	1	2500,00 ZP
M 30	x	170	S	1	2650,00 ZP
M 30	x	180	S	1	2800,00 ZP
M 30	x	190	S	1	2900,00 ZP
M 30	x	200	S	1	3000,00 ZP
M 30	x	210	S	1	3350,00 ZP
M 30	x	220	S	1	3150,00 ZP
M 30	x	230	S	1	3700,00 ZP
M 30	x	240	S	1	3450,00 ZP
M 30	x	250	S	1	3950,00 ZP
M 30	x	260	S	1	3650,00 ZP
M 30	x	270	S	1	4250,00 ZP
M 30	x	280	S	1	3950,00 ZP
M 30	x	300	S	1	4200,00 ZP

DIN	00931.354	1540
931	**10.9**	
	flZn/TL480h	



Hexagon head bolts

short dimensions partly thread nearly to head,
TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	23,00 flZn
M 6	x	35	S	200	23,90 flZn
M 6	x	40	S	200	25,50 flZn
M 6	x	45	S	200	29,50 flZn
M 6	x	50	S	200	32,50 flZn
M 6	x	55	S	200	36,00 flZn
M 6	x	60	S	200	38,50 flZn
M 6	x	65	S	200	45,50 flZn
M 6	x	70	S	200	47,50 flZn
M 6	x	80	S	200	91,00 flZn
M 8	x	35	S	200	42,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	40	S	200	45,50 flZn
M 8	x	45	S	200	51,00 flZn
M 8	x	50	S	200	53,00 flZn
M 8	x	55	S	200	54,00 flZn
M 8	x	60	S	200	56,00 flZn
M 8	x	65	S	200	62,00 flZn
M 8	x	70	S	200	67,00 flZn
M 8	x	75	S	200	80,00 flZn
M 8	x	80	S	200	81,00 flZn
M 8	x	100	S	100	102,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	230,00 flZn
M 16	x	65	S	25	265,00 flZn
M 16	x	70	S	25	260,00 flZn
M 16	x	75	S	25	285,00 flZn
M 16	x	80	S	25	295,00 flZn
M 16	x	90	S	25	315,00 flZn
M 16	x	100	S	25	335,00 flZn
M 16	x	110	S	25	395,00 flZn
M 16	x	120	S	25	405,00 flZn
M 16	x	130	S	25	470,00 flZn
M 16	x	140	S	25	480,00 flZn
M 20	x	65	S	25	510,00 flZn
M 20	x	70	S	25	510,00 flZn
M 20	x	75	S	25	530,00 flZn
M 20	x	80	S	25	550,00 flZn
M 20	x	90	S	25	610,00 flZn
M 20	x	100	S	25	640,00 flZn
M 20	x	110	S	25	700,00 flZn
M 20	x	120	S	25	740,00 flZn
M 20	x	130	S	25	850,00 flZn
M 20	x	140	S	25	910,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1460,00 flZn
M 20	x	170	S	10	1390,00 flZn
M 20	x	180	S	10	1560,00 flZn
M 24	x	75	S	25	1170,00 flZn
M 24	x	80	S	25	1180,00 flZn
M 24	x	90	S	10	1340,00 flZn
M 24	x	100	S	10	1420,00 flZn
M 24	x	110	S	10	1550,00 flZn
M 24	x	120	S	10	1590,00 flZn
M 24	x	130	S	10	1670,00 flZn
M 24	x	140	S	10	1730,00 flZn
M 24	x	150	S	10	1820,00 flZn
M 24	x	160	S	10	1900,00 flZn
M 24	x	170	S	1	1980,00 flZn
M 24	x	180	S	1	2030,00 flZn
M 24	x	200	S	1	2130,00 flZn
M 24	x	230	S	1	2180,00 flZn

Dimensions	PU Pieces	€/100/Mat.
DIN	00931.132	1540
931	**10.9 flZnL480h**	



Hexagon head bolts

short dimensions partly thread nearly to head,
flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

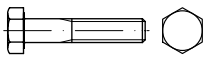
Stainless ➔ pg. 486
Brass ➔ pg. 625

- DIN 931 ➔ replaced by ISO 4014
- ∅ M 10, 12, 14, 22 with ISO wrench sizes under ISO 4014 on stock

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	23,00 flZn
M 6	x	35	S	200	23,90 flZn
M 6	x	40	S	200	25,50 flZn
M 6	x	45	S	200	29,50 flZn
M 6	x	50	S	200	32,50 flZn
M 6	x	55	S	200	36,00 flZn
M 6	x	60	S	200	38,50 flZn
M 6	x	65	S	200	45,50 flZn
M 6	x	70	S	200	47,50 flZn
M 6	x	80	S	200	91,00 flZn
M 8	x	35	S	200	42,00 flZn
M 8	x	40	S	200	45,50 flZn
M 8	x	45	S	200	51,00 flZn
M 8	x	50	S	200	53,00 flZn
M 8	x	55	S	200	54,00 flZn
M 8	x	60	S	200	56,00 flZn
M 8	x	65	S	200	62,00 flZn
M 8	x	70	S	200	67,00 flZn
M 8	x	75	S	200	80,00 flZn
M 8	x	80	S	200	81,00 flZn
M 8	x	90	S	100	90,00 flZn
M 8	x	100	S	100	102,00 flZn
M 8	x	150	S	100	365,00 flZn
M 8	x	240	S	100	530,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	230,00 flZn
M 16	x	65	S	25	265,00 flZn
M 16	x	70	S	25	260,00 flZn
M 16	x	75	S	25	285,00 flZn
M 16	x	80	S	25	295,00 flZn
M 16	x	90	S	25	315,00 flZn
M 16	x	95	S	25	320,00 flZn
M 16	x	100	S	25	335,00 flZn
M 16	x	110	S	25	395,00 flZn
M 16	x	120	S	25	405,00 flZn
M 16	x	125	S	25	435,00 flZn
M 16	x	130	S	25	470,00 flZn
M 16	x	140	S	25	480,00 flZn
M 16	x	150	S	25	510,00 flZn
M 16	x	190	S	25	550,00 flZn
M 16	x	200	S	25	570,00 flZn
M 18	x	90	S	25	335,00 flZn
M 18	x	100	S	25	355,00 flZn
M 20	x	65	S	25	510,00 flZn
M 20	x	70	S	25	510,00 flZn
M 20	x	75	S	25	530,00 flZn
M 20	x	80	S	25	550,00 flZn
M 20	x	90	S	25	610,00 flZn
M 20	x	95	S	25	620,00 flZn
M 20	x	100	S	25	640,00 flZn
M 20	x	105	S	25	670,00 flZn
M 20	x	110	S	25	700,00 flZn
M 20	x	120	S	25	740,00 flZn
M 20	x	130	S	25	850,00 flZn
M 20	x	140	S	25	910,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1460,00 flZn
M 20	x	170	S	10	1390,00 flZn
M 20	x	180	S	10	1560,00 flZn
M 20	x	200	S	10	2170,00 flZn
M 20	x	290	S	1	2600,00 flZn
M 20	x	340	S	1	3100,00 flZn
M 20	x	360	S	1	3200,00 flZn
M 20	x	380	S	1	3350,00 flZn
M 24	x	75	S	25	1170,00 flZn
M 24	x	80	S	25	1180,00 flZn
M 24	x	90	S	10	1340,00 flZn
M 24	x	100	S	10	1420,00 flZn
M 24	x	110	S	10	1550,00 flZn
M 24	x	120	S	10	1590,00 flZn
M 24	x	130	S	10	1670,00 flZn
M 24	x	135	S	10	1710,00 flZn
M 24	x	140	S	10	1730,00 flZn
M 24	x	150	S	10	1820,00 flZn
M 24	x	160	S	10	1900,00 flZn
M 24	x	170	S	1	1980,00 flZn
M 24	x	180	S	1	2030,00 flZn
M 24	x	200	S	1	2130,00 flZn
M 24	x	230	S	1	2180,00 flZn
M 24	x	240	S	1	2320,00 flZn
M 24	x	300	S	1	2600,00 flZn

DIN	00931.200	406
931	**12.9**	



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 486
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	40	S	100	180,00
M 10	x	45	S	100	180,00
M 10	x	50	S	100	213,00
M 10	x	60	S	100	285,00
M 10	x	70	S	100	360,00
M 10	x	80	S	100	395,00
M 10	x	90	S	100	480,00
M 10	x	100	S	100	510,00
M 12	x	45	S	100	199,00
M 12	x	50	S	100	236,00
M 12	x	55	S	100	260,00
M 12	x	60	S	100	315,00
M 12	x	65	S	50	365,00
M 12	x	70	S	50	395,00
M 12	x	80	S	50	480,00
M 12	x	90	S	50	630,00
M 12	x	100	S	50	720,00
M 12	x	120	S	50	840,00
M 12	x	140	S	50	860,00
M 14	x	60	S	50	920,00
M 14	x	80	S	50	960,00
M 14	x	100	S	50	1010,00
M 16	x	55	S	50	560,00
M 16	x	60	S	50	560,00
M 16	x	70	S	25	600,00
M 16	x	80	S	25	780,00
M 16	x	90	S	25	960,00
M 16	x	100	S	25	1020,00
M 16	x	120	S	25	1150,00
M 16	x	130	S	25	1240,00
M 16	x	140	S	25	1340,00
M 16	x	150	S	25	1540,00
M 20	x	65	S	25	600,00
M 20	x	70	S	25	790,00
M 20	x	80	S	25	840,00
M 20	x	90	S	25	880,00
M 20	x	100	S	25	1030,00
M 20	x	110	S	25	1200,00
M 20	x	120	S	25	1240,00
M 20	x	130	S	25	1430,00
M 20	x	140	S	25	1510,00
M 20	x	150	S	25	1900,00
M 20	x	160	S	25	2040,00
M 24	x	80	S	25	1510,00
M 24	x	90	S	10	1580,00
M 24	x	100	S	10	1900,00
M 24	x	110	S	10	2010,00
M 24	x	120	S	10	2100,00
M 24	x	130	S	10	2360,00
M 24	x	140	S	10	2450,00
M 24	x	150	S	10	2550,00
M 24	x	160	S	10	2650,00
M 24	x	180	S	10	2700,00
M 24	x	200	S	10	3000,00
M 24	x	220	S	10	3000,00
M 24	x	240	S	10	3050,00
M 30	x	90	S	5	3150,00
M 30	x	100	S	5	3300,00
M 30	x	110	S	5	3400,00
M 30	x	120	S	5	3600,00
M 30	x	130	S	5	3950,00
M 30	x	140	S	5	4200,00
M 30	x	150	S	5	4400,00
M 30	x	160	S	5	4600,00
M 30	x	180	S	5	4800,00
M 30	x	200	S	5	5600,00

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DIN 933

Dimensions	PU Pieces	€/100/Mat.
DIN	00933.800	401

933 **8.8**



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	5	S	500	11,70
M 3	x	5	K	100	15,40
M 3	x	6	S	500	5,80
M 3	x	6	K	100	9,40
M 3	x	8	S	500	5,80
M 3	x	8	K	100	9,40
M 3	x	10	S	500	5,80
M 3	x	10	K	100	9,40
M 3	x	12	S	500	6,30
M 3	x	12	K	100	10,00
M 3	x	16	S	500	6,30
M 3	x	16	K	100	10,00
M 3	x	18	S	500	7,20
M 3	x	20	S	500	6,60
M 3	x	20	K	100	10,30
M 3	x	22	S	500	8,00
M 3	x	25	S	500	7,40
M 3	x	25	K	100	11,10
M 3	x	30	S	500	20,40
M 3	x	35	S	500	44,00
M 3	x	40	S	500	55,00
M 3	x	50	S	500	84,00
M 3	x	60	S	500	91,00
M 4	x	6	S	500	5,80
M 4	x	6	K	100	9,40
M 4	x	8	S	500	5,80
M 4	x	8	K	100	9,40
M 4	x	10	S	500	5,80
M 4	x	10	K	100	9,40
M 4	x	12	S	500	6,30
M 4	x	12	K	100	10,00
M 4	x	14	S	500	6,90
M 4	x	16	S	500	6,30
M 4	x	16	K	100	10,00
M 4	x	18	S	500	7,20
M 4	x	20	S	500	6,60
M 4	x	20	K	100	10,30
M 4	x	22	S	500	8,00
M 4	x	25	S	500	7,40
M 4	x	25	K	100	11,10
M 4	x	30	S	500	8,60
M 4	x	30	K	100	12,20
M 4	x	35	S	500	9,10
M 4	x	35	K	100	12,80
M 4	x	40	S	500	9,90
M 4	x	40	K	100	13,50
M 4	x	45	S	500	11,70
M 4	x	50	S	500	12,70
M 4	x	50	K	100	16,30
M 4	x	55	S	100	58,00
M 4	x	60	S	100	88,00
M 4	x	65	S	200	125,00
M 4	x	70	S	100	125,00
M 5	x	6	S	500	15,30
M 5	x	6	K	100	19,00
M 5	x	8	S	500	4,10
M 5	x	8	K	100	7,70
M 5	x	10	S	500	4,10
M 5	x	10	K	100	7,70
M 5	x	12	S	500	4,20
M 5	x	12	K	100	7,80
M 5	x	14	S	500	4,40
M 5	x	16	S	500	4,20
M 5	x	16	K	100	7,80
M 5	x	18	S	500	4,60
M 5	x	18	K	100	8,20
M 5	x	20	S	500	4,40
M 5	x	20	K	100	8,20
M 5	x	22	S	500	11,50
M 5	x	25	S	500	5,00
M 5	x	25	K	100	8,60
M 5	x	30	S	500	5,80
M 5	x	30	K	100	9,40
M 5	x	35	S	200	6,60
M 5	x	40	S	200	8,90
M 5	x	45	S	200	10,40
M 5	x	50	S	200	11,50
M 5	x	55	S	200	17,10
M 5	x	60	S	200	17,30
M 5	x	65	S	200	56,00
M 5	x	70	S	200	56,00
M 5	x	80	S	200	84,00
M 5	x	90	S	200	135,00
M 5	x	100	S	200	158,00
M 6	x	6	S	500	21,90
M 6	x	6	K	100	25,50
M 6	x	8	S	500	6,10
M 6	x	8	K	100	9,70
M 6	x	10	S	500	5,50
M 6	x	10	K	100	9,20
M 6	x	12	S	500	5,50
M 6	x	12	K	100	9,20
M 6	x	14	S	500	4,85
M 6	x	16	S	500	4,85
M 6	x	16	K	100	8,50
M 6	x	18	S	500	5,10
M 6	x	18	K	100	8,80
M 6	x	20	S	500	5,10
M 6	x	20	K	100	8,80
M 6	x	22	S	500	5,50
M 6	x	22	K	100	9,20
M 6	x	25	S	500	5,50
M 6	x	25	K	100	9,20
M 6	x	28	S	500	12,10
M 6	x	28	K	100	15,70
M 6	x	30	S	500	5,90
M 6	x	30	K	100	9,60
M 6	x	35	S	200	6,60
M 6	x	40	S	200	7,20
M 6	x	45	S	200	10,60
M 6	x	50	S	200	10,80
M 6	x	55	S	200	18,60
M 6	x	60	S	200	21,00
M 6	x	65	S	200	27,50
M 6	x	70	S	200	34,00
M 6	x	75	S	200	40,50
M 6	x	80	S	200	40,50
M 6	x	85	S	200	73,00
M 6	x	90	S	200	72,00
M 6	x	100	S	100	111,00
M 6	x	110	S	100	129,00
M 6	x	120	S	100	137,00
M 6	x	130	S	100	216,00
M 6	x	140	S	100	232,00
M 6	x	150	S	100	280,00
M 7	x	12	S	500	18,90
M 7	x	16	S	500	14,60
M 7	x	20	S	500	15,30
M 7	x	25	S	500	17,80
M 7	x	30	S	500	19,20
M 7	x	35	S	200	21,40
M 7	x	40	S	200	23,20
M 7	x	45	S	200	24,90
M 8	x	8	S	200	30,50
M 8	x	10	S	200	10,40
M 8	x	12	S	200	9,20
M 8	x	14	S	200	9,20
M 8	x	16	S	200	7,10
M 8	x	18	S	200	7,60
M 8	x	20	S	200	7,60
M 8	x	22	S	200	8,70
M 8	x	25	S	200	8,70
M 8	x	28	S	200	9,40
M 8	x	30	S	200	9,40
M 8	x	35	S	200	10,40
M 8	x	40	S	200	11,40
M 8	x	45	S	200	14,00
M 8	x	50	S	200	16,20
M 8	x	55	S	200	22,70
M 8	x	60	S	200	24,30
M 8	x	65	S	200	33,50
M 8	x	70	S	200	42,00
M 8	x	75	S	200	51,00
M 8	x	80	S	200	51,00
M 8	x	85	S	200	64,00
M 8	x	90	S	100	60,00
M 8	x	100	S	100	69,00
M 8	x	110	S	100	88,00
M 8	x	120	S	100	92,00
M 8	x	130	S	100	148,00
M 8	x	140	S	100	184,00
M 8	x	150	S	100	226,00
M 8	x	160	S	100	290,00
M 8	x	170	S	100	330,00
M 8	x	180	S	100	355,00
M 8	x	200	S	100	460,00
M 10	x	10	S	200	59,00
M 10	x	12	S	200	21,50
M 10	x	16	S	200	13,70
M 10	x	18	S	200	12,80
M 10	x	20	S	200	12,80
M 10	x	22	S	200	13,70
M 10	x	25	S	200	13,70
M 10	x	28	S	200	16,50
M 10	x	30	S	200	14,60
M 10	x	35	S	100	16,20
M 10	x	40	S	100	17,30
M 10	x	45	S	100	20,70
M 10	x	50	S	100	21,60
M 10	x	55	S	100	30,00
M 10	x	60	S	100	32,50
M 10	x	65	S	100	50,00
M 10	x	70	S	100	50,00
M 10	x	75	S	100	56,00
M 10	x	80	S	100	70,00
M 10	x	85	S	100	84,00
M 10	x	90	S	100	84,00
M 10	x	100	S	100	99,00
M 10	x	110	S	50	136,00
M 10	x	120	S	50	141,00
M 10	x	130	S	50	186,00
M 10	x	140	S	50	193,00
M 10	x	150	S	50	212,00
M 10	x	160	S	50	325,00
M 10	x	170	S	50	650,00
M 10	x	180	S	50	640,00
M 10	x	190	S	50	660,00
M 10	x	200	S	50	690,00
M 10	x	220	S	50	1020,00
M 10	x	240	S	50	1930,00
M 10	x	280	S	50	2170,00
M 10	x	300	S	50	2290,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 12 x 10	S	100	211,00
M 12 x 12	S	100	132,00
M 12 x 16	S	100	25,50
M 12 x 18	S	100	25,50
M 12 x 20	S	100	22,50
M 12 x 22	S	100	22,50
M 12 x 25	S	100	22,50
M 12 x 28	S	100	24,10
M 12 x 30	S	100	21,20
M 12 x 35	S	100	23,10
M 12 x 40	S	100	25,50
M 12 x 45	S	100	28,00
M 12 x 50	S	100	30,00
M 12 x 55	S	100	37,50
M 12 x 60	S	100	40,50
M 12 x 65	S	50	61,00
M 12 x 70	S	50	61,00
M 12 x 75	S	50	69,00
M 12 x 80	S	50	87,00
M 12 x 85	S	50	104,00
M 12 x 90	S	50	104,00
M 12 x 100	S	50	116,00
M 12 x 110	S	50	180,00
M 12 x 120	S	50	182,00
M 12 x 130	S	50	217,00
M 12 x 140	S	50	226,00
M 12 x 150	S	50	244,00
M 12 x 160	S	25	475,00
M 12 x 170	S	25	580,00
M 12 x 180	S	25	580,00
M 12 x 190	S	25	700,00
M 12 x 200	S	25	700,00
M 12 x 220	S	25	820,00
M 12 x 240	S	25	900,00
M 12 x 300	S	25	2850,00
M 14 x 16	S	100	250,00
M 14 x 20	S	100	63,00
M 14 x 25	S	100	63,00
M 14 x 30	S	100	71,00
M 14 x 35	S	100	80,00
M 14 x 40	S	100	80,00
M 14 x 45	S	100	87,00
M 14 x 50	S	100	91,00
M 14 x 55	S	100	106,00
M 14 x 60	S	50	106,00
M 14 x 65	S	50	118,00
M 14 x 70	S	50	118,00
M 14 x 75	S	50	147,00
M 14 x 80	S	50	147,00
M 14 x 90	S	50	209,00
M 14 x 100	S	50	239,00
M 14 x 110	S	50	435,00
M 14 x 120	S	50	315,00
M 14 x 130	S	50	510,00
M 14 x 140	S	50	550,00
M 14 x 150	S	50	570,00
M 14 x 160	S	25	710,00
M 14 x 170	S	25	760,00
M 14 x 180	S	25	800,00
M 14 x 200	S	25	870,00
M 14 x 220	S	25	3850,00
M 16 x 12	S	50	201,00
M 16 x 16	S	50	205,00
M 16 x 20	S	50	47,50
M 16 x 25	S	50	47,50
M 16 x 30	S	50	45,00
M 16 x 35	S	50	47,50
M 16 x 40	S	50	49,50
M 16 x 45	S	50	53,00
M 16 x 50	S	50	57,00
M 16 x 55	S	50	69,00
M 16 x 60	S	50	72,00
M 16 x 65	S	25	102,00
M 16 x 70	S	25	102,00
M 16 x 75	S	25	121,00
M 16 x 80	S	25	153,00
M 16 x 85	S	25	199,00
M 16 x 90	S	25	199,00
M 16 x 95	S	25	226,00
M 16 x 100	S	25	226,00
M 16 x 110	S	25	300,00
M 16 x 120	S	25	325,00
M 16 x 130	S	25	335,00
M 16 x 140	S	25	355,00
M 16 x 150	S	25	400,00
M 16 x 160	S	25	660,00
M 16 x 170	S	25	750,00
M 16 x 180	S	25	750,00
M 16 x 190	S	25	900,00
M 16 x 200	S	25	900,00
M 16 x 210	S	25	940,00
M 16 x 220	S	1	970,00
M 16 x 230	S	1	1010,00
M 16 x 240	S	1	1050,00
M 16 x 250	S	1	1320,00
M 16 x 260	S	1	1420,00
M 16 x 280	S	1	1530,00
M 16 x 300	S	1	1780,00
M 16 x 320	S	1	2010,00
M 16 x 340	S	1	2180,00
M 16 x 400	S	1	3350,00
M 16 x 500	S	1	4300,00
M 18 x 20	S	50	285,00
M 18 x 25	S	50	285,00
M 18 x 30	S	50	209,00
M 18 x 35	S	50	215,00
M 18 x 40	S	50	215,00
M 18 x 45	S	50	215,00
M 18 x 50	S	50	222,00
M 18 x 55	S	25	239,00
M 18 x 60	S	25	239,00
M 18 x 65	S	25	255,00
M 18 x 70	S	25	255,00
M 18 x 75	S	25	300,00
M 18 x 80	S	25	300,00
M 18 x 85	S	25	385,00
M 18 x 90	S	25	385,00
M 18 x 100	S	25	385,00
M 18 x 110	S	25	500,00
M 18 x 120	S	25	500,00
M 18 x 130	S	25	870,00
M 18 x 140	S	25	940,00
M 18 x 150	S	25	1010,00
M 18 x 160	S	25	1080,00
M 18 x 170	S	25	1140,00
M 18 x 180	S	25	1200,00
M 18 x 190	S	25	1260,00
M 18 x 200	S	25	1310,00
M 20 x 20	S	25	241,00
M 20 x 25	S	25	182,00
M 20 x 30	S	25	106,00
M 20 x 35	S	25	106,00
M 20 x 40	S	25	99,00
M 20 x 45	S	25	100,00
M 20 x 50	S	25	101,00
M 20 x 55	S	25	107,00
M 20 x 60	S	25	108,00
M 20 x 65	S	25	126,00
M 20 x 70	S	25	130,00
M 20 x 75	S	25	166,00
M 20 x 80	S	25	161,00
M 20 x 85	S	25	240,00
M 20 x 90	S	25	240,00
M 20 x 100	S	25	345,00
M 20 x 110	S	25	380,00
M 20 x 120	S	25	420,00
M 20 x 130	S	25	540,00
M 20 x 140	S	25	630,00
M 20 x 150	S	25	720,00
M 20 x 160	S	10	780,00
M 20 x 170	S	1	1140,00
M 20 x 180	S	1	1200,00
M 20 x 190	S	1	1250,00
M 20 x 200	S	1	1300,00
M 20 x 210	S	1	1580,00
M 20 x 220	S	1	1680,00
M 20 x 230	S	1	1770,00
M 20 x 240	S	1	1860,00
M 20 x 250	S	1	1880,00
M 20 x 260	S	1	1980,00
M 20 x 280	S	1	2100,00
M 20 x 300	S	1	2270,00
M 20 x 360	S	1	4850,00
M 22 x 30	S	25	610,00
M 22 x 35	S	25	610,00
M 22 x 40	S	25	530,00
M 22 x 45	S	25	395,00
M 22 x 50	S	25	395,00
M 22 x 55	S	25	440,00
M 22 x 60	S	25	440,00
M 22 x 65	S	25	540,00
M 22 x 70	S	25	540,00
M 22 x 75	S	25	590,00
M 22 x 80	S	25	590,00
M 22 x 90	S	25	590,00
M 22 x 100	S	10	730,00
M 22 x 110	S	10	880,00
M 22 x 120	S	10	880,00
M 22 x 130	S	10	1130,00
M 22 x 140	S	10	1200,00
M 22 x 150	S	10	1280,00
M 22 x 160	S	10	1440,00
M 22 x 170	S	1	1510,00
M 22 x 180	S	1	1580,00
M 22 x 190	S	1	1650,00
M 22 x 200	S	1	1720,00
M 24 x 25	S	25	530,00
M 24 x 30	S	25	530,00
M 24 x 35	S	25	330,00
M 24 x 40	S	25	183,00
M 24 x 45	S	25	183,00
M 24 x 50	S	25	171,00
M 24 x 55	S	25	181,00
M 24 x 60	S	25	186,00
M 24 x 65	S	25	212,00
M 24 x 70	S	25	212,00
M 24 x 75	S	25	295,00
M 24 x 80	S	25	270,00
M 24 x 85	S	10	415,00
M 24 x 90	S	10	415,00
M 24 x 100	S	10	560,00
M 24 x 110	S	10	650,00
M 24 x 120	S	10	680,00
M 24 x 130	S	1	1150,00
M 24 x 140	S	1	1220,00
M 24 x 150	S	1	1280,00
M 24 x 160	S	1	1350,00
M 24 x 170	S	1	1510,00
M 24 x 180	S	1	1510,00
M 24 x 190	S	1	1750,00
M 24 x 200	S	1	1750,00
M 24 x 210	S	1	1940,00
M 24 x 220	S	1	2010,00
M 24 x 230	S	1	2090,00
M 24 x 240	S	1	2160,00
M 24 x 250	S	1	2240,00
M 24 x 260	S	1	2700,00
M 24 x 280	S	1	2950,00
M 24 x 300	S	1	3100,00
M 24 x 320	S	1	3500,00
M 24 x 500	S	1	8700,00
M 27 x 30	S	10	970,00
M 27 x 40	S	10	970,00
M 27 x 45	S	10	970,00
M 27 x 50	S	10	830,00

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	55	S	10	830,00
M 27	x	60	S	10	830,00
M 27	x	65	S	10	880,00
M 27	x	70	S	10	880,00
M 27	x	75	S	10	910,00
M 27	x	80	S	10	910,00
M 27	x	85	S	10	960,00
M 27	x	90	S	1	960,00
M 27	x	100	S	1	1020,00
M 27	x	110	S	1	1310,00
M 27	x	120	S	1	1310,00
M 27	x	130	S	1	1320,00
M 27	x	140	S	1	1650,00
M 27	x	150	S	1	1730,00
M 27	x	160	S	1	1930,00
M 27	x	170	S	1	2030,00
M 27	x	180	S	1	2120,00
M 27	x	190	S	1	2210,00
M 27	x	200	S	1	2300,00
M 27	x	300	S	1	4450,00
M 30	x	35	S	1	1090,00
M 30	x	40	S	1	1090,00
M 30	x	45	S	1	1090,00
M 30	x	50	S	1	1090,00
M 30	x	55	S	1	1090,00
M 30	x	60	S	1	1090,00
M 30	x	65	S	1	1170,00
M 30	x	70	S	1	1170,00
M 30	x	75	S	1	1250,00
M 30	x	80	S	1	1250,00
M 30	x	85	S	1	1310,00
M 30	x	90	S	1	1310,00
M 30	x	100	S	1	1360,00
M 30	x	110	S	1	1440,00
M 30	x	120	S	1	1520,00
M 30	x	130	S	1	1650,00
M 30	x	140	S	1	1710,00
M 30	x	150	S	1	1770,00
M 30	x	160	S	1	1980,00
M 30	x	170	S	1	2090,00
M 30	x	180	S	1	2160,00
M 30	x	190	S	1	2240,00
M 30	x	200	S	1	2310,00
M 30	x	210	S	1	2650,00
M 30	x	220	S	1	2700,00
M 30	x	230	S	1	2800,00
M 30	x	240	S	1	2850,00
M 30	x	250	S	1	3350,00
M 30	x	260	S	1	3450,00
M 30	x	280	S	1	3750,00
M 30	x	300	S	1	4100,00
M 30	x	320	S	1	4600,00
M 30	x	340	S	1	4950,00
M 30	x	360	S	1	5400,00
M 30	x	380	S	1	5800,00
M 30	x	400	S	1	6400,00
M 30	x	500	S	1	10100,00
M 30	x	600	S	1	11300,00
M 33	x	40	S	1	1440,00
M 33	x	50	S	1	1440,00
M 33	x	60	S	1	1440,00
M 33	x	65	S	1	1580,00
M 33	x	70	S	1	1580,00
M 33	x	75	S	1	1620,00
M 33	x	80	S	1	1620,00
M 33	x	90	S	1	1710,00
M 33	x	100	S	1	1800,00
M 33	x	110	S	1	1970,00
M 33	x	120	S	1	1970,00
M 33	x	130	S	1	2350,00
M 33	x	140	S	1	2550,00
M 33	x	150	S	1	2700,00
M 33	x	160	S	1	3000,00
M 33	x	170	S	1	3150,00
M 33	x	180	S	1	3250,00

Dimensions			PU	Pieces	€/100/Mat.
M 33	x	190	S	1	3400,00
M 33	x	200	S	1	3550,00
M 33	x	300	S	1	5100,00
M 36	x	40	S	1	1740,00
M 36	x	45	S	1	1740,00
M 36	x	50	S	1	1740,00
M 36	x	55	S	1	1740,00
M 36	x	60	S	1	1740,00
M 36	x	65	S	1	1810,00
M 36	x	70	S	1	1810,00
M 36	x	75	S	1	1900,00
M 36	x	80	S	1	1900,00
M 36	x	85	S	1	2030,00
M 36	x	90	S	1	2030,00
M 36	x	100	S	1	2160,00
M 36	x	110	S	1	2270,00
M 36	x	120	S	1	2330,00
M 36	x	130	S	1	2500,00
M 36	x	140	S	1	2600,00
M 36	x	150	S	1	2750,00
M 36	x	160	S	1	2850,00
M 36	x	170	S	1	3000,00
M 36	x	180	S	1	3150,00
M 36	x	190	S	1	3300,00
M 36	x	200	S	1	3450,00
M 36	x	220	S	1	4400,00
M 36	x	260	S	1	5300,00
M 36	x	280	S	1	5800,00
M 36	x	300	S	1	6200,00
M 36	x	320	S	1	11000,00
M 36	x	340	S	1	11400,00
M 36	x	400	S	1	12300,00
M 36	x	600	S	1	15400,00
M 39	x	80	S	1	4050,00
M 39	x	90	S	1	4250,00
M 39	x	100	S	1	4550,00
M 39	x	110	S	1	4800,00
M 39	x	120	S	1	5300,00
M 39	x	130	S	1	5400,00
M 39	x	140	S	1	5800,00
M 39	x	150	S	1	6200,00
M 39	x	160	S	1	6800,00
M 39	x	180	S	1	7900,00
M 39	x	190	S	1	8800,00
M 39	x	200	S	1	8800,00
M 42	x	50	S	1	4100,00
M 42	x	55	S	1	4100,00
M 42	x	60	S	1	4100,00
M 42	x	70	S	1	4100,00
M 42	x	75	S	1	4200,00
M 42	x	80	S	1	4200,00
M 42	x	85	S	1	4400,00
M 42	x	90	S	1	4400,00
M 42	x	100	S	1	4600,00
M 42	x	110	S	1	5100,00
M 42	x	120	S	1	5400,00
M 42	x	130	S	1	5600,00
M 42	x	140	S	1	5800,00
M 42	x	150	S	1	6200,00
M 42	x	160	S	1	6300,00
M 42	x	170	S	1	7200,00
M 42	x	180	S	1	7500,00
M 42	x	190	S	1	7800,00
M 42	x	200	S	1	8300,00
M 42	x	220	S	1	9900,00
M 42	x	250	S	1	11500,00
M 42	x	260	S	1	12300,00
M 42	x	300	S	1	14000,00
M 42	x	360	S	1	16000,00
M 42	x	400	S	1	16700,00
M 45	x	90	S	1	7700,00
M 45	x	100	S	1	7900,00
M 45	x	110	S	1	8300,00
M 45	x	120	S	1	8200,00
M 45	x	130	S	1	8800,00

Dimensions			PU	Pieces	€/100/Mat.
M 45	x	140	S	1	9100,00
M 45	x	150	S	1	9400,00
M 48	x	60	S	1	9400,00
M 48	x	70	S	1	9400,00
M 48	x	80	S	1	9400,00
M 48	x	90	S	1	9400,00
M 48	x	100	S	1	9600,00
M 48	x	110	S	1	10000,00
M 48	x	120	S	1	10300,00
M 48	x	130	S	1	10600,00
M 48	x	140	S	1	10700,00
M 48	x	150	S	1	11000,00
M 48	x	160	S	1	11200,00
M 48	x	170	S	1	12000,00
M 48	x	180	S	1	12900,00
M 48	x	190	S	1	13600,00
M 48	x	200	S	1	14600,00
M 48	x	420	S	1	20400,00

DIN	00933.810	401
933	**8.8** **zinc plated**	



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

M 3	x	5	S	500	12,10 ZP
M 3	x	6	S	500	6,00 ZP
M 3	x	8	S	500	6,00 ZP
M 3	x	8	K	100	9,70 ZP
M 3	x	10	S	500	6,10 ZP
M 3	x	10	K	100	9,70 ZP
M 3	x	12	S	500	6,60 ZP
M 3	x	12	K	100	10,30 ZP
M 3	x	16	S	500	6,70 ZP
M 3	x	16	K	100	10,30 ZP
M 3	x	20	S	500	6,90 ZP
M 3	x	20	K	100	10,60 ZP
M 3	x	25	S	500	7,90 ZP
M 3	x	30	S	500	21,00 ZP
M 3	x	35	S	500	48,50 ZP
M 3	x	40	S	500	56,00 ZP
M 3	x	50	S	500	86,00 ZP
M 4	x	5	S	500	5,90 ZP
M 4	x	6	S	500	6,20 ZP
M 4	x	8	S	500	6,30 ZP
M 4	x	8	K	100	9,90 ZP
M 4	x	10	S	500	6,30 ZP
M 4	x	10	K	100	9,90 ZP
M 4	x	12	S	500	6,90 ZP
M 4	x	12	K	100	10,60 ZP
M 4	x	14	S	500	7,40 ZP
M 4	x	16	S	500	6,90 ZP
M 4	x	16	K	100	10,60 ZP
M 4	x	18	S	500	7,90 ZP
M 4	x	20	S	500	7,40 ZP
M 4	x	20	K	100	11,00 ZP
M 4	x	22	S	500	8,80 ZP

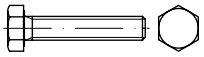
Dimensions	PU	Pieces	€/100/Mat.
M 4 x 25	S	500	8,30 ZP
M 4 x 25	K	100	11,90 ZP
M 4 x 30	S	500	9,50 ZP
M 4 x 30	K	100	13,10 ZP
M 4 x 35	S	500	10,60 ZP
M 4 x 35	K	100	14,20 ZP
M 4 x 40	S	500	11,50 ZP
M 4 x 40	K	100	15,10 ZP
M 4 x 45	S	500	13,50 ZP
M 4 x 50	S	500	14,60 ZP
M 4 x 55	S	100	65,00 ZP
M 4 x 60	S	100	91,00 ZP
M 4 x 70	S	100	129,00 ZP
M 5 x 6	S	500	16,00 ZP
M 5 x 8	S	500	4,60 ZP
M 5 x 8	K	100	8,30 ZP
M 5 x 10	S	500	4,70 ZP
M 5 x 10	K	100	8,30 ZP
M 5 x 12	S	500	4,85 ZP
M 5 x 12	K	100	8,50 ZP
M 5 x 14	S	500	5,20 ZP
M 5 x 16	S	500	5,00 ZP
M 5 x 16	K	100	8,60 ZP
M 5 x 18	S	500	5,40 ZP
M 5 x 20	S	500	5,40 ZP
M 5 x 20	K	100	8,90 ZP
M 5 x 22	S	500	12,60 ZP
M 5 x 25	S	500	6,10 ZP
M 5 x 25	K	100	9,70 ZP
M 5 x 30	S	500	6,90 ZP
M 5 x 30	K	100	10,60 ZP
M 5 x 35	S	200	7,90 ZP
M 5 x 40	S	200	10,40 ZP
M 5 x 45	S	200	12,00 ZP
M 5 x 50	S	200	13,20 ZP
M 5 x 55	S	200	19,60 ZP
M 5 x 60	S	200	20,00 ZP
M 5 x 65	S	200	59,00 ZP
M 5 x 70	S	200	59,00 ZP
M 5 x 75	S	200	160,00 ZP
M 5 x 80	S	200	88,00 ZP
M 5 x 90	S	200	141,00 ZP
M 5 x 100	S	200	164,00 ZP
M 6 x 6	S	500	23,00 ZP
M 6 x 6	K	100	27,00 ZP
M 6 x 8	S	500	6,90 ZP
M 6 x 8	K	100	10,60 ZP
M 6 x 10	S	500	6,50 ZP
M 6 x 10	K	100	10,20 ZP
M 6 x 12	S	500	6,60 ZP
M 6 x 12	K	100	10,20 ZP
M 6 x 14	S	500	5,90 ZP
M 6 x 16	S	500	6,10 ZP
M 6 x 16	K	100	9,70 ZP
M 6 x 18	S	500	6,30 ZP
M 6 x 18	K	100	10,00 ZP
M 6 x 20	S	500	6,40 ZP
M 6 x 20	K	100	10,10 ZP
M 6 x 22	S	500	6,90 ZP
M 6 x 22	K	100	10,60 ZP
M 6 x 25	S	500	7,10 ZP
M 6 x 25	K	100	10,70 ZP
M 6 x 28	S	500	14,30 ZP
M 6 x 30	S	500	7,70 ZP
M 6 x 30	K	100	11,20 ZP
M 6 x 35	S	200	8,50 ZP
M 6 x 40	S	200	9,40 ZP
M 6 x 45	S	200	12,90 ZP
M 6 x 50	S	200	13,20 ZP
M 6 x 55	S	200	22,20 ZP
M 6 x 60	S	200	24,90 ZP
M 6 x 65	S	200	31,50 ZP
M 6 x 70	S	200	38,50 ZP
M 6 x 75	S	200	45,00 ZP
M 6 x 80	S	200	45,50 ZP
M 6 x 85	S	200	78,00 ZP
M 6 x 90	S	200	78,00 ZP
M 6 x 100	S	200	118,00 ZP
M 6 x 110	S	100	137,00 ZP
M 6 x 120	S	100	147,00 ZP
M 6 x 130	S	100	226,00 ZP
M 6 x 140	S	100	241,00 ZP
M 6 x 150	S	100	290,00 ZP
M 7 x 12	S	500	22,30 ZP
M 7 x 16	S	500	16,90 ZP
M 7 x 20	S	500	18,00 ZP
M 7 x 25	S	500	20,90 ZP
M 7 x 30	S	500	22,60 ZP
M 7 x 40	S	500	27,50 ZP
M 7 x 45	S	200	30,00 ZP
M 8 x 8	S	200	33,00 ZP
M 8 x 10	S	200	12,50 ZP
M 8 x 12	S	200	11,50 ZP
M 8 x 14	S	200	11,70 ZP
M 8 x 16	S	200	9,70 ZP
M 8 x 18	S	200	10,20 ZP
M 8 x 20	S	200	10,30 ZP
M 8 x 22	S	200	11,70 ZP
M 8 x 25	S	200	11,80 ZP
M 8 x 28	S	200	17,20 ZP
M 8 x 30	S	200	12,90 ZP
M 8 x 35	S	200	14,30 ZP
M 8 x 40	S	200	15,70 ZP
M 8 x 45	S	200	18,60 ZP
M 8 x 50	S	200	21,20 ZP
M 8 x 55	S	200	30,00 ZP
M 8 x 60	S	200	32,00 ZP
M 8 x 65	S	200	41,50 ZP
M 8 x 70	S	200	51,00 ZP
M 8 x 75	S	200	60,00 ZP
M 8 x 80	S	200	60,00 ZP
M 8 x 85	S	200	74,00 ZP
M 8 x 90	S	100	70,00 ZP
M 8 x 95	S	100	80,00 ZP
M 8 x 100	S	100	80,00 ZP
M 8 x 110	S	100	101,00 ZP
M 8 x 120	S	100	105,00 ZP
M 8 x 130	S	100	164,00 ZP
M 8 x 140	S	100	201,00 ZP
M 8 x 150	S	100	242,00 ZP
M 8 x 160	S	100	305,00 ZP
M 8 x 170	S	100	350,00 ZP
M 8 x 180	S	100	375,00 ZP
M 8 x 190	S	100	540,00 ZP
M 8 x 200	S	100	490,00 ZP
M 10 x 10	S	200	65,00 ZP
M 10 x 12	S	200	25,50 ZP
M 10 x 16	S	200	18,10 ZP
M 10 x 18	S	200	17,40 ZP
M 10 x 20	S	200	17,70 ZP
M 10 x 22	S	200	18,70 ZP
M 10 x 25	S	200	19,10 ZP
M 10 x 28	S	200	22,20 ZP
M 10 x 30	S	200	20,60 ZP
M 10 x 35	S	100	22,70 ZP
M 10 x 40	S	100	24,40 ZP
M 10 x 45	S	100	28,50 ZP
M 10 x 50	S	100	30,00 ZP
M 10 x 55	S	100	39,00 ZP
M 10 x 60	S	100	42,00 ZP
M 10 x 65	S	100	63,00 ZP
M 10 x 70	S	100	64,00 ZP
M 10 x 75	S	100	71,00 ZP
M 10 x 80	S	100	86,00 ZP
M 10 x 85	S	100	100,00 ZP
M 10 x 90	S	100	101,00 ZP
M 10 x 95	S	100	176,00 ZP
M 10 x 100	S	100	118,00 ZP
M 10 x 110	S	50	157,00 ZP
M 10 x 120	S	50	161,00 ZP
M 10 x 130	S	50	210,00 ZP
M 10 x 140	S	50	216,00 ZP
M 10 x 150	S	50	239,00 ZP
M 10 x 160	S	50	360,00 ZP
M 10 x 170	S	50	680,00 ZP
M 10 x 180	S	50	670,00 ZP
M 10 x 190	S	50	700,00 ZP
M 10 x 200	S	50	730,00 ZP
M 10 x 220	S	50	1070,00 ZP
M 12 x 12	S	100	142,00 ZP
M 12 x 16	S	100	31,50 ZP
M 12 x 18	S	100	32,00 ZP
M 12 x 20	S	100	29,50 ZP
M 12 x 22	S	100	30,00 ZP
M 12 x 25	S	100	30,50 ZP
M 12 x 28	S	100	38,00 ZP
M 12 x 30	S	100	30,00 ZP
M 12 x 35	S	100	32,50 ZP
M 12 x 40	S	100	35,50 ZP
M 12 x 45	S	100	39,00 ZP
M 12 x 50	S	100	42,00 ZP
M 12 x 55	S	100	51,00 ZP
M 12 x 60	S	100	54,00 ZP
M 12 x 65	S	50	80,00 ZP
M 12 x 70	S	50	81,00 ZP
M 12 x 75	S	50	91,00 ZP
M 12 x 80	S	50	109,00 ZP
M 12 x 85	S	50	129,00 ZP
M 12 x 90	S	50	129,00 ZP
M 12 x 95	S	50	199,00 ZP
M 12 x 100	S	50	144,00 ZP
M 12 x 110	S	50	209,00 ZP
M 12 x 120	S	50	213,00 ZP
M 12 x 130	S	50	255,00 ZP
M 12 x 140	S	50	265,00 ZP
M 12 x 150	S	50	285,00 ZP
M 12 x 160	S	25	520,00 ZP
M 12 x 170	S	25	620,00 ZP
M 12 x 180	S	25	620,00 ZP
M 12 x 190	S	25	750,00 ZP
M 12 x 200	S	25	750,00 ZP
M 12 x 220	S	25	880,00 ZP
M 12 x 240	S	25	950,00 ZP
M 12 x 260	S	25	2650,00 ZP
M 14 x 20	S	100	78,00 ZP
M 14 x 25	S	100	80,00 ZP
M 14 x 30	S	100	89,00 ZP
M 14 x 35	S	100	99,00 ZP
M 14 x 40	S	100	100,00 ZP
M 14 x 45	S	50	110,00 ZP
M 14 x 50	S	50	115,00 ZP
M 14 x 55	S	50	131,00 ZP
M 14 x 60	S	50	132,00 ZP
M 14 x 65	S	50	146,00 ZP
M 14 x 70	S	50	147,00 ZP
M 14 x 75	S	50	177,00 ZP
M 14 x 80	S	50	180,00 ZP
M 14 x 90	S	50	242,00 ZP
M 14 x 100	S	50	280,00 ZP
M 14 x 110	S	50	475,00 ZP
M 14 x 120	S	50	355,00 ZP
M 14 x 130	S	50	570,00 ZP
M 14 x 140	S	50	590,00 ZP
M 14 x 200	S	25	940,00 ZP
M 16 x 16	S	50	220,00 ZP
M 16 x 20	S	50	62,00 ZP
M 16 x 25	S	50	64,00 ZP
M 16 x 30	S	50	63,00 ZP
M 16 x 35	S	50	67,00 ZP
M 16 x 40	S	50	70,00 ZP
M 16 x 45	S	50	75,00 ZP
M 16 x 50	S	50	80,00 ZP
M 16 x 55	S	50	94,00 ZP
M 16 x 60	S	50	99,00 ZP
M 16 x 65	S	25	141,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 70	S	25	143,00 ZP
M 16 x 75	S	50	164,00 ZP
M 16 x 80	S	25	195,00 ZP
M 16 x 85	S	25	244,00 ZP
M 16 x 90	S	25	245,00 ZP
M 16 x 95	S	25	280,00 ZP
M 16 x 100	S	25	280,00 ZP
M 16 x 110	S	25	355,00 ZP
M 16 x 120	S	25	380,00 ZP
M 16 x 130	S	25	400,00 ZP
M 16 x 140	S	25	420,00 ZP
M 16 x 150	S	25	470,00 ZP
M 16 x 160	S	25	740,00 ZP
M 16 x 170	S	25	820,00 ZP
M 16 x 180	S	25	830,00 ZP
M 16 x 190	S	25	980,00 ZP
M 16 x 200	S	25	990,00 ZP
M 16 x 210	S	25	1050,00 ZP
M 16 x 220	S	1	1070,00 ZP
M 16 x 230	S	1	1110,00 ZP
M 16 x 240	S	1	1150,00 ZP
M 16 x 250	S	1	1430,00 ZP
M 16 x 260	S	1	1550,00 ZP
M 16 x 280	S	1	1680,00 ZP
M 16 x 300	S	1	1940,00 ZP
M 16 x 320	S	1	2170,00 ZP
M 16 x 340	S	1	2360,00 ZP
M 18 x 20	S	50	315,00 ZP
M 18 x 25	S	50	315,00 ZP
M 18 x 30	S	50	240,00 ZP
M 18 x 35	S	50	249,00 ZP
M 18 x 40	S	50	255,00 ZP
M 18 x 45	S	50	255,00 ZP
M 18 x 50	S	50	265,00 ZP
M 18 x 55	S	25	285,00 ZP
M 18 x 60	S	25	285,00 ZP
M 18 x 65	S	25	305,00 ZP
M 18 x 70	S	25	305,00 ZP
M 18 x 75	S	25	350,00 ZP
M 18 x 80	S	25	355,00 ZP
M 18 x 90	S	25	445,00 ZP
M 18 x 100	S	25	450,00 ZP
M 20 x 20	S	25	305,00 ZP
M 20 x 25	S	25	220,00 ZP
M 20 x 30	S	25	137,00 ZP
M 20 x 35	S	25	141,00 ZP
M 20 x 40	S	25	135,00 ZP
M 20 x 45	S	25	138,00 ZP
M 20 x 50	S	25	143,00 ZP
M 20 x 55	S	25	151,00 ZP
M 20 x 60	S	25	154,00 ZP
M 20 x 65	S	25	174,00 ZP
M 20 x 70	S	25	181,00 ZP
M 20 x 75	S	25	217,00 ZP
M 20 x 80	S	25	215,00 ZP
M 20 x 85	S	25	315,00 ZP
M 20 x 90	S	25	320,00 ZP
M 20 x 100	S	25	430,00 ZP
M 20 x 110	S	25	470,00 ZP
M 20 x 120	S	25	520,00 ZP
M 20 x 130	S	25	650,00 ZP
M 20 x 140	S	25	740,00 ZP
M 20 x 150	S	25	830,00 ZP
M 20 x 160	S	10	900,00 ZP
M 20 x 170	S	10	1290,00 ZP
M 20 x 180	S	1	1480,00 ZP
M 20 x 190	S	1	1540,00 ZP
M 20 x 200	S	1	1610,00 ZP
M 20 x 210	S	1	1780,00 ZP
M 20 x 220	S	1	1960,00 ZP
M 20 x 230	S	1	1970,00 ZP
M 20 x 240	S	1	2170,00 ZP
M 20 x 250	S	1	2190,00 ZP
M 20 x 260	S	1	2260,00 ZP
M 20 x 280	S	1	2390,00 ZP
M 20 x 300	S	1	2600,00 ZP
M 20 x 320	S	1	4100,00 ZP
M 20 x 340	S	1	4300,00 ZP
M 20 x 360	S	1	5200,00 ZP
M 20 x 460	S	1	7900,00 ZP
M 22 x 40	S	25	620,00 ZP
M 22 x 50	S	25	460,00 ZP
M 22 x 55	S	25	510,00 ZP
M 22 x 60	S	25	520,00 ZP
M 22 x 65	S	25	620,00 ZP
M 22 x 70	S	25	620,00 ZP
M 22 x 75	S	25	670,00 ZP
M 22 x 80	S	25	680,00 ZP
M 22 x 90	S	25	680,00 ZP
M 22 x 100	S	10	840,00 ZP
M 22 x 110	S	10	990,00 ZP
M 22 x 120	S	10	1000,00 ZP
M 24 x 25	S	25	600,00 ZP
M 24 x 30	S	25	610,00 ZP
M 24 x 35	S	25	400,00 ZP
M 24 x 40	S	25	239,00 ZP
M 24 x 45	S	25	242,00 ZP
M 24 x 50	S	25	233,00 ZP
M 24 x 55	S	25	245,00 ZP
M 24 x 60	S	25	260,00 ZP
M 24 x 65	S	25	285,00 ZP
M 24 x 70	S	25	290,00 ZP
M 24 x 75	S	25	375,00 ZP
M 24 x 80	S	25	355,00 ZP
M 24 x 85	S	25	530,00 ZP
M 24 x 90	S	10	530,00 ZP
M 24 x 95	S	10	890,00 ZP
M 24 x 100	S	10	690,00 ZP
M 24 x 110	S	10	790,00 ZP
M 24 x 120	S	10	820,00 ZP
M 24 x 130	S	1	1300,00 ZP
M 24 x 140	S	1	1390,00 ZP
M 24 x 150	S	1	1460,00 ZP
M 24 x 160	S	1	1540,00 ZP
M 24 x 170	S	1	1740,00 ZP
M 24 x 180	S	1	1700,00 ZP
M 24 x 190	S	1	2000,00 ZP
M 24 x 200	S	1	1970,00 ZP
M 24 x 210	S	1	2160,00 ZP
M 24 x 220	S	1	1970,00 ZP
M 24 x 240	S	1	2470,00 ZP
M 24 x 250	S	1	2550,00 ZP
M 24 x 260	S	1	3050,00 ZP
M 24 x 280	S	1	3300,00 ZP
M 24 x 300	S	1	3450,00 ZP
M 24 x 320	S	1	3900,00 ZP
M 27 x 40	S	10	1200,00 ZP
M 27 x 45	S	10	1460,00 ZP
M 27 x 50	S	10	1330,00 ZP
M 27 x 55	S	10	1340,00 ZP
M 27 x 60	S	10	960,00 ZP
M 27 x 65	S	10	950,00 ZP
M 27 x 70	S	10	1020,00 ZP
M 27 x 75	S	10	1120,00 ZP
M 27 x 80	S	10	1060,00 ZP
M 27 x 90	S	1	1120,00 ZP
M 27 x 100	S	1	1190,00 ZP
M 27 x 110	S	1	1490,00 ZP
M 27 x 120	S	1	1500,00 ZP
M 27 x 130	S	1	1530,00 ZP
M 27 x 140	S	1	1860,00 ZP
M 27 x 150	S	1	1960,00 ZP
M 27 x 160	S	1	2170,00 ZP
M 27 x 180	S	1	2390,00 ZP
M 27 x 200	S	1	2600,00 ZP
M 30 x 35	S	1	1250,00 ZP
M 30 x 40	S	1	1230,00 ZP
M 30 x 45	S	1	1230,00 ZP
M 30 x 50	S	1	1240,00 ZP
M 30 x 55	S	1	1250,00 ZP
M 30 x 60	S	1	1260,00 ZP
M 30 x 65	S	1	1340,00 ZP
M 30 x 70	S	1	1350,00 ZP
M 30 x 75	S	1	1440,00 ZP
M 30 x 80	S	1	1440,00 ZP
M 30 x 85	S	1	1520,00 ZP
M 30 x 90	S	1	1520,00 ZP
M 30 x 100	S	1	1580,00 ZP
M 30 x 110	S	1	1670,00 ZP
M 30 x 120	S	1	1770,00 ZP
M 30 x 130	S	1	1910,00 ZP
M 30 x 140	S	1	1990,00 ZP
M 30 x 150	S	1	2070,00 ZP
M 30 x 160	S	1	2280,00 ZP
M 30 x 170	S	1	2350,00 ZP
M 30 x 180	S	1	2500,00 ZP
M 30 x 190	S	1	2700,00 ZP
M 30 x 200	S	1	2700,00 ZP
M 30 x 210	S	1	2900,00 ZP
M 30 x 220	S	1	3100,00 ZP
M 30 x 240	S	1	3300,00 ZP
M 30 x 260	S	1	4200,00 ZP
M 30 x 280	S	1	4550,00 ZP
M 30 x 300	S	1	4950,00 ZP
M 30 x 320	S	1	5300,00 ZP
M 33 x 60	S	1	1650,00 ZP
M 33 x 70	S	1	1810,00 ZP
M 33 x 75	S	1	1910,00 ZP
M 33 x 80	S	1	1870,00 ZP
M 33 x 90	S	1	1970,00 ZP
M 33 x 100	S	1	2080,00 ZP
M 33 x 110	S	1	2260,00 ZP
M 33 x 120	S	1	2280,00 ZP
M 33 x 130	S	1	2700,00 ZP
M 33 x 140	S	1	2900,00 ZP
M 33 x 150	S	1	3050,00 ZP
M 33 x 160	S	1	3400,00 ZP
M 33 x 170	S	1	3550,00 ZP
M 33 x 180	S	1	3700,00 ZP
M 33 x 190	S	1	3850,00 ZP
M 33 x 200	S	1	4000,00 ZP
M 36 x 50	S	1	1980,00 ZP
M 36 x 55	S	1	1990,00 ZP
M 36 x 60	S	1	2000,00 ZP
M 36 x 70	S	1	2080,00 ZP
M 36 x 75	S	1	2190,00 ZP
M 36 x 80	S	1	2200,00 ZP
M 36 x 85	S	1	2340,00 ZP
M 36 x 90	S	1	2350,00 ZP
M 36 x 100	S	1	2500,00 ZP
M 36 x 110	S	1	2650,00 ZP
M 36 x 120	S	1	2750,00 ZP
M 36 x 130	S	1	2900,00 ZP
M 36 x 140	S	1	3000,00 ZP
M 36 x 150	S	1	3200,00 ZP
M 36 x 160	S	1	3300,00 ZP
M 36 x 170	S	1	3500,00 ZP
M 36 x 180	S	1	3650,00 ZP
M 36 x 190	S	1	3800,00 ZP
M 36 x 200	S	1	4000,00 ZP
M 36 x 220	S	1	5000,00 ZP
M 36 x 280	S	1	5200,00 ZP
M 39 x 80	S	1	4500,00 ZP
M 39 x 90	S	1	4500,00 ZP
M 39 x 100	S	1	5100,00 ZP
M 39 x 110	S	1	5300,00 ZP
M 39 x 120	S	1	5900,00 ZP
M 39 x 130	S	1	6000,00 ZP
M 39 x 140	S	1	6400,00 ZP
M 39 x 150	S	1	6900,00 ZP
M 39 x 160	S	1	7500,00 ZP
M 39 x 180	S	1	8600,00 ZP
M 39 x 200	S	1	9600,00 ZP
M 42 x 50	S	1	4550,00 ZP
M 42 x 60	S	1	4550,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 42	x	70	S	1	4600,00 ZP
M 42	x	75	S	1	4750,00 ZP
M 42	x	80	S	1	4750,00 ZP
M 42	x	90	S	1	4950,00 ZP
M 42	x	100	S	1	5200,00 ZP
M 42	x	110	S	1	5700,00 ZP
M 42	x	120	S	1	6000,00 ZP
M 42	x	130	S	1	6300,00 ZP
M 42	x	140	S	1	6600,00 ZP
M 42	x	150	S	1	7000,00 ZP
M 42	x	160	S	1	7100,00 ZP
M 42	x	170	S	1	8100,00 ZP
M 42	x	180	S	1	8400,00 ZP
M 42	x	190	S	1	8700,00 ZP
M 42	x	200	S	1	9200,00 ZP
M 42	x	220	S	1	10900,00 ZP
M 48	x	60	S	1	10100,00 ZP
M 48	x	70	S	1	10100,00 ZP
M 48	x	80	S	1	10200,00 ZP
M 48	x	90	S	1	10200,00 ZP
M 48	x	100	S	1	10500,00 ZP
M 48	x	110	S	1	10800,00 ZP
M 48	x	120	S	1	11200,00 ZP
M 48	x	130	S	1	11500,00 ZP
M 48	x	140	S	1	11800,00 ZP
M 48	x	150	S	1	12000,00 ZP
M 48	x	200	S	1	19500,00 ZP

DIN	00933.349	401
933	**8.8** **zinc plated 8 TLP***	



Hexagon head screws

*< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ REACh SVHC free

M 3	x	8	S	500	7,50 ZP TLP
M 3	x	10	S	500	7,60 ZP TLP
M 3	x	12	S	500	8,30 ZP TLP
M 3	x	16	S	500	8,30 ZP TLP
M 3	x	20	S	500	8,70 ZP TLP
M 3	x	25	S	500	9,90 ZP TLP
M 4	x	6	S	500	7,80 ZP TLP
M 4	x	10	S	500	7,90 ZP TLP
M 4	x	12	S	500	8,60 ZP TLP
M 4	x	16	S	500	8,70 ZP TLP
M 4	x	20	S	500	9,20 ZP TLP
M 4	x	25	S	500	10,30 ZP TLP
M 4	x	30	S	500	12,00 ZP TLP
M 4	x	35	S	500	13,20 ZP TLP
M 4	x	40	S	500	14,40 ZP TLP
M 5	x	8	S	500	5,80 ZP TLP
M 5	x	10	S	500	5,90 ZP TLP
M 5	x	12	S	500	6,10 ZP TLP
M 5	x	16	S	500	6,30 ZP TLP
M 5	x	20	S	500	6,70 ZP TLP
M 5	x	25	S	500	7,60 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	30	S	500	8,70 ZP TLP
M 5	x	35	S	200	9,90 ZP TLP
M 5	x	40	S	200	13,00 ZP TLP
M 5	x	50	S	200	16,90 ZP TLP
M 6	x	8	S	500	8,60 ZP TLP
M 6	x	10	S	500	8,10 ZP TLP
M 6	x	12	S	500	8,20 ZP TLP
M 6	x	16	S	500	7,60 ZP TLP
M 6	x	18	S	500	7,90 ZP TLP
M 6	x	20	S	500	8,00 ZP TLP
M 6	x	25	S	500	8,80 ZP TLP
M 6	x	30	S	100	9,60 ZP TLP
M 6	x	35	S	200	10,60 ZP TLP
M 6	x	40	S	200	11,70 ZP TLP
M 6	x	45	S	200	16,10 ZP TLP
M 6	x	50	S	200	16,60 ZP TLP
M 6	x	55	S	200	28,00 ZP TLP
M 6	x	60	S	200	31,50 ZP TLP
M 6	x	65	S	200	39,50 ZP TLP
M 6	x	70	S	200	48,00 ZP TLP
M 6	x	75	S	200	56,00 ZP TLP
M 6	x	80	S	200	57,00 ZP TLP
M 8	x	10	S	200	15,70 ZP TLP
M 8	x	12	S	200	14,40 ZP TLP
M 8	x	16	S	200	12,10 ZP TLP
M 8	x	18	S	200	12,80 ZP TLP
M 8	x	20	S	200	12,90 ZP TLP
M 8	x	22	S	200	14,60 ZP TLP
M 8	x	25	S	200	14,80 ZP TLP
M 8	x	30	S	200	16,10 ZP TLP
M 8	x	35	S	200	17,90 ZP TLP
M 8	x	40	S	200	19,60 ZP TLP
M 8	x	45	S	200	23,20 ZP TLP
M 8	x	50	S	200	26,50 ZP TLP
M 8	x	55	S	200	37,50 ZP TLP
M 8	x	60	S	200	40,00 ZP TLP
M 8	x	65	S	200	52,00 ZP TLP
M 8	x	70	S	200	63,00 ZP TLP
M 8	x	75	S	200	75,00 ZP TLP
M 8	x	80	S	200	75,00 ZP TLP
M 8	x	90	S	100	88,00 ZP TLP
M 8	x	100	S	100	101,00 ZP TLP
M 8	x	110	S	100	126,00 ZP TLP
M 10	x	12	S	200	32,00 ZP TLP
M 10	x	16	S	200	22,60 ZP TLP
M 10	x	20	S	200	22,10 ZP TLP
M 10	x	25	S	200	23,90 ZP TLP
M 10	x	30	S	200	26,00 ZP TLP
M 10	x	35	S	100	28,50 ZP TLP
M 10	x	40	S	100	30,50 ZP TLP
M 10	x	45	S	100	36,00 ZP TLP
M 10	x	50	S	100	37,50 ZP TLP
M 10	x	55	S	100	48,50 ZP TLP
M 10	x	60	S	100	53,00 ZP TLP
M 10	x	65	S	100	79,00 ZP TLP
M 10	x	70	S	100	80,00 ZP TLP
M 10	x	80	S	100	108,00 ZP TLP
M 10	x	90	S	100	126,00 ZP TLP
M 10	x	100	S	100	148,00 ZP TLP
M 10	x	110	S	50	197,00 ZP TLP
M 10	x	120	S	50	203,00 ZP TLP
M 10	x	130	S	50	265,00 ZP TLP
M 12	x	16	S	100	39,50 ZP TLP
M 12	x	20	S	100	37,00 ZP TLP
M 12	x	25	S	100	38,00 ZP TLP
M 12	x	30	S	100	37,50 ZP TLP
M 12	x	35	S	100	41,00 ZP TLP
M 12	x	40	S	100	44,50 ZP TLP
M 12	x	45	S	100	49,00 ZP TLP
M 12	x	50	S	100	53,00 ZP TLP
M 12	x	55	S	100	63,00 ZP TLP
M 12	x	60	S	100	67,00 ZP TLP
M 12	x	65	S	50	100,00 ZP TLP
M 12	x	70	S	50	101,00 ZP TLP
M 12	x	75	S	50	113,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	80	S	50	136,00 ZP TLP
M 12	x	90	S	50	161,00 ZP TLP
M 12	x	100	S	50	181,00 ZP TLP
M 12	x	120	S	50	270,00 ZP TLP
M 14	x	30	S	100	111,00 ZP TLP
M 14	x	35	S	100	124,00 ZP TLP
M 14	x	40	S	100	125,00 ZP TLP
M 14	x	45	S	100	137,00 ZP TLP
M 14	x	50	S	100	144,00 ZP TLP
M 16	x	20	S	50	78,00 ZP TLP
M 16	x	25	S	50	80,00 ZP TLP
M 16	x	30	S	50	78,00 ZP TLP
M 16	x	35	S	50	84,00 ZP TLP
M 16	x	40	S	50	88,00 ZP TLP
M 16	x	45	S	50	94,00 ZP TLP
M 16	x	50	S	50	101,00 ZP TLP
M 16	x	55	S	50	118,00 ZP TLP
M 16	x	60	S	50	125,00 ZP TLP
M 16	x	65	S	25	176,00 ZP TLP
M 16	x	70	S	25	180,00 ZP TLP
M 16	x	75	S	25	205,00 ZP TLP
M 16	x	80	S	25	245,00 ZP TLP
M 16	x	85	S	25	305,00 ZP TLP
M 16	x	90	S	25	310,00 ZP TLP
M 16	x	100	S	25	350,00 ZP TLP
M 16	x	120	S	25	480,00 ZP TLP
M 16	x	130	S	25	500,00 ZP TLP
M 16	x	140	S	25	530,00 ZP TLP
M 16	x	150	S	25	590,00 ZP TLP
M 20	x	30	S	25	172,00 ZP TLP
M 20	x	35	S	25	176,00 ZP TLP
M 20	x	40	S	25	169,00 ZP TLP
M 20	x	45	S	25	174,00 ZP TLP
M 20	x	50	S	25	180,00 ZP TLP
M 20	x	55	S	25	188,00 ZP TLP
M 20	x	60	S	25	193,00 ZP TLP
M 20	x	65	S	25	217,00 ZP TLP
M 20	x	70	S	25	227,00 ZP TLP
M 20	x	75	S	25	275,00 ZP TLP
M 20	x	80	S	25	270,00 ZP TLP
M 20	x	90	S	25	400,00 ZP TLP
M 20	x	100	S	25	540,00 ZP TLP
M 20	x	110	S	25	590,00 ZP TLP
M 20	x	120	S	25	650,00 ZP TLP
M 24	x	50	S	25	295,00 ZP TLP
M 24	x	55	S	25	310,00 ZP TLP
M 24	x	60	S	25	320,00 ZP TLP
M 24	x	65	S	25	360,00 ZP TLP
M 24	x	70	S	25	365,00 ZP TLP
M 24	x	75	S	25	465,00 ZP TLP
M 24	x	80	S	25	445,00 ZP TLP
M 24	x	90	S	10	670,00 ZP TLP
M 24	x	100	S	10	860,00 ZP TLP
M 24	x	110	S	10	990,00 ZP TLP
M 30	x	100	S	1	1970,00 ZP TLP
M 30	x	120	S	1	2210,00 ZP TLP

ROM® REYHER ORDER MANAGEMENT

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- Customized Kanban service with combinable modules
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Dimensions	PU Pieces	€/100/Mat.
DIN	00933.428	401
933	**8.8 zinc plated 8 TLP* + SL****	



Hexagon head screws

*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 – 0,18, salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

- DIN 933 ➔ replaced by ISO 4017
- ∅ M 10, 12, 14, 22 with ISO wrench sizes under ISO 4017 on stock

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	8	S	500	7,20 ZP TLP
M 3	x	10	S	500	7,30 ZP TLP
M 3	x	12	S	500	8,00 ZP TLP
M 3	x	16	S	500	8,00 ZP TLP
M 3	x	20	S	500	8,30 ZP TLP
M 3	x	25	S	500	9,40 ZP TLP
M 4	x	6	S	500	7,50 ZP TLP
M 4	x	8	S	500	7,50 ZP TLP
M 4	x	10	S	500	7,60 ZP TLP
M 4	x	12	S	500	8,30 ZP TLP
M 4	x	16	S	500	8,30 ZP TLP
M 4	x	20	S	500	8,80 ZP TLP
M 4	x	25	S	500	9,90 ZP TLP
M 4	x	30	S	500	11,40 ZP TLP
M 4	x	35	S	500	12,70 ZP TLP
M 4	x	40	S	500	13,80 ZP TLP
M 5	x	8	S	500	5,60 ZP TLP
M 5	x	8	S	500	5,60 ZP TLP
M 5	x	12	S	500	5,90 ZP TLP
M 5	x	16	S	500	6,00 ZP TLP
M 5	x	20	S	500	6,40 ZP TLP
M 5	x	25	S	500	7,30 ZP TLP
M 5	x	30	S	500	8,30 ZP TLP
M 5	x	35	S	200	9,50 ZP TLP
M 5	x	40	S	200	12,50 ZP TLP
M 5	x	50	S	200	16,20 ZP TLP
M 6	x	8	S	500	8,30 ZP TLP
M 6	x	10	S	500	7,70 ZP TLP
M 6	x	12	S	500	7,90 ZP TLP
M 6	x	16	S	500	7,30 ZP TLP
M 6	x	18	S	500	7,60 ZP TLP
M 6	x	20	S	500	7,70 ZP TLP
M 6	x	22	S	500	7,90 ZP TLP
M 6	x	25	S	500	8,50 ZP TLP
M 6	x	30	S	500	9,20 ZP TLP
M 6	x	35	S	200	10,10 ZP TLP
M 6	x	40	S	200	11,20 ZP TLP
M 6	x	45	S	200	15,40 ZP TLP
M 6	x	50	S	200	15,90 ZP TLP
M 6	x	55	S	200	27,00 ZP TLP
M 6	x	60	S	200	30,00 ZP TLP
M 6	x	65	S	200	37,50 ZP TLP
M 6	x	70	S	200	46,00 ZP TLP
M 6	x	75	S	200	54,00 ZP TLP
M 6	x	80	S	200	55,00 ZP TLP
M 8	x	10	S	200	15,00 ZP TLP
M 8	x	12	S	200	13,80 ZP TLP
M 8	x	14	S	200	12,80 ZP TLP
M 8	x	16	S	200	11,60 ZP TLP
M 8	x	18	S	200	12,20 ZP TLP
M 8	x	20	S	200	12,40 ZP TLP
M 8	x	22	S	200	14,00 ZP TLP
M 8	x	25	S	200	14,20 ZP TLP
M 8	x	28	S	200	14,70 ZP TLP
M 8	x	30	S	200	15,40 ZP TLP
M 8	x	35	S	200	17,20 ZP TLP
M 8	x	40	S	200	18,80 ZP TLP
M 8	x	45	S	200	22,30 ZP TLP
M 8	x	50	S	200	25,50 ZP TLP
M 8	x	55	S	200	36,00 ZP TLP
M 8	x	60	S	200	38,50 ZP TLP
M 8	x	65	S	200	50,00 ZP TLP
M 8	x	70	S	200	61,00 ZP TLP
M 8	x	75	S	200	72,00 ZP TLP
M 8	x	80	S	200	72,00 ZP TLP
M 8	x	90	S	100	84,00 ZP TLP
M 8	x	100	S	100	96,00 ZP TLP
M 8	x	110	S	100	121,00 ZP TLP
M 16	x	20	S	50	75,00 ZP TLP
M 16	x	25	S	50	77,00 ZP TLP
M 16	x	30	S	50	75,00 ZP TLP
M 16	x	35	S	50	80,00 ZP TLP
M 16	x	40	S	50	84,00 ZP TLP
M 16	x	45	S	50	90,00 ZP TLP
M 16	x	50	S	50	96,00 ZP TLP
M 16	x	55	S	50	113,00 ZP TLP
M 16	x	60	S	50	119,00 ZP TLP
M 16	x	65	S	25	169,00 ZP TLP
M 16	x	70	S	25	172,00 ZP TLP
M 16	x	75	S	25	197,00 ZP TLP
M 16	x	80	S	25	234,00 ZP TLP
M 16	x	85	S	25	295,00 ZP TLP
M 16	x	90	S	25	295,00 ZP TLP
M 16	x	100	S	25	335,00 ZP TLP
M 16	x	110	S	25	425,00 ZP TLP
M 16	x	120	S	25	460,00 ZP TLP
M 16	x	130	S	25	480,00 ZP TLP
M 16	x	140	S	25	510,00 ZP TLP
M 16	x	140	S	25	570,00 ZP TLP
M 16	x	180	S	25	830,00 ZP TLP
M 16	x	200	S	25	860,00 ZP TLP
M 18	x	100	S	25	255,00 ZP TLP
M 20	x	30	S	25	165,00 ZP TLP
M 20	x	40	S	25	162,00 ZP TLP
M 20	x	45	S	25	166,00 ZP TLP
M 20	x	50	S	25	172,00 ZP TLP
M 20	x	55	S	25	181,00 ZP TLP
M 20	x	60	S	25	185,00 ZP TLP
M 20	x	65	S	25	208,00 ZP TLP
M 20	x	70	S	25	217,00 ZP TLP
M 20	x	75	S	25	260,00 ZP TLP
M 20	x	80	S	25	260,00 ZP TLP
M 20	x	85	S	25	325,00 ZP TLP
M 20	x	90	S	25	385,00 ZP TLP
M 20	x	100	S	25	520,00 ZP TLP
M 20	x	110	S	25	570,00 ZP TLP
M 20	x	120	S	25	620,00 ZP TLP
M 20	x	150	S	25	1030,00 ZP TLP
M 24	x	50	S	25	280,00 ZP TLP
M 24	x	55	S	25	295,00 ZP TLP
M 24	x	60	S	25	310,00 ZP TLP
M 24	x	65	S	25	345,00 ZP TLP
M 24	x	70	S	25	350,00 ZP TLP
M 24	x	75	S	25	445,00 ZP TLP
M 24	x	80	S	25	425,00 ZP TLP
M 24	x	90	S	10	640,00 ZP TLP
M 24	x	100	S	10	820,00 ZP TLP
M 24	x	110	S	10	950,00 ZP TLP
M 30	x	100	S	1	1890,00 ZP TLP
M 30	x	120	S	1	2120,00 ZP TLP

Dimensions	PU Pieces	€/100/Mat.
DIN	00933.353	1530
933	**8.8 flZn/TL480h**	



Hexagon head screws

TL = lubricant in topcoat with µ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	S	500	8,40 flZn
M 6	x	12	S	500	8,60 flZn
M 6	x	14	S	500	7,70 flZn
M 6	x	16	S	500	7,90 flZn
M 6	x	18	S	500	8,30 flZn
M 6	x	20	S	500	8,30 flZn
M 6	x	25	S	500	9,20 flZn
M 6	x	30	S	500	10,00 flZn
M 6	x	35	S	200	11,00 flZn
M 6	x	40	S	200	12,20 flZn
M 6	x	45	S	200	16,70 flZn
M 6	x	50	S	200	17,20 flZn
M 6	x	55	S	200	29,00 flZn
M 6	x	60	S	200	32,50 flZn
M 8	x	12	S	200	15,00 flZn
M 8	x	16	S	200	12,60 flZn
M 8	x	20	S	200	13,40 flZn
M 8	x	25	S	200	15,40 flZn
M 8	x	30	S	200	16,70 flZn
M 8	x	35	S	200	18,60 flZn
M 8	x	40	S	200	20,40 flZn
M 8	x	45	S	200	24,10 flZn
M 8	x	50	S	200	27,50 flZn
M 8	x	55	S	200	39,00 flZn
M 8	x	60	S	200	41,50 flZn
M 8	x	65	S	200	54,00 flZn
M 8	x	70	S	200	66,00 flZn
M 16	x	25	S	50	83,00 flZn
M 16	x	30	S	50	82,00 flZn
M 16	x	35	S	50	87,00 flZn
M 16	x	40	S	50	91,00 flZn
M 16	x	45	S	50	98,00 flZn
M 16	x	50	S	50	109,00 flZn
M 16	x	55	S	50	123,00 flZn
M 16	x	60	S	50	130,00 flZn
M 16	x	65	S	25	183,00 flZn
M 16	x	70	S	25	187,00 flZn
M 16	x	75	S	25	213,00 flZn
M 16	x	80	S	25	255,00 flZn
M 16	x	90	S	25	320,00 flZn
M 16	x	100	S	25	365,00 flZn
M 16	x	110	S	25	460,00 flZn
M 16	x	120	S	25	495,00 flZn
M 20	x	30	S	25	178,00 flZn
M 20	x	35	S	25	183,00 flZn
M 20	x	40	S	25	176,00 flZn

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	45	S	25	181,00 flZn
M 20	x	50	S	25	187,00 flZn
M 20	x	55	S	25	197,00 flZn
M 20	x	60	S	25	201,00 flZn
M 20	x	65	S	25	226,00 flZn
M 20	x	70	S	25	235,00 flZn
M 20	x	75	S	25	285,00 flZn
M 20	x	80	S	25	280,00 flZn
M 20	x	90	S	25	415,00 flZn
M 20	x	100	S	25	560,00 flZn
M 20	x	110	S	25	610,00 flZn
M 20	x	120	S	25	670,00 flZn
M 24	x	40	S	25	365,00 flZn
M 24	x	45	S	25	315,00 flZn
M 24	x	50	S	25	305,00 flZn
M 24	x	55	S	25	320,00 flZn
M 24	x	60	S	25	455,00 flZn
M 24	x	65	S	25	380,00 flZn
M 24	x	70	S	25	470,00 flZn
M 24	x	75	S	25	485,00 flZn
M 24	x	80	S	25	820,00 flZn
M 24	x	90	S	10	790,00 flZn
M 24	x	100	S	10	890,00 flZn
M 24	x	110	S	10	1030,00 flZn
M 24	x	120	S	10	1070,00 flZn

DIN	00933.820	403
933	**8.8** **hot dip galvanized**	



Hexagon head screws

thread undersize (6az + HDG = U)

Caution!
Note information about hot dip galvanizing!

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ REACh SVHC free

M 6	x	12	S	500	61,00 HDG
M 6	x	16	S	500	60,00 HDG
M 6	x	20	S	500	63,00 HDG
M 6	x	25	S	500	66,00 HDG
M 6	x	30	S	500	75,00 HDG
M 6	x	35	S	200	79,00 HDG
M 6	x	40	S	200	98,00 HDG
M 8	x	10	S	200	92,00 HDG
M 8	x	12	S	200	28,50 HDG
M 8	x	16	S	200	25,50 HDG
M 8	x	18	S	200	76,00 HDG
M 8	x	20	S	200	27,50 HDG
M 8	x	25	S	200	31,50 HDG
M 8	x	30	S	200	34,50 HDG
M 8	x	35	S	200	38,50 HDG
M 8	x	40	S	200	42,00 HDG
M 8	x	45	S	200	49,00 HDG
M 8	x	50	S	200	55,00 HDG
M 8	x	60	S	200	75,00 HDG
M 8	x	70	S	200	114,00 HDG
M 8	x	80	S	200	135,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	90	S	100	430,00 HDG
M 8	x	100	S	100	450,00 HDG
M 10	x	12	S	200	62,00 HDG
M 10	x	16	S	200	47,50 HDG
M 10	x	18	S	200	142,00 HDG
M 10	x	20	S	200	47,50 HDG
M 10	x	25	S	200	52,00 HDG
M 10	x	30	S	200	57,00 HDG
M 10	x	35	S	100	62,00 HDG
M 10	x	40	S	100	66,00 HDG
M 10	x	45	S	100	76,00 HDG
M 10	x	50	S	100	81,00 HDG
M 10	x	55	S	100	100,00 HDG
M 10	x	60	S	100	107,00 HDG
M 10	x	70	S	100	148,00 HDG
M 10	x	80	S	100	195,00 HDG
M 10	x	90	S	100	234,00 HDG
M 10	x	100	S	100	270,00 HDG
M 10	x	110	S	50	355,00 HDG
M 10	x	120	S	50	400,00 HDG
M 12	x	16	S	100	80,00 HDG
M 12	x	20	S	100	77,00 HDG
M 12	x	25	S	100	80,00 HDG
M 12	x	30	S	100	81,00 HDG
M 12	x	35	S	100	89,00 HDG
M 12	x	40	S	100	96,00 HDG
M 12	x	45	S	100	105,00 HDG
M 12	x	50	S	100	113,00 HDG
M 12	x	55	S	100	132,00 HDG
M 12	x	60	S	100	141,00 HDG
M 12	x	65	S	50	177,00 HDG
M 12	x	70	S	50	193,00 HDG
M 12	x	80	S	50	255,00 HDG
M 12	x	90	S	50	295,00 HDG
M 12	x	100	S	50	330,00 HDG
M 12	x	120	S	50	475,00 HDG
M 12	x	130	S	50	510,00 HDG
M 12	x	140	S	50	680,00 HDG
M 16	x	20	S	50	161,00 HDG
M 16	x	25	S	50	167,00 HDG
M 16	x	30	S	50	167,00 HDG
M 16	x	35	S	50	181,00 HDG
M 16	x	40	S	50	193,00 HDG
M 16	x	45	S	50	204,00 HDG
M 16	x	50	S	50	220,00 HDG
M 16	x	55	S	50	255,00 HDG
M 16	x	60	S	50	265,00 HDG
M 16	x	65	S	25	335,00 HDG
M 16	x	70	S	25	340,00 HDG
M 16	x	75	S	25	410,00 HDG
M 16	x	80	S	25	460,00 HDG
M 16	x	85	S	25	510,00 HDG
M 16	x	90	S	25	570,00 HDG
M 16	x	100	S	25	630,00 HDG
M 16	x	110	S	25	800,00 HDG
M 16	x	120	S	25	860,00 HDG
M 16	x	130	S	25	950,00 HDG
M 16	x	140	S	25	960,00 HDG
M 16	x	150	S	25	1010,00 HDG
M 16	x	160	S	25	1080,00 HDG
M 16	x	170	S	25	1140,00 HDG
M 16	x	180	S	25	1190,00 HDG
M 16	x	200	S	25	1310,00 HDG
M 16	x	220	S	1	1380,00 HDG
M 16	x	240	S	1	1540,00 HDG
M 16	x	260	S	1	1640,00 HDG
M 16	x	280	S	1	1770,00 HDG
M 16	x	300	S	1	2180,00 HDG
M 20	x	30	S	25	350,00 HDG
M 20	x	35	S	25	365,00 HDG
M 20	x	40	S	25	360,00 HDG
M 20	x	45	S	25	370,00 HDG
M 20	x	50	S	25	385,00 HDG
M 20	x	55	S	25	410,00 HDG
M 20	x	60	S	25	420,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	65	S	25	470,00 HDG
M 20	x	70	S	25	480,00 HDG
M 20	x	75	S	25	540,00 HDG
M 20	x	80	S	25	570,00 HDG
M 20	x	90	S	25	750,00 HDG
M 20	x	100	S	25	980,00 HDG
M 20	x	110	S	25	1010,00 HDG
M 20	x	120	S	25	1180,00 HDG
M 20	x	130	S	1	1380,00 HDG
M 20	x	140	S	1	1780,00 HDG
M 20	x	150	S	1	1880,00 HDG
M 20	x	160	S	1	1940,00 HDG
M 20	x	180	S	1	2180,00 HDG
M 24	x	40	S	25	620,00 HDG
M 24	x	45	S	25	630,00 HDG
M 24	x	50	S	25	620,00 HDG
M 24	x	55	S	25	660,00 HDG
M 24	x	60	S	25	690,00 HDG
M 24	x	65	S	25	750,00 HDG
M 24	x	70	S	25	770,00 HDG
M 24	x	80	S	25	920,00 HDG
M 24	x	90	S	10	1230,00 HDG
M 24	x	100	S	10	1560,00 HDG
M 24	x	110	S	10	2900,00 HDG
M 24	x	120	S	10	3550,00 HDG
M 24	x	130	S	10	4200,00 HDG
M 24	x	140	S	10	4500,00 HDG
M 24	x	150	S	1	4950,00 HDG
M 24	x	180	S	1	6400,00 HDG
M 30	x	60	S	1	2800,00 HDG
M 30	x	70	S	1	3000,00 HDG
M 30	x	80	S	1	3250,00 HDG
M 30	x	90	S	1	3450,00 HDG
M 30	x	100	S	1	3700,00 HDG
M 30	x	120	S	1	3850,00 HDG
M 30	x	130	S	1	3950,00 HDG
M 30	x	140	S	1	4050,00 HDG
M 30	x	150	S	1	4100,00 HDG
M 30	x	160	S	1	4400,00 HDG
M 30	x	170	S	1	4550,00 HDG
M 30	x	180	S	1	4600,00 HDG
M 30	x	190	S	1	4700,00 HDG
M 30	x	200	S	1	4750,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions	PU Pieces	€/100/Mat.
DIN	00933.814	404
933	**8.8 zinc plated**	**Sz**



Hexagon head screws,
Sz = slotted head as per DIN 962

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 492

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6	S	500	46,50 ZP
M 4	x	8	S	500	20,40 ZP
M 4	x	10	S	500	20,60 ZP
M 4	x	12	S	500	20,70 ZP
M 4	x	16	S	500	20,90 ZP
M 4	x	20	S	500	21,20 ZP
M 5	x	8	S	500	23,40 ZP
M 5	x	10	S	500	23,80 ZP
M 5	x	12	S	500	24,20 ZP
M 5	x	16	S	500	26,00 ZP
M 5	x	20	S	500	27,00 ZP
M 5	x	25	S	500	28,50 ZP
M 6	x	10	S	500	33,50 ZP
M 6	x	12	S	500	34,00 ZP
M 6	x	16	S	500	36,00 ZP
M 6	x	20	S	500	37,50 ZP
M 6	x	22	S	500	38,00 ZP
M 6	x	25	S	500	39,50 ZP
M 6	x	30	S	500	41,50 ZP
M 8	x	12	S	200	53,00 ZP
M 8	x	16	S	200	54,00 ZP
M 8	x	20	S	200	56,00 ZP
M 8	x	25	S	200	59,00 ZP
M 8	x	30	S	200	63,00 ZP

DIN	00933.100	405
933	**10.9**	



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	10	S	500	8,20
M 5	x	12	S	500	8,40
M 5	x	14	S	500	8,80
M 5	x	16	S	500	9,00

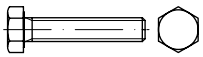
Dimensions			PU	Pieces	€/100/Mat.
M 5	x	18	S	500	9,20
M 5	x	20	S	500	9,50
M 5	x	22	S	500	9,70
M 5	x	25	S	500	10,00
M 5	x	30	S	500	11,50
M 5	x	35	S	200	13,10
M 6	x	10	S	500	22,50
M 6	x	12	S	500	13,80
M 6	x	12	K	100	17,50
M 6	x	16	S	500	11,80
M 6	x	16	K	100	15,50
M 6	x	18	S	500	12,60
M 6	x	20	S	500	12,60
M 6	x	20	K	100	16,20
M 6	x	22	S	500	13,10
M 6	x	25	S	500	13,10
M 6	x	25	K	100	16,70
M 6	x	30	S	500	15,80
M 6	x	30	K	100	20,10
M 6	x	35	S	200	18,00
M 6	x	40	S	200	19,70
M 6	x	45	S	200	77,00
M 6	x	50	S	200	92,00
M 6	x	55	S	200	107,00
M 6	x	60	S	200	123,00
M 6	x	70	S	200	236,00
M 6	x	80	S	200	255,00
M 8	x	12	S	200	23,00
M 8	x	16	S	200	16,40
M 8	x	18	S	200	17,10
M 8	x	20	S	200	17,70
M 8	x	22	S	200	19,60
M 8	x	25	S	200	20,70
M 8	x	30	S	200	20,70
M 8	x	35	S	200	24,40
M 8	x	40	S	200	26,50
M 8	x	45	S	200	39,00
M 8	x	50	S	200	42,50
M 8	x	55	S	200	55,00
M 8	x	60	S	200	55,00
M 8	x	65	S	200	138,00
M 8	x	70	S	200	138,00
M 8	x	75	S	200	170,00
M 8	x	80	S	200	170,00
M 8	x	90	S	100	222,00
M 8	x	100	S	100	325,00
M 8	x	110	S	100	445,00
M 8	x	120	S	100	500,00
M 8	x	130	S	100	690,00
M 8	x	140	S	100	750,00
M 8	x	150	S	100	780,00
M 8	x	180	S	100	940,00
M 10	x	12	S	200	47,00
M 10	x	16	S	200	33,50
M 10	x	18	S	200	33,50
M 10	x	20	S	200	29,50
M 10	x	22	S	200	31,50
M 10	x	25	S	200	31,50
M 10	x	30	S	200	33,00
M 10	x	35	S	100	35,50
M 10	x	40	S	100	37,50
M 10	x	45	S	100	44,50
M 10	x	50	S	100	50,00
M 10	x	55	S	100	83,00
M 10	x	60	S	100	83,00
M 10	x	65	S	100	176,00
M 10	x	70	S	100	194,00
M 10	x	75	S	100	223,00
M 10	x	80	S	100	223,00
M 10	x	90	S	100	335,00
M 10	x	100	S	100	415,00
M 10	x	110	S	50	480,00
M 10	x	120	S	50	660,00
M 10	x	130	S	50	750,00
M 10	x	140	S	50	810,00

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	150	S	50	860,00
M 10	x	200	S	50	1180,00
M 12	x	16	S	100	190,00
M 12	x	20	S	100	55,00
M 12	x	25	S	100	51,00
M 12	x	30	S	100	54,00
M 12	x	35	S	100	56,00
M 12	x	40	S	100	59,00
M 12	x	45	S	100	67,00
M 12	x	50	S	100	70,00
M 12	x	55	S	100	97,00
M 12	x	60	S	100	104,00
M 12	x	65	S	50	170,00
M 12	x	70	S	50	215,00
M 12	x	75	S	50	295,00
M 12	x	80	S	50	295,00
M 12	x	90	S	50	390,00
M 12	x	100	S	50	460,00
M 12	x	110	S	50	530,00
M 12	x	120	S	50	590,00
M 12	x	130	S	50	760,00
M 12	x	140	S	50	830,00
M 12	x	150	S	50	870,00
M 12	x	160	S	25	910,00
M 12	x	170	S	25	940,00
M 12	x	180	S	25	1020,00
M 12	x	200	S	25	1190,00
M 14	x	25	S	100	101,00
M 14	x	30	S	100	96,00
M 14	x	35	S	100	99,00
M 14	x	40	S	100	104,00
M 14	x	45	S	50	108,00
M 14	x	50	S	50	113,00
M 14	x	55	S	50	138,00
M 14	x	60	S	50	138,00
M 14	x	65	S	50	245,00
M 14	x	70	S	50	245,00
M 14	x	75	S	50	280,00
M 14	x	80	S	50	340,00
M 14	x	90	S	50	490,00
M 14	x	100	S	50	590,00
M 14	x	110	S	50	880,00
M 14	x	120	S	50	920,00
M 14	x	160	S	25	1340,00
M 14	x	200	S	25	1740,00
M 16	x	20	S	50	176,00
M 16	x	25	S	50	110,00
M 16	x	30	S	50	110,00
M 16	x	35	S	50	110,00
M 16	x	40	S	50	120,00
M 16	x	45	S	50	123,00
M 16	x	50	S	50	136,00
M 16	x	55	S	50	147,00
M 16	x	60	S	50	147,00
M 16	x	65	S	25	310,00
M 16	x	70	S	25	310,00
M 16	x	75	S	25	395,00
M 16	x	80	S	25	325,00
M 16	x	90	S	25	460,00
M 16	x	100	S	25	590,00
M 16	x	110	S	25	660,00
M 16	x	120	S	25	720,00
M 16	x	130	S	25	810,00
M 16	x	140	S	25	870,00
M 16	x	150	S	25	910,00
M 16	x	160	S	25	960,00
M 16	x	170	S	25	1010,00
M 16	x	180	S	25	1060,00
M 16	x	190	S	25	1160,00
M 16	x	200	S	25	1250,00
M 16	x	220	S	1	1390,00
M 16	x	240	S	1	1730,00
M 16	x	260	S	1	1890,00
M 16	x	280	S	1	2050,00
M 16	x	300	S	1	2200,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 18	x	30	S	50	300,00
M 18	x	35	S	50	300,00
M 18	x	40	S	50	270,00
M 18	x	45	S	50	290,00
M 18	x	50	S	50	295,00
M 18	x	55	S	25	305,00
M 18	x	60	S	25	320,00
M 18	x	65	S	25	730,00
M 18	x	70	S	25	840,00
M 18	x	75	S	25	840,00
M 18	x	80	S	25	1030,00
M 18	x	90	S	25	1050,00
M 18	x	100	S	25	1070,00
M 18	x	120	S	25	1210,00
M 18	x	130	S	25	1310,00
M 18	x	160	S	25	1610,00
M 18	x	200	S	25	1980,00
M 20	x	30	S	25	440,00
M 20	x	35	S	25	300,00
M 20	x	40	S	25	270,00
M 20	x	45	S	25	290,00
M 20	x	50	S	25	295,00
M 20	x	55	S	25	305,00
M 20	x	60	S	25	320,00
M 20	x	65	S	25	610,00
M 20	x	70	S	25	620,00
M 20	x	75	S	25	640,00
M 20	x	80	S	25	640,00
M 20	x	90	S	25	640,00
M 20	x	100	S	25	680,00
M 20	x	110	S	25	1050,00
M 20	x	120	S	25	1060,00
M 20	x	130	S	25	1220,00
M 20	x	140	S	25	1300,00
M 20	x	150	S	25	1390,00
M 20	x	160	S	25	1490,00
M 20	x	170	S	25	1580,00
M 20	x	180	S	25	1680,00
M 20	x	190	S	25	1750,00
M 20	x	200	S	1	1830,00
M 20	x	210	S	1	2130,00
M 20	x	220	S	1	2130,00
M 20	x	240	S	1	2390,00
M 20	x	260	S	1	2650,00
M 20	x	280	S	1	3000,00
M 20	x	300	S	1	3250,00
M 22	x	50	S	25	1050,00
M 22	x	55	S	25	1230,00
M 22	x	60	S	25	1050,00
M 22	x	65	S	25	1230,00
M 22	x	70	S	25	1290,00
M 22	x	75	S	25	1360,00
M 22	x	80	S	25	1400,00
M 22	x	90	S	25	1530,00
M 22	x	100	S	10	1580,00
M 22	x	110	S	10	1780,00
M 22	x	120	S	10	1910,00
M 22	x	130	S	10	2100,00
M 22	x	140	S	10	2240,00
M 22	x	150	S	10	2360,00
M 22	x	200	S	10	3250,00
M 24	x	30	S	25	630,00
M 24	x	35	S	25	630,00
M 24	x	40	S	25	475,00
M 24	x	45	S	25	475,00
M 24	x	50	S	25	780,00
M 24	x	55	S	25	780,00
M 24	x	60	S	25	780,00
M 24	x	65	S	25	790,00
M 24	x	70	S	25	810,00
M 24	x	75	S	25	820,00
M 24	x	80	S	25	830,00
M 24	x	90	S	10	840,00
M 24	x	100	S	10	880,00
M 24	x	110	S	10	980,00
M 24	x	120	S	10	1050,00
M 24	x	130	S	1	1400,00
M 24	x	140	S	1	1490,00
M 24	x	150	S	1	1580,00
M 24	x	160	S	1	1740,00
M 24	x	170	S	1	1870,00
M 24	x	180	S	1	1960,00
M 24	x	190	S	1	2040,00
M 24	x	200	S	1	2140,00
M 24	x	210	S	1	2390,00
M 24	x	220	S	1	2390,00
M 24	x	240	S	1	2800,00
M 24	x	260	S	1	3200,00
M 24	x	280	S	1	3700,00
M 24	x	300	S	1	4000,00
M 27	x	50	S	10	1050,00
M 27	x	55	S	10	1050,00
M 27	x	60	S	10	1050,00
M 27	x	65	S	10	1060,00
M 27	x	70	S	10	1090,00
M 27	x	75	S	10	1110,00
M 27	x	80	S	10	1120,00
M 27	x	90	S	10	1140,00
M 27	x	100	S	10	1190,00
M 27	x	110	S	10	1320,00
M 27	x	120	S	10	1390,00
M 27	x	130	S	1	1460,00
M 27	x	140	S	1	1610,00
M 27	x	150	S	1	1690,00
M 27	x	160	S	1	1880,00
M 27	x	180	S	1	2080,00
M 27	x	200	S	1	2250,00
M 30	x	40	S	1	1140,00
M 30	x	50	S	1	1140,00
M 30	x	55	S	1	1140,00
M 30	x	60	S	1	1200,00
M 30	x	65	S	1	1230,00
M 30	x	70	S	1	1250,00
M 30	x	75	S	1	1270,00
M 30	x	80	S	1	1290,00
M 30	x	90	S	1	1340,00
M 30	x	100	S	1	1420,00
M 30	x	110	S	1	1590,00
M 30	x	120	S	1	1690,00
M 30	x	130	S	1	1780,00
M 30	x	140	S	1	1930,00
M 30	x	150	S	1	2040,00
M 30	x	160	S	1	2280,00
M 30	x	170	S	1	3350,00
M 30	x	180	S	1	3200,00
M 30	x	190	S	1	3650,00
M 30	x	200	S	1	3450,00
M 33	x	100	S	1	3900,00
M 33	x	160	S	1	4750,00
M 33	x	200	S	1	5700,00
M 36	x	40	S	1	2040,00
M 36	x	50	S	1	2040,00
M 36	x	55	S	1	2040,00
M 36	x	60	S	1	2040,00
M 36	x	65	S	1	2040,00
M 36	x	70	S	1	2080,00
M 36	x	75	S	1	2130,00
M 36	x	80	S	1	2170,00
M 36	x	90	S	1	2250,00
M 36	x	100	S	1	2350,00
M 36	x	110	S	1	2600,00
M 36	x	120	S	1	2750,00
M 36	x	130	S	1	2900,00
M 36	x	140	S	1	3150,00
M 36	x	150	S	1	3250,00
M 36	x	160	S	1	3650,00
M 36	x	170	S	1	4550,00
M 36	x	180	S	1	3950,00
M 36	x	190	S	1	4950,00
M 36	x	200	S	1	4250,00
M 42	x	100	S	1	5900,00
M 42	x	110	S	1	6600,00
M 42	x	130	S	1	7300,00
M 42	x	200	S	1	10800,00

DIN	00933.110	405
933	**10.9** **zinc plated**	



Hexagon head screws

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

M 6	x	10	S	500	24,40 ZP
M 6	x	12	S	500	15,90 ZP
M 6	x	16	S	500	14,20 ZP
M 6	x	20	S	500	15,30 ZP
M 6	x	22	S	500	16,10 ZP
M 6	x	25	S	500	16,20 ZP
M 6	x	30	S	500	19,30 ZP
M 6	x	35	S	500	22,10 ZP
M 6	x	40	S	500	24,10 ZP
M 6	x	45	S	200	81,00 ZP
M 6	x	50	S	200	97,00 ZP
M 6	x	55	S	200	112,00 ZP
M 6	x	60	S	200	127,00 ZP
M 8	x	12	S	200	28,00 ZP
M 8	x	16	S	200	21,40 ZP
M 8	x	18	S	200	22,70 ZP
M 8	x	20	S	200	23,30 ZP
M 8	x	22	S	200	26,50 ZP
M 8	x	25	S	200	27,00 ZP
M 8	x	30	S	200	28,00 ZP
M 8	x	35	S	200	32,50 ZP
M 8	x	40	S	200	35,00 ZP
M 8	x	45	S	200	49,50 ZP
M 8	x	50	S	200	53,00 ZP
M 8	x	55	S	200	66,00 ZP
M 8	x	60	S	200	68,00 ZP
M 8	x	70	S	200	152,00 ZP
M 8	x	75	S	200	184,00 ZP
M 8	x	80	S	200	182,00 ZP
M 8	x	100	S	100	340,00 ZP
M 10	x	12	S	200	56,00 ZP
M 10	x	16	S	200	43,00 ZP
M 10	x	18	S	200	42,50 ZP
M 10	x	20	S	200	39,50 ZP
M 10	x	25	S	200	42,50 ZP
M 10	x	30	S	200	45,50 ZP
M 10	x	35	S	100	48,00 ZP
M 10	x	40	S	100	52,00 ZP
M 10	x	45	S	100	61,00 ZP
M 10	x	50	S	100	67,00 ZP
M 10	x	55	S	100	98,00 ZP
M 10	x	60	S	100	102,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 70	S	100	216,00 ZP
M 10 x 75	S	100	247,00 ZP
M 10 x 80	S	100	247,00 ZP
M 10 x 90	S	100	360,00 ZP
M 10 x 100	S	100	445,00 ZP
M 10 x 110	S	50	510,00 ZP
M 12 x 20	S	100	69,00 ZP
M 12 x 25	S	100	66,00 ZP
M 12 x 30	S	100	70,00 ZP
M 12 x 35	S	100	75,00 ZP
M 12 x 40	S	100	80,00 ZP
M 12 x 45	S	100	88,00 ZP
M 12 x 50	S	100	93,00 ZP
M 12 x 55	S	100	120,00 ZP
M 12 x 60	S	100	132,00 ZP
M 12 x 65	S	50	200,00 ZP
M 12 x 70	S	50	246,00 ZP
M 12 x 75	S	50	270,00 ZP
M 12 x 80	S	50	310,00 ZP
M 12 x 90	S	50	425,00 ZP
M 12 x 100	S	50	510,00 ZP
M 12 x 110	S	50	570,00 ZP
M 12 x 120	S	50	630,00 ZP
M 12 x 130	S	50	770,00 ZP
M 12 x 140	S	50	880,00 ZP
M 12 x 150	S	50	930,00 ZP
M 12 x 160	S	25	970,00 ZP
M 12 x 180	S	25	1090,00 ZP
M 12 x 200	S	25	1270,00 ZP
M 14 x 30	S	100	125,00 ZP
M 14 x 35	S	100	129,00 ZP
M 14 x 40	S	100	136,00 ZP
M 14 x 45	S	50	141,00 ZP
M 14 x 50	S	50	151,00 ZP
M 14 x 60	S	50	181,00 ZP
M 14 x 65	S	50	295,00 ZP
M 14 x 70	S	50	295,00 ZP
M 14 x 80	S	50	395,00 ZP
M 14 x 90	S	50	550,00 ZP
M 16 x 20	S	50	208,00 ZP
M 16 x 25	S	50	142,00 ZP
M 16 x 30	S	50	146,00 ZP
M 16 x 35	S	50	151,00 ZP
M 16 x 40	S	50	161,00 ZP
M 16 x 45	S	50	166,00 ZP
M 16 x 50	S	50	182,00 ZP
M 16 x 55	S	50	197,00 ZP
M 16 x 60	S	50	201,00 ZP
M 16 x 65	S	25	365,00 ZP
M 16 x 70	S	25	365,00 ZP
M 16 x 75	S	25	385,00 ZP
M 16 x 80	S	25	390,00 ZP
M 16 x 90	S	25	540,00 ZP
M 16 x 100	S	25	670,00 ZP
M 16 x 110	S	25	750,00 ZP
M 16 x 120	S	25	820,00 ZP
M 16 x 140	S	25	970,00 ZP
M 16 x 150	S	25	1020,00 ZP
M 16 x 160	S	25	1080,00 ZP
M 16 x 170	S	25	1130,00 ZP
M 16 x 180	S	25	1190,00 ZP
M 16 x 190	S	25	1290,00 ZP
M 16 x 200	S	25	1390,00 ZP
M 16 x 220	S	1	1550,00 ZP
M 16 x 240	S	1	1900,00 ZP
M 16 x 260	S	1	2070,00 ZP
M 16 x 280	S	1	2240,00 ZP
M 16 x 300	S	1	2410,00 ZP
M 18 x 40	S	50	330,00 ZP
M 18 x 45	S	50	350,00 ZP
M 18 x 50	S	50	355,00 ZP
M 18 x 55	S	25	370,00 ZP
M 18 x 60	S	25	390,00 ZP
M 18 x 70	S	25	900,00 ZP
M 20 x 30	S	25	510,00 ZP

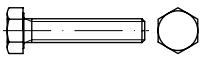
Dimensions	PU	Pieces	€/100/Mat.
M 20 x 35	S	25	285,00 ZP
M 20 x 40	S	25	345,00 ZP
M 20 x 45	S	25	365,00 ZP
M 20 x 50	S	25	375,00 ZP
M 20 x 55	S	25	385,00 ZP
M 20 x 60	S	25	410,00 ZP
M 20 x 65	S	25	710,00 ZP
M 20 x 70	S	25	720,00 ZP
M 20 x 75	S	25	750,00 ZP
M 20 x 80	S	25	750,00 ZP
M 20 x 90	S	25	760,00 ZP
M 20 x 100	S	25	810,00 ZP
M 20 x 110	S	25	1200,00 ZP
M 20 x 120	S	25	1210,00 ZP
M 20 x 130	S	25	1380,00 ZP
M 20 x 140	S	25	1470,00 ZP
M 20 x 150	S	25	1570,00 ZP
M 20 x 160	S	25	1680,00 ZP
M 20 x 170	S	25	1780,00 ZP
M 20 x 180	S	25	1890,00 ZP
M 20 x 190	S	25	1970,00 ZP
M 20 x 200	S	25	2060,00 ZP
M 20 x 210	S	1	2370,00 ZP
M 20 x 220	S	1	2380,00 ZP
M 20 x 240	S	1	2700,00 ZP
M 20 x 260	S	1	2950,00 ZP
M 24 x 30	S	25	730,00 ZP
M 24 x 40	S	25	590,00 ZP
M 24 x 45	S	25	600,00 ZP
M 24 x 50	S	25	900,00 ZP
M 24 x 55	S	25	910,00 ZP
M 24 x 60	S	25	910,00 ZP
M 24 x 65	S	25	940,00 ZP
M 24 x 70	S	25	970,00 ZP
M 24 x 75	S	25	990,00 ZP
M 24 x 80	S	25	990,00 ZP
M 24 x 90	S	10	1010,00 ZP
M 24 x 100	S	10	1070,00 ZP
M 24 x 110	S	10	1190,00 ZP
M 24 x 120	S	10	1270,00 ZP
M 24 x 130	S	1	1640,00 ZP
M 24 x 140	S	1	1750,00 ZP
M 24 x 150	S	1	1850,00 ZP
M 24 x 160	S	1	2030,00 ZP
M 24 x 170	S	1	2170,00 ZP
M 24 x 180	S	1	2280,00 ZP
M 24 x 190	S	1	2370,00 ZP
M 24 x 200	S	1	2490,00 ZP
M 27 x 60	S	10	1250,00 ZP
M 27 x 70	S	10	1310,00 ZP
M 27 x 80	S	10	1350,00 ZP
M 27 x 90	S	10	1400,00 ZP
M 27 x 100	S	10	1460,00 ZP
M 27 x 110	S	10	1610,00 ZP
M 27 x 120	S	10	1690,00 ZP
M 27 x 130	S	1	1790,00 ZP
M 27 x 140	S	1	1950,00 ZP
M 30 x 40	S	1	1350,00 ZP
M 30 x 50	S	1	1380,00 ZP
M 30 x 55	S	1	1460,00 ZP
M 30 x 60	S	1	1460,00 ZP
M 30 x 65	S	1	1490,00 ZP
M 30 x 70	S	1	1540,00 ZP
M 30 x 75	S	1	1580,00 ZP
M 30 x 80	S	1	1600,00 ZP
M 30 x 90	S	1	1670,00 ZP
M 30 x 100	S	1	1770,00 ZP
M 30 x 110	S	1	1600,00 ZP
M 30 x 120	S	1	2080,00 ZP
M 30 x 130	S	1	2200,00 ZP
M 30 x 140	S	1	2370,00 ZP
M 30 x 150	S	1	1290,00 ZP
M 30 x 160	S	1	2800,00 ZP
M 30 x 170	S	1	3850,00 ZP
M 30 x 180	S	1	3700,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 30 x 190	S	1	4200,00 ZP
M 30 x 200	S	1	4050,00 ZP
M 36 x 40	S	1	2290,00 ZP
M 36 x 50	S	1	2290,00 ZP
M 36 x 60	S	1	2290,00 ZP
M 36 x 70	S	1	2340,00 ZP
M 36 x 80	S	1	2440,00 ZP
M 36 x 90	S	1	2550,00 ZP
M 36 x 100	S	1	2650,00 ZP
M 36 x 110	S	1	2850,00 ZP
M 36 x 120	S	1	3000,00 ZP
M 36 x 130	S	1	3150,00 ZP
M 36 x 140	S	1	3450,00 ZP
M 36 x 150	S	1	3550,00 ZP
M 36 x 160	S	1	3950,00 ZP
M 36 x 170	S	1	4850,00 ZP
M 36 x 180	S	1	4250,00 ZP
M 36 x 190	S	1	5300,00 ZP
M 36 x 200	S	1	4600,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

DIN	00933.354	1540
933	**10.9 flZn/TL480h**	



Hexagon head screws

TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 10	S	500	28,50 flZn
M 6 x 12	S	500	18,30 flZn
M 6 x 16	S	500	16,40 flZn
M 6 x 20	S	500	17,60 flZn
M 6 x 22	S	500	18,50 flZn
M 6 x 25	S	500	18,60 flZn
M 6 x 30	S	500	22,30 flZn

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	35	S	200	25,50 flZn
M 6	x	40	S	200	28,00 flZn
M 6	x	45	S	200	93,00 flZn
M 6	x	50	S	200	111,00 flZn
M 6	x	55	S	200	129,00 flZn
M 6	x	60	S	200	147,00 flZn
M 8	x	12	S	200	32,50 flZn
M 8	x	16	S	200	24,60 flZn
M 8	x	20	S	200	27,00 flZn
M 8	x	25	S	200	31,00 flZn
M 8	x	30	S	200	32,00 flZn
M 8	x	35	S	200	37,50 flZn
M 8	x	40	S	200	40,00 flZn
M 8	x	45	S	200	57,00 flZn
M 8	x	50	S	200	61,00 flZn
M 8	x	55	S	200	76,00 flZn
M 8	x	60	S	200	78,00 flZn
M 8	x	70	S	200	174,00 flZn
M 16	x	25	S	50	164,00 flZn
M 16	x	30	S	50	167,00 flZn
M 16	x	35	S	50	174,00 flZn
M 16	x	40	S	50	186,00 flZn
M 16	x	45	S	50	192,00 flZn
M 16	x	50	S	50	210,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	232,00 flZn
M 16	x	65	S	25	420,00 flZn
M 16	x	70	S	25	420,00 flZn
M 16	x	75	S	25	435,00 flZn
M 16	x	80	S	25	450,00 flZn
M 16	x	90	S	25	620,00 flZn
M 16	x	100	S	25	770,00 flZn
M 16	x	110	S	25	860,00 flZn
M 16	x	120	S	25	940,00 flZn
M 20	x	30	S	25	580,00 flZn
M 20	x	35	S	25	330,00 flZn
M 20	x	40	S	25	395,00 flZn
M 20	x	45	S	25	420,00 flZn
M 20	x	50	S	25	430,00 flZn
M 20	x	55	S	25	445,00 flZn
M 20	x	60	S	25	470,00 flZn
M 20	x	65	S	25	810,00 flZn
M 20	x	70	S	25	830,00 flZn
M 20	x	75	S	25	860,00 flZn
M 20	x	80	S	25	860,00 flZn
M 20	x	90	S	25	870,00 flZn
M 20	x	100	S	25	930,00 flZn
M 20	x	110	S	25	1380,00 flZn
M 20	x	120	S	25	1390,00 flZn
M 24	x	40	S	25	680,00 flZn
M 24	x	45	S	25	690,00 flZn
M 24	x	50	S	25	1030,00 flZn
M 24	x	55	S	25	1050,00 flZn
M 24	x	60	S	25	1050,00 flZn
M 24	x	65	S	25	1080,00 flZn
M 24	x	70	S	25	1110,00 flZn
M 24	x	75	S	25	1130,00 flZn
M 24	x	80	S	25	1140,00 flZn
M 24	x	90	S	10	1160,00 flZn
M 24	x	100	S	10	1230,00 flZn
M 24	x	110	S	10	1370,00 flZn
M 24	x	120	S	10	1470,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
DIN	00933.132		1540

933 **10.9 flZnL480h**



hexagon head screws

flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230

Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

M 6	x	10	S	500	28,50 flZn
M 6	x	12	S	500	18,30 flZn
M 6	x	16	S	500	16,40 flZn
M 6	x	20	S	500	17,60 flZn
M 6	x	22	S	500	18,50 flZn
M 6	x	25	S	500	18,60 flZn
M 6	x	30	S	500	22,30 flZn
M 6	x	35	S	200	25,50 flZn
M 6	x	40	S	200	28,00 flZn
M 6	x	45	S	200	93,00 flZn
M 6	x	50	S	200	111,00 flZn
M 6	x	55	S	200	129,00 flZn
M 6	x	60	S	200	147,00 flZn
M 8	x	12	S	200	32,50 flZn
M 8	x	16	S	200	24,60 flZn
M 8	x	20	S	200	27,00 flZn
M 8	x	22	S	200	28,50 flZn
M 8	x	25	S	200	31,00 flZn
M 8	x	30	S	200	32,00 flZn
M 8	x	35	S	200	37,50 flZn
M 8	x	40	S	200	40,00 flZn
M 8	x	45	S	200	57,00 flZn
M 8	x	50	S	200	61,00 flZn
M 8	x	55	S	200	76,00 flZn
M 8	x	60	S	200	78,00 flZn
M 8	x	70	S	200	174,00 flZn
M 16	x	25	S	50	164,00 flZn
M 16	x	30	S	50	167,00 flZn
M 16	x	35	S	50	174,00 flZn
M 16	x	40	S	50	186,00 flZn
M 16	x	45	S	50	192,00 flZn
M 16	x	50	S	50	210,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	232,00 flZn
M 16	x	65	S	25	420,00 flZn
M 16	x	70	S	25	420,00 flZn
M 16	x	75	S	25	435,00 flZn
M 16	x	80	S	25	450,00 flZn
M 16	x	90	S	25	620,00 flZn
M 16	x	100	S	25	770,00 flZn
M 16	x	110	S	25	860,00 flZn
M 16	x	120	S	25	940,00 flZn
M 18	x	80	S	25	620,00 flZn
M 20	x	30	S	25	580,00 flZn
M 20	x	35	S	25	330,00 flZn
M 20	x	40	S	25	395,00 flZn
M 20	x	45	S	25	420,00 flZn
M 20	x	50	S	25	430,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	55	S	25	445,00 flZn
M 20	x	60	S	25	470,00 flZn
M 20	x	65	S	25	810,00 flZn
M 20	x	70	S	25	830,00 flZn
M 20	x	75	S	25	860,00 flZn
M 20	x	80	S	25	860,00 flZn
M 20	x	90	S	25	870,00 flZn
M 20	x	100	S	25	930,00 flZn
M 20	x	110	S	25	1380,00 flZn
M 20	x	120	S	25	1390,00 flZn
M 24	x	40	S	25	680,00 flZn
M 24	x	45	S	25	690,00 flZn
M 24	x	50	S	25	1030,00 flZn
M 24	x	55	S	25	1050,00 flZn
M 24	x	60	S	25	1050,00 flZn
M 24	x	65	S	25	1080,00 flZn
M 24	x	70	S	25	1110,00 flZn
M 24	x	75	S	25	1130,00 flZn
M 24	x	80	S	25	1140,00 flZn
M 24	x	90	S	10	1160,00 flZn
M 24	x	100	S	10	1230,00 flZn
M 24	x	110	S	10	1370,00 flZn
M 24	x	120	S	10	1470,00 flZn
M 30	x	110	S	1	1920,00 flZn

DIN	00933.200	406

933 **12.9**



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-232

Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 490
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

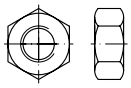
M 6	x	12	S	500	103,00
M 6	x	16	S	500	106,00
M 6	x	20	S	500	108,00
M 6	x	25	S	500	128,00
M 6	x	30	S	500	136,00
M 8	x	16	S	200	114,00
M 8	x	20	S	200	114,00
M 8	x	25	S	200	135,00
M 8	x	30	S	200	143,00
M 8	x	35	S	200	151,00
M 8	x	40	S	200	172,00
M 8	x	45	S	200	189,00
M 8	x	50	S	200	224,00
M 8	x	60	S	200	246,00
M 10	x	20	S	200	120,00
M 10	x	25	S	200	142,00
M 10	x	30	S	200	152,00
M 10	x	35	S	100	158,00
M 10	x	40	S	100	181,00
M 10	x	45	S	100	199,00
M 10	x	50	S	100	236,00
M 10	x	60	S	100	260,00
M 12	x	25	S	100	158,00
M 12	x	30	S	100	199,00
M 12	x	35	S	100	236,00
M 12	x	40	S	100	260,00
M 12	x	45	S	100	280,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	50	S	100	365,00
M 12	x	60	S	100	395,00
M 14	x	35	S	100	280,00
M 14	x	40	S	100	440,00
M 14	x	50	S	50	630,00
M 16	x	30	S	50	315,00
M 16	x	35	S	50	340,00
M 16	x	40	S	50	360,00
M 16	x	45	S	50	385,00
M 16	x	50	S	50	395,00
M 16	x	60	S	50	495,00
M 16	x	70	S	25	520,00
M 16	x	80	S	25	560,00
M 16	x	90	S	25	610,00
M 16	x	100	S	25	670,00
M 20	x	40	S	25	395,00
M 20	x	45	S	25	480,00
M 20	x	50	S	25	560,00
M 20	x	55	S	25	630,00
M 20	x	60	S	25	680,00
M 20	x	70	S	25	730,00
M 20	x	80	S	25	770,00
M 20	x	90	S	25	790,00
M 20	x	100	S	25	880,00
M 24	x	60	S	25	1200,00
M 24	x	70	S	25	1260,00
M 24	x	80	S	25	1430,00
M 24	x	90	S	10	1470,00
M 24	x	100	S	10	1900,00

DIN	00934.300	400

934

1.7218* (KG)
25CrMo4



Hexagon nuts
with certificate EN 10204/3.1 (3.1B)

(prices are plus certificate costs)
*alternative 1.7258 (24CrMo5)

Dimensions ➔ TI-62
Material properties ➔ TI-240
Tightening torque ➔ TI-245
Standard conversion ➔ TI-7

Further dimensions available at ISO 4032

RoHS ✓

REACh SVHC free

M 10	S	1	161,00
M 12	S	1	170,00

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Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.301			411

934

6 AU

Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

RoHS ✓

M 1	K	100	226,00
M 1,2	K	100	148,00
M 1,4	K	100	153,00
M 1,6	K	100	102,00
M 1,7	K	100	99,00
M 2	S	1000	27,00
M 2	K	100	35,00
M 2,3	S	1000	17,70
M 2,5	S	1000	17,70
M 2,5	K	100	35,00
M 2,6	S	1000	29,00
M 2,6	K	100	35,00
M 3	S	1000	29,00
M 3	K	100	33,00
M 3,5	S	1000	30,50
M 3,5	K	100	34,00
M 4	S	1000	19,70
M 4	K	100	34,50
M 5	S	1000	26,00
M 5	K	100	43,00
M 6	S	1000	33,00
M 6	K	100	59,00
M 7	K	100	71,00
M 8	S	1000	64,00
M 8	K	100	89,00
M 10	S	500	106,00
M 10	K	100	138,00
M 12	S	250	151,00
M 12	K	100	184,00
M 14	S	250	226,00
M 14	K	100	265,00
M 16	S	100	335,00
M 18	S	50	510,00
M 20	S	50	630,00
M 22	S	50	760,00
M 24	S	25	1090,00
M 27	S	25	1750,00
M 30	S	10	2550,00
M 36	S	10	4300,00
M 39	S	1	5400,00
M 42	S	1	7100,00
M 45	S	1	8700,00
M 48	S	1	10400,00
M 52	S	1	12600,00
M 56	S	1	17200,00
M 60	S	1	20600,00
M 64	S	1	33900,00
M 68	S	1	38800,00

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.305			411

934

6 AU
fine

Hexagon nuts
with fine pitch thread

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

DIN 934 fine thread ➔ replaced by ISO 8673

RoHS ✓

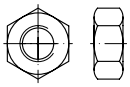
M 8	x	1	S	100	101,00
M 10	x	1	S	100	163,00
M 10	x	1,25	S	100	163,00
M 12	x	1	S	100	211,00
M 12	x	1,25	S	100	211,00
M 12	x	1,5	S	100	211,00
M 14	x	1,5	S	100	305,00
M 16	x	1,5	S	100	390,00
M 18	x	1,5	S	50	590,00
M 18	x	2	S	50	590,00
M 20	x	1,5	S	50	740,00
M 20	x	2	S	50	740,00
M 22	x	1,5	S	25	990,00
M 22	x	2	S	25	990,00
M 24	x	1,5	S	25	1290,00
M 24	x	2	S	25	1290,00
M 26	x	1,5	S	25	2060,00
M 27	x	1,5	S	25	2060,00
M 27	x	2	S	25	2060,00
M 28	x	1,5	S	10	3000,00
M 30	x	1,5	S	10	3000,00
M 30	x	2	S	10	3000,00
M 32	x	1,5	S	10	4200,00
M 33	x	1,5	S	10	4200,00
M 33	x	2	S	10	4200,00
M 35	x	1,5	S	1	5000,00
M 36	x	1,5	S	1	5000,00
M 36	x	3	S	1	5000,00
M 38	x	1,5	S	1	6300,00
M 39	x	1,5	S	1	6300,00
M 39	x	3	S	1	6300,00
M 40	x	1,5	S	1	8400,00
M 42	x	1,5	S	1	8400,00
M 42	x	3	S	1	8400,00
M 45	x	1,5	S	1	10400,00
M 45	x	3	S	1	10400,00
M 48	x	1,5	S	1	12400,00
M 48	x	3	S	1	12400,00
M 50	x	1,5	S	1	3850,00
M 52	x	1,5	S	1	12300,00
M 52	x	3	S	1	15300,00
M 56	x	2	S	1	20600,00
M 56	x	4	S	1	20600,00
M 58	x	2	S	1	22200,00
M 60	x	2	S	1	24700,00
M 60	x	4	S	1	24700,00
M 64	x	2	S	1	40700,00
M 64	x	4	S	1	40700,00
M 68	x	2	S	1	10200,00
M 68	x	4	S	1	10200,00
M 72	x	2	S	1	12000,00
M 72	x	4	S	1	48000,00
M 72	x	6	S	1	45500,00
M 76	x	2	S	1	12600,00

Dimensions			PU	Pieces	€/100/Mat.
M 76	x	4	S	1	12600,00
M 76	x	6	S	1	48500,00
M 80	x	2	S	1	57200,00
M 80	x	4	S	1	57200,00
M 80	x	6	S	1	54300,00
M 85	x	2	S	1	16400,00
M 85	x	4	S	1	16400,00
M 85	x	6	S	1	15700,00
M 90	x	2	S	1	19400,00
M 90	x	4	S	1	19400,00
M 90	x	6	S	1	74100,00
M 95	x	2	S	1	26500,00
M 95	x	4	S	1	26500,00
M 95	x	6	S	1	25300,00
M 100	x	2	S	1	27900,00
M 100	x	4	S	1	111400,00
M 100	x	6	S	1	106000,00
M 110	x	4	S	1	37800,00
M 120	x	4	S	1	44000,00

DIN 00934.304 411

934 **6 AU** **left**

(≤ M8 = 6/8)



Hexagon nuts
with metric left hand thread

Dimensions ➔ TI-62 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262

DIN 934 ➔ replaced by ISO 4032

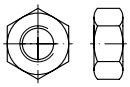
RoHS ✓

M 4	x	-LH	S	100	119,00
M 5	x	-LH	S	100	119,00
M 6	x	-LH	S	100	119,00
M 8	x	-LH	S	100	124,00
M 10	x	-LH	S	100	187,00
M 12	x	-LH	S	100	230,00
M 14	x	-LH	S	50	385,00
M 16	x	-LH	S	50	495,00
M 18	x	-LH	S	50	700,00
M 20	x	-LH	S	50	930,00
M 22	x	-LH	S	25	1130,00
M 24	x	-LH	S	25	1460,00
M 27	x	-LH	S	10	2280,00
M 30	x	-LH	S	10	2950,00
M 36	x	-LH	S	5	5100,00
M 42	x	-LH	S	1	9100,00
M 48	x	-LH	S	1	14300,00

DIN 00934.307 411

934 **6 AU** **left fine**

(≤ M8 = 6/8)



Hexagon nuts
with metric left hand fine pitch thread

Dimensions ➔ TI-62 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262

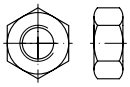
DIN 934 fine thread ➔ replaced by ISO 8673

RoHS ✓

M 8	x 1	-LH	S	100	146,00
M 10	x 1	-LH	S	100	216,00
M 12	x 1,5	-LH	S	100	275,00
M 14	x 1,5	-LH	S	50	455,00
M 16	x 1,5	-LH	S	50	590,00
M 18	x 1,5	-LH	S	50	830,00
M 20	x 1,5	-LH	S	50	1100,00
M 22	x 1,5	-LH	S	25	1340,00
M 24	x 1,5	-LH	S	25	1700,00
M 24	x 2	-LH	S	25	1700,00
M 30	x 1,5	-LH	S	10	3400,00
M 30	x 2	-LH	S	10	3400,00

DIN 00934.306 411

934 **6 AU** **Ww-BSW**



Hexagon nuts
with Whitworth thread

Dimensions ➔ TI-62 REACH ➔ TI-262
Material properties ➔ TI-233

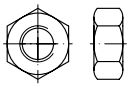
RoHS ✓

Thread ∅

WW 1/4	S	100	64,00
WW 5/16	S	100	81,00
WW 3/8	S	100	129,00
WW 1/2	S	100	247,00
WW 5/8	S	50	470,00
WW 3/4	S	50	730,00
WW 7/8	S	25	1020,00
WW 1	S	25	1650,00
WW 1 1/8	S	10	2330,00
WW 1 1/4	S	10	3350,00
WW 1 1/2	S	1	5100,00
WW 1 3/4	S	1	8300,00
WW 2	S	1	12100,00

DIN 00934.800 412

934 **8***



Hexagon nuts

*≤ M 5: property class = 6

Dimensions ➔ TI-62 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7

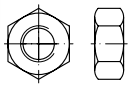
Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 2,5	S	1000	2,60
M 2,5	K	100	5,40
M 3	S	1000	1,70
M 3	K	100	4,45
M 4	S	1000	1,90
M 4	K	100	4,75
M 5	S	1000	2,45
M 5	K	100	5,30
M 6	S	1000	2,90
M 6	K	100	5,40
M 7	S	1000	4,70
M 7	K	100	7,20
M 8	S	1000	4,60
M 8	K	100	6,70
M 10	S	500	9,40
M 10	K	100	12,50
M 12	S	500	13,50
M 12	K	100	17,10
M 14	S	250	18,70
M 14	K	100	23,90
M 16	S	200	27,00
M 16	K	50	31,50
M 18	S	100	41,00
M 20	S	100	47,50
M 20	K	25	52,00
M 22	S	50	88,00
M 24	S	50	84,00
M 27	S	25	152,00
M 30	S	25	190,00
M 33	S	10	255,00
M 36	S	10	380,00
M 39	S	5	600,00
M 42	S	5	820,00
M 45	S	1	1050,00
M 48	S	1	1540,00
M 52	S	1	1810,00
M 56	S	1	3450,00
M 60	S	1	3950,00
M 64	S	1	4850,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00934.810		412
934	**8*** zinc plated		



Hexagon nuts

*≤ M 5: property class = 6

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

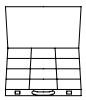
Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

RoHS ✓ | REACh SVHC free

M 2	S	1000	2,60 ZP
M 2	K	100	5,50 ZP
M 2,5	S	1000	2,70 ZP
M 2,5	K	100	5,50 ZP
M 3	S	1000	1,75 ZP
M 3	K	100	4,60 ZP
M 4	S	1000	2,15 ZP
M 4	K	100	4,95 ZP
M 5	S	1000	2,75 ZP
M 5	K	100	5,60 ZP
M 6	S	1000	3,45 ZP
M 6	K	100	6,00 ZP
M 7	S	1000	5,30 ZP
M 7	K	100	7,80 ZP
M 8	S	1000	5,50 ZP
M 8	K	100	7,70 ZP
M 10	S	500	11,40 ZP
M 10	K	100	14,70 ZP
M 12	S	500	16,40 ZP
M 12	K	100	20,30 ZP
M 14	S	250	22,90 ZP
M 14	K	100	28,50 ZP
M 16	S	200	33,00 ZP
M 16	K	50	38,50 ZP
M 18	S	100	48,50 ZP
M 20	S	100	58,00 ZP
M 20	K	25	74,00 ZP
M 22	S	50	84,00 ZP
M 24	S	50	99,00 ZP
M 27	S	50	180,00 ZP
M 30	S	25	227,00 ZP
M 33	S	1	300,00 ZP
M 36	S	1	420,00 ZP
M 39	S	1	680,00 ZP
M 42	S	1	910,00 ZP
M 45	S	1	1150,00 ZP
M 48	S	1	1720,00 ZP
M 52	S	1	2010,00 ZP
M 56	S	1	3800,00 ZP
M 60	S	1	5100,00 ZP
M 64	S	1	5300,00 ZP
M 68	S	1	6700,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	82934.810		5001
82934	**assortment 6/8 zinc plated**		**DIN 934**



Hexagon nut assortment DIN 934

Content: 12 frequently used dimensions
M 3 – M 24, approx. 645 pieces (metal box)

Your own selection on request

RoHS ✓ | REACh SVHC free

DIN 934 8	S	1	9000,00

Dimensions	PU	Pieces	€/100/Mat.
article	82935.810		5001
82935	**assortment 6/8 zinc plated**		**DIN 934 C/F**



Nut assortment, coarse / fine pitch thread

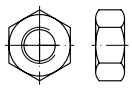
Content: 8 dim. coarse thread M 4 – M 16
4 dim. fine pitch thread M 10 x 1 – M 16 x 1,5
approx. 640 units, (metal box)

Your own selection on request

RoHS ✓ | REACh SVHC free

DIN 934 8	S	1	10800,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00934.337		412
934	**8*** zinc plated 8 TLP**		



Hexagon nuts

*≤ M 5: property class = 6,
**< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

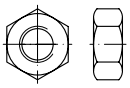
DIN 934 ➔ replaced by ISO 4032

RoHS ✓ | REACh SVHC free

M 2,5	S	1000	3,55 ZP TLP
M 3	S	1000	2,30 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
M 3	K	100	6,00 ZP TLP
M 4	S	1000	2,85 ZP TLP
M 4	K	100	6,70 ZP TLP
M 5	S	1000	3,60 ZP TLP
M 5	K	100	7,80 ZP TLP
M 6	S	1000	4,70 ZP TLP
M 6	K	100	9,10 ZP TLP
M 8	S	1000	7,50 ZP TLP
M 8	K	100	11,90 ZP TLP
M 10	S	500	15,40 ZP TLP
M 10	K	100	23,40 ZP TLP
M 12	S	500	22,20 ZP TLP
M 12	K	100	32,50 ZP TLP
M 14	S	100	39,00 ZP TLP
M 16	S	200	45,00 ZP TLP
M 16	K	50	62,00 ZP TLP
M 20	S	100	78,00 ZP TLP
M 20	K	25	120,00 ZP TLP
M 24	S	50	130,00 ZP TLP
M 30	S	25	315,00 ZP TLP
M 36	S	10	520,00 ZP TLP

DIN	00934.428	412
934	**8** zinc plated 8 TLP + SL*	



Hexagon nuts

* SL = sealer and lubrication with µ = 0,12 – 0,18, salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

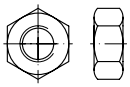
DIN 934 ➔ replaced by ISO 4032
Further dimensions available at ISO 4032

RoHS ✓ | REACh SVHC free

M 10	S	500	17,70 ZP TLP
M 12	S	500	28,20 ZP TLP
M 14	S	100	37,50 ZP TLP

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.820			413
934	8 hot dip galvanized			



Hexagon nuts

thread tolerance 6H

Caution!
Note information about hot dip galvanizing.

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

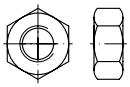
RoHS ✓ | REACh SVHC free

M 6	S 1000		6,30 HDG
M 6	K 100		9,60 HDG
M 8	S 1000		11,50 HDG
M 8	K 100		15,00 HDG
M 10	S 500		20,30 HDG
M 10	K 100		26,00 HDG
M 12	S 500		28,00 HDG
M 12	K 100		34,00 HDG
M 14	S 250		48,00 HDG
M 16	S 200		54,00 HDG
M 16	K 50		60,00 HDG
M 18	S 50		103,00 HDG
M 20	S 100		96,00 HDG
M 20	K 25		106,00 HDG
M 22	S 50		181,00 HDG
M 24	S 50		160,00 HDG
M 27	S 25		295,00 HDG
M 30	S 25		365,00 HDG
M 33	S 10		495,00 HDG
M 36	S 10		630,00 HDG
M 39	S 5		1140,00 HDG
M 42	S 5		1580,00 HDG
M 45	S 1		2050,00 HDG
M 48	S 1		2410,00 HDG
M 52	S 1		3650,00 HDG
M 56	S 1		5600,00 HDG
M 64	S 1		7200,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.830			412
934	8* nickel plated			



Hexagon nuts

*≤ M 5: property class = 6

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

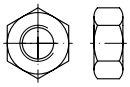
Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

RoHS ✓ | REACh SVHC free

M 3	S 1000		2,25 NP
M 4	S 1000		2,75 NP
M 5	S 1000		3,65 NP
M 6	S 1000		4,85 NP
M 8	S 1000		9,50 NP
M 10	S 500		19,40 NP

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.835			412
934	8 black*			fine



Hexagon nuts
with metric fine pitch thread

*≥ M 22 x 1,5 = grey-black

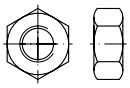
Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

DIN 934 fine thread ➔ replaced by ISO 8673

RoHS ✓ | REACh SVHC free

M 8	x 1	S 100		15,30 black
M 10	x 1	S 100		23,50 black
M 12	x 1	S 100		63,00 black
M 12	x 1,25	S 100		33,50 black
M 12	x 1,5	S 100		30,50 black
M 14	x 1,5	S 100		53,00 black
M 16	x 1,5	S 100		66,00 black
M 18	x 1,5	S 100		92,00 black
M 18	x 2	S 100		101,00 black
M 20	x 1,5	S 50		107,00 black
M 20	x 2	S 50		107,00 black
M 22	x 1,5	S 50		113,00 black
M 22	x 2	S 50		113,00 black
M 24	x 1,5	S 50		136,00 black
M 24	x 2	S 50		136,00 black
M 27	x 1,5	S 50		233,00 black
M 27	x 2	S 50		233,00 black
M 30	x 1,5	S 1		315,00 black
M 30	x 2	S 1		315,00 black
M 33	x 2	S 1		380,00 black
M 36	x 1,5	S 1		790,00 black
M 36	x 2	S 1		790,00 black
M 36	x 3	S 1		790,00 black
M 39	x 3	S 1		950,00 black
M 42	x 1,5	S 1		1360,00 black
M 42	x 3	S 1		1260,00 black
M 45	x 3	S 1		1320,00 black
M 48	x 1,5	S 1		3000,00 black
M 48	x 3	S 1		1820,00 black
M 52	x 3	S 1		2850,00 black
M 56	x 4	S 1		3900,00 black
M 60	x 4	S 1		5200,00 black
M 64	x 4	S 1		6100,00 black
M 68	x 4	S 1		7900,00 black
M 72	x 4	S 1		9400,00 black
M 72	x 6	S 1		8300,00 black
M 80	x 4	S 1		13800,00 black
M 80	x 6	S 1		11500,00 black
M 100	x 6	S 1		25200,00 black

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.815			412
934	8 zinc plated			fine



Hexagon nuts
with metric fine pitch thread

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

DIN 934 fine thread ➔ replaced by ISO 8673

RoHS ✓ | REACh SVHC free

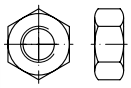
M 8	x 1	S 1000		9,70 ZP
M 8	x 1	K 100		12,80 ZP
M 10	x 1	S 500		17,10 ZP
M 10	x 1	K 100		20,40 ZP
M 10	x 1,25	S 500		21,20 ZP
M 10	x 1,25	K 100		25,50 ZP
M 12	x 1	S 500		31,50 ZP
M 12	x 1,25	S 100		29,50 ZP
M 12	x 1,5	S 500		23,40 ZP
M 12	x 1,5	K 100		26,50 ZP
M 14	x 1,25	S 100		97,00 ZP
M 14	x 1,5	S 250		41,50 ZP
M 14	x 1,5	K 100		44,50 ZP
M 16	x 1,5	S 100		57,00 ZP
M 18	x 1,5	S 100		82,00 ZP
M 18	x 2	S 100		86,00 ZP
M 20	x 1,5	S 50		95,00 ZP
M 20	x 2	S 50		101,00 ZP
M 22	x 1,5	S 50		121,00 ZP
M 22	x 2	S 50		121,00 ZP
M 24	x 1,5	S 50		153,00 ZP
M 24	x 2	S 50		153,00 ZP
M 27	x 1,5	S 50		365,00 ZP
M 27	x 2	S 50		365,00 ZP
M 30	x 1,5	S 1		345,00 ZP
M 30	x 2	S 1		345,00 ZP
M 33	x 2	S 1		550,00 ZP
M 36	x 1,5	S 1		840,00 ZP
M 36	x 2	S 1		840,00 ZP
M 36	x 3	S 1		840,00 ZP
M 39	x 3	S 1		1340,00 ZP
M 42	x 3	S 1		1340,00 ZP
M 45	x 3	S 1		2180,00 ZP
M 48	x 1,5	S 1		3050,00 ZP
M 48	x 2	S 1		3650,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
M 48	x 3	S	1	1990,00 ZP
M 52	x 3	S	1	4250,00 ZP
M 72	x 6	S	1	7700,00 ZP

DIN 00934.804 412

934

8 left



Hexagon nuts
with metric left hand thread

Dimensions → TI-62
Material properties → TI-233
Tightening torque → TI-244
Standard conversion → TI-7

DIN 934 → replaced by ISO 4032

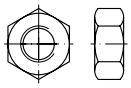
RoHS ✓ | REACh SVHC free

M 6 -LH	S	100	9,20
M 8 -LH	S	100	11,50
M 10 -LH	S	100	18,80
M 12 -LH	S	100	28,00
M 16 -LH	S	50	63,00
M 20 -LH	S	50	91,00
M 24 -LH	S	50	207,00
M 30 -LH	S	25	345,00

DIN 00934.814 412

934

8 left
zinc plated



Hexagon nuts
with metric left hand thread

Dimensions → TI-62
Material properties → TI-233
Corrosion protection → TI-228
Tightening torque → TI-244
Standard conversion → TI-7

DIN 934 → replaced by ISO 4032

RoHS ✓ | REACh SVHC free

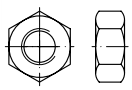
M 4 -LH	S	100	8,40 ZP
M 5 -LH	S	100	8,40 ZP
M 6 -LH	S	100	10,20 ZP
M 8 -LH	S	100	12,80 ZP
M 10 -LH	S	100	21,00 ZP
M 12 -LH	S	100	31,50 ZP
M 16 -LH	S	50	72,00 ZP
M 20 -LH	S	50	102,00 ZP
M 24 -LH	S	50	230,00 ZP
M 30 -LH	S	25	390,00 ZP
M 36 -LH	S	1	1150,00 ZP
M 39 -LH	S	1	2120,00 ZP
M 42 -LH	S	1	2700,00 ZP
M 48 -LH	S	1	4250,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
M 4		S	1000	6,20
M 4		K	100	8,80
M 5		S	1000	6,20
M 5		K	100	8,80
M 6		S	1000	6,90
M 6		K	100	9,50
M 8		S	1000	9,50
M 8		K	100	12,10
M 10		S	500	17,20
M 10		K	100	21,30
M 12		S	500	27,50
M 12		K	100	33,00
M 14		S	100	44,50
M 16		S	100	54,00
M 18		S	100	79,00
M 20		S	50	84,00
M 22		S	50	124,00
M 24		S	50	137,00
M 27		S	50	190,00
M 30		S	10	295,00
M 33		S	10	390,00
M 36		S	10	510,00
M 39		S	1	860,00
M 42		S	1	1310,00
M 45		S	1	1610,00
M 48		S	1	1870,00
M 52		S	1	3700,00

DIN 00934.110 411

934

10
zinc plated



Hexagon nuts

Dimensions → TI-62
Material properties → TI-233
Corrosion protection → TI-228
Tightening torque → TI-244
Standard conversion → TI-7

Stainless → pg. 495
Brass, Copper, Aluminium, Titanium → pg. 626

DIN 934 → replaced by ISO 4032

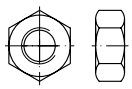
RoHS ✓ | REACh SVHC free

M 4	S	1000	6,80 ZP
M 4	K	100	9,40 ZP

DIN 00934.100 411

934

10



Hexagon nuts

Dimensions → TI-62
Material properties → TI-233
Tightening torque → TI-244
Standard conversion → TI-7

Stainless → pg. 495
Brass, Copper, Aluminium, Titanium → pg. 626

DIN 934 → replaced by ISO 4032

RoHS ✓ | REACh SVHC free

Dimensions		PU	Pieces	€/100/Mat.
M 5		S	1000	6,80 ZP
M 5		K	100	9,40 ZP
M 6		S	1000	7,60 ZP
M 6		K	100	10,20 ZP
M 8		S	1000	10,60 ZP
M 8		K	100	13,40 ZP
M 10		S	500	19,80 ZP
M 10		K	100	24,20 ZP
M 12		S	500	31,50 ZP
M 12		K	100	38,00 ZP
M 14		S	100	51,00 ZP
M 16		S	100	62,00 ZP
M 18		S	100	87,00 ZP
M 20		S	50	97,00 ZP
M 22		S	50	134,00 ZP
M 24		S	50	163,00 ZP
M 27		S	50	200,00 ZP
M 30		S	10	345,00 ZP
M 33		S	10	500,00 ZP
M 36		S	10	620,00 ZP
M 39		S	1	990,00 ZP
M 42		S	5	1470,00 ZP
M 48		S	1	1470,00 ZP
M 52		S	1	3900,00 ZP

DIN 934
Nuts with additional coatings

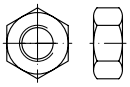
Nuts of the property class 10 with hot dip galvanizing and zinc flake coating

→ ISO 4032

DIN 00934.105 411

934

10 fine



Hexagon nuts
with metric fine pitch thread

Dimensions → TI-62
Material properties → TI-233
Tightening torque → TI-244
Standard conversion → TI-7

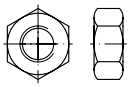
DIN 934 fine thread → replaced by ISO 8673

RoHS ✓ | REACh SVHC free

M 8	x 1	S	100	16,40
M 10	x 1	S	100	26,00
M 12	x 1,5	S	100	41,50
M 14	x 1,5	S	100	56,00
M 16	x 1,5	S	100	79,00
M 18	x 1,5	S	100	103,00
M 18	x 2	S	100	103,00
M 20	x 1,5	S	50	121,00
M 20	x 2	S	50	121,00
M 22	x 1,5	S	25	172,00
M 22	x 2	S	25	172,00
M 24	x 1,5	S	25	192,00
M 24	x 2	S	25	192,00

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	1,5	S	10	425,00
M 30	x	2	S	10	425,00
M 36	x	3	S	1	590,00
M 42	x	3	S	1	1430,00
M 48	x	3	S	1	2650,00

DIN	00934.115	411
934	**10**	**fine**
	zinc plated	



Hexagon nuts with metric fine pitch thread

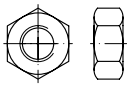
Dimensions ➔ TI-62 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7
Corrosion protection ➔ TI-228

DIN 934 fine thread ➔ replaced by ISO 8673

RoHS ✓ REACh SVHC free

M 8	x	1	S	100	25,50 ZP
M 10	x	1	S	100	35,50 ZP
M 12	x	1,5	S	100	51,00 ZP
M 14	x	1,5	S	100	62,00 ZP
M 16	x	1,5	S	100	97,00 ZP
M 18	x	1,5	S	100	121,00 ZP
M 18	x	2	S	100	121,00 ZP
M 20	x	1,5	S	50	148,00 ZP
M 20	x	2	S	25	148,00 ZP
M 24	x	1,5	S	50	230,00 ZP
M 24	x	2	S	25	230,00 ZP
M 30	x	1,5	S	10	485,00 ZP
M 30	x	2	S	10	485,00 ZP
M 36	x	3	S	1	660,00 ZP
M 42	x	3	S	1	1580,00 ZP
M 48	x	3	S	1	2750,00 ZP

DIN	00934.200	411
934	**12**	



Hexagon nuts

Dimensions ➔ TI-62 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7

Stainless ➔ pg. 495
Brass, Copper, Aluminium, Titanium ➔ pg. 626

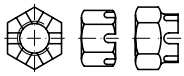
DIN 934 ➔ replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 6	S	100	16,50
M 8	S	100	23,20
M 10	S	100	41,50
M 12	S	100	59,00
M 16	S	100	86,00
M 20	S	50	172,00
M 24	S	25	305,00
M 27	S	25	570,00

Dimensions			PU	Pieces	€/100/Mat.
M 30			S	10	860,00
M 36			S	10	1250,00
M 42			S	1	2300,00

DIN	00935.300	420
935-1	**6/6 AU**	



Hexagon slotted and castle nuts

Dimensions ➔ TI-67 REACH ➔ TI-262
Material properties ➔ TI-233

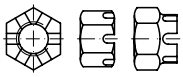
Stainless ➔ pg. 497

RoHS ✓

SW = wrench size

M 4	K	100	320,00
M 5	K	100	78,00
M 6	S	500	53,00
M 6	K	100	59,00
M 8	S	500	53,00
M 8	K	100	60,00
M 10 s = 17	S	500	56,00
M 10 s = 17	K	100	66,00
M 12 s = 19	S	500	88,00
M 12 s = 19	K	100	97,00
M 14 s = 22	K	50	135,00
M 16	S	250	136,00
M 16	K	50	154,00
M 18	K	25	207,00
M 20	K	25	246,00
M 22 s = 32	S	25	315,00
M 24	S	25	410,00
M 27	S	10	610,00
M 30	S	10	770,00
M 33	S	5	1030,00
M 36	S	1	1360,00
M 39	S	1	1700,00
M 42	S	1	2270,00
M 45	S	1	2750,00
M 48	S	1	3800,00
M 52	S	1	4400,00
M 56	S	1	6500,00
M 60	S	1	7400,00
M 64	S	1	9100,00

Dimensions			PU	Pieces	€/100/Mat.
DIN	00935.305				420
935-1	**6/6 AU**				**fine**



Hexagon slotted and castle nuts with metric fine pitch thread

Dimensions ➔ TI-67 REACH ➔ TI-262
Material properties ➔ TI-233

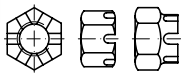
RoHS ✓

SW = wrench size

M 8	x	1		S	100	69,00
M 10	x	1	s = 17	S	100	77,00
M 10	x	1,25	s = 17	S	100	77,00
M 12	x	1,25	s = 19	S	100	114,00
M 12	x	1,5	s = 19	S	100	114,00
M 14	x	1,5	s = 22	S	50	157,00
M 16	x	1,5		S	50	181,00
M 18	x	1,5		S	25	242,00
M 20	x	1,5		S	25	290,00
M 20	x	2		S	25	290,00
M 22	x	1,5	s = 32	S	25	370,00
M 22	x	2	s = 32	S	25	740,00
M 24	x	1,5		S	25	480,00
M 24	x	2		S	25	480,00
M 27	x	1,5		S	10	740,00
M 27	x	2		S	10	740,00
M 28	x	1,5		S	10	920,00
M 30	x	1,5		S	1	920,00
M 30	x	2		S	1	920,00
M 32	x	1,5		S	1	1230,00
M 33	x	1,5		S	1	1230,00
M 33	x	2		S	1	1230,00
M 36	x	1,5		S	1	1630,00
M 36	x	3		S	1	1630,00
M 38	x	1,5		S	1	2030,00
M 39	x	3		S	1	2030,00
M 40	x	1,5		S	1	2750,00
M 42	x	1,5		S	1	2750,00
M 42	x	3		S	1	2750,00
M 45	x	1,5		S	1	3350,00
M 45	x	3		S	1	3350,00
M 48	x	1,5		S	1	4450,00
M 48	x	3		S	1	4450,00
M 52	x	3		S	1	5300,00
M 56	x	2		S	1	7800,00
M 56	x	4		S	1	7800,00
M 64	x	2		S	1	10800,00
M 64	x	4		S	1	10800,00
M 68	x	2		S	1	18400,00
M 72	x	4		S	1	20100,00
M 72	x	6		S	1	19200,00
M 76	x	4		S	1	34000,00
M 80	x	4		S	1	27400,00
M 80	x	6		S	1	26200,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00935.800	420

935-1 8



Hexagon slotted and castle nuts

Dimensions ➔ TI-67 Material properties ➔ TI-233

Stainless ➔ pg. 497

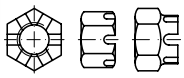
RoHS ✓ REACh SVHC free

SW = wrench size

M 12 s = 19	S	100	76,00
M 16	S	50	91,00
M 20	S	25	164,00
M 24	S	25	232,00
M 30	S	10	600,00
M 36	S	1	1430,00
M 39	S	1	1660,00
M 42	S	1	1810,00
M 48	S	1	3450,00

DIN	00935.810	420

935-1 8 zinc plated



Hexagon slotted and castle nuts

Dimensions ➔ TI-67 Corrosion protection ➔ TI-228
Material properties ➔ TI-233

Stainless ➔ pg. 497

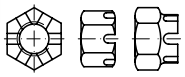
RoHS ✓ REACh SVHC free

SW = wrench size

M 8	S	100	69,00 ZP
M 10 s = 17	S	100	76,00 ZP
M 12 s = 19	S	100	91,00 ZP
M 14 s = 21	S	50	242,00 ZP
M 16	S	50	106,00 ZP
M 20	S	25	167,00 ZP
M 24	S	25	242,00 ZP
M 30	S	10	620,00 ZP
M 36	S	1	1820,00 ZP
M 39	S	1	2420,00 ZP
M 42	S	1	2700,00 ZP
M 48	S	1	4500,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00935.100	420

935-1 10



Hexagon slotted and castle nuts

Dimensions ➔ TI-67

Stainless ➔ pg. 497

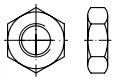
RoHS ✓ REACh SVHC free

SW = wrench size

M 12 s = 19	S	100	136,00
M 16	S	50	167,00
M 20	S	25	265,00
M 24	S	25	610,00

DIN	00936.000	420

936 14 H



Hexagon thin nuts

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 497
Brass ➔ pg. 627

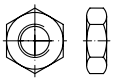
Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 33	S	10	720,00
M 36	S	10	760,00
M 39	S	10	920,00
M 42	S	1	1180,00
M 48	S	1	1800,00
M 52	S	1	2070,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00936.800	420

936 17 H



Hexagon thin nuts

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262

Stainless ➔ pg. 497
Brass ➔ pg. 627

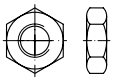
Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 8	S	1000	7,40
M 8	K	100	11,40
M 10	S	500	14,10
M 10	K	100	19,00
M 12	S	500	20,00
M 12	K	100	25,00
M 14	S	100	42,00
M 16	S	100	48,00
M 18	S	100	84,00
M 20	S	50	103,00
M 22	S	50	147,00
M 24	S	50	174,00
M 27	S	25	240,00
M 30	S	25	325,00
M 36	S	10	415,00

DIN	00936.810	420

936 17 H zinc plated



Hexagon thin nuts

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-233 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 497
Brass ➔ pg. 627

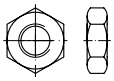
Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 8	S	1000	8,40 ZP
M 8	K	100	12,40 ZP
M 10	S	500	16,00 ZP
M 10	K	100	21,10 ZP
M 12	S	500	22,70 ZP
M 12	K	100	28,00 ZP
M 14	S	100	46,00 ZP
M 16	S	100	53,00 ZP
M 18	S	100	91,00 ZP
M 20	S	50	112,00 ZP
M 22	S	50	158,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 24	S	50	190,00 ZP
M 27	S	25	260,00 ZP
M 30	S	25	345,00 ZP
M 36	S	10	440,00 ZP

DIN	00936.352	1520
936	**17 H**	**flZn/TL480h**



Hexagon thin nuts

TL = lubricant in topcoat with μ = 0,09 - 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-63
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
REACH ➔ TI-262

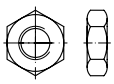
Stainless ➔ pg. 497
Brass ➔ pg. 627

Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 8	S	1000	10,90 flZn
M 10	S	500	21,00 flZn
M 12	S	500	30,00 flZn
M 16	S	100	69,00 flZn
M 20	S	50	146,00 flZn
M 24	S	50	249,00 flZn

DIN	00936.005	420
936	**14 H**	**fine**



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 498
Brass ➔ pg. 627

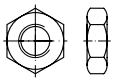
Nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓

M 8	x 1	S	100	24,90
M 10	x 1	S	100	38,50
M 10	x 1,25	S	100	38,50
M 12	x 1	S	100	51,00
M 12	x 1,25	S	100	51,00
M 12	x 1,5	S	100	51,00
M 14	x 1,5	S	100	68,00
M 16	x 1,5	S	50	94,00
M 18	x 1,5	S	50	121,00
M 20	x 1,5	S	50	146,00
M 20	x 2	S	50	146,00
M 22	x 1,5	S	50	172,00

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 1,5	S	25	235,00
M 24 x 2	S	25	235,00
M 26 x 1,5	S	25	395,00
M 27 x 1,5	S	25	395,00
M 27 x 2	S	25	395,00
M 28 x 1,5	S	25	530,00
M 30 x 1,5	S	25	530,00
M 30 x 2	S	25	530,00
M 32 x 1,5	S	1	730,00
M 33 x 1,5	S	1	730,00
M 33 x 2	S	1	730,00
M 35 x 1,5	S	1	780,00
M 36 x 1,5	S	1	780,00
M 36 x 2	S	1	780,00
M 36 x 3	S	1	780,00
M 38 x 1,5	S	1	1310,00
M 39 x 3	S	1	1110,00
M 40 x 1,5	S	1	1410,00
M 42 x 1,5	S	1	1410,00
M 42 x 3	S	1	1410,00
M 45 x 1,5	S	1	1670,00
M 45 x 3	S	1	1670,00
M 48 x 1,5	S	1	2150,00
M 48 x 3	S	1	2150,00
M 50 x 1,5	S	1	2500,00
M 52 x 3	S	1	2500,00

DIN	00936.004	420
936	**14 H**	**left**



Hexagon thin nuts with metric left hand thread

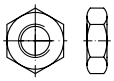
Dimensions ➔ TI-63
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 8 -LH	S	100	30,50
M 10 -LH	S	100	47,00
M 12 -LH	S	100	57,00
M 14 -LH	S	100	84,00
M 16 -LH	S	50	107,00
M 20 -LH	S	50	175,00
M 24 -LH	S	25	275,00
M 30 -LH	S	10	495,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00936.014		420
936	**14 H**		**left**
	zinc plated		



Hexagon thin nuts with metric left hand thread

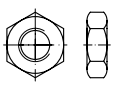
Dimensions ➔ TI-63
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 10 -LH	S	100	121,00 ZP
M 12 -LH	S	100	146,00 ZP
M 16 -LH	S	50	182,00 ZP
M 20 -LH	S	50	242,00 ZP
M 24 -LH	S	25	460,00 ZP
M 27 -LH	S	25	550,00 ZP
M 30 -LH	S	10	730,00 ZP

DIN	00936.006	420
936	**14 H**	**left fine**



Hexagon thin nuts with metric left hand fine pitch thread

Dimensions ➔ TI-63
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

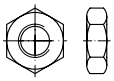
nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓

M 8	x 1 -LH	S	100	36,00
M 10	x 1 -LH	S	100	108,00
M 12	x 1,5 -LH	S	100	67,00
M 14	x 1,5 -LH	S	100	99,00
M 16	x 1,5 -LH	S	50	126,00
M 18	x 1,5 -LH	S	50	195,00
M 20	x 1,5 -LH	S	50	207,00
M 22	x 1,5 -LH	S	25	265,00
M 24	x 1,5 -LH	S	25	330,00
M 24	x 2 -LH	S	25	330,00
M 27	x 2 -LH	S	25	480,00
M 30	x 1,5 -LH	S	10	590,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00936.805	420

936 17 H fine



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 498
Brass ➔ pg. 627

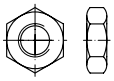
Nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓

M 8	x 1	S	100	13,40
M 10	x 1	S	100	19,00
M 12	x 1,5	S	100	28,00
M 14	x 1,5	S	100	44,00
M 16	x 1,5	S	100	51,00
M 18	x 1,5	S	100	85,00
M 20	x 1,5	S	50	107,00
M 22	x 1,5	S	50	147,00
M 24	x 1,5	S	50	174,00
M 24	x 2	S	50	192,00
M 30	x 1,5	S	25	385,00
M 30	x 2	S	25	390,00
M 36	x 1,5	S	10	415,00

DIN	00936.815	420

936 17 H fine zinc plated



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 498
Brass ➔ pg. 627

Nuts acc. to ISO ➔ ISO 8675 (DIN 439)

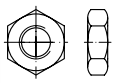
RoHS ✓

M 8	x 1	S	100	14,30 ZP
M 10	x 1	S	100	21,10 ZP
M 12	x 1,5	S	100	31,00 ZP
M 14	x 1,5	S	100	48,00 ZP
M 16	x 1,5	S	100	56,00 ZP
M 18	x 1,5	S	100	94,00 ZP
M 20	x 1,5	S	50	115,00 ZP
M 22	x 1,5	S	50	157,00 ZP
M 24	x 1,5	S	50	187,00 ZP
M 24	x 2	S	50	205,00 ZP
M 27	x 1,5	S	25	300,00 ZP
M 27	x 2	S	25	310,00 ZP
M 30	x 1,5	S	25	415,00 ZP

Dimensions	PU Pieces	€/100/Mat.
M 30 x 2	S 25	460,00 ZP
M 33 x 1,5	S 25	840,00 ZP
M 36 x 1,5	S 10	1120,00 ZP

DIN	00936.100	420

936 22 H



Hexagon thin nuts

Dimensions ➔ TI-63
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 497
Brass ➔ pg. 627

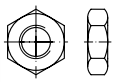
Nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 8	S	100	17,60
M 10	S	100	28,00
M 12	S	100	39,50
M 14	S	100	57,00
M 16	S	100	78,00
M 20	S	50	157,00
M 24	S	50	255,00

DIN	00936.105	420

936 22 H fine



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 498
Brass ➔ pg. 627

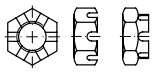
Nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓

M 14	x 1,5	S	100	63,00
M 16	x 1,5	S	100	82,00
M 18	x 1,5	S	100	131,00
M 20	x 1,5	S	50	170,00
M 22	x 1,5	S	50	216,00
M 24	x 1,5	S	50	285,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	00937.800	420

937 17 H



Hexagon thin slotted and castle nuts

Dimensions ➔ TI-67
Material properties ➔ TI-233
REACH ➔ TI-262

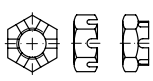
Wrench sizes acc. to ISO ➔ DIN 979

RoHS ✓

M 6	S	100	57,00
M 8	S	100	59,00
M 10	S	100	62,00
M 12	S	100	88,00
M 14	S	50	126,00
M 16	S	50	131,00
M 18	S	50	154,00
M 20	S	50	192,00
M 24	S	25	325,00
M 27	S	10	590,00
M 30	S	10	610,00

~DIN	00937.805	420

937 17 H fine



Hexagon thin slotted and castle nuts with metric fine pitch thread

Dimensions ➔ TI-67
Material properties ➔ TI-233
REACH ➔ TI-262

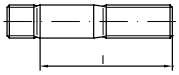
Wrench sizes acc. to ISO ➔ DIN 979

RoHS ✓

M 8	x 1	S	100	68,00
M 10	x 1	S	100	73,00
M 12	x 1,5	S	100	103,00
M 14	x 1,5	S	50	147,00
M 16	x 1,5	S	50	153,00
M 18	x 1,5	S	50	181,00
M 20	x 1,5	S	25	246,00
M 22	x 1,5	S	25	305,00
M 24	x 1,5	S	25	385,00
M 24	x 2	S	25	385,00
M 26	x 1,5	S	25	620,00
M 27	x 1,5	S	25	680,00
M 27	x 2	S	25	680,00
M 28	x 1,5	S	10	740,00
M 30	x 1,5	S	10	740,00
M 30	x 2	S	10	740,00
M 32	x 1,5	S	1	960,00
M 33	x 1,5	S	1	960,00
M 35	x 1,5	S	1	1110,00
M 36	x 1,5	S	1	1110,00
M 36	x 3	S	1	1110,00
M 39	x 1,5	S	1	1460,00

Dimensions			PU	Pieces	€/100/Mat.
M 39	x	3	S	1	1460,00
M 40	x	1,5	S	1	1930,00
M 42	x	1,5	S	1	1930,00
M 42	x	3	S	1	1930,00
M 48	x	1,5	S	1	3300,00
M 48	x	3	S	1	3300,00
M 52	x	3	S	1	3950,00

DIN	00938.504	432
938	5.6	AD W7



Studs, metal end ≈ 1 d

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

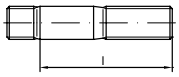
Dimensions → TI-18
Material properties → TI-232
Tightening torque → TI-244

RoHS ✓ | REACh SVHC free

M 8	x	20	S	100	160,00
M 8	x	25	S	100	167,00
M 8	x	30	S	100	186,00
M 8	x	40	S	100	199,00
M 10	x	25	S	100	113,00
M 10	x	30	S	100	128,00
M 10	x	35	S	100	138,00
M 10	x	40	S	100	146,00
M 10	x	45	S	100	160,00
M 10	x	50	S	100	199,00
M 10	x	60	S	100	217,00
M 12	x	25	S	100	154,00
M 12	x	30	S	100	165,00
M 12	x	35	S	100	172,00
M 12	x	40	S	100	183,00
M 12	x	45	S	50	199,00
M 12	x	50	S	50	217,00
M 12	x	55	S	50	233,00
M 12	x	60	S	50	230,00
M 12	x	65	S	50	241,00
M 12	x	70	S	50	385,00
M 12	x	80	S	50	415,00
M 16	x	30	S	50	183,00
M 16	x	35	S	50	199,00
M 16	x	40	S	50	206,00
M 16	x	45	S	50	217,00
M 16	x	50	S	50	230,00
M 16	x	55	S	50	241,00
M 16	x	60	S	25	270,00
M 16	x	65	S	25	270,00
M 16	x	70	S	25	275,00
M 16	x	80	S	25	325,00
M 16	x	90	S	25	360,00
M 16	x	100	S	25	385,00
M 16	x	110	S	25	790,00
M 16	x	120	S	25	830,00
M 16	x	140	S	25	950,00
M 20	x	40	S	25	540,00
M 20	x	45	S	25	570,00
M 20	x	50	S	25	610,00
M 20	x	60	S	25	630,00
M 20	x	70	S	25	670,00
M 20	x	80	S	10	910,00
M 20	x	90	S	10	970,00
M 24	x	50	S	10	1130,00

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	55	S	10	1200,00
M 24	x	60	S	10	1280,00
M 24	x	65	S	10	1350,00
M 24	x	70	S	10	1430,00
M 24	x	80	S	10	1530,00

DIN	00938.514	432
938	5.6 zinc plated	AD W7



Studs, metal end ≈ 1 d

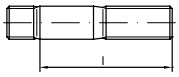
for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

Dimensions → TI-18
Material properties → TI-232
Corrosion protection → TI-228
Tightening torque → TI-244

RoHS ✓ | REACh SVHC free

M 10	x	20	S	100	218,00 ZP
M 10	x	25	S	100	125,00 ZP
M 10	x	30	S	100	143,00 ZP
M 10	x	35	S	100	157,00 ZP
M 10	x	40	S	100	170,00 ZP
M 10	x	45	S	100	197,00 ZP
M 10	x	50	S	100	241,00 ZP
M 10	x	60	S	100	255,00 ZP
M 12	x	25	S	100	172,00 ZP
M 12	x	30	S	100	184,00 ZP
M 12	x	35	S	100	192,00 ZP
M 12	x	40	S	100	206,00 ZP
M 12	x	45	S	50	223,00 ZP
M 12	x	50	S	50	255,00 ZP
M 12	x	60	S	50	270,00 ZP
M 12	x	65	S	50	295,00 ZP
M 12	x	70	S	50	425,00 ZP
M 16	x	30	S	50	215,00 ZP
M 16	x	35	S	50	230,00 ZP
M 16	x	40	S	50	236,00 ZP
M 16	x	45	S	50	255,00 ZP
M 16	x	50	S	50	265,00 ZP
M 16	x	60	S	25	315,00 ZP
M 16	x	65	S	25	320,00 ZP
M 16	x	70	S	25	325,00 ZP
M 16	x	75	S	25	370,00 ZP
M 16	x	80	S	25	380,00 ZP
M 16	x	90	S	25	415,00 ZP
M 16	x	100	S	25	445,00 ZP
M 16	x	110	S	25	850,00 ZP
M 16	x	120	S	25	890,00 ZP
M 20	x	40	S	25	600,00 ZP
M 20	x	45	S	25	630,00 ZP
M 20	x	50	S	25	670,00 ZP
M 20	x	60	S	25	720,00 ZP
M 20	x	70	S	25	760,00 ZP
M 20	x	80	S	10	1010,00 ZP
M 20	x	90	S	10	1070,00 ZP
M 24	x	50	S	10	1240,00 ZP
M 24	x	55	S	10	1310,00 ZP
M 24	x	60	S	10	1390,00 ZP
M 24	x	65	S	10	1460,00 ZP
M 24	x	70	S	10	1550,00 ZP
M 24	x	80	S	10	1640,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
DIN	00938.500			430
938	5.8			



Studs, metal end ≈ 1 d

Dimensions → TI-18
Material properties → TI-232
REACH → TI-262

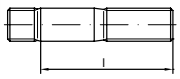
Stainless → pg. 498

RoHS ✓

M 5	x	16	S	100	73,00
M 5	x	20	S	100	73,00
M 5	x	25	S	100	74,00
M 5	x	30	S	100	77,00
M 5	x	35	S	100	79,00
M 5	x	50	S	100	85,00
M 6	x	16	S	100	41,50
M 6	x	18	S	100	46,00
M 6	x	20	S	100	48,00
M 6	x	25	S	100	67,00
M 6	x	30	S	100	52,00
M 6	x	35	S	100	54,00
M 6	x	40	S	100	58,00
M 6	x	45	S	100	59,00
M 6	x	50	S	100	62,00
M 6	x	60	S	100	66,00
M 6	x	70	S	100	77,00
M 8	x	16	S	100	58,00
M 8	x	20	S	100	36,00
M 8	x	22	S	100	41,50
M 8	x	25	S	100	39,50
M 8	x	30	S	100	43,00
M 8	x	35	S	100	44,00
M 8	x	40	S	100	52,00
M 8	x	45	S	100	53,00
M 8	x	50	S	100	49,50
M 8	x	55	S	100	54,00
M 8	x	60	S	100	56,00
M 8	x	80	S	100	143,00
M 8	x	90	S	100	155,00
M 8	x	100	S	100	172,00
M 10	x	20	S	100	79,00
M 10	x	25	S	100	47,00
M 10	x	30	S	100	52,00
M 10	x	35	S	100	62,00
M 10	x	40	S	100	66,00
M 10	x	45	S	100	67,00
M 10	x	50	S	100	69,00
M 10	x	55	S	100	73,00
M 10	x	60	S	100	78,00
M 10	x	65	S	50	125,00
M 10	x	70	S	50	130,00
M 10	x	80	S	50	192,00
M 10	x	90	S	50	204,00
M 10	x	110	S	50	315,00
M 12	x	20	S	100	88,00
M 12	x	25	S	100	61,00
M 12	x	30	S	100	63,00
M 12	x	35	S	100	66,00
M 12	x	40	S	100	68,00
M 12	x	45	S	50	72,00
M 12	x	50	S	50	74,00
M 12	x	55	S	50	94,00
M 12	x	60	S	50	96,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	65	S	50	128,00
M 12	x	70	S	50	130,00
M 12	x	75	S	50	134,00
M 12	x	80	S	50	137,00
M 12	x	85	S	50	249,00
M 12	x	90	S	50	260,00
M 12	x	100	S	25	275,00
M 12	x	110	S	25	340,00
M 12	x	120	S	25	370,00
M 14	x	30	S	50	235,00
M 14	x	35	S	50	206,00
M 14	x	40	S	50	221,00
M 14	x	45	S	50	233,00
M 14	x	50	S	50	246,00
M 14	x	60	S	25	275,00
M 16	x	25	S	50	167,00
M 16	x	30	S	50	108,00
M 16	x	35	S	50	112,00
M 16	x	40	S	50	118,00
M 16	x	45	S	50	124,00
M 16	x	50	S	50	132,00
M 16	x	55	S	50	137,00
M 16	x	60	S	25	146,00
M 16	x	65	S	25	189,00
M 16	x	70	S	25	195,00
M 16	x	75	S	25	204,00
M 16	x	80	S	25	211,00
M 16	x	90	S	25	315,00
M 16	x	100	S	25	340,00
M 16	x	110	S	25	660,00
M 16	x	120	S	25	690,00
M 16	x	130	S	25	720,00
M 16	x	140	S	25	720,00
M 16	x	160	S	10	760,00
M 20	x	35	S	25	285,00
M 20	x	40	S	25	240,00
M 20	x	45	S	25	255,00
M 20	x	50	S	25	270,00
M 20	x	55	S	25	285,00
M 20	x	60	S	25	295,00
M 20	x	65	S	25	335,00
M 20	x	70	S	25	345,00
M 20	x	75	S	25	365,00
M 20	x	80	S	10	380,00
M 20	x	85	S	10	475,00
M 20	x	90	S	10	485,00
M 20	x	100	S	10	530,00
M 20	x	110	S	10	720,00
M 20	x	120	S	10	730,00
M 20	x	130	S	10	760,00
M 20	x	140	S	10	820,00
M 20	x	150	S	10	850,00
M 20	x	180	S	10	920,00
M 24	x	50	S	10	410,00
M 24	x	55	S	10	425,00
M 24	x	60	S	10	445,00
M 24	x	65	S	10	470,00
M 24	x	70	S	10	480,00
M 24	x	75	S	10	510,00
M 24	x	80	S	10	530,00
M 24	x	90	S	10	570,00
M 24	x	100	S	10	610,00
M 24	x	120	S	10	730,00
M 24	x	180	S	10	2120,00
M 30	x	65	S	10	1070,00
M 30	x	70	S	10	1080,00
M 30	x	80	S	5	1130,00
M 30	x	90	S	1	1170,00
M 30	x	100	S	1	1260,00
M 30	x	110	S	1	1300,00

Dimensions			PU	Pieces	€/100/Mat.
DIN	00938.510				430
938	**5.8 zinc plated**				



Studs, metal end ≈ 1 d

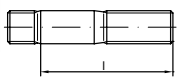
Dimensions → TI-18
Material properties → TI-232
Corrosion protection → TI-228
REACH → TI-262

Stainless → pg. 498

RoHS ✓

M 8	x	20	S	100	39,50 ZP
M 8	x	25	S	100	44,50 ZP
M 8	x	30	S	100	49,50 ZP
M 8	x	40	S	100	60,00 ZP
M 10	x	20	S	100	97,00 ZP
M 10	x	25	S	100	57,00 ZP
M 10	x	30	S	100	66,00 ZP
M 10	x	35	S	100	76,00 ZP
M 10	x	40	S	100	79,00 ZP
M 10	x	50	S	100	88,00 ZP
M 12	x	25	S	100	77,00 ZP
M 12	x	30	S	100	82,00 ZP
M 12	x	35	S	100	85,00 ZP
M 12	x	40	S	100	91,00 ZP
M 12	x	50	S	50	101,00 ZP
M 16	x	35	S	50	143,00 ZP
M 16	x	40	S	50	154,00 ZP
M 16	x	45	S	50	165,00 ZP
M 16	x	50	S	50	175,00 ZP
M 16	x	55	S	50	184,00 ZP
M 16	x	60	S	25	195,00 ZP
M 20	x	50	S	25	335,00 ZP
M 20	x	55	S	25	345,00 ZP
M 20	x	60	S	25	370,00 ZP
M 20	x	65	S	25	410,00 ZP
M 20	x	70	S	25	425,00 ZP
M 20	x	80	S	10	470,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
DIN	00938.800				430
938	**8.8**				



Studs, metal end ≈ 1 d

Dimensions → TI-18
Material properties → TI-232
Tightening torque → TI-244

Stainless → pg. 498

RoHS ✓ REACh SVHC free

M 8	x	20	S	50	56,00
M 8	x	25	S	50	61,00
M 8	x	30	S	50	66,00
M 8	x	35	S	50	67,00
M 8	x	40	S	50	72,00

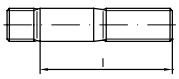
Dimensions			PU	Pieces	€/100/Mat.
M 8	x	45	S	50	73,00
M 8	x	50	S	50	74,00
M 8	x	55	S	50	76,00
M 8	x	60	S	50	78,00
M 8	x	65	S	50	79,00
M 8	x	70	S	50	83,00
M 8	x	80	S	50	91,00
M 10	x	20	S	50	165,00
M 10	x	25	S	50	67,00
M 10	x	30	S	50	69,00
M 10	x	35	S	50	72,00
M 10	x	40	S	50	78,00
M 10	x	45	S	50	82,00
M 10	x	50	S	50	84,00
M 10	x	55	S	50	86,00
M 10	x	60	S	50	89,00
M 10	x	65	S	50	255,00
M 10	x	70	S	50	260,00
M 10	x	75	S	50	265,00
M 10	x	80	S	25	270,00
M 10	x	100	S	25	370,00
M 12	x	25	S	50	89,00
M 12	x	30	S	50	95,00
M 12	x	35	S	50	99,00
M 12	x	40	S	50	105,00
M 12	x	45	S	50	108,00
M 12	x	50	S	50	112,00
M 12	x	55	S	25	120,00
M 12	x	60	S	25	124,00
M 12	x	65	S	25	128,00
M 12	x	70	S	25	131,00
M 12	x	75	S	25	135,00
M 12	x	80	S	25	138,00
M 12	x	85	S	25	385,00
M 12	x	90	S	25	395,00
M 12	x	100	S	10	420,00
M 16	x	30	S	25	385,00
M 16	x	35	S	25	211,00
M 16	x	40	S	25	224,00
M 16	x	45	S	25	250,00
M 16	x	50	S	25	260,00
M 16	x	55	S	25	270,00
M 16	x	60	S	10	315,00
M 16	x	65	S	10	330,00
M 16	x	70	S	10	335,00
M 16	x	75	S	10	540,00
M 16	x	80	S	10	590,00
M 16	x	85	S	10	590,00
M 16	x	90	S	10	610,00
M 16	x	100	S	10	720,00
M 16	x	120	S	10	820,00
M 16	x	140	S	10	910,00
M 20	x	35	S	10	680,00
M 20	x	40	S	10	720,00
M 20	x	45	S	10	720,00
M 20	x	50	S	10	730,00
M 20	x	55	S	10	730,00
M 20	x	60	S	10	760,00
M 20	x	65	S	10	790,00
M 20	x	70	S	10	840,00
M 20	x	75	S	10	880,00
M 20	x	80	S	10	910,00
M 20	x	85	S	10	950,00
M 20	x	90	S	10	990,00
M 20	x	100	S	10	1080,00
M 20	x	110	S	10	1130,00
M 20	x	120	S	10	1210,00
M 20	x	130	S	10	1280,00
M 20	x	140	S	1	1350,00
M 24	x	50	S	10	1030,00
M 24	x	55	S	10	1070,00
M 24	x	60	S	10	1110,00
M 24	x	65	S	10	1140,00
M 24	x	70	S	10	1200,00
M 24	x	75	S	1	1230,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	80	S	1	1280,00
M 24	x	85	S	1	1320,00
M 24	x	90	S	1	1360,00
M 24	x	100	S	1	1440,00
M 24	x	110	S	1	1570,00
M 24	x	120	S	1	1670,00
M 24	x	130	S	1	1770,00
M 24	x	150	S	1	1940,00

DIN 00938.810 430

938 8.8 zinc plated



Studs, metal end ≈ 1 d

Dimensions ➔ TI-18
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244

Stainless ➔ pg. 498

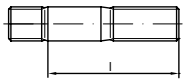
RoHS ✓ | REACh SVHC free

M 8	x	20	S	50	61,00 ZP
M 8	x	25	S	50	67,00 ZP
M 8	x	30	S	50	99,00 ZP
M 8	x	40	S	50	135,00 ZP
M 10	x	20	S	50	176,00 ZP
M 10	x	25	S	50	78,00 ZP
M 10	x	30	S	50	85,00 ZP
M 10	x	35	S	50	126,00 ZP
M 10	x	40	S	50	144,00 ZP
M 10	x	45	S	50	148,00 ZP
M 10	x	50	S	50	151,00 ZP
M 10	x	60	S	50	155,00 ZP
M 10	x	70	S	50	325,00 ZP
M 12	x	25	S	50	106,00 ZP
M 12	x	30	S	50	114,00 ZP
M 12	x	35	S	50	120,00 ZP
M 12	x	40	S	50	128,00 ZP
M 12	x	50	S	50	201,00 ZP
M 12	x	55	S	25	210,00 ZP
M 12	x	60	S	25	213,00 ZP
M 16	x	30	S	25	420,00 ZP
M 16	x	35	S	25	255,00 ZP
M 16	x	40	S	25	270,00 ZP
M 16	x	45	S	25	305,00 ZP
M 16	x	50	S	25	315,00 ZP
M 16	x	55	S	25	345,00 ZP
M 16	x	60	S	10	385,00 ZP
M 16	x	65	S	10	395,00 ZP
M 16	x	70	S	10	415,00 ZP
M 20	x	40	S	10	780,00 ZP
M 20	x	45	S	10	780,00 ZP
M 20	x	50	S	10	790,00 ZP
M 20	x	55	S	10	820,00 ZP
M 20	x	60	S	10	840,00 ZP
M 20	x	65	S	10	880,00 ZP
M 20	x	70	S	10	920,00 ZP
M 20	x	80	S	10	990,00 ZP
M 20	x	90	S	10	1060,00 ZP
M 20	x	100	S	10	1150,00 ZP
M 24	x	60	S	10	1210,00 ZP
M 24	x	65	S	10	1250,00 ZP
M 24	x	70	S	10	1320,00 ZP
M 24	x	75	S	1	1340,00 ZP
M 24	x	80	S	1	1380,00 ZP
M 24	x	90	S	1	1470,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	100	S	1	1550,00 ZP
M 24	x	110	S	1	1670,00 ZP
M 24	x	120	S	1	1780,00 ZP
M 24	x	130	S	1	1880,00 ZP
M 24	x	140	S	1	1970,00 ZP
M 24	x	150	S	1	2060,00 ZP

DIN 00939.504 432

939 5.6 AD W7



Studs, metal end ≈ 1,25 d

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

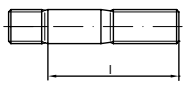
Dimensions ➔ TI-18
Material properties ➔ TI-232
Tightening torque ➔ TI-244

RoHS ✓ | REACh SVHC free

M 12	x	30	S	100	182,00
M 12	x	35	S	100	190,00
M 12	x	40	S	100	201,00
M 12	x	50	S	100	239,00
M 16	x	35	S	50	220,00
M 16	x	40	S	50	227,00
M 16	x	50	S	50	255,00
M 16	x	60	S	25	285,00
M 16	x	70	S	25	325,00
M 20	x	45	S	25	630,00

DIN 00939.500 430

939 5.8



Studs, metal end ≈ 1,25 d

Dimensions ➔ TI-18
Material properties ➔ TI-232
REACH ➔ TI-262

Stainless ➔ pg. 499

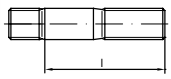
RoHS ✓

M 5	x	16	S	100	74,00
M 5	x	20	S	100	76,00
M 5	x	40	S	100	83,00
M 6	x	16	S	100	34,50
M 6	x	18	S	100	34,50
M 6	x	20	S	100	36,00
M 6	x	25	S	100	38,00
M 6	x	28	S	100	85,00
M 6	x	30	S	100	43,00
M 6	x	35	S	100	48,50
M 6	x	40	S	100	51,00
M 6	x	45	S	100	53,00
M 6	x	50	S	100	54,00
M 6	x	60	S	100	66,00

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	80	S	100	106,00
M 8	x	16	S	100	53,00
M 8	x	18	S	100	106,00
M 8	x	20	S	100	31,00
M 8	x	22	S	100	32,50
M 8	x	25	S	100	37,00
M 8	x	30	S	100	44,00
M 8	x	35	S	100	46,00
M 8	x	40	S	100	47,50
M 8	x	45	S	100	48,50
M 8	x	50	S	100	51,00
M 8	x	55	S	100	56,00
M 8	x	60	S	100	53,00
M 8	x	65	S	100	59,00
M 8	x	70	S	100	61,00
M 8	x	80	S	100	97,00
M 8	x	90	S	100	155,00
M 8	x	100	S	100	165,00
M 10	x	20	S	100	46,00
M 10	x	22	S	100	48,00
M 10	x	25	S	100	38,00
M 10	x	30	S	100	39,00
M 10	x	35	S	100	41,50
M 10	x	40	S	100	42,50
M 10	x	45	S	100	58,00
M 10	x	50	S	100	60,00
M 10	x	55	S	100	67,00
M 10	x	60	S	100	69,00
M 10	x	65	S	50	72,00
M 10	x	70	S	50	76,00
M 10	x	75	S	50	77,00
M 10	x	80	S	50	94,00
M 10	x	90	S	50	101,00
M 10	x	100	S	50	108,00
M 10	x	110	S	50	305,00
M 10	x	120	S	50	345,00
M 10	x	130	S	50	365,00
M 10	x	140	S	50	540,00
M 10	x	160	S	50	630,00
M 10	x	190	S	50	690,00
M 12	x	20	S	100	128,00
M 12	x	25	S	100	54,00
M 12	x	28	S	100	79,00
M 12	x	30	S	100	57,00
M 12	x	35	S	100	59,00
M 12	x	40	S	100	79,00
M 12	x	45	S	50	83,00
M 12	x	50	S	50	85,00
M 12	x	55	S	50	95,00
M 12	x	60	S	50	97,00
M 12	x	65	S	50	94,00
M 12	x	70	S	50	103,00
M 12	x	75	S	50	107,00
M 12	x	80	S	50	103,00
M 12	x	85	S	50	204,00
M 12	x	90	S	50	118,00
M 12	x	95	S	50	224,00
M 12	x	100	S	25	125,00
M 12	x	105	S	25	345,00
M 12	x	110	S	25	370,00
M 12	x	120	S	25	385,00
M 12	x	130	S	25	395,00
M 12	x	140	S	25	630,00
M 12	x	150	S	25	660,00
M 12	x	200	S	25	780,00
M 14	x	30	S	50	204,00
M 14	x	35	S	50	217,00
M 14	x	40	S	50	232,00
M 16	x	25	S	50	181,00
M 16	x	30	S	50	123,00
M 16	x	35	S	50	124,00
M 16	x	40	S	50	132,00
M 16	x	45	S	50	138,00
M 16	x	50	S	50	148,00
M 16	x	55	S	50	186,00

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	60	S	25	195,00
M 16	x	65	S	25	204,00
M 16	x	70	S	25	246,00
M 16	x	75	S	25	255,00
M 16	x	80	S	25	265,00
M 16	x	85	S	25	360,00
M 16	x	90	S	25	285,00
M 16	x	100	S	25	305,00
M 16	x	105	S	25	670,00
M 16	x	110	S	25	660,00
M 16	x	120	S	25	680,00
M 16	x	130	S	25	760,00
M 16	x	140	S	25	760,00
M 16	x	150	S	25	770,00
M 16	x	160	S	10	790,00
M 16	x	180	S	10	840,00
M 16	x	190	S	10	850,00
M 16	x	200	S	10	860,00
M 20	x	30	S	25	300,00
M 20	x	40	S	25	285,00
M 20	x	45	S	25	242,00
M 20	x	50	S	25	255,00
M 20	x	55	S	25	270,00
M 20	x	60	S	25	285,00
M 20	x	65	S	25	335,00
M 20	x	70	S	25	345,00
M 20	x	75	S	25	365,00
M 20	x	80	S	10	380,00
M 20	x	85	S	10	395,00
M 20	x	90	S	10	480,00
M 20	x	95	S	10	510,00
M 20	x	100	S	10	530,00
M 20	x	110	S	10	760,00
M 20	x	120	S	10	770,00
M 20	x	130	S	10	770,00
M 20	x	140	S	10	830,00
M 20	x	150	S	10	880,00
M 20	x	160	S	10	890,00
M 20	x	180	S	10	940,00
M 24	x	50	S	10	480,00
M 24	x	55	S	10	425,00
M 24	x	60	S	10	445,00
M 24	x	65	S	10	470,00
M 24	x	70	S	10	580,00
M 24	x	75	S	10	510,00
M 24	x	80	S	10	530,00
M 24	x	85	S	10	540,00
M 24	x	90	S	10	570,00
M 24	x	100	S	10	610,00
M 24	x	110	S	10	690,00
M 24	x	120	S	10	740,00
M 24	x	130	S	10	790,00
M 24	x	160	S	10	1020,00
M 24	x	170	S	10	1060,00
M 24	x	180	S	10	1080,00
M 24	x	200	S	10	2350,00
M 27	x	65	S	10	830,00
M 27	x	70	S	10	840,00
M 27	x	80	S	10	940,00
M 27	x	100	S	10	990,00
M 27	x	110	S	10	2040,00
M 30	x	65	S	10	1120,00
M 30	x	70	S	10	1140,00
M 30	x	80	S	1	1170,00
M 30	x	90	S	1	1200,00
M 30	x	100	S	1	1300,00
M 30	x	120	S	1	1430,00
M 30	x	130	S	1	1480,00
M 30	x	140	S	1	1580,00
M 30	x	150	S	1	1610,00
M 30	x	180	S	1	1900,00
M 30	x	200	S	1	2110,00

Dimensions			PU	Pieces	€/100/Mat.
DIN		00939.510			430
939		5.8 zinc plated			



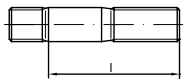
Studs, metal end ≈ 1,25 d

Dimensions → TI-18
Material properties → TI-232
Corrosion protection → TI-228
REACH → TI-262
Stainless → pg. 499

RoHS ✓

M 8	x	20	S	100	41,50 ZP
M 8	x	25	S	100	43,00 ZP
M 8	x	30	S	100	45,00 ZP
M 10	x	25	S	100	47,00 ZP
M 10	x	30	S	100	48,50 ZP
M 10	x	35	S	100	53,00 ZP
M 10	x	40	S	100	56,00 ZP
M 12	x	30	S	100	73,00 ZP
M 12	x	35	S	100	77,00 ZP
M 12	x	40	S	100	97,00 ZP
M 12	x	45	S	50	101,00 ZP
M 12	x	50	S	50	103,00 ZP
M 16	x	35	S	50	163,00 ZP
M 16	x	40	S	50	175,00 ZP
M 16	x	45	S	50	186,00 ZP
M 16	x	50	S	50	200,00 ZP
M 16	x	60	S	25	255,00 ZP
M 16	x	90	S	25	345,00 ZP
M 20	x	45	S	25	315,00 ZP
M 20	x	50	S	25	335,00 ZP
M 20	x	60	S	25	380,00 ZP
M 20	x	70	S	25	430,00 ZP
M 20	x	80	S	25	475,00 ZP

DIN		00939.800			430
939		8.8			



Studs, metal end ≈ 1,25 d

Dimensions → TI-18
Material properties → TI-232
Tightening torque → TI-244
Stainless → pg. 499

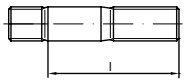
RoHS ✓ REACh SVHC free

M 6	x	16	S	100	46,00
M 6	x	20	S	100	47,50
M 6	x	25	S	100	48,00
M 6	x	30	S	100	51,00
M 6	x	35	S	100	53,00
M 8	x	16	S	50	54,00
M 8	x	20	S	50	56,00
M 8	x	25	S	50	57,00
M 8	x	30	S	50	62,00

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	35	S	50	63,00
M 8	x	40	S	50	66,00
M 8	x	45	S	50	67,00
M 8	x	50	S	50	69,00
M 8	x	55	S	50	72,00
M 8	x	60	S	50	73,00
M 8	x	65	S	50	76,00
M 8	x	70	S	50	77,00
M 8	x	80	S	50	82,00
M 8	x	90	S	50	85,00
M 10	x	20	S	50	68,00
M 10	x	25	S	50	69,00
M 10	x	30	S	50	73,00
M 10	x	35	S	50	78,00
M 10	x	40	S	50	82,00
M 10	x	45	S	50	84,00
M 10	x	50	S	50	86,00
M 10	x	55	S	50	89,00
M 10	x	60	S	50	94,00
M 10	x	65	S	50	245,00
M 10	x	70	S	50	265,00
M 10	x	75	S	50	270,00
M 10	x	80	S	25	275,00
M 10	x	90	S	25	330,00
M 10	x	100	S	25	370,00
M 10	x	110	S	25	420,00
M 10	x	120	S	25	440,00
M 12	x	25	S	50	153,00
M 12	x	30	S	50	121,00
M 12	x	35	S	50	99,00
M 12	x	40	S	50	105,00
M 12	x	45	S	50	108,00
M 12	x	50	S	50	112,00
M 12	x	55	S	25	120,00
M 12	x	60	S	25	124,00
M 12	x	65	S	25	126,00
M 12	x	70	S	25	131,00
M 12	x	75	S	25	360,00
M 12	x	80	S	25	345,00
M 12	x	85	S	25	365,00
M 12	x	90	S	25	380,00
M 12	x	100	S	10	415,00
M 12	x	110	S	25	440,00
M 12	x	120	S	25	460,00
M 12	x	130	S	25	495,00
M 12	x	140	S	25	580,00
M 16	x	30	S	25	234,00
M 16	x	35	S	25	255,00
M 16	x	40	S	25	270,00
M 16	x	45	S	25	295,00
M 16	x	50	S	25	310,00
M 16	x	55	S	25	330,00
M 16	x	60	S	10	385,00
M 16	x	65	S	10	395,00
M 16	x	70	S	10	410,00
M 16	x	75	S	10	425,00
M 16	x	80	S	10	430,00
M 16	x	85	S	10	1020,00
M 16	x	90	S	10	455,00
M 16	x	95	S	10	1030,00
M 16	x	100	S	10	460,00
M 16	x	110	S	10	740,00
M 16	x	120	S	10	780,00
M 16	x	130	S	10	840,00
M 16	x	140	S	10	890,00
M 20	x	40	S	10	660,00
M 20	x	45	S	10	620,00
M 20	x	50	S	10	680,00
M 20	x	55	S	10	690,00
M 20	x	60	S	10	740,00
M 20	x	65	S	10	780,00
M 20	x	70	S	10	830,00
M 20	x	75	S	10	850,00
M 20	x	80	S	10	880,00
M 20	x	85	S	10	940,00

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	90	S	10	960,00
M 20	x	100	S	10	1060,00
M 20	x	110	S	10	1070,00
M 20	x	120	S	10	1150,00
M 20	x	130	S	10	1230,00
M 20	x	140	S	1	1300,00
M 20	x	150	S	1	1360,00
M 24	x	50	S	10	1030,00
M 24	x	55	S	10	1070,00
M 24	x	60	S	10	1110,00
M 24	x	65	S	10	1150,00
M 24	x	70	S	1	1200,00
M 24	x	75	S	1	1230,00
M 24	x	80	S	1	1260,00
M 24	x	90	S	1	1380,00
M 24	x	100	S	1	1510,00
M 24	x	110	S	1	1640,00
M 24	x	120	S	1	1660,00
M 24	x	130	S	1	1760,00
M 24	x	140	S	1	1870,00
M 24	x	150	S	1	2010,00

DIN	00939.810	430
939	**8.8 zinc plated**	



Studs, metal end ≈ 1,25 d

Dimensions → TI-18
Material properties → TI-232
Corrosion protection → TI-228
Tightening torque → TI-244

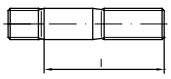
Stainless → pg. 499

RoHS ✓ | REACh SVHC free

M 6	x	16	S	100	53,00 ZP
M 6	x	20	S	100	54,00 ZP
M 6	x	25	S	100	54,00 ZP
M 6	x	30	S	100	57,00 ZP
M 8	x	16	S	50	62,00 ZP
M 8	x	20	S	50	62,00 ZP
M 8	x	25	S	50	63,00 ZP
M 8	x	30	S	50	69,00 ZP
M 8	x	35	S	50	71,00 ZP
M 8	x	40	S	50	74,00 ZP
M 8	x	45	S	50	80,00 ZP
M 8	x	50	S	50	86,00 ZP
M 8	x	55	S	50	82,00 ZP
M 8	x	60	S	50	84,00 ZP
M 8	x	70	S	50	86,00 ZP
M 8	x	80	S	50	146,00 ZP
M 8	x	90	S	50	157,00 ZP
M 10	x	20	S	50	77,00 ZP
M 10	x	25	S	50	82,00 ZP
M 10	x	30	S	50	85,00 ZP
M 10	x	35	S	50	92,00 ZP
M 10	x	40	S	50	97,00 ZP
M 10	x	45	S	50	102,00 ZP
M 10	x	50	S	50	105,00 ZP
M 10	x	55	S	50	107,00 ZP
M 10	x	60	S	50	112,00 ZP
M 10	x	65	S	50	265,00 ZP
M 10	x	80	S	25	295,00 ZP
M 10	x	90	S	25	355,00 ZP
M 10	x	100	S	25	395,00 ZP
M 10	x	110	S	25	450,00 ZP
M 10	x	120	S	25	465,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	25	S	50	170,00 ZP
M 12	x	30	S	50	141,00 ZP
M 12	x	35	S	50	120,00 ZP
M 12	x	40	S	50	130,00 ZP
M 12	x	45	S	50	135,00 ZP
M 12	x	50	S	50	141,00 ZP
M 12	x	55	S	25	147,00 ZP
M 12	x	60	S	25	153,00 ZP
M 12	x	70	S	25	165,00 ZP
M 12	x	75	S	25	390,00 ZP
M 12	x	80	S	25	415,00 ZP
M 12	x	90	S	25	445,00 ZP
M 12	x	100	S	10	480,00 ZP
M 12	x	110	S	25	510,00 ZP
M 12	x	120	S	25	530,00 ZP
M 16	x	30	S	25	295,00 ZP
M 16	x	35	S	25	310,00 ZP
M 16	x	40	S	25	330,00 ZP
M 16	x	45	S	25	360,00 ZP
M 16	x	50	S	25	385,00 ZP
M 16	x	55	S	25	410,00 ZP
M 16	x	60	S	10	460,00 ZP
M 16	x	70	S	10	495,00 ZP
M 16	x	80	S	10	540,00 ZP
M 16	x	90	S	10	560,00 ZP
M 16	x	100	S	10	590,00 ZP
M 16	x	110	S	10	860,00 ZP
M 16	x	120	S	10	900,00 ZP
M 20	x	40	S	10	1010,00 ZP
M 20	x	45	S	10	970,00 ZP
M 20	x	50	S	10	1030,00 ZP
M 20	x	55	S	10	1060,00 ZP
M 20	x	60	S	10	1060,00 ZP
M 20	x	70	S	10	1070,00 ZP
M 20	x	80	S	10	1070,00 ZP
M 20	x	90	S	10	1110,00 ZP
M 20	x	100	S	10	1410,00 ZP
M 20	x	110	S	10	1420,00 ZP
M 20	x	120	S	10	1510,00 ZP
M 20	x	130	S	10	1580,00 ZP
M 24	x	50	S	10	1140,00 ZP
M 24	x	60	S	10	1210,00 ZP
M 24	x	70	S	1	1310,00 ZP
M 24	x	80	S	1	1370,00 ZP
M 24	x	90	S	1	1510,00 ZP
M 24	x	100	S	1	1610,00 ZP
M 24	x	110	S	1	1750,00 ZP
M 24	x	120	S	1	1890,00 ZP
M 24	x	130	S	1	1990,00 ZP
M 24	x	140	S	1	2110,00 ZP
M 24	x	150	S	1	2260,00 ZP
M 30	x	90	S	1	6000,00 ZP
M 30	x	100	S	1	6100,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
DIN	00939.100			430
939	**10.9**			



Studs, metal end ≈ 1,25 d

Dimensions → TI-18
Material properties → TI-232
Tightening torque → TI-244

Stainless → pg. 499

RoHS ✓ | REACh SVHC free

M 10	x	25	S	50	207,00
M 10	x	30	S	50	218,00
M 10	x	35	S	50	233,00
M 10	x	40	S	50	244,00
M 10	x	45	S	50	255,00
M 10	x	50	S	50	260,00
M 10	x	55	S	100	178,00
M 10	x	65	S	50	740,00
M 10	x	70	S	50	790,00
M 10	x	80	S	50	830,00
M 10	x	100	S	25	1110,00
M 12	x	25	S	50	180,00
M 12	x	30	S	50	365,00
M 12	x	35	S	50	98,00
M 12	x	40	S	50	85,00
M 12	x	45	S	50	325,00
M 12	x	50	S	50	335,00
M 12	x	60	S	25	375,00
M 12	x	65	S	25	360,00
M 12	x	70	S	25	395,00
M 12	x	80	S	25	1040,00
M 16	x	35	S	25	1140,00
M 16	x	40	S	25	810,00
M 16	x	45	S	25	880,00
M 16	x	50	S	25	930,00
M 16	x	60	S	10	1150,00
M 16	x	65	S	10	1180,00
M 16	x	70	S	10	1220,00
M 16	x	80	S	10	1290,00
M 16	x	90	S	10	1370,00
M 16	x	100	S	10	1380,00
M 16	x	110	S	10	2220,00
M 16	x	120	S	10	2330,00
M 16	x	125	S	10	2410,00
M 16	x	130	S	10	2550,00
M 16	x	140	S	10	2650,00
M 16	x	150	S	10	2800,00
M 16	x	160	S	10	2950,00
M 16	x	180	S	10	3150,00
M 16	x	190	S	10	3250,00
M 16	x	200	S	10	3400,00
M 20	x	50	S	10	2040,00
M 20	x	55	S	10	2070,00
M 20	x	60	S	10	2220,00
M 20	x	65	S	10	2330,00
M 20	x	80	S	10	2650,00
M 20	x	90	S	10	2900,00
M 20	x	100	S	10	3200,00
M 20	x	110	S	10	3200,00
M 20	x	120	S	10	3450,00
M 20	x	140	S	10	3900,00
M 20	x	150	S	1	4100,00
M 20	x	160	S	1	4250,00
M 20	x	200	S	1	4450,00

Dimensions					PU	Pieces	€/100/Mat.
M 20	x	220			S	1	4650,00
M 20	x	250			S	1	4800,00
M 20	x	270			S	1	5400,00
M 20	x	280			S	1	5000,00
M 20	x	290			S	1	5600,00

DIN	00960.800	440

960 **8.8**



Hexagon head bolts, with fine pitch thread

short dim. in part thread up to head

Dimensions ➔ TI-15 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

DIN 960 ➔ replaced by ISO 8765

RoHS ✓ | REACh SVHC free

M 8	x	1	x	30	S	200	25,50
M 8	x	1	x	35	S	200	28,50
M 8	x	1	x	40	S	200	32,00
M 8	x	1	x	45	S	200	35,50
M 8	x	1	x	50	S	200	42,00
M 8	x	1	x	60	S	200	48,50
M 8	x	1	x	70	S	200	56,00
M 8	x	1	x	80	S	200	62,00
M 10	x	1	x	35	S	100	45,50
M 10	x	1,25	x	35	S	100	48,50
M 10	x	1	x	40	S	200	50,00
M 10	x	1,25	x	40	S	100	53,00
M 10	x	1	x	45	S	100	55,00
M 10	x	1,25	x	45	S	100	55,00
M 10	x	1	x	50	S	200	59,00
M 10	x	1,25	x	50	S	100	59,00
M 10	x	1,25	x	55	S	100	63,00
M 10	x	1	x	60	S	100	63,00
M 10	x	1,25	x	60	S	100	64,00
M 10	x	1	x	65	S	100	70,00
M 10	x	1	x	70	S	100	70,00
M 10	x	1,25	x	70	S	100	70,00
M 10	x	1	x	80	S	100	79,00
M 10	x	1,25	x	80	S	100	78,00
M 10	x	1	x	90	S	100	88,00
M 10	x	1,25	x	90	S	100	90,00
M 10	x	1	x	100	S	100	97,00
M 10	x	1,25	x	100	S	100	104,00
M 10	x	1,25	x	110	S	50	143,00
M 10	x	1,25	x	120	S	50	158,00
M 10	x	1,25	x	130	S	50	200,00
M 12	x	1,25	x	35	S	100	78,00
M 12	x	1,5	x	35	S	100	69,00
M 12	x	1,25	x	40	S	100	80,00
M 12	x	1,5	x	40	S	100	72,00
M 12	x	1,25	x	45	S	100	82,00
M 12	x	1,5	x	45	S	100	74,00
M 12	x	1,25	x	50	S	100	84,00
M 12	x	1,5	x	50	S	100	74,00
M 12	x	1,25	x	60	S	100	93,00
M 12	x	1,5	x	60	S	100	92,00
M 12	x	1,25	x	65	S	50	97,00
M 12	x	1,5	x	65	S	50	101,00
M 12	x	1,25	x	70	S	50	101,00
M 12	x	1,5	x	70	S	50	101,00
M 12	x	1,5	x	75	S	50	112,00
M 12	x	1,25	x	80	S	50	112,00

Dimensions						PU	Pieces	€/100/Mat.
M 12	x	1,5	x	80	S	50	108,00
M 12	x	1,25	x	90	S	50	130,00
M 12	x	1,5	x	90	S	50	126,00
M 12	x	1,25	x	100	S	50	142,00
M 12	x	1,5	x	100	S	50	137,00
M 12	x	1,25	x	110	S	50	192,00
M 12	x	1,5	x	110	S	50	157,00
M 12	x	1,25	x	120	S	50	210,00
M 12	x	1,5	x	120	S	50	176,00
M 12	x	1,25	x	130	S	50	233,00
M 12	x	1,5	x	130	S	50	226,00
M 12	x	1,5	x	140	S	50	260,00
M 14	x	1,5	x	50	S	50	143,00
M 14	x	1,5	x	55	S	50	153,00
M 14	x	1,5	x	60	S	50	153,00
M 14	x	1,5	x	65	S	50	167,00
M 14	x	1,5	x	70	S	50	167,00
M 14	x	1,5	x	75	S	50	192,00
M 14	x	1,5	x	80	S	50	192,00
M 14	x	1,5	x	90	S	50	215,00
M 14	x	1,5	x	100	S	50	240,00
M 14	x	1,5	x	110	S	50	285,00
M 14	x	1,5	x	120	S	50	325,00
M 14	x	1,5	x	130	S	50	370,00
M 14	x	1,5	x	140	S	25	410,00
M 16	x	1,5	x	50	S	50	152,00
M 16	x	1,5	x	55	S	50	163,00
M 16	x	1,5	x	60	S	50	174,00
M 16	x	1,5	x	65	S	25	204,00
M 16	x	1,5	x	70	S	25	204,00
M 16	x	1,5	x	75	S	25	209,00
M 16	x	1,5	x	80	S	25	209,00
M 16	x	1,5	x	85	S	25	232,00
M 16	x	1,5	x	90	S	25	232,00
M 16	x	1,5	x	100	S	25	255,00
M 16	x	1,5	x	110	S	25	330,00
M 16	x	1,5	x	120	S	25	330,00
M 16	x	1,5	x	130	S	25	410,00
M 16	x	1,5	x	140	S	25	445,00
M 16	x	1,5	x	150	S	25	450,00
M 16	x	1,5	x	160	S	25	670,00
M 18	x	1,5	x	60	S	25	440,00
M 18	x	1,5	x	65	S	25	440,00
M 18	x	1,5	x	70	S	25	395,00
M 18	x	1,5	x	75	S	25	400,00
M 18	x	1,5	x	80	S	25	410,00
M 18	x	1,5	x	90	S	25	450,00
M 18	x	1,5	x	100	S	25	480,00
M 18	x	1,5	x	120	S	25	560,00
M 18	x	1,5	x	140	S	25	630,00
M 18	x	1,5	x	150	S	25	670,00
M 20	x	1,5	x	60	S	25	425,00
M 20	x	2	x	60	S	25	710,00
M 20	x	1,5	x	65	S	25	460,00
M 20	x	2	x	65	S	25	720,00
M 20	x	1,5	x	70	S	25	405,00
M 20	x	2	x	70	S	25	740,00
M 20	x	1,5	x	75	S	25	415,00
M 20	x	1,5	x	80	S	25	415,00
M 20	x	2	x	80	S	25	750,00
M 20	x	1,5	x	85	S	25	430,00
M 20	x	1,5	x	90	S	25	450,00
M 20	x	1,5	x	100	S	25	485,00
M 20	x	2	x	100	S	25	830,00
M 20	x	1,5	x	110	S	25	540,00
M 20	x	1,5	x	120	S	25	580,00
M 20	x	2	x	120	S	25	990,00
M 20	x	1,5	x	130	S	25	650,00
M 20	x	1,5	x	140	S	25	710,00
M 20	x	1,5	x	150	S	25	720,00
M 20	x	1,5	x	160	S	10	1400,00
M 20	x	1,5	x	170	S	10	1440,00
M 20	x	1,5	x	180	S	10	1480,00
M 20	x	1,5	x	200	S	10	1690,00
M 24	x	1,5	x	70	S	25	420,00

Dimensions						PU	Pieces	€/100/Mat.
M 24	x	2	x	70	S	25	600,00
M 24	x	1,5	x	80	S	25	455,00
M 24	x	2	x	80	S	25	650,00
M 24	x	1,5	x	90	S	25	495,00
M 24	x	2	x	90	S	25	495,00
M 24	x	1,5	x	100	S	10	540,00
M 24	x	2	x	100	S	10	750,00
M 24	x	1,5	x	110	S	10	580,00
M 24	x	2	x	110	S	10	800,00
M 24	x	1,5	x	120	S	10	620,00
M 24	x	2	x	120	S	10	860,00
M 24	x	1,5	x	130	S	10	650,00
M 24	x	2	x	130	S	10	1030,00
M 24	x	1,5	x	140	S	10	690,00
M 24	x	2	x	140	S	10	1120,00
M 24	x	1,5	x	150	S	10	730,00
M 24	x	2	x	150	S	10	1140,00
M 30	x	2	x	90	S	1	1460,00
M 30	x	2	x	100	S	1	1550,00
M 30	x	2	x	110	S	1	1650,00
M 30	x	2	x	120	S	1	1750,00
M 30	x	2	x	130	S	1	1840,00
M 30	x	2	x	140	S	1	1950,00
M 30	x	2	x	150	S	1	2050,00
M 30	x	2	x	160	S	1	2190,00
M 36	x	3	x	110	S	1	2550,00
M 36	x	3	x	120	S	1	2700,00
M 36	x	3	x	130	S	1	2800,00
M 36	x	3	x	140	S	1	2950,00
M 36	x	3	x	150	S	1	3100,00
M 36	x	3	x	160	S	1	3300,00
M 42	x	3	x	140	S	1	4450,00
M 42	x	3	x	160	S	1	4850,00
M 42	x	3	x	180	S	1	5300,00
M 42	x	3	x	200	S	1	5800,00

DIN	00960.810	440

960 **8.8 zinc plated**



Hexagon head bolts, with fine pitch thread

short dim. in part thread up to head

Dimensions ➔ TI-15 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6
Corrosion protection ➔ TI-228

DIN 960 ➔ replaced by ISO 8765

RoHS ✓ | REACh SVHC free

M 12	x	1,5	x	45	S	100	98,00 ZP
M 12	x	1,25	x	50	S	100	102,00 ZP
M 12	x	1,5	x	50	S	100	102,00 ZP
M 12	x	1,25	x	60	S	100	113,00 ZP
M 12	x	1,5	x	60	S	100	113,00 ZP
M 12	x	1,5	x	65	S	50	123,00 ZP
M 12	x	1,25	x	70	S	50	125,00 ZP
M 12	x	1,5	x	70	S	50	125,00 ZP
M 12	x	1,25	x	80	S	50	140,00 ZP
M 12	x	1,5	x	80	S	50	140,00 ZP
M 12	x	1,25	x	90	S	50	158,00 ZP
M 12	x	1,5	x	90	S	50	158,00 ZP
M 12	x	1,25	x	100	S	50	176,00 ZP
M 12	x	1,5	x	100	S	50	174,00 ZP
M 12	x	1,25	x	110	S	50	226,00 ZP
M 12	x	1,5	x	110	S	50	226,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions						PU	Pieces	€/100/Mat.
M 12	x	1,25	x	120		S	50	249,00 ZP
M 12	x	1,5	x	120		S	50	249,00 ZP
M 12	x	1,25	x	130		S	50	275,00 ZP
M 12	x	1,5	x	130		S	50	275,00 ZP
M 12	x	1,5	x	140		S	50	305,00 ZP
M 14	x	1,5	x	50		S	50	170,00 ZP
M 14	x	1,5	x	60		S	50	182,00 ZP
M 14	x	1,5	x	65		S	50	198,00 ZP
M 14	x	1,5	x	70		S	50	200,00 ZP
M 14	x	1,5	x	75		S	50	226,00 ZP
M 14	x	1,5	x	80		S	50	227,00 ZP
M 14	x	1,5	x	90		S	50	255,00 ZP
M 14	x	1,5	x	100		S	50	285,00 ZP
M 16	x	1,5	x	55		S	50	200,00 ZP
M 16	x	1,5	x	60		S	50	212,00 ZP
M 16	x	1,5	x	65		S	25	249,00 ZP
M 16	x	1,5	x	70		S	25	255,00 ZP
M 16	x	1,5	x	75		S	25	255,00 ZP
M 16	x	1,5	x	80		S	25	265,00 ZP
M 16	x	1,5	x	85		S	25	285,00 ZP
M 16	x	1,5	x	90		S	25	290,00 ZP
M 16	x	1,5	x	100		S	25	315,00 ZP
M 16	x	1,5	x	110		S	25	395,00 ZP
M 16	x	1,5	x	120		S	25	400,00 ZP
M 16	x	1,5	x	130		S	25	485,00 ZP
M 16	x	1,5	x	140		S	25	530,00 ZP
M 16	x	1,5	x	150		S	25	540,00 ZP
M 16	x	1,5	x	160		S	25	760,00 ZP
M 20	x	1,5	x	65		S	25	475,00 ZP
M 20	x	1,5	x	70		S	25	480,00 ZP
M 20	x	1,5	x	75		S	25	495,00 ZP
M 20	x	1,5	x	80		S	25	495,00 ZP
M 20	x	1,5	x	90		S	25	540,00 ZP
M 20	x	1,5	x	100		S	25	580,00 ZP
M 20	x	1,5	x	110		S	25	650,00 ZP
M 20	x	1,5	x	120		S	25	690,00 ZP
M 20	x	1,5	x	140		S	25	830,00 ZP
M 20	x	1,5	x	150		S	25	860,00 ZP
M 20	x	1,5	x	160		S	10	1540,00 ZP
M 20	x	1,5	x	180		S	10	1640,00 ZP
M 20	x	1,5	x	200		S	10	1880,00 ZP
M 24	x	2	x	80		S	25	840,00 ZP
M 24	x	2	x	90		S	25	910,00 ZP
M 24	x	2	x	100		S	10	970,00 ZP
M 24	x	2	x	120		S	10	1110,00 ZP
M 24	x	2	x	130		S	10	1290,00 ZP
M 24	x	2	x	140		S	10	1410,00 ZP
M 24	x	2	x	150		S	10	1530,00 ZP
M 24	x	2	x	160		S	10	1690,00 ZP
M 24	x	2	x	170		S	10	1820,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00960.100		440

960

10.9



Hexagon head bolts, with fine pitch thread

short dim. in part thread up to head

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

DIN 960 ➔ replaced by ISO 8765

RoHS ✓

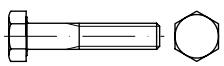
REACh SVHC free

Dimensions						PU	Pieces	€/100/Mat.
M 8	x	1	x	30		S	200	31,50
M 8	x	1	x	35		S	200	37,50
M 8	x	1	x	40		S	200	40,00
M 8	x	1	x	45		S	200	44,50
M 8	x	1	x	50		S	200	48,50
M 8	x	1	x	60		S	200	57,00
M 8	x	1	x	70		S	200	66,00
M 8	x	1	x	80		S	200	74,00
M 10	x	1	x	35		S	100	67,00
M 10	x	1,25	x	35		S	100	109,00
M 10	x	1	x	40		S	100	69,00
M 10	x	1,25	x	40		S	100	112,00
M 10	x	1	x	45		S	100	116,00
M 10	x	1,25	x	45		S	100	116,00
M 10	x	1	x	50		S	100	74,00
M 10	x	1,25	x	50		S	100	75,00
M 10	x	1	x	55		S	100	76,00
M 10	x	1,25	x	55		S	100	77,00
M 10	x	1	x	60		S	100	79,00
M 10	x	1,25	x	60		S	100	79,00
M 10	x	1	x	70		S	100	124,00
M 10	x	1,25	x	70		S	100	124,00
M 10	x	1	x	80		S	100	144,00
M 10	x	1,25	x	80		S	100	144,00
M 10	x	1	x	90		S	100	163,00
M 10	x	1,25	x	90		S	100	163,00
M 10	x	1	x	100		S	100	200,00
M 10	x	1,25	x	100		S	100	200,00
M 10	x	1,25	x	110		S	100	216,00
M 12	x	1,25	x	35		S	100	78,00
M 12	x	1,5	x	35		S	100	83,00
M 12	x	1,25	x	40		S	100	86,00
M 12	x	1,5	x	40		S	100	89,00
M 12	x	1,25	x	45		S	100	97,00
M 12	x	1,5	x	45		S	100	97,00
M 12	x	1,25	x	50		S	100	105,00
M 12	x	1,5	x	50		S	100	104,00
M 12	x	1,5	x	55		S	100	107,00
M 12	x	1,25	x	60		S	100	114,00
M 12	x	1,5	x	60		S	100	114,00
M 12	x	1,25	x	65		S	50	103,00
M 12	x	1,5	x	65		S	50	116,00
M 12	x	1,25	x	70		S	50	123,00
M 12	x	1,5	x	70		S	50	123,00
M 12	x	1,5	x	75		S	50	143,00
M 12	x	1,25	x	80		S	50	91,00
M 12	x	1,5	x	80		S	50	144,00
M 12	x	1,25	x	90		S	50	300,00
M 12	x	1,5	x	90		S	50	211,00
M 12	x	1,25	x	100		S	50	233,00
M 12	x	1,5	x	100		S	50	233,00
M 12	x	1,25	x	110		S	50	265,00
M 12	x	1,5	x	110		S	50	265,00

Dimensions						PU	Pieces	€/100/Mat.
M 12	x	1,25	x	120		S	50	295,00
M 12	x	1,5	x	120		S	25	295,00
M 12	x	1,25	x	130		S	50	305,00
M 12	x	1,5	x	130		S	50	305,00
M 12	x	1,5	x	140		S	50	325,00
M 14	x	1,5	x	50		S	50	144,00
M 14	x	1,5	x	55		S	50	152,00
M 14	x	1,5	x	60		S	50	157,00
M 14	x	1,5	x	65		S	50	183,00
M 14	x	1,5	x	70		S	50	183,00
M 14	x	1,5	x	75		S	50	201,00
M 14	x	1,5	x	80		S	50	201,00
M 14	x	1,5	x	90		S	50	295,00
M 14	x	1,5	x	100		S	25	305,00
M 14	x	1,5	x	110		S	25	340,00
M 14	x	1,5	x	120		S	25	370,00
M 14	x	1,5	x	130		S	25	410,00
M 14	x	1,5	x	140		S	25	425,00
M 14	x	1,5	x	160		S	25	470,00
M 16	x	1,5	x	50		S	25	204,00
M 16	x	1,5	x	55		S	50	212,00
M 16	x	1,5	x	60		S	50	227,00
M 16	x	1,5	x	65		S	25	246,00
M 16	x	1,5	x	70		S	25	260,00
M 16	x	1,5	x	75		S	25	285,00
M 16	x	1,5	x	80		S	25	285,00
M 16	x	1,5	x	85		S	25	285,00
M 16	x	1,5	x	90		S	25	285,00
M 16	x	1,5	x	100		S	25	305,00
M 16	x	1,5	x	110		S	25	390,00
M 16	x	1,5	x	115		S	25	405,00
M 16	x	1,5	x	120		S	25	405,00
M 16	x	1,5	x	130		S	25	445,00
M 16	x	1,5	x	140		S	25	470,00
M 16	x	1,5	x	150		S	25	495,00
M 16	x	1,5	x	160		S	25	550,00
M 18	x	1,5	x	60		S	25	510,00
M 18	x	1,5	x	65		S	25	510,00
M 18	x	1,5	x	70		S	25	510,00
M 18	x	1,5	x	75		S	25	510,00
M 18	x	1,5	x	80		S	25	510,00
M 18	x	1,5	x	90		S	25	590,00
M 18	x	1,5	x	100		S	25	620,00
M 18	x	1,5	x	120		S	10	720,00
M 18	x	1,5	x	140		S	10	830,00
M 18	x	1,5	x	150		S	10	960,00
M 20	x	1,5	x	60		S	25	510,00
M 20	x	2	x	60		S	25	510,00
M 20	x	1,5	x	65		S	25	510,00
M 20	x	2	x	65		S	25	510,00
M 20	x	1,5	x	70		S	25	510,00
M 20	x	2	x	70		S	25	510,00
M 20	x	1,5	x	75		S	25	570,00
M 20	x	1,5	x	80		S	25	560,00
M 20	x	2	x	80		S	25	560,00
M 20	x	1,5	x	85		S	25	640,00
M 20	x	1,5	x	90		S	25	620,00
M 20	x	1,5	x	100		S	25	650,00
M 20	x	1,5	x	110		S	10	670,00
M 20	x	1,5	x	120		S	10	700,00
M 20	x	2	x	120		S	10	700,00
M 20	x	1,5	x	130		S	10	840,00
M 20	x	1,5	x	140		S	10	930,00
M 20	x	1,5	x	150		S	10	1520,00
M 20	x	1,5	x	160		S	10	1660,00
M 20	x	1,5	x	170		S	10	1800,00
M 20	x	1,5	x	180		S	10	1840,00
M 20	x	1,5	x	200		S	10	2340,00
M 22	x	1,5	x	70		S	25	810,00
M 22	x	2	x	70		S	25	1070,00
M 22	x	1,5	x	80		S	25	820,00
M 22	x	1,5	x	90		S	10	900,00
M 22	x	1,5	x	100		S	10	930,00
M 22	x	1,5	x	110		S	10	1010,00
M 22	x	1,5	x	120		S	10	1080,00

Dimensions						PU	Pieces	€/100/Mat.
M 22	x	1,5	x	130		S	10	1120,00
M 22	x	1,5	x	140		S	10	1130,00
M 24	x	1,5	x	70		S	25	740,00
M 24	x	2	x	70		S	25	1290,00
M 24	x	1,5	x	80		S	25	820,00
M 24	x	2	x	80		S	25	1550,00
M 24	x	1,5	x	90		S	10	900,00
M 24	x	2	x	90		S	25	1800,00
M 24	x	1,5	x	100		S	10	930,00
M 24	x	2	x	100		S	10	1850,00
M 24	x	1,5	x	110		S	10	1010,00
M 24	x	2	x	110		S	10	1970,00
M 24	x	1,5	x	120		S	10	1250,00
M 24	x	2	x	120		S	10	2130,00
M 24	x	1,5	x	130		S	10	2240,00
M 24	x	2	x	130		S	10	2240,00
M 24	x	1,5	x	140		S	10	2750,00
M 24	x	2	x	150		S	10	3250,00
M 30	x	2	x	90		S	1	2160,00
M 30	x	2	x	100		S	1	2300,00
M 30	x	2	x	110		S	1	2490,00
M 30	x	2	x	120		S	1	2700,00
M 30	x	2	x	130		S	1	2850,00
M 30	x	2	x	140		S	1	3050,00
M 30	x	2	x	150		S	1	3250,00
M 30	x	2	x	160		S	1	3450,00
M 36	x	3	x	110		S	1	2950,00
M 36	x	3	x	120		S	1	3250,00
M 36	x	3	x	130		S	1	3500,00
M 36	x	3	x	140		S	1	3800,00
M 36	x	3	x	150		S	1	4100,00
M 36	x	3	x	160		S	1	4350,00
M 42	x	3	x	140		S	1	4450,00
M 42	x	3	x	160		S	1	5100,00
M 42	x	3	x	180		S	1	5800,00
M 42	x	3	x	200		S	1	6400,00

DIN	00960.110	440
960	**10.9 zinc plated**	



Hexagon head bolts, with fine pitch thread

short dim. In part thread up to head, baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

DIN 960 ➔ replaced by ISO 8765

RoHS ✓ | REACh SVHC free

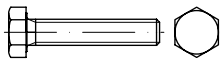
M 10	x	1	x	45	S	100	134,00 ZP
M 12	x	1,5	x	45	S	100	122,00 ZP
M 12	x	1,5	x	50	S	100	136,00 ZP
M 12	x	1,5	x	60	S	100	148,00 ZP
M 12	x	1,5	x	65	S	50	149,00 ZP
M 12	x	1,5	x	70	S	50	167,00 ZP
M 14	x	1,5	x	50	S	50	205,00 ZP
M 14	x	1,5	x	55	S	50	210,00 ZP
M 14	x	1,5	x	60	S	50	216,00 ZP
M 14	x	1,5	x	65	S	50	229,00 ZP
M 14	x	1,5	x	70	S	50	250,00 ZP
M 14	x	1,5	x	75	S	25	255,00 ZP

Dimensions						PU	Pieces	€/100/Mat.
M 14	x	1,5	x	80		S	50	270,00 ZP
M 14	x	1,5	x	90		S	50	350,00 ZP
M 14	x	1,5	x	100		S	50	370,00 ZP
M 14	x	1,5	x	110		S	25	410,00 ZP
M 16	x	1,5	x	60		S	50	285,00 ZP
M 16	x	1,5	x	70		S	25	155,00 ZP
M 16	x	1,5	x	75		S	25	350,00 ZP
M 16	x	1,5	x	80		S	25	360,00 ZP
M 16	x	1,5	x	90		S	25	375,00 ZP
M 16	x	1,5	x	100		S	25	400,00 ZP
M 16	x	1,5	x	110		S	25	500,00 ZP
M 16	x	1,5	x	120		S	25	510,00 ZP
M 16	x	1,5	x	130		S	25	560,00 ZP
M 20	x	1,5	x	80		S	25	690,00 ZP
M 20	x	1,5	x	90		S	25	770,00 ZP
M 20	x	1,5	x	100		S	25	800,00 ZP
M 20	x	1,5	x	120		S	10	880,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

DIN	00961.800	440
961	**8.8**	



Hexagon head screws, with fine pitch thread

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

DIN 961 ➔ replaced by ISO 8676

RoHS ✓ | REACh SVHC free

M 8	x	1	x	20	S	200	19,40
M 8	x	1	x	25	S	200	22,90
M 8	x	1	x	30	S	200	24,20
M 8	x	1	x	35	S	200	26,50
M 8	x	1	x	40	S	200	28,50
M 8	x	1	x	45	S	200	32,50
M 8	x	1	x	50	S	200	35,00
M 8	x	1	x	60	S	100	62,00
M 8	x	1	x	70	S	100	81,00
M 8	x	1	x	80	S	100	97,00
M 8	x	1	x	90	S	50	130,00
M 8	x	1	x	100	S	50	147,00
M 10	x	1	x	16	S	200	36,00
M 10	x	1,25	x	16	S	200	36,00
M 10	x	1	x	20	S	200	34,00

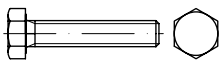
Dimensions						PU	Pieces	€/100/Mat.
M 10	x	1,25	x	20		S	200	34,00
M 10	x	1	x	25		S	200	36,00
M 10	x	1,25	x	25		S	200	36,50
M 10	x	1	x	30		S	200	38,50
M 10	x	1,25	x	30		S	200	39,00
M 10	x	1	x	35		S	100	40,50
M 10	x	1,25	x	35		S	100	43,00
M 10	x	1	x	40		S	100	45,00
M 10	x	1,25	x	40		S	100	47,50
M 10	x	1	x	45		S	100	50,00
M 10	x	1,25	x	45		S	100	51,00
M 10	x	1	x	50		S	100	54,00
M 10	x	1,25	x	50		S	100	55,00
M 10	x	1,25	x	55		S	100	59,00
M 10	x	1	x	60		S	100	98,00
M 10	x	1,25	x	60		S	100	61,00
M 10	x	1	x	70		S	100	136,00
M 10	x	1,25	x	70		S	100	65,00
M 10	x	1	x	80		S	100	147,00
M 10	x	1,25	x	80		S	100	68,00
M 10	x	1	x	90		S	50	182,00
M 10	x	1,25	x	90		S	50	71,00
M 10	x	1	x	100		S	50	194,00
M 10	x	1,25	x	100		S	50	74,00
M 12	x	1,25	x	20		S	100	56,00
M 12	x	1,5	x	20		S	100	54,00
M 12	x	1,25	x	25		S	100	56,00
M 12	x	1,5	x	25		S	100	54,00
M 12	x	1,25	x	30		S	100	57,00
M 12	x	1,5	x	30		S	100	55,00
M 12	x	1,25	x	35		S	100	60,00
M 12	x	1,5	x	35		S	100	59,00
M 12	x	1,25	x	40		S	100	66,00
M 12	x	1,5	x	40		S	100	63,00
M 12	x	1,25	x	45		S	100	73,00
M 12	x	1,5	x	45		S	100	69,00
M 12	x	1,25	x	50		S	100	76,00
M 12	x	1,5	x	50		S	100	74,00
M 12	x	1,5	x	55		S	100	94,00
M 12	x	1,25	x	60		S	100	114,00
M 12	x	1,5	x	60		S	100	113,00
M 12	x	1,25	x	65		S	50	215,00
M 12	x	1,5	x	65		S	50	134,00
M 12	x	1,25	x	70		S	50	152,00
M 12	x	1,5	x	70		S	50	154,00
M 12	x	1,5	x	75		S	50	170,00
M 12	x	1,25	x	80		S	50	184,00
M 12	x	1,5	x	80		S	50	184,00
M 12	x	1,25	x	90		S	50	217,00
M 12	x	1,5	x	90		S	50	234,00
M 12	x	1,25	x	100		S	50	285,00
M 12	x	1,5	x	100		S	50	285,00
M 12	x	1,25	x	110		S	50	285,00
M 12	x	1,5	x	110		S	50	340,00
M 12	x	1,25	x	120		S	50	315,00
M 12	x	1,5	x	120		S	50	390,00
M 12	x	1,25	x	130		S	50	355,00
M 12	x	1,5	x	130		S	50	440,00
M 12	x	1,5	x	140		S	50	485,00
M 14	x	1,5	x	20		S	100	101,00
M 14	x	1,5	x	25		S	100	101,00
M 14	x	1,5	x	30		S	100	101,00
M 14	x	1,5	x	35		S	100	111,00
M 14	x	1,5	x	40		S	100	123,00
M 14	x	1,5	x	45		S	50	126,00
M 14	x	1,5	x	50		S	50	134,00
M 14	x	1,5	x	55		S	50	154,00
M 14	x	1,5	x	60		S	50	154,00
M 14	x	1,5	x	65		S	50	175,00
M 14	x	1,5	x	70		S	50	195,00
M 14	x	1,5	x	75		S	50	234,00
M 14	x	1,5	x	80		S	50	275,00
M 14	x	1,5	x	90		S	50	330,00
M 14	x	1,5	x	100		S	50	400,00
M 14	x	1,5	x	110		S	50	470,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions					PU	Pieces	€/100/Mat.
M 14	x 1,5	x	120	S		50	540,00
M 14	x 1,5	x	130	S		50	610,00
M 14	x 1,5	x	140	S		50	680,00
M 16	x 1,5	x	20	S		50	140,00
M 16	x 1,5	x	25	S		100	123,00
M 16	x 1,5	x	30	S		50	123,00
M 16	x 1,5	x	35	S		50	128,00
M 16	x 1,5	x	40	S		50	128,00
M 16	x 1,5	x	45	S		50	144,00
M 16	x 1,5	x	50	S		50	146,00
M 16	x 1,5	x	55	S		50	165,00
M 16	x 1,5	x	60	S		50	165,00
M 16	x 1,5	x	65	S		50	192,00
M 16	x 1,5	x	70	S		50	209,00
M 16	x 1,5	x	75	S		25	255,00
M 16	x 1,5	x	80	S		25	295,00
M 16	x 1,5	x	85	S		25	370,00
M 16	x 1,5	x	90	S		25	450,00
M 16	x 1,5	x	100	S		25	490,00
M 16	x 1,5	x	110	S		25	530,00
M 16	x 1,5	x	120	S		25	570,00
M 16	x 1,5	x	130	S		25	610,00
M 16	x 1,5	x	140	S		25	650,00
M 16	x 1,5	x	150	S		25	690,00
M 18	x 1,5	x	30	S		50	305,00
M 18	x 1,5	x	35	S		50	310,00
M 18	x 1,5	x	40	S		50	310,00
M 18	x 1,5	x	45	S		50	315,00
M 18	x 1,5	x	50	S		50	320,00
M 18	x 1,5	x	55	S		25	345,00
M 18	x 1,5	x	60	S		25	345,00
M 18	x 1,5	x	65	S		25	360,00
M 18	x 1,5	x	70	S		25	375,00
M 18	x 1,5	x	75	S		25	400,00
M 18	x 1,5	x	80	S		25	425,00
M 18	x 1,5	x	90	S		25	580,00
M 18	x 1,5	x	100	S		25	730,00
M 18	x 1,5	x	120	S		25	1030,00
M 18	x 1,5	x	140	S		25	1320,00
M 18	x 1,5	x	150	S		25	1480,00
M 20	x 1,5	x	30	S		25	290,00
M 20	x 1,5	x	35	S		25	290,00
M 20	x 1,5	x	40	S		25	290,00
M 20	x 1,5	x	45	S		25	290,00
M 20	x 1,5	x	50	S		25	300,00
M 20	x 2	x	50	S		25	410,00
M 20	x 1,5	x	55	S		25	325,00
M 20	x 2	x	55	S		25	530,00
M 20	x 1,5	x	60	S		25	325,00
M 20	x 2	x	60	S		25	530,00
M 20	x 1,5	x	65	S		25	360,00
M 20	x 2	x	65	S		25	590,00
M 20	x 1,5	x	70	S		25	350,00
M 20	x 2	x	70	S		25	660,00
M 20	x 1,5	x	75	S		25	385,00
M 20	x 1,5	x	80	S		25	405,00
M 20	x 2	x	80	S		25	770,00
M 20	x 1,5	x	85	S		25	470,00
M 20	x 1,5	x	90	S		25	530,00
M 20	x 1,5	x	100	S		25	650,00
M 20	x 2	x	100	S		25	1010,00
M 20	x 1,5	x	110	S		25	780,00
M 20	x 1,5	x	120	S		25	910,00
M 20	x 2	x	120	S		25	1240,00
M 20	x 1,5	x	130	S		25	1050,00
M 20	x 1,5	x	140	S		25	1180,00
M 20	x 1,5	x	150	S		25	1340,00
M 22	x 1,5	x	50	S		25	660,00
M 22	x 1,5	x	60	S		25	700,00
M 22	x 1,5	x	70	S		25	770,00
M 24	x 1,5	x	50	S		25	690,00
M 24	x 2	x	50	S		25	690,00
M 24	x 1,5	x	55	S		25	910,00
M 24	x 1,5	x	60	S		25	990,00
M 24	x 2	x	60	S		25	990,00

Dimensions					PU	Pieces	€/100/Mat.
M 24	x 1,5	x	70	S		25	1090,00
M 24	x 2	x	70	S		25	1090,00
M 24	x 1,5	x	80	S		25	1170,00
M 24	x 2	x	80	S		25	1170,00
M 24	x 1,5	x	90	S		10	1220,00
M 24	x 2	x	90	S		10	1220,00
M 24	x 1,5	x	100	S		10	1310,00
M 24	x 2	x	100	S		10	1310,00
M 24	x 1,5	x	110	S		10	1400,00
M 24	x 2	x	110	S		10	1400,00
M 24	x 1,5	x	120	S		10	1470,00
M 24	x 2	x	120	S		10	1470,00
M 24	x 1,5	x	130	S		1	1550,00
M 24	x 2	x	130	S		1	1550,00
M 24	x 1,5	x	140	S		1	1640,00
M 24	x 2	x	150	S		1	1720,00
M 30	x 2	x	60	S		1	1310,00
M 30	x 2	x	70	S		1	1430,00
M 30	x 2	x	80	S		1	1540,00
M 30	x 2	x	90	S		1	1630,00
M 30	x 2	x	100	S		1	1750,00
M 30	x 2	x	110	S		1	1870,00
M 30	x 2	x	120	S		1	1990,00
M 30	x 2	x	130	S		1	2130,00
M 30	x 2	x	140	S		1	2270,00
M 30	x 2	x	150	S		1	2390,00
M 30	x 2	x	160	S		1	2550,00
M 36	x 3	x	80	S		1	2390,00
M 36	x 3	x	90	S		1	2600,00
M 36	x 3	x	100	S		1	2750,00
M 36	x 3	x	110	S		1	2900,00
M 36	x 3	x	120	S		1	3050,00
M 36	x 3	x	130	S		1	4150,00
M 36	x 3	x	140	S		1	3450,00
M 36	x 3	x	150	S		1	3700,00
M 36	x 3	x	160	S		1	3950,00
M 42	x 3	x	140	S		1	5400,00
M 42	x 3	x	160	S		1	5900,00
M 42	x 3	x	180	S		1	6400,00
M 42	x 3	x	200	S		1	6900,00

DIN	00961.810	440
961	**8.8 zinc plated**	



Hexagon head screws, with fine pitch thread

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

DIN 961 ➔ replaced by ISO 8676

RoHS ✓ REACh SVHC free

M 8	x 1	x	20	S		200	29,00 ZP
M 10	x 1	x	16	S		200	42,50 ZP
M 10	x 1	x	20	S		200	42,50 ZP
M 10	x 1,25	x	20	S		200	42,50 ZP
M 10	x 1	x	25	S		200	43,50 ZP
M 10	x 1,25	x	25	S		200	43,00 ZP
M 10	x 1	x	30	S		200	47,00 ZP
M 10	x 1,25	x	30	S		200	46,50 ZP
M 10	x 1,25	x	35	S		100	52,00 ZP
M 10	x 1	x	40	S		100	59,00 ZP
M 10	x 1,25	x	40	S		100	59,00 ZP

Dimensions					PU	Pieces	€/100/Mat.
M 10	x 1,25	x	45	S		100	63,00 ZP
M 10	x 1	x	50	S		100	67,00 ZP
M 10	x 1,25	x	50	S		100	67,00 ZP
M 12	x 1,25	x	20	S		100	66,00 ZP
M 12	x 1,5	x	20	S		100	65,00 ZP
M 12	x 1,25	x	25	S		100	67,00 ZP
M 12	x 1,5	x	25	S		100	65,00 ZP
M 12	x 1,25	x	30	S		100	67,00 ZP
M 12	x 1,5	x	30	S		100	66,00 ZP
M 12	x 1,25	x	35	S		100	72,00 ZP
M 12	x 1,5	x	35	S		100	72,00 ZP
M 12	x 1,25	x	40	S		100	80,00 ZP
M 12	x 1,5	x	40	S		100	75,00 ZP
M 12	x 1,25	x	45	S		100	88,00 ZP
M 12	x 1,5	x	45	S		100	86,00 ZP
M 12	x 1,5	x	50	S		100	92,00 ZP
M 12	x 1,5	x	55	S		100	131,00 ZP
M 12	x 1,5	x	60	S		100	132,00 ZP
M 12	x 1,25	x	65	S		50	236,00 ZP
M 12	x 1,25	x	70	S		50	174,00 ZP
M 12	x 1,5	x	80	S		50	209,00 ZP
M 14	x 1,5	x	25	S		100	117,00 ZP
M 14	x 1,5	x	30	S		100	123,00 ZP
M 14	x 1,5	x	35	S		100	138,00 ZP
M 14	x 1,5	x	40	S		100	144,00 ZP
M 14	x 1,5	x	45	S		50	148,00 ZP
M 14	x 1,5	x	50	S		50	158,00 ZP
M 14	x 1,5	x	60	S		50	182,00 ZP
M 14	x 1,5	x	70	S		50	227,00 ZP
M 14	x 1,5	x	80	S		50	310,00 ZP
M 14	x 1,5	x	90	S		50	440,00 ZP
M 14	x 1,5	x	100	S		50	445,00 ZP
M 16	x 1,5	x	30	S		50	146,00 ZP
M 16	x 1,5	x	35	S		50	154,00 ZP
M 16	x 1,5	x	40	S		50	153,00 ZP
M 16	x 1,5	x	45	S		50	172,00 ZP
M 16	x 1,5	x	50	S		50	175,00 ZP
M 16	x 1,5	x	60	S		50	194,00 ZP
M 16	x 1,5	x	70	S		50	249,00 ZP
M 16	x 1,5	x	80	S		25	295,00 ZP
M 16	x 1,5	x	90	S		25	500,00 ZP
M 16	x 1,5	x	100	S		25	540,00 ZP
M 18	x 1,5	x	40	S		50	355,00 ZP
M 18	x 1,5	x	50	S		50	365,00 ZP
M 18	x 1,5	x	55	S		25	390,00 ZP
M 18	x 1,5	x	60	S		25	365,00 ZP
M 18	x 1,5	x	70	S		25	425,00 ZP
M 18	x 1,5	x	80	S		25	485,00 ZP
M 20	x 1,5	x	30	S		50	330,00 ZP
M 20	x 1,5	x	35	S		50	335,00 ZP
M 20	x 1,5	x	40	S		50	340,00 ZP
M 20	x 1,5	x	45	S		50	345,00 ZP
M 20	x 1,5	x	50	S		25	375,00 ZP
M 20	x 1,5	x	55	S		25	380,00 ZP
M 20	x 1,5	x	60	S		25	410,00 ZP
M 20	x 1,5	x	70	S		25	440,00 ZP
M 20	x 1,5	x	80	S		25	500,00 ZP
M 20	x 1,5	x	90	S		25	610,00 ZP
M 20	x 1,5	x	100	S		25	740,00 ZP
M 20	x 1,5	x	110	S		10	850,00 ZP
M 24	x 1,5	x	50	S		25	820,00 ZP
M 24	x 1,5	x	60	S		25	1130,00 ZP
M 24	x 1,5	x	80	S		25	1340,00 ZP
M 24	x 1,5	x	90	S		25	1400,00 ZP
M 24	x 1,5	x	100	S		25	1520,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00961.100	440

961

10.9



Hexagon head screws, with fine pitch thread

Dimensions ➔ TI-15 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

DIN 961 ➔ replaced by ISO 8676

RoHS ✓ REACh SVHC free

Dimensions							PU	Pieces	€/100/Mat.
M 8	x	1	x	20			S	200	29,00
M 8	x	1	x	25			S	200	30,50
M 8	x	1	x	30			S	200	31,50
M 8	x	1	x	35			S	200	37,50
M 8	x	1	x	40			S	200	40,00
M 8	x	1	x	45			S	200	44,50
M 8	x	1	x	50			S	200	48,50
M 8	x	1	x	60			S	200	57,00
M 8	x	1	x	70			S	200	66,00
M 8	x	1	x	80			S	200	62,00
M 8	x	1	x	80			S	200	42,00
M 10	x	1,25	x	16			S	200	97,00
M 10	x	1	x	20			S	200	45,00
M 10	x	1,25	x	20			S	200	102,00
M 10	x	1	x	25			S	200	47,50
M 10	x	1,25	x	25			S	200	107,00
M 10	x	1	x	30			S	200	50,00
M 10	x	1,25	x	30			S	200	110,00
M 10	x	1	x	35			S	100	54,00
M 10	x	1,25	x	35			S	100	115,00
M 10	x	1	x	40			S	100	57,00
M 10	x	1,25	x	40			S	100	124,00
M 10	x	1	x	45			S	100	81,00
M 10	x	1,25	x	45			S	100	140,00
M 10	x	1	x	50			S	100	103,00
M 10	x	1,25	x	50			S	100	158,00
M 10	x	1,25	x	55			S	100	176,00
M 10	x	1	x	60			S	100	137,00
M 10	x	1,25	x	60			S	100	212,00
M 10	x	1	x	70			S	100	171,00
M 10	x	1,25	x	70			S	100	249,00
M 10	x	1	x	80			S	100	205,00
M 10	x	1,25	x	80			S	100	285,00
M 10	x	1	x	90			S	100	239,00
M 10	x	1,25	x	90			S	100	325,00
M 10	x	1	x	100			S	100	275,00
M 10	x	1,25	x	100			S	100	360,00
M 12	x	1,25	x	20			S	100	84,00
M 12	x	1,5	x	20			S	100	82,00
M 12	x	1,25	x	25			S	100	78,00
M 12	x	1,5	x	25			S	100	76,00
M 12	x	1,25	x	30			S	100	81,00
M 12	x	1,5	x	30			S	100	82,00
M 12	x	1,25	x	35			S	100	86,00
M 12	x	1,5	x	35			S	100	85,00
M 12	x	1,25	x	40			S	100	90,00
M 12	x	1,5	x	40			S	100	90,00
M 12	x	1,25	x	45			S	100	103,00
M 12	x	1,5	x	45			S	100	100,00
M 12	x	1,25	x	50			S	100	107,00
M 12	x	1,5	x	50			S	100	107,00
M 12	x	1,5	x	55			S	100	98,00
M 12	x	1,25	x	60			S	100	117,00
M 12	x	1,5	x	60			S	100	116,00
M 12	x	1,25	x	65			S	50	125,00
M 12	x	1,5	x	65			S	50	129,00
M 12	x	1,25	x	70			S	50	131,00
M 12	x	1,5	x	70			S	50	140,00
M 12	x	1,5	x	75			S	50	152,00
M 12	x	1,25	x	80			S	50	146,00
M 12	x	1,5	x	80			S	50	163,00
M 12	x	1,25	x	90			S	50	160,00
M 12	x	1,5	x	90			S	50	175,00
M 12	x	1,25	x	100			S	50	174,00
M 12	x	1,5	x	100			S	50	188,00
M 12	x	1,25	x	110			S	50	188,00
M 12	x	1,5	x	110			S	50	199,00
M 12	x	1,25	x	120			S	50	203,00
M 12	x	1,5	x	120			S	50	210,00
M 12	x	1,25	x	130			S	50	216,00
M 12	x	1,5	x	130			S	50	223,00
M 12	x	1,5	x	140			S	50	236,00
M 14	x	1,5	x	25			S	100	153,00
M 14	x	1,5	x	30			S	100	138,00
M 14	x	1,5	x	35			S	100	144,00
M 14	x	1,5	x	40			S	100	148,00
M 14	x	1,5	x	45			S	50	154,00
M 14	x	1,5	x	50			S	50	160,00
M 14	x	1,5	x	55			S	50	209,00
M 14	x	1,5	x	60			S	50	209,00
M 14	x	1,5	x	65			S	50	335,00
M 14	x	1,5	x	70			S	50	450,00
M 14	x	1,5	x	75			S	50	485,00
M 14	x	1,5	x	80			S	50	520,00
M 14	x	1,5	x	90			S	50	590,00
M 14	x	1,5	x	100			S	50	660,00
M 14	x	1,5	x	110			S	50	730,00
M 14	x	1,5	x	120			S	50	2600,00
M 14	x	1,5	x	130			S	50	860,00
M 14	x	1,5	x	140			S	50	940,00
M 16	x	1,5	x	25			S	50	161,00
M 16	x	1,5	x	30			S	50	164,00
M 16	x	1,5	x	35			S	50	165,00
M 16	x	1,5	x	40			S	50	174,00
M 16	x	1,5	x	45			S	50	182,00
M 16	x	1,5	x	50			S	50	192,00
M 16	x	1,5	x	55			S	50	212,00
M 16	x	1,5	x	60			S	50	212,00
M 16	x	1,5	x	65			S	50	300,00
M 16	x	1,5	x	70			S	50	300,00
M 16	x	1,5	x	75			S	25	365,00
M 16	x	1,5	x	80			S	25	430,00
M 16	x	1,5	x	85			S	25	455,00
M 16	x	1,5	x	90			S	25	470,00
M 16	x	1,5	x	100			S	25	510,00
M 16	x	1,5	x	110			S	25	540,00
M 16	x	1,5	x	120			S	25	570,00
M 16	x	1,5	x	130			S	25	600,00
M 16	x	1,5	x	140			S	25	650,00
M 16	x	1,5	x	150			S	25	670,00
M 18	x	1,5	x	30			S	50	470,00
M 18	x	1,5	x	35			S	50	480,00
M 18	x	1,5	x	40			S	50	485,00
M 18	x	1,5	x	45			S	50	510,00
M 18	x	1,5	x	50			S	50	530,00
M 18	x	1,5	x	55			S	25	570,00
M 18	x	1,5	x	60			S	25	570,00
M 18	x	1,5	x	65			S	25	330,00
M 18	x	1,5	x	70			S	25	650,00
M 18	x	1,5	x	75			S	25	680,00
M 18	x	1,5	x	80			S	25	750,00
M 18	x	1,5	x	90			S	25	820,00
M 18	x	1,5	x	100			S	25	880,00
M 18	x	1,5	x	120			S	25	960,00
M 18	x	1,5	x	140			S	25	1030,00
M 18	x	1,5	x	150			S	25	1120,00
M 20	x	1,5	x	30			S	50	395,00
M 20	x	1,5	x	35			S	50	400,00
M 20	x	1,5	x	40			S	50	410,00
M 20	x	1,5	x	45			S	25	435,00
M 20	x	1,5	x	50			S	25	445,00
M 20	x	2	x	50			S	50	670,00
M 20	x	1,5	x	55			S	25	460,00
M 20	x	2	x	55			S	25	690,00
M 20	x	1,5	x	60			S	25	485,00
M 20	x	2	x	60			S	25	415,00
M 20	x	1,5	x	65			S	25	610,00
M 20	x	2	x	65			S	25	520,00
M 20	x	1,5	x	70			S	25	640,00
M 20	x	2	x	70			S	25	960,00
M 20	x	1,5	x	75			S	25	690,00
M 20	x	1,5	x	80			S	25	760,00
M 20	x	2	x	80			S	25	1140,00
M 20	x	1,5	x	85			S	25	780,00
M 20	x	1,5	x	90			S	25	810,00
M 20	x	1,5	x	100			S	25	890,00
M 20	x	2	x	100			S	25	1340,00
M 20	x	1,5	x	110			S	25	305,00
M 20	x	1,5	x	120			S	25	960,00
M 20	x	2	x	120			S	25	1440,00
M 20	x	1,5	x	130			S	25	1420,00
M 20	x	1,5	x	140			S	25	1900,00
M 20	x	1,5	x	150			S	25	2650,00
M 24	x	1,5	x	50			S	25	850,00
M 24	x	2	x	50			S	25	1000,00
M 24	x	1,5	x	55			S	25	880,00
M 24	x	1,5	x	60			S	25	910,00
M 24	x	2	x	60			S	25	1150,00
M 24	x	1,5	x	70			S	25	970,00
M 24	x	2	x	70			S	25	1310,00
M 24	x	1,5	x	80			S	25	1060,00
M 24	x	2	x	80			S	25	1460,00
M 24	x	1,5	x	90			S	10	1150,00
M 24	x	2	x	90			S	10	1610,00
M 24	x	1,5	x	100			S	10	1280,00
M 24	x	2	x	100			S	10	1760,00
M 24	x	1,5	x	110			S	10	1460,00
M 24	x	2	x	110			S	10	1920,00
M 24	x	1,5	x	120			S	10	1640,00
M 24	x	2	x	120			S	10	2060,00
M 24	x	1,5	x	130			S	10	1880,00
M 24	x	2	x	130			S	10	2220,00
M 24	x	1,5	x	140			S	10	2120,00
M 24	x	2	x	150			S	10	2360,00
M 30	x	2	x	60			S	1	1580,00
M 30	x	2	x	70			S	1	1710,00
M 30	x	2	x	80			S	1	1850,00
M 30	x	2	x	90			S	1	1960,00
M 30	x	2	x	100			S	1	2090,00
M 30	x	2	x	110			S	1	2250,00
M 30	x	2	x	120			S	1	2380,00
M 30	x	2	x	130			S	1	2550,00
M 30	x	2	x	140			S	1	2750,00
M 30	x	2	x	150			S	1	2900,00
M 30	x	2	x	160			S	1	3050,00
M 36	x	3	x	80			S	1	2900,00
M 36	x	3	x	90			S	1	3100,00
M 36	x	3	x	100			S	1	3300,00
M 36	x	3	x	110			S	1	3450,00
M 36	x	3	x	120			S	1	3650,00
M 36	x	3	x	130			S	1	3950,00
M 36	x	3	x	140			S	1	4150,00
M 36	x	3	x	150			S	1	4450,00
M 36	x	3	x	160			S	1	4750,00
M 36	x	3	x	140			S	1	5800,00
M 36	x	3	x	160			S	1	6700,00
M 36	x	3	x	180			S	1	7600,00
M 36	x	3	x	200			S	1	8400,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
DIN	00961.110	440
961	10.9 zinc plated	



Hexagon head screws, with fine pitch thread

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

DIN 961 ➔ replaced by ISO 8676

RoHS ✓ | REACh SVHC free

M 8	x 1	x 20	S	200	63,00 ZP
M 8	x 1	x 25	S	200	66,00 ZP
M 8	x 1	x 30	S	200	67,00 ZP
M 8	x 1	x 35	S	200	70,00 ZP
M 10	x 1	x 20	S	200	58,00 ZP
M 10	x 1	x 30	S	200	61,00 ZP
M 10	x 1,25	x 30	S	200	124,00 ZP
M 10	x 1	x 35	S	100	66,00 ZP
M 10	x 1	x 40	S	100	74,00 ZP
M 10	x 1	x 45	S	100	81,00 ZP
M 12	x 1,5	x 30	S	100	100,00 ZP
M 12	x 1,25	x 35	S	200	104,00 ZP
M 12	x 1,5	x 35	S	100	104,00 ZP
M 12	x 1,25	x 40	S	100	110,00 ZP
M 12	x 1,5	x 40	S	100	110,00 ZP
M 12	x 1,5	x 45	S	100	131,00 ZP
M 12	x 1,5	x 50	S	100	142,00 ZP
M 12	x 1,5	x 55	S	100	155,00 ZP
M 12	x 1,5	x 60	S	100	170,00 ZP
M 12	x 1,5	x 70	S	100	194,00 ZP
M 12	x 1,5	x 80	S	100	242,00 ZP
M 14	x 1,5	x 25	S	100	176,00 ZP
M 14	x 1,5	x 30	S	100	177,00 ZP
M 14	x 1,5	x 35	S	100	177,00 ZP
M 14	x 1,5	x 40	S	100	184,00 ZP
M 14	x 1,5	x 45	S	50	203,00 ZP
M 14	x 1,5	x 50	S	50	211,00 ZP
M 14	x 1,5	x 55	S	50	275,00 ZP
M 14	x 1,5	x 60	S	50	249,00 ZP
M 14	x 1,5	x 65	S	50	495,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU Pieces	€/100/Mat.
M 14 x 1,5 x 70	S 50	495,00 ZP
M 14 x 1,5 x 80	S 50	570,00 ZP
M 16 x 1,5 x 25	S 50	199,00 ZP
M 16 x 1,5 x 30	S 50	199,00 ZP
M 16 x 1,5 x 35	S 50	201,00 ZP
M 16 x 1,5 x 40	S 50	216,00 ZP
M 16 x 1,5 x 45	S 50	227,00 ZP
M 16 x 1,5 x 50	S 50	239,00 ZP
M 16 x 1,5 x 55	S 50	270,00 ZP
M 16 x 1,5 x 60	S 50	275,00 ZP
M 16 x 1,5 x 70	S 25	370,00 ZP
M 16 x 1,5 x 80	S 25	495,00 ZP
M 16 x 1,5 x 90	S 25	550,00 ZP
M 20 x 1,5 x 40	S 50	485,00 ZP
M 20 x 1,5 x 45	S 25	520,00 ZP
M 20 x 1,5 x 50	S 25	550,00 ZP
M 20 x 1,5 x 55	S 25	570,00 ZP
M 20 x 1,5 x 60	S 25	600,00 ZP

DIN	00963.004	450
963	Steel	turned bare



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 3100000
Brass ➔ pg. 627

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

M 1,4	x 3	S	100	31,50 turned
M 1,4	x 5	S	100	33,50 turned
M 1,4	x 6	S	100	34,00 turned
M 1,4	x 8	S	100	35,50 turned
M 1,4	x 10	S	100	39,50 turned
M 1,6	x 3	S	100	29,00 turned
M 1,6	x 4	S	100	29,50 turned
M 1,6	x 5	S	100	30,50 turned
M 1,6	x 6	S	100	33,00 turned
M 1,6	x 8	S	100	35,50 turned
M 1,6	x 10	S	100	39,50 turned
M 1,6	x 12	S	100	42,50 turned
M 1,6	x 16	S	100	48,00 turned

Dimensions	PU Pieces	€/100/Mat.
DIN	00963.400	450
963	4.8	



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 500
Brass, Plastic ➔ pg. 627

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

M 2	x 4	S	2000	5,90
M 2	x 5	S	2000	4,10
M 2	x 6	S	2000	2,85
M 2	x 8	S	2000	3,40
M 2	x 10	S	2000	2,70
M 2	x 12	S	2000	3,25
M 2	x 16	S	2000	4,60
M 2	x 20	S	2000	5,00
M 2,5	x 4	S	2000	5,40
M 2,5	x 5	S	2000	4,70
M 2,5	x 6	S	2000	2,85
M 2,5	x 8	S	2000	2,85
M 2,5	x 10	S	2000	3,00
M 2,5	x 12	S	2000	3,15
M 2,5	x 16	S	2000	3,65
M 3	x 4	S	2000	6,30
M 3	x 5	S	2000	4,60
M 3	x 6	S	2000	2,75
M 3	x 8	S	2000	1,35
M 3	x 10	S	2000	1,40
M 3	x 12	S	2000	1,40
M 3	x 16	S	2000	1,65
M 3	x 20	S	2000	2,00
M 3	x 25	S	2000	2,40
M 3	x 30	S	2000	2,80
M 3	x 40	S	1000	5,30
M 4	x 5	S	2000	7,70
M 4	x 6	S	2000	4,20
M 4	x 8	S	2000	1,95
M 4	x 10	S	2000	1,90
M 4	x 12	S	2000	1,95
M 4	x 16	S	2000	2,30
M 4	x 18	S	2000	3,45
M 4	x 20	S	2000	2,70
M 4	x 22	S	1000	4,45
M 4	x 25	S	1000	3,10
M 4	x 30	S	1000	3,70
M 4	x 35	S	1000	4,30
M 4	x 40	S	1000	5,00
M 4	x 45	S	1000	7,70
M 4	x 50	S	1000	7,90
M 5	x 6	S	2000	20,30
M 5	x 8	S	2000	7,90
M 5	x 10	S	2000	3,15
M 5	x 12	S	1000	3,15
M 5	x 16	S	1000	3,60
M 5	x 20	S	1000	3,90
M 5	x 25	S	1000	4,15
M 5	x 30	S	1000	5,50
M 5	x 35	S	500	6,20
M 5	x 40	S	500	6,70
M 5	x 45	S	500	7,80
M 5	x 50	S	500	8,90

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	S	1000	10,10
M 6	x	12	S	1000	4,55
M 6	x	16	S	1000	5,10
M 6	x	20	S	1000	5,60
M 6	x	25	S	500	6,30
M 6	x	30	S	500	7,30
M 6	x	35	S	500	8,50
M 6	x	40	S	500	9,50
M 6	x	45	S	500	11,10
M 6	x	50	S	200	12,60
M 6	x	55	S	200	16,80
M 6	x	60	S	200	15,00
M 6	x	65	S	200	19,20
M 6	x	70	S	200	19,20
M 6	x	80	S	200	27,00
M 6	x	100	S	200	36,50
M 8	x	10	S	500	45,50
M 8	x	12	S	500	40,00
M 8	x	16	S	500	11,70
M 8	x	18	S	500	19,20
M 8	x	20	S	500	12,90
M 8	x	25	S	500	13,60
M 8	x	30	S	200	15,50
M 8	x	35	S	200	17,50
M 8	x	40	S	200	24,50
M 8	x	45	S	200	26,00
M 8	x	50	S	200	27,00
M 8	x	55	S	200	40,00
M 8	x	60	S	200	36,00
M 8	x	70	S	200	41,00
M 8	x	80	S	100	46,00
M 8	x	100	S	100	66,00
M 10	x	16	S	200	28,00
M 10	x	20	S	200	22,20
M 10	x	25	S	200	24,00
M 10	x	30	S	200	26,00
M 10	x	35	S	200	28,50
M 10	x	40	S	200	30,00
M 10	x	45	S	100	34,50
M 10	x	50	S	100	39,50
M 10	x	55	S	100	88,00
M 10	x	60	S	100	48,00
M 10	x	70	S	100	60,00
M 10	x	80	S	100	74,00
M 10	x	90	S	100	82,00
M 10	x	100	S	100	91,00
M 12	x	20	S	200	265,00
M 12	x	25	S	200	245,00
M 12	x	30	S	200	204,00
M 12	x	35	S	100	215,00
M 12	x	40	S	100	222,00
M 12	x	45	S	100	241,00
M 12	x	50	S	100	265,00
M 12	x	60	S	50	380,00
M 12	x	70	S	50	445,00
M 12	x	80	S	50	495,00
M 12	x	90	S	50	540,00
M 16	x	30	S	50	380,00
M 16	x	35	S	50	395,00
M 16	x	40	S	50	420,00
M 16	x	45	S	50	430,00
M 16	x	50	S	50	455,00
M 16	x	55	S	50	530,00
M 16	x	60	S	50	485,00
M 16	x	70	S	25	580,00
M 16	x	80	S	25	750,00
M 16	x	90	S	25	850,00
M 20	x	35	S	25	1600,00
M 20	x	40	S	25	1660,00
M 20	x	50	S	25	1750,00
M 20	x	60	S	25	1950,00
M 20	x	70	S	25	2060,00
M 20	x	80	S	25	2180,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00963.410		450
963	4.8 zinc plated		



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-232
Corrosion protection ➔ TI-228

Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 500
Brass, Plastic ➔ pg. 627

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

M 2	x	4	S	2000	6,60 ZP
M 2	x	4	K	200	9,50 ZP
M 2	x	5	S	2000	4,40 ZP
M 2	x	5	K	200	7,30 ZP
M 2	x	6	S	2000	3,30 ZP
M 2	x	6	K	200	6,20 ZP
M 2	x	8	S	2000	2,85 ZP
M 2	x	8	K	200	5,70 ZP
M 2	x	10	S	2000	2,90 ZP
M 2	x	10	K	200	5,90 ZP
M 2	x	12	S	2000	3,55 ZP
M 2	x	12	K	200	6,50 ZP
M 2	x	16	S	2000	5,30 ZP
M 2	x	16	K	200	8,20 ZP
M 2	x	20	S	2000	5,60 ZP
M 2	x	20	K	200	8,50 ZP
M 2,5	x	4	S	2000	4,80 ZP
M 2,5	x	4	K	200	9,10 ZP
M 2,5	x	5	S	2000	5,30 ZP
M 2,5	x	5	K	200	8,20 ZP
M 2,5	x	6	S	2000	2,70 ZP
M 2,5	x	6	K	200	5,60 ZP
M 2,5	x	8	S	2000	3,30 ZP
M 2,5	x	8	K	200	6,20 ZP
M 2,5	x	10	S	2000	3,30 ZP
M 2,5	x	10	K	200	6,20 ZP
M 2,5	x	12	S	2000	3,55 ZP
M 2,5	x	12	K	200	6,50 ZP
M 2,5	x	16	S	2000	4,00 ZP
M 2,5	x	16	K	200	6,90 ZP
M 2,5	x	20	S	2000	4,85 ZP
M 2,5	x	20	K	200	7,80 ZP
M 2,5	x	25	K	200	8,80 ZP
M 2,5	x	30	K	200	12,90 ZP
M 3	x	4	S	2000	7,10 ZP
M 3	x	4	K	200	10,00 ZP
M 3	x	5	S	2000	5,10 ZP
M 3	x	5	K	200	8,20 ZP
M 3	x	6	S	2000	3,00 ZP
M 3	x	6	K	200	5,90 ZP
M 3	x	8	S	2000	1,50 ZP
M 3	x	8	K	200	4,45 ZP
M 3	x	10	S	2000	1,55 ZP
M 3	x	10	K	200	4,45 ZP
M 3	x	12	S	2000	1,55 ZP
M 3	x	12	K	200	4,55 ZP
M 3	x	14	S	2000	1,70 ZP
M 3	x	14	K	200	4,60 ZP
M 3	x	16	S	2000	1,85 ZP
M 3	x	16	K	200	4,75 ZP
M 3	x	18	S	2000	3,35 ZP
M 3	x	18	K	200	6,30 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	20	S	2000	2,25 ZP
M 3	x	20	K	200	5,20 ZP
M 3	x	25	S	2000	2,70 ZP
M 3	x	25	K	200	5,60 ZP
M 3	x	30	S	2000	3,10 ZP
M 3	x	30	K	200	3,10 ZP
M 3	x	35	S	2000	5,30 ZP
M 3	x	35	K	200	8,20 ZP
M 3	x	40	K	200	8,80 ZP
M 3	x	45	K	200	12,60 ZP
M 3	x	50	K	200	13,80 ZP
M 3	x	55	S	1000	21,20 ZP
M 3	x	60	K	200	20,50 ZP
M 4	x	5	S	2000	8,40 ZP
M 4	x	5	K	200	11,30 ZP
M 4	x	6	S	2000	4,60 ZP
M 4	x	6	K	200	7,70 ZP
M 4	x	8	S	2000	2,20 ZP
M 4	x	8	K	200	5,10 ZP
M 4	x	10	S	2000	2,15 ZP
M 4	x	10	K	200	5,00 ZP
M 4	x	12	S	2000	2,20 ZP
M 4	x	12	K	200	5,10 ZP
M 4	x	16	S	2000	2,50 ZP
M 4	x	16	K	200	5,40 ZP
M 4	x	18	K	200	6,80 ZP
M 4	x	20	S	2000	2,90 ZP
M 4	x	20	K	200	5,90 ZP
M 4	x	22	S	1000	4,95 ZP
M 4	x	22	K	200	7,90 ZP
M 4	x	25	S	1000	3,40 ZP
M 4	x	25	K	200	6,30 ZP
M 4	x	30	S	1000	4,15 ZP
M 4	x	30	K	200	7,20 ZP
M 4	x	35	S	1000	4,80 ZP
M 4	x	35	K	200	7,80 ZP
M 4	x	40	S	1000	5,50 ZP
M 4	x	40	K	200	8,50 ZP
M 4	x	45	S	1000	8,40 ZP
M 4	x	45	K	200	11,30 ZP
M 4	x	50	S	1000	8,80 ZP
M 4	x	50	K	200	11,70 ZP
M 4	x	55	K	200	17,10 ZP
M 4	x	60	S	500	13,10 ZP
M 4	x	60	K	200	16,00 ZP
M 4	x	65	S	200	25,50 ZP
M 4	x	70	K	100	27,00 ZP
M 4	x	80	K	100	34,00 ZP
M 4	x	90	K	100	56,00 ZP
M 4	x	100	K	100	60,00 ZP
M 5	x	6	S	2000	22,20 ZP
M 5	x	6	K	200	25,50 ZP
M 5	x	8	S	2000	8,80 ZP
M 5	x	8	K	200	11,70 ZP
M 5	x	10	S	2000	3,45 ZP
M 5	x	10	K	200	6,50 ZP
M 5	x	12	S	1000	3,45 ZP
M 5	x	12	K	200	6,50 ZP
M 5	x	14	S	1000	8,50 ZP
M 5	x	16	S	1000	3,90 ZP
M 5	x	16	K	200	6,80 ZP
M 5	x	18	K	200	8,60 ZP
M 5	x	20	S	1000	4,25 ZP
M 5	x	20	K	200	7,30 ZP
M 5	x	22	K	200	10,50 ZP
M 5	x	25	S	1000	4,55 ZP
M 5	x	25	K	200	7,60 ZP
M 5	x	30	S	1000	6,20 ZP
M 5	x	30	K	200	9,10 ZP
M 5	x	35	S	500	6,80 ZP
M 5	x	35	K	200	9,70 ZP
M 5	x	40	S	500	7,30 ZP
M 5	x	40	K	200	10,30 ZP
M 5	x	45	S	500	8,60 ZP
M 5	x	45	K	200	11,50 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	50	S	500	9,90 ZP
M 5	x	50	K	200	12,80 ZP
M 5	x	55	K	200	21,00 ZP
M 5	x	60	K	200	21,50 ZP
M 5	x	70	S	200	22,40 ZP
M 5	x	70	K	100	28,50 ZP
M 5	x	80	S	200	25,50 ZP
M 5	x	80	K	100	31,00 ZP
M 5	x	90	K	100	59,00 ZP
M 5	x	100	K	100	65,00 ZP
M 6	x	8	S	1000	14,70 ZP
M 6	x	8	K	200	17,60 ZP
M 6	x	10	S	1000	11,20 ZP
M 6	x	10	K	200	14,10 ZP
M 6	x	12	S	1000	5,00 ZP
M 6	x	12	K	200	7,90 ZP
M 6	x	14	S	1000	8,60 ZP
M 6	x	16	S	1000	5,70 ZP
M 6	x	16	K	200	8,60 ZP
M 6	x	18	K	200	12,00 ZP
M 6	x	20	S	1000	6,20 ZP
M 6	x	20	K	200	9,10 ZP
M 6	x	22	K	200	14,10 ZP
M 6	x	25	S	500	7,10 ZP
M 6	x	25	K	200	10,00 ZP
M 6	x	30	S	500	8,20 ZP
M 6	x	30	K	200	11,10 ZP
M 6	x	35	S	500	9,40 ZP
M 6	x	35	K	200	12,30 ZP
M 6	x	40	S	500	10,50 ZP
M 6	x	40	K	200	13,40 ZP
M 6	x	45	S	500	12,30 ZP
M 6	x	45	K	200	18,10 ZP
M 6	x	50	K	200	19,70 ZP
M 6	x	55	K	100	21,30 ZP
M 6	x	60	S	200	16,60 ZP
M 6	x	60	K	100	22,40 ZP
M 6	x	70	S	200	21,00 ZP
M 6	x	70	K	100	33,00 ZP
M 6	x	80	S	200	30,00 ZP
M 6	x	80	K	100	41,50 ZP
M 6	x	90	S	200	37,00 ZP
M 6	x	90	K	100	48,50 ZP
M 6	x	100	S	200	40,00 ZP
M 6	x	100	K	100	52,00 ZP
M 8	x	10	K	100	54,00 ZP
M 8	x	12	S	500	44,50 ZP
M 8	x	12	K	100	47,00 ZP
M 8	x	16	S	500	13,00 ZP
M 8	x	16	K	100	15,90 ZP
M 8	x	18	S	500	21,00 ZP
M 8	x	20	S	500	14,20 ZP
M 8	x	20	K	100	17,10 ZP
M 8	x	25	S	500	15,00 ZP
M 8	x	25	K	100	21,00 ZP
M 8	x	30	S	200	17,10 ZP
M 8	x	30	K	100	22,90 ZP
M 8	x	35	S	200	19,30 ZP
M 8	x	35	K	100	25,50 ZP
M 8	x	40	K	100	30,00 ZP
M 8	x	45	K	100	31,50 ZP
M 8	x	50	K	100	33,00 ZP
M 8	x	55	K	100	47,00 ZP
M 8	x	60	K	100	42,50 ZP
M 8	x	70	K	100	47,50 ZP
M 8	x	80	K	100	54,00 ZP
M 8	x	90	K	100	73,00 ZP
M 8	x	100	K	100	76,00 ZP
M 10	x	16	K	100	34,00 ZP
M 10	x	18	K	100	41,50 ZP
M 10	x	20	K	100	27,50 ZP
M 10	x	25	K	100	29,00 ZP
M 10	x	30	K	100	31,50 ZP
M 10	x	35	K	100	34,00 ZP
M 10	x	40	K	100	36,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	45	K	100	46,00 ZP
M 10	x	50	K	100	41,50 ZP
M 10	x	55	K	100	62,00 ZP
M 10	x	60	K	100	48,00 ZP
M 10	x	70	K	100	63,00 ZP
M 10	x	80	K	100	69,00 ZP
M 10	x	90	K	100	92,00 ZP
M 10	x	100	K	100	103,00 ZP
M 12	x	20	K	100	295,00 ZP
M 12	x	25	K	100	275,00 ZP
M 12	x	30	K	100	227,00 ZP
M 12	x	35	K	100	239,00 ZP
M 12	x	40	K	100	249,00 ZP
M 12	x	45	K	100	270,00 ZP
M 12	x	50	K	100	295,00 ZP
M 12	x	55	K	50	395,00 ZP
M 12	x	60	K	50	425,00 ZP
M 12	x	70	K	50	500,00 ZP
M 12	x	80	K	50	550,00 ZP
M 12	x	90	K	50	600,00 ZP
M 12	x	100	K	50	660,00 ZP
M 16	x	30	K	50	420,00 ZP
M 16	x	35	K	50	430,00 ZP
M 16	x	40	K	50	460,00 ZP
M 16	x	45	K	50	475,00 ZP
M 16	x	50	K	50	500,00 ZP
M 16	x	55	K	50	590,00 ZP
M 16	x	60	K	50	540,00 ZP
M 16	x	70	K	25	620,00 ZP
M 16	x	80	K	25	660,00 ZP
M 16	x	90	K	25	720,00 ZP
M 20	x	40	K	25	1810,00 ZP
M 20	x	45	K	25	1840,00 ZP
M 20	x	50	K	25	1920,00 ZP
M 20	x	60	K	25	2110,00 ZP
M 20	x	70	K	25	2180,00 ZP

DIN	00964.400	450

964 **4.8**



Slotted raised countersunk head screws

Dimensions → TI-39
Material properties → TI-232
Corrosion protection → TI-228

Standard conversion → TI-11
REACH → TI-262

Stainless → pg. 502
Brass → pg. 628

DIN 964 → replaced by ISO 2010

RoHS ✓

M 2,5	x	6	S	2000	3,35
M 2,5	x	8	S	2000	3,35
M 4	x	8	S	2000	2,00
M 4	x	10	S	2000	1,95
M 4	x	12	S	2000	2,00
M 4	x	16	S	2000	2,40
M 4	x	20	S	2000	2,80
M 5	x	25	S	1000	4,80
M 5	x	30	S	1000	6,80
M 5	x	35	S	500	6,50

Dimensions	PU	Pieces	€/100/Mat.
DIN	00964.410		450

964 **4.8 zinc plated**



Slotted raised countersunk head screws

Dimensions → TI-39
Material properties → TI-232
Corrosion protection → TI-228

Standard conversion → TI-11
REACH → TI-262

Stainless → pg. 502
Brass → pg. 628

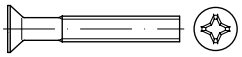
DIN 964 → replaced by ISO 2010

RoHS ✓

M 3	x	5	K	200	9,40 ZP
M 3	x	6	K	200	7,40 ZP
M 3	x	8	S	2000	2,15 ZP
M 3	x	8	K	200	5,00 ZP
M 3	x	10	S	2000	1,70 ZP
M 3	x	10	K	200	4,60 ZP
M 3	x	12	K	200	4,95 ZP
M 3	x	16	K	200	5,50 ZP
M 3	x	20	S	2000	3,10 ZP
M 3	x	20	K	200	6,00 ZP
M 3	x	25	S	2000	3,65 ZP
M 3	x	25	K	200	6,60 ZP
M 3	x	30	K	200	7,30 ZP
M 3	x	35	K	200	9,10 ZP
M 3	x	40	K	200	9,90 ZP
M 4	x	8	S	2000	2,25 ZP
M 4	x	8	K	200	5,30 ZP
M 4	x	10	S	2000	2,20 ZP
M 4	x	10	K	200	5,10 ZP
M 4	x	12	S	2000	2,25 ZP
M 4	x	12	K	200	5,30 ZP
M 4	x	16	S	2000	2,70 ZP
M 4	x	16	K	200	5,60 ZP
M 4	x	20	S	2000	3,15 ZP
M 4	x	20	K	200	6,10 ZP
M 4	x	25	K	200	6,70 ZP
M 4	x	30	K	200	7,40 ZP
M 4	x	35	K	200	8,20 ZP
M 4	x	40	K	200	10,10 ZP
M 4	x	45	K	200	11,50 ZP
M 4	x	50	K	200	12,30 ZP
M 4	x	60	K	200	14,70 ZP
M 4	x	70	K	100	23,90 ZP
M 4	x	80	K	100	31,50 ZP
M 5	x	8	K	200	9,90 ZP
M 5	x	10	S	2000	4,20 ZP
M 5	x	10	K	200	7,20 ZP
M 5	x	12	K	200	6,70 ZP
M 5	x	16	S	1000	4,15 ZP
M 5	x	16	K	200	7,10 ZP
M 5	x	20	K	200	7,60 ZP
M 5	x	25	K	200	8,20 ZP
M 5	x	30	S	1000	7,40 ZP
M 5	x	30	K	200	10,30 ZP
M 5	x	35	K	200	10,20 ZP
M 5	x	40	S	500	7,90 ZP
M 5	x	40	K	200	10,80 ZP
M 5	x	45	K	200	14,10 ZP
M 5	x	50	K	200	13,60 ZP
M 5	x	60	K	200	22,20 ZP
M 5	x	80	K	100	29,00 ZP
M 6	x	8	K	200	19,30 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 10	K	200	14,20 ZP
M 6 x 12	K	200	9,40 ZP
M 6 x 16	S	1000	6,20 ZP
M 6 x 16	K	200	9,10 ZP
M 6 x 20	S	1000	6,70 ZP
M 6 x 20	K	200	9,60 ZP
M 6 x 25	S	500	7,70 ZP
M 6 x 25	K	200	10,60 ZP
M 6 x 30	K	200	11,70 ZP
M 6 x 35	K	200	13,10 ZP
M 6 x 40	K	200	14,20 ZP
M 6 x 45	K	200	19,00 ZP
M 6 x 50	K	200	23,90 ZP
M 6 x 55	K	200	27,00 ZP
M 6 x 60	K	100	27,00 ZP
M 6 x 70	K	100	38,50 ZP
M 6 x 80	K	100	44,00 ZP
M 8 x 16	K	100	20,90 ZP
M 8 x 20	K	100	20,10 ZP
M 8 x 25	K	100	25,00 ZP
M 8 x 30	K	100	28,00 ZP
M 8 x 35	K	100	33,00 ZP
M 8 x 40	K	100	44,50 ZP
M 8 x 45	K	100	41,50 ZP
M 8 x 50	K	100	42,50 ZP
M 8 x 60	K	100	43,00 ZP
M 10 x 20	K	100	42,00 ZP
M 10 x 25	K	100	43,00 ZP
M 10 x 30	K	100	45,00 ZP
M 10 x 35	K	100	54,00 ZP
M 10 x 40	K	100	57,00 ZP
M 10 x 50	K	100	63,00 ZP

DIN	00965.404	460
965	**4.8**	**H**



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 503

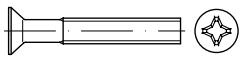
DIN 965 ➔ replaced by ISO 7046

RoHS ✓

M 2,5	x	6 -H	S	2000	4,55
M 2,5	x	8 -H	S	2000	4,60
M 3	x	5 -H	S	2000	5,40
M 3	x	6 -H	S	2000	3,70
M 3	x	8 -H	S	2000	1,95
M 3	x	10 -H	S	2000	2,15
M 3	x	12 -H	S	2000	2,20
M 3	x	16 -H	S	2000	2,75
M 3	x	20 -H	S	2000	2,80
M 3	x	25 -H	S	2000	3,95
M 4	x	6 -H	S	2000	5,20
M 4	x	8 -H	S	2000	2,80
M 4	x	10 -H	S	2000	2,85
M 4	x	12 -H	S	2000	3,10
M 4	x	16 -H	S	2000	3,35
M 4	x	20 -H	S	2000	3,65
M 4	x	25 -H	S	1000	4,15
M 4	x	30 -H	S	1000	5,40
M 5	x	8 -H	S	2000	7,30

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 10 -H	S	2000	3,90
M 5 x 12 -H	S	1000	4,10
M 5 x 16 -H	S	1000	4,40
M 5 x 20 -H	S	1000	5,00
M 5 x 25 -H	S	1000	5,60
M 5 x 40 -H	S	500	8,40
M 6 x 10 -H	S	1000	9,70
M 6 x 12 -H	S	1000	5,70
M 6 x 16 -H	S	1000	6,50
M 6 x 20 -H	S	1000	7,20
M 6 x 25 -H	S	500	8,20
M 6 x 30 -H	S	200	9,10
M 6 x 35 -H	S	500	10,70
M 8 x 16 -H	S	500	14,90
M 8 x 20 -H	S	500	15,50
M 8 x 25 -H	S	200	17,10
M 8 x 30 -H	S	200	19,50

DIN	00965.414	460
965	**4.8** zinc plated	**H**



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 503

DIN 965 ➔ replaced by ISO 7046

RoHS ✓

M 2	x	5 -H	S	2000	4,60 ZP
M 2	x	6 -H	S	2000	4,60 ZP
M 2	x	6 -H	K	200	7,60 ZP
M 2	x	8 -H	S	2000	4,60 ZP
M 2	x	8 -H	K	200	7,60 ZP
M 2	x	10 -H	S	2000	4,75 ZP
M 2	x	10 -H	K	200	7,70 ZP
M 2	x	12 -H	S	2000	4,85 ZP
M 2	x	12 -H	K	200	7,80 ZP
M 2	x	16 -H	S	2000	5,00 ZP
M 2	x	16 -H	K	200	7,90 ZP
M 2	x	20 -H	S	2000	5,30 ZP
M 2	x	20 -H	K	200	8,20 ZP
M 2,5	x	4 -H	S	2000	11,10 ZP
M 2,5	x	4 -H	K	200	14,00 ZP
M 2,5	x	5 -H	S	2000	6,70 ZP
M 2,5	x	5 -H	K	200	9,60 ZP
M 2,5	x	6 -H	S	2000	5,00 ZP
M 2,5	x	6 -H	K	200	8,00 ZP
M 2,5	x	8 -H	S	2000	4,60 ZP
M 2,5	x	8 -H	K	200	8,00 ZP
M 2,5	x	10 -H	S	2000	5,20 ZP
M 2,5	x	10 -H	K	200	8,20 ZP
M 2,5	x	12 -H	S	2000	5,30 ZP
M 2,5	x	12 -H	K	200	8,30 ZP
M 2,5	x	16 -H	S	2000	5,80 ZP
M 2,5	x	16 -H	K	200	8,80 ZP
M 2,5	x	20 -H	S	2000	8,30 ZP
M 2,5	x	20 -H	K	200	11,20 ZP
M 3	x	4 -H	S	2000	5,10 ZP
M 3	x	4 -H	K	200	7,70 ZP
M 3	x	5 -H	S	2000	5,90 ZP
M 3	x	5 -H	K	200	8,80 ZP
M 3	x	6 -H	S	2000	4,15 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 6 -H	K	200	7,10 ZP
M 3 x 8 -H	S	2000	2,20 ZP
M 3 x 8 -H	K	200	5,20 ZP
M 3 x 10 -H	S	2000	2,30 ZP
M 3 x 10 -H	K	200	5,30 ZP
M 3 x 12 -H	S	2000	2,40 ZP
M 3 x 12 -H	K	200	5,40 ZP
M 3 x 14 -H	S	2000	2,80 ZP
M 3 x 14 -H	K	200	5,80 ZP
M 3 x 16 -H	S	2000	3,00 ZP
M 3 x 16 -H	K	200	6,00 ZP
M 3 x 18 -H	S	2000	3,40 ZP
M 3 x 18 -H	K	200	6,30 ZP
M 3 x 20 -H	S	2000	3,15 ZP
M 3 x 20 -H	K	200	6,10 ZP
M 3 x 22 -H	S	2000	3,65 ZP
M 3 x 22 -H	K	200	6,60 ZP
M 3 x 25 -H	S	2000	4,40 ZP
M 3 x 25 -H	K	200	7,30 ZP
M 3 x 30 -H	S	2000	5,40 ZP
M 3 x 30 -H	K	200	8,60 ZP
M 3 x 35 -H	S	2000	7,90 ZP
M 3 x 40 -H	S	1000	9,10 ZP
M 3 x 45 -H	S	1000	10,30 ZP
M 3 x 50 -H	S	1000	11,30 ZP
M 4 x 5 -H	S	2000	5,70 ZP
M 4 x 5 -H	K	200	8,60 ZP
M 4 x 6 -H	S	2000	5,70 ZP
M 4 x 6 -H	K	200	8,60 ZP
M 4 x 8 -H	S	2000	3,10 ZP
M 4 x 8 -H	K	200	6,10 ZP
M 4 x 10 -H	S	2000	3,25 ZP
M 4 x 10 -H	K	200	6,20 ZP
M 4 x 12 -H	S	2000	3,35 ZP
M 4 x 12 -H	K	200	6,30 ZP
M 4 x 14 -H	S	2000	3,65 ZP
M 4 x 14 -H	K	200	6,70 ZP
M 4 x 16 -H	S	2000	3,70 ZP
M 4 x 16 -H	K	200	6,70 ZP
M 4 x 18 -H	S	2000	4,45 ZP
M 4 x 20 -H	S	2000	3,95 ZP
M 4 x 20 -H	K	200	6,90 ZP
M 4 x 25 -H	S	1000	4,55 ZP
M 4 x 25 -H	K	200	7,60 ZP
M 4 x 28 -H	S	1000	12,80 ZP
M 4 x 30 -H	S	1000	5,90 ZP
M 4 x 30 -H	K	200	8,90 ZP
M 4 x 35 -H	S	1000	7,40 ZP
M 4 x 35 -H	K	200	10,50 ZP
M 4 x 40 -H	S	1000	8,60 ZP
M 4 x 40 -H	K	200	11,50 ZP
M 4 x 45 -H	S	1000	10,60 ZP
M 4 x 45 -H	K	200	13,40 ZP
M 4 x 50 -H	S	1000	12,60 ZP
M 4 x 50 -H	K	200	15,70 ZP
M 4 x 60 -H	S	500	18,00 ZP
M 4 x 60 -H	K	200	21,00 ZP
M 4 x 70 -H	S	500	24,10 ZP
M 4 x 80 -H	S	500	31,00 ZP
M 4 x 90 -H	S	200	83,00 ZP
M 5 x 6 -H	S	2000	8,20 ZP
M 5 x 6 -H	K	200	11,50 ZP
M 5 x 8 -H	S	2000	8,20 ZP
M 5 x 8 -H	K	200	11,10 ZP
M 5 x 10 -H	S	2000	4,25 ZP
M 5 x 10 -H	K	200	7,20 ZP
M 5 x 12 -H	S	1000	4,40 ZP
M 5 x 12 -H	K	200	7,30 ZP
M 5 x 14 -H	S	1000	7,90 ZP
M 5 x 14 -H	K	200	10,90 ZP
M 5 x 16 -H	S	1000	4,85 ZP
M 5 x 16 -H	K	200	7,90 ZP
M 5 x 20 -H	S	1000	5,50 ZP
M 5 x 20 -H	K	200	8,50 ZP
M 5 x 25 -H	S	1000	6,20 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25 -H	K	200	9,10 ZP
M 5	x	30 -H	S	1000	7,80 ZP
M 5	x	30 -H	K	200	10,80 ZP
M 5	x	35 -H	S	500	8,60 ZP
M 5	x	35 -H	K	200	11,70 ZP
M 5	x	40 -H	S	500	9,40 ZP
M 5	x	40 -H	K	200	12,30 ZP
M 5	x	45 -H	S	500	10,90 ZP
M 5	x	45 -H	K	200	13,80 ZP
M 5	x	50 -H	S	500	15,20 ZP
M 5	x	50 -H	K	200	18,10 ZP
M 5	x	55 -H	S	200	35,50 ZP
M 5	x	60 -H	S	200	19,30 ZP
M 5	x	70 -H	S	200	23,40 ZP
M 5	x	80 -H	S	200	36,00 ZP
M 5	x	90 -H	S	100	51,00 ZP
M 6	x	8 -H	S	1000	9,10 ZP
M 6	x	8 -H	K	200	12,00 ZP
M 6	x	10 -H	S	1000	10,80 ZP
M 6	x	10 -H	K	200	13,70 ZP
M 6	x	12 -H	S	1000	6,30 ZP
M 6	x	12 -H	K	200	9,20 ZP
M 6	x	14 -H	S	1000	8,60 ZP
M 6	x	16 -H	S	1000	7,20 ZP
M 6	x	16 -H	K	200	10,20 ZP
M 6	x	18 -H	S	1000	14,60 ZP
M 6	x	18 -H	K	200	18,20 ZP
M 6	x	20 -H	S	1000	7,90 ZP
M 6	x	20 -H	K	200	10,80 ZP
M 6	x	25 -H	S	500	8,90 ZP
M 6	x	25 -H	K	200	11,80 ZP
M 6	x	30 -H	S	500	10,20 ZP
M 6	x	30 -H	K	200	13,10 ZP
M 6	x	35 -H	S	500	11,80 ZP
M 6	x	35 -H	K	200	14,70 ZP
M 6	x	40 -H	S	500	13,20 ZP
M 6	x	40 -H	K	200	16,10 ZP
M 6	x	45 -H	S	200	15,50 ZP
M 6	x	50 -H	S	200	17,60 ZP
M 6	x	55 -H	S	200	26,00 ZP
M 6	x	60 -H	S	200	21,10 ZP
M 6	x	70 -H	S	200	26,50 ZP
M 6	x	80 -H	S	200	39,50 ZP
M 8	x	12 -H	S	500	44,50 ZP
M 8	x	16 -H	S	500	16,60 ZP
M 8	x	16 -H	K	200	19,50 ZP
M 8	x	20 -H	S	500	17,10 ZP
M 8	x	20 -H	K	200	20,10 ZP
M 8	x	25 -H	S	200	19,00 ZP
M 8	x	30 -H	S	200	21,60 ZP
M 8	x	35 -H	S	200	26,00 ZP
M 8	x	40 -H	S	100	30,50 ZP
M 8	x	45 -H	S	100	33,00 ZP
M 8	x	50 -H	S	100	34,00 ZP
M 8	x	55 -H	S	100	44,00 ZP
M 8	x	60 -H	S	100	39,00 ZP
M 8	x	70 -H	S	100	47,00 ZP
M 8	x	80 -H	S	100	57,00 ZP
M 8	x	90 -H	S	100	68,00 ZP
M 8	x	100 -H	S	100	78,00 ZP
M 10	x	16 -H	S	100	66,00 ZP
M 10	x	20 -H	S	100	38,50 ZP
M 10	x	25 -H	S	100	40,00 ZP
M 10	x	30 -H	S	100	44,00 ZP
M 10	x	40 -H	S	100	50,00 ZP
M 10	x	45 -H	S	100	54,00 ZP
M 10	x	50 -H	S	100	57,00 ZP
M 10	x	60 -H	S	100	72,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00965.301		460
965	**4.8**		**Z**
	zinc plated		



Countersunk head screws with Pozidriv cross recess Z

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 504

DIN 965 ➔ replaced by ISO 7046

RoHS ✓

M 2,5	x	4 -Z	S	2000	11,10 ZP
M 2,5	x	5 -Z	S	2000	6,70 ZP
M 2,5	x	6 -Z	S	2000	5,00 ZP
M 2,5	x	8 -Z	S	2000	4,60 ZP
M 2,5	x	10 -Z	S	2000	5,20 ZP
M 2,5	x	12 -Z	S	2000	5,30 ZP
M 3	x	4 -Z	S	2000	5,70 ZP
M 3	x	5 -Z	S	2000	6,20 ZP
M 3	x	6 -Z	S	2000	4,15 ZP
M 3	x	8 -Z	S	2000	2,20 ZP
M 3	x	10 -Z	S	2000	2,30 ZP
M 3	x	12 -Z	S	2000	2,40 ZP
M 3	x	16 -Z	S	2000	3,00 ZP
M 3	x	20 -Z	S	2000	3,15 ZP
M 3	x	25 -Z	S	2000	4,40 ZP
M 4	x	6 -Z	S	2000	5,70 ZP
M 4	x	8 -Z	S	2000	3,10 ZP
M 4	x	10 -Z	S	2000	3,25 ZP
M 4	x	12 -Z	S	2000	3,35 ZP
M 4	x	16 -Z	S	2000	3,70 ZP
M 4	x	20 -Z	S	2000	3,95 ZP
M 4	x	25 -Z	S	1000	4,55 ZP
M 4	x	30 -Z	S	1000	5,90 ZP
M 4	x	35 -Z	S	1000	7,40 ZP
M 4	x	40 -Z	S	1000	8,60 ZP
M 4	x	45 -Z	S	500	10,60 ZP
M 4	x	50 -Z	S	500	12,60 ZP
M 5	x	8 -Z	S	2000	8,20 ZP
M 5	x	10 -Z	S	2000	4,25 ZP
M 5	x	12 -Z	S	1000	4,40 ZP
M 5	x	16 -Z	S	1000	4,85 ZP
M 5	x	20 -Z	S	1000	5,50 ZP
M 5	x	25 -Z	S	1000	6,20 ZP
M 5	x	30 -Z	S	1000	7,80 ZP
M 5	x	35 -Z	S	500	8,60 ZP
M 5	x	40 -Z	S	500	9,40 ZP
M 5	x	45 -Z	S	500	10,90 ZP
M 5	x	50 -Z	S	500	15,20 ZP
M 5	x	60 -Z	S	200	19,30 ZP
M 5	x	70 -Z	S	200	23,40 ZP
M 5	x	80 -Z	S	200	36,00 ZP
M 6	x	10 -Z	S	1000	10,80 ZP
M 6	x	12 -Z	S	1000	6,30 ZP
M 6	x	16 -Z	S	1000	7,20 ZP
M 6	x	20 -Z	S	1000	7,90 ZP
M 6	x	25 -Z	S	500	8,90 ZP
M 6	x	30 -Z	S	500	9,00 ZP
M 6	x	35 -Z	S	500	11,80 ZP
M 6	x	40 -Z	S	500	13,20 ZP
M 6	x	45 -Z	S	200	15,50 ZP
M 6	x	50 -Z	S	200	17,60 ZP
M 6	x	60 -Z	S	200	21,10 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00965.415		460
965	**4.8**		**ISR**
	zinc plated		



Countersunk head screws, ISR = hexalobular socket

~ ISO 14581

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 505

RoHS ✓

M 3	x	4 -T10	S	2000	7,60 ZP
M 3	x	5 -T10	S	2000	7,60 ZP
M 3	x	6 -T10	S	2000	5,00 ZP
M 3	x	8 -T10	S	2000	2,65 ZP
M 3	x	10 -T10	S	2000	2,80 ZP
M 3	x	12 -T10	S	2000	2,85 ZP
M 3	x	16 -T10	S	2000	3,60 ZP
M 3	x	20 -T10	S	2000	3,80 ZP
M 3	x	25 -T10	S	2000	4,00 ZP
M 4	x	6 -T20	S	2000	6,90 ZP
M 4	x	8 -T20	S	2000	3,75 ZP
M 4	x	10 -T20	S	2000	3,90 ZP
M 4	x	12 -T20	S	2000	4,00 ZP
M 4	x	16 -T20	S	2000	4,45 ZP
M 4	x	20 -T20	S	2000	4,75 ZP
M 4	x	25 -T20	S	1000	5,50 ZP
M 4	x	30 -T20	S	1000	7,10 ZP
M 4	x	35 -T20	S	1000	8,90 ZP
M 4	x	40 -T20	S	1000	10,30 ZP
M 5	x	8 -T25	S	2000	9,80 ZP
M 5	x	10 -T25	S	2000	5,10 ZP
M 5	x	12 -T25	S	1000	5,30 ZP
M 5	x	16 -T25	S	1000	5,90 ZP
M 5	x	20 -T25	S	1000	6,60 ZP
M 5	x	25 -T25	S	1000	7,40 ZP
M 5	x	30 -T25	S	1000	9,40 ZP
M 5	x	35 -T25	S	500	10,40 ZP
M 5	x	40 -T25	S	500	11,20 ZP
M 5	x	45 -T25	S	500	13,10 ZP
M 5	x	50 -T25	S	500	18,20 ZP
M 6	x	10 -T30	S	1000	13,00 ZP
M 6	x	12 -T30	S	1000	7,60 ZP
M 6	x	16 -T30	S	1000	8,60 ZP
M 6	x	20 -T30	S	1000	9,50 ZP
M 6	x	25 -T30	S	500	10,60 ZP
M 6	x	30 -T30	S	500	12,10 ZP
M 6	x	35 -T30	S	500	14,10 ZP
M 6	x	40 -T30	S	500	15,80 ZP
M 6	x	50 -T30	S	200	21,10 ZP
M 6	x	60 -T30	S	200	25,50 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00966.414	460
966	**4.8 zinc plated**	**H**



Raised countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 506

DIN 966 ➔ replaced by ISO 7047

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 2,5	x	5 -H	S	2000	8,40 ZP
M 2,5	x	6 -H	S	2000	6,00 ZP
M 2,5	x	6 -H	K	200	8,90 ZP
M 2,5	x	8 -H	S	2000	6,20 ZP
M 2,5	x	8 -H	K	200	9,10 ZP
M 2,5	x	10 -H	S	2000	6,20 ZP
M 2,5	x	10 -H	K	200	9,10 ZP
M 3	x	5 -H	S	2000	6,00 ZP
M 3	x	5 -H	K	200	8,90 ZP
M 3	x	6 -H	S	2000	4,55 ZP
M 3	x	6 -H	K	200	7,60 ZP
M 3	x	8 -H	S	2000	2,40 ZP
M 3	x	8 -H	K	200	5,30 ZP
M 3	x	10 -H	S	2000	2,45 ZP
M 3	x	10 -H	K	200	5,40 ZP
M 3	x	12 -H	S	2000	3,00 ZP
M 3	x	12 -H	K	200	5,90 ZP
M 3	x	16 -H	S	2000	3,70 ZP
M 3	x	16 -H	K	200	6,60 ZP
M 3	x	20 -H	S	2000	3,90 ZP
M 3	x	20 -H	K	200	6,80 ZP
M 3	x	25 -H	S	2000	5,00 ZP
M 3	x	25 -H	K	200	8,90 ZP
M 3	x	30 -H	S	2000	6,30 ZP
M 3	x	30 -H	K	200	9,20 ZP
M 3	x	35 -H	S	2000	9,20 ZP
M 3	x	40 -H	S	1000	10,50 ZP
M 4	x	6 -H	S	2000	6,70 ZP
M 4	x	6 -H	K	200	9,60 ZP
M 4	x	8 -H	S	2000	3,30 ZP
M 4	x	8 -H	K	200	6,20 ZP
M 4	x	10 -H	S	2000	3,40 ZP
M 4	x	10 -H	K	200	6,30 ZP
M 4	x	12 -H	S	2000	3,60 ZP
M 4	x	12 -H	K	200	6,50 ZP
M 4	x	16 -H	S	2000	3,95 ZP
M 4	x	16 -H	K	200	6,90 ZP
M 4	x	20 -H	S	2000	4,25 ZP
M 4	x	20 -H	K	200	7,20 ZP
M 4	x	25 -H	S	1000	4,85 ZP
M 4	x	25 -H	K	200	7,80 ZP
M 4	x	30 -H	S	1000	6,80 ZP
M 4	x	30 -H	K	200	9,70 ZP
M 4	x	35 -H	S	1000	8,60 ZP
M 4	x	35 -H	K	200	11,50 ZP
M 4	x	40 -H	S	1000	9,90 ZP
M 4	x	40 -H	K	200	12,80 ZP
M 4	x	45 -H	S	1000	11,40 ZP
M 4	x	45 -H	K	200	14,30 ZP
M 4	x	50 -H	S	1000	15,80 ZP
M 4	x	50 -H	K	200	18,70 ZP
M 4	x	60 -H	S	500	22,70 ZP
M 5	x	8 -H	S	2000	9,40 ZP
M 5	x	8 -H	K	200	12,30 ZP
M 5	x	10 -H	S	2000	4,60 ZP
M 5	x	10 -H	K	200	7,60 ZP
M 5	x	12 -H	S	1000	4,70 ZP
M 5	x	12 -H	K	200	7,60 ZP
M 5	x	16 -H	S	1000	5,30 ZP
M 5	x	16 -H	K	200	8,20 ZP
M 5	x	20 -H	S	1000	6,70 ZP
M 5	x	20 -H	K	200	9,60 ZP
M 5	x	25 -H	S	1000	6,70 ZP
M 5	x	25 -H	K	200	9,60 ZP
M 5	x	30 -H	S	1000	8,50 ZP
M 5	x	30 -H	K	200	11,40 ZP
M 5	x	35 -H	S	500	9,40 ZP
M 5	x	40 -H	S	500	10,10 ZP
M 5	x	45 -H	S	500	12,60 ZP
M 5	x	50 -H	S	500	16,50 ZP
M 5	x	60 -H	S	200	22,40 ZP
M 5	x	70 -H	S	200	33,00 ZP
M 5	x	80 -H	S	200	42,00 ZP
M 6	x	10 -H	S	1000	11,50 ZP
M 6	x	10 -H	K	200	14,40 ZP
M 6	x	12 -H	S	1000	6,90 ZP
M 6	x	12 -H	K	200	9,90 ZP
M 6	x	16 -H	S	1000	7,80 ZP
M 6	x	16 -H	K	200	10,70 ZP
M 6	x	20 -H	S	1000	8,60 ZP
M 6	x	20 -H	K	200	11,50 ZP
M 6	x	25 -H	S	500	9,70 ZP
M 6	x	30 -H	S	500	11,10 ZP
M 6	x	35 -H	S	500	12,80 ZP
M 6	x	40 -H	S	500	14,30 ZP
M 6	x	45 -H	S	500	17,80 ZP
M 6	x	50 -H	S	200	18,90 ZP
M 6	x	60 -H	S	200	23,80 ZP
M 6	x	70 -H	S	200	33,00 ZP
M 6	x	80 -H	S	200	47,00 ZP
M 8	x	16 -H	S	500	31,50 ZP
M 8	x	20 -H	S	500	19,40 ZP
M 8	x	25 -H	S	200	23,40 ZP
M 8	x	30 -H	S	200	26,50 ZP
M 8	x	35 -H	S	200	30,00 ZP
M 8	x	40 -H	S	100	38,00 ZP
M 8	x	45 -H	S	100	40,00 ZP
M 8	x	50 -H	S	100	41,50 ZP
M 8	x	60 -H	S	100	48,50 ZP
M 8	x	70 -H	S	100	60,00 ZP
M 8	x	80 -H	S	100	72,00 ZP

~DIN	00975.000	470
975*	**Steel**	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

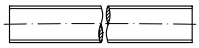
Dimensions	PU	Pieces	€/100/Mat.
M 2	S	1	1660,00
M 2,5	S	1	620,00
M 3	S	1	154,00
M 3,5	S	1	670,00
M 4	S	1	112,00
M 5	S	1	125,00
M 6	S	1	137,00
M 8	S	1	217,00
M 10	S	1	345,00
M 12	S	1	495,00
M 14	S	1	680,00
M 16	S	1	860,00
M 18	S	1	1150,00
M 20	S	1	1380,00
M 22	S	1	1720,00
M 24	S	1	1970,00
M 27	S	1	2650,00
M 30	S	1	3450,00
M 33	S	1	5300,00
M 36	S	1	6300,00
M 39	S	1	8200,00
M 42	S	1	10300,00
M 45	S	1	12100,00
M 48	S	1	14800,00
M 52	S	1	17500,00
M 56	S	1	21100,00

Colour marking for threaded rods

Property class/Material	Colour	~ Ral No.
St/4.6/4.8/5.8/MS/Kst.	none	–
5.6	brown	8015
5.8	blue	5010
8.8	yellow	1023
10.9	white	1013
12.9	black	9017

Colour instead of stamping according to DIN 976-1

~DIN	00975.010	470
975*	**Steel zinc plated**	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Corrosion protection ➔ TI-228

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 2	S	1	1840,00 ZP
M 2,5	S	1	670,00 ZP
M 3	S	1	211,00 ZP
M 3,5	S	1	960,00 ZP
M 4	S	1	160,00 ZP
M 5	S	1	172,00 ZP
M 6	S	1	203,00 ZP
M 7	S	1	2400,00 ZP
M 8	S	1	310,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 10	S	1	445,00 ZP
M 12	S	1	630,00 ZP
M 14	S	1	920,00 ZP
M 16	S	1	1170,00 ZP
M 18	S	1	1460,00 ZP
M 20	S	1	1800,00 ZP
M 22	S	1	2200,00 ZP
M 24	S	1	2460,00 ZP
M 27	S	1	3450,00 ZP
M 30	S	1	4250,00 ZP
M 33	S	1	6800,00 ZP
M 36	S	1	7800,00 ZP
M 39	S	1	10300,00 ZP
M 42	S	1	11500,00 ZP
M 45	S	1	15700,00 ZP
M 48	S	1	18100,00 ZP

~DIN	00975.016	470
975*	Steel zinc plated	2000



Threaded rods, length 2000 mm

(*as per DIN 976-1, type A)

Corrosion protection ➔ TI-228

Stainless ➔ pg. 507

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 6	x	2000	S	1	415,00 ZP
M 8	x	2000	S	1	620,00 ZP
M 10	x	2000	S	1	890,00 ZP
M 12	x	2000	S	1	1260,00 ZP
M 14	x	2000	S	1	1830,00 ZP
M 16	x	2000	S	1	2320,00 ZP
M 18	x	2000	S	1	2950,00 ZP
M 20	x	2000	S	1	3650,00 ZP
M 22	x	2000	S	1	4450,00 ZP
M 24	x	2000	S	1	4950,00 ZP
M 27	x	2000	S	1	6900,00 ZP
M 30	x	2000	S	1	8500,00 ZP
M 36	x	2000	S	1	29000,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00975.030		470
975*	Steel zinc plated 8 TLP		



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Corrosion protection ➔ TI-228

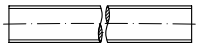
Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 6	S	1	920,00 ZP TLP
M 8	S	1	1410,00 ZP TLP
M 10	S	1	2020,00 ZP TLP
M 12	S	1	2900,00 ZP TLP
M 16	S	1	5300,00 ZP TLP
M 20	S	1	8300,00 ZP TLP

~DIN	00975.005	470
975*	Steel	fine



Threaded rods, length 1000 mm, with metric fine pitch thread

(*as per DIN 976-1, type A)

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 8	x	1	S	1	1670,00
M 10	x	1	S	1	1840,00
M 12	x	1,5	S	1	2000,00
M 14	x	1,5	S	1	2160,00
M 16	x	1,5	S	1	3000,00
M 18	x	1,5	S	1	3950,00
M 20	x	1,5	S	1	4100,00
M 24	x	1,5	S	1	7600,00
M 24	x	2	S	1	10800,00
M 30	x	1,5	S	1	12300,00
M 30	x	2	S	1	14700,00
M 36	x	1,5	S	1	23500,00

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00975.015		470
975*	Steel zinc plated		fine



Threaded rods, length 1000 mm, with metric fine pitch thread

(*as per DIN 976-1, type A)

Corrosion protection ➔ TI-228

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

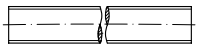
M 12	x	1,5	S	1	2260,00 ZP
M 14	x	1,5	S	1	2360,00 ZP
M 16	x	1,5	S	1	3400,00 ZP
M 18	x	1,5	S	1	4250,00 ZP
M 20	x	1,5	S	1	4700,00 ZP
M 24	x	1,5	S	1	8200,00 ZP
M 24	x	2	S	1	12000,00 ZP

Colour marking for threaded rods

Property class/Material	Colour	~ Ral No.
St/4.6/4.8/5.8/MS/Kst.	none	–
5.6	brown	8015
5.8	blue	5010
8.8	yellow	1023
10.9	white	1013
12.9	black	9017

Colour instead of stamping according to DIN 976-1

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.004	470
975*	Steel	left



Threaded rods, length 1000 mm, with metric left hand thread

(*as per DIN 976-1, type A)

Stainless ➔ pg. 508

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 8 -LH	S	1	530,00
M 10 -LH	S	1	600,00
M 12 -LH	S	1	1020,00
M 14 -LH	S	1	1310,00
M 16 -LH	S	1	1920,00
M 18 -LH	S	1	2800,00
M 20 -LH	S	1	2950,00
M 24 -LH	S	1	4550,00
M 30 -LH	S	1	6700,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.014	470
975*	Steel zinc plated	left



Threaded rods, length 1000 mm, with metric left hand thread

(*as per DIN 976-1, type A)

Corrosion protection ➔ TI-228

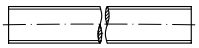
Stainless ➔ pg. 508

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 10 -LH	S	1	1150,00 ZP
M 12 -LH	S	1	1830,00 ZP
M 16 -LH	S	1	3400,00 ZP
M 20 -LH	S	1	5300,00 ZP
M 24 -LH	S	1	7200,00 ZP

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.007	470
975	Steel	BSW



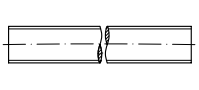
Threaded rods, length 1000 mm, with Whitworth thread

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

Thread ∅			
WW 1/2	S	1	690,00
WW 5/8	S	1	1510,00
WW 3/4	S	1	2100,00
WW 7/8	S	1	2650,00
WW 1	S	1	3250,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.500	471
975*	5.6	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244

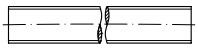
Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 8	S	1	1840,00
M 10	S	1	2100,00
M 12	S	1	2700,00
M 16	S	1	3600,00
M 20	S	1	7200,00
M 24	S	1	10700,00
M 30	S	1	17700,00
M 36	S	1	27900,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.510	471
975*	5.6 zinc plated	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-228

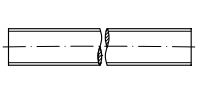
Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 8	S	1	2110,00 ZP
M 10	S	1	2490,00 ZP
M 12	S	1	3300,00 ZP
M 16	S	1	4600,00 ZP
M 20	S	1	8600,00 ZP
M 24	S	1	13200,00 ZP
M 27	S	1	17800,00 ZP
M 30	S	1	22700,00 ZP
M 33	S	1	27600,00 ZP
M 36	S	1	32600,00 ZP
M 39	S	1	38000,00 ZP

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.800	471
975*	8.8	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 4	S	1	2420,00
M 5	S	1	840,00
M 6	S	1	840,00
M 8	S	1	1170,00
M 10	S	1	1540,00
M 12	S	1	1890,00
M 14	S	1	2550,00
M 16	S	1	3100,00
M 18	S	1	4750,00
M 20	S	1	5100,00
M 22	S	1	6300,00
M 24	S	1	7600,00
M 27	S	1	10600,00
M 30	S	1	12100,00
M 33	S	1	21100,00

Dimensions	PU	Pieces	€/100/Mat.
M 36	S	1	28000,00
M 39	S	1	31900,00
M 42	S	1	37000,00
M 48	S	1	43000,00
M 52	S	1	49100,00
M 56	S	1	55100,00
M 60	S	1	62400,00

~DIN	00975.810	471
975*	8.8 zinc plated	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-228

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking)
➔ information box

RoHS ✓ | REACh SVHC free

M 4	S	1	2550,00 ZP
M 5	S	1	1050,00 ZP
M 6	S	1	1150,00 ZP
M 8	S	1	1370,00 ZP
M 10	S	1	1830,00 ZP
M 12	S	1	2160,00 ZP
M 14	S	1	2950,00 ZP
M 16	S	1	3600,00 ZP
M 18	S	1	5400,00 ZP
M 20	S	1	6100,00 ZP
M 22	S	1	7600,00 ZP
M 24	S	1	8600,00 ZP
M 27	S	1	12800,00 ZP
M 30	S	1	15100,00 ZP
M 33	S	1	25300,00 ZP
M 36	S	1	31400,00 ZP
M 42	S	1	40100,00 ZP
M 48	S	1	52600,00 ZP

~DIN	00975.816	471
975*	8.8 zinc plated	2000



Threaded rods, length 2000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-228

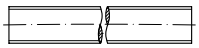
Stainless ➔ pg. 507

Colour codes (as substitute for marking)
➔ information box

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	2000	S	1	3150,00 ZP
M 8	x	2000	S	1	3150,00 ZP
M 10	x	2000	S	1	3800,00 ZP
M 12	x	2000	S	1	4400,00 ZP
M 16	x	2000	S	1	7200,00 ZP
M 20	x	2000	S	1	12100,00 ZP
M 24	x	2000	S	1	17400,00 ZP
M 27	x	2000	S	1	24300,00 ZP
M 30	x	2000	S	1	29800,00 ZP
M 36	x	2000	S	1	63300,00 ZP
M 42	x	2000	S	1	80900,00 ZP

~DIN	00975.820	471
975*	8.8 hot dip galvanized	



Threaded rods, length 1000 mm

thread tolerance 6 h (6az + HDG = U)
(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-231

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking)
➔ information box

RoHS ✓ | REACh SVHC free

M 10	S	1	2900,00 HDG
M 12	S	1	3850,00 HDG
M 16	S	1	5900,00 HDG
M 20	S	1	8800,00 HDG
M 24	S	1	12800,00 HDG
M 27	S	1	15300,00 HDG
M 30	S	1	19900,00 HDG
M 33	S	1	27400,00 HDG
M 36	S	1	40900,00 HDG
M 39	S	1	50000,00 HDG
M 42	S	1	59500,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00975.826		471
975*	8.8 hot dip galvanized		2000



Threaded rods, length 2.000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-231

Stainless ➔ pg. 507

Colour codes (as substitute for marking)
➔ information box

RoHS ✓ | REACh SVHC free

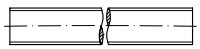
M 12	x	2000	S	1	7700,00 HDG
M 16	x	2000	S	1	11700,00 HDG
M 24	x	2000	S	1	25500,00 HDG
M 30	x	2000	S	1	39700,00 HDG
M 36	x	2000	S	1	81800,00 HDG
M 42	x	2000	S	1	118900,00 HDG

Colour marking for threaded rods

Property class/Material	Colour	~ Ral No.
St/4.6/4.8/5.8/MS/Kst.	none	–
5.6	brown	8015
5.8	blue	5010
8.8	yellow	1023
10.9	white	1013
12.9	black	9017

Colour instead of stamping according to DIN 976-1

~DIN	00975.805	471
975*	8.8	fine



Threaded rods, length 1000 mm, with metric fine pitch thread

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244

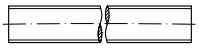
Colour codes (as substitute for marking)
➔ information box

RoHS ✓ | REACh SVHC free

M 12	x	1,5	S	1	23400,00
M 14	x	1,5	S	1	24600,00
M 16	x	1,5	S	1	7700,00
M 20	x	1,5	S	1	8600,00
M 24	x	1,5	S	1	15800,00

Dimensions	PU	Pieces	€/100/Mat.
M 27 x 1,5	S	1	22900,00
M 30 x 1,5	S	1	30200,00
M 30 x 2	S	1	30200,00

~DIN	00975.804	471
975*	8.8	left



Threaded rods, length 1000 mm, with metric left hand thread

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244

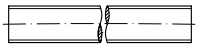
Stainless ➔ pg. 508

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 10 -LH	S	1	1810,00
M 12 -LH	S	1	2360,00
M 16 -LH	S	1	5100,00
M 20 -LH	S	1	8600,00
M 24 -LH	S	1	12000,00
M 30 -LH	S	1	19000,00

~DIN	00975.814	471
975*	8.8 zinc plated	left



Threaded rods, length 1000 mm, with metric left hand thread

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-228

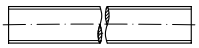
Stainless ➔ pg. 508

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 6 -LH	S	1	2300,00 ZP
M 8 -LH	S	1	2430,00 ZP
M 10 -LH	S	1	2750,00 ZP
M 12 -LH	S	1	3550,00 ZP
M 16 -LH	S	1	7700,00 ZP
M 20 -LH	S	1	12900,00 ZP
M 24 -LH	S	1	18000,00 ZP
M 27 -LH	S	1	21600,00 ZP
M 30 -LH	S	1	28500,00 ZP
M 36 -LH	S	1	36100,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00975.100		471
975*	10.9		



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 5	S	1	4200,00
M 6	S	1	6300,00
M 8	S	1	7900,00
M 10	S	1	8500,00
M 12	S	1	10200,00
M 14	S	1	11500,00
M 16	S	1	12400,00
M 18	S	1	15300,00
M 20	S	1	18100,00
M 22	S	1	21500,00
M 24	S	1	25800,00
M 27	S	1	27900,00
M 30	S	1	32200,00
M 36	S	1	43100,00
M 42	S	1	54000,00
M 48	S	1	64900,00

~DIN	00975.110	471
975*	10.9 zinc plated	



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Caution!
Note information about hydrogen embrittlement.

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-228

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

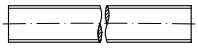
M 5	S	1	10500,00 ZP
M 6	S	1	11300,00 ZP
M 8	S	1	14600,00 ZP
M 10	S	1	14700,00 ZP
M 12	S	1	15100,00 ZP
M 16	S	1	16700,00 ZP
M 20	S	1	21200,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 24	S	1	22200,00 ZP
M 27	S	1	36500,00 ZP
M 30	S	1	36500,00 ZP
M 36	S	1	47400,00 ZP
M 42	S	1	41300,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042). Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

~DIN	00975.120	471
975*	10.9 hot dip galvanized	



Threaded rods, length 1000 mm

thread tolerance 6 h (6az + HDG = U)
(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-231

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking) ➔ information box

RoHS ✓ REACh SVHC free

M 12	S	1	19900,00 HDG
M 16	S	1	21600,00 HDG
M 20	S	1	26100,00 HDG
M 24	S	1	27000,00 HDG
M 27	S	1	30300,00 HDG
M 30	S	1	33900,00 HDG
M 36	S	1	37600,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.200	471

975*

12.9



Threaded rods, length 1000 mm

(*as per DIN 976-1, type A)

Material properties ➔ TI-232 Tightening torque ➔ TI-244

Stainless ➔ pg. 507
Brass, Plastic ➔ pg. 630

Colour codes (as substitute for marking)
➔ information box

RoHS ✓ REACh SVHC free

M 6	S	1	60600,00
M 8	S	1	60600,00
M 10	S	1	65600,00
M 12	S	1	70200,00
M 16	S	1	74200,00
M 20	S	1	84500,00
M 24	S	1	96900,00
M 30	S	1	111100,00

Colour marking for threaded rods

Property class/Material	Colour	~ Ral No.
St/4.6/4.8/5.8/MS/Kst.	none	–
5.6	brown	8015
5.8	blue	5010
8.8	yellow	1023
10.9	white	1013
12.9	black	9017

Colour instead of stamping according to DIN 976-1

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.006	472

975

Steel trapezoid



Threaded rods, length 1000 mm, with normal trapezoidal thread*

*acc. to DIN 103
thread ends acc. to DIN 78-Ko/ISO 4753-RL

round nuts with trap. thread ➔ article 88089

Material properties ➔ TI-232

Stainless ➔ pg. 508

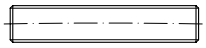
RoHS ✓ REACh SVHC free

TR 12	x	3	S	1	2900,00
TR 14	x	4	S	1	3150,00
TR 16	x	4	S	1	4150,00
TR 18	x	4	S	1	4300,00
TR 20	x	4	S	1	4850,00
TR 22	x	5	S	1	6300,00
TR 24	x	5	S	1	7300,00
TR 26	x	5	S	1	7900,00
TR 28	x	5	S	1	8600,00
TR 30	x	6	S	1	10300,00
TR 32	x	6	S	1	13100,00
TR 36	x	6	S	1	20700,00
TR 40	x	7	S	1	21700,00
TR 44	x	7	S	1	31500,00

DIN	00976.012	472

976-1

Steel zinc plated type B



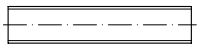
Stud bolts, B = with flat point

Material properties ➔ TI-232 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

BM 6	x	40	S	100	151,00 ZP
BM 6	x	50	S	100	153,00 ZP
BM 6	x	60	S	100	154,00 ZP
BM 6	x	70	S	100	157,00 ZP
BM 6	x	80	S	100	160,00 ZP
BM 6	x	90	S	100	183,00 ZP
BM 6	x	100	S	100	184,00 ZP
BM 8	x	30	S	100	153,00 ZP
BM 8	x	40	S	100	157,00 ZP
BM 8	x	50	S	100	161,00 ZP
BM 8	x	60	S	100	164,00 ZP
BM 8	x	70	S	100	167,00 ZP
BM 8	x	80	S	100	172,00 ZP
BM 8	x	90	S	100	203,00 ZP
BM 8	x	100	S	100	226,00 ZP
BM 8	x	120	S	50	241,00 ZP
BM 8	x	130	S	50	245,00 ZP
BM 8	x	150	S	50	270,00 ZP
BM 10	x	30	S	100	170,00 ZP
BM 10	x	35	S	100	176,00 ZP
BM 10	x	40	S	100	174,00 ZP
BM 10	x	45	S	100	176,00 ZP
BM 10	x	50	S	100	180,00 ZP
BM 10	x	60	S	100	206,00 ZP
BM 10	x	70	S	100	213,00 ZP
BM 10	x	75	S	100	216,00 ZP
BM 10	x	80	S	100	217,00 ZP
BM 10	x	90	S	100	226,00 ZP
BM 10	x	100	S	100	230,00 ZP
BM 10	x	120	S	100	244,00 ZP
BM 10	x	130	S	100	255,00 ZP
BM 10	x	140	S	100	260,00 ZP
BM 10	x	150	S	100	265,00 ZP
BM 10	x	180	S	25	300,00 ZP
BM 10	x	190	S	25	305,00 ZP
BM 10	x	200	S	10	315,00 ZP
BM 10	x	250	S	10	395,00 ZP
BM 10	x	300	S	10	475,00 ZP
BM 10	x	350	S	10	560,00 ZP
BM 10	x	400	S	10	630,00 ZP
BM 10	x	450	S	10	710,00 ZP
BM 10	x	500	S	10	790,00 ZP
BM 12	x	50	S	100	217,00 ZP
BM 12	x	60	S	100	226,00 ZP
BM 12	x	70	S	50	250,00 ZP
BM 12	x	80	S	50	270,00 ZP
BM 12	x	90	S	50	270,00 ZP
BM 12	x	100	S	50	275,00 ZP
BM 12	x	110	S	50	275,00 ZP
BM 12	x	120	S	50	280,00 ZP
BM 12	x	130	S	50	280,00 ZP
BM 12	x	150	S	50	285,00 ZP
BM 12	x	160	S	25	300,00 ZP
BM 12	x	200	S	25	305,00 ZP
BM 12	x	250	S	10	410,00 ZP
BM 12	x	300	S	10	175,00 ZP
BM 12	x	350	S	10	580,00 ZP
BM 12	x	400	S	10	670,00 ZP
BM 12	x	450	S	10	730,00 ZP
BM 12	x	500	S	10	820,00 ZP
BM 16	x	60	S	25	345,00 ZP
BM 16	x	70	S	25	365,00 ZP
BM 16	x	80	S	25	385,00 ZP
BM 16	x	90	S	25	390,00 ZP
BM 16	x	100	S	25	420,00 ZP
BM 16	x	120	S	25	445,00 ZP
BM 16	x	150	S	10	510,00 ZP
BM 16	x	200	S	10	620,00 ZP
BM 16	x	300	S	10	910,00 ZP
BM 16	x	350	S	5	1060,00 ZP
BM 16	x	400	S	5	1210,00 ZP
BM 16	x	450	S	5	1370,00 ZP
BM 16	x	500	S	5	1520,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00976.829		471
976-1	**8.8**		**type A**
	hot dip galvanized		



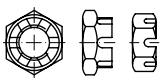
**Stud bolts,
A = without flat point,
threaded rod, length 2000 mm**

Material properties ➔ TI-232 Tightening torque ➔ TI-244
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

AM 12	x 2000	S	1	7700,00 HDG
AM 16	x 2000	S	1	11700,00 HDG
AM 20	x 2000	S	1	17500,00 HDG
AM 24	x 2000	S	1	25500,00 HDG
AM 30	x 2000	S	1	39700,00 HDG
AM 36	x 2000	S	1	81800,00 HDG
AM 42	x 2000	S	1	118900,00 HDG

DIN	00979.400	420
979	**04**	



Hexagon thin slotted and castle nuts

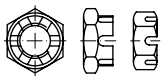
Dimensions ➔ TI-68 REACH ➔ TI-262
Material properties ➔ TI-233

Substitute for DIN 937
with wrench sizes and height acc. to ISO

RoHS ✓

M 16	S	50	131,00
M 20	S	50	193,00
M 24	S	25	330,00
M 30	S	10	610,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00979.405		420
979	**04**		**fine**



**Hexagon thin slotted and castle nuts
with metric fine pitch thread**

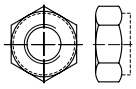
Dimensions ➔ TI-68 REACH ➔ TI-262
Material properties ➔ TI-233

Substitute for DIN 937
with wrench sizes and height acc. to ISO

RoHS ✓

M 16	x 1,5	S	50	153,00
M 18	x 1,5	S	50	182,00
M 20	x 1,5	S	25	249,00
M 24	x 2	S	25	390,00
M 30	x 2	S	10	740,00
M 36	x 3	S	1	1120,00
M 42	x 3	S	1	1950,00
M 48	x 3	S	1	3300,00
M 52	x 3	S	1	4100,00

DIN	00980.815	480
980	**8**	**type V**
	zinc plated	



**Prevailing torque type hexagon nuts,
V = all-metal nuts, single component**

Dimensions ➔ TI-9 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 Standard conversion ➔ TI-9

Stainless ➔ pg. 510

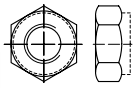
DIN 980 ➔ replaced by ISO 7042

RoHS ✓ | REACh SVHC free

VM 4	S	100	10,10 ZP
VM 5	S	1000	8,30 ZP
VM 5	K	100	11,80 ZP
VM 6	S	1000	8,50 ZP
VM 6	K	100	12,10 ZP
VM 8	S	500	13,10 ZP
VM 8	K	100	16,40 ZP
VM 10	S	500	21,70 ZP
VM 10	K	100	27,00 ZP
VM 12	S	250	34,00 ZP
VM 12	K	100	39,00 ZP
VM 14	S	100	59,00 ZP
VM 16	S	100	67,00 ZP
VM 18	S	50	126,00 ZP
VM 20	S	50	131,00 ZP
VM 22	S	25	223,00 ZP
VM 24	S	25	230,00 ZP
VM 27	S	25	510,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
VM 30	S	10	600,00 ZP
VM 33	S	10	1150,00 ZP
VM 36	S	10	1210,00 ZP

DIN	00980.428	480
980	**8**	**type V**
	zinc plated 8 TLP + SL*	



**Prevailing torque type hexagon nuts,
V = all-metal nuts, single component**

* SL = sealer and lubrication
with μ = 0,12 – 0,18,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-9 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 Standard conversion ➔ TI-9

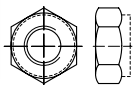
Stainless ➔ pg. 510

DIN 980 ➔ replaced by ISO 7042

RoHS ✓ | REACh SVHC free

V M 5	S	1000	9,90 ZP TLP
V M 6	S	1000	10,20 ZP TLP
V M 8	S	500	15,90 ZP TLP
V M 10	S	500	26,50 ZP TLP
V M 12	S	250	41,50 ZP TLP
V M 14	S	100	84,00 ZP TLP
V M 16	S	100	82,00 ZP TLP
V M 20	S	50	157,00 ZP TLP

DIN	00980.353	1525
980	**8**	**type V**
	flZn/TL480h	



**Prevailing torque type hexagon nuts,
V = all-metal nuts, single component**

TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

**Caution!
Different tightening torque to zinc plated.**

Dimensions ➔ TI-9 Corrosion protection ➔ TI-230
Material properties ➔ TI-233 Standard conversion ➔ TI-9

Stainless ➔ pg. 510

DIN 980 ➔ replaced by ISO 7042

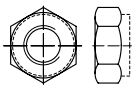
RoHS ✓ | REACh SVHC free

VM 6	S	1000	11,10 flZn
VM 8	S	500	17,10 flZn
VM 10	S	500	30,00 flZn
VM 12	S	250	46,00 flZn
VM 16	S	100	88,00 flZn
VM 20	S	50	171,00 flZn
VM 24	S	25	310,00 flZn

Dimensions | PU Pieces | €/100/Mat.

DIN 00980.826 480

980 8 type V
hot dip galvanized



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

Dimensions ➔ TI-9 | Corrosion protection ➔ TI-231
Material properties ➔ TI-233 | Standard conversion ➔ TI-9

Stainless ➔ pg. 510

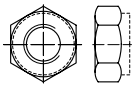
DIN 980 ➔ replaced by ISO 7042

RoHS ✓ | REACh SVHC free

V M 5	S	100	177,00 HDG
V M 6	S	100	71,00 HDG
V M 8	S	100	83,00 HDG
V M 10	S	100	105,00 HDG
V M 12	S	100	125,00 HDG
V M 16	S	100	219,00 HDG
V M 20	S	50	680,00 HDG
V M 24	S	25	940,00 HDG

DIN 00980.818 480

980 8 type V fine
zinc plated



Prevailing torque type hexagon nuts with metric fine pitch thread, V = all-metal nuts, single component

Dimensions ➔ TI-9 | Corrosion protection ➔ TI-228
Material properties ➔ TI-233 | Standard conversion ➔ TI-9

Stainless ➔ pg. 510

DIN 980 fine thread ➔ replaced by ISO 10513

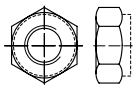
RoHS ✓ | REACh SVHC free

VM 8	x 1	S	100	30,00 ZP
VM 10	x 1	S	100	34,50 ZP
VM 12	x 1,5	S	100	42,00 ZP
VM 14	x 1,5	S	100	60,00 ZP
VM 16	x 1,5	S	100	79,00 ZP
VM 18	x 1,5	S	50	136,00 ZP
VM 20	x 1,5	S	50	131,00 ZP
VM 22	x 1,5	S	50	229,00 ZP
VM 24	x 1,5	S	25	239,00 ZP
VM 24	x 2	S	25	239,00 ZP
VM 30	x 2	S	10	620,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 00980.114 480

980 10 type V
zinc plated



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

Dimensions ➔ TI-9 | Corrosion protection ➔ TI-228
Material properties ➔ TI-233 | Standard conversion ➔ TI-9

Stainless ➔ pg. 510

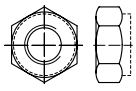
DIN 980 ➔ replaced by ISO 7042

RoHS ✓ | REACh SVHC free

VM 6	S	1000	18,20 ZP
VM 8	S	100	27,50 ZP
VM 10	S	100	46,00 ZP
VM 12	S	100	59,00 ZP
VM 14	S	100	84,00 ZP
VM 16	S	50	103,00 ZP
VM 18	S	50	157,00 ZP
VM 20	S	50	190,00 ZP
VM 22	S	25	270,00 ZP
VM 24	S	25	290,00 ZP
VM 27	S	10	830,00 ZP
VM 30	S	10	590,00 ZP
VM 36	S	10	3050,00 ZP

DIN 00980.135 1525

980 10 type V
flZn/TL 480h



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-9 | Corrosion protection ➔ TI-230
Material properties ➔ TI-233 | Standard conversion ➔ TI-9

Stainless ➔ pg. 510

DIN 980 ➔ replaced by ISO 7042

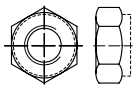
RoHS ✓ | REACh SVHC free

VM 8	S	500	79,00 flZn
VM 10	S	500	109,00 flZn
VM 12	S	250	121,00 flZn
VM 16	S	50	146,00 flZn
VM 18	S	50	182,00 flZn
VM 20	S	50	218,00 flZn
VM 24	S	25	400,00 flZn

Dimensions | PU Pieces | €/100/Mat.

DIN 00980.118 480

980 10 type V fine
zinc plated



Prevailing torque type hexagon nuts with metric fine pitch thread, V = all-metal nuts, single component

Dimensions ➔ TI-9 | Corrosion protection ➔ TI-228
Material properties ➔ TI-233 | Standard conversion ➔ TI-9

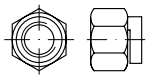
DIN 980 fine thread ➔ replaced by ISO 10513

RoHS ✓ | REACh SVHC free

VM 8	x 1	S	100	34,00 ZP
VM 10	x 1	S	100	54,00 ZP
VM 10	x 1,25	S	100	53,00 ZP
VM 12	x 1,25	S	100	65,00 ZP
VM 12	x 1,5	S	100	65,00 ZP
VM 14	x 1,5	S	100	92,00 ZP
VM 16	x 1,5	S	50	112,00 ZP
VM 18	x 1,5	S	50	170,00 ZP
VM 20	x 1,5	S	50	197,00 ZP
VM 22	x 1,5	S	25	315,00 ZP
VM 24	x 1,5	S	25	315,00 ZP
VM 24	x 2	S	25	315,00 ZP

~DIN 88105.030 841

980 Steel article 88105
copper plated



THERMAG nuts, prevailing torque type hexagon nuts, V = all-metal nuts, single component

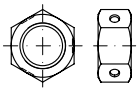
Dimensions ➔ TI-9 | Corrosion protection ➔ TI-228
Material properties ➔ TI-233 | Standard conversion ➔ TI-9

RoHS ✓ | REACh SVHC free

M 8 s = 12	S	100	59,00 CuP
M 8 s = 13	S	100	89,00 CuP
M 10 s = 14	S	100	102,00 CuP
M 10 s = 17	S	100	114,00 CuP
M 12 s = 17	S	100	204,00 CuP
M 12 s = 19	S	100	226,00 CuP

Dimensions	PU Pieces	€/100/Mat.
article	84032.810	480

84032 8 zinc plated **Biloc**



Prevailing torque type hexagon nuts, all-metal nuts

- three squeezing points on the center key area
- both sides screwable
- suitable for automatic feeders
- dimensions acc. ISO 4032

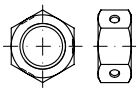
Dimensions ➔ TI-62 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 5	S	1000	21,80 ZP
M 6	S	1000	25,50 ZP
M 8	S	1000	31,50 ZP
M 10	S	500	33,50 ZP
M 12	S	500	59,00 ZP
M 16	S	200	152,00 ZP
M 20	S	100	275,00 ZP

article	84032.110	480

84032 10 zinc plated **Biloc**



Prevailing torque type hexagon nuts, all-metal nuts

- three squeezing points on the center key area
- both sides screwable
- suitable for automatic feeders
- dimensions acc. ISO 4032

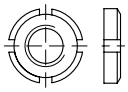
Dimensions ➔ TI-62 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 5	S	1000	27,00 ZP
M 6	S	1000	34,00 ZP
M 8	S	1000	44,00 ZP
M 10	S	500	51,00 ZP
M 12	S	500	88,00 ZP
M 16	S	100	212,00 ZP
M 20	S	50	385,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	00981.000	481

981 Steel



Locknuts for rolling bearings

Lockwashers / safety plates ➔ DIN 5406

Dimensions ➔ TI-73 REACH ➔ TI-262

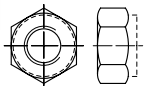
RoHS ✓

type no. / thread diameter x thread pitch

KM 0 M 10	x	0,75	S	10	560,00
KM 1 M 12	x	1	S	10	590,00
KM 2 M 15	x	1	S	10	600,00
KM 3 M 17	x	1	S	10	650,00
KM 4 M 20	x	1	S	10	670,00
KM 5 M 25	x	1,5	S	10	680,00
KM 6 M 30	x	1,5	S	10	770,00
KM 7 M 35	x	1,5	S	1	1010,00
KM 8 M 40	x	1,5	S	1	1150,00
KM 9 M 45	x	1,5	S	1	1340,00
KM10 M 50	x	1,5	S	1	1570,00
KM11 M 55	x	2	S	1	1700,00
KM12 M 60	x	2	S	1	1820,00
KM13 M 65	x	2	S	1	2170,00
KM14 M 70	x	2	S	1	2550,00
KM15 M 75	x	2	S	1	3100,00
KM16 M 80	x	2	S	1	3600,00
KM17 M 85	x	2	S	1	4250,00
KM18 M 90	x	2	S	1	5100,00
KM19 M 95	x	2	S	1	5600,00
KM20 M100	x	2	S	1	6200,00
KM22 M110	x	2	S	1	8300,00
KM23 M115	x	2	S	1	12400,00
KM24 M120	x	2	S	1	12500,00
KM25 M125	x	2	S	1	13600,00
KM26 M130	x	2	S	1	15300,00
KM27 M135	x	2	S	1	19500,00
KM28 M140	x	2	S	1	19000,00
KM29 M145	x	2	S	1	23400,00
KM30 M150	x	2	S	1	21500,00
KM31 M155	x	3	S	1	21800,00
KM32 M160	x	3	S	1	25300,00
KM34 M170	x	3	S	1	25700,00

Dimensions	PU Pieces	€/100/Mat.
DIN	00982.810	480

982 8 (≦ M 4 = 6 - 8) zinc plated



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 Standard conversion ➔ TI-9

with heat-stab. ring ➔ ISO 7040 pg. 325
Stainless ➔ pg. 511

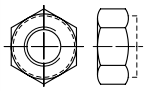
DIN 982 ➔ replaced by ISO 7040

REACh SVHC free

M 4	S	1000	15,40 ZP
M 4	K	100	20,00 ZP
M 5	S	1000	15,40 ZP
M 5	K	100	20,00 ZP
M 6	S	1000	15,80 ZP
M 6	K	100	20,50 ZP
M 8	S	1000	21,60 ZP
M 8	K	100	26,50 ZP
M 10	S	500	36,50 ZP
M 10	K	100	41,50 ZP
M 12	S	500	48,00 ZP
M 12	K	100	53,00 ZP
M 14	S	100	83,00 ZP
M 16	S	200	111,00 ZP
M 16	K	50	118,00 ZP
M 18	S	50	182,00 ZP
M 20	S	50	227,00 ZP
M 24	S	25	360,00 ZP
M 27	S	25	970,00 ZP
M 30	S	25	1150,00 ZP

DIN	00982.110	480

982 10 zinc plated



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9 Corrosion protection ➔ TI-228
Material properties ➔ TI-233 Standard conversion ➔ TI-9

Stainless ➔ pg. 511

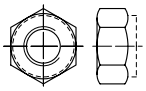
DIN 982 ➔ replaced by ISO 7040

REACh SVHC free

M 10	S	100	77,00 ZP
M 12	S	100	111,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 16	S	50	197,00 ZP
M 20	S	50	360,00 ZP
M 24	S	25	480,00 ZP

DIN	00982.115	480
982	**10**	**fine**
	zinc plated	



Prevailing torque type hexagon nuts with non-metallic insert, high type with metric fine pitch thread

for use at temperatures from -50 to +120 °C

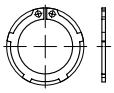
Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

DIN 982 fine thread ➔ replaced by ISO 10512

REACh SVHC free

M 10	x 1	S	100	84,00 ZP
M 12	x 1,5	S	100	120,00 ZP
M 14	x 1,5	S	100	161,00 ZP
M 16	x 1,5	S	50	216,00 ZP
M 20	x 1,5	S	50	390,00 ZP
M 24	x 2	S	25	570,00 ZP

DIN	00983.000	481
983	**Spring steel**	



Retaining rings with lugs for shafts (retainer rings)

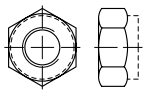
Dimensions ➔ TI-98

RoHS ✓ REACh SVHC free

for shafts nominal ∅ x ring thickness

20	x 1,2	S	1000	25,50
25	x 1,2	S	500	36,50
30	x 1,5	S	250	47,50
35	x 1,5	S	250	60,00
40	x 1,75	S	100	95,00
45	x 1,75	S	100	102,00
50	x 2	S	100	125,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	00985.810		480
985	**8 (≤ M 5 = 6 - 8)**		
	zinc plated		



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

Stainless ➔ pg. 512
Brass ➔ pg. 630

DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 2,5	S	1000	6,90 ZP
M 3	S	1000	7,40 ZP
M 3	K	100	11,40 ZP
M 4	S	1000	7,40 ZP
M 4	K	100	11,40 ZP
M 5	S	1000	7,40 ZP
M 5	K	100	11,40 ZP
M 6	S	1000	8,60 ZP
M 6	K	100	12,50 ZP
M 7	K	100	21,60 ZP
M 8	S	500	13,40 ZP
M 8	K	100	17,40 ZP
M 10	S	500	26,00 ZP
M 10	K	100	31,00 ZP
M 12	S	250	36,50 ZP
M 12	K	100	41,50 ZP
M 14	S	100	61,00 ZP
M 16	S	100	73,00 ZP
M 18	S	50	117,00 ZP
M 20	S	50	141,00 ZP
M 22	S	25	216,00 ZP
M 24	S	25	260,00 ZP
M 27	S	25	430,00 ZP
M 30	S	10	540,00 ZP
M 33	S	10	850,00 ZP
M 36	S	10	1010,00 ZP
M 39	S	1	2300,00 ZP
M 42	S	1	2550,00 ZP
M 45	S	1	3100,00 ZP
M 48	S	1	4100,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	82985.010		5001
82985	**assortment**		**DIN 985 C/F**
	6/8 zinc plated		



Assortment of prevailing torque type hexagon nuts DIN 985

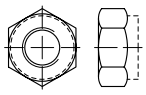
Content: 8 dim. coarse thread M 4-M 16
4 dim. fine pitch thread M 10 x 1 - M 16 x 1,5
approx. 540 pieces, metal box

Your own selection on request

REACh SVHC free

DIN 985	S	1	13700,00

DIN	00985.850	480
985	**8 (≤ M 5 = 6)**	
	zinc plated 8 TLP*	



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C,
*< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

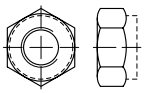
Stainless ➔ pg. 512
Brass ➔ pg. 630

DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 3	S	1000	10,30 ZP TLP
M 4	S	1000	10,50 ZP TLP
M 4	K	100	15,70 ZP TLP
M 5	S	1000	10,50 ZP TLP
M 5	K	100	15,70 ZP TLP
M 6	S	1000	13,80 ZP TLP
M 6	K	100	17,00 ZP TLP
M 8	S	1000	20,90 ZP TLP
M 8	K	100	24,10 ZP TLP
M 10	S	500	36,50 ZP TLP
M 10	K	100	39,50 ZP TLP
M 12	S	250	51,00 ZP TLP
M 14	S	100	88,00 ZP TLP
M 16	S	100	103,00 ZP TLP
M 20	S	50	198,00 ZP TLP
M 24	S	25	365,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00985.428		480
985	**8** **zinc plated 8 TLP* + SL****		



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C,
*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 - 0,18,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

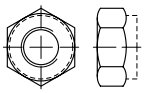
Stainless ➔ pg. 512
Brass ➔ pg. 630

DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 3	S	1000	9,90 ZP TLP
M 4	S	1000	10,10 ZP TLP
M 5	S	1000	10,10 ZP TLP
M 6	S	1000	13,30 ZP TLP
M 8	S	500	19,90 ZP TLP
M 10	S	500	35,00 ZP TLP
M 12	S	250	49,00 ZP TLP
M 14	S	100	83,00 ZP TLP
M 16	S	100	99,00 ZP TLP
M 20	S	50	189,00 ZP TLP
M 24	S	25	350,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00985.353		1525
985	**8** **flZn/TL480h**		



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +150 °C,
TL = lubricant in topcoat with µ = 0,09 - 0,14,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-9

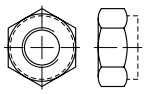
Stainless ➔ pg. 512
Brass ➔ pg. 630

DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 6	S	1000	11,50 flZn
M 8	S	500	17,60 flZn
M 10	S	500	31,00 flZn
M 12	S	250	48,00 flZn
M 14	S	100	71,00 flZn
M 16	S	50	90,00 flZn
M 20	S	50	176,00 flZn
M 24	S	25	315,00 flZn
M 30	S	25	670,00 flZn
M 33	S	25	1030,00 flZn
M 36	S	25	1210,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
DIN	00985.815		480
985	**8 (≦ M 5 = 6 - 8)** **zinc plated**		**fine**



Prevailing torque type hexagon nuts with non-metallic insert, low type, with metric fine pitch thread

for use at temperatures from -50 to +120 °C

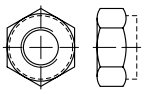
Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

DIN 985 fine thread ➔ replaced by ISO 10512

REACh SVHC free

M 8	x 1	S	500	26,00 ZP
M 8	x 1	K	100	30,50 ZP
M 10	x 1	S	500	44,50 ZP
M 10	x 1	K	100	48,50 ZP
M 10	x 1,25	S	500	44,50 ZP
M 10	x 1,25	K	100	48,50 ZP
M 12	x 1	S	250	59,00 ZP
M 12	x 1	K	100	63,00 ZP
M 12	x 1,25	S	250	59,00 ZP
M 12	x 1,25	K	100	63,00 ZP
M 12	x 1,5	S	250	59,00 ZP
M 12	x 1,5	K	100	63,00 ZP
M 14	x 1,5	S	100	86,00 ZP
M 16	x 1,5	S	100	103,00 ZP
M 18	x 1,5	S	50	172,00 ZP
M 18	x 2	S	50	172,00 ZP
M 20	x 1,5	S	50	207,00 ZP
M 20	x 2	S	25	212,00 ZP
M 22	x 1,5	S	25	285,00 ZP
M 22	x 2	S	25	285,00 ZP
M 24	x 1,5	S	25	335,00 ZP
M 24	x 2	S	25	335,00 ZP
M 27	x 2	S	10	680,00 ZP
M 30	x 1,5	S	10	770,00 ZP
M 30	x 2	S	10	770,00 ZP
M 33	x 2	S	1	1200,00 ZP
M 36	x 3	S	1	1430,00 ZP
M 39	x 3	S	1	2750,00 ZP
M 42	x 3	S	1	3100,00 ZP
M 45	x 3	S	1	3800,00 ZP
M 48	x 3	S	1	4800,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00985.110		480
985	**10** **zinc plated**		



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

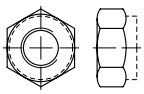
Stainless ➔ pg. 512
Brass ➔ pg. 630

DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 5	S	1000	20,60 ZP
M 6	S	1000	22,90 ZP
M 6	K	100	26,00 ZP
M 8	S	500	30,50 ZP
M 8	K	100	33,50 ZP
M 10	S	500	51,00 ZP
M 10	K	100	54,00 ZP
M 12	S	250	73,00 ZP
M 12	K	100	76,00 ZP
M 14	S	50	114,00 ZP
M 16	S	50	151,00 ZP
M 18	S	50	205,00 ZP
M 20	S	50	234,00 ZP
M 22	S	25	315,00 ZP
M 24	S	25	395,00 ZP
M 27	S	25	630,00 ZP
M 30	S	1	990,00 ZP
M 36	S	1	2120,00 ZP
M 39	S	1	3000,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	00985.115		480
985	**10** **zinc plated**		**fine**



Prevailing torque type hexagon nuts with non-metallic insert, low type, with metric fine pitch thread

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

DIN 985 fine thread ➔ replaced by ISO 10512

REACh SVHC free

M 8	x 1	S	100	34,00 ZP
M 10	x 1	S	100	57,00 ZP
M 10	x 1,25	S	100	57,00 ZP
M 12	x 1	S	100	78,00 ZP
M 12	x 1,25	S	100	78,00 ZP

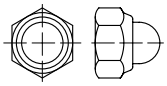
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	1,5	S	100	78,00 ZP
M 14	x	1,5	S	50	126,00 ZP
M 16	x	1,5	S	50	157,00 ZP
M 18	x	1,5	S	50	205,00 ZP
M 20	x	1,5	S	50	245,00 ZP
M 20	x	2	S	50	245,00 ZP
M 22	x	1,5	S	25	315,00 ZP
M 24	x	1,5	S	25	395,00 ZP
M 24	x	2	S	25	395,00 ZP
M 30	x	2	S	10	1820,00 ZP
M 36	x	3	S	10	2420,00 ZP

DIN	00986.310	481

986

6
zinc plated



Prevailing torque type hexagon domed cap nuts with non-metallic insert

for use under temperatures from -50 to +120 °C

Dimensions ➔ TI-68
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
REACH ➔ TI-262
Stainless ➔ pg. 512

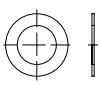
SW = wrench size

M 4	S 100	77,00 ZP
M 5	S 1000	74,00 ZP
M 5	K 100	77,00 ZP
M 6	S 1000	53,00 ZP
M 6	K 100	57,00 ZP
M 8	S 500	78,00 ZP
M 8	K 100	82,00 ZP
M 10 s = 17	S 500	126,00 ZP
M 10 s = 17	K 100	130,00 ZP
M 12 s = 19	S 250	181,00 ZP
M 12 s = 19	K 50	187,00 ZP
M 16	S 50	234,00 ZP

DIN	00988.000	481

988

Steel



Shim rings

Spring steel ➔ pg. 204
Stainless ➔ pg. 513

RoHS ✓ REACh SVHC free

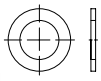
inside ∅ x outside ∅ x thickness

3	x	6	x	0,1	S 5000	7,70
3	x	6	x	0,2	S 5000	8,20
3	x	6	x	0,3	S 5000	8,60
3	x	6	x	0,5	S 5000	9,50
4	x	8	x	0,1	S 5000	8,40
4	x	8	x	0,2	S 5000	8,60
4	x	8	x	0,3	S 5000	9,50
4	x	8	x	0,5	S 5000	9,50
5	x	10	x	0,1	S 5000	9,40
5	x	10	x	0,2	S 2500	8,80
5	x	10	x	0,25	S 2500	9,40
5	x	10	x	0,3	S 2500	9,60
5	x	10	x	0,5	S 2500	9,40
5	x	10	x	1	S 2500	10,70
6	x	12	x	0,1	S 5000	9,10
6	x	12	x	0,2	S 2500	9,60
6	x	12	x	0,25	S 2500	9,50
6	x	12	x	0,3	S 2500	10,10
6	x	12	x	0,5	S 2500	9,40
6	x	12	x	1	S 2000	11,20
7	x	13	x	0,3	S 2000	12,50
7	x	13	x	0,5	S 2000	13,40
7	x	13	x	1	S 1000	13,60
8	x	12	x	0,5	S 5000	29,50
8	x	14	x	0,1	S 5000	9,40
8	x	14	x	0,2	S 2000	8,90
8	x	14	x	0,25	S 2000	14,20
8	x	14	x	0,3	S 2000	8,60
8	x	14	x	0,5	S 2000	9,50
8	x	14	x	1	S 1000	11,30
9	x	15	x	0,1	S 5000	9,60
9	x	15	x	0,2	S 2000	10,20
9	x	15	x	0,5	S 2000	10,60
9	x	15	x	1	S 1000	11,80
9	x	15	x	1,2	S 1000	13,00
10	x	16	x	0,1	S 5000	10,10
10	x	16	x	0,2	S 2000	10,50
10	x	16	x	0,25	S 2000	11,10
10	x	16	x	0,3	S 2000	11,80
10	x	16	x	0,5	S 2000	10,60
10	x	16	x	1	S 1000	12,40
10	x	16	x	1,5	S 500	17,70
11	x	17	x	1	S 1000	11,70
12	x	18	x	0,1	S 5000	10,50
12	x	18	x	0,2	S 2000	11,10
12	x	18	x	0,25	S 2000	11,90
12	x	18	x	0,3	S 2000	23,40
12	x	18	x	0,5	S 1000	13,10
12	x	18	x	1	S 1000	13,70
12	x	18	x	2	S 1000	19,40
13	x	19	x	0,1	S 5000	11,80
13	x	19	x	0,5	S 1000	12,60
13	x	19	x	1	S 1000	16,10
14	x	20	x	0,1	S 5000	11,30
14	x	20	x	0,2	S 2000	12,30
14	x	20	x	0,25	S 2000	13,80
14	x	20	x	0,5	S 1000	11,90
14	x	20	x	1	S 1000	15,70
15	x	21	x	0,1	S 2000	11,40
15	x	21	x	0,15	S 2000	14,30
15	x	21	x	0,2	S 2000	16,10
15	x	21	x	0,3	S 2000	15,20
15	x	21	x	0,5	S 1000	13,20
15	x	21	x	1	S 1000	17,50
15	x	21	x	2	S 1000	21,10
15	x	22	x	0,5	S 1000	9,70
15	x	22	x	1	S 1000	17,20
16	x	22	x	0,1	S 2000	12,40
16	x	22	x	0,2	S 2000	12,80
16	x	22	x	0,25	S 2000	13,80
16	x	22	x	0,5	S 1000	12,90
16	x	22	x	1	S 1000	17,00
17	x	24	x	0,1	S 2000	13,40
17	x	24	x	0,15	S 2000	15,20
17	x	24	x	0,2	S 2000	17,40
17	x	24	x	0,3	S 1000	17,00
17	x	24	x	0,5	S 1000	18,20
17	x	24	x	1	S 1000	20,00
17	x	24	x	2	S 1000	20,50
18	x	25	x	0,1	S 2000	12,50
18	x	25	x	0,2	S 2000	13,40
18	x	25	x	0,25	S 2000	14,80
18	x	25	x	0,3	S 1000	14,70
18	x	25	x	0,5	S 1000	15,70
18	x	25	x	1	S 1000	19,70
20	x	28	x	0,1	S 2000	13,70
20	x	28	x	0,15	S 1000	14,60
20	x	28	x	0,2	S 1000	15,50
20	x	28	x	0,25	S 1000	20,70
20	x	28	x	0,3	S 1000	16,60
20	x	28	x	0,5	S 1000	15,20
20	x	28	x	1	S 1000	19,70
20	x	28	x	1,5	S 1000	52,00
20	x	30	x	0,5	S 1000	57,00
20	x	32	x	0,1	S 1000	19,40
20	x	32	x	0,5	S 1000	20,60
20	x	32	x	1	S 1000	21,80
22	x	30	x	0,1	S 2000	16,50
22	x	30	x	0,2	S 1000	20,00
22	x	30	x	0,5	S 1000	19,80
22	x	30	x	1	S 1000	29,50
22	x	30	x	1,5	S 1000	51,00
22	x	32	x	0,1	S 1000	13,70
22	x	32	x	0,2	S 1000	15,20
22	x	32	x	0,3	S 1000	17,70
22	x	32	x	0,5	S 1000	18,70
22	x	32	x	1	S 500	27,50
25	x	35	x	0,1	S 1000	13,10
25	x	35	x	0,15	S 1000	15,20
25	x	35	x	0,2	S 1000	16,00
25	x	35	x	0,25	S 1000	16,70
25	x	35	x	0,3	S 1000	17,20
25	x	35	x	0,5	S 1000	18,70
25	x	35	x	1	S 500	27,00
25	x	35	x	1,5	S 500	67,00
25	x	35	x	2	S 500	76,00
25	x	36	x	0,5	S 500	23,40
25	x	36	x	1	S 500	37,00
26	x	37	x	0,1	S 1000	14,40
26	x	37	x	0,2	S 1000	16,60
26	x	37	x	0,25	S 1000	18,80
26	x	37	x	0,5	S 500	18,80
26	x	37	x	1	S 500	31,00
28	x	40	x	0,1	S 1000	14,20
28	x	40	x	0,2	S 1000	15,00
28	x	40	x	0,25	S 1000	19,40
28	x	40	x	0,3	S 1000	18,70
28	x	40	x	0,5	S 500	22,30
28	x	40	x	1	S 500	36,00
30	x	40	x	1	S 1000	73,00
30	x	42	x	0,1	S 1000	16,50
30	x	42	x	0,15	S 1000	17,80
30	x	42	x	0,2	S 1000	19,30
30	x	42	x	0,25	S 1000	22,00
30	x	42	x	0,3	S 1000	22,60
30	x	42	x	0,5	S 500	24,60
30	x	42	x	1	S 500	34,00
30	x	42	x	1,5	S 250	72,00
30	x	42	x	2	S 200	101,00
32	x	45	x	0,1	S 1000	16,60
32	x	45	x	0,25	S 1000	22,40
32	x	45	x	0,3	S 1000	26,50
32	x	45	x	0,5	S 500	29,50
32	x	45	x	1	S 250	41,00
32	x	45	x	1,5	S 250	53,00
32	x	45	x	2	S 200	130,00
35	x	45	x	0,1	S 1000	17,10
35	x	45	x	0,15	S 1000	20,90
35	x	45	x	0,2	S 1000	23,20
35	x	45	x	0,3	S 1000	23,60
35	x	45	x	0,5	S 500	26,50
35	x	45	x	1	S 250	37,00
35	x	45	x	1,5	S 250	84,00
35	x	45	x	2	S 200	112,00
36	x	45	x	1	S 250	41,50
37	x	47	x	0,1	S 1000	15,30
37	x	47	x	0,15	S 1000	17,80
37	x	47	x	0,2	S 1000	20,40
37	x	47	x	0,25	S 1000	33,00
37	x	47	x	0,3	S 1000	22,90

Dimensions						PU	Pieces	€/100/Mat.
37	x	47	x	0,5		S	500	26,50
37	x	47	x	1		S	250	37,00
37	x	47	x	2		S	200	148,00
40	x	50	x	0,1		S	500	16,60
40	x	50	x	0,15		S	500	19,80
40	x	50	x	0,2		S	500	25,00
40	x	50	x	0,3		S	250	28,50
40	x	50	x	0,5		S	100	28,50
40	x	50	x	1		S	100	46,00
40	x	50	x	1,5		S	100	126,00
40	x	50	x	2		S	100	143,00
42	x	52	x	0,1		S	500	17,40
42	x	52	x	0,2		S	500	16,40
42	x	52	x	0,3		S	250	27,50
42	x	52	x	0,5		S	100	36,00
42	x	52	x	1		S	100	51,00
42	x	52	x	2		S	100	177,00
45	x	55	x	0,1		S	500	21,10
45	x	55	x	0,15		S	500	22,60
45	x	55	x	0,2		S	500	24,00
45	x	55	x	0,3		S	250	30,50
45	x	55	x	0,5		S	200	33,50
45	x	55	x	1		S	100	51,00
45	x	55	x	2		S	100	148,00
48	x	60	x	0,5		S	200	46,00
48	x	60	x	1		S	100	67,00
50	x	62	x	0,1		S	500	20,70
50	x	62	x	0,15		S	500	24,00
50	x	62	x	0,2		S	500	27,50
50	x	62	x	0,3		S	250	37,00
50	x	62	x	0,5		S	100	42,00
50	x	62	x	1		S	100	62,00
50	x	62	x	1,5		S	100	74,00
50	x	62	x	2		S	100	175,00
52	x	65	x	0,1		S	500	31,50
52	x	65	x	0,5		S	100	51,00
52	x	65	x	1		S	100	91,00
52	x	65	x	2		S	100	240,00
52	x	65	x	3,0		S	100	370,00
55	x	68	x	0,1		S	500	33,00
55	x	68	x	0,15		S	500	45,50
55	x	68	x	0,2		S	500	59,00
55	x	68	x	0,3		S	250	17,00
55	x	68	x	0,5		S	100	69,00
55	x	68	x	1		S	100	82,00
55	x	68	x	2		S	100	97,00
56	x	72	x	0,1		S	500	39,50
56	x	72	x	0,15		S	500	45,00
56	x	72	x	0,2		S	500	51,00
56	x	72	x	0,3		S	250	59,00
56	x	72	x	0,5		S	200	66,00
56	x	72	x	1		S	100	106,00
56	x	72	x	1,5		S	100	115,00
56	x	72	x	2		S	100	340,00
60	x	75	x	0,1		S	500	42,00
60	x	75	x	0,15		S	500	47,50
60	x	75	x	0,2		S	500	54,00
60	x	75	x	0,3		S	250	72,00
60	x	75	x	0,5		S	100	72,00
60	x	75	x	1		S	100	95,00
60	x	75	x	1,5		S	100	128,00
60	x	75	x	2		S	100	340,00
63	x	80	x	0,1		S	500	43,00
63	x	80	x	0,15		S	500	46,00
63	x	80	x	0,2		S	500	51,00
63	x	80	x	0,3		S	250	66,00
63	x	80	x	0,5		S	100	78,00
63	x	80	x	1		S	100	112,00
63	x	80	x	2		S	100	205,00
65	x	85	x	0,1		S	500	51,00
65	x	85	x	0,15		S	500	57,00
65	x	85	x	0,2		S	500	63,00
65	x	85	x	0,3		S	250	30,50
65	x	85	x	0,5		S	200	85,00
65	x	85	x	2		S	100	194,00
70	x	90	x	0,1		S	500	59,00
70	x	90	x	0,15		S	500	61,00
70	x	90	x	0,2		S	500	63,00
70	x	90	x	0,3		S	250	86,00
70	x	90	x	0,5		S	200	83,00
70	x	90	x	1		S	100	132,00
70	x	90	x	1,5		S	100	206,00
70	x	90	x	2		S	50	295,00
75	x	95	x	0,1		S	500	69,00
75	x	95	x	0,3		S	250	76,00
75	x	95	x	0,5		S	100	79,00
75	x	95	x	1		S	100	183,00
80	x	100	x	0,1		S	100	73,00
80	x	100	x	0,15		S	100	77,00
80	x	100	x	0,2		S	100	82,00
80	x	100	x	0,3		S	100	79,00
80	x	100	x	0,5		S	100	86,00
80	x	100	x	1		S	100	212,00
80	x	100	x	2		S	100	485,00
90	x	110	x	0,1		S	100	85,00
90	x	110	x	0,3		S	100	100,00
90	x	110	x	0,5		S	100	126,00
90	x	110	x	1		S	100	205,00
90	x	110	x	2		S	100	620,00
100	x	120	x	0,1		S	100	103,00
100	x	120	x	0,5		S	100	115,00
100	x	120	x	1		S	100	234,00
100	x	120	x	2		S	100	211,00
110	x	140	x	0,1		S	100	134,00
110	x	140	x	0,3		S	100	255,00
110	x	140	x	1		S	100	325,00
130	x	150	x	0,5		S	100	146,00

DIN 00988.004 481

988 Spring steel



Supporting rings

Steel ➔ pg. 203
Stainless ➔ pg. 513

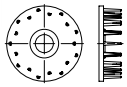
RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

						PU	Pieces	
3	x	6	x	1		S	5000	11,10
4	x	8	x	1		S	2000	10,80
6	x	12	x	1,2		S	2000	14,80
8	x	14	x	1,2		S	1000	16,70
10	x	16	x	1,2		S	1000	18,00
12	x	18	x	1,2		S	1000	23,60
14	x	20	x	1,5		S	1000	28,50
15	x	21	x	1,5		S	1000	29,50
15	x	22	x	1,5		S	1000	33,00
16	x	22	x	1,5		S	1000	26,00
17	x	24	x	1,5		S	1000	27,50
18	x	25	x	1,5		S	500	29,50
20	x	28	x	2		S	500	57,00
22	x	30	x	2		S	500	62,00
22	x	32	x	2		S	250	67,00
25	x	35	x	2		S	250	72,00
25	x	36	x	2		S	250	92,00
26	x	37	x	2		S	250	92,00
28	x	40	x	2		S	250	99,00
30	x	42	x	2,5		S	100	99,00
35	x	45	x	2,5		S	100	160,00
37	x	47	x	2,5		S	100	181,00
40	x	50	x	2,5		S	100	167,00
42	x	52	x	2,5		S	100	172,00
45	x	55	x	3		S	100	177,00
45	x	56	x	3		S	100	183,00
50	x	62	x	3		S	100	220,00
50	x	63	x	3		S	100	220,00
55	x	68	x	3		S	100	335,00
56	x	72	x	3		S	100	355,00
60	x	75	x	3		S	100	315,00
63	x	80	x	3		S	100	355,00
65	x	85	x	3,5		S	50	690,00
70	x	90	x	3,5		S	50	495,00
75	x	95	x	3,5		S	50	720,00
80	x	100	x	3,5		S	50	760,00
85	x	105	x	3,5		S	50	770,00
90	x	110	x	3,5		S	50	730,00
100	x	120	x	3,5		S	50	1170,00
100	x	125	x	3,5		S	50	1340,00
110	x	140	x	3,5		S	50	1580,00
130	x	160	x	3,5		S	50	2000,00

DIN 01052.015 485

1052 Temp. cast iron zinc plated



Timber connectors, spikes one sided

(= press in rawlplug type D system Geka
~DIN EN 912 type C11)

Corrosion protection ➔ TI-228

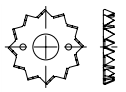
RoHS ✓ REACh SVHC free

outside ∅ x inside ∅ x for screws • ÜH products

						PU	Pieces	
50	x	13	x	M12		S	50	128,00 ZP
65	x	17	x	M16		S	50	285,00 ZP
80	x	21	x	M20		S	50	315,00 ZP
95	x	25	x	M24		S	50	415,00 ZP
115	x	25	x	M24		S	50	680,00 ZP

DIN 01052.024 485

1052 Steel plate hot dip galvanized



Timber connectors, spikes one sided

(= press in rawlplug type C system Bulldog
~DIN EN 912 type C2)

Corrosion protection ➔ TI-231

RoHS ✓ REACh SVHC free

outside ∅ x for screws • ÜH products

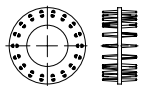
48 M12	S	300	94,00 HDG
62 M12	S	150	151,00 HDG
75 M16	S	100	197,00 HDG
95 M16	S	50	365,00 HDG

€/100 = price in € plus VAT when ordering full package unit

Dimensions | PU Pieces | €/100/Mat.

DIN | 01052.016 | 485

1052 Temp. cast iron zinc plated



Timber connectors, spikes two sided

(= press in rawlplug type D system Geka
~DIN EN 912 type C10)

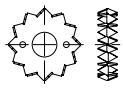
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

outside ∅ x inside ∅ x for screws							• ÜH products
50	x	29	x	M12	S	50	126,00 ZP
65	x	35	x	M16	S	50	224,00 ZP
80	x	50	x	M20	S	25	305,00 ZP
95	x	64	x	M24	S	25	445,00 ZP
115	x	84	x	M24	S	25	570,00 ZP

DIN | 01052.025 | 485

1052 Steel plate hot dip galvanized



Timber connectors, spikes two sided

(= press in rawlplug type C system Bulldog
~DIN EN 912 type C1)

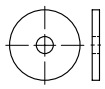
Corrosion protection ➔ TI-231

RoHS ✓ | REACh SVHC free

outside ∅ x for screws			• ÜH products
48 M 12-M 16	S	200	101,00 HDG
62 M 12-M 20	S	100	174,00 HDG
75 M 16-M 24	S	100	224,00 HDG

DIN | 01052.004 | 485

1052 Steel



Washers for timber connectors, heavy, round type

Dimensions ➔ TI-85

Stainless ➔ pg. 513

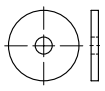
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness							• ÜH products
14	x	58	x	6	S	50	72,00
18	x	68	x	6	S	50	96,00
23	x	80	x	8	S	50	220,00
25	x	92	x	8	S	25	410,00
27	x	105	x	8	S	25	485,00

Dimensions | PU Pieces | €/100/Mat.

DIN | 01052.014 | 485

1052 Steel zinc plated



Washers for timber connectors, heavy, round type

Dimensions ➔ TI-85 | Corrosion protection ➔ TI-228

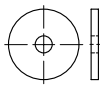
Stainless ➔ pg. 513

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness							• ÜH products
14	x	58	x	6	S	50	111,00 ZP
18	x	68	x	6	S	50	147,00 ZP
23	x	80	x	8	S	50	300,00 ZP
25	x	92	x	8	S	25	540,00 ZP
27	x	105	x	8	S	25	650,00 ZP

DIN | 01052.026 | 485

1052 Steel hot dip galvanized



Washers for timber connectors, heavy, round type

Dimensions ➔ TI-85 | Corrosion protection ➔ TI-231

Stainless ➔ pg. 513

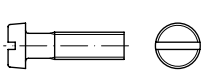
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness							• ÜH products
14	x	58	x	6	S	50	153,00 HDG
18	x	68	x	6	S	50	206,00 HDG
23	x	80	x	8	S	50	390,00 HDG
25	x	92	x	8	S	25	690,00 HDG
27	x	105	x	8	S	25	830,00 HDG

Dimensions | PU Pieces | €/100/Mat.

ISO | 01207.004 | 30

1207 Steel turned bare



Slotted cheese head screws

Dimensions ➔ TI-37 | REACH ➔ TI-262
Standard conversion ➔ TI-11

Stainless ➔ pg. 513
Brass/Plastic ➔ pg. 630

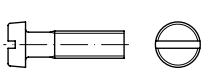
ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓

M 1	x	2	S	100	26,50 turned
M 1	x	3	S	100	28,00 turned
M 1	x	5	S	100	28,00 turned
M 1	x	6	S	100	28,50 turned
M 1	x	8	S	100	29,50 turned
M 1	x	10	S	100	34,00 turned
M 1,2	x	2	S	100	26,50 turned
M 1,2	x	3	S	100	26,50 turned
M 1,2	x	4	S	100	29,00 turned
M 1,2	x	6	S	100	29,00 turned
M 1,2	x	8	S	100	29,50 turned
M 1,2	x	10	S	100	32,00 turned
M 1,4	x	2	S	100	26,00 turned
M 1,4	x	3	S	100	26,00 turned
M 1,4	x	4	S	100	27,50 turned
M 1,4	x	5	S	100	28,00 turned
M 1,4	x	6	S	100	25,50 turned
M 1,4	x	8	S	100	30,50 turned
M 1,4	x	10	S	100	32,00 turned
M 1,4	x	16	S	100	39,50 turned
M 1,6	x	3	S	100	23,40 turned
M 1,6	x	4	S	100	24,70 turned
M 1,6	x	5	S	100	25,50 turned
M 1,6	x	6	S	100	26,50 turned
M 1,6	x	8	S	100	30,50 turned
M 1,6	x	10	S	100	31,50 turned
M 1,6	x	16	S	100	42,50 turned

ISO | 01207.400 | 30

1207 4.8



Slotted cheese head screws

Dimensions ➔ TI-37 | Standard conversion ➔ TI-11
Material properties ➔ TI-232 | REACH ➔ TI-262

Stainless ➔ pg. 513
Brass/Plastic ➔ pg. 630

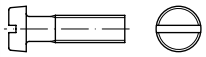
ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓

M 2	x	3	S	2000	4,55
M 2	x	4	S	2000	3,65
M 2	x	5	S	2000	3,60

Dimensions	PU	Pieces	€/100/Mat.
M 2 x 6	S	2000	3,15
M 2 x 8	S	2000	3,25
M 2 x 10	S	2000	3,35
M 2 x 12	S	2000	3,45
M 2 x 16	S	2000	3,90
M 2 x 20	S	2000	5,00
M 2,5 x 4	S	2000	5,10
M 2,5 x 5	S	2000	4,80
M 2,5 x 6	S	2000	3,00
M 2,5 x 8	S	2000	3,10
M 2,5 x 10	S	2000	3,30
M 2,5 x 12	S	2000	3,60
M 2,5 x 16	S	2000	4,15
M 2,5 x 18	S	2000	4,65
M 2,5 x 20	S	2000	4,85
M 2,5 x 25	S	2000	5,50
M 2,5 x 30	S	2000	7,20
M 3 x 3	S	2000	8,80
M 3 x 4	S	2000	5,30
M 3 x 5	S	2000	5,10
M 3 x 6	S	2000	1,35
M 3 x 8	S	2000	1,40
M 3 x 10	S	2000	1,45
M 3 x 12	S	2000	1,55
M 3 x 16	S	2000	1,75
M 3 x 18	S	2000	3,30
M 3 x 20	S	2000	3,60
M 3 x 22	S	2000	4,10
M 3 x 25	S	2000	4,30
M 3 x 30	S	2000	4,55
M 3 x 35	S	2000	4,85
M 3 x 40	S	1000	5,40
M 3 x 45	S	1000	7,80
M 3 x 50	S	1000	8,80
M 4 x 4	S	2000	9,60
M 4 x 5	S	2000	6,50
M 4 x 6	S	2000	2,15
M 4 x 8	S	2000	2,20
M 4 x 10	S	2000	2,25
M 4 x 12	S	2000	2,30
M 4 x 16	S	2000	2,75
M 4 x 20	S	2000	3,10
M 4 x 22	S	1000	3,40
M 4 x 25	S	1000	3,60
M 4 x 30	S	1000	4,20
M 4 x 35	S	1000	4,80
M 4 x 40	S	1000	5,30
M 4 x 45	S	1000	6,70
M 4 x 50	S	1000	8,20
M 4 x 55	S	500	12,30
M 4 x 60	S	500	13,50
M 4 x 65	S	500	15,00
M 4 x 70	S	500	21,10
M 5 x 6	S	2000	9,60
M 5 x 8	S	2000	3,25
M 5 x 10	S	2000	3,40
M 5 x 12	S	1000	3,65
M 5 x 16	S	1000	4,15
M 5 x 18	S	1000	5,70
M 5 x 20	S	1000	6,20
M 5 x 22	S	1000	7,30
M 5 x 25	S	1000	7,70
M 5 x 30	S	1000	8,00
M 5 x 35	S	500	8,20
M 5 x 40	S	500	9,20
M 5 x 45	S	500	9,70
M 5 x 50	S	500	10,20
M 5 x 55	S	500	13,50
M 5 x 60	S	200	13,90
M 5 x 70	S	200	15,00
M 5 x 75	S	200	27,50
M 5 x 80	S	200	32,00
M 6 x 8	S	1000	6,50
M 6 x 10	S	1000	5,30
M 6 x 12	S	1000	5,40
M 6 x 16	S	1000	5,90
M 6 x 20	S	1000	6,70
M 6 x 25	S	500	7,30
M 6 x 30	S	500	8,30
M 6 x 35	S	500	9,10
M 6 x 40	S	500	10,10
M 6 x 45	S	500	13,60
M 6 x 50	S	200	15,50
M 6 x 55	S	200	17,70
M 6 x 60	S	200	21,30
M 6 x 65	S	200	23,30
M 6 x 70	S	200	24,50
M 6 x 75	S	200	36,00
M 6 x 80	S	200	40,00
M 6 x 100	S	200	45,50
M 8 x 10	S	500	36,50
M 8 x 12	S	500	14,30
M 8 x 16	S	500	14,80
M 8 x 20	S	500	15,20
M 8 x 25	S	500	15,70
M 8 x 30	S	200	21,70
M 8 x 35	S	200	22,50
M 8 x 40	S	200	23,60
M 8 x 45	S	200	31,00
M 8 x 50	S	200	35,00
M 8 x 55	S	200	41,00
M 8 x 60	S	200	45,00
M 8 x 70	S	200	50,00
M 10 x 12	S	200	92,00
M 10 x 16	S	200	31,00
M 10 x 20	S	200	28,50
M 10 x 25	S	200	35,00
M 10 x 30	S	200	36,50
M 10 x 40	S	200	38,00
M 10 x 45	S	100	45,50

ISO	01207.410	30
1207	**4.8** **zinc plated**	



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 513
Brass/Plastic ➔ pg. 630

ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓

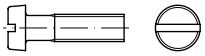
M 2	x	3	S	2000	5,00 ZP
M 2	x	3	K	200	8,00 ZP
M 2	x	4	S	2000	4,10 ZP
M 2	x	4	K	200	6,90 ZP
M 2	x	5	S	2000	3,90 ZP
M 2	x	5	K	200	6,80 ZP
M 2	x	6	S	2000	3,45 ZP
M 2	x	6	K	200	6,50 ZP
M 2	x	8	S	2000	3,50 ZP
M 2	x	8	K	200	6,40 ZP
M 2	x	10	S	2000	3,10 ZP
M 2	x	10	K	200	6,00 ZP
M 2	x	12	S	2000	3,85 ZP
M 2	x	12	K	200	6,80 ZP
M 2	x	16	S	2000	4,10 ZP
M 2	x	16	K	200	7,10 ZP
M 2	x	18	K	200	8,00 ZP
M 2	x	20	S	2000	5,50 ZP
M 2	x	20	K	200	8,50 ZP
M 2	x	30	S	2000	10,80 ZP
M 2	x	30	K	200	14,60 ZP
M 2,5	x	3	K	200	12,60 ZP
M 2,5	x	4	S	2000	5,60 ZP
M 2,5	x	4	K	200	8,60 ZP
M 2,5	x	5	S	2000	5,30 ZP
M 2,5	x	5	K	200	8,20 ZP
M 2,5	x	6	S	2000	3,30 ZP
M 2,5	x	6	K	200	6,30 ZP
M 2,5	x	8	S	2000	3,35 ZP
M 2,5	x	8	K	200	6,20 ZP
M 2,5	x	10	S	2000	3,60 ZP
M 2,5	x	10	K	200	5,90 ZP
M 2,5	x	12	S	2000	3,85 ZP
M 2,5	x	12	K	200	6,00 ZP
M 2,5	x	16	S	2000	4,45 ZP
M 2,5	x	16	K	200	7,40 ZP
M 2,5	x	18	K	200	8,20 ZP
M 2,5	x	20	S	2000	5,40 ZP
M 2,5	x	20	K	200	8,40 ZP
M 2,5	x	25	S	2000	6,20 ZP
M 2,5	x	25	K	200	9,10 ZP
M 2,5	x	30	S	2000	8,00 ZP
M 2,5	x	30	K	200	10,90 ZP
M 3	x	3	S	2000	9,70 ZP
M 3	x	3	K	200	12,60 ZP
M 3	x	4	S	2000	5,90 ZP
M 3	x	4	K	200	8,80 ZP
M 3	x	5	S	2000	5,60 ZP
M 3	x	5	K	200	8,60 ZP
M 3	x	6	S	2000	1,50 ZP
M 3	x	6	K	200	4,40 ZP
M 3	x	8	S	2000	1,55 ZP
M 3	x	8	K	200	4,45 ZP
M 3	x	10	S	2000	1,60 ZP
M 3	x	10	K	200	4,55 ZP
M 3	x	12	S	2000	1,70 ZP
M 3	x	12	K	200	4,60 ZP
M 3	x	14	S	2000	2,80 ZP
M 3	x	14	K	200	5,70 ZP
M 3	x	16	S	2000	3,10 ZP
M 3	x	16	K	200	6,10 ZP
M 3	x	18	S	2000	3,65 ZP
M 3	x	18	K	200	6,70 ZP
M 3	x	20	S	2000	4,00 ZP
M 3	x	20	K	200	7,10 ZP
M 3	x	22	S	2000	4,45 ZP
M 3	x	22	K	200	7,40 ZP
M 3	x	25	S	2000	4,90 ZP
M 3	x	25	K	200	7,60 ZP
M 3	x	28	S	2000	5,10 ZP
M 3	x	28	K	200	7,80 ZP
M 3	x	30	S	2000	5,30 ZP
M 3	x	30	K	200	8,00 ZP
M 3	x	35	S	2000	5,40 ZP
M 3	x	35	K	200	8,30 ZP
M 3	x	40	S	1000	5,90 ZP
M 3	x	40	K	200	8,90 ZP
M 3	x	45	S	1000	8,60 ZP
M 3	x	45	K	200	11,50 ZP
M 3	x	50	S	1000	9,60 ZP
M 3	x	50	K	200	12,60 ZP
M 3	x	55	S	200	17,00 ZP
M 3	x	60	K	200	17,00 ZP
M 3,5	x	5	K	200	11,10 ZP
M 3,5	x	6	S	2000	5,50 ZP
M 3,5	x	6	K	200	8,50 ZP
M 3,5	x	8	K	200	6,70 ZP
M 3,5	x	10	S	2000	3,90 ZP
M 3,5	x	10	K	200	6,80 ZP
M 3,5	x	12	S	2000	3,95 ZP
M 3,5	x	12	K	200	6,90 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 3,5 x 16	S	2000	4,80 ZP
M 3,5 x 16	K	200	7,80 ZP
M 3,5 x 18	K	200	8,10 ZP
M 3,5 x 20	S	2000	5,40 ZP
M 3,5 x 20	K	200	8,40 ZP
M 3,5 x 25	K	200	8,90 ZP
M 3,5 x 30	K	200	10,50 ZP
M 3,5 x 35	K	200	12,10 ZP
M 3,5 x 40	K	200	13,00 ZP
M 3,5 x 45	K	200	16,00 ZP
M 3,5 x 50	K	200	19,30 ZP
M 4 x 4	S	2000	10,60 ZP
M 4 x 4	K	200	13,40 ZP
M 4 x 5	S	2000	7,20 ZP
M 4 x 5	K	200	10,20 ZP
M 4 x 6	S	2000	2,30 ZP
M 4 x 6	K	200	5,30 ZP
M 4 x 8	S	2000	2,30 ZP
M 4 x 8	K	200	5,30 ZP
M 4 x 10	S	2000	2,45 ZP
M 4 x 10	K	200	5,40 ZP
M 4 x 12	S	2000	2,50 ZP
M 4 x 12	K	200	5,80 ZP
M 4 x 14	S	2000	3,75 ZP
M 4 x 14	K	200	6,70 ZP
M 4 x 16	S	2000	4,00 ZP
M 4 x 16	K	200	7,00 ZP
M 4 x 18	S	2000	4,40 ZP
M 4 x 18	K	200	7,30 ZP
M 4 x 20	S	2000	5,00 ZP
M 4 x 20	K	200	7,60 ZP
M 4 x 22	S	1000	5,40 ZP
M 4 x 22	K	200	7,90 ZP
M 4 x 25	S	1000	5,80 ZP
M 4 x 25	K	200	8,00 ZP
M 4 x 28	S	1000	6,20 ZP
M 4 x 28	K	200	8,20 ZP
M 4 x 30	S	1000	6,60 ZP
M 4 x 30	K	200	8,40 ZP
M 4 x 35	S	1000	6,80 ZP
M 4 x 35	K	200	8,60 ZP
M 4 x 40	S	1000	36,50 ZP
M 4 x 40	K	200	8,80 ZP
M 4 x 45	S	1000	7,30 ZP
M 4 x 45	K	200	10,30 ZP
M 4 x 50	S	1000	8,90 ZP
M 4 x 50	K	200	11,80 ZP
M 4 x 55	S	500	13,50 ZP
M 4 x 55	K	200	12,90 ZP
M 4 x 60	S	500	18,00 ZP
M 4 x 60	K	200	14,00 ZP
M 4 x 65	K	100	20,10 ZP
M 4 x 70	S	500	23,00 ZP
M 4 x 70	K	100	29,00 ZP
M 4 x 80	K	100	33,50 ZP
M 4 x 90	K	100	50,00 ZP
M 4 x 100	K	100	54,00 ZP
M 5 x 6	S	2000	10,70 ZP
M 5 x 6	K	200	13,60 ZP
M 5 x 8	S	2000	3,60 ZP
M 5 x 8	K	200	6,50 ZP
M 5 x 10	S	1000	36,50 ZP
M 5 x 10	K	200	6,70 ZP
M 5 x 12	S	1000	38,00 ZP
M 5 x 12	K	200	6,90 ZP
M 5 x 14	S	1000	6,00 ZP
M 5 x 14	K	200	9,00 ZP
M 5 x 16	S	1000	38,50 ZP
M 5 x 16	K	200	9,10 ZP
M 5 x 18	S	1000	6,30 ZP
M 5 x 18	K	200	9,20 ZP
M 5 x 20	S	1000	7,10 ZP
M 5 x 20	K	200	10,10 ZP
M 5 x 22	S	1000	8,20 ZP
M 5 x 22	K	200	11,10 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 25	S	1000	8,50 ZP
M 5 x 25	K	200	11,30 ZP
M 5 x 30	S	1000	8,70 ZP
M 5 x 30	K	200	11,50 ZP
M 5 x 35	S	500	9,00 ZP
M 5 x 35	K	200	11,90 ZP
M 5 x 40	S	500	9,80 ZP
M 5 x 40	K	200	12,40 ZP
M 5 x 45	S	500	10,70 ZP
M 5 x 45	K	200	13,60 ZP
M 5 x 50	S	500	12,10 ZP
M 5 x 50	K	200	14,50 ZP
M 5 x 55	S	500	14,30 ZP
M 5 x 55	K	200	16,10 ZP
M 5 x 60	K	200	19,30 ZP
M 5 x 65	K	100	22,00 ZP
M 5 x 70	S	200	16,00 ZP
M 5 x 70	K	100	25,00 ZP
M 5 x 80	S	200	26,00 ZP
M 5 x 80	K	100	31,50 ZP
M 5 x 90	S	200	49,50 ZP
M 5 x 90	K	100	55,00 ZP
M 5 x 100	S	200	56,00 ZP
M 5 x 100	K	100	67,00 ZP
M 6 x 6	S	1000	21,00 ZP
M 6 x 6	K	200	23,90 ZP
M 6 x 8	S	1000	7,20 ZP
M 6 x 8	K	200	10,10 ZP
M 6 x 10	S	1000	48,00 ZP
M 6 x 10	K	200	8,80 ZP
M 6 x 12	S	1000	5,90 ZP
M 6 x 12	K	200	8,90 ZP
M 6 x 14	S	1000	7,20 ZP
M 6 x 14	K	200	9,10 ZP
M 6 x 16	S	1000	8,20 ZP
M 6 x 16	K	200	9,50 ZP
M 6 x 18	S	1000	8,60 ZP
M 6 x 18	K	200	9,80 ZP
M 6 x 20	S	1000	9,00 ZP
M 6 x 20	K	200	10,50 ZP
M 6 x 22	K	200	11,20 ZP
M 6 x 25	S	500	9,40 ZP
M 6 x 25	K	200	11,40 ZP
M 6 x 30	S	500	9,80 ZP
M 6 x 30	K	200	12,10 ZP
M 6 x 35	S	500	10,20 ZP
M 6 x 35	K	200	12,40 ZP
M 6 x 40	S	500	11,20 ZP
M 6 x 40	K	200	14,10 ZP
M 6 x 45	S	500	15,00 ZP
M 6 x 45	K	200	20,90 ZP
M 6 x 50	K	200	22,10 ZP
M 6 x 55	K	100	25,50 ZP
M 6 x 60	S	200	17,60 ZP
M 6 x 60	K	100	28,00 ZP
M 6 x 65	S	200	21,00 ZP
M 6 x 70	S	200	27,00 ZP
M 6 x 70	K	100	39,00 ZP
M 6 x 80	K	100	41,50 ZP
M 6 x 90	K	100	58,00 ZP
M 6 x 100	S	200	50,00 ZP
M 6 x 100	K	100	62,00 ZP
M 8 x 10	K	100	40,00 ZP
M 8 x 12	K	100	18,80 ZP
M 8 x 16	S	500	16,50 ZP
M 8 x 16	K	100	19,30 ZP
M 8 x 18	K	100	20,10 ZP
M 8 x 20	S	500	17,00 ZP
M 8 x 20	K	100	21,10 ZP
M 8 x 25	S	500	17,50 ZP
M 8 x 25	K	100	22,10 ZP
M 8 x 30	S	200	18,10 ZP
M 8 x 30	K	100	23,90 ZP
M 8 x 35	K	100	29,50 ZP
M 8 x 40	K	100	31,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 45	K	100	36,50 ZP
M 8 x 50	K	100	39,50 ZP
M 8 x 55	K	100	44,00 ZP
M 8 x 60	K	100	46,00 ZP
M 8 x 70	K	100	48,00 ZP
M 8 x 80	K	100	63,00 ZP
M 8 x 90	K	100	69,00 ZP
M 8 x 100	K	100	80,00 ZP
M 10 x 12	K	100	98,00 ZP
M 10 x 16	K	100	36,50 ZP
M 10 x 20	K	100	34,50 ZP
M 10 x 25	K	100	36,00 ZP
M 10 x 30	K	100	42,50 ZP
M 10 x 35	K	100	47,50 ZP
M 10 x 40	K	100	49,00 ZP
M 10 x 50	K	100	53,00 ZP
M 10 x 60	K	100	60,00 ZP
M 10 x 70	K	100	73,00 ZP
M 10 x 80	K	50	86,00 ZP
M 10 x 100	K	50	118,00 ZP

ISO	01207.430	30
1207	**4.8 nickel plated**	



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 513
Brass/Plastic ➔ pg. 630

ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓

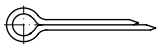
M 3	x	6	S 2000	2,50 NP
M 3	x	8	S 2000	2,60 NP
M 3	x	10	S 2000	2,75 NP
M 3	x	12	S 2000	2,90 NP
M 3	x	16	S 2000	3,40 NP
M 4	x	8	S 2000	4,10 NP
M 4	x	10	S 2000	4,25 NP
M 4	x	12	S 2000	4,95 NP
M 4	x	16	S 2000	5,30 NP
M 5	x	8	S 2000	6,20 NP
M 5	x	10	S 2000	6,70 NP
M 5	x	12	S 1000	6,90 NP
M 5	x	16	S 1000	7,90 NP

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Dimensions	PU	Pieces	€/100/Mat.
ISO	01234.010		40
1234	**Steel zinc plated**		



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Corrosion protection ➔ TI-228

Stainless ➔ pg. 516
Copper ➔ pg.632

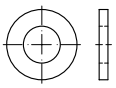
ISO 1234 ➔ replaces DIN 94 (compatible)

RoHS ✓ | REACh SVHC free

nominal ∅ = drilling ∅ x length

1	x	6	S	1000	1,70 ZP
1	x	8	S	1000	1,75 ZP
1	x	10	S	1000	1,80 ZP
1	x	12	S	1000	1,90 ZP
1	x	16	S	1000	2,00 ZP
1	x	18	S	1000	2,10 ZP
1	x	20	S	1000	2,20 ZP
1	x	22	S	1000	2,30 ZP
1	x	25	S	1000	2,45 ZP
1	x	32	S	1000	3,00 ZP
1	x	40	S	1000	3,75 ZP
1,2	x	8	S	1000	1,85 ZP
1,2	x	10	S	1000	1,90 ZP
1,2	x	12	S	1000	1,95 ZP
1,2	x	14	S	1000	2,00 ZP
1,2	x	16	S	1000	2,05 ZP
1,2	x	20	S	1000	2,10 ZP
1,2	x	25	S	1000	2,50 ZP
1,2	x	32	S	1000	3,00 ZP
1,2	x	36	S	1000	3,60 ZP
1,2	x	40	S	1000	3,75 ZP
1,6	x	8	S	1000	2,20 ZP
1,6	x	10	S	1000	2,25 ZP
1,6	x	12	S	1000	2,30 ZP
1,6	x	14	S	1000	2,35 ZP
1,6	x	16	S	1000	2,40 ZP
1,6	x	18	S	1000	2,45 ZP
1,6	x	20	S	1000	2,50 ZP
1,6	x	22	S	1000	2,60 ZP
1,6	x	25	S	1000	2,70 ZP
1,6	x	28	S	1000	2,75 ZP
1,6	x	32	S	1000	3,10 ZP
1,6	x	36	S	1000	3,60 ZP
1,6	x	40	S	1000	3,85 ZP
1,6	x	50	S	1000	5,30 ZP
2	x	8	S	1000	2,80 ZP
2	x	10	S	1000	2,85 ZP
2	x	12	S	1000	2,90 ZP
2	x	14	S	1000	2,95 ZP
2	x	16	S	1000	3,00 ZP
2	x	18	S	1000	3,05 ZP
2	x	20	S	1000	3,10 ZP
2	x	22	S	1000	3,20 ZP
2	x	25	S	1000	3,30 ZP
2	x	28	S	1000	3,40 ZP
2	x	32	S	1000	3,60 ZP
2	x	36	S	1000	3,85 ZP
2	x	40	S	1000	4,15 ZP
2	x	45	S	1000	5,40 ZP
2	x	50	S	1000	5,70 ZP
2,5	x	10	S	500	3,35 ZP
2,5	x	12	S	500	3,40 ZP
2,5	x	14	S	500	3,45 ZP
2,5	x	16	S	500	3,50 ZP
2,5	x	18	S	500	3,55 ZP
2,5	x	20	S	500	3,60 ZP
2,5	x	22	S	500	3,75 ZP
2,5	x	25	S	500	3,95 ZP
2,5	x	28	S	500	4,25 ZP
2,5	x	32	S	500	4,45 ZP
2,5	x	36	S	500	4,75 ZP
2,5	x	40	S	500	5,10 ZP
2,5	x	45	S	500	5,50 ZP
2,5	x	50	S	500	5,80 ZP
2,5	x	56	S	500	7,80 ZP
2,5	x	63	S	500	8,80 ZP
3,2	x	10	S	500	4,15 ZP
3,2	x	12	S	500	4,20 ZP
3,2	x	14	S	500	4,25 ZP
3,2	x	16	S	500	4,30 ZP
3,2	x	18	S	500	4,35 ZP
3,2	x	20	S	500	4,45 ZP
3,2	x	22	S	500	4,60 ZP
3,2	x	25	S	500	4,95 ZP
3,2	x	28	S	500	5,30 ZP
3,2	x	32	S	500	5,60 ZP
3,2	x	36	S	500	6,00 ZP
3,2	x	40	S	500	6,50 ZP
3,2	x	45	S	500	7,20 ZP
3,2	x	50	S	500	7,70 ZP
3,2	x	56	S	500	8,20 ZP
3,2	x	63	S	500	9,20 ZP
3,2	x	71	S	500	10,30 ZP
4	x	15	S	500	5,90 ZP
4	x	18	S	500	6,00 ZP
4	x	20	S	500	6,20 ZP
4	x	22	S	500	6,50 ZP
4	x	25	S	500	6,80 ZP
4	x	28	S	500	7,30 ZP
4	x	32	S	500	7,90 ZP
4	x	36	S	500	8,40 ZP
4	x	40	S	500	9,10 ZP
4	x	45	S	500	9,70 ZP
4	x	50	S	500	10,60 ZP
4	x	56	S	500	11,40 ZP
4	x	63	S	500	12,50 ZP
4	x	71	S	500	13,70 ZP
4	x	80	S	500	15,30 ZP
4	x	90	S	500	26,00 ZP
4	x	100	S	500	29,00 ZP
4	x	112	S	250	33,50 ZP
4	x	125	S	250	37,50 ZP
5	x	20	S	250	9,10 ZP
5	x	22	S	250	9,40 ZP
5	x	25	S	250	9,70 ZP
5	x	28	S	250	11,10 ZP
5	x	32	S	250	12,30 ZP
5	x	36	S	250	13,40 ZP
5	x	40	S	250	14,30 ZP
5	x	45	S	250	15,50 ZP
5	x	50	S	250	16,60 ZP
5	x	56	S	250	18,20 ZP
5	x	63	S	250	20,30 ZP
5	x	71	S	250	22,30 ZP
5	x	80	S	250	24,10 ZP
5	x	90	S	250	27,00 ZP
5	x	100	S	250	30,00 ZP
5	x	112	S	250	51,00 ZP
5	x	125	S	250	58,00 ZP
5	x	210	S	50	850,00 ZP
5,5	x	50	S	250	24,60 ZP
6,3	x	25	S	250	18,30 ZP
6,3	x	32	S	250	18,40 ZP
6,3	x	36	S	250	20,10 ZP
6,3	x	40	S	250	21,30 ZP
6,3	x	45	S	250	23,00 ZP
6,3	x	50	S	250	25,00 ZP
6,3	x	56	S	250	28,00 ZP
6,3	x	63	S	250	31,50 ZP
6,3	x	71	S	250	34,00 ZP
6,3	x	80	S	250	38,00 ZP
6,3	x	90	S	250	42,00 ZP
6,3	x	100	S	250	47,00 ZP
6,3	x	112	S	250	53,00 ZP
6,3	x	125	S	250	60,00 ZP
6,3	x	140	S	250	112,00 ZP
8	x	40	S	100	46,00 ZP
8	x	45	S	100	48,50 ZP
8	x	50	S	100	52,00 ZP
8	x	56	S	100	57,00 ZP
8	x	63	S	100	60,00 ZP
8	x	71	S	100	65,00 ZP
8	x	80	S	100	72,00 ZP
8	x	90	S	100	77,00 ZP
8	x	100	S	100	83,00 ZP
8	x	112	S	100	92,00 ZP
8	x	125	S	100	106,00 ZP
8	x	140	S	100	118,00 ZP
10	x	50	S	100	85,00 ZP
10	x	63	S	100	91,00 ZP
10	x	71	S	100	103,00 ZP
10	x	80	S	100	114,00 ZP
10	x	90	S	100	124,00 ZP
10	x	100	S	100	137,00 ZP
10	x	112	S	100	146,00 ZP
10	x	125	S	100	160,00 ZP
10	x	140	S	100	176,00 ZP
10	x	160	S	100	220,00 ZP
10	x	180	S	100	305,00 ZP
10	x	200	S	100	330,00 ZP
13	x	71	S	25	234,00 ZP
13	x	80	S	25	235,00 ZP
13	x	90	S	25	236,00 ZP
13	x	100	S	25	255,00 ZP
13	x	112	S	25	280,00 ZP
13	x	125	S	25	305,00 ZP
13	x	140	S	25	335,00 ZP
13	x	160	S	25	1010,00 ZP
13	x	180	S	25	1050,00 ZP
13	x	200	S	25	1170,00 ZP
13	x	250	S	25	2200,00 ZP
16	x	125	S	25	2440,00 ZP
16	x	140	S	25	2460,00 ZP
16	x	160	S	25	2550,00 ZP
16	x	180	S	25	2650,00 ZP
16	x	200	S	25	2750,00 ZP
16	x	250	S	25	2850,00 ZP

DIN	01440.000	490
1440	**Steel**	



Washers for clevis pins, product grade A (m)

Dimensions ➔ TI-85 Standard conversion ➔ TI-10

Stainless ➔ pg. 516

DIN 1440 ➔ replaced by ISO 8738

RoHS ✓ | REACh SVHC free

inside ∅ min. = pin ∅ x outside ∅ x thickness

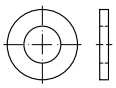
3	x	6	x	0,8	S	1000	2,80
4	x	8	x	0,8	S	1000	2,80
4	x	8	x	0,8	K	250	3,90

Dimensions						PU	Pieces	€/100/Mat.
5	x	10	x	0,8		S	1000	3,25
5	x	10	x	0,8		K	250	4,40
6	x	12	x	1,6		S	1000	4,80
6	x	12	x	1,6		K	100	7,90
7	x	14	x	1,6		S	1000	6,80
7	x	14	x	1,6		K	100	9,70
8	x	16	x	2		S	1000	9,10
8	x	16	x	2		K	100	12,10
10	x	20	x	2,5		S	1000	11,70
10	x	20	x	2,5		K	100	16,30
12	x	25	x	3		S	500	17,20
12	x	25	x	3		K	100	22,20
13	x	25	x	3		S	500	17,20
13	x	25	x	3		K	100	25,50
14	x	28	x	3		S	500	21,00
14	x	28	x	3		K	100	26,00
16	x	28	x	3		S	500	21,00
16	x	28	x	3		K	100	26,00
18	x	30	x	4		S	200	34,50
18	x	30	x	4		K	100	39,50
20	x	32	x	4		S	200	41,50
20	x	32	x	4		K	100	46,00
22	x	34	x	4		S	200	47,50
22	x	34	x	4		K	100	53,00
23	x	36	x	4		S	200	49,50
23	x	36	x	4		K	100	54,00
25	x	40	x	4		S	200	67,00
25	x	40	x	4		K	100	73,00
26	x	40	x	5		S	100	95,00
28	x	42	x	5		S	100	105,00
30	x	45	x	5		S	100	125,00
32	x	50	x	5		S	100	163,00
33	x	50	x	5		S	100	152,00
35	x	52	x	6		S	100	193,00
36	x	52	x	6		S	100	193,00
40	x	58	x	6		S	50	223,00
45	x	62	x	7		S	50	270,00
50	x	68	x	8		S	50	415,00
55	x	75	x	9		S	10	880,00
60	x	80	x	9		S	10	1010,00
65	x	90	x	9		S	1	2200,00
70	x	95	x	10		S	1	2800,00
75	x	100	x	10		S	1	3350,00
80	x	110	x	12		S	1	5100,00
90	x	115	x	12		S	1	5100,00
100	x	125	x	14		S	1	6600,00

DIN	01440.010	490

1440

Steel
zinc plated



Washers for clevis pins, product grade A (m)

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Corrosion protection ➔ TI-228

Stainless ➔ pg. 516

DIN 1440 ➔ replaced by ISO 8738

RoHS ✓ | REACh SVHC free

inside ∅ min. = pin ∅ x outside ∅ x thickness

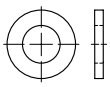
3	x	6	x	0,8		S	1000	2,85 ZP
3	x	6	x	0,8		K	250	3,95 ZP
4	x	8	x	0,8		S	1000	2,85 ZP
4	x	8	x	0,8		K	250	3,95 ZP
5	x	10	x	0,8		S	1000	3,35 ZP

Dimensions						PU	Pieces	€/100/Mat.
5	x	10	x	0,8		K	250	4,55 ZP
6	x	12	x	1,6		S	1000	5,30 ZP
6	x	12	x	1,6		K	100	8,40 ZP
7	x	14	x	1,6		S	1000	7,40 ZP
7	x	14	x	1,6		K	100	10,50 ZP
8	x	16	x	2		S	1000	9,90 ZP
8	x	16	x	2		K	100	12,90 ZP
10	x	20	x	2,5		S	1000	13,50 ZP
10	x	20	x	2,5		K	100	18,20 ZP
12	x	25	x	3		S	500	21,00 ZP
12	x	25	x	3		K	100	26,00 ZP
13	x	25	x	3		S	500	20,60 ZP
13	x	25	x	3		K	100	26,00 ZP
14	x	28	x	3		S	500	25,50 ZP
14	x	28	x	3		K	100	30,50 ZP
16	x	28	x	3		S	500	25,00 ZP
16	x	28	x	3		K	100	30,00 ZP
18	x	30	x	4		S	200	41,00 ZP
18	x	30	x	4		K	100	46,00 ZP
20	x	32	x	4		S	200	47,50 ZP
20	x	32	x	4		K	100	53,00 ZP
22	x	34	x	4		S	200	54,00 ZP
22	x	34	x	4		K	100	59,00 ZP
23	x	36	x	4		S	200	57,00 ZP
25	x	40	x	4		S	200	77,00 ZP
25	x	40	x	4		K	100	83,00 ZP
26	x	40	x	5		S	100	107,00 ZP
28	x	42	x	5		S	100	115,00 ZP
30	x	45	x	5		S	100	141,00 ZP
32	x	50	x	5		S	100	164,00 ZP
33	x	50	x	5		S	100	164,00 ZP
35	x	52	x	6		S	100	207,00 ZP
36	x	52	x	6		S	100	206,00 ZP
40	x	58	x	6		S	50	242,00 ZP
45	x	62	x	7		S	50	295,00 ZP
50	x	68	x	8		S	50	440,00 ZP
55	x	75	x	9		S	10	920,00 ZP
60	x	80	x	9		S	10	1050,00 ZP
65	x	90	x	9		S	1	2240,00 ZP
70	x	95	x	10		S	1	2850,00 ZP
80	x	110	x	12		S	1	5200,00 ZP
100	x	125	x	14		S	1	6700,00 ZP

DIN	01441.000	490

1441

Steel



Washers for clevis pins, product grade C (g)

Dimensions ➔ TI-85

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

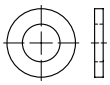
5,5	x	10	x	0,8		K	250	6,00
7	x	12	x	1,6		K	250	7,20
8	x	14	x	1,6		S	1000	4,80
8	x	14	x	1,6		K	250	7,40
9	x	16	x	2		S	1000	5,30
9	x	16	x	2		K	250	8,60
11	x	20	x	2,5		S	500	8,40
11	x	20	x	2,5		K	250	12,60
13	x	25	x	3		S	500	12,60
13	x	25	x	3		K	100	23,30
15	x	28	x	3		S	500	15,30
15	x	28	x	3		K	100	26,00
17	x	28	x	3		S	500	16,60

Dimensions						PU	Pieces	€/100/Mat.
17	x	28	x	3		K	100	27,50
19	x	30	x	4		S	200	22,60
19	x	30	x	4		K	100	34,00
21	x	32	x	4		S	200	27,00
21	x	32	x	4		K	100	38,50
23	x	34	x	4		S	200	31,00
23	x	34	x	4		K	100	42,50
24	x	36	x	4		S	200	34,00
25	x	38	x	4		S	200	42,00
25	x	38	x	4		K	100	56,00
26	x	40	x	4		S	200	48,00
26	x	40	x	4		K	100	62,00
27	x	40	x	5		S	100	59,00
28	x	40	x	5		S	100	61,00
29	x	42	x	5		S	100	66,00
31	x	45	x	5		S	100	76,00
34	x	50	x	5		S	100	97,00
37	x	52	x	6		S	100	117,00
41	x	58	x	6		S	50	155,00
46	x	62	x	7		S	50	199,00
51	x	68	x	8		S	50	285,00
56	x	75	x	9		S	10	630,00
62	x	80	x	9		S	10	830,00
72	x	95	x	10		S	10	1350,00
78	x	100	x	10		S	10	1970,00
82	x	110	x	12		S	1	2220,00
86	x	110	x	12		S	1	2300,00
92	x	115	x	12		S	1	2400,00
102	x	125	x	14		S	1	3350,00

DIN	01441.010	490

1441

Steel
zinc plated



Washers for clevis pins, product grade C (g)

Dimensions ➔ TI-85 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

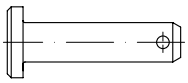
5,5	x	10	x	0,8		S	1000	2,75 ZP
5,5	x	10	x	0,8		K	250	6,20 ZP
7	x	12	x	1,6		S	1000	3,45 ZP
7	x	12	x	1,6		K	250	6,80 ZP
8	x	14	x	1,6		S	1000	4,60 ZP
8	x	14	x	1,6		K	250	7,90 ZP
9	x	16	x	2		S	1000	6,30 ZP
9	x	16	x	2		K	250	9,60 ZP
11	x	20	x	2,5		S	500	10,30 ZP
11	x	20	x	2,5		K	250	14,60 ZP
13	x	25	x	3		S	500	16,40 ZP
13	x	25	x	3		K	100	27,00 ZP
14	x	25	x	3		K	100	27,50 ZP
15	x	28	x	3		S	500	19,80 ZP
15	x	28	x	3		K	100	30,50 ZP
17	x	28	x	3		S	500	20,70 ZP
17	x	28	x	3		K	100	31,50 ZP
19	x	30	x	4		S	200	29,00 ZP
19	x	30	x	4		K	100	41,00 ZP
21	x	32	x	4		S	200	33,50 ZP
21	x	32	x	4		K	100	45,50 ZP
23	x	34	x	4		S	200	38,00 ZP
23	x	34	x	4		K	100	49,50 ZP
24	x	36	x	4		S	200	42,50 ZP
25	x	38	x	4		S	200	51,00 ZP
25	x	38	x	4		K	100	65,00 ZP

Dimensions					PU	Pieces	€/100/Mat.
26	x	40	x	4	S	200	59,00 ZP
26	x	40	x	4	K	100	73,00 ZP
28	x	40	x	5	S	100	73,00 ZP
29	x	42	x	5	S	100	79,00 ZP
31	x	45	x	5	S	100	91,00 ZP
34	x	50	x	5	S	100	117,00 ZP
37	x	52	x	6	S	100	141,00 ZP
41	x	58	x	6	S	50	183,00 ZP
46	x	62	x	7	S	50	230,00 ZP
51	x	68	x	8	S	50	330,00 ZP
56	x	75	x	9	S	10	690,00 ZP
62	x	80	x	9	S	10	890,00 ZP
68	x	90	x	9	S	10	1200,00 ZP
72	x	95	x	10	S	10	1460,00 ZP
78	x	100	x	10	S	10	1580,00 ZP
82	x	110	x	12	S	1	2400,00 ZP
92	x	115	x	12	S	1	2550,00 ZP
102	x	125	x	14	S	1	3600,00 ZP

DIN	01444.014	490

1444

Steel zinc plated type B



Clevis pins with head, B = with pin hole, tolerance h11 for pin ∅

Dimensions ➔ TI-122
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-10
REACH ➔ TI-262

DIN 1444 ➔ replaced by ISO 2341 (compatible)

RoHS ✓

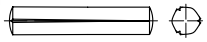
pin ∅ x overall length x length to middle of pin hole

B 8	x	20/16,5	S	100	1320,00 ZP
B 8	x	24/20,5	S	100	1340,00 ZP
B 8	x	25/21,5	S	100	1340,00 ZP
B 8	x	30/26,5	S	100	1350,00 ZP
B 8	x	35/31,5	S	100	1360,00 ZP
B 8	x	50/46,5	S	100	1380,00 ZP
B 10	x	25/20,5	S	10	1920,00 ZP
B 10	x	30/25,5	S	10	1930,00 ZP
B 10	x	35/30,5	S	10	1950,00 ZP
B 10	x	40/35,5	S	10	1970,00 ZP
B 10	x	45/40,5	S	10	2000,00 ZP
B 10	x	50/45,5	S	10	2030,00 ZP
B 10	x	60/55,5	S	10	2040,00 ZP
B 10	x	70/65,5	S	10	2060,00 ZP
B 12	x	30/24,5	S	10	1920,00 ZP
B 12	x	35/29,5	S	10	1930,00 ZP
B 12	x	40/34,5	S	10	1950,00 ZP
B 12	x	45/39,5	S	10	1970,00 ZP
B 12	x	50/44,5	S	10	2000,00 ZP
B 12	x	60/54,5	S	10	2040,00 ZP
B 16	x	40/34	S	1	2100,00 ZP
B 16	x	45/39	S	1	2130,00 ZP
B 16	x	50/44	S	1	2160,00 ZP
B 16	x	55/49	S	1	2200,00 ZP
B 16	x	60/54	S	1	2230,00 ZP
B 16	x	65/59	S	1	2260,00 ZP
B 18	x	65/58	S	1	2290,00 ZP
B 20	x	40/32	S	1	2240,00 ZP
B 20	x	50/42	S	1	2300,00 ZP
B 20	x	55/47	S	1	2360,00 ZP
B 20	x	60/52	S	1	2450,00 ZP
B 20	x	65/57	S	1	2550,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN 01471.000			500

1471

Steel



Grooved pins, full-length taper grooved

Dimensions ➔ TI-119
Standard conversion ➔ TI-10
REACH ➔ TI-262

Stainless ➔ pg. 517

DIN 1471 ➔ replaced by ISO 8744

RoHS ✓

1,5	x	6	S	250	8,90
1,5	x	8	S	250	8,90
1,5	x	16	S	250	9,60
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	16	S	250	9,90
2	x	20	S	250	11,10
2	x	24	S	250	11,90
2	x	30	S	250	11,90
2,5	x	6	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
2,5	x	20	S	250	11,40
2,5	x	30	S	250	11,80
3	x	6	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	18	S	250	11,50
3	x	20	S	250	12,30
3	x	24	S	250	12,30
3	x	26	S	250	12,60
3	x	30	S	100	14,40
3	x	40	S	100	15,30
4	x	6	S	100	14,20
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	50	S	100	19,00
4	x	60	S	100	72,00
5	x	8	S	100	16,10
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	18	S	100	17,10
5	x	20	S	100	17,10
5	x	24	S	100	17,60

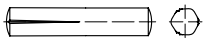
Dimensions			PU	Pieces	€/100/Mat.
5	x	26	S	100	18,30
5	x	30	S	100	18,70
5	x	32	S	100	19,20
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	45	S	100	22,10
5	x	50	S	100	23,00
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	12	S	100	21,20
6	x	16	S	100	21,50
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	45	S	100	29,00
6	x	50	S	100	30,00
6	x	55	S	100	31,50
6	x	60	S	100	34,00
6	x	70	S	100	92,00
6	x	80	S	100	96,00
8	x	12	S	100	31,50
8	x	16	S	100	32,50
8	x	20	S	100	32,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	28	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
8	x	55	S	100	49,50
8	x	60	S	100	53,00
8	x	70	S	100	60,00
8	x	80	S	100	120,00
8	x	100	S	25	160,00
10	x	20	S	25	216,00
10	x	30	S	25	229,00
10	x	32	S	25	230,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	60	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
10	x	90	S	25	300,00
10	x	100	S	25	300,00
12	x	26	S	25	249,00
12	x	60	S	25	300,00
12	x	70	S	25	315,00
12	x	90	S	25	345,00
12	x	100	S	25	365,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
DIN	01472.000		500

1472

Steel



Grooved pins, half length taper grooved

Dimensions ➔ TI-118 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 517

DIN 1472 ➔ replaced by ISO 8745

RoHS ✓

1,5	x	6	S	250	8,90
1,5	x	8	S	250	8,90
1,5	x	10	S	250	8,90
1,5	x	12	S	250	9,10
1,5	x	16	S	250	9,10
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	14	S	250	9,90
2	x	16	S	250	9,90
2	x	20	S	250	11,10
2	x	30	S	250	11,90
2,5	x	6	S	250	11,10
2,5	x	8	S	250	11,10
2,5	x	10	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
2,5	x	18	S	250	11,20
2,5	x	20	S	250	11,40
3	x	6	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	18	S	250	11,50
3	x	20	S	250	12,30
3	x	22	S	250	12,30
3	x	24	S	250	12,30
3	x	26	S	250	12,60
3	x	28	S	100	14,40
3	x	30	S	100	14,40
3	x	32	S	100	14,80
3	x	40	S	100	15,30
4	x	6	S	100	14,20
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	50	S	100	19,00
4	x	60	S	100	36,00
5	x	8	S	100	16,10
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	18	S	100	17,10
5	x	20	S	100	17,10
5	x	22	S	100	17,20
5	x	24	S	100	17,60
5	x	26	S	100	18,30
5	x	28	S	100	18,30
5	x	30	S	100	18,70
5	x	32	S	100	19,20
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	50	S	100	23,00
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	12	S	100	21,20
6	x	14	S	100	21,20
6	x	16	S	100	21,50
6	x	18	S	100	21,60
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	45	S	100	29,00
6	x	50	S	100	30,00
6	x	60	S	100	34,00
6	x	80	S	100	96,00
8	x	12	S	100	31,50
8	x	14	S	100	31,50
8	x	16	S	100	32,50
8	x	18	S	100	32,50
8	x	20	S	100	32,50
8	x	22	S	100	33,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	28	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
8	x	55	S	100	49,50
8	x	60	S	100	53,00
8	x	70	S	100	60,00
8	x	80	S	100	92,00
8	x	100	S	25	160,00
10	x	16	S	25	213,00
10	x	20	S	25	216,00
10	x	24	S	25	222,00
10	x	26	S	25	224,00
10	x	30	S	25	229,00
10	x	32	S	25	230,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	55	S	25	255,00
10	x	60	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
10	x	90	S	25	300,00
12	x	20	S	25	239,00
12	x	30	S	25	255,00
12	x	32	S	25	260,00
12	x	36	S	25	265,00
12	x	40	S	25	270,00
12	x	45	S	25	275,00
12	x	50	S	25	285,00
12	x	55	S	25	295,00
12	x	60	S	25	300,00
12	x	70	S	25	315,00
12	x	80	S	25	335,00

DIN	01473.000	500

1473

Steel



Grooved pins, full length parallel grooved

Dimensions ➔ TI-119 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 517

DIN 1473 ➔ replaced by ISO 8740

RoHS ✓

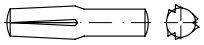
1,5	x	6	S	250	8,90
1,5	x	8	S	250	8,90
1,5	x	10	S	250	8,90
1,5	x	12	S	250	9,10
1,5	x	16	S	250	9,10
1,5	x	20	S	250	9,10
2	x	4	S	250	9,60
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	14	S	250	9,90
2	x	16	S	250	9,90
2	x	18	S	250	9,90
2	x	20	S	250	11,10
2	x	24	S	250	11,90
2	x	30	S	250	11,90
2,5	x	6	S	250	11,10
2,5	x	8	S	250	11,10
2,5	x	10	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	14	S	250	11,20
2,5	x	16	S	250	11,20
2,5	x	20	S	250	11,40
2,5	x	24	S	250	11,40
2,5	x	30	S	250	11,80
3	x	6	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	18	S	250	11,50
3	x	20	S	250	12,30
3	x	22	S	250	12,30
3	x	24	S	250	12,30
3	x	26	S	250	12,60
3	x	28	S	100	14,40
3	x	30	S	100	14,40
3	x	32	S	100	14,80
3	x	36	S	100	15,20
3	x	40	S	100	15,30
4	x	6	S	100	14,20
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30

Dimensions			PU	Pieces	€/100/Mat.
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	45	S	100	18,30
4	x	50	S	100	19,00
4	x	60	S	100	36,00
5	x	8	S	100	16,10
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	18	S	100	17,10
5	x	20	S	100	17,10
5	x	22	S	100	17,20
5	x	24	S	100	17,60
5	x	26	S	100	18,30
5	x	28	S	100	18,30
5	x	30	S	100	18,70
5	x	32	S	100	19,20
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	45	S	100	22,10
5	x	50	S	100	23,00
5	x	55	S	100	42,50
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	12	S	100	21,20
6	x	14	S	100	21,20
6	x	16	S	100	21,50
6	x	18	S	100	21,60
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	45	S	100	29,00
6	x	50	S	100	30,00
6	x	55	S	100	31,50
6	x	60	S	100	34,00
6	x	65	S	100	89,00
6	x	70	S	100	92,00
6	x	80	S	100	96,00
8	x	12	S	100	31,50
8	x	14	S	100	31,50
8	x	16	S	100	32,50
8	x	20	S	100	32,50
8	x	22	S	100	33,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	28	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
8	x	55	S	100	49,50
8	x	60	S	100	53,00
8	x	70	S	100	60,00
8	x	80	S	100	92,00
8	x	90	S	25	146,00
8	x	100	S	25	160,00
10	x	16	S	25	213,00
10	x	20	S	25	216,00
10	x	24	S	25	222,00
10	x	26	S	25	224,00
10	x	30	S	25	229,00
10	x	32	S	25	230,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	60	S	25	265,00
10	x	65	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
10	x	90	S	25	300,00
10	x	100	S	25	300,00
10	x	120	S	25	370,00
12	x	20	S	25	239,00
12	x	24	S	25	245,00
12	x	26	S	25	249,00
12	x	28	S	25	255,00
12	x	30	S	25	255,00
12	x	32	S	25	260,00
12	x	36	S	25	265,00
12	x	40	S	25	270,00
12	x	45	S	25	275,00
12	x	50	S	25	285,00
12	x	55	S	25	295,00
12	x	60	S	25	300,00
12	x	70	S	25	315,00
12	x	80	S	25	335,00
12	x	90	S	25	345,00
12	x	100	S	25	365,00
12	x	120	S	25	430,00

DIN | 01474.000 | 500

1474

Steel



Grooved pins, half length reverse grooved

Dimensions → TI-118 REACH → TI-262
Standard conversion → TI-10

DIN 1474 → replaced by ISO 8741

RoHS ✓

1,5	x	6	S	250	8,90
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	16	S	250	9,90
2	x	20	S	250	11,10
2,5	x	10	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	16	S	250	11,50
3	x	20	S	250	12,30
3	x	30	S	100	14,40
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	24	S	100	14,80
4	x	30	S	100	15,20
4	x	40	S	100	16,50
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	20	S	100	17,10
5	x	24	S	100	17,60
5	x	28	S	100	18,30
5	x	36	S	100	19,80
5	x	40	S	100	20,70
6	x	12	S	100	21,20
6	x	14	S	100	21,20
6	x	16	S	100	21,50
6	x	18	S	100	21,60
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	40	S	100	26,50
6	x	60	S	100	34,00
6	x	70	S	100	92,00
8	x	16	S	100	32,50
8	x	20	S	100	32,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
10	x	20	S	25	216,00
10	x	24	S	25	222,00
10	x	25	S	25	224,00
10	x	30	S	25	229,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	60	S	25	265,00
12	x	32	S	25	260,00
12	x	40	S	25	270,00
12	x	50	S	25	285,00
12	x	55	S	25	295,00

DIN | 01475.000 | 500

1475

Steel



Grooved pins, third length centre grooved

Dimensions → TI-119 REACH → TI-262
Standard conversion → TI-10

DIN 1475 → replaced by ISO 8742

RoHS ✓

1,5	x	8	S	250	8,90
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	24	S	250	11,90
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
3	x	6	S	250	11,20

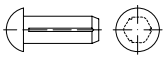
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	20	S	250	12,30
3	x	28	S	100	14,40
3	x	30	S	100	14,40
3	x	40	S	100	15,30
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	50	S	100	19,00
4	x	60	S	100	36,00
5	x	12	S	100	16,10
5	x	20	S	100	17,10
5	x	22	S	100	17,20
5	x	24	S	100	17,60
5	x	30	S	100	18,70
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	50	S	100	23,00
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	20	S	100	21,60
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	50	S	100	30,00
6	x	60	S	100	34,00
6	x	70	S	100	92,00
8	x	16	S	100	32,50
8	x	24	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	50	S	100	47,00
8	x	55	S	100	49,50
8	x	60	S	100	53,00
8	x	80	S	100	92,00
8	x	100	S	25	160,00
10	x	36	S	25	235,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	55	S	25	255,00
10	x	60	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
12	x	40	S	25	270,00
12	x	45	S	25	275,00
12	x	50	S	25	285,00
12	x	60	S	25	300,00
12	x	100	S	25	365,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	01476.000		500

1476

Steel



Round head grooved pins

Dimensions ➔ TI-120 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 518
Brass, Aluminium ➔ pg. 632

DIN 1476 ➔ replaced by ISO 8746 (compatible)

RoHS ✓

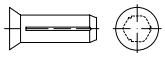
1,4	x	3	K	500	4,25
1,4	x	4	K	500	4,25
1,4	x	5	K	500	6,50
1,4	x	6	K	500	4,75
1,6	x	3	K	500	4,40
1,6	x	4	K	500	4,40
1,6	x	6	K	500	4,55
2	x	3	S	5000	3,40
2	x	3	K	500	4,40
2	x	4	S	5000	3,40
2	x	4	K	500	4,40
2	x	5	S	5000	3,40
2	x	5	K	500	4,40
2	x	6	S	5000	4,55
2	x	6	K	500	4,55
2	x	8	S	5000	3,45
2	x	8	K	500	4,55
2	x	10	K	500	4,70
2,3	x	4	K	500	4,55
2,3	x	5	K	500	4,55
2,3	x	6	K	500	4,55
2,3	x	8	K	500	4,70
2,3	x	10	K	500	4,85
2,5	x	3	K	500	4,70
2,5	x	4	K	500	4,70
2,5	x	5	K	500	4,70
2,5	x	6	S	5000	3,65
2,5	x	6	K	500	4,70
2,5	x	7	K	500	4,85
2,5	x	8	K	500	4,85
2,5	x	10	K	500	5,00
3	x	4	S	5000	3,95
3	x	4	K	500	5,00
3	x	5	S	5000	3,95
3	x	5	K	500	5,00
3	x	6	S	5000	3,95
3	x	6	K	500	5,00
3	x	7	K	500	5,20
3	x	8	S	5000	4,20
3	x	8	K	500	5,20
3	x	10	S	5000	4,20
3	x	10	K	500	5,20
3	x	12	S	2000	4,60
3	x	12	K	500	5,50
3	x	15	S	2000	4,60
3	x	15	K	500	5,50
3	x	18	K	500	6,60
4	x	6	S	2000	5,70
4	x	6	K	500	6,60
4	x	8	S	2000	5,70
4	x	8	K	500	6,60
4	x	10	S	2000	5,80

Dimensions			PU	Pieces	€/100/Mat.
4	x	10	K	500	6,70
4	x	12	K	500	7,20
4	x	15	S	2000	6,60
4	x	15	K	500	7,60
4	x	20	K	500	15,80
5	x	8	K	250	9,20
5	x	10	S	1000	8,30
5	x	10	K	250	9,60
5	x	12	S	1000	9,10
5	x	12	K	250	10,50
5	x	15	S	1000	9,70
5	x	15	K	250	10,80
5	x	18	K	250	11,10
5	x	20	K	250	11,70
5	x	25	K	250	12,30
6	x	8	K	250	11,80
6	x	10	K	250	12,10
6	x	12	K	250	13,20
6	x	15	K	250	14,40
6	x	20	K	250	15,70
6	x	25	K	250	17,00
6	x	30	K	250	19,40

DIN	01477.000	500

1477

Steel



Countersunk head grooved pins

Dimensions ➔ TI-120 REACH ➔ TI-262
Standard conversion ➔ TI-10

DIN 1477 ➔ replaced by ISO 8747 (compatible)

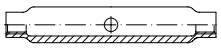
RoHS ✓

2	x	6	K	500	5,00
2	x	8	K	500	5,00
2	x	10	K	500	5,30
3	x	6	K	500	5,60
3	x	8	K	500	5,70
3	x	10	K	500	5,70
3	x	12	K	500	6,20
3	x	18	K	500	7,30
4	x	10	K	500	7,60
4	x	12	K	500	7,80
4	x	15	K	500	8,50
5	x	10	K	250	10,70
5	x	15	K	250	12,10
5	x	20	K	250	12,90
6	x	15	K	250	16,10
6	x	20	K	250	17,50

Dimensions | PU Pieces | €/100/Mat.

DIN 01478.010 510

1478 Steel zinc plated **SP**



Turnbuckles made from tubes, closed type

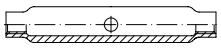
Dimensions ➔ TI-81 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

SP M 6	S	10	950,00 ZP
SP M 8	S	10	990,00 ZP
SP M 10	S	1	1260,00 ZP
SP M 12	S	1	1470,00 ZP
SP M 16	S	1	2130,00 ZP
SP M 20	S	1	3300,00 ZP
SP M 24	S	1	5100,00 ZP
SP M 30	S	1	5900,00 ZP
SP M 36	S	1	9400,00 ZP

DIN 01478.310 510

1478 Steel zinc plated **SP**



Turnbuckles made from tubes, closed type

steel = S235

Dimensions ➔ TI-81 Corrosion protection ➔ TI-228

Loadability ➔ TI-dimension pages

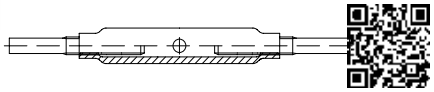
RoHS ✓ REACh SVHC free

SP M 6	S	10	1280,00 ZP
SP M 8	S	10	1330,00 ZP
SP M 10	S	1	1700,00 ZP
SP M 12	S	1	1980,00 ZP
SP M 16	S	1	2900,00 ZP
SP M 20	S	1	4450,00 ZP
SP M 24	S	1	6800,00 ZP
SP M 30	S	1	7900,00 ZP
SP M 36	S	1	12600,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 01478.014 510

1478 Steel zinc plated **SP-AE**



Turnbuckles made from tubes, closed type, AE = with 2 welding studs acc. to DIN 34828

Dimensions ➔ TI-81 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

SP-AE M 8	S	1	1310,00 ZP
SP-AE M 10	S	1	1670,00 ZP
SP-AE M 12	S	1	2070,00 ZP
SP-AE M 16	S	1	3300,00 ZP
SP-AE M 20	S	1	5100,00 ZP
SP-AE M 24	S	1	7800,00 ZP
SP-AE M 30	S	1	10800,00 ZP
SP-AE M 36	S	1	17200,00 ZP

DIN 01479.010 510

1479 Steel zinc plated



Hexagon turnbuckles

connection collars ➔ article 88087/88088

Dimensions ➔ TI-81 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Wrench sizes acc. to ISO for M 10, M 12, M 14, M 22 on request

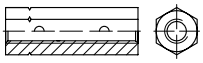
RoHS ✓

M 6	S	25	270,00 ZP
M 8	S	25	395,00 ZP
M 10	S	10	570,00 ZP
M 12	S	10	740,00 ZP
M 16	S	1	1660,00 ZP
M 20	S	1	2850,00 ZP
M 24	S	1	4400,00 ZP
M 30	S	1	6900,00 ZP
M 36	S	1	21000,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 01479.310 510

1479 Steel zinc plated



Hexagon turnbuckles

steel = S235

Dimensions ➔ TI-81 REACH ➔ TI-262
Corrosion protection ➔ TI-228

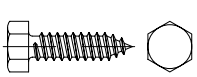
- Wrench sizes acc. to ISO for M10, M12, M14, M22 on request
- Loadability ➔ TI-dimension pages

RoHS ✓

M 6	S	25	365,00 ZP
M 8	S	25	540,00 ZP
M 10 s = 17	S	10	770,00 ZP
M 12 s = 19	S	10	1000,00 ZP
M 16	S	1	2240,00 ZP
M 20	S	1	3850,00 ZP
M 24	S	1	5900,00 ZP
M 30	S	1	9400,00 ZP

ISO 91479.013 660

1479 Steel, hard. zinc plated **type C**



Hexagon head tapping screws, C = with cone end

Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-11

Stainless ➔ pg. 518

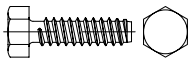
Type with collar = DIN 6928 on request

RoHS ✓ REACh SVHC free

C 2,9	x	6,5	S	2000	5,40 ZP
C 2,9	x	9,5	S	2000	5,00 ZP
C 2,9	x	13	S	2000	5,30 ZP
C 2,9	x	16	S	2000	6,30 ZP
C 2,9	x	19	S	2000	6,50 ZP
C 3,5	x	6,5	S	1000	5,80 ZP
C 3,5	x	9,5	S	1000	3,35 ZP
C 3,5	x	13	S	1000	3,95 ZP
C 3,5	x	16	S	1000	4,20 ZP
C 3,5	x	19	S	1000	4,60 ZP
C 3,5	x	22	S	1000	4,95 ZP
C 3,5	x	25	S	1000	5,20 ZP
C 3,9	x	6,5	S	1000	6,50 ZP
C 3,9	x	9,5	S	1000	5,00 ZP
C 3,9	x	13	S	1000	5,30 ZP
C 3,9	x	16	S	1000	6,80 ZP
C 3,9	x	19	S	1000	4,95 ZP
C 3,9	x	22	S	500	5,70 ZP
C 3,9	x	25	S	500	6,20 ZP
C 3,9	x	32	S	500	9,10 ZP

Dimensions			PU	Pieces	€/100/Mat.
C 4,2	x	9,5	S	1000	5,40 ZP
C 4,2	x	13	S	1000	5,70 ZP
C 4,2	x	16	S	1000	6,90 ZP
C 4,2	x	19	S	500	7,20 ZP
C 4,2	x	22	S	500	7,70 ZP
C 4,2	x	25	S	500	8,90 ZP
C 4,2	x	32	S	500	9,10 ZP
C 4,2	x	38	S	500	10,60 ZP
C 4,2	x	45	S	500	15,50 ZP
C 4,2	x	50	S	500	20,40 ZP
C 4,8	x	9,5	S	500	7,20 ZP
C 4,8	x	13	S	500	5,90 ZP
C 4,8	x	16	S	500	7,20 ZP
C 4,8	x	19	S	500	7,60 ZP
C 4,8	x	22	S	500	10,90 ZP
C 4,8	x	25	S	500	11,30 ZP
C 4,8	x	32	S	250	14,30 ZP
C 4,8	x	38	S	250	16,50 ZP
C 4,8	x	45	S	250	29,50 ZP
C 4,8	x	50	S	250	33,50 ZP
C 5,5	x	13	S	500	9,10 ZP
C 5,5	x	16	S	500	9,90 ZP
C 5,5	x	19	S	500	10,60 ZP
C 5,5	x	22	S	500	12,10 ZP
C 5,5	x	25	S	250	15,00 ZP
C 5,5	x	32	S	250	16,60 ZP
C 5,5	x	38	S	250	18,60 ZP
C 5,5	x	45	S	250	36,50 ZP
C 5,5	x	50	S	250	42,50 ZP
C 5,5	x	60	S	250	53,00 ZP
C 6,3	x	13	S	250	10,60 ZP
C 6,3	x	16	S	250	10,90 ZP
C 6,3	x	19	S	250	12,10 ZP
C 6,3	x	22	S	250	13,00 ZP
C 6,3	x	25	S	250	15,80 ZP
C 6,3	x	32	S	250	18,00 ZP
C 6,3	x	38	S	250	19,70 ZP
C 6,3	x	45	S	250	28,00 ZP
C 6,3	x	50	S	250	32,50 ZP
C 6,3	x	60	S	250	94,00 ZP
C 6,3	x	70	S	250	115,00 ZP
C 6,3	x	80	S	250	143,00 ZP
C 8	x	16	S	250	29,00 ZP
C 8	x	19	S	250	29,50 ZP
C 8	x	22	S	250	41,00 ZP
C 8	x	25	S	250	39,50 ZP
C 8	x	32	S	250	43,00 ZP
C 8	x	38	S	250	44,00 ZP
C 8	x	45	S	250	60,00 ZP
C 8	x	50	S	250	66,00 ZP
C 8	x	60	S	200	84,00 ZP
C 8	x	80	S	200	119,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	91479.015		660
1479	**Steel, hard. zinc plated**		**type F**



Hexagon head tapping screws, F = with flat end

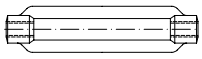
Dimensions → TI-46 Assembly → TI-251
Corrosion protection → TI-228 Standard conversion → TI-11

Type with collar = DIN 6928 on request

RoHS ✓ REACh SVHC free

4,2	x	9,5 -F	S	500	9,70 ZP
4,2	x	13 -F	S	500	10,00 ZP
4,2	x	16 -F	S	500	10,00 ZP
4,2	x	19 -F	S	500	10,00 ZP
4,2	x	25 -F	S	500	10,30 ZP
4,8	x	9,5 -F	S	500	9,70 ZP
4,8	x	13 -F	S	500	8,50 ZP
4,8	x	16 -F	S	500	9,70 ZP
4,8	x	19 -F	S	250	10,00 ZP
4,8	x	22 -F	S	250	10,20 ZP
4,8	x	25 -F	S	500	10,30 ZP
6,3	x	16 -F	S	250	15,40 ZP
6,3	x	19 -F	S	250	17,00 ZP
6,3	x	22 -F	S	250	20,40 ZP
6,3	x	25 -F	S	250	21,70 ZP

DIN	01480.010	510
1480	**Steel zinc plated**	**SP**



Turnbuckles, forged, open type

steel = S235JR

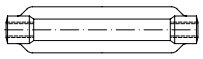
Dimensions → TI-82 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

internal thread (R/L) x overall length

SP M 10 / 125	S	1	660,00 ZP
SP M 12 / 125	S	1	760,00 ZP
SP M 16 / 170	S	1	1250,00 ZP
SP M 20 / 200	S	1	2130,00 ZP
SP M 24 / 255	S	1	3900,00 ZP

DIN	01480.310	510
1480	**Steel zinc plated**	**SP**



Turnbuckles, forged, open type

steel = S235JR

Dimensions → TI-82 Corrosion protection → TI-228

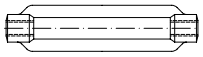
permissible load capacity → TI-dimension pages

RoHS ✓ REACh SVHC free

internal thread (R/L) x overall length

SP M 10 / 125	S	1	890,00 ZP
SP M 12 / 125	S	1	1020,00 ZP
SP M 16 / 170	S	1	1690,00 ZP
SP M 20 / 200	S	1	2900,00 ZP
SP M 24 / 255	S	1	5300,00 ZP

DIN	01480.020	510
1480	**Steel hot dip galvanized**	**SP**



Turnbuckles, forged, open type

steel = S235JR
thread tolerance 6H

Dimensions → TI-82 Corrosion protection → TI-231

RoHS ✓ REACh SVHC free

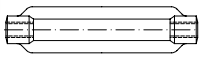
internal thread (R/L) x overall length

SP M 12 / 125	S	1	1510,00 HDG
SP M 16 / 170	S	1	2070,00 HDG
SP M 20 / 200	S	1	3550,00 HDG
SP M 24 / 255	S	1	6200,00 HDG

Dimensions | PU Pieces | €/100/Mat.

DIN 1480 | 01480.320 | 510

Steel hot dip galvanized — SP



Turnbuckles, forged, open type

steel = S235JR
thread tolerance 6H

Dimensions ➔ TI-82 Corrosion protection ➔ TI-231

permissible load capacity ➔ TI-dimension pages

RoHS ✓ | REACh SVHC free

internal thread (R/L) x overall length

SP M 12 / 125	S	1	2030,00 HDG
SP M 16 / 170	S	1	2800,00 HDG
SP M 20 / 200	S	1	4750,00 HDG
SP M 24 / 255	S	1	8400,00 HDG

DIN 1480 | 01480.014 | 510

Steel zinc plated — SP-AE



Turnbuckles, forged, open type, AE = with 2 welding studs acc. to DIN 34828

steel = S235JR

Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

Stainless ➔ pg. 518

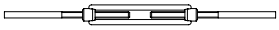
RoHS ✓ | REACh SVHC free

SP-AE M 6	S	1	780,00 ZP
SP-AE M 8	S	1	860,00 ZP
SP-AE M 10	S	1	1110,00 ZP
SP-AE M 12	S	1	1300,00 ZP
SP-AE M 14	S	1	1580,00 ZP
SP-AE M 16	S	1	2230,00 ZP
SP-AE M 20	S	1	3650,00 ZP
SP-AE M 22	S	1	4800,00 ZP
SP-AE M 24	S	1	6900,00 ZP
SP-AE M 27	S	1	8600,00 ZP
SP-AE M 30	S	1	9200,00 ZP
SP-AE M 36	S	1	17700,00 ZP
SP-AE M 42	S	1	28800,00 ZP
SP-AE M 48	S	1	45800,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 1480 | 01480.311 | 510

Steel zinc plated — SP-AE



Turnbuckles, forged, open type, AE = with 2 welding studs acc. to DIN 34828

steel = S235JR

Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

permissible load capacity ➔ TI-Dimension pages

RoHS ✓ | REACh SVHC free

SP-AE M 6	S	1	1050,00 ZP
SP-AE M 8	S	1	1160,00 ZP
SP-AE M 10	S	1	1490,00 ZP
SP-AE M 12	S	1	1750,00 ZP
SP-AE M 16	S	1	3050,00 ZP
SP-AE M 20	S	1	4950,00 ZP
SP-AE M 24	S	1	9400,00 ZP
SP-AE M 30	S	1	12500,00 ZP
SP-AE M 36	S	1	23900,00 ZP

DIN 1480 | 01480.016 | 510

Steel zinc plated — SP-RR



Turnbuckles, forged, open type, RR = with 2 eye bolts

steel = S235JR

Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

Stainless ➔ pg. 519

RoHS ✓ | REACh SVHC free

SP-RR M 6	S	1	960,00 ZP
SP-RR M 8	S	1	1060,00 ZP
SP-RR M 10	S	1	1310,00 ZP
SP-RR M 12	S	1	1550,00 ZP
SP-RR M 14	S	1	1800,00 ZP
SP-RR M 16	S	1	2460,00 ZP
SP-RR M 20	S	1	4200,00 ZP
SP-RR M 24	S	1	8300,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 1480 | 01480.015 | 510

Steel zinc plated — SP-RH



Turnbuckles, forged, open type, RH = with eye bolt and hook bolt

steel = S235JR

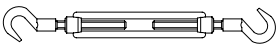
Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

SP-RH M 6	S	1	960,00 ZP
SP-RH M 8	S	1	1060,00 ZP
SP-RH M 10	S	1	1310,00 ZP
SP-RH M 12	S	1	1550,00 ZP
SP-RH M 14	S	1	1800,00 ZP
SP-RH M 16	S	1	2460,00 ZP
SP-RH M 20	S	1	4200,00 ZP
SP-RH M 24	S	1	8300,00 ZP

DIN 1480 | 01480.018 | 510

Steel zinc plated — SP-HH



Turnbuckles, forged, open type, HH = with 2 hook bolts

steel = S235JR

Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

SP HH M 6	S	1	960,00 ZP
SP HH M 8	S	1	1060,00 ZP
SP HH M 10	S	1	1310,00 ZP
SP HH M 12	S	1	1550,00 ZP
SP HH M 16	S	1	2460,00 ZP
SP HH M 20	S	1	4200,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	01480.301		510
1480	**Steel zinc plated**		**SP-BS**



Turnbuckles, forged, open type, BS = with 2 flat leaf screws

steel = S235JR

Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

SP BS M 12	S	1	2120,00 ZP
SP BS M 16	S	1	6700,00 ZP
SP BS M 20	S	1	11500,00 ZP
SP BS M 24	S	1	16400,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	01480.315		510
1480	**Steel zinc plated**		**SP-BS-S**



Turnbuckles, forged, open type, BS = with 2 flat leaf screws, S = heavy version

CE acc. EN 1090-2, DoP-No.:REY305_030

Dimensions ➔ TI-82 Corrosion protection ➔ TI-228

permissible load capacity ➔ TI dimension pages

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

SP BS-S M 12	S	1	3050,00 ZP
SP BS-S M 16	S	1	9100,00 ZP
SP BS-S M 20	S	1	15700,00 ZP
SP BS-S M 24	S	1	22400,00 ZP
SP BS-S M 27	S	1	32700,00 ZP
SP BS-S M 30	S	1	36200,00 ZP
SP BS-S M 36	S	1	67800,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	01480.325		510
1480	**Steel hot dip galvanized**		**SP-BS-S**



Turnbuckles, forged, open type, BS = with 2 flat leaf screws, S = heavy version

CE acc. EN 1090-2, DoP-No.:REY305_030

Dimensions ➔ TI-82 Corrosion protection ➔ TI-231

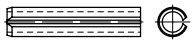
permissible load capacity ➔ TI dimension pages

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

SP BS-S M 12	S	1	3350,00 HDG
SP BS-S M 16	S	1	9900,00 HDG
SP BS-S M 20	S	1	17000,00 HDG
SP BS-S M 24	S	1	23100,00 HDG
SP BS-S M 27	S	1	35200,00 HDG
SP BS-S M 30	S	1	39000,00 HDG
SP BS-S M 36	S	1	71600,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
DIN	01481.000		520
1481	**Spring steel**		



Spring type straight pins (clamping sleeves), slotted, heavy duty

Dimensions ➔ TI-121 Standard conversion ➔ TI-10

Stainless ➔ pg. 519

DIN 1481 ➔ replaced by ISO 8752

RoHS ✓ REACh SVHC free

1	x	4	K	200	10,10
1	x	5	K	200	10,50
1	x	6	K	200	10,50
1	x	8	K	200	10,60
1	x	10	K	200	10,70
1	x	12	K	200	10,70
1	x	14	K	200	11,10
1	x	16	K	200	11,40
1	x	20	K	200	8,50
1,5	x	4	K	200	8,60
1,5	x	5	S	1000	7,80
1,5	x	5	K	200	8,60
1,5	x	6	S	1000	7,90
1,5	x	6	K	200	8,80
1,5	x	8	S	1000	8,30
1,5	x	8	K	200	9,10
1,5	x	10	S	1000	8,40
1,5	x	10	K	200	9,10
1,5	x	12	S	1000	8,40
1,5	x	12	K	200	9,20

Dimensions			PU	Pieces	€/100/Mat.
1,5	x	14	S	1000	8,50
1,5	x	14	K	200	9,40
1,5	x	16	K	200	9,60
1,5	x	18	K	200	10,50
1,5	x	20	K	200	10,70
2	x	4	S	1000	7,80
2	x	4	K	200	8,60
2	x	5	S	1000	8,40
2	x	5	K	200	9,20
2	x	6	S	1000	8,50
2	x	6	K	200	9,40
2	x	8	S	1000	8,80
2	x	8	K	200	9,50
2	x	10	S	1000	8,80
2	x	10	K	200	9,60
2	x	12	S	1000	8,80
2	x	12	K	200	9,60
2	x	14	S	1000	8,90
2	x	14	K	200	9,70
2	x	16	S	1000	8,90
2	x	16	K	200	9,90
2	x	18	S	1000	8,90
2	x	18	K	200	9,90
2	x	20	S	1000	9,90
2	x	20	K	200	10,60
2	x	22	K	200	10,80
2	x	24	S	1000	10,30
2	x	24	K	200	11,20
2	x	26	S	1000	10,80
2	x	26	K	200	11,70
2	x	28	K	200	12,40
2	x	30	S	1000	11,90
2	x	30	K	200	12,90
2,5	x	4	S	1000	8,80
2,5	x	4	K	200	9,60
2,5	x	5	S	1000	8,90
2,5	x	5	K	200	9,70
2,5	x	6	S	1000	9,00
2,5	x	6	K	200	9,90
2,5	x	8	S	1000	9,20
2,5	x	8	K	200	10,10
2,5	x	10	S	1000	9,50
2,5	x	10	K	200	10,30
2,5	x	12	S	1000	9,50
2,5	x	12	K	200	10,30
2,5	x	14	S	1000	9,60
2,5	x	14	K	200	10,50
2,5	x	16	S	1000	9,90
2,5	x	16	K	200	10,70
2,5	x	18	S	1000	10,00
2,5	x	18	K	200	10,70
2,5	x	20	S	1000	10,10
2,5	x	20	K	200	10,80
2,5	x	22	K	200	11,10
2,5	x	24	K	200	11,70
2,5	x	26	K	200	12,30
2,5	x	28	K	200	12,90
2,5	x	30	S	1000	13,00
2,5	x	30	K	200	13,70
3	x	4	K	200	7,80
3	x	5	S	1000	6,20
3	x	5	K	200	7,80
3	x	6	S	1000	6,50
3	x	6	K	200	8,20
3	x	8	S	1000	6,50
3	x	8	K	200	8,20
3	x	10	S	1000	6,60
3	x	10	K	200	8,30
3	x	12	S	1000	6,60
3	x	12	K	200	8,30
3	x	14	S	1000	6,70
3	x	14	K	200	8,40
3	x	16	S	1000	6,90
3	x	16	K	200	8,60
3	x	18	S	1000	7,20

Dimensions	PU	Pieces	€/100/Mat.
3 x 18	K	200	8,80
3 x 20	S	1000	7,40
3 x 20	K	200	9,10
3 x 22	S	1000	5,90
3 x 22	K	200	7,60
3 x 24	S	1000	7,70
3 x 24	K	200	9,40
3 x 26	S	1000	7,80
3 x 26	K	200	9,50
3 x 28	S	1000	8,40
3 x 28	K	200	10,10
3 x 30	S	1000	8,80
3 x 30	K	200	10,50
3 x 32	S	1000	9,10
3 x 32	K	100	12,50
3 x 36	S	1000	10,30
3 x 36	K	100	13,70
3 x 40	S	1000	11,10
3 x 40	K	100	14,30
3 x 50	S	1000	14,20
3 x 50	K	100	17,50
3,5 x 4	K	200	9,10
3,5 x 5	K	200	9,10
3,5 x 6	K	200	9,20
3,5 x 8	K	200	9,50
3,5 x 10	K	200	9,50
3,5 x 12	K	200	9,70
3,5 x 14	K	200	10,10
3,5 x 16	S	1000	8,60
3,5 x 16	K	200	10,10
3,5 x 18	K	200	10,30
3,5 x 20	S	1000	9,10
3,5 x 20	K	200	10,60
3,5 x 22	K	200	10,60
3,5 x 24	K	200	10,70
3,5 x 26	K	200	11,40
3,5 x 28	K	200	12,10
3,5 x 30	K	200	12,60
3,5 x 32	K	100	14,40
3,5 x 36	K	100	14,80
3,5 x 40	K	100	16,10
4 x 4	S	500	7,60
4 x 4	K	200	8,90
4 x 5	K	200	9,10
4 x 6	S	500	7,80
4 x 6	K	200	9,20
4 x 8	S	500	7,90
4 x 8	K	200	8,80
4 x 10	S	500	8,20
4 x 10	K	200	9,40
4 x 12	S	500	8,30
4 x 12	K	200	9,60
4 x 14	S	500	8,50
4 x 14	K	200	9,90
4 x 16	S	500	8,60
4 x 16	K	200	10,10
4 x 18	S	500	8,80
4 x 18	K	200	10,10
4 x 20	S	500	8,90
4 x 20	K	200	10,20
4 x 22	S	500	9,20
4 x 22	K	200	10,60
4 x 24	S	500	9,40
4 x 24	K	200	10,70
4 x 26	S	500	9,50
4 x 26	K	200	10,80
4 x 28	S	500	10,20
4 x 28	K	200	11,50
4 x 30	S	500	10,80
4 x 30	K	200	11,90
4 x 32	S	500	11,30
4 x 32	K	200	12,50
4 x 36	S	500	11,80
4 x 36	K	200	13,10
4 x 40	S	500	12,90

Dimensions	PU	Pieces	€/100/Mat.
4 x 40	K	200	14,30
4 x 45	S	500	15,00
4 x 45	K	100	16,40
4 x 50	S	500	15,40
4 x 50	K	100	17,70
4 x 55	S	500	22,30
4 x 55	K	100	24,70
4 x 60	S	500	22,20
4 x 60	K	100	24,50
4,5 x 10	K	100	11,80
4,5 x 12	K	100	12,40
4,5 x 20	S	500	12,10
4,5 x 20	K	100	14,40
4,5 x 22	K	100	14,70
4,5 x 24	K	100	15,30
4,5 x 26	K	100	15,80
4,5 x 28	K	100	16,40
4,5 x 30	S	500	14,40
4,5 x 30	K	100	16,70
4,5 x 32	K	100	17,20
4,5 x 36	K	100	18,30
4,5 x 40	S	500	17,00
4,5 x 40	K	100	19,30
4,5 x 45	K	100	20,70
4,5 x 50	K	100	22,00
5 x 5	K	100	11,70
5 x 6	S	500	9,50
5 x 6	K	100	11,80
5 x 8	S	500	9,50
5 x 8	K	100	11,80
5 x 10	S	500	9,50
5 x 10	K	100	11,80
5 x 12	S	500	10,10
5 x 12	K	100	12,40
5 x 14	S	500	10,50
5 x 14	K	100	12,80
5 x 16	S	500	11,10
5 x 16	K	100	13,40
5 x 18	S	500	11,70
5 x 18	K	100	14,10
5 x 20	S	500	11,90
5 x 20	K	100	14,30
5 x 22	S	500	12,90
5 x 22	K	100	15,30
5 x 24	S	500	12,90
5 x 24	K	100	15,30
5 x 26	S	500	13,50
5 x 26	K	100	15,80
5 x 28	S	500	14,10
5 x 28	K	100	16,40
5 x 30	S	500	14,40
5 x 30	K	100	16,70
5 x 32	S	500	14,80
5 x 32	K	100	18,40
5 x 36	S	500	16,00
5 x 36	K	100	18,30
5 x 40	S	500	17,00
5 x 40	K	100	19,30
5 x 45	S	500	18,40
5 x 45	K	100	20,70
5 x 50	S	250	19,40
5 x 50	K	100	22,00
5 x 55	K	100	24,50
5 x 60	S	250	23,90
5 x 60	K	100	26,50
5 x 65	K	100	28,50
5 x 70	S	250	29,00
5 x 70	K	100	31,50
5 x 75	K	100	34,50
5 x 80	K	100	38,50
6 x 10	S	500	11,20
6 x 10	K	100	13,50
6 x 12	S	500	11,40
6 x 12	K	100	13,70
6 x 14	S	500	11,70

Dimensions	PU	Pieces	€/100/Mat.
6 x 14	K	100	14,10
6 x 16	S	500	12,50
6 x 16	K	100	14,80
6 x 18	S	500	13,20
6 x 18	K	100	15,70
6 x 20	S	500	14,30
6 x 20	K	100	16,70
6 x 22	S	500	15,30
6 x 22	K	100	17,60
6 x 24	S	500	16,10
6 x 24	K	100	18,60
6 x 26	S	500	17,40
6 x 26	K	100	19,70
6 x 28	S	500	18,40
6 x 28	K	100	20,70
6 x 30	K	100	21,70
6 x 32	S	500	20,50
6 x 32	K	100	22,90
6 x 36	S	500	21,60
6 x 36	K	100	24,10
6 x 40	S	250	22,90
6 x 40	K	100	25,50
6 x 45	S	250	26,00
6 x 45	K	100	28,50
6 x 50	S	250	27,50
6 x 50	K	100	30,50
6 x 55	S	250	30,00
6 x 55	K	100	33,00
6 x 60	S	250	33,00
6 x 60	K	100	36,00
6 x 65	K	100	38,50
6 x 70	S	250	39,00
6 x 70	K	100	42,00
6 x 75	K	100	44,50
6 x 80	S	250	45,50
6 x 80	K	100	48,00
6 x 85	K	100	54,00
6 x 90	K	50	63,00
6 x 100	K	50	73,00
7 x 10	K	100	21,00
7 x 16	K	100	21,50
7 x 20	K	100	23,90
7 x 24	K	100	27,00
7 x 30	K	100	33,00
7 x 32	K	100	34,50
7 x 36	K	100	37,00
7 x 40	K	100	39,50
7 x 45	K	100	42,50
7 x 50	K	100	46,00
7 x 55	K	100	52,00
7 x 60	K	50	60,00
7 x 65	K	50	66,00
7 x 70	K	50	69,00
7 x 75	K	50	79,00
7 x 80	K	50	88,00
7 x 90	K	50	96,00
7 x 100	K	50	111,00
9 x 40	K	100	59,00
9 x 50	K	100	74,00
9 x 60	K	50	88,00
9 x 70	K	50	106,00
9 x 80	K	50	118,00
9 x 90	K	50	134,00
10 x 10	K	100	77,00
10 x 12	K	100	77,00
10 x 14	S	500	27,00
10 x 14	K	100	29,50
10 x 16	S	500	27,00
10 x 16	K	100	29,50
10 x 18	K	100	34,50
10 x 20	S	500	31,50
10 x 20	K	100	34,50
10 x 22	K	100	37,00
10 x 24	S	500	37,00
10 x 24	K	100	39,50

€/100 = price in € plus VAT when ordering full package unit

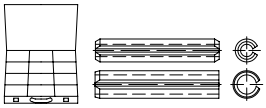
Dimensions	PU	Pieces	€/100/Mat.
10 x 26	S	500	39,00
10 x 26	K	100	42,00
10 x 28	S	500	41,50
10 x 28	K	100	44,50
10 x 30	S	500	44,50
10 x 30	K	100	47,00
10 x 32	S	500	49,50
10 x 32	K	100	52,00
10 x 36	S	250	53,00
10 x 36	K	100	56,00
10 x 40	S	250	57,00
10 x 40	K	100	59,00
10 x 45	S	250	63,00
10 x 45	K	100	66,00
10 x 50	S	250	69,00
10 x 50	K	100	73,00
10 x 55	S	250	76,00
10 x 55	K	100	77,00
10 x 60	S	200	84,00
10 x 60	K	50	88,00
10 x 65	S	200	94,00
10 x 65	K	50	97,00
10 x 70	S	100	101,00
10 x 70	K	50	106,00
10 x 75	S	100	107,00
10 x 75	K	50	112,00
10 x 80	S	100	113,00
10 x 80	K	50	118,00
10 x 85	S	100	119,00
10 x 85	K	50	124,00
10 x 90	S	100	128,00
10 x 90	K	50	134,00
10 x 95	K	50	141,00
10 x 100	S	100	144,00
10 x 100	K	50	151,00
10 x 110	K	50	590,00
10 x 120	S	50	590,00
10 x 120	K	25	590,00
10 x 140	S	50	750,00
10 x 140	K	25	760,00
10 x 160	S	50	810,00
10 x 160	K	25	820,00
12 x 10	S	25	310,00
12 x 12	S	25	300,00
12 x 14	S	25	290,00
12 x 16	S	25	280,00
12 x 18	S	25	270,00
12 x 20	S	25	144,00
12 x 22	S	25	148,00
12 x 24	S	25	153,00
12 x 26	S	25	155,00
12 x 28	S	25	160,00
12 x 30	S	25	153,00
12 x 32	S	25	180,00
12 x 36	S	25	170,00
12 x 40	S	25	176,00
12 x 45	S	25	181,00
12 x 50	S	25	184,00
12 x 55	S	25	193,00
12 x 60	S	25	200,00
12 x 65	S	25	212,00
12 x 70	S	25	220,00
12 x 75	S	25	229,00
12 x 80	S	25	234,00
12 x 85	S	25	330,00
12 x 90	S	25	415,00
12 x 95	S	25	485,00
12 x 100	S	25	570,00
12 x 120	S	10	720,00
12 x 130	S	10	840,00
12 x 140	S	10	840,00
12 x 160	S	10	960,00
12 x 180	S	10	1070,00
13 x 20	S	25	153,00
13 x 24	S	25	160,00
13 x 26	S	25	165,00
13 x 28	S	25	166,00
13 x 30	S	25	174,00
13 x 32	S	25	176,00
13 x 36	S	25	181,00
13 x 40	S	25	184,00
13 x 45	S	25	187,00
13 x 50	S	25	193,00
13 x 55	S	25	200,00
13 x 60	S	25	207,00
13 x 65	S	25	220,00
13 x 70	S	25	229,00
13 x 75	S	25	236,00
13 x 80	S	25	275,00
13 x 85	S	25	360,00
13 x 90	S	25	455,00
13 x 95	S	25	540,00
13 x 100	S	10	620,00
13 x 120	S	10	850,00
13 x 130	S	10	990,00
13 x 140	S	10	990,00
13 x 160	S	10	1140,00
13 x 180	S	10	1320,00
14 x 12	S	25	315,00
14 x 18	S	25	295,00
14 x 20	S	25	183,00
14 x 24	S	25	190,00
14 x 28	S	25	201,00
14 x 30	S	25	205,00
14 x 32	S	25	207,00
14 x 36	S	25	212,00
14 x 40	S	25	215,00
14 x 45	S	25	220,00
14 x 50	S	25	226,00
14 x 55	S	25	230,00
14 x 60	S	25	236,00
14 x 65	S	25	255,00
14 x 70	S	25	260,00
14 x 75	S	25	265,00
14 x 80	S	25	285,00
14 x 85	S	25	460,00
14 x 90	S	25	540,00
14 x 100	S	10	720,00
14 x 120	S	10	940,00
14 x 140	S	10	1110,00
14 x 160	S	10	1250,00
14 x 200	S	10	1470,00
16 x 10	S	25	360,00
16 x 16	S	25	315,00
16 x 18	S	25	310,00
16 x 20	S	25	210,00
16 x 22	S	25	213,00
16 x 24	S	25	217,00
16 x 26	S	25	222,00
16 x 28	S	25	224,00
16 x 30	S	25	232,00
16 x 32	S	25	235,00
16 x 36	S	25	240,00
16 x 40	S	25	244,00
16 x 45	S	25	246,00
16 x 50	S	25	255,00
16 x 55	S	25	255,00
16 x 60	S	25	265,00
16 x 65	S	25	275,00
16 x 70	S	25	305,00
16 x 75	S	25	330,00
16 x 80	S	25	345,00
16 x 85	S	25	510,00
16 x 90	S	25	600,00
16 x 100	S	10	760,00
16 x 110	S	10	1020,00
16 x 120	S	10	1020,00
16 x 130	S	10	1180,00
16 x 140	S	10	1180,00
16 x 150	S	10	1360,00
16 x 160	S	10	1360,00
16 x 180	S	10	1530,00
16 x 200	S	10	1700,00
18 x 24	S	25	229,00
18 x 30	S	25	240,00
18 x 36	S	25	246,00
18 x 40	S	25	250,00
18 x 45	S	25	255,00
18 x 50	S	25	260,00
18 x 55	S	25	275,00
18 x 60	S	25	300,00
18 x 65	S	25	335,00
18 x 70	S	25	360,00
18 x 75	S	25	390,00
18 x 80	S	25	415,00
18 x 90	S	10	650,00
18 x 100	S	10	820,00
18 x 120	S	10	1150,00
18 x 140	S	10	1360,00
18 x 160	S	10	1540,00
20 x 20	S	25	246,00
20 x 30	S	25	295,00
20 x 32	S	25	300,00
20 x 36	S	25	310,00
20 x 40	S	25	330,00
20 x 45	S	25	360,00
20 x 50	S	25	380,00
20 x 55	S	25	410,00
20 x 60	S	25	425,00
20 x 65	S	25	455,00
20 x 70	S	25	480,00
20 x 75	S	25	510,00
20 x 80	S	25	540,00
20 x 85	S	10	660,00
20 x 90	S	10	740,00
20 x 100	S	10	910,00
20 x 120	S	10	1320,00
20 x 130	S	10	1540,00
20 x 140	S	10	1540,00
20 x 160	S	10	1760,00
20 x 180	S	10	2290,00
20 x 200	S	10	2850,00
21 x 16	S	25	680,00
21 x 20	S	25	370,00
21 x 24	S	25	410,00
21 x 26	S	25	420,00
21 x 30	S	25	455,00
21 x 32	S	25	460,00
21 x 36	S	25	485,00
21 x 40	S	25	520,00
21 x 45	S	25	530,00
21 x 50	S	25	560,00
21 x 55	S	25	590,00
21 x 60	S	25	610,00
21 x 65	S	10	650,00
21 x 70	S	10	670,00
21 x 75	S	10	690,00
21 x 80	S	10	730,00
21 x 85	S	10	790,00
21 x 90	S	10	880,00
21 x 95	S	10	960,00
21 x 100	S	10	970,00
21 x 120	S	10	1360,00
21 x 130	S	10	2400,00
21 x 140	S	10	1540,00
21 x 200	S	10	3200,00
25 x 32	S	10	1180,00
25 x 36	S	10	1200,00
25 x 40	S	10	1210,00
25 x 50	S	10	1280,00
25 x 55	S	10	1300,00
25 x 60	S	10	1320,00
25 x 65	S	10	1360,00
25 x 70	S	10	1410,00
25 x 80	S	10	1480,00

DIN 1481

Dimensions			PU	Pieces	€/100/Mat.
25	x	85	S	10	1670,00
25	x	90	S	10	1890,00
25	x	100	S	10	2270,00
25	x	120	S	1	2550,00
25	x	140	S	1	2800,00
25	x	160	S	1	3050,00
25	x	200	S	1	4150,00
28	x	26	S	10	1260,00
28	x	28	S	10	1380,00
28	x	30	S	10	1340,00
28	x	32	S	10	1360,00
28	x	36	S	10	1410,00
28	x	40	S	10	1430,00
28	x	45	S	10	1480,00
28	x	50	S	10	1530,00
28	x	55	S	10	1570,00
28	x	60	S	10	1630,00
28	x	65	S	10	1750,00
28	x	70	S	10	1870,00
28	x	75	S	10	1990,00
28	x	80	S	10	2110,00
28	x	90	S	10	2650,00
28	x	100	S	1	3250,00
28	x	120	S	1	3600,00
28	x	140	S	1	3950,00
28	x	160	S	1	4300,00
28	x	200	S	1	5700,00
30	x	30	S	10	1510,00
30	x	32	S	10	1520,00
30	x	36	S	10	1580,00
30	x	40	S	10	1640,00
30	x	50	S	10	1770,00
30	x	60	S	10	2040,00
30	x	65	S	10	2060,00
30	x	70	S	10	2220,00
30	x	80	S	10	2550,00
30	x	90	S	1	3100,00
30	x	100	S	1	3700,00
30	x	120	S	1	4300,00
30	x	140	S	1	4950,00
30	x	160	S	1	5600,00
30	x	180	S	1	6300,00
30	x	200	S	1	6900,00
35	x	50	S	1	2070,00
35	x	60	S	1	2270,00
35	x	80	S	1	3900,00
35	x	90	S	1	4400,00
35	x	100	S	1	4850,00
40	x	50	S	1	2400,00
40	x	55	S	1	2650,00
40	x	60	S	1	2650,00
40	x	70	S	1	2950,00
40	x	80	S	1	3250,00
40	x	90	S	1	3600,00
40	x	100	S	1	3950,00

Dimensions	PU Pieces	€/100/Mat.
article	82481.000	5001

82481 assortment spring steel DIN 1481



Spring type straight pin assortment DIN 1481

Content: 12 frequently used dimensions
of 1,5 x 10 – 8 x 80, approx. 710 pieces (metal box)

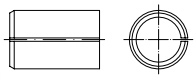
Your own selection on request

RoHS ✓ | REACh SVHC free

DIN 1481	S	1	8900,00

DIN	01498.004	520

1498 Spring steel type EG



Tension bush for internal application, EG = without inner chamfer, with straight slot

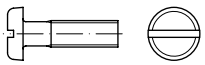
Dimensions ➔ TI-120

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inside ∅ x outside ∅ x length					
EG 16/20	x	20	S	1	5900,00
EG 20/26	x	20	S	1	5900,00
EG 25/32	x	20	S	1	5900,00
EG 25/32	x	28	S	1	5900,00
EG 25/32	x	30	S	1	5900,00
EG 28/35	x	25	S	1	5900,00
EG 30/38	x	25	S	1	6000,00
EG 40/50	x	25	S	1	6000,00
EG 40/50	x	30	S	1	6100,00
EG 40/50	x	40	S	1	6100,00
EG 50/60	x	50	S	1	6400,00

Dimensions	PU Pieces	€/100/Mat.
ISO	01580.400	30

1580 4.8



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 520
Brass, Plastic ➔ pg. 633

ISO 1580 ➔ replaces DIN 85 (compatible)

RoHS ✓

M 3	x	5	S	2000	6,20
M 3	x	6	S	2000	3,25
M 3	x	8	S	2000	1,40
M 3	x	10	S	2000	1,90
M 3	x	12	S	2000	2,15
M 3	x	16	S	2000	2,30
M 3	x	25	S	2000	3,35
M 4	x	6	S	2000	4,95
M 4	x	8	S	2000	2,40
M 4	x	10	S	2000	2,45
M 4	x	12	S	2000	2,50
M 4	x	16	S	2000	2,85
M 4	x	20	S	2000	3,30
M 4	x	25	S	1000	4,80
M 4	x	30	S	1000	5,30
M 4	x	35	S	1000	6,60
M 4	x	40	S	1000	7,20
M 5	x	8	S	2000	3,65
M 5	x	10	S	2000	3,70
M 5	x	12	S	1000	3,90
M 5	x	16	S	1000	4,45
M 5	x	20	S	1000	4,85
M 5	x	35	S	500	11,30
M 5	x	40	S	500	10,60
M 5	x	50	S	500	11,90
M 6	x	8	S	1000	13,20
M 6	x	10	S	1000	5,60
M 6	x	12	S	1000	5,80
M 6	x	16	S	1000	6,50
M 6	x	20	S	1000	9,80
M 6	x	25	S	500	8,00
M 6	x	30	S	500	8,90
M 6	x	35	S	500	10,00
M 6	x	50	S	200	22,30

RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

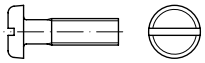
RKP® REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions	PU Pieces	€/100/Mat.
ISO	01580.410	30

1580 **4.8 zinc plated**



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-232
Corrosion protection ➔ TI-228

Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 520
Brass, Plastic ➔ pg. 633

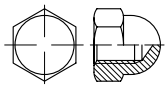
ISO 1580 ➔ replaces DIN 85 (compatible)

RoHS ✓

M 3	x	4	S	2000	7,20 ZP
M 3	x	4	K	200	10,20 ZP
M 3	x	5	S	2000	6,80 ZP
M 3	x	5	K	200	9,70 ZP
M 3	x	6	S	2000	3,15 ZP
M 3	x	6	K	200	6,50 ZP
M 3	x	8	S	2000	1,55 ZP
M 3	x	8	K	200	4,55 ZP
M 3	x	10	S	2000	1,70 ZP
M 3	x	10	K	200	5,00 ZP
M 3	x	12	S	2000	1,95 ZP
M 3	x	12	K	200	5,30 ZP
M 3	x	16	S	2000	2,15 ZP
M 3	x	16	K	200	5,40 ZP
M 3	x	20	S	2000	2,90 ZP
M 3	x	20	K	200	6,30 ZP
M 3	x	25	S	2000	3,35 ZP
M 3	x	25	K	200	6,70 ZP
M 3	x	30	K	200	7,70 ZP
M 3	x	35	K	200	9,10 ZP
M 3	x	40	K	200	9,90 ZP
M 3	x	45	K	200	13,70 ZP
M 3	x	50	K	200	15,50 ZP
M 3	x	60	K	200	19,30 ZP
M 4	x	5	S	2000	10,50 ZP
M 4	x	5	K	200	14,00 ZP
M 4	x	6	S	2000	4,85 ZP
M 4	x	6	K	200	8,40 ZP
M 4	x	8	S	2000	2,50 ZP
M 4	x	8	K	200	5,50 ZP
M 4	x	10	S	2000	2,60 ZP
M 4	x	10	K	200	5,60 ZP
M 4	x	12	S	2000	2,70 ZP
M 4	x	12	K	200	5,70 ZP
M 4	x	16	S	2000	3,15 ZP
M 4	x	16	K	200	6,20 ZP
M 4	x	20	S	2000	3,45 ZP
M 4	x	20	K	200	6,70 ZP
M 4	x	25	S	1000	4,20 ZP
M 4	x	25	K	200	8,30 ZP
M 4	x	30	S	1000	5,40 ZP
M 4	x	30	K	200	8,80 ZP
M 4	x	35	K	200	9,90 ZP
M 4	x	40	K	200	10,30 ZP
M 4	x	45	K	200	13,60 ZP
M 4	x	50	K	200	14,30 ZP
M 4	x	60	K	200	19,30 ZP
M 5	x	6	S	2000	12,80 ZP
M 5	x	6	K	200	17,70 ZP
M 5	x	8	S	2000	3,90 ZP
M 5	x	8	K	200	6,90 ZP
M 5	x	10	S	2000	4,10 ZP
M 5	x	10	K	200	7,10 ZP
M 5	x	12	S	1000	4,20 ZP
M 5	x	12	K	200	7,30 ZP
M 5	x	16	S	1000	4,85 ZP
M 5	x	16	K	200	7,90 ZP
M 5	x	20	S	1000	5,30 ZP
M 5	x	20	K	200	8,40 ZP
M 5	x	25	S	1000	5,80 ZP
M 5	x	25	K	200	8,80 ZP
M 5	x	30	S	1000	6,90 ZP
M 5	x	30	K	200	9,90 ZP
M 5	x	35	S	2000	8,00 ZP
M 5	x	35	K	200	10,90 ZP
M 5	x	40	S	2000	10,50 ZP
M 5	x	40	K	200	13,50 ZP
M 5	x	45	S	500	11,60 ZP
M 5	x	45	K	200	14,60 ZP
M 5	x	50	K	200	16,10 ZP
M 5	x	60	K	200	22,00 ZP
M 6	x	8	S	1000	14,10 ZP
M 6	x	8	K	200	17,60 ZP
M 6	x	10	S	1000	6,10 ZP
M 6	x	10	K	200	9,10 ZP
M 6	x	12	S	1000	6,30 ZP
M 6	x	12	K	200	9,40 ZP
M 6	x	16	S	1000	6,90 ZP
M 6	x	16	K	200	10,10 ZP
M 6	x	20	S	1000	7,80 ZP
M 6	x	20	K	200	10,70 ZP
M 6	x	25	S	500	8,80 ZP
M 6	x	25	K	200	11,80 ZP
M 6	x	30	S	500	9,60 ZP
M 6	x	30	K	200	12,80 ZP
M 6	x	35	K	200	14,00 ZP
M 6	x	40	K	200	17,40 ZP
M 6	x	45	K	200	19,30 ZP
M 6	x	50	K	200	21,00 ZP
M 6	x	55	K	100	34,00 ZP
M 6	x	60	K	100	36,00 ZP
M 8	x	10	K	100	44,00 ZP
M 8	x	12	K	100	22,40 ZP
M 8	x	16	K	100	23,30 ZP
M 8	x	20	K	100	24,50 ZP
M 8	x	25	K	100	27,50 ZP
M 8	x	30	K	100	28,00 ZP
M 8	x	40	K	100	28,50 ZP
M 8	x	50	K	100	39,50 ZP

DIN	01587.300	530

1587 **6**



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63
Material properties ➔ TI-233

REACH ➔ TI-262

Stainless ➔ pg. 521
Brass, Plastic ➔ pg. 633

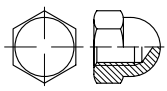
RoHS ✓

SW = wrench size

M 3			S	1000	17,00
M 3			K	100	22,40
M 4			S	1000	17,00
M 4			K	100	22,40
M 5			S	1000	18,30
M 5			K	100	23,90
M 6			S	1000	25,50
M 6			K	100	31,00
M 8			S	500	42,00
M 8			K	100	48,50
M 10	s = 17		S	500	66,00
M 10	s = 17		K	100	74,00
M 12	s = 19		S	200	120,00
M 12	s = 19		K	50	135,00
M 14	s = 22		S	50	194,00
M 16			S	50	206,00
M 18			S	25	335,00
M 20			S	25	345,00
M 22	s = 32		S	10	650,00
M 24			S	10	690,00
M 30			S	10	2320,00

DIN	01587.310	530

1587 **6 zinc plated**



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63
Material properties ➔ TI-233

Corrosion protection ➔ TI-228
REACH ➔ TI-262

Stainless ➔ pg. 521
Brass, Plastic ➔ pg. 633

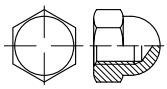
RoHS ✓

SW = wrench size

M 3			S	100	22,70 ZP
M 4			S	1000	17,40 ZP
M 4			K	100	23,00 ZP
M 5			S	1000	19,20 ZP
M 5			K	100	24,60 ZP
M 6			S	1000	26,50 ZP
M 6			K	100	33,00 ZP
M 8			S	500	45,50 ZP
M 8			K	100	53,00 ZP
M 10	s = 17		S	500	73,00 ZP
M 10	s = 17		K	100	82,00 ZP
M 12	s = 19		S	200	130,00 ZP
M 12	s = 19		K	50	144,00 ZP
M 14	s = 22		S	50	207,00 ZP
M 16			S	25	224,00 ZP
M 18			S	25	370,00 ZP
M 20			S	25	385,00 ZP
M 24			S	10	770,00 ZP
M 30			S	10	2450,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	01587.330	530

1587 6 chrome plated



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63 REACH ➔ TI-262
Material properties ➔ TI-233

Stainless ➔ pg. 521
Brass, Plastic ➔ pg. 633

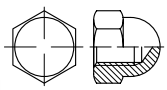
RoHS ✓

SW = wrench size

M 3	S	100	43,00 Cr
M 4	S	100	41,50 Cr
M 5	S	100	47,00 Cr
M 6	S	100	57,00 Cr
M 8	S	50	95,00 Cr
M 10 s = 17	S	50	166,00 Cr
M 12 s = 19	S	25	265,00 Cr
M 16	S	25	420,00 Cr
M 20	S	10	780,00 Cr

DIN	01587.305	530

1587 6 fine



Hexagon domed cap nuts, high type, with metric fine pitch thread

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63 REACH ➔ TI-262
Material properties ➔ TI-233

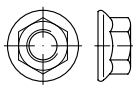
RoHS ✓

SW = wrench size

M 8	x 1	S	100	57,00
M 10	x 1 s = 17	S	100	86,00
M 12	x 1,5 s = 19	S	50	158,00
M 14	x 1,5 s = 22	S	25	246,00
M 16	x 1,5	S	25	265,00
M 18	x 1,5	S	25	395,00
M 20	x 1,5	S	25	420,00
M 24	x 2	S	10	820,00

Dimensions	PU Pieces	€/100/Mat.
EN	01661.800	615

1661 8



Hexagon flange nuts

Dimensions ➔ TI-64 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7

Stainless ➔ pg. 521

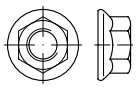
EN 1661 ➔ replaces DIN 6923

RoHS ✓ REACh SVHC free

M 4	S	1000	9,10
M 5	S	1000	10,30
M 6	S	1000	13,40
M 8	S	1000	19,40
M 10	S	500	36,50
M 12	S	250	51,00
M 16	S	50	158,00
M 20	S	50	270,00

EN	01661.810	615

1661 8 zinc plated



Hexagon flange nuts

Dimensions ➔ TI-64 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7
Corrosion protection ➔ TI-228

Stainless ➔ pg. 521

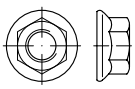
EN 1661 ➔ replaces DIN 6923

RoHS ✓ REACh SVHC free

M 4	S	1000	12,50 ZP
M 5	S	1000	14,30 ZP
M 6	S	1000	15,80 ZP
M 8	S	1000	22,70 ZP
M 10	S	500	41,50 ZP
M 12	S	250	57,00 ZP
M 16	S	50	177,00 ZP
M 20	S	50	295,00 ZP

Dimensions	PU Pieces	€/100/Mat.
EN	01661.100	615

1661 10



Hexagon flange nuts

Dimensions ➔ TI-64 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7

Stainless ➔ pg. 521

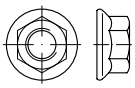
EN 1661 ➔ replaces DIN 6923

RoHS ✓ REACh SVHC free

M 5	S	1000	11,50
M 6	S	1000	16,40
M 8	S	1000	36,00
M 10	S	500	60,00
M 12	S	250	92,00
M 16	S	50	218,00
M 20	S	50	485,00

EN	01661.110	615

1661 10 zinc plated



Hexagon flange nuts

Dimensions ➔ TI-64 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7
Corrosion protection ➔ TI-228

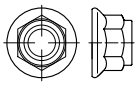
Stainless ➔ pg. 521

EN 1661 ➔ replaces DIN 6923

RoHS ✓ REACh SVHC free

M 5	S	1000	13,40 ZP
M 6	S	1000	18,20 ZP
M 8	S	1000	39,00 ZP
M 10	S	500	66,00 ZP
M 12	S	250	100,00 ZP
M 16	S	50	230,00 ZP
M 20	S	50	530,00 ZP

Dimensions	PU Pieces	€/100/Mat.
EN	01663.810	615
1663	**8** **zinc plated**	



Prevailing torque type hexagon nuts with flange, with non metallic insert

for use under temperature from -50 to +120 °C

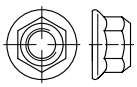
Dimensions ➔ TI-69
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

EN 1663 ➔ replaces DIN 6926

REACh SVHC free

M 5	S	100	14,60 ZP
M 6	S	100	18,10 ZP
M 8	S	100	22,20 ZP
M 16	S	100	84,00 ZP

EN	01664.810	615
1664	**8** **zinc plated**	



Prevailing torque type hexagon nuts with flange (all-metal nuts)

Dimensions ➔ TI-69
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

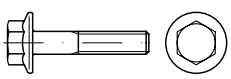
EN 1664 ➔ replaces DIN 6927

RoHS ✓

REACh SVHC free

M 5	S	100	14,60 ZP
M 6	S	100	18,10 ZP
M 8	S	100	22,20 ZP
M 10	S	100	26,00 ZP
M 12	S	100	36,50 ZP
M 16	S	100	84,00 ZP

Dimensions	PU Pieces	€/100/Mat.
EN	01665.800	615
1665	**8.8**	



Hexagon flange bolts, heavy series

Dimensions ➔ TI-17
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 521

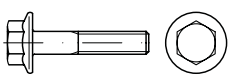
EN 1665 ➔ replaces DIN 6921

RoHS ✓

REACh SVHC free

M 6	x	12	S	500	28,00
M 6	x	16	S	500	18,80
M 6	x	20	S	500	18,10
M 6	x	25	S	500	18,10
M 6	x	30	S	500	20,30
M 8	x	12	S	200	57,00
M 8	x	16	S	200	51,00
M 8	x	20	S	200	36,00
M 8	x	25	S	200	36,50
M 8	x	30	S	200	39,50
M 8	x	35	S	200	43,00
M 8	x	40	S	200	46,00
M 8	x	50	S	200	53,00
M 10	x	16	S	200	83,00
M 10	x	20	S	200	51,00
M 10	x	25	S	200	54,00
M 10	x	30	S	200	57,00
M 10	x	35	S	100	63,00
M 10	x	40	S	100	68,00
M 10	x	45	S	100	76,00
M 10	x	50	S	100	80,00
M 10	x	60	S	100	89,00
M 12	x	20	S	100	153,00
M 12	x	25	S	100	142,00
M 12	x	30	S	100	153,00
M 12	x	35	S	100	167,00
M 12	x	40	S	100	174,00
M 12	x	45	S	100	190,00
M 12	x	50	S	100	201,00
M 12	x	60	S	100	227,00
M 12	x	70	S	50	260,00
M 12	x	80	S	50	290,00
M 12	x	90	S	50	330,00
M 12	x	100	S	50	355,00
M 16	x	30	S	50	233,00
M 16	x	35	S	50	249,00
M 16	x	40	S	50	265,00
M 16	x	45	S	50	280,00
M 16	x	50	S	50	295,00
M 16	x	60	S	50	345,00
M 16	x	65	S	25	365,00
M 16	x	70	S	25	365,00

Dimensions	PU Pieces	€/100/Mat.
EN	01665.810	615
1665	**8.8** **zinc plated**	



Hexagon flange bolts, heavy series

Dimensions ➔ TI-17
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 521

EN 1665 ➔ replaces DIN 6921

RoHS ✓

REACh SVHC free

M 6	x	12	S	500	30,50 ZP
M 6	x	16	S	500	21,10 ZP
M 6	x	20	S	500	21,10 ZP
M 6	x	25	S	500	22,40 ZP
M 8	x	12	S	200	62,00 ZP
M 8	x	16	S	200	56,00 ZP
M 8	x	20	S	200	41,00 ZP
M 8	x	25	S	200	42,50 ZP
M 8	x	30	S	200	45,50 ZP
M 8	x	35	S	200	49,50 ZP
M 8	x	40	S	200	50,00 ZP
M 8	x	50	S	200	61,00 ZP
M 8	x	60	S	200	69,00 ZP
M 10	x	20	S	200	59,00 ZP
M 10	x	25	S	200	560,00 ZP
M 10	x	30	S	200	74,00 ZP
M 12	x	20	S	100	165,00 ZP
M 12	x	25	S	100	155,00 ZP
M 12	x	30	S	100	166,00 ZP
M 12	x	35	S	100	181,00 ZP
M 12	x	40	S	100	188,00 ZP
M 12	x	45	S	100	206,00 ZP
M 12	x	50	S	100	218,00 ZP
M 12	x	60	S	100	245,00 ZP
M 12	x	70	S	50	280,00 ZP
M 12	x	80	S	50	310,00 ZP
M 12	x	90	S	50	355,00 ZP
M 16	x	30	S	50	260,00 ZP
M 16	x	35	S	50	275,00 ZP
M 16	x	40	S	50	290,00 ZP
M 16	x	50	S	50	315,00 ZP
M 16	x	60	S	50	380,00 ZP
M 16	x	70	S	25	425,00 ZP

Dimensions	PU Pieces	€/100/Mat.
EN	01665.100	615

1665 10.9



Hexagon flange bolts, heavy series

Dimensions ➔ TI-17
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 521

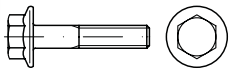
EN 1665 ➔ replaces DIN 6921

RoHS ✓ | REACh SVHC free

M 5	x	10	S	500	28,50
M 5	x	12	S	500	29,50
M 5	x	16	S	500	30,50
M 5	x	20	S	500	31,00
M 6	x	12	S	500	36,00
M 6	x	16	S	500	23,30
M 6	x	20	S	500	24,00
M 6	x	25	S	500	24,90
M 6	x	30	S	500	26,00
M 8	x	10	S	200	56,00
M 8	x	12	S	200	55,00
M 8	x	16	S	200	53,00
M 8	x	20	S	200	44,50
M 8	x	25	S	200	46,00
M 8	x	30	S	200	49,50
M 8	x	35	S	200	54,00
M 8	x	40	S	200	57,00
M 8	x	50	S	200	66,00
M 10	x	16	S	200	92,00
M 10	x	20	S	200	63,00
M 10	x	25	S	200	68,00
M 10	x	30	S	200	73,00
M 10	x	35	S	100	80,00
M 10	x	40	S	100	85,00
M 10	x	50	S	100	101,00
M 10	x	60	S	100	113,00
M 12	x	25	S	100	136,00
M 12	x	30	S	100	141,00
M 12	x	35	S	100	146,00
M 12	x	40	S	100	153,00
M 12	x	45	S	100	189,00
M 12	x	50	S	100	189,00
M 12	x	60	S	100	226,00
M 12	x	70	S	50	295,00
M 12	x	80	S	50	360,00
M 16	x	30	S	50	330,00
M 16	x	35	S	50	345,00
M 16	x	40	S	50	365,00
M 16	x	50	S	50	410,00
M 16	x	60	S	50	480,00
M 16	x	70	S	25	560,00

Dimensions	PU Pieces	€/100/Mat.
EN	01665.110	615

1665 10.9 zinc plated



Hexagon flange bolts, heavy series

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-17
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 521

EN 1665 ➔ replaces DIN 6921

RoHS ✓ | REACh SVHC free

M 5	x	10	S	500	37,00 ZP
M 5	x	12	S	500	38,00 ZP
M 5	x	16	S	500	40,00 ZP
M 5	x	20	S	500	40,00 ZP
M 6	x	12	S	500	45,50 ZP
M 6	x	16	S	500	33,00 ZP
M 6	x	20	S	500	34,00 ZP
M 6	x	25	S	500	34,50 ZP
M 6	x	30	S	500	35,50 ZP
M 8	x	10	S	200	66,00 ZP
M 8	x	16	S	200	66,00 ZP
M 8	x	20	S	200	57,00 ZP
M 8	x	25	S	200	59,00 ZP
M 8	x	30	S	200	62,00 ZP
M 8	x	35	S	200	69,00 ZP
M 8	x	40	S	200	69,00 ZP
M 8	x	50	S	200	78,00 ZP
M 10	x	16	S	200	108,00 ZP
M 10	x	20	S	200	82,00 ZP
M 10	x	25	S	200	88,00 ZP
M 10	x	30	S	200	91,00 ZP
M 10	x	40	S	200	103,00 ZP
M 10	x	50	S	100	120,00 ZP
M 10	x	60	S	100	134,00 ZP
M 12	x	25	S	100	160,00 ZP
M 12	x	30	S	100	165,00 ZP
M 12	x	35	S	100	176,00 ZP
M 12	x	40	S	100	183,00 ZP

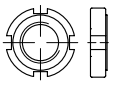
Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	45	S	100	226,00 ZP
M 12	x	50	S	100	226,00 ZP
M 12	x	60	S	100	265,00 ZP
M 12	x	70	S	50	395,00 ZP
M 12	x	80	S	50	395,00 ZP
M 16	x	35	S	50	390,00 ZP
M 16	x	40	S	50	410,00 ZP
M 16	x	50	S	50	450,00 ZP
M 16	x	60	S	50	530,00 ZP
M 16	x	70	S	25	560,00 ZP

DIN	01804.(*)	530

1804 04 AU/14 H* type w



Slotted round nuts, w = untempered, unpolished

* < M16 = 04 AU = 400; ≥ M 16 = 14 H = 000

Dimensions ➔ TI-74
Material properties ➔ TI-233
REACH ➔ TI-262

Stainless ➔ pg. 522

RoHS ✓

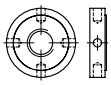
M 8	x	1	S	10	590,00
M 10	x	1	S	10	630,00
M 12	x	1,5	S	10	660,00
M 14	x	1,5	S	10	730,00
M 16	x	1,5	S	10	760,00
M 18	x	1,5	S	10	790,00
M 20	x	1,5	S	10	830,00
M 22	x	1,5	S	10	890,00
M 24	x	1,5	S	10	950,00
M 26	x	1,5	S	10	1120,00
M 28	x	1,5	S	10	1280,00
M 30	x	1,5	S	10	1280,00
M 32	x	1,5	S	1	1480,00
M 35	x	1,5	S	1	1580,00
M 38	x	1,5	S	1	1700,00
M 40	x	1,5	S	1	1890,00
M 42	x	1,5	S	1	1890,00
M 45	x	1,5	S	1	2100,00
M 48	x	1,5	S	1	2600,00
M 50	x	1,5	S	1	2600,00
M 52	x	1,5	S	1	2950,00
M 55	x	1,5	S	1	2950,00
M 58	x	1,5	S	1	4100,00
M 60	x	1,5	S	1	4100,00
M 62	x	1,5	S	1	4600,00
M 65	x	1,5	S	1	4600,00
M 68	x	1,5	S	1	4700,00
M 70	x	1,5	S	1	4750,00
M 72	x	1,5	S	1	5600,00
M 75	x	1,5	S	1	5600,00
M 80	x	2	S	1	6300,00
M 85	x	2	S	1	7200,00
M 90	x	2	S	1	7900,00
M 95	x	2	S	1	7900,00
M 100	x	2	S	1	9400,00
M 110	x	2	S	1	10300,00
M 120	x	2	S	1	11500,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	01816.(*)		530

1816

04 AU/14 H*

type w



Round nuts with set pin holes inside, w = untempered, unpolished

(* < M16 = 04 AU = 400; ≥ M 16 = 14 H = 000)

Dimensions ➔ TI-75
Material properties ➔ TI-233
REACH ➔ TI-262

RoHS ✓

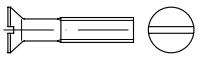
M 12	x 1,5	S	10	660,00
M 16	x 1,5	S	10	760,00
M 18	x 1,5	S	10	790,00
M 20	x 1,5	S	10	830,00
M 22	x 1,5	S	10	890,00
M 24	x 1,5	S	10	950,00
M 26	x 1,5	S	10	1120,00
M 28	x 1,5	S	10	1280,00
M 30	x 1,5	S	10	1280,00
M 35	x 1,5	S	1	1580,00
M 40	x 1,5	S	1	1890,00
M 42	x 1,5	S	1	1890,00
M 45	x 1,5	S	1	2100,00
M 48	x 1,5	S	1	2600,00
M 50	x 1,5	S	1	2600,00
M 55	x 1,5	S	1	2950,00
M 60	x 1,5	S	1	4100,00
M 70	x 1,5	S	1	4750,00
M 75	x 1,5	S	1	5600,00
M 80	x 2	S	1	6300,00

ISO	02009.004	450

2009

Steel

turned bare



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 522
Brass, Plastic ➔ pg. 634

ISO 2009 ➔ replaces DIN 963

RoHS ✓

M 1,4	x 3	S	100	31,50 turned
M 1,4	x 5	S	100	33,50 turned
M 1,4	x 6	S	100	34,00 turned
M 1,4	x 8	S	100	35,50 turned
M 1,4	x 10	S	100	39,50 turned
M 1,6	x 3	S	100	29,00 turned
M 1,6	x 4	S	100	29,50 turned
M 1,6	x 5	S	100	30,50 turned
M 1,6	x 6	S	100	33,00 turned
M 1,6	x 8	S	100	35,50 turned
M 1,6	x 10	S	100	39,50 turned
M 1,6	x 12	S	100	42,50 turned
M 1,6	x 16	S	100	48,00 turned

ISO	02009.400	450

2009

4.8



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 522
Brass, Plastic ➔ pg. 634

ISO 2009 ➔ replaces DIN 963

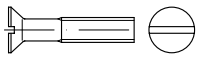
RoHS ✓

M 2	x 4	S	2000	5,90
M 2	x 5	S	2000	4,10
M 2	x 6	S	2000	2,85
M 2	x 8	S	2000	3,40
M 2	x 10	S	2000	2,70
M 2	x 12	S	2000	3,25
M 2	x 16	S	2000	4,60
M 2	x 20	S	2000	5,00
M 2,5	x 4	S	2000	5,40
M 2,5	x 5	S	2000	4,70
M 2,5	x 6	S	2000	2,85
M 2,5	x 8	S	2000	2,85
M 2,5	x 10	S	2000	3,00
M 2,5	x 12	S	2000	3,15
M 2,5	x 16	S	2000	3,65
M 3	x 4	S	2000	6,30
M 3	x 5	S	2000	4,60
M 3	x 6	S	2000	2,75
M 3	x 8	S	2000	1,35
M 3	x 10	S	2000	1,40
M 3	x 12	S	2000	1,40
M 3	x 16	S	2000	1,65
M 3	x 20	S	2000	2,00
M 3	x 25	S	2000	2,40
M 3	x 30	S	2000	2,80
M 3	x 40	S	1000	5,30
M 4	x 5	S	2000	7,70
M 4	x 6	S	2000	4,20
M 4	x 8	S	2000	1,95
M 4	x 10	S	2000	1,90
M 4	x 12	S	2000	1,95
M 4	x 16	S	2000	2,30
M 4	x 18	S	2000	3,45
M 4	x 20	S	2000	2,70
M 4	x 22	S	1000	4,45
M 4	x 25	S	1000	3,10
M 4	x 30	S	1000	3,70
M 4	x 35	S	1000	4,30
M 4	x 40	S	1000	5,00
M 4	x 45	S	1000	7,70
M 4	x 50	S	1000	7,90
M 4	x 60	S	500	11,80
M 5	x 6	S	2000	20,30
M 5	x 8	S	2000	7,90
M 5	x 10	S	2000	3,15
M 5	x 12	S	1000	3,15
M 5	x 16	S	1000	3,60
M 5	x 20	S	1000	3,90
M 5	x 25	S	1000	4,15
M 5	x 30	S	1000	5,50

M 5	x 35	S	500	6,20
M 5	x 40	S	500	6,70
M 5	x 45	S	500	7,80
M 5	x 50	S	500	8,90
M 6	x 10	S	1000	10,10
M 6	x 12	S	1000	4,55
M 6	x 16	S	1000	5,10
M 6	x 20	S	1000	5,60
M 6	x 25	S	500	6,30
M 6	x 30	S	500	7,30
M 6	x 35	S	500	8,50
v	x 40	S	500	9,50
M 6	x 45	S	500	11,10
M 6	x 50	S	200	12,60
M 6	x 55	S	200	16,80
M 6	x 60	S	200	15,00
M 6	x 65	S	200	19,20
M 6	x 70	S	200	19,20
M 6	x 80	S	200	27,00
M 6	x 100	S	200	36,50
M 8	x 10	S	500	45,50
M 8	x 12	S	500	40,00
M 8	x 16	S	500	11,70
M 8	x 18	S	500	19,20
M 8	x 20	S	500	12,90
M 8	x 25	S	500	13,60
M 8	x 30	S	200	15,50
M 8	x 35	S	200	17,50
M 8	x 40	S	200	24,50
M 8	x 45	S	200	26,00
M 8	x 50	S	200	27,00
M 8	x 55	S	200	40,00
M 8	x 60	S	200	36,00
M 8	x 70	S	200	41,00
M 8	x 80	S	100	46,00
M 8	x 100	S	100	66,00
M 10	x 16	S	200	28,00
M 10	x 20	S	200	22,20
M 10	x 25	S	200	24,00
M 10	x 30	S	200	26,00
M 10	x 35	S	200	28,50
M 10	x 40	S	200	30,00
M 10	x 45	S	100	34,50
M 10	x 50	S	100	39,50
M 10	x 55	S	100	88,00
M 10	x 60	S	100	48,00
M 10	x 70	S	100	60,00
M 10	x 80	S	100	74,00
M 10	x 90	S	100	82,00
M 10	x 100	S	100	91,00
M 12	x 20	S	200	265,00
M 12	x 25	S	200	245,00
M 12	x 30	S	200	204,00
M 12	x 35	S	100	215,00
M 12	x 40	S	100	222,00
M 12	x 45	S	100	241,00
M 12	x 50	S	100	265,00
M 12	x 60	S	50	380,00
M 12	x 70	S	50	445,00
M 12	x 80	S	50	495,00
M 12	x 90	S	50	540,00
M 16	x 30	S	50	380,00
M 16	x 35	S	50	395,00
M 16	x 40	S	50	420,00
M 16	x 45	S	50	430,00
M 16	x 50	S	50	455,00
M 16	x 55	S	50	530,00
M 16	x 60	S	50	485,00
M 16	x 70	S	25	580,00
M 16	x 80	S	25	750,00
M 16	x 90	S	25	850,00
M 20	x 35	S	25	1600,00
M 20	x 40	S	25	1660,00
M 20	x 50	S	25	1750,00
M 20	x 60	S	25	1950,00

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 70	S	25	2060,00
M 20 x 80	S	25	2180,00

ISO	02009.410	450
2009	**4.8 zinc plated**	



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 522
Brass, Plastic ➔ pg. 634

ISO 2009 ➔ replaces DIN 963

RoHS ✓

Dimensions	PU	Pieces	€/100/Mat.
M 2 x 4	S	2000	6,60 ZP
M 2 x 4	K	200	9,50 ZP
M 2 x 5	S	2000	4,40 ZP
M 2 x 5	K	200	7,30 ZP
M 2 x 6	S	2000	3,30 ZP
M 2 x 6	K	200	6,20 ZP
M 2 x 8	S	2000	2,85 ZP
M 2 x 8	K	200	5,70 ZP
M 2 x 10	S	2000	2,90 ZP
M 2 x 10	K	200	5,90 ZP
M 2 x 12	S	2000	3,55 ZP
M 2 x 12	K	200	6,50 ZP
M 2 x 16	S	2000	5,30 ZP
M 2 x 16	K	200	8,20 ZP
M 2 x 20	S	2000	5,60 ZP
M 2 x 20	K	200	8,50 ZP
M 2,5 x 4	S	2000	4,80 ZP
M 2,5 x 4	K	200	9,10 ZP
M 2,5 x 5	S	2000	5,30 ZP
M 2,5 x 5	K	200	8,20 ZP
M 2,5 x 6	S	2000	2,70 ZP
M 2,5 x 6	K	200	5,60 ZP
M 2,5 x 8	S	2000	3,30 ZP
M 2,5 x 8	K	200	6,20 ZP
M 2,5 x 10	S	2000	3,30 ZP
M 2,5 x 10	K	200	6,20 ZP
M 2,5 x 12	S	2000	3,55 ZP
M 2,5 x 12	K	200	6,50 ZP
M 2,5 x 16	S	2000	4,00 ZP
M 2,5 x 16	K	200	6,90 ZP
M 2,5 x 20	S	2000	4,85 ZP
M 2,5 x 20	K	200	7,80 ZP
M 2,5 x 25	K	200	8,80 ZP
M 2,5 x 30	K	200	12,90 ZP
M 3 x 4	S	2000	7,10 ZP
M 3 x 4	K	200	10,00 ZP
M 3 x 5	S	2000	5,10 ZP
M 3 x 5	K	200	8,20 ZP
M 3 x 6	S	1000	17,80 ZP
M 3 x 6	K	200	5,90 ZP
M 3 x 8	S	2000	1,50 ZP
M 3 x 8	K	200	4,45 ZP
M 3 x 10	S	1000	11,80 ZP
M 3 x 10	K	200	4,45 ZP
M 3 x 12	S	2000	1,55 ZP
M 3 x 12	K	200	4,55 ZP
M 3 x 14	S	2000	1,70 ZP
M 3 x 14	K	200	4,60 ZP
M 3 x 16	S	2000	1,85 ZP
M 3 x 16	K	200	4,75 ZP
M 3 x 18	S	2000	3,35 ZP
M 3 x 18	K	200	6,30 ZP
M 3 x 20	S	2000	2,25 ZP
M 3 x 20	K	200	5,20 ZP
M 3 x 25	S	2000	2,70 ZP
M 3 x 25	K	200	5,60 ZP
M 3 x 30	S	2000	3,10 ZP
M 3 x 30	K	200	3,10 ZP
M 3 x 35	S	2000	5,30 ZP
M 3 x 35	K	200	8,20 ZP
M 3 x 40	K	200	8,80 ZP
M 3 x 45	K	200	12,60 ZP
M 3 x 50	K	200	13,80 ZP
M 3 x 55	S	1000	21,20 ZP
M 3 x 60	K	200	20,50 ZP
M 4 x 5	S	2000	8,40 ZP
M 4 x 5	K	200	11,30 ZP
M 4 x 6	S	2000	4,60 ZP
M 4 x 6	K	200	7,70 ZP
M 4 x 8	S	2000	2,20 ZP
M 4 x 8	K	200	5,10 ZP
M 4 x 10	S	2000	2,15 ZP
M 4 x 10	K	200	5,00 ZP
M 4 x 12	S	2000	2,20 ZP
M 4 x 12	K	200	5,10 ZP
M 4 x 16	S	2000	2,50 ZP
M 4 x 16	K	200	5,40 ZP
M 4 x 18	K	200	6,80 ZP
M 4 x 20	S	2000	2,90 ZP
M 4 x 20	K	200	5,90 ZP
M 4 x 22	S	1000	4,95 ZP
M 4 x 22	K	200	7,90 ZP
M 4 x 25	S	1000	3,40 ZP
M 4 x 25	K	200	6,30 ZP
M 4 x 30	S	1000	4,15 ZP
M 4 x 30	K	200	7,20 ZP
M 4 x 35	S	1000	4,80 ZP
M 4 x 35	K	200	7,80 ZP
M 4 x 40	S	1000	5,50 ZP
M 4 x 40	K	200	8,50 ZP
M 4 x 45	S	1000	8,40 ZP
M 4 x 45	K	200	11,30 ZP
M 4 x 50	S	1000	8,80 ZP
M 4 x 50	K	200	11,70 ZP
M 4 x 55	K	200	17,10 ZP
M 4 x 60	S	500	13,10 ZP
M 4 x 60	K	200	16,00 ZP
M 4 x 65	S	200	25,50 ZP
M 4 x 70	K	100	27,00 ZP
M 4 x 80	K	100	34,00 ZP
M 4 x 90	K	100	56,00 ZP
M 4 x 100	K	100	60,00 ZP
M 5 x 6	S	2000	22,20 ZP
M 5 x 6	K	200	25,50 ZP
M 5 x 8	S	2000	8,80 ZP
M 5 x 8	K	200	11,70 ZP
M 5 x 10	S	2000	3,45 ZP
M 5 x 10	K	200	6,50 ZP
M 5 x 12	S	1000	3,45 ZP
M 5 x 12	K	200	6,50 ZP
M 5 x 14	S	1000	8,50 ZP
M 5 x 16	S	1000	3,90 ZP
M 5 x 16	K	200	6,80 ZP
M 5 x 18	K	200	8,60 ZP
M 5 x 20	S	1000	4,25 ZP
M 5 x 20	K	200	7,30 ZP
M 5 x 22	K	200	10,50 ZP
M 5 x 25	S	1000	4,55 ZP
M 5 x 25	K	200	7,60 ZP
M 5 x 30	S	1000	6,20 ZP
M 5 x 30	K	200	9,10 ZP
M 5 x 35	S	500	6,80 ZP
M 5 x 35	K	200	9,70 ZP
M 5 x 40	S	500	7,30 ZP
M 5 x 40	K	200	10,30 ZP
M 5 x 45	S	500	8,60 ZP
M 5 x 45	K	200	11,50 ZP
M 5 x 50	S	500	9,90 ZP
M 5 x 50	K	200	12,80 ZP
M 5 x 55	K	200	21,00 ZP
M 5 x 60	K	200	21,50 ZP
M 5 x 70	S	200	22,40 ZP
M 5 x 70	K	100	28,50 ZP
M 5 x 80	S	200	25,50 ZP
M 5 x 80	K	100	31,00 ZP
M 5 x 90	K	100	59,00 ZP
M 5 x 100	K	100	65,00 ZP
M 6 x 8	S	1000	14,70 ZP
M 6 x 8	K	200	17,60 ZP
M 6 x 10	S	1000	45,00 ZP
M 6 x 10	K	200	14,10 ZP
M 6 x 12	S	1000	5,00 ZP
M 6 x 12	K	200	7,90 ZP
M 6 x 14	S	1000	8,60 ZP
M 6 x 16	S	1000	5,70 ZP
M 6 x 16	K	200	8,60 ZP
M 6 x 18	K	200	12,00 ZP
M 6 x 20	S	1000	6,20 ZP
M 6 x 20	K	200	9,10 ZP
M 6 x 22	K	200	14,10 ZP
M 6 x 25	S	500	7,10 ZP
M 6 x 25	K	200	10,00 ZP
M 6 x 30	S	500	8,20 ZP
M 6 x 30	K	200	11,10 ZP
M 6 x 35	S	500	9,40 ZP
M 6 x 35	K	200	12,30 ZP
M 6 x 40	S	500	10,50 ZP
M 6 x 40	K	200	13,40 ZP
M 6 x 45	S	500	12,30 ZP
M 6 x 45	K	200	18,10 ZP
M 6 x 50	K	200	19,70 ZP
M 6 x 55	K	100	21,30 ZP
M 6 x 60	S	200	16,60 ZP
M 6 x 60	K	100	22,40 ZP
M 6 x 70	S	200	21,00 ZP
M 6 x 70	K	100	33,00 ZP
M 6 x 80	S	200	30,00 ZP
M 6 x 80	K	100	41,50 ZP
M 6 x 90	S	200	37,00 ZP
M 6 x 90	K	100	48,50 ZP
M 6 x 100	S	200	40,00 ZP
M 6 x 100	K	100	52,00 ZP
M 8 x 10	K	100	54,00 ZP
M 8 x 12	S	500	44,50 ZP
M 8 x 12	K	100	47,00 ZP
M 8 x 16	S	500	13,00 ZP
M 8 x 16	K	100	15,90 ZP
M 8 x 18	S	500	21,00 ZP
M 8 x 20	S	500	14,20 ZP
M 8 x 20	K	100	17,10 ZP
M 8 x 25	S	500	15,00 ZP
M 8 x 25	K	100	21,00 ZP
M 8 x 30	S	200	17,10 ZP
M 8 x 30	K	100	22,90 ZP
M 8 x 35	S	200	19,30 ZP
M 8 x 35	K	100	25,50 ZP
M 8 x 40	K	100	30,00 ZP
M 8 x 45	K	100	31,50 ZP
M 8 x 50	K	100	33,00 ZP
M 8 x 55	K	100	47,00 ZP
M 8 x 60	K	100	42,50 ZP
M 8 x 70	K	100	47,50 ZP
M 8 x 80	K	100	54,00 ZP
M 8 x 90	K	100	73,00 ZP
M 8 x 100	K	100	76,00 ZP
M 10 x 16	K	100	34,00 ZP
M 10 x 18	K	100	41,50 ZP
M 10 x 20	K	100	27,50 ZP
M 10 x 25	K	100	29,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	30	K	100	31,50 ZP
M 10	x	35	K	100	34,00 ZP
M 10	x	40	K	100	36,00 ZP
M 10	x	45	K	100	46,00 ZP
M 10	x	50	K	100	41,50 ZP
M 10	x	55	K	100	62,00 ZP
M 10	x	60	K	100	48,00 ZP
M 10	x	70	K	100	63,00 ZP
M 10	x	80	K	100	69,00 ZP
M 10	x	90	K	100	92,00 ZP
M 10	x	100	K	100	103,00 ZP
M 12	x	20	K	100	295,00 ZP
M 12	x	25	K	100	275,00 ZP
M 12	x	30	K	100	227,00 ZP
M 12	x	35	K	100	239,00 ZP
M 12	x	40	K	100	249,00 ZP
M 12	x	45	K	100	270,00 ZP
M 12	x	50	K	100	295,00 ZP
M 12	x	55	K	50	395,00 ZP
M 12	x	60	K	50	425,00 ZP
M 12	x	70	K	50	500,00 ZP
M 12	x	80	K	50	550,00 ZP
M 12	x	90	K	50	600,00 ZP
M 12	x	100	K	50	660,00 ZP
M 16	x	30	K	50	420,00 ZP
M 16	x	35	K	50	430,00 ZP
M 16	x	40	K	50	460,00 ZP
M 16	x	45	K	50	475,00 ZP
M 16	x	50	K	50	500,00 ZP
M 16	x	55	K	50	590,00 ZP
M 16	x	60	K	50	540,00 ZP
M 16	x	70	K	25	620,00 ZP
M 16	x	80	K	25	660,00 ZP
M 16	x	90	K	25	720,00 ZP
M 20	x	40	K	25	1810,00 ZP
M 20	x	45	K	25	1840,00 ZP
M 20	x	50	K	25	1920,00 ZP
M 20	x	60	K	25	2110,00 ZP
M 20	x	70	K	25	2180,00 ZP

ISO	02010.400	450

2010

4.8



Slotted raised countersunk head screws

Dimensions → TI-39
Material properties → TI-232
Standard conversion → TI-11
REACH → TI-262

Stainless → pg. 524
Brass → pg. 635

ISO 2010 → replaces DIN 964

RoHS ✓

M 2,5	x	6	S	2000	3,35
M 2,5	x	8	S	2000	3,35
M 4	x	8	S	2000	2,00
M 4	x	10	S	2000	1,95
M 4	x	12	S	2000	2,00
M 4	x	16	S	2000	2,40
M 4	x	20	S	2000	2,80
M 5	x	25	S	1000	4,80
M 5	x	30	S	1000	6,80
M 5	x	35	S	500	6,50

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	5	K	200	9,40 ZP
M 3	x	6	K	200	7,40 ZP
M 3	x	8	S	2000	2,15 ZP
M 3	x	8	K	200	5,00 ZP
M 3	x	10	S	2000	1,70 ZP
M 3	x	10	K	200	4,60 ZP
M 3	x	12	K	200	4,95 ZP
M 3	x	16	K	200	5,50 ZP
M 3	x	20	S	2000	3,10 ZP
M 3	x	20	K	200	6,00 ZP
M 3	x	25	S	2000	3,65 ZP
M 3	x	25	K	200	6,60 ZP
M 3	x	30	K	200	7,30 ZP
M 3	x	35	K	200	9,10 ZP
M 3	x	40	K	200	9,90 ZP
M 4	x	8	S	2000	2,25 ZP
M 4	x	8	K	200	5,30 ZP
M 4	x	10	S	2000	2,20 ZP
M 4	x	10	K	200	5,10 ZP
M 4	x	12	S	2000	2,25 ZP
M 4	x	12	K	200	5,30 ZP
M 4	x	16	S	2000	2,70 ZP
M 4	x	16	K	200	5,60 ZP
M 4	x	20	S	2000	3,15 ZP
M 4	x	20	K	200	6,10 ZP
M 4	x	25	K	200	6,70 ZP
M 4	x	30	K	200	7,40 ZP
M 4	x	35	K	200	8,20 ZP
M 4	x	40	K	200	10,10 ZP
M 4	x	45	K	200	11,50 ZP
M 4	x	50	K	200	12,30 ZP
M 4	x	60	K	200	14,70 ZP
M 4	x	70	K	100	23,90 ZP
M 4	x	80	K	100	31,50 ZP
M 5	x	8	K	200	9,90 ZP
M 5	x	10	S	2000	4,20 ZP
M 5	x	10	K	200	7,20 ZP
M 5	x	12	K	200	6,70 ZP
M 5	x	16	S	1000	4,15 ZP
M 5	x	16	K	200	7,10 ZP
M 5	x	20	K	200	7,60 ZP
M 5	x	25	K	200	8,20 ZP
M 5	x	30	S	1000	7,40 ZP
M 5	x	30	K	200	10,30 ZP
M 5	x	35	K	200	10,20 ZP
M 5	x	40	S	500	7,90 ZP
M 5	x	40	K	200	10,80 ZP
M 5	x	45	K	200	14,10 ZP
M 5	x	50	K	200	13,60 ZP
M 5	x	60	K	200	22,20 ZP
M 5	x	80	K	100	29,00 ZP
M 6	x	8	K	200	19,30 ZP

ISO	02010.410	450

2010

4.8
zinc plated



Slotted raised countersunk head screws

Dimensions → TI-39
Material properties → TI-232
Corrosion protection → TI-228
Standard conversion → TI-11
REACH → TI-262

Stainless → pg. 524
Brass → pg. 635

ISO 2010 → replaces DIN 964

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	K	200	14,20 ZP
M 6	x	12	K	200	9,40 ZP
M 6	x	16	S	1000	6,20 ZP
M 6	x	16	K	200	9,10 ZP
M 6	x	20	S	1000	6,70 ZP
M 6	x	20	K	200	9,60 ZP
M 6	x	25	S	500	7,70 ZP
M 6	x	25	K	200	10,60 ZP
M 6	x	30	K	200	11,70 ZP
M 6	x	35	K	200	13,10 ZP
M 6	x	40	K	200	14,20 ZP
M 6	x	45	K	200	19,00 ZP
M 6	x	50	K	200	23,90 ZP
M 6	x	55	K	200	27,00 ZP
M 6	x	60	K	100	27,00 ZP
M 6	x	70	K	100	38,50 ZP
M 6	x	80	K	100	44,00 ZP
M 8	x	16	K	100	20,90 ZP
M 8	x	20	K	100	20,10 ZP
M 8	x	25	K	100	25,00 ZP
M 8	x	30	K	100	28,00 ZP
M 8	x	35	K	100	33,00 ZP
M 8	x	40	K	100	44,50 ZP
M 8	x	45	K	100	41,50 ZP
M 8	x	50	K	100	42,50 ZP
M 8	x	60	K	100	43,00 ZP
M 10	x	20	K	100	42,00 ZP
M 10	x	25	K	100	43,00 ZP
M 10	x	30	K	100	45,00 ZP
M 10	x	35	K	100	54,00 ZP
M 10	x	40	K	100	57,00 ZP
M 10	x	50	K	100	63,00 ZP

DIN	02093.000	540

2093

Spring steel



Disc springs

Product information → TI-141

Stainless → pg. 525

DIN 2093 → replaced by ISO 16983

RoHS ✓ REACh SVHC free

outside ∅ x inside ∅ x thickness

8	x	3,2	x	0,3	S	200	12,90
8	x	3,2	x	0,4	S	200	13,20
8	x	3,2	x	0,5	S	200	13,60
8	x	4,2	x	0,2	S	200	11,10
8	x	4,2	x	0,3	S	200	12,90
8	x	4,2	x	0,4	S	200	13,20
10	x	3,2	x	0,3	S	200	13,70
10	x	3,2	x	0,4	S	200	14,20
10	x	3,2	x	0,5	S	200	14,30
10	x	4,2	x	0,4	S	200	14,20
10	x	4,2	x	0,5	S	200	14,30
10	x	4,2	x	0,6	S	200	14,30
10	x	5,2	x	0,25	S	200	13,60
10	x	5,2	x	0,4	S	200	14,20
10	x	5,2	x	0,5	S	200	14,30
12	x	4,2	x	0,4	S	200	15,40
12	x	4,2	x	0,5	S	200	15,50
12	x	4,2	x	0,6	S	200	15,70
12	x	5,2	x	0,5	S	200	15,50
12	x	5,2	x	0,6	S	200	15,70
12	x	6,2	x	0,5	S	200	15,50

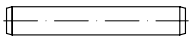
Dimensions						PU	Pieces	€/100/Mat.
12	x	6,2	x	0,6		S	200	15,70
12,5	x	6,2	x	0,35		S	200	15,30
12,5	x	6,2	x	0,5		S	200	15,50
12,5	x	6,2	x	0,7		S	200	16,30
14	x	7,2	x	0,35		S	200	16,00
14	x	7,2	x	0,5		S	200	16,10
14	x	7,2	x	0,8		S	200	17,50
15	x	5,2	x	0,4		S	200	16,10
15	x	5,2	x	0,5		S	200	16,60
15	x	5,2	x	0,6		S	200	17,00
15	x	5,2	x	0,7		S	200	17,10
15	x	6,2	x	0,5		S	200	16,60
15	x	6,2	x	0,6		S	200	17,00
15	x	6,2	x	0,7		S	200	17,10
15	x	8,2	x	0,7		S	200	17,10
15	x	8,2	x	0,8		S	200	17,70
16	x	8,2	x	0,4		S	200	16,60
16	x	8,2	x	0,6		S	200	17,20
16	x	8,2	x	0,9		S	200	18,70
18	x	6,2	x	0,4		S	200	17,40
18	x	6,2	x	0,5		S	200	17,60
18	x	6,2	x	0,6		S	200	18,00
18	x	6,2	x	0,7		S	200	18,10
18	x	6,2	x	0,8		S	200	18,70
18	x	8,2	x	0,7		S	200	18,10
18	x	8,2	x	0,8		S	200	18,70
18	x	8,2	x	1,0		S	200	20,60
18	x	9,2	x	0,45		S	200	17,40
18	x	9,2	x	0,7		S	200	18,10
18	x	9,2	x	1,0		S	200	20,60
20	x	8,2	x	0,5		S	200	18,60
20	x	8,2	x	0,6		S	200	18,80
20	x	8,2	x	0,7		S	200	19,30
20	x	8,2	x	0,8		S	200	19,70
20	x	8,2	x	0,9		S	200	20,00
20	x	8,2	x	1,0		S	200	22,10
20	x	10,2	x	0,4		S	200	18,20
20	x	10,2	x	0,5		S	200	18,60
20	x	10,2	x	0,8		S	200	19,70
20	x	10,2	x	0,9		S	200	20,00
20	x	10,2	x	1,0		S	200	22,10
20	x	10,2	x	1,1		S	200	23,20
22,5	x	11,2	x	0,6		S	200	19,40
22,5	x	11,2	x	0,8		S	200	21,20
22,5	x	11,2	x	1,25		S	200	52,00
23	x	8,2	x	0,7		S	200	20,00
23	x	8,2	x	0,8		S	200	21,60
23	x	8,2	x	0,9		S	200	22,10
23	x	10,2	x	0,9		S	200	22,10
23	x	10,2	x	1,0		S	200	26,00
23	x	12,2	x	1,0		S	200	26,00
23	x	12,2	x	1,25		S	200	52,00
23	x	12,2	x	1,5		S	200	56,00
25	x	12,2	x	0,7		S	200	22,10
25	x	12,2	x	0,9		S	200	24,00
25	x	12,2	x	1,25		S	200	51,00
25	x	12,2	x	1,5		S	200	59,00
28	x	10,2	x	0,8		S	200	27,50
28	x	10,2	x	1,0		S	200	29,00
28	x	10,2	x	1,25		S	200	60,00
28	x	10,2	x	1,5		S	200	65,00
28	x	12,2	x	1,0		S	200	29,00
28	x	12,2	x	1,25		S	200	60,00
28	x	12,2	x	1,5		S	200	65,00
28	x	14,2	x	0,8		S	200	27,50
28	x	14,2	x	1,0		S	200	29,00
28	x	14,2	x	1,25		S	200	60,00
28	x	14,2	x	1,5		S	200	65,00
31,5	x	16,3	x	0,8		S	100	31,00
31,5	x	16,3	x	1,25		S	100	67,00
31,5	x	16,3	x	1,5		S	100	72,00
31,5	x	16,3	x	1,75		S	100	77,00
31,5	x	16,3	x	2,0		S	100	85,00
31,7	x	20,4	x	0,4		S	100	89,00
34	x	12,3	x	1,0		S	100	34,00
34	x	12,3	x	1,25		S	100	73,00
34	x	12,3	x	1,5		S	100	83,00
34	x	14,3	x	1,25		S	100	73,00
34	x	14,3	x	1,5		S	100	83,00
34	x	16,3	x	1,5		S	100	83,00
34	x	16,3	x	2,0		S	100	91,00
35,5	x	18,3	x	0,9		S	100	36,50
35,5	x	18,3	x	1,25		S	100	72,00
35,5	x	18,3	x	2,0		S	100	99,00
40	x	14,3	x	1,25		S	100	102,00
40	x	14,3	x	1,5		S	100	111,00
40	x	14,3	x	1,75		S	100	115,00
40	x	14,3	x	2,0		S	100	117,00
40	x	16,3	x	1,5		S	100	111,00
40	x	16,3	x	1,75		S	100	115,00
40	x	16,3	x	2,0		S	100	117,00
40	x	18,3	x	2,0		S	100	117,00
40	x	20,4	x	1,0		S	100	53,00
40	x	20,4	x	1,5		S	100	111,00
40	x	20,4	x	2,0		S	100	117,00
40	x	20,4	x	2,25		S	100	130,00
40	x	20,4	x	2,5		S	100	141,00
45	x	22,4	x	1,25		S	200	136,00
45	x	22,4	x	1,75		S	200	152,00
45	x	22,4	x	2,5		S	200	166,00
46,5	x	30,5	x	0,6		S	100	128,00
48	x	16,3	x	1,5		S	100	147,00
50	x	18,4	x	1,25		S	100	144,00
50	x	18,4	x	1,5		S	100	151,00
50	x	18,4	x	2,0		S	100	181,00
50	x	18,4	x	2,5		S	100	210,00
50	x	18,4	x	3,0		S	100	244,00
50	x	20,4	x	2,0		S	100	181,00
50	x	20,4	x	2,5		S	100	210,00
50	x	22,4	x	2,0		S	100	181,00
50	x	22,4	x	2,5		S	100	210,00
50	x	25,4	x	1,25		S	100	144,00
50	x	25,4	x	1,5		S	100	135,00
50	x	25,4	x	2,0		S	100	181,00
50	x	25,4	x	2,25		S	100	194,00
50	x	25,4	x	2,5		S	100	210,00
50	x	25,4	x	3,0		S	100	244,00
56	x	28,5	x	1,5		S	100	183,00
56	x	28,5	x	2,0		S	100	212,00
56	x	28,5	x	2,5		S	100	260,00
56	x	28,5	x	3,0		S	100	300,00
60	x	20,5	x	2,0		S	100	241,00
60	x	20,5	x	2,5		S	100	280,00
60	x	20,5	x	3,0		S	100	330,00
60	x	25,5	x	2,5		S	100	280,00
60	x	25,5	x	3,0		S	100	330,00
60	x	30,5	x	2,5		S	100	280,00
60	x	30,5	x	2,75		S	100	305,00
60	x	30,5	x	3,0		S	100	330,00
60	x	30,5	x	3,5		S	100	370,00
63	x	31,0	x	1,8		S	100	275,00
63	x	31,0	x	2,5		S	100	295,00
63	x	31,0	x	3,0		S	100	365,00
63	x	31,0	x	3,5		S	100	395,00
70	x	24,5	x	3,0		S	100	470,00
70	x	24,5	x	3,5		S	100	540,00
70	x	25,5	x	2,0		S	100	370,00
70	x	30,5	x	2,5		S	100	395,00
70	x	30,5	x	3,0		S	100	460,00
70	x	35,5	x	3,0		S	100	460,00
70	x	35,5	x	3,5		S	100	540,00
70	x	35,5	x	4,0		S	100	670,00
70	x	40,5	x	4,0		S	100	670,00
70	x	40,5	x	5,0		S	100	840,00
71	x	36,0	x	2,0		S	100	380,00
71	x	36,0	x	2,5		S	100	420,00
71	x	36,0	x	4,0		S	100	680,00
80	x	30,5	x	2,5		S	100	510,00
80	x	31,0	x	3,0		S	100	570,00
80	x	31,0	x	4,0		S	100	840,00
80	x	36,0	x	3,0		S	100	570,00
80	x	41,0	x	3,0		S	100	570,00
80	x	41,0	x	4,0		S	50	840,00
80	x	41,0	x	5,0		S	50	1010,00
90	x	46,0	x	2,5		S	10	670,00
90	x	46,0	x	3,5		S	10	790,00
90	x	46,0	x	5,0		S	10	1180,00
100	x	41,0	x	4,0		S	10	1180,00
100	x	41,0	x	5,0		S	10	1480,00
100	x	51,0	x	2,7		S	10	850,00
100	x	51,0	x	3,5		S	10	950,00
100	x	51,0	x	4,0		S	10	1180,00
100	x	51,0	x	5,0		S	10	1480,00
100	x	51,0	x	6,0		S	1	1900,00
100	x	51,0	x	7,0		S	1	2700,00
112	x	57,0	x	3,0		S	1	1320,00
112	x	57,0	x	4,0		S	1	1520,00
112	x	57,0	x	6,0		S	1	2100,00
125	x	51,0	x	4,0		S	1	1800,00
125	x	51,0	x	5,0		S	1	2070,00
125	x	51,0	x	6,0		S	1	2900,00
125	x	61,0	x	5,0		S	1	2070,00
125	x	61,0	x	6,0		S	1	2900,00
125	x	61,0	x	8,0		S	1	4100,00
125	x	64,0	x	3,5		S	1	1540,00
125	x	64,0	x	5,0		S	1	2070,00
125	x	64,0	x	6,0		S	1	2900,00
125	x	64,0	x	7,0		S	1	3800,00
125	x	64,0	x	8,0		S	1	4100,00
125	x	71,0	x	6,0		S	1	2900,00
125	x	71,0	x	8,0		S	1	4100,00
125	x	71,0	x	10,0		S	1	4700,00
140	x	72,0	x	3,8		S	1	2270,00
140	x	72,0	x	5,0		S	1	2950,00
140	x	72,0	x	8,0		S	1	5100,00
150	x	61,0	x	5,0		S	1	3250,00
150	x	61,0	x	6,0		S	1	4300,00
150	x	61,0	x	7,0		S	1	5200,00
150	x	71,0	x	6,0		S	1	4300,00
150	x	71,0	x	8,0		S	1	5800,00
150	x	81,0	x	8,0		S	1	5800,00
150	x	81,0	x	10,0		S	1	6500,00
160	x	82,0	x	4,3		S	1	3950,00
160	x	82,0	x	6,0		S	1	4750,00
160	x	82,0	x	10,0		S	5	6800,00
160	x	82,0	x	11,0		S	1	6800,00
180	x	92,0	x	4,8		S	1	5400,00
180	x	92,0	x	6,0		S	1	5700,00
180	x	92,0	x	10,0		S	1	8600,00
180	x	92,0	x	13,0		S	1	10500,00
200	x	82,0	x	8,0		S	1	9400,00
200	x	82,0	x	10,0		S	1	10500,00
200	x	82,0	x	12,0		S	1	11800,00
200	x	92,0	x	10,0		S	1	10500,00
200	x	92,0	x	12,0		S	1	11800,00
200	x	92,0	x	14,0		S	1	12800,00
200	x	102	x	5,5		S	1	7700,00
200	x	102	x	8,0		S	1	9400,00
200	x	102	x	10,0		S	1	10500,00
200	x	102	x	12,0		S	1	11800,00
200	x	102	x	14,0		S	1	12800,00
200	x	112	x	12,0		S	1	11800,00
200	x	112	x	14,0		S	1	12800,00
200	x	112	x	16,0		S	1	13800,00
225	x	112	x	6,5		S	1	11700,00
225	x	112	x	8,0		S	1	12000,00
225	x	112	x	12,0		S	1	15200,00
250	x	127	x	10,0		S	1	16700,00
250	x	127	x	14,0		S	1	20100,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU Pieces	€/100/Mat.
ISO	02338.000		3100

2338

Steel **m6**



Parallel pins, tolerance m6

conform to EN 22338

Dimensions ➔ TI-116 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 525

ISO 2338 ➔ replaces DIN 7

RoHS ✓

∅ - tol. x length (with cone)

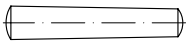
Dimensions			PU	Pieces	€/100/Mat.
1	m6	x 3	S	1000	9,40
1	m6	x 4	S	1000	9,40
1	m6	x 5	S	1000	9,40
1	m6	x 6	S	1000	9,40
1	m6	x 8	S	1000	9,40
1	m6	x 10	S	1000	9,40
1	m6	x 12	S	1000	9,50
1,5	m6	x 3	S	1000	9,40
1,5	m6	x 4	S	1000	9,40
1,5	m6	x 5	S	1000	9,40
1,5	m6	x 6	S	1000	9,40
1,5	m6	x 8	S	1000	9,50
1,5	m6	x 10	S	1000	9,50
1,5	m6	x 12	S	1000	9,70
1,5	m6	x 14	S	1000	9,70
1,5	m6	x 16	S	1000	10,10
1,5	m6	x 18	S	1000	10,20
1,5	m6	x 20	S	1000	10,50
2	m6	x 4	S	1000	9,10
2	m6	x 5	S	1000	9,50
2	m6	x 6	S	1000	9,70
2	m6	x 8	S	1000	9,70
2	m6	x 10	S	1000	9,70
2	m6	x 12	S	1000	10,10
2	m6	x 14	S	1000	10,10
2	m6	x 16	S	1000	10,20
2	m6	x 18	S	1000	10,50
2	m6	x 20	S	1000	11,10
2	m6	x 24	S	1000	11,70
2	m6	x 28	S	1000	13,10
2	m6	x 30	S	1000	13,40
2,5	m6	x 5	S	1000	9,70
2,5	m6	x 6	S	1000	9,70
2,5	m6	x 8	S	1000	10,10
2,5	m6	x 10	S	1000	10,10
2,5	m6	x 12	S	1000	10,20
2,5	m6	x 14	S	1000	10,50
2,5	m6	x 16	S	1000	10,70
2,5	m6	x 18	S	1000	11,10
2,5	m6	x 20	S	1000	11,30
2,5	m6	x 24	S	1000	11,80
2,5	m6	x 28	S	1000	13,10
2,5	m6	x 30	S	1000	13,50
2,5	m6	x 32	S	1000	13,60
3	m6	x 5	S	1000	6,70
3	m6	x 6	S	1000	6,70
3	m6	x 8	S	1000	6,80
3	m6	x 10	S	1000	7,20
3	m6	x 12	S	1000	7,60
3	m6	x 14	S	1000	7,80
3	m6	x 16	S	1000	7,90
3	m6	x 18	S	1000	10,20
3	m6	x 20	S	1000	10,60
3	m6	x 24	S	1000	12,10
3	m6	x 28	S	1000	13,10
3	m6	x 30	S	1000	13,40
3	m6	x 32	S	1000	13,60
3	m6	x 36	S	500	18,40
3	m6	x 40	S	500	20,10
3	m6	x 45	S	500	26,00
3	m6	x 50	S	500	27,50
4	m6	x 5	S	1000	10,80
4	m6	x 6	S	1000	10,80
4	m6	x 8	S	1000	11,30
4	m6	x 10	S	1000	11,70
4	m6	x 12	S	1000	12,10
4	m6	x 14	S	1000	12,80
4	m6	x 16	S	1000	13,40
4	m6	x 18	S	1000	13,80
4	m6	x 20	S	1000	14,70
4	m6	x 24	S	1000	15,80
4	m6	x 26	S	1000	16,10
4	m6	x 28	S	1000	16,40
4	m6	x 30	S	1000	17,00
4	m6	x 32	S	500	17,50
4	m6	x 36	S	500	18,40
4	m6	x 40	S	500	20,40
4	m6	x 45	S	500	26,00
4	m6	x 50	S	500	27,50
5	m6	x 5	S	500	23,40
5	m6	x 6	S	500	11,70
5	m6	x 8	S	500	12,10
5	m6	x 10	S	500	13,50
5	m6	x 12	S	500	14,10
5	m6	x 14	S	500	15,00
5	m6	x 16	S	500	15,40
5	m6	x 18	S	500	16,00
5	m6	x 20	S	500	17,10
5	m6	x 22	S	500	17,60
5	m6	x 24	S	500	18,00
5	m6	x 28	S	500	19,20
5	m6	x 30	S	500	20,60
5	m6	x 32	S	500	21,20
5	m6	x 36	S	500	21,60
5	m6	x 40	S	500	24,20
5	m6	x 45	S	500	26,00
5	m6	x 50	S	500	27,50
5	m6	x 55	S	500	36,50
5	m6	x 60	S	500	41,00
6	m6	x 6	S	500	14,10
6	m6	x 8	S	500	14,70
6	m6	x 10	S	500	15,70
6	m6	x 12	S	500	17,00
6	m6	x 14	S	500	18,00
6	m6	x 16	S	500	18,80
6	m6	x 18	S	500	19,80
6	m6	x 20	S	500	20,40
6	m6	x 22	S	500	20,90
6	m6	x 24	S	500	22,40
6	m6	x 26	S	500	22,80
6	m6	x 28	S	500	23,00
6	m6	x 30	S	500	24,20
6	m6	x 32	S	500	25,50
6	m6	x 36	S	500	27,50
6	m6	x 40	S	500	29,50
6	m6	x 45	S	500	32,50
6	m6	x 50	S	500	34,00
6	m6	x 55	S	500	36,50
6	m6	x 60	S	200	41,00
6	m6	x 70	S	200	77,00
6	m6	x 80	S	200	89,00
6	m6	x 90	S	200	153,00
6	m6	x 100	S	200	177,00
8	m6	x 8	S	500	21,30
8	m6	x 10	S	500	22,40
8	m6	x 12	S	500	22,90
8	m6	x 14	S	500	25,00
8	m6	x 16	S	500	26,50
8	m6	x 18	S	500	29,50
8	m6	x 20	S	500	30,50
8	m6	x 22	S	500	41,50
8	m6	x 24	S	500	32,50
8	m6	x 26	S	500	39,00
8	m6	x 28	S	500	41,00
8	m6	x 30	S	500	44,00
8	m6	x 32	S	500	45,50
8	m6	x 36	S	200	47,00
8	m6	x 40	S	200	52,00
8	m6	x 45	S	200	56,00
8	m6	x 50	S	200	59,00
8	m6	x 55	S	200	63,00
8	m6	x 60	S	200	68,00
8	m6	x 70	S	200	77,00
8	m6	x 80	S	200	89,00
8	m6	x 90	S	200	153,00
8	m6	x 100	S	200	195,00
10	m6	x 10	S	200	36,50
10	m6	x 12	S	200	38,00
10	m6	x 14	S	200	39,50
10	m6	x 16	S	200	42,50
10	m6	x 18	S	200	44,50
10	m6	x 20	S	200	47,00
10	m6	x 24	S	200	52,00
10	m6	x 28	S	200	57,00
10	m6	x 30	S	200	59,00
10	m6	x 32	S	200	62,00
10	m6	x 36	S	200	67,00
10	m6	x 40	S	200	74,00
10	m6	x 45	S	200	78,00
10	m6	x 50	S	200	85,00
10	m6	x 55	S	200	91,00
10	m6	x 60	S	200	97,00
10	m6	x 65	S	50	113,00
10	m6	x 70	S	50	113,00
10	m6	x 80	S	50	131,00
10	m6	x 90	S	50	153,00
10	m6	x 100	S	50	177,00
10	m6	x 120	S	50	223,00
12	m6	x 12	S	200	59,00
12	m6	x 14	S	200	59,00
12	m6	x 16	S	200	60,00
12	m6	x 18	S	200	62,00
12	m6	x 20	S	200	66,00
12	m6	x 24	S	200	69,00
12	m6	x 28	S	200	82,00
12	m6	x 30	S	200	86,00
12	m6	x 32	S	200	94,00
12	m6	x 36	S	200	103,00
12	m6	x 40	S	200	111,00
12	m6	x 45	S	100	128,00
12	m6	x 50	S	100	137,00
12	m6	x 55	S	100	147,00
12	m6	x 60	S	100	154,00
12	m6	x 70	S	100	167,00
12	m6	x 80	S	100	183,00
12	m6	x 90	S	100	200,00
12	m6	x 100	S	100	224,00
12	m6	x 120	S	100	255,00
13	m6	x 14	S	50	91,00
13	m6	x 16	S	50	91,00
13	m6	x 18	S	50	91,00
13	m6	x 20	S	50	91,00
13	m6	x 24	S	50	106,00
13	m6	x 28	S	50	115,00
13	m6	x 30	S	50	125,00
13	m6	x 32	S	50	134,00
13	m6	x 36	S	50	141,00
13	m6	x 40	S	50	155,00
13	m6	x 45	S	25	175,00
13	m6	x 50	S	25	193,00
13	m6	x 55	S	25	201,00
13	m6	x 60	S	25	220,00

Dimensions	PU	Pieces	€/100/Mat.
13 m6 x 70	S	25	244,00
13 m6 x 80	S	25	285,00
13 m6 x 90	S	25	315,00
13 m6 x 100	S	25	335,00
13 m6 x 120	S	25	360,00
14 m6 x 20	S	25	99,00
14 m6 x 24	S	25	115,00
14 m6 x 28	S	25	121,00
14 m6 x 30	S	25	134,00
14 m6 x 32	S	25	143,00
14 m6 x 36	S	25	152,00
14 m6 x 40	S	25	165,00
14 m6 x 45	S	25	175,00
14 m6 x 50	S	25	200,00
14 m6 x 55	S	25	205,00
14 m6 x 60	S	25	220,00
14 m6 x 70	S	25	255,00
14 m6 x 80	S	25	285,00
14 m6 x 90	S	25	315,00
14 m6 x 100	S	25	335,00
14 m6 x 120	S	25	360,00
16 m6 x 20	S	25	135,00
16 m6 x 24	S	25	153,00
16 m6 x 28	S	25	165,00
16 m6 x 30	S	25	176,00
16 m6 x 32	S	25	187,00
16 m6 x 36	S	25	201,00
16 m6 x 40	S	25	217,00
16 m6 x 45	S	25	239,00
16 m6 x 50	S	25	255,00
16 m6 x 55	S	25	265,00
16 m6 x 60	S	25	295,00
16 m6 x 70	S	25	335,00
16 m6 x 80	S	25	380,00
16 m6 x 90	S	25	415,00
16 m6 x 100	S	25	455,00
16 m6 x 120	S	25	540,00
20 m6 x 24	S	25	275,00
20 m6 x 28	S	25	275,00
20 m6 x 30	S	25	300,00
20 m6 x 32	S	25	310,00
20 m6 x 36	S	25	335,00
20 m6 x 40	S	25	360,00
20 m6 x 45	S	25	385,00
20 m6 x 50	S	25	415,00
20 m6 x 55	S	25	430,00
20 m6 x 60	S	25	470,00
20 m6 x 70	S	25	510,00
20 m6 x 80	S	25	540,00
20 m6 x 90	S	25	620,00
20 m6 x 100	S	25	680,00
20 m6 x 120	S	25	790,00
25 m6 x 40	S	10	1070,00
25 m6 x 45	S	10	1070,00
25 m6 x 50	S	10	1150,00
25 m6 x 55	S	10	1410,00
25 m6 x 60	S	10	1410,00
25 m6 x 70	S	10	1580,00
25 m6 x 80	S	10	1800,00
25 m6 x 90	S	10	1930,00
25 m6 x 100	S	10	2100,00
25 m6 x 120	S	10	2440,00
30 m6 x 40	S	10	1930,00
30 m6 x 45	S	10	2160,00
30 m6 x 50	S	10	2160,00
30 m6 x 55	S	10	2440,00
30 m6 x 60	S	10	2440,00
30 m6 x 70	S	10	2650,00
30 m6 x 80	S	10	2800,00
30 m6 x 90	S	10	3150,00
30 m6 x 100	S	10	3600,00
30 m6 x 120	S	10	4250,00

Dimensions	PU	Pieces	€/100/Mat.
ISO 02339.002			3100

2339

Steel **type B**



Taper pins, taper 1:50, B = turned

conform to EN 22339

Dimensions ➔ TI-117 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 527

ISO 2339 ➔ replaces DIN 1

RoHS ✓

∅ x length (with cone)

B 1	x	12	S	200	12,10
B 1	x	14	S	200	12,40
B 1	x	16	S	200	13,10
B 1	x	18	S	200	13,40
B 1,5	x	10	S	200	17,10
B 1,5	x	12	S	200	18,20
B 1,5	x	14	S	200	18,60
B 1,5	x	16	S	200	19,70
B 1,5	x	18	S	200	20,10
B 1,5	x	20	S	200	13,70
B 1,5	x	22	S	100	15,50
B 1,5	x	24	S	100	15,80
B 1,5	x	26	S	100	16,60
B 1,5	x	28	S	100	17,40
B 1,5	x	30	S	100	17,70
B 2	x	10	S	100	12,40
B 2	x	12	S	100	13,10
B 2	x	14	S	100	13,40
B 2	x	16	S	100	31,50
B 2	x	18	S	100	14,30
B 2	x	20	S	100	14,70
B 2	x	22	S	100	15,50
B 2	x	24	S	100	15,80
B 2	x	26	S	100	16,40
B 2	x	28	S	100	17,40
B 2	x	30	S	100	17,70
B 2	x	32	S	100	18,40
B 2	x	36	S	100	19,50
B 2	x	40	S	100	20,60
B 2	x	45	S	100	22,30
B 2	x	50	S	100	24,00
B 2,5	x	10	S	100	14,10
B 2,5	x	12	S	100	14,20
B 2,5	x	14	S	100	15,20
B 2,5	x	16	S	100	15,40
B 2,5	x	18	S	100	16,50
B 2,5	x	20	S	100	17,00
B 2,5	x	22	S	100	17,20
B 2,5	x	24	S	100	26,50
B 2,5	x	26	S	100	19,00
B 2,5	x	28	S	100	19,80
B 2,5	x	30	S	100	20,40
B 2,5	x	32	S	100	22,00
B 2,5	x	36	S	100	23,30
B 2,5	x	40	S	100	25,00
B 2,5	x	45	S	100	26,00
B 2,5	x	50	S	100	26,50
B 2,5	x	55	S	100	37,00
B 2,5	x	60	S	100	38,50
B 3	x	10	S	100	14,20
B 3	x	12	S	100	14,60
B 3	x	14	S	100	15,40

Dimensions	PU	Pieces	€/100/Mat.
B 3 x 16	S	100	24,20
B 3 x 18	S	100	17,00
B 3 x 20	S	100	17,50
B 3 x 22	S	100	18,60
B 3 x 24	S	100	19,00
B 3 x 26	S	100	20,70
B 3 x 28	S	100	21,50
B 3 x 30	S	100	22,20
B 3 x 32	S	100	23,30
B 3 x 36	S	100	24,40
B 3 x 40	S	100	26,00
B 3 x 45	S	100	29,00
B 3 x 50	S	100	31,50
B 3 x 55	S	100	38,50
B 3 x 60	S	100	39,50
B 4 x 10	S	100	16,10
B 4 x 12	S	100	16,70
B 4 x 14	S	100	17,50
B 4 x 16	S	100	18,70
B 4 x 18	S	100	19,40
B 4 x 20	S	100	20,10
B 4 x 22	S	100	21,70
B 4 x 24	S	100	23,20
B 4 x 26	S	100	23,60
B 4 x 28	S	100	24,60
B 4 x 30	S	100	26,50
B 4 x 32	S	100	27,50
B 4 x 36	S	100	29,50
B 4 x 40	S	100	31,50
B 4 x 45	S	100	36,00
B 4 x 50	S	100	39,00
B 4 x 55	S	100	43,00
B 4 x 60	S	100	69,00
B 4 x 70	S	100	56,00
B 4 x 80	S	100	59,00
B 4 x 90	S	100	72,00
B 4 x 100	S	100	79,00
B 5 x 14	S	100	18,30
B 5 x 16	S	100	19,40
B 5 x 18	S	100	20,60
B 5 x 20	S	100	22,00
B 5 x 22	S	100	23,30
B 5 x 24	S	100	24,60
B 5 x 26	S	100	26,50
B 5 x 28	S	100	27,50
B 5 x 30	S	100	29,50
B 5 x 32	S	100	31,50
B 5 x 36	S	100	34,00
B 5 x 40	S	100	38,00
B 5 x 45	S	100	41,00
B 5 x 50	S	100	44,50
B 5 x 55	S	100	48,50
B 5 x 60	S	100	56,00
B 5 x 65	S	50	62,00
B 5 x 70	S	50	66,00
B 5 x 80	S	50	72,00
B 5 x 90	S	50	78,00
B 5 x 100	S	50	86,00
B 6 x 20	S	100	40,00
B 6 x 22	S	100	28,00
B 6 x 24	S	100	31,00
B 6 x 26	S	100	33,00
B 6 x 28	S	100	36,00
B 6 x 30	S	100	38,50
B 6 x 32	S	100	41,00
B 6 x 36	S	100	43,00
B 6 x 40	S	100	46,00
B 6 x 45	S	100	49,50
B 6 x 50	S	100	54,00
B 6 x 55	S	50	62,00
B 6 x 60	S	50	68,00
B 6 x 70	S	50	78,00
B 6 x 80	S	50	86,00
B 6 x 90	S	50	97,00
B 6 x 100	S	50	112,00

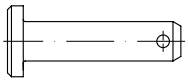
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
B 6	x	110	S	50	192,00
B 6	x	120	S	50	207,00
B 6	x	130	S	50	275,00
B 6,5	x	20	S	100	37,00
B 6,5	x	22	S	100	41,50
B 6,5	x	24	S	100	44,00
B 6,5	x	26	S	100	47,50
B 6,5	x	28	S	100	51,00
B 6,5	x	30	S	100	53,00
B 6,5	x	32	S	100	57,00
B 6,5	x	36	S	100	59,00
B 6,5	x	40	S	100	63,00
B 6,5	x	45	S	100	69,00
B 6,5	x	50	S	100	77,00
B 6,5	x	55	S	50	88,00
B 6,5	x	60	S	50	96,00
B 6,5	x	70	S	50	108,00
B 6,5	x	80	S	50	123,00
B 6,5	x	90	S	50	136,00
B 6,5	x	100	S	50	163,00
B 6,5	x	110	S	50	215,00
B 6,5	x	120	S	50	234,00
B 6,5	x	130	S	50	310,00
B 7	x	24	S	50	63,00
B 7	x	26	S	50	72,00
B 7	x	28	S	50	78,00
B 7	x	30	S	50	82,00
B 7	x	32	S	50	85,00
B 7	x	36	S	50	92,00
B 7	x	40	S	50	99,00
B 7	x	45	S	50	106,00
B 7	x	50	S	50	120,00
B 7	x	55	S	50	134,00
B 7	x	60	S	50	147,00
B 7	x	70	S	50	172,00
B 7	x	80	S	50	189,00
B 7	x	90	S	50	230,00
B 7	x	100	S	50	275,00
B 7	x	110	S	50	305,00
B 7	x	120	S	50	335,00
B 7	x	130	S	50	370,00
B 7	x	140	S	50	425,00
B 7	x	150	S	50	495,00
B 8	x	24	S	50	47,50
B 8	x	26	S	50	51,00
B 8	x	28	S	50	54,00
B 8	x	30	S	50	57,00
B 8	x	32	S	50	61,00
B 8	x	36	S	50	65,00
B 8	x	40	S	50	67,00
B 8	x	45	S	50	68,00
B 8	x	50	S	50	84,00
B 8	x	55	S	50	95,00
B 8	x	60	S	50	103,00
B 8	x	70	S	50	177,00
B 8	x	80	S	50	130,00
B 8	x	90	S	50	157,00
B 8	x	100	S	50	184,00
B 8	x	110	S	50	205,00
B 8	x	120	S	50	224,00
B 8	x	130	S	50	295,00
B 8	x	140	S	50	315,00
B 8	x	150	S	50	385,00
B 10	x	28	S	50	84,00
B 10	x	30	S	50	91,00
B 10	x	32	S	50	95,00
B 10	x	36	S	50	96,00
B 10	x	40	S	50	111,00
B 10	x	45	S	50	118,00
B 10	x	50	S	50	123,00
B 10	x	55	S	25	151,00
B 10	x	60	S	25	164,00
B 10	x	65	S	25	192,00
B 10	x	70	S	25	189,00
B 10	x	80	S	25	210,00

Dimensions			PU	Pieces	€/100/Mat.
B 10	x	90	S	25	223,00
B 10	x	100	S	25	255,00
B 10	x	110	S	25	275,00
B 10	x	120	S	25	295,00
B 10	x	130	S	25	345,00
B 10	x	140	S	25	345,00
B 10	x	150	S	25	385,00
B 12	x	30	S	25	121,00
B 12	x	32	S	25	121,00
B 12	x	36	S	25	121,00
B 12	x	40	S	25	142,00
B 12	x	45	S	25	160,00
B 12	x	50	S	25	165,00
B 12	x	55	S	25	182,00
B 12	x	60	S	25	197,00
B 12	x	70	S	25	230,00
B 12	x	80	S	25	255,00
B 12	x	90	S	25	275,00
B 12	x	100	S	25	325,00
B 12	x	110	S	10	385,00
B 12	x	120	S	10	455,00
B 12	x	130	S	10	540,00
B 12	x	140	S	10	540,00
B 12	x	150	S	10	610,00
B 13	x	30	S	25	167,00
B 13	x	32	S	25	167,00
B 13	x	36	S	25	167,00
B 13	x	40	S	25	186,00
B 13	x	45	S	25	206,00
B 13	x	50	S	25	221,00
B 13	x	55	S	25	239,00
B 13	x	60	S	25	255,00
B 13	x	70	S	25	315,00
B 13	x	80	S	25	345,00
B 13	x	90	S	25	390,00
B 13	x	100	S	25	430,00
B 13	x	110	S	10	510,00
B 13	x	120	S	10	540,00
B 13	x	130	S	10	660,00
B 13	x	140	S	10	690,00
B 13	x	150	S	10	690,00
B 14	x	40	S	25	204,00
B 14	x	45	S	25	229,00
B 14	x	50	S	25	245,00
B 14	x	55	S	25	265,00
B 14	x	60	S	25	285,00
B 14	x	70	S	25	330,00
B 14	x	80	S	25	370,00
B 14	x	90	S	25	420,00
B 14	x	100	S	25	495,00
B 14	x	110	S	10	570,00
B 14	x	120	S	10	620,00
B 14	x	130	S	10	730,00
B 14	x	140	S	10	770,00
B 14	x	150	S	10	890,00
B 16	x	40	S	10	290,00
B 16	x	45	S	10	315,00
B 16	x	50	S	10	335,00
B 16	x	55	S	10	360,00
B 16	x	60	S	10	380,00
B 16	x	70	S	10	440,00
B 16	x	80	S	10	480,00
B 16	x	90	S	10	530,00
B 16	x	100	S	10	600,00
B 16	x	110	S	10	660,00
B 16	x	120	S	10	720,00
B 16	x	130	S	10	840,00
B 16	x	140	S	10	890,00
B 16	x	150	S	1	1060,00
B 16	x	165	S	1	1580,00
B 16	x	180	S	1	1580,00
B 20	x	50	S	10	940,00
B 20	x	55	S	10	1030,00
B 20	x	60	S	10	1060,00
B 20	x	70	S	10	1150,00

Dimensions			PU	Pieces	€/100/Mat.
B 20	x	80	S	10	1210,00
B 20	x	90	S	10	1250,00
B 20	x	100	S	10	1470,00
B 20	x	110	S	1	1580,00
B 20	x	120	S	1	1670,00
B 20	x	130	S	1	1900,00
B 20	x	140	S	1	2050,00
B 20	x	150	S	1	2300,00
B 20	x	165	S	1	2550,00

ISO	02341.012	490
2341	**Steel zinc plated**	**type B**



Clevis pins with head,
B = with pin hole,
pin ∅ with tolerance h11

conform to EN 22341

Dimensions ➔ TI-122
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-10
REACH ➔ TI-262

ISO 2341 ➔ replaces DIN 1444 (compatible)

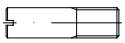
RoHS ✓

pin ∅ x overall length x length to middle of pin hole

B 8	x	20	x	16,5	S	100	1320,00	ZP
B 8	x	30	x	24	S	100	1340,00	ZP
B 8	x	25	x	21,5	S	100	1340,00	ZP
B 8	x	30	x	26,5	S	100	1350,00	ZP
B 8	x	35	x	31,5	S	100	1360,00	ZP
B 8	x	50	x	45,5	S	100	1380,00	ZP
B 10	x	25	x	20,5	S	10	1920,00	ZP
B 10	x	30	x	25,5	S	10	1930,00	ZP
B 10	x	35	x	30,5	S	10	1950,00	ZP
B 10	x	40	x	33	S	10	1970,00	ZP
B 10	x	45	x	40,5	S	10	2000,00	ZP
B 10	x	50	x	45,5	S	10	2030,00	ZP
B 10	x	60	x	56	S	10	2040,00	ZP
B 10	x	70	x	65,5	S	10	2060,00	ZP
B 12	x	30	x	24,5	S	10	1920,00	ZP
B 12	x	35	x	29,5	S	10	1930,00	ZP
B 12	x	40	x	36	S	10	1950,00	ZP
B 12	x	45	x	39,5	S	10	1970,00	ZP
B 12	x	50	x	44,5	S	10	2000,00	ZP
B 12	x	60	x	54,5	S	10	2040,00	ZP
B 16	x	40	x	34	S	1	2100,00	ZP
B 16	x	45	x	39	S	1	2130,00	ZP
B 16	x	50	x	44	S	1	2160,00	ZP
B 16	x	55	x	49	S	1	2200,00	ZP
B 16	x	60	x	54	S	1	2230,00	ZP
B 16	x	65	x	59	S	1	2260,00	ZP
B 18	x	65	x	58	S	1	2290,00	ZP
B 20	x	40	x	32	S	1	2240,00	ZP
B 20	x	50	x	42	S	1	2300,00	ZP
B 20	x	55	x	47	S	1	2360,00	ZP
B 20	x	60	x	52	S	1	2450,00	ZP
B 20	x	65	x	57	S	1	2550,00	ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	02342.000	140

2342 14 H



Slotted headless screws with chamfered end

Dimensions ➔ TI-19
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 527

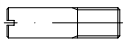
ISO 2342 ➔ replaces DIN 427 (compatible)

RoHS ✓

M 3	x	6	S	100	18,80
M 3	x	8	S	100	28,00
M 3	x	10	S	100	14,40
M 3	x	12	S	100	19,00
M 4	x	8	S	100	24,80
M 4	x	10	S	100	15,20
M 4	x	12	S	100	16,40
M 4	x	16	S	100	20,40
M 4	x	20	S	100	23,60
M 4	x	25	S	100	26,50
M 5	x	10	S	100	28,00
M 5	x	12	S	100	23,20
M 5	x	16	S	100	23,00
M 5	x	18	S	100	23,80
M 5	x	20	S	100	23,80
M 5	x	25	S	100	31,50
M 5	x	30	S	100	36,00
M 5	x	35	S	100	53,00
M 5	x	40	S	100	72,00
M 6	x	12	S	100	21,20
M 6	x	16	S	100	23,60
M 6	x	18	S	100	26,00
M 6	x	20	S	100	26,00
M 6	x	25	S	100	29,50
M 6	x	30	S	100	40,50
M 6	x	35	S	100	76,00
M 6	x	40	S	100	114,00
M 6	x	45	S	100	118,00
M 6	x	50	S	100	124,00
M 8	x	16	S	100	29,00
M 8	x	18	S	100	34,50
M 8	x	20	S	100	34,50
M 8	x	25	S	100	37,50
M 8	x	30	S	100	46,00
M 8	x	35	S	100	54,00
M 8	x	40	S	100	72,00
M 8	x	45	S	100	136,00
M 8	x	50	S	100	114,00
M 8	x	60	S	100	156,00
M 10	x	20	S	50	84,00
M 10	x	25	S	50	91,00
M 10	x	30	S	50	97,00
M 10	x	35	S	50	106,00
M 10	x	40	S	50	112,00
M 10	x	45	S	50	138,00
M 10	x	50	S	50	146,00
M 12	x	20	S	50	210,00
M 12	x	25	S	50	224,00
M 12	x	30	S	50	260,00
M 12	x	35	S	50	285,00
M 12	x	40	S	50	330,00
M 12	x	50	S	50	410,00

Dimensions	PU Pieces	€/100/Mat.
ISO	02342.010	140

2342 14 H zinc plated



Slotted headless screws with chamfered end

Dimensions ➔ TI-19
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 527

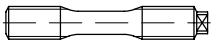
ISO 2342 ➔ replaces DIN 427 (compatible)

RoHS ✓

M 3	x	6	S	100	43,00 ZP
M 3	x	8	S	100	43,50 ZP
M 3	x	10	S	100	43,50 ZP
M 3	x	12	S	100	48,00 ZP
M 3	x	16	S	100	49,50 ZP
M 4	x	8	S	100	44,00 ZP
M 4	x	10	S	100	44,50 ZP
M 4	x	12	S	100	45,50 ZP
M 4	x	16	S	100	49,50 ZP
M 4	x	20	S	100	53,00 ZP
M 4	x	25	S	100	56,00 ZP
M 4	x	30	S	100	71,00 ZP
M 5	x	10	S	100	47,50 ZP
M 5	x	12	S	100	48,50 ZP
M 5	x	16	S	100	53,00 ZP
M 5	x	20	S	100	53,00 ZP
M 5	x	25	S	100	61,00 ZP
M 5	x	30	S	100	65,00 ZP
M 5	x	40	S	100	102,00 ZP
M 6	x	12	S	100	51,00 ZP
M 6	x	16	S	100	53,00 ZP
M 6	x	20	S	100	55,00 ZP
M 6	x	25	S	100	59,00 ZP
M 6	x	30	S	100	70,00 ZP
M 6	x	50	S	100	154,00 ZP
M 8	x	16	S	100	58,00 ZP
M 8	x	20	S	100	64,00 ZP
M 8	x	25	S	100	67,00 ZP
M 8	x	30	S	100	76,00 ZP
M 8	x	35	S	100	82,00 ZP
M 8	x	40	S	100	102,00 ZP
M 10	x	20	S	50	114,00 ZP
M 10	x	25	S	50	120,00 ZP
M 10	x	30	S	50	126,00 ZP
M 10	x	35	S	50	134,00 ZP
M 10	x	40	S	50	142,00 ZP
M 10	x	50	S	50	176,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	02510.304	550

2510 Mu 1.7709 AD W7 type L



Bolts with waisted shank, L = with long thread, Mu = with 2 nuts mat. 1.7218

bolts with inspection certificate 3.2,
nuts with inspection certificate 3.1,
TÜV accepted products,
prices are plus certificate costs

Dimensions ➔ TI-18
Material properties ➔ TI-240
Tightening torque ➔ TI-245

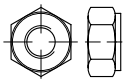
1.7709 = 21CrMoV 5-7 = GA
1.7218 = 25CrMo4 = KG

RoHS ✓ REACh SVHC free

LM 12	x	65	S	1	1230,00
LM 12	x	70	S	1	1240,00
LM 12	x	75	S	1	1280,00
LM 12	x	80	S	1	1300,00
LM 12	x	85	S	1	1340,00
LM 12	x	90	S	1	1350,00
LM 12	x	100	S	1	1410,00
LM 12	x	110	S	1	1470,00
LM 16	x	75	S	1	1660,00
LM 16	x	80	S	1	1660,00
LM 16	x	85	S	1	1720,00
LM 16	x	90	S	1	1740,00
LM 16	x	95	S	1	1810,00
LM 16	x	100	S	1	1820,00
LM 16	x	110	S	1	1940,00
LM 16	x	120	S	1	1990,00
LM 16	x	130	S	1	2050,00
LM 16	x	140	S	1	2130,00
LM 16	x	150	S	1	2230,00
LM 20	x	80	S	1	2400,00
LM 20	x	85	S	1	2420,00
LM 20	x	95	S	1	2460,00
LM 20	x	100	S	1	2500,00
LM 20	x	105	S	1	2550,00
LM 20	x	110	S	1	2600,00
LM 20	x	115	S	1	2650,00
LM 20	x	120	S	1	2650,00
LM 20	x	130	S	1	2800,00
LM 20	x	140	S	1	2900,00
LM 20	x	150	S	1	3150,00
LM 20	x	160	S	1	3150,00
LM 20	x	170	S	1	3350,00
LM 20	x	180	S	1	3400,00
LM 22	x	140	S	1	5400,00
LM 24	x	95	S	1	3400,00
LM 24	x	100	S	1	3450,00
LM 24	x	110	S	1	3450,00
LM 24	x	115	S	1	3650,00
LM 24	x	120	S	1	3700,00
LM 24	x	125	S	1	3800,00
LM 24	x	130	S	1	3800,00
LM 24	x	140	S	1	3900,00
LM 24	x	145	S	1	3900,00
LM 24	x	150	S	1	4100,00
LM 24	x	160	S	1	4200,00
LM 24	x	170	S	1	5600,00
LM 24	x	180	S	1	5700,00
LM 24	x	200	S	1	6700,00

Dimensions			PU	Pieces	€/100/Mat.
LM 27	x	110	S	1	4950,00
LM 27	x	120	S	1	5100,00
LM 27	x	130	S	1	5100,00
LM 27	x	140	S	1	5100,00
LM 27	x	150	S	1	5300,00
LM 27	x	160	S	1	5600,00
LM 27	x	190	S	1	7300,00
LM 27	x	205	S	1	8300,00
LM 27	x	210	S	1	8500,00
LM 27	x	220	S	1	8500,00
LM 30	x	140	S	1	6500,00
LM 30	x	150	S	1	6600,00
LM 30	x	160	S	1	6800,00
LM 30	x	170	S	1	7900,00
LM 30	x	180	S	1	8200,00
LM 30	x	200	S	1	8800,00
LM 30	x	220	S	1	8500,00
LM 30	x	235	S	1	9400,00
LM 33	x	160	S	1	8800,00
LM 33	x	180	S	1	9100,00
LM 33	x	200	S	1	9100,00
LM 33	x	235	S	1	11300,00
LM 33	x	240	S	1	11300,00
LM 33	x	260	S	1	11500,00
LM 39	x	220	S	1	16000,00
LM 39	x	240	S	1	16600,00

DIN	02510.305	550
2510	**1.7218 AD W7**	**type NF**



Hexagon nuts for bolts with waisted shank, NF = standard type

with inspection certificate 3.1,
TÜV accepted products,
prices are plus certificate costs

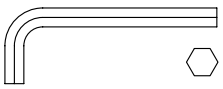
Dimensions ➔ TI-18 Tightening torque ➔ TI-245
Material properties ➔ TI-240

1.7218 = 25CrMo4 = KG
Alternativ 1.7258 = 24CrMo5 = G

RoHS ✓ REACh SVHC free

NF M 12	S	1	189,00
NF M 14	S	1	305,00
NF M 16	S	1	204,00
NF M 20	S	1	345,00
NF M 24	S	1	445,00
NF M 27	S	1	630,00
NF M 30	S	1	820,00
NF M 33	S	1	970,00
NF M 36	S	1	1340,00
NF M 39	S	1	2170,00
NF M 42	S	1	2390,00
NF M 45	S	1	3000,00
NF M 48	S	1	4200,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	02936.200		350
2936	**Steel QT blackened**		



Hexagon socket screw keys (hexagon socket wrenches)

(QT = quenched and tempered)

ISO 2936 ➔ replaces DIN 911

RoHS ✓ REACh SVHC free

s = 0,7	S	100	94,00
s = 0,7	K	10	134,00
s = 0,9	S	100	88,00
s = 0,9	K	10	138,00
s = 1,3	S	100	62,00
s = 1,3	K	10	103,00
s = 1,5	S	100	36,50
s = 1,5	K	10	66,00
s = 2	S	100	38,50
s = 2	K	10	79,00
s = 2,5	S	100	44,00
s = 2,5	K	10	85,00
s = 3	S	100	51,00
s = 3	K	10	103,00
s = 4	S	100	57,00
s = 4	K	10	105,00
s = 5	S	100	69,00
s = 5	K	10	121,00
s = 6	S	50	95,00
s = 6	K	10	146,00
s = 7	S	10	152,00
s = 8	S	10	161,00
s = 10	S	10	233,00
s = 12	S	5	385,00
s = 14	S	5	540,00
s = 17	S	5	960,00
s = 19	S	5	1370,00
s = 22	S	1	3550,00
s = 27	S	1	5000,00

ISO	02936.210	350
2936	**Steel QT zinc plated**	



Hexagon socket screw keys (hexagon socket wrenches)

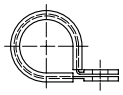
(QT = quenched and tempered)

ISO 2936 ➔ replaces DIN 911

RoHS ✓ REACh SVHC free

s = 4	S	100	68,00 ZP
s = 5	S	100	83,00 ZP
s = 6	S	50	109,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	03016.014		555
3016	**Steel (W1) zinc plated**		**type D1**



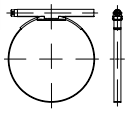
Fastening clamps, type D 1, with rubber profile

Dimensions ➔ TI-130 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

Nominal ∅ x band width					
5	x	12 - W1	S	100	270,00 W1 ZP
5	x	15 - W1	S	100	128,00 W1 ZP
6	x	9 - W1	S	100	206,00 W1 ZP
6	x	15 - W1	S	100	118,00 W1 ZP
8	x	15 - W1	S	100	118,00 W1 ZP
10	x	15 - W1	S	100	118,00 W1 ZP
10	x	20 - W1	S	50	176,00 W1 ZP
12	x	15 - W1	S	50	118,00 W1 ZP
12	x	20 - W1	S	50	176,00 W1 ZP
13	x	15 - W1	S	100	118,00 W1 ZP
13	x	20 - W1	S	50	176,00 W1 ZP
14	x	15 - W1	S	100	118,00 W1 ZP
14	x	20 - W1	S	50	176,00 W1 ZP
15	x	15 - W1	S	100	118,00 W1 ZP
15	x	20 - W1	S	50	176,00 W1 ZP
16	x	15 - W1	S	100	118,00 W1 ZP
16	x	20 - W1	S	50	176,00 W1 ZP
18	x	15 - W1	S	100	118,00 W1 ZP
18	x	20 - W1	S	50	176,00 W1 ZP
19	x	15 - W1	S	100	118,00 W1 ZP
19	x	20 - W1	S	50	176,00 W1 ZP
20	x	15 - W1	S	100	118,00 W1 ZP
20	x	20 - W1	S	50	176,00 W1 ZP
21	x	15 - W1	S	100	136,00 W1 ZP
22	x	15 - W1	S	100	136,00 W1 ZP
22	x	20 - W1	S	50	217,00 W1 ZP
23	x	15 - W1	S	100	136,00 W1 ZP
23	x	20 - W1	S	50	217,00 W1 ZP
24	x	20 - W1	S	50	217,00 W1 ZP
25	x	15 - W1	S	100	136,00 W1 ZP
25	x	20 - W1	S	50	217,00 W1 ZP
26	x	15 - W1	S	100	136,00 W1 ZP
28	x	15 - W1	S	100	136,00 W1 ZP
28	x	20 - W1	S	50	217,00 W1 ZP
30	x	15 - W1	S	100	136,00 W1 ZP
30	x	20 - W1	S	50	217,00 W1 ZP
32	x	15 - W1	S	100	167,00 W1 ZP
32	x	20 - W1	S	50	265,00 W1 ZP
34	x	15 - W1	S	100	167,00 W1 ZP
34	x	20 - W1	S	50	265,00 W1 ZP
35	x	15 - W1	S	100	167,00 W1 ZP
35	x	20 - W1	S	50	265,00 W1 ZP
36	x	20 - W1	S	50	265,00 W1 ZP
38	x	20 - W1	S	50	265,00 W1 ZP
40	x	20 - W1	S	50	265,00 W1 ZP

Dimensions		PU Pieces	€/100/Mat.
DIN	03017.011		555
3017	**Steel (W1) zinc plated**		**type A**



Hose clamps, A = with worm gear drive

Dimensions ➔ TI-131 Corrosion protection ➔ TI-228

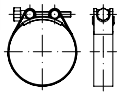
Stainless ➔ pg. 528

Screw drive: slotted, hexagon and cross recess (H2)

RoHS ✓ REACh SVHC free

clamping range / band width x wrench size			
8- 12/ 9 C7	S	100	79,00 ZP
10- 16/ 9 C7	S	100	79,00 ZP
12- 22/ 9 C7	S	100	84,00 ZP
16- 27/ 9 C7	S	100	86,00 ZP
16- 27/12 C7	S	50	111,00 ZP
20- 32/ 9 C7	S	100	86,00 ZP
20- 32/12 C7	S	50	113,00 ZP
25- 40/ 9 C7	S	100	96,00 ZP
25- 40/12 C7	S	50	120,00 ZP
30- 45/ 9 C7	S	100	101,00 ZP
30- 45/12 C7	S	50	123,00 ZP
35- 50/ 9 C7	S	50	102,00 ZP
35- 50/12 C7	S	50	124,00 ZP
40- 60/ 9 C7	S	50	107,00 ZP
40- 60/12 C7	S	25	146,00 ZP
50- 70/ 9 C7	S	50	108,00 ZP
50- 70/12 C7	S	25	152,00 ZP
60- 80/ 9 C7	S	25	118,00 ZP
60- 80/12 C7	S	25	166,00 ZP
70- 90/ 9 C7	S	25	137,00 ZP
70- 90/12 C7	S	25	174,00 ZP
80-100/ 9 C7	S	25	142,00 ZP
80-100/12 C7	S	1	180,00 ZP
90-110/ 9 C7	S	25	148,00 ZP
90-110/12 C7	S	1	183,00 ZP
100-120/12 C7	S	1	194,00 ZP
110-130/12 C7	S	1	203,00 ZP
120-140/12 C7	S	1	205,00 ZP
130-150/12 C7	S	1	213,00 ZP
140-160/12 C7	S	1	229,00 ZP
150-170/12 C7	S	1	239,00 ZP
160-180/12 C7	S	1	246,00 ZP
170-190/12 C7	S	1	255,00 ZP

Dimensions		PU Pieces	€/100/Mat.
DIN	03017.013		555
3017	**Steel (W1) zinc plated**		**type C1**



Hose clamps, C1 = with hinge bolts, one-piece

with hexagon clamping screw

Dimensions ➔ TI-131 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

clamping range / band width			
17- 19/18	S	50	920,00 ZP
19- 21/18	S	50	940,00 ZP
21- 23/18	S	50	940,00 ZP
23- 25/18	S	50	950,00 ZP
25- 27/18	S	50	960,00 ZP
27- 29/18	S	50	960,00 ZP
29- 31/18	S	50	970,00 ZP
31- 34/18	S	50	990,00 ZP
34- 37/18	S	50	1000,00 ZP
37- 40/18	S	50	1000,00 ZP
40- 43/18	S	50	1010,00 ZP
43- 47/20	S	50	1020,00 ZP
47- 51/20	S	50	1020,00 ZP
51- 55/20	S	50	1030,00 ZP
55- 59/20	S	50	1050,00 ZP
59- 63/20	S	50	1050,00 ZP
63- 68/20	S	50	1060,00 ZP
68- 73/25	S	25	1280,00 ZP
73- 79/25	S	25	1300,00 ZP
79- 85/25	S	25	1340,00 ZP
85- 91/25	S	25	1350,00 ZP
91- 97/25	S	25	1380,00 ZP
97-104/25	S	25	1410,00 ZP
104-112/25	S	25	1440,00 ZP
112-121/25	S	25	1480,00 ZP
121-130/25	S	25	1530,00 ZP
130-140/30	S	10	2550,00 ZP
140-150/30	S	10	2600,00 ZP
150-162/30	S	10	2650,00 ZP
162-174/30	S	10	2800,00 ZP
174-187/30	S	10	2900,00 ZP
187-200/30	S	10	2900,00 ZP
200-213/30	S	10	3150,00 ZP
213-226/30	S	5	3250,00 ZP
226-239/30	S	10	3300,00 ZP
239-252/30	S	10	3350,00 ZP

Dimensions		PU Pieces	€/100/Mat.
DIN	03404.510		556
3404	**5.8 zinc plated**		**MF**



Lubricating nipples, button head, hexagon drive, MF = with metric fine pitch thread

Dimensions ➔ TI-25 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Brass ➔ pg. 636

Tapered lubrication nipple ➔ DIN 71412

RoHS ✓

thread M x thread pitch - wrench size				
M 6	x 1	s = 11	S 100	275,00 ZP
M 6	x 1	s = 17	S 100	275,00 ZP
M 8	x 1	s = 11	S 100	249,00 ZP
M 8	x 1	s = 17	S 100	249,00 ZP
M 10	x 1	s = 17	S 100	249,00 ZP
M 16	x 1,5	s = 22	S 25	770,00 ZP

DIN	03404.514		556
3404	**5.8 zinc plated**		**G**



Lubricating nipples, button head, hexagon drive, G = with inch pipe thread

Dimensions ➔ TI-25 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Tapered lubrication nipple ➔ DIN 71412

RoHS ✓

pipe thread G-wrench size			
G 1/4-16 s = 17	S	50	255,00 ZP
G 1/4-22 s = 22	S	25	730,00 ZP
G 3/8-22 s = 22	S	25	730,00 ZP

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- Technology hotline for customer consulting
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Dimensions	PU	Pieces	€/100/Mat.
DIN	03405.011		556
3405	**Steel zinc plated**		**type A**



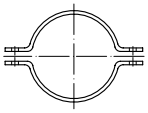
Lubricating nipples, cupped type

Dimensions → TI-25 REACH → TI-262
Corrosion protection → TI-228

RoHS ✓

AM 6	x	1	S	100	105,00 ZP
AM 8	x	1	S	100	113,00 ZP

DIN	03567.001	560
3567	**Steel with primer**	**type A**



Pipe clamps, A = equal sided

Dimensions → TI-132

A 5 → pg. 528

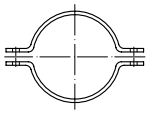
Prices are valid for pipe clamps halves

RoHS ✓ | REACh SVHC free

inside ∅ / for pipe nominal width

A 22 / NW 15	S	100	163,00
A 27 / NW 20	S	100	171,00
A 34 / NW 25	S	50	176,00
A 43 / NW 32	S	50	190,00
A 49 / NW 40	S	50	226,00
A 61 / NW 50	S	50	345,00
A 77 / NW 65	S	50	395,00
A 89 / NW 80	S	20	430,00
A 115 / NW 100	S	20	890,00
A 140 / NW 125	S	10	1010,00
A 169 / NW 150	S	10	1120,00
A 220 / NW 200	S	1	1350,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	03567.021		560
3567	**Steel hot dip galvanized**		**type A**



Pipe clamps, A = equal sided

Dimensions → TI-132 Corrosion protection → TI-231

A 5 → pg. 528

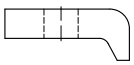
Prices are valid for pipe clamps halves

RoHS ✓ | REACh SVHC free

inside ∅ / for pipe nominal width

A 22 / NW 15	S	50	184,00 HDG
A 27 / NW 20	S	50	200,00 HDG
A 34 / NW 25	S	50	206,00 HDG
A 43 / NW 32	S	50	226,00 HDG
A 45 / NW 40	S	50	229,00 HDG
A 49 / NW 40	S	50	265,00 HDG
A 57 / NW 50	S	50	440,00 HDG
A 61 / NW 50	S	50	455,00 HDG
A 77 / NW 65	S	50	520,00 HDG
A 89 / NW 80	S	20	590,00 HDG
A 108 / NW 100	S	10	1250,00 HDG
A 115 / NW 100	S	10	1280,00 HDG
A 140 / NW 125	S	10	1480,00 HDG
A 169 / NW 150	S	10	1650,00 HDG
A 220 / NW 200	S	1	1990,00 HDG
A 273 / NW 250	S	1	3450,00 HDG
A 305 / NW 300	S	1	3750,00 HDG

DIN	03568.020	561
3568	**Steel hot dip galvanized**	



Clamping plates for pipe fixings for double-T-carriers

further clipping elements
→ LINDAPTER-Program (orange pages)

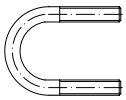
Dimensions → TI-132 Product information → TI-156
Corrosion protection → TI-231

RoHS ✓ | REACh SVHC free

width b / clipping height h = for screws M

60 / 10 - M 16	S	1	1610,00 HDG
60 / 12 - M 16	S	1	1660,00 HDG
60 / 14 - M 16	S	1	1700,00 HDG
60 / 16 - M 16	S	1	1740,00 HDG
60 / 18 - M 16	S	1	1800,00 HDG
60 / 20 - M 16	S	1	1870,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
DIN	03570.011		560
3570	**Steel zinc plated**		**type A**



Stirrup bolts without nuts, A = double-sided fixing thread

nuts → DIN 934 / ISO 4032

Dimensions → TI-130 Corrosion protection → TI-228

Stainless → pg. 528

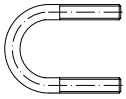
Hanger height for sheet thickness 10 mm

RoHS ✓ | REACh SVHC free

nominal width / ~ pipe outside ∅

A 23 / NW 15	S	100	204,00 ZP
A 30 / NW 20	S	100	211,00 ZP
A 38 / NW 25	S	100	233,00 ZP
A 46 / NW 32	S	100	260,00 ZP
A 52 / NW 40	S	100	290,00 ZP
A 64 / NW 50	S	50	480,00 ZP
A 82 / NW 65	S	50	570,00 ZP
A 94 / NW 80	S	50	730,00 ZP
A 120 / NW 100	S	10	1020,00 ZP
A 148 / NW 125	S	10	1070,00 ZP
A 176 / NW 150	S	10	1240,00 ZP
A 228 / NW 200	S	5	2550,00 ZP
A 282 / NW 250	S	5	3100,00 ZP
A 332 / NW 300	S	1	3700,00 ZP

DIN	03570.021	560
3570	**Steel hot dip galvanized**	**type A**



Stirrup bolts without nuts, A = double-sided fixing thread

thread tolerance 6h (6az + HDG = U)

nuts → DIN 934 / ISO 4032

Dimensions → TI-130 Corrosion protection → TI-231

Stainless → pg. 528

Hanger height for sheet thickness 10 mm

RoHS ✓ | REACh SVHC free

nominal width / ~ pipe outside ∅

A 30 / NW 20	S	100	310,00 HDG
A 38 / NW 25	S	100	340,00 HDG
A 46 / NW 32	S	100	390,00 HDG
A 52 / NW 40	S	100	420,00 HDG
A 64 / NW 50	S	50	690,00 HDG
A 82 / NW 65	S	50	790,00 HDG
A 94 / NW 80	S	50	950,00 HDG
A 120 / NW 100	S	10	1520,00 HDG
A 148 / NW 125	S	10	1640,00 HDG
A 176 / NW 150	S	10	1810,00 HDG
A 228 / NW 200	S	5	4550,00 HDG
A 332 / NW 300	S	1	5600,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
ISO	04014.504		*
4014	**5.6**		**AD W7**



Hexagon head bolts

short dimensions partly thread nearly to head,
M 6 – M 39 for pressure vessel const.
as per AD regulations,
products with renunciation of inspection certificate,
*M 10/12 = RAZ 3210 other ∅ = RAZ 400

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	28,50
M 6	x	35	S	200	28,50
M 6	x	40	S	200	30,00
M 6	x	45	S	200	32,00
M 6	x	50	S	200	35,50
M 6	x	55	S	200	46,00
M 6	x	60	S	200	48,00
M 6	x	70	S	200	59,00
M 8	x	35	S	200	42,50
M 8	x	40	S	200	44,50
M 8	x	45	S	200	46,00
M 8	x	50	S	200	48,00
M 8	x	55	S	200	59,00
M 8	x	60	S	200	62,00
M 8	x	80	S	200	85,00
M 8	x	90	S	100	138,00
M 8	x	100	S	100	192,00
M 10	x	45	S	100	59,00
M 10	x	50	S	100	60,00
M 10	x	55	S	100	92,00
M 10	x	60	S	100	111,00
M 10	x	65	S	100	125,00
M 10	x	70	S	100	132,00
M 10	x	80	S	100	135,00
M 10	x	90	S	100	164,00
M 10	x	100	S	100	177,00
M 10	x	110	S	50	265,00
M 12	x	50	S	100	91,00
M 12	x	55	S	100	96,00
M 12	x	60	S	100	102,00
M 12	x	65	S	50	115,00
M 12	x	70	S	50	115,00
M 12	x	75	S	50	134,00
M 12	x	80	S	50	134,00
M 12	x	85	S	50	183,00
M 12	x	90	S	50	147,00
M 12	x	100	S	50	160,00
M 12	x	110	S	50	265,00
M 12	x	120	S	50	350,00
M 12	x	130	S	50	380,00
M 12	x	140	S	50	880,00
M 12	x	150	S	50	930,00
M 12	x	160	S	25	1060,00
M 16	x	65	S	25	200,00
M 16	x	70	S	25	209,00
M 16	x	75	S	25	229,00
M 16	x	80	S	25	229,00
M 16	x	85	S	25	300,00
M 16	x	90	S	25	242,00
M 16	x	95	S	25	295,00
M 16	x	100	S	25	265,00
M 16	x	110	S	25	295,00
M 16	x	120	S	25	310,00
M 16	x	130	S	25	355,00
M 16	x	140	S	25	395,00
M 16	x	150	S	25	450,00
M 16	x	160	S	25	610,00
M 16	x	180	S	1	1250,00
M 16	x	200	S	1	1320,00
M 20	x	80	S	25	375,00
M 20	x	85	S	25	460,00
M 20	x	90	S	25	420,00
M 20	x	95	S	25	480,00
M 20	x	100	S	25	440,00
M 20	x	110	S	25	480,00
M 20	x	120	S	25	520,00
M 20	x	130	S	25	610,00
M 20	x	140	S	25	660,00
M 20	x	150	S	25	740,00
M 20	x	160	S	10	790,00
M 20	x	170	S	10	1110,00
M 20	x	180	S	10	1110,00
M 20	x	190	S	1	1550,00
M 20	x	200	S	1	1550,00
M 20	x	210	S	1	1770,00
M 20	x	220	S	1	2090,00
M 20	x	240	S	1	2600,00
M 20	x	250	S	1	2700,00
M 20	x	260	S	1	2900,00
M 20	x	280	S	1	3150,00
M 22	x	100	S	10	1730,00
M 24	x	90	S	10	730,00
M 24	x	95	S	10	850,00
M 24	x	100	S	10	770,00
M 24	x	110	S	10	850,00
M 24	x	120	S	10	870,00
M 24	x	130	S	10	970,00
M 24	x	140	S	10	1020,00
M 24	x	150	S	10	1070,00
M 24	x	160	S	10	1130,00
M 24	x	170	S	1	1220,00
M 24	x	180	S	1	1220,00
M 24	x	190	S	1	1600,00
M 24	x	200	S	1	1600,00
M 24	x	210	S	1	2750,00
M 24	x	220	S	1	2850,00
M 24	x	230	S	1	3000,00
M 24	x	240	S	1	3100,00
M 24	x	260	S	1	3550,00
M 24	x	280	S	1	3850,00
M 24	x	300	S	1	4050,00
M 27	x	100	S	1	1170,00
M 27	x	110	S	1	1220,00
M 27	x	120	S	1	1250,00
M 27	x	130	S	1	1320,00
M 27	x	140	S	1	1370,00
M 27	x	150	S	1	1430,00
M 27	x	160	S	1	1470,00
M 27	x	170	S	1	1670,00
M 27	x	180	S	1	1530,00
M 27	x	190	S	1	1670,00
M 27	x	200	S	1	1670,00
M 27	x	220	S	1	2700,00
M 27	x	230	S	1	3000,00
M 27	x	240	S	1	3200,00
M 27	x	260	S	1	3550,00
M 27	x	280	S	1	3950,00
M 30	x	110	S	1	1690,00
M 30	x	120	S	1	1750,00
M 30	x	130	S	1	1810,00
M 30	x	140	S	1	1850,00
M 30	x	150	S	1	1930,00
M 30	x	160	S	1	2010,00
M 30	x	170	S	1	2160,00
M 30	x	180	S	1	2160,00
M 30	x	190	S	1	2290,00
M 30	x	200	S	1	2290,00
M 30	x	210	S	1	2430,00
M 30	x	220	S	1	2430,00
M 30	x	230	S	1	2600,00
M 30	x	240	S	1	2600,00
M 30	x	250	S	1	2750,00
M 30	x	260	S	1	2750,00
M 30	x	280	S	1	2900,00
M 30	x	300	S	1	3050,00
M 30	x	320	S	1	4450,00
M 33	x	130	S	1	2230,00
M 33	x	140	S	1	2330,00
M 33	x	150	S	1	2420,00
M 33	x	160	S	1	2750,00
M 33	x	165	S	1	3350,00
M 33	x	170	S	1	2800,00
M 33	x	180	S	1	2800,00
M 33	x	190	S	1	2900,00
M 33	x	200	S	1	2900,00
M 33	x	210	S	1	3000,00
M 33	x	220	S	1	3000,00
M 36	x	120	S	1	2600,00
M 36	x	140	S	1	2950,00
M 36	x	150	S	1	3050,00
M 36	x	160	S	1	3250,00
M 36	x	165	S	1	3350,00
M 36	x	170	S	1	3350,00
M 36	x	180	S	1	3350,00
M 36	x	200	S	1	3600,00
M 36	x	220	S	1	3750,00
M 36	x	240	S	1	4150,00
M 36	x	260	S	1	4250,00
M 36	x	300	S	1	4600,00
M 39	x	150	S	1	5800,00
M 39	x	160	S	1	6100,00
M 39	x	180	S	1	6600,00

ISO	04014.514	*
4014	**5.6** **zinc plated**	**AD W7**



Hexagon head bolts

short dimensions partly thread nearly to head,
M 6 – M 39 for pressure vessel const.
as per AD regulations,
products with renunciation of inspection certificate,
*M 10/12 = RAZ 3210 other ∅ = RAZ 400

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

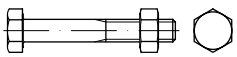
Dimensions			PU	Pieces	€/100/Mat.
M 10	x	45	S	100	75,00 ZP
M 10	x	50	S	100	78,00 ZP
M 10	x	55	S	100	111,00 ZP
M 10	x	60	S	100	132,00 ZP
M 10	x	65	S	100	147,00 ZP
M 10	x	70	S	100	155,00 ZP
M 10	x	80	S	100	161,00 ZP
M 10	x	90	S	100	193,00 ZP
M 10	x	100	S	100	209,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	110	S	50	300,00 ZP
M 12	x	50	S	100	109,00 ZP
M 12	x	55	S	100	115,00 ZP
M 12	x	60	S	100	123,00 ZP
M 12	x	65	S	50	136,00 ZP
M 12	x	70	S	50	137,00 ZP
M 12	x	75	S	50	158,00 ZP
M 12	x	80	S	50	160,00 ZP
M 12	x	85	S	50	230,00 ZP
M 12	x	90	S	50	175,00 ZP
M 12	x	100	S	50	190,00 ZP
M 12	x	110	S	50	335,00 ZP
M 12	x	120	S	50	430,00 ZP
M 12	x	130	S	50	890,00 ZP
M 12	x	140	S	50	960,00 ZP
M 12	x	150	S	50	1020,00 ZP
M 12	x	160	S	25	1160,00 ZP
M 16	x	65	S	25	240,00 ZP
M 16	x	70	S	25	255,00 ZP
M 16	x	75	S	25	275,00 ZP
M 16	x	80	S	25	275,00 ZP
M 16	x	85	S	25	350,00 ZP
M 16	x	90	S	25	295,00 ZP
M 16	x	95	S	25	350,00 ZP
M 16	x	100	S	25	325,00 ZP
M 16	x	110	S	25	355,00 ZP
M 16	x	120	S	25	375,00 ZP
M 16	x	130	S	25	425,00 ZP
M 16	x	140	S	25	470,00 ZP
M 16	x	150	S	25	530,00 ZP
M 16	x	160	S	25	700,00 ZP
M 16	x	180	S	1	1480,00 ZP
M 20	x	80	S	25	450,00 ZP
M 20	x	85	S	25	540,00 ZP
M 20	x	90	S	25	500,00 ZP
M 20	x	100	S	25	530,00 ZP
M 20	x	110	S	25	580,00 ZP
M 20	x	120	S	25	620,00 ZP
M 20	x	130	S	25	720,00 ZP
M 20	x	140	S	25	780,00 ZP
M 20	x	150	S	25	870,00 ZP
M 20	x	160	S	10	920,00 ZP
M 20	x	170	S	10	1250,00 ZP
M 20	x	180	S	10	1260,00 ZP
M 20	x	190	S	1	1730,00 ZP
M 20	x	200	S	1	1740,00 ZP
M 20	x	220	S	1	2300,00 ZP
M 20	x	240	S	1	2850,00 ZP
M 24	x	90	S	10	860,00 ZP
M 24	x	100	S	10	910,00 ZP
M 24	x	110	S	10	1000,00 ZP
M 24	x	120	S	10	1030,00 ZP
M 24	x	130	S	10	1140,00 ZP
M 24	x	140	S	10	1200,00 ZP
M 24	x	150	S	10	1260,00 ZP
M 24	x	160	S	10	1330,00 ZP
M 24	x	170	S	1	1430,00 ZP
M 24	x	180	S	1	1440,00 ZP
M 24	x	190	S	1	1830,00 ZP
M 24	x	200	S	1	1840,00 ZP
M 24	x	220	S	1	3350,00 ZP
M 24	x	240	S	1	3600,00 ZP
M 27	x	100	S	1	1350,00 ZP
M 27	x	110	S	1	1420,00 ZP
M 27	x	120	S	1	1460,00 ZP
M 27	x	130	S	1	1540,00 ZP
M 27	x	140	S	1	1600,00 ZP
M 27	x	150	S	1	1670,00 ZP
M 27	x	160	S	1	1710,00 ZP
M 27	x	170	S	1	1950,00 ZP
M 27	x	180	S	1	1820,00 ZP
M 27	x	190	S	1	2120,00 ZP
M 27	x	200	S	1	2180,00 ZP
M 27	x	220	S	1	3100,00 ZP
M 27	x	230	S	1	3450,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	240	S	1	3650,00 ZP
M 27	x	260	S	1	4450,00 ZP
M 30	x	110	S	1	1930,00 ZP
M 30	x	120	S	1	2010,00 ZP
M 30	x	130	S	1	2090,00 ZP
M 30	x	140	S	1	2150,00 ZP
M 30	x	150	S	1	2250,00 ZP
M 30	x	160	S	1	2340,00 ZP
M 30	x	180	S	1	2600,00 ZP
M 30	x	190	S	1	2750,00 ZP
M 30	x	200	S	1	2800,00 ZP
M 30	x	210	S	1	2950,00 ZP
M 30	x	220	S	1	2950,00 ZP
M 30	x	230	S	1	3250,00 ZP
M 30	x	240	S	1	3150,00 ZP
M 30	x	250	S	1	3550,00 ZP
M 30	x	260	S	1	3350,00 ZP
M 33	x	130	S	1	2600,00 ZP
M 33	x	140	S	1	3000,00 ZP
M 33	x	150	S	1	3100,00 ZP
M 33	x	160	S	1	3400,00 ZP
M 33	x	170	S	1	3550,00 ZP
M 33	x	180	S	1	3650,00 ZP
M 33	x	190	S	1	3800,00 ZP
M 36	x	120	S	1	3300,00 ZP
M 36	x	130	S	1	3650,00 ZP
M 36	x	140	S	1	3500,00 ZP
M 36	x	150	S	1	3850,00 ZP
M 36	x	160	S	1	4000,00 ZP
M 36	x	165	S	1	4150,00 ZP
M 36	x	170	S	1	4200,00 ZP
M 36	x	180	S	1	4300,00 ZP
M 36	x	200	S	1	4600,00 ZP
M 36	x	220	S	1	4850,00 ZP

ISO	04014.524	3200
4014	**Mu 5.6**	**AD W7**
	hot dip galvanized	



Hexagon head bolts, Mu = with hexagon nuts ISO 4032/5-2

short dimensions partly thread nearly to head,
M 6 - M 39 for pressure vessel const.
as per AD regulations,
products with renunciation of inspection certificate

Caution!
Note information about hot dip galvanizing.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	50	S	100	175,00 HDG
M 12	x	55	S	100	183,00 HDG
M 12	x	60	S	100	194,00 HDG
M 12	x	65	S	50	200,00 HDG
M 12	x	70	S	50	190,00 HDG
M 12	x	80	S	50	212,00 HDG
M 12	x	90	S	50	241,00 HDG
M 12	x	100	S	50	275,00 HDG
M 16	x	65	S	25	380,00 HDG
M 16	x	70	S	25	390,00 HDG
M 16	x	75	S	25	420,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	80	S	25	425,00 HDG
M 16	x	85	S	25	470,00 HDG
M 16	x	90	S	25	450,00 HDG
M 16	x	100	S	25	475,00 HDG
M 16	x	110	S	25	520,00 HDG
M 16	x	120	S	25	550,00 HDG
M 16	x	130	S	25	540,00 HDG
M 16	x	140	S	25	570,00 HDG
M 16	x	150	S	25	650,00 HDG
M 16	x	160	S	25	820,00 HDG
M 16	x	170	S	25	1110,00 HDG
M 16	x	180	S	25	1110,00 HDG
M 16	x	190	S	25	1420,00 HDG
M 16	x	200	S	25	1420,00 HDG
M 20	x	80	S	25	700,00 HDG
M 20	x	90	S	25	760,00 HDG
M 20	x	100	S	25	760,00 HDG
M 20	x	110	S	25	790,00 HDG
M 20	x	120	S	25	810,00 HDG
M 20	x	130	S	25	980,00 HDG
M 20	x	140	S	25	980,00 HDG
M 20	x	150	S	25	1120,00 HDG
M 20	x	160	S	10	1130,00 HDG
M 20	x	170	S	10	1310,00 HDG
M 20	x	180	S	10	1380,00 HDG
M 20	x	200	S	10	1730,00 HDG
M 24	x	90	S	10	1270,00 HDG
M 24	x	100	S	10	1330,00 HDG
M 24	x	110	S	10	1400,00 HDG
M 24	x	120	S	10	1470,00 HDG
M 24	x	130	S	10	1640,00 HDG
M 24	x	140	S	10	1760,00 HDG
M 24	x	150	S	10	2010,00 HDG
M 24	x	160	S	10	2120,00 HDG
M 24	x	170	S	10	2410,00 HDG
M 24	x	180	S	10	2550,00 HDG
M 24	x	200	S	10	3000,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

ISO	04014.352	400

4014

1.7218 +QT (25CrMo4)



Hexagon head bolts

approved for use acc. to pressure equipment directive ➔ cert. 3.1 on request

Dimensions ➔ TI-15 | Tightening torque ➔ TI-245
Material properties ➔ TI-240 | Standard conversion ➔ TI-6

ISO 4014 ➔ replaces DIN 931

PED approval | RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	55	S	100	167,00
M 12	x	60	S	100	180,00
M 12	x	65	S	50	200,00
M 12	x	70	S	50	200,00
M 12	x	75	S	50	234,00
M 12	x	80	S	50	234,00
M 12	x	85	S	50	325,00
M 12	x	90	S	50	260,00
M 12	x	100	S	50	280,00
M 12	x	110	S	50	465,00
M 12	x	120	S	50	620,00
M 12	x	140	S	50	1520,00
M 12	x	150	S	50	1620,00
M 12	x	160	S	25	1850,00
M 16	x	65	S	25	350,00
M 16	x	70	S	25	365,00
M 16	x	75	S	25	405,00
M 16	x	80	S	25	405,00
M 16	x	85	S	25	530,00
M 16	x	90	S	25	425,00
M 16	x	95	S	25	520,00
M 16	x	100	S	25	465,00
M 16	x	110	S	25	520,00
M 16	x	120	S	25	550,00
M 16	x	130	S	25	620,00
M 16	x	140	S	25	690,00
M 16	x	150	S	25	790,00
M 16	x	160	S	25	1070,00
M 16	x	180	S	1	2190,00
M 16	x	200	S	1	2420,00
M 20	x	80	S	25	660,00
M 20	x	85	S	25	810,00
M 20	x	90	S	25	730,00
M 20	x	95	S	25	840,00
M 20	x	100	S	25	770,00
M 20	x	110	S	25	840,00
M 20	x	120	S	25	900,00
M 20	x	130	S	25	1060,00
M 20	x	140	S	25	1150,00
M 20	x	150	S	25	1290,00
M 20	x	160	S	10	1380,00
M 20	x	170	S	10	1940,00
M 20	x	180	S	10	1940,00
M 20	x	190	S	1	2700,00
M 20	x	200	S	1	2700,00
M 20	x	210	S	1	3100,00
M 20	x	220	S	1	3700,00
M 20	x	230	S	1	4100,00
M 20	x	240	S	1	4550,00
M 20	x	250	S	1	4750,00
M 20	x	260	S	1	5100,00
M 20	x	280	S	1	5500,00
M 24	x	90	S	10	1280,00
M 24	x	95	S	10	1480,00
M 24	x	100	S	10	1350,00
M 24	x	110	S	10	1480,00
M 24	x	120	S	10	1520,00
M 24	x	130	S	10	1690,00
M 24	x	140	S	10	1780,00
M 24	x	150	S	10	1870,00
M 24	x	160	S	10	1980,00
M 24	x	170	S	1	2140,00
M 24	x	180	S	1	2140,00
M 24	x	190	S	1	2800,00
M 24	x	200	S	1	2800,00
M 24	x	210	S	1	4800,00
M 24	x	220	S	1	5000,00
M 24	x	230	S	1	5200,00
M 24	x	240	S	1	5400,00
M 24	x	260	S	1	6300,00
M 24	x	280	S	1	6700,00
M 24	x	300	S	1	7100,00
M 27	x	110	S	1	2130,00
M 27	x	120	S	1	2190,00
M 27	x	130	S	1	2310,00
M 27	x	140	S	1	2390,00
M 27	x	150	S	1	2500,00
M 27	x	160	S	1	2600,00
M 27	x	170	S	1	2950,00
M 27	x	180	S	1	2700,00
M 27	x	190	S	1	2950,00
M 27	x	200	S	1	2950,00
M 27	x	220	S	1	4700,00
M 27	x	230	S	1	5300,00
M 27	x	240	S	1	5600,00
M 27	x	260	S	1	6200,00
M 27	x	280	S	1	6900,00
M 30	x	110	S	1	3050,00
M 30	x	120	S	1	3100,00
M 30	x	130	S	1	3200,00
M 30	x	140	S	1	3250,00
M 30	x	150	S	1	3400,00
M 30	x	160	S	1	3550,00
M 30	x	170	S	1	3800,00
M 30	x	180	S	1	3800,00
M 30	x	190	S	1	4000,00
M 30	x	200	S	1	4000,00
M 30	x	210	S	1	4250,00
M 30	x	220	S	1	4250,00
M 30	x	230	S	1	4500,00
M 30	x	240	S	1	4500,00
M 30	x	250	S	1	4750,00
M 30	x	260	S	1	4750,00
M 30	x	280	S	1	5000,00
M 30	x	300	S	1	5300,00
M 30	x	320	S	1	7600,00
M 33	x	130	S	1	3950,00
M 33	x	140	S	1	4100,00
M 33	x	150	S	1	4250,00
M 33	x	160	S	1	4800,00
M 33	x	165	S	1	5900,00
M 33	x	170	S	1	4950,00
M 33	x	180	S	1	4950,00
M 33	x	190	S	1	5100,00
M 33	x	200	S	1	5100,00
M 33	x	210	S	1	5300,00
M 33	x	220	S	1	5300,00
M 36	x	120	S	1	4500,00
M 36	x	140	S	1	5200,00
M 36	x	150	S	1	5300,00
M 36	x	160	S	1	5700,00
M 36	x	170	S	1	5900,00
M 36	x	180	S	1	5900,00
M 36	x	200	S	1	6300,00
M 36	x	220	S	1	6500,00
M 36	x	240	S	1	7200,00
M 36	x	260	S	1	7400,00
M 36	x	300	S	1	8000,00
M 39	x	150	S	1	10000,00
M 39	x	160	S	1	10700,00
M 39	x	180	S	1	11500,00

ISO	04014.355	400

4014

1.7218 +QT (25CrMo4) zinc plated



Hexagon head bolts

approved for use acc. to pressure equipment directive ➔ cert. 3.1 on request

Dimensions ➔ TI-15 | Tightening torque ➔ TI-245
Material properties ➔ TI-240 | Standard conversion ➔ TI-6
Corrosion protection ➔ TI-228

ISO 4014 ➔ replaces DIN 931

PED approval | RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	55	S	100	200,00 ZP
M 12	x	60	S	100	215,00 ZP
M 12	x	65	S	50	238,00 ZP
M 12	x	70	S	50	240,00 ZP
M 12	x	75	S	50	280,00 ZP
M 12	x	80	S	50	280,00 ZP
M 12	x	85	S	50	405,00 ZP
M 12	x	90	S	50	305,00 ZP
M 12	x	100	S	50	335,00 ZP
M 12	x	110	S	50	590,00 ZP
M 12	x	120	S	50	750,00 ZP
M 12	x	130	S	50	1560,00 ZP
M 12	x	140	S	50	1680,00 ZP
M 12	x	150	S	50	1790,00 ZP
M 12	x	160	S	25	2030,00 ZP
M 16	x	65	S	25	420,00 ZP
M 16	x	70	S	25	440,00 ZP
M 16	x	75	S	25	480,00 ZP
M 16	x	80	S	25	485,00 ZP
M 16	x	85	S	25	610,00 ZP
M 16	x	90	S	25	520,00 ZP
M 16	x	95	S	25	610,00 ZP
M 16	x	100	S	25	570,00 ZP
M 16	x	110	S	25	630,00 ZP
M 16	x	120	S	25	660,00 ZP
M 16	x	130	S	25	740,00 ZP
M 16	x	140	S	25	830,00 ZP
M 16	x	150	S	25	930,00 ZP
M 16	x	160	S	25	1210,00 ZP
M 16	x	180	S	1	2600,00 ZP
M 20	x	80	S	25	790,00 ZP
M 20	x	85	S	25	950,00 ZP
M 20	x	90	S	25	880,00 ZP
M 20	x	100	S	25	930,00 ZP
M 20	x	110	S	25	1010,00 ZP
M 20	x	120	S	25	1090,00 ZP
M 20	x	130	S	25	1250,00 ZP
M 20	x	140	S	25	1360,00 ZP
M 20	x	150	S	25	1510,00 ZP
M 20	x	160	S	10	1610,00 ZP
M 20	x	170	S	10	2190,00 ZP
M 20	x	180	S	10	2200,00 ZP
M 20	x	190	S	1	3050,00 ZP
M 20	x	200	S	1	3050,00 ZP
M 20	x	220	S	1	4050,00 ZP
M 20	x	240	S	1	4950,00 ZP
M 24	x	90	S	10	1500,00 ZP
M 24	x	100	S	10	1590,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	110	S	10	1740,00 ZP
M 24	x	120	S	10	1800,00 ZP
M 24	x	130	S	10	1980,00 ZP
M 24	x	140	S	10	2100,00 ZP
M 24	x	150	S	10	2200,00 ZP
M 24	x	160	S	10	2330,00 ZP
M 24	x	170	S	1	2500,00 ZP
M 24	x	180	S	1	2550,00 ZP
M 24	x	190	S	1	3200,00 ZP
M 24	x	200	S	1	3250,00 ZP
M 24	x	220	S	1	5800,00 ZP
M 24	x	240	S	1	6300,00 ZP
M 27	x	110	S	1	2470,00 ZP
M 27	x	120	S	1	2550,00 ZP
M 27	x	130	S	1	2700,00 ZP
M 27	x	140	S	1	2800,00 ZP
M 27	x	150	S	1	2950,00 ZP
M 27	x	160	S	1	3000,00 ZP
M 27	x	170	S	1	3450,00 ZP
M 27	x	180	S	1	3200,00 ZP
M 27	x	190	S	1	3750,00 ZP
M 27	x	200	S	1	3850,00 ZP
M 27	x	220	S	1	5500,00 ZP
M 27	x	230	S	1	6000,00 ZP
M 27	x	240	S	1	6400,00 ZP
M 27	x	260	S	1	7800,00 ZP
M 30	x	130	S	1	3650,00 ZP
M 30	x	140	S	1	3800,00 ZP
M 30	x	150	S	1	3950,00 ZP
M 30	x	160	S	1	4100,00 ZP
M 30	x	180	S	1	4550,00 ZP
M 30	x	190	S	1	4800,00 ZP
M 30	x	200	S	1	4850,00 ZP
M 30	x	210	S	1	5200,00 ZP
M 30	x	220	S	1	5200,00 ZP
M 30	x	230	S	1	5700,00 ZP
M 30	x	240	S	1	5500,00 ZP
M 30	x	250	S	1	6200,00 ZP
M 30	x	260	S	1	5800,00 ZP
M 33	x	130	S	1	4550,00 ZP
M 33	x	140	S	1	5200,00 ZP
M 33	x	150	S	1	5500,00 ZP
M 33	x	160	S	1	6000,00 ZP
M 33	x	170	S	1	6200,00 ZP
M 33	x	180	S	1	6400,00 ZP
M 33	x	190	S	1	6600,00 ZP
M 36	x	120	S	1	5800,00 ZP
M 36	x	130	S	1	6400,00 ZP
M 36	x	140	S	1	6100,00 ZP
M 36	x	150	S	1	6700,00 ZP
M 36	x	160	S	1	7000,00 ZP
M 36	x	165	S	1	7200,00 ZP
M 36	x	170	S	1	7400,00 ZP
M 36	x	180	S	1	7600,00 ZP
M 36	x	200	S	1	8100,00 ZP
M 36	x	220	S	1	8500,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04014.800		*

4014

8.8



Hexagon head bolts

short dimensions partly thread nearly to head,
*M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	30	S	500	14,30
M 3	x	30	K	100	17,90
M 3	x	35	S	500	14,60
M 3	x	35	K	100	18,30
M 3	x	40	S	500	15,30
M 3	x	40	K	100	19,00
M 4	x	25	S	500	12,30
M 4	x	25	K	100	16,00
M 4	x	30	S	500	12,30
M 4	x	30	K	100	16,00
M 4	x	35	S	500	13,70
M 4	x	40	S	500	14,60
M 4	x	40	K	100	18,10
M 4	x	45	S	500	14,80
M 4	x	50	S	500	16,40
M 4	x	50	K	100	20,10
M 4	x	55	S	200	52,00
M 4	x	60	S	200	58,00
M 4	x	65	S	200	75,00
M 4	x	70	S	200	75,00
M 4	x	75	S	200	94,00
M 4	x	80	S	200	103,00
M 4	x	100	S	200	315,00
M 5	x	25	S	500	12,30
M 5	x	30	S	500	12,30
M 5	x	30	K	100	16,00
M 5	x	35	S	200	13,70
M 5	x	40	S	200	14,60
M 5	x	45	S	200	14,80
M 5	x	50	S	200	16,40
M 5	x	55	S	200	17,50
M 5	x	60	S	200	18,90
M 5	x	65	S	200	25,50
M 5	x	70	S	200	26,00
M 5	x	75	S	200	33,00
M 5	x	80	S	200	31,50
M 5	x	85	S	200	70,00
M 5	x	90	S	200	75,00
M 5	x	95	S	200	82,00
M 5	x	100	S	200	86,00
M 5	x	110	S	200	123,00
M 5	x	120	S	200	143,00
M 5	x	130	S	200	255,00
M 6	x	30	S	500	6,60
M 6	x	30	K	100	10,20
M 6	x	35	S	200	7,40
M 6	x	40	S	200	8,30
M 6	x	45	S	200	9,20
M 6	x	50	S	200	11,10
M 6	x	55	S	200	14,10
M 6	x	60	S	200	15,00

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	65	S	200	23,90
M 6	x	70	S	200	23,90
M 6	x	75	S	200	26,00
M 6	x	80	S	200	32,50
M 6	x	85	S	100	43,50
M 6	x	90	S	100	44,00
M 6	x	95	S	100	55,00
M 6	x	100	S	100	56,00
M 6	x	105	S	100	141,00
M 6	x	110	S	100	56,00
M 6	x	115	S	100	158,00
M 6	x	120	S	100	70,00
M 6	x	125	S	100	165,00
M 6	x	130	S	100	91,00
M 6	x	135	S	100	183,00
M 6	x	140	S	100	105,00
M 6	x	145	S	100	215,00
M 6	x	150	S	100	290,00
M 6	x	160	S	100	290,00
M 6	x	170	S	100	310,00
M 6	x	180	S	100	345,00
M 6	x	200	S	100	440,00
M 7	x	30	S	500	21,90
M 7	x	35	S	200	21,90
M 7	x	40	S	200	24,10
M 7	x	45	S	200	26,50
M 7	x	50	S	200	28,50
M 7	x	55	S	200	31,00
M 7	x	60	S	200	39,50
M 7	x	80	S	200	44,00
M 8	x	35	S	200	11,40
M 8	x	40	S	200	12,80
M 8	x	45	S	200	14,50
M 8	x	50	S	200	15,30
M 8	x	55	S	200	15,70
M 8	x	60	S	200	16,60
M 8	x	65	S	200	18,90
M 8	x	70	S	200	19,20
M 8	x	75	S	200	24,20
M 8	x	80	S	200	25,50
M 8	x	85	S	100	40,00
M 8	x	90	S	100	41,50
M 8	x	95	S	100	46,50
M 8	x	100	S	100	58,00
M 8	x	105	S	100	94,00
M 8	x	110	S	100	67,00
M 8	x	115	S	100	125,00
M 8	x	120	S	100	80,00
M 8	x	125	S	100	136,00
M 8	x	130	S	100	87,00
M 8	x	135	S	100	183,00
M 8	x	140	S	100	98,00
M 8	x	145	S	100	204,00
M 8	x	150	S	100	128,00
M 8	x	160	S	100	135,00
M 8	x	170	S	100	147,00
M 8	x	180	S	100	176,00
M 8	x	190	S	100	204,00
M 8	x	200	S	100	217,00
M 8	x	210	S	100	255,00
M 8	x	220	S	100	330,00
M 8	x	230	S	100	385,00
M 8	x	240	S	100	385,00
M 8	x	250	S	100	465,00
M 8	x	260	S	100	465,00
M 8	x	280	S	100	550,00
M 8	x	300	S	100	600,00
M 10	x	40	S	100	21,20
M 10	x	45	S	100	22,10
M 10	x	50	S	100	23,10
M 10	x	55	S	100	25,50
M 10	x	60	S	100	26,00
M 10	x	65	S	100	28,00
M 10	x	70	S	100	29,00
M 10	x	75	S	100	31,50

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 80	S	100	33,50
M 10 x 85	S	100	42,50
M 10 x 90	S	100	42,50
M 10 x 95	S	100	49,00
M 10 x 100	S	100	49,00
M 10 x 105	S	50	110,00
M 10 x 110	S	50	75,00
M 10 x 115	S	50	162,00
M 10 x 120	S	50	85,00
M 10 x 125	S	50	176,00
M 10 x 130	S	50	96,00
M 10 x 135	S	50	212,00
M 10 x 140	S	50	142,00
M 10 x 145	S	50	275,00
M 10 x 150	S	50	171,00
M 10 x 160	S	50	213,00
M 10 x 170	S	50	213,00
M 10 x 180	S	50	236,00
M 10 x 190	S	50	300,00
M 10 x 200	S	50	300,00
M 10 x 210	S	50	310,00
M 10 x 220	S	50	600,00
M 10 x 230	S	50	810,00
M 10 x 240	S	50	650,00
M 10 x 250	S	50	880,00
M 10 x 260	S	50	700,00
M 10 x 270	S	50	940,00
M 10 x 280	S	50	750,00
M 10 x 290	S	50	1110,00
M 10 x 300	S	50	790,00
M 10 x 320	S	50	940,00
M 10 x 340	S	50	1080,00
M 10 x 360	S	50	1140,00
M 10 x 380	S	50	1820,00
M 12 x 45	S	100	33,00
M 12 x 50	S	100	34,00
M 12 x 55	S	100	35,00
M 12 x 60	S	100	37,50
M 12 x 65	S	50	40,50
M 12 x 70	S	50	41,00
M 12 x 75	S	50	44,00
M 12 x 80	S	50	56,00
M 12 x 85	S	50	61,00
M 12 x 90	S	50	53,00
M 12 x 95	S	50	66,00
M 12 x 100	S	50	66,00
M 12 x 105	S	50	183,00
M 12 x 110	S	50	99,00
M 12 x 115	S	50	190,00
M 12 x 120	S	50	107,00
M 12 x 130	S	50	120,00
M 12 x 140	S	50	175,00
M 12 x 150	S	50	200,00
M 12 x 160	S	25	265,00
M 12 x 170	S	25	300,00
M 12 x 180	S	25	335,00
M 12 x 190	S	25	355,00
M 12 x 200	S	25	390,00
M 12 x 210	S	25	440,00
M 12 x 220	S	25	440,00
M 12 x 230	S	25	610,00
M 12 x 240	S	25	610,00
M 12 x 250	S	25	670,00
M 12 x 260	S	25	670,00
M 12 x 270	S	25	730,00
M 12 x 280	S	25	730,00
M 12 x 290	S	25	800,00
M 12 x 300	S	25	800,00
M 12 x 310	S	25	1250,00
M 12 x 320	S	25	1150,00
M 12 x 330	S	25	1450,00
M 12 x 340	S	25	1260,00
M 12 x 350	S	25	1530,00
M 12 x 360	S	25	1420,00
M 12 x 380	S	25	1530,00
M 12 x 400	S	25	1910,00
M 12 x 420	S	25	2370,00
M 12 x 440	S	25	2650,00
M 12 x 460	S	25	3150,00
M 12 x 480	S	25	3450,00
M 12 x 500	S	25	3800,00
M 14 x 50	S	100	88,00
M 14 x 55	S	50	94,00
M 14 x 60	S	50	94,00
M 14 x 65	S	50	103,00
M 14 x 70	S	50	103,00
M 14 x 75	S	50	129,00
M 14 x 80	S	50	134,00
M 14 x 85	S	50	151,00
M 14 x 90	S	50	151,00
M 14 x 95	S	50	170,00
M 14 x 100	S	50	170,00
M 14 x 110	S	50	195,00
M 14 x 120	S	50	223,00
M 14 x 130	S	50	255,00
M 14 x 140	S	25	280,00
M 14 x 150	S	25	305,00
M 14 x 160	S	25	345,00
M 14 x 170	S	25	395,00
M 14 x 180	S	25	395,00
M 14 x 190	S	25	470,00
M 14 x 200	S	25	470,00
M 14 x 210	S	25	610,00
M 14 x 220	S	25	610,00
M 14 x 230	S	25	670,00
M 14 x 240	S	25	670,00
M 14 x 250	S	25	940,00
M 14 x 260	S	25	940,00
M 14 x 270	S	25	990,00
M 14 x 280	S	25	990,00
M 14 x 290	S	25	1060,00
M 14 x 300	S	25	1060,00
M 14 x 310	S	25	1360,00
M 14 x 320	S	25	1620,00
M 16 x 55	S	50	62,00
M 16 x 60	S	50	64,00
M 16 x 65	S	25	70,00
M 16 x 70	S	25	74,00
M 16 x 75	S	25	78,00
M 16 x 80	S	25	82,00
M 16 x 85	S	25	103,00
M 16 x 90	S	25	90,00
M 16 x 95	S	25	111,00
M 16 x 100	S	25	111,00
M 16 x 110	S	25	167,00
M 16 x 120	S	25	186,00
M 16 x 130	S	25	199,00
M 16 x 140	S	25	270,00
M 16 x 150	S	25	305,00
M 16 x 160	S	25	345,00
M 16 x 170	S	25	425,00
M 16 x 180	S	25	425,00
M 16 x 190	S	25	500,00
M 16 x 200	S	25	500,00
M 16 x 210	S	25	650,00
M 16 x 220	S	25	650,00
M 16 x 230	S	25	730,00
M 16 x 240	S	25	730,00
M 16 x 250	S	25	820,00
M 16 x 260	S	25	820,00
M 16 x 270	S	25	1130,00
M 16 x 280	S	1	1130,00
M 16 x 290	S	1	1270,00
M 16 x 300	S	1	1270,00
M 16 x 310	S	1	1480,00
M 16 x 320	S	1	1350,00
M 16 x 330	S	1	1580,00
M 16 x 340	S	1	1440,00
M 16 x 350	S	1	1780,00
M 16 x 360	S	1	1610,00
M 16 x 370	S	1	2170,00
M 16 x 380	S	1	1970,00
M 16 x 390	S	1	2460,00
M 16 x 400	S	1	2240,00
M 16 x 410	S	1	2750,00
M 16 x 420	S	1	2550,00
M 16 x 430	S	1	3150,00
M 16 x 440	S	1	2900,00
M 16 x 450	S	1	3250,00
M 16 x 460	S	1	3600,00
M 16 x 480	S	1	3950,00
M 16 x 500	S	1	4300,00
M 18 x 65	S	25	265,00
M 18 x 70	S	25	275,00
M 18 x 75	S	25	285,00
M 18 x 80	S	25	285,00
M 18 x 85	S	25	310,00
M 18 x 90	S	25	310,00
M 18 x 95	S	25	335,00
M 18 x 100	S	25	335,00
M 18 x 110	S	25	385,00
M 18 x 120	S	25	385,00
M 18 x 130	S	25	420,00
M 18 x 140	S	25	520,00
M 18 x 150	S	25	520,00
M 18 x 160	S	25	580,00
M 18 x 170	S	25	790,00
M 18 x 180	S	25	790,00
M 18 x 190	S	1	1110,00
M 18 x 200	S	1	1110,00
M 18 x 210	S	1	1290,00
M 18 x 220	S	1	1290,00
M 18 x 230	S	1	1440,00
M 18 x 240	S	1	1440,00
M 18 x 250	S	1	1580,00
M 18 x 260	S	1	1580,00
M 18 x 270	S	1	1800,00
M 18 x 280	S	1	1800,00
M 18 x 290	S	1	2060,00
M 18 x 300	S	1	2060,00
M 20 x 60	S	25	118,00
M 20 x 65	S	25	121,00
M 20 x 70	S	25	124,00
M 20 x 75	S	25	129,00
M 20 x 80	S	25	140,00
M 20 x 85	S	25	152,00
M 20 x 90	S	25	152,00
M 20 x 95	S	25	182,00
M 20 x 100	S	25	182,00
M 20 x 110	S	25	285,00
M 20 x 120	S	25	295,00
M 20 x 130	S	25	300,00
M 20 x 140	S	25	410,00
M 20 x 150	S	25	455,00
M 20 x 160	S	10	520,00
M 20 x 170	S	10	660,00
M 20 x 180	S	10	660,00
M 20 x 190	S	1	1030,00
M 20 x 200	S	1	1030,00
M 20 x 210	S	1	1290,00
M 20 x 220	S	1	1290,00
M 20 x 230	S	1	1440,00
M 20 x 240	S	1	1440,00
M 20 x 250	S	1	1580,00
M 20 x 260	S	1	1580,00
M 20 x 270	S	1	1800,00
M 20 x 280	S	1	1800,00
M 20 x 290	S	1	2060,00
M 20 x 300	S	1	2060,00
M 20 x 310	S	1	2190,00
M 20 x 320	S	1	2190,00
M 20 x 330	S	1	2340,00
M 20 x 340	S	1	2340,00
M 20 x 350	S	1	2490,00
M 20 x 360	S	1	2490,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 370	S	1	2700,00
M 20 x 380	S	1	2700,00
M 20 x 390	S	1	2800,00
M 20 x 400	S	1	2800,00
M 20 x 410	S	1	2900,00
M 20 x 420	S	1	2900,00
M 20 x 430	S	1	3600,00
M 20 x 440	S	1	3600,00
M 20 x 450	S	1	3600,00
M 20 x 460	S	1	3600,00
M 20 x 480	S	1	3650,00
M 20 x 500	S	1	3700,00
M 22 x 70	S	25	510,00
M 22 x 75	S	25	530,00
M 22 x 80	S	25	530,00
M 22 x 90	S	25	550,00
M 22 x 100	S	10	600,00
M 22 x 110	S	10	640,00
M 22 x 120	S	10	690,00
M 22 x 130	S	10	730,00
M 22 x 140	S	10	730,00
M 22 x 150	S	10	870,00
M 22 x 160	S	10	980,00
M 22 x 170	S	10	1220,00
M 22 x 180	S	10	1220,00
M 22 x 190	S	10	1550,00
M 22 x 200	S	10	1550,00
M 22 x 210	S	10	1740,00
M 22 x 220	S	10	1740,00
M 22 x 230	S	1	1940,00
M 22 x 240	S	1	1940,00
M 22 x 250	S	1	2380,00
M 22 x 260	S	1	2380,00
M 22 x 270	S	1	2700,00
M 22 x 280	S	1	2700,00
M 22 x 300	S	1	2950,00
M 22 x 320	S	1	3550,00
M 24 x 75	S	25	220,00
M 24 x 80	S	25	220,00
M 24 x 85	S	10	290,00
M 24 x 90	S	10	270,00
M 24 x 95	S	10	295,00
M 24 x 100	S	10	295,00
M 24 x 110	S	10	445,00
M 24 x 120	S	10	475,00
M 24 x 130	S	10	485,00
M 24 x 140	S	10	670,00
M 24 x 150	S	10	730,00
M 24 x 160	S	10	810,00
M 24 x 170	S	1	1030,00
M 24 x 180	S	1	1030,00
M 24 x 190	S	1	1460,00
M 24 x 200	S	1	1460,00
M 24 x 210	S	1	1730,00
M 24 x 220	S	1	1870,00
M 24 x 230	S	1	1920,00
M 24 x 240	S	1	2010,00
M 24 x 250	S	1	2070,00
M 24 x 260	S	1	2070,00
M 24 x 270	S	1	2440,00
M 24 x 280	S	1	2440,00
M 24 x 290	S	1	2700,00
M 24 x 300	S	1	2700,00
M 24 x 310	S	1	2750,00
M 24 x 320	S	1	2750,00
M 24 x 330	S	1	2800,00
M 24 x 340	S	1	2800,00
M 24 x 350	S	1	2900,00
M 24 x 360	S	1	2900,00
M 24 x 370	S	1	3100,00
M 24 x 380	S	1	3100,00
M 24 x 390	S	1	3350,00
M 24 x 400	S	1	3350,00
M 24 x 410	S	1	3550,00
M 24 x 420	S	1	3550,00

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 430	S	1	3850,00
M 24 x 440	S	1	3850,00
M 24 x 450	S	1	4100,00
M 24 x 460	S	1	4100,00
M 24 x 480	S	1	4350,00
M 24 x 500	S	1	4600,00
M 24 x 560	S	1	9800,00
M 24 x 600	S	1	10300,00
M 24 x 640	S	1	10700,00
M 27 x 75	S	10	600,00
M 27 x 80	S	10	600,00
M 27 x 85	S	10	750,00
M 27 x 90	S	10	750,00
M 27 x 100	S	10	890,00
M 27 x 110	S	1	1030,00
M 27 x 120	S	1	1030,00
M 27 x 130	S	1	1110,00
M 27 x 140	S	1	1110,00
M 27 x 150	S	1	1140,00
M 27 x 160	S	1	1140,00
M 27 x 170	S	1	1200,00
M 27 x 180	S	1	1200,00
M 27 x 190	S	1	1430,00
M 27 x 200	S	1	1430,00
M 27 x 210	S	1	2110,00
M 27 x 220	S	1	2110,00
M 27 x 230	S	1	2280,00
M 27 x 240	S	1	2280,00
M 27 x 250	S	1	2460,00
M 27 x 260	S	1	2460,00
M 27 x 270	S	1	2650,00
M 27 x 280	S	1	2650,00
M 27 x 290	S	1	3050,00
M 27 x 300	S	1	3050,00
M 27 x 320	S	1	3850,00
M 27 x 340	S	1	4250,00
M 27 x 360	S	1	4650,00
M 27 x 380	S	1	5000,00
M 27 x 400	S	1	5300,00
M 27 x 420	S	1	5700,00
M 27 x 440	S	1	6000,00
M 27 x 460	S	1	6300,00
M 27 x 480	S	1	6700,00
M 27 x 500	S	1	7100,00
M 27 x 520	S	1	9800,00
M 27 x 540	S	1	10600,00
M 27 x 560	S	1	11300,00
M 30 x 80	S	1	1570,00
M 30 x 90	S	1	1570,00
M 30 x 100	S	1	1570,00
M 30 x 110	S	1	1860,00
M 30 x 120	S	1	1860,00
M 30 x 130	S	1	2060,00
M 30 x 140	S	1	2060,00
M 30 x 150	S	1	2140,00
M 30 x 160	S	1	2140,00
M 30 x 170	S	1	2360,00
M 30 x 180	S	1	2360,00
M 30 x 190	S	1	2550,00
M 30 x 200	S	1	2550,00
M 30 x 210	S	1	2600,00
M 30 x 220	S	1	2600,00
M 30 x 240	S	1	2800,00
M 30 x 250	S	1	3100,00
M 30 x 260	S	1	3100,00
M 30 x 270	S	1	3100,00
M 30 x 280	S	1	3100,00
M 30 x 290	S	1	3250,00
M 30 x 300	S	1	3250,00
M 30 x 310	S	1	3750,00
M 30 x 320	S	1	3750,00
M 30 x 330	S	1	3850,00
M 30 x 340	S	1	3850,00
M 30 x 350	S	1	4100,00
M 30 x 360	S	1	4100,00

Dimensions	PU	Pieces	€/100/Mat.
M 30 x 370	S	1	4400,00
M 30 x 380	S	1	4400,00
M 30 x 390	S	1	4800,00
M 30 x 400	S	1	4800,00
M 30 x 420	S	1	5000,00
M 30 x 440	S	1	5900,00
M 30 x 450	S	1	6700,00
M 30 x 460	S	1	6700,00
M 30 x 480	S	1	7900,00
M 30 x 500	S	1	8500,00
M 30 x 520	S	1	14600,00
M 30 x 560	S	1	15400,00
M 30 x 580	S	1	15700,00
M 30 x 600	S	1	16100,00
M 33 x 90	S	1	1790,00
M 33 x 100	S	1	1790,00
M 33 x 110	S	1	1900,00
M 33 x 120	S	1	1990,00
M 33 x 130	S	1	2080,00
M 33 x 140	S	1	2180,00
M 33 x 150	S	1	2260,00
M 33 x 160	S	1	2700,00
M 33 x 170	S	1	2750,00
M 33 x 180	S	1	2750,00
M 33 x 190	S	1	2850,00
M 33 x 200	S	1	2850,00
M 33 x 210	S	1	2950,00
M 33 x 220	S	1	2950,00
M 33 x 230	S	1	3100,00
M 33 x 240	S	1	3100,00
M 33 x 250	S	1	3650,00
M 33 x 260	S	1	3650,00
M 33 x 270	S	1	3800,00
M 33 x 280	S	1	3800,00
M 33 x 300	S	1	4000,00
M 33 x 400	S	1	12400,00
M 36 x 100	S	1	2260,00
M 36 x 110	S	1	2260,00
M 36 x 120	S	1	2380,00
M 36 x 130	S	1	2550,00
M 36 x 140	S	1	2650,00
M 36 x 150	S	1	2750,00
M 36 x 160	S	1	3100,00
M 36 x 170	S	1	3300,00
M 36 x 180	S	1	3300,00
M 36 x 190	S	1	3450,00
M 36 x 200	S	1	3450,00
M 36 x 210	S	1	3600,00
M 36 x 220	S	1	3600,00
M 36 x 230	S	1	3950,00
M 36 x 240	S	1	3950,00
M 36 x 250	S	1	4200,00
M 36 x 260	S	1	4200,00
M 36 x 270	S	1	4400,00
M 36 x 280	S	1	4400,00
M 36 x 290	S	1	4600,00
M 36 x 300	S	1	4600,00
M 36 x 310	S	1	5300,00
M 36 x 320	S	1	5300,00
M 36 x 330	S	1	5500,00
M 36 x 340	S	1	5500,00
M 36 x 350	S	1	5700,00
M 36 x 360	S	1	5700,00
M 36 x 380	S	1	5900,00
M 36 x 400	S	1	5900,00
M 36 x 420	S	1	6000,00
M 36 x 440	S	1	6400,00
M 36 x 460	S	1	6900,00
M 36 x 480	S	1	7200,00
M 36 x 500	S	1	7500,00
M 36 x 540	S	1	18000,00
M 36 x 580	S	1	18500,00
M 39 x 110	S	1	3700,00
M 39 x 120	S	1	3700,00
M 39 x 130	S	1	3900,00

Dimensions			PU	Pieces	€/100/Mat.
M 39	x	140	S	1	4050,00
M 39	x	150	S	1	4300,00
M 39	x	160	S	1	4400,00
M 39	x	170	S	1	4550,00
M 39	x	180	S	1	4800,00
M 39	x	190	S	1	5100,00
M 39	x	200	S	1	5300,00
M 39	x	220	S	1	5600,00
M 39	x	240	S	1	6000,00
M 39	x	250	S	1	15400,00
M 39	x	260	S	1	15600,00
M 39	x	280	S	1	16000,00
M 39	x	300	S	1	16400,00
M 42	x	120	S	1	3900,00
M 42	x	130	S	1	4100,00
M 42	x	140	S	1	4300,00
M 42	x	150	S	1	4550,00
M 42	x	160	S	1	4650,00
M 42	x	170	S	1	4850,00
M 42	x	180	S	1	5200,00
M 42	x	190	S	1	5500,00
M 42	x	200	S	1	5500,00
M 42	x	210	S	5	5900,00
M 42	x	220	S	1	6300,00
M 42	x	240	S	1	6700,00
M 42	x	250	S	1	7200,00
M 42	x	260	S	1	7200,00
M 42	x	280	S	1	8100,00
M 42	x	300	S	1	8500,00
M 42	x	320	S	1	9300,00
M 42	x	340	S	1	9900,00
M 42	x	360	S	1	10800,00
M 42	x	380	S	1	11600,00
M 42	x	400	S	1	12200,00
M 42	x	420	S	1	13100,00
M 45	x	120	S	1	5200,00
M 45	x	130	S	1	5500,00
M 45	x	140	S	1	5700,00
M 45	x	150	S	1	5900,00
M 45	x	160	S	1	6300,00
M 45	x	170	S	1	6500,00
M 45	x	180	S	1	6800,00
M 45	x	190	S	1	7100,00
M 45	x	200	S	1	7400,00
M 45	x	220	S	1	17100,00
M 48	x	130	S	1	6600,00
M 48	x	140	S	1	6900,00
M 48	x	150	S	1	7400,00
M 48	x	160	S	1	7700,00
M 48	x	170	S	1	7900,00
M 48	x	180	S	1	7900,00
M 48	x	190	S	1	8400,00
M 48	x	200	S	1	8400,00
M 48	x	220	S	1	8800,00
M 48	x	240	S	1	9300,00
M 48	x	250	S	1	9800,00
M 48	x	260	S	1	9800,00
M 48	x	280	S	1	10500,00
M 48	x	290	S	1	11600,00
M 48	x	300	S	1	11600,00
M 48	x	320	S	1	13100,00
M 48	x	340	S	1	13800,00
M 48	x	360	S	1	14600,00
M 48	x	380	S	1	15200,00
M 48	x	400	S	1	16000,00
M 48	x	420	S	1	21900,00
M 48	x	480	S	1	28600,00
M 52	x	150	S	1	19800,00
M 52	x	200	S	1	21800,00
M 56	x	130	S	1	11600,00
M 56	x	140	S	1	12100,00
M 56	x	150	S	1	12200,00
M 56	x	160	S	1	12800,00
M 56	x	170	S	1	13100,00
M 56	x	180	S	1	13700,00
M 56	x	190	S	1	13900,00
M 56	x	200	S	1	14500,00
M 56	x	220	S	1	14500,00
M 56	x	240	S	1	15600,00
M 56	x	250	S	1	16600,00
M 56	x	260	S	1	16600,00
M 56	x	280	S	1	17700,00
M 56	x	300	S	1	18500,00
M 56	x	380	S	1	30100,00
M 64	x	300	S	1	34600,00

ISO	04014.810 *
4014	**8.8 zinc plated**



Hexagon head bolts

short dimensions partly thread nearly to head,
*M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

M 3	x	30	S	500	15,10 ZP
M 3	x	35	S	500	15,60 ZP
M 3	x	40	S	500	16,40 ZP
M 4	x	25	S	500	13,30 ZP
M 4	x	30	S	500	13,50 ZP
M 4	x	35	S	500	15,00 ZP
M 4	x	40	S	500	16,00 ZP
M 4	x	40	K	100	19,50 ZP
M 4	x	45	S	500	16,30 ZP
M 4	x	50	S	500	18,10 ZP
M 4	x	55	S	200	54,00 ZP
M 4	x	60	S	200	61,00 ZP
M 4	x	70	S	200	78,00 ZP
M 4	x	80	S	200	107,00 ZP
M 5	x	30	S	500	14,00 ZP
M 5	x	30	K	100	17,70 ZP
M 5	x	35	S	200	15,70 ZP
M 5	x	40	S	200	16,70 ZP
M 5	x	45	S	200	17,20 ZP
M 5	x	50	S	200	19,10 ZP
M 5	x	55	S	200	20,40 ZP
M 5	x	60	S	200	22,00 ZP
M 5	x	65	S	200	28,50 ZP
M 5	x	70	S	200	30,00 ZP
M 5	x	80	S	200	35,50 ZP
M 5	x	85	S	200	79,00 ZP
M 5	x	90	S	200	80,00 ZP
M 5	x	95	S	200	88,00 ZP
M 5	x	100	S	200	91,00 ZP
M 5	x	120	S	200	151,00 ZP
M 5	x	130	S	200	260,00 ZP
M 6	x	30	S	500	8,40 ZP
M 6	x	30	K	100	12,10 ZP
M 6	x	35	S	200	9,40 ZP
M 6	x	40	S	200	10,60 ZP
M 6	x	45	S	200	11,80 ZP
M 6	x	50	S	200	13,80 ZP
M 6	x	55	S	200	17,10 ZP
M 6	x	60	S	200	18,30 ZP
M 6	x	65	S	200	28,50 ZP
M 6	x	70	S	200	29,00 ZP
M 6	x	75	S	200	31,50 ZP
M 6	x	80	S	200	38,50 ZP
M 6	x	85	S	100	49,50 ZP
M 6	x	90	S	100	50,00 ZP
M 6	x	95	S	100	62,00 ZP
M 6	x	100	S	100	63,00 ZP
M 6	x	105	S	100	151,00 ZP
M 6	x	110	S	100	64,00 ZP
M 6	x	120	S	100	78,00 ZP
M 6	x	130	S	100	101,00 ZP
M 6	x	140	S	100	116,00 ZP
M 6	x	150	S	100	300,00 ZP
M 6	x	160	S	100	305,00 ZP
M 6	x	170	S	100	325,00 ZP
M 6	x	180	S	100	360,00 ZP
M 6	x	190	S	100	400,00 ZP
M 6	x	200	S	100	460,00 ZP
M 7	x	40	S	200	32,50 ZP
M 7	x	50	S	200	35,00 ZP
M 7	x	60	S	200	51,00 ZP
M 8	x	35	S	200	15,50 ZP
M 8	x	40	S	200	17,50 ZP
M 8	x	45	S	200	19,60 ZP
M 8	x	50	S	200	20,90 ZP
M 8	x	55	S	200	21,60 ZP
M 8	x	60	S	200	23,00 ZP
M 8	x	65	S	200	26,00 ZP
M 8	x	70	S	200	26,50 ZP
M 8	x	75	S	200	32,00 ZP
M 8	x	80	S	200	34,00 ZP
M 8	x	85	S	100	52,00 ZP
M 8	x	90	S	100	53,00 ZP
M 8	x	95	S	100	59,00 ZP
M 8	x	100	S	100	71,00 ZP
M 8	x	110	S	100	82,00 ZP
M 8	x	115	S	100	147,00 ZP
M 8	x	120	S	100	95,00 ZP
M 8	x	125	S	100	161,00 ZP
M 8	x	130	S	100	104,00 ZP
M 8	x	135	S	100	201,00 ZP
M 8	x	140	S	100	116,00 ZP
M 8	x	145	S	100	232,00 ZP
M 8	x	150	S	100	147,00 ZP
M 8	x	160	S	100	155,00 ZP
M 8	x	170	S	100	174,00 ZP
M 8	x	180	S	100	204,00 ZP
M 8	x	190	S	100	233,00 ZP
M 8	x	200	S	100	250,00 ZP
M 8	x	210	S	100	290,00 ZP
M 8	x	220	S	100	370,00 ZP
M 10	x	40	S	100	29,50 ZP
M 10	x	45	S	100	31,00 ZP
M 10	x	50	S	100	32,50 ZP
M 10	x	55	S	100	35,50 ZP
M 10	x	60	S	100	36,50 ZP
M 10	x	65	S	100	39,50 ZP
M 10	x	70	S	100	40,50 ZP
M 10	x	75	S	100	44,50 ZP
M 10	x	80	S	100	45,00 ZP
M 10	x	85	S	100	57,00 ZP
M 10	x	90	S	100	58,00 ZP
M 10	x	95	S	100	65,00 ZP
M 10	x	100	S	100	65,00 ZP
M 10	x	105	S	50	130,00 ZP
M 10	x	110	S	50	98,00 ZP
M 10	x	115	S	50	176,00 ZP
M 10	x	120	S	50	110,00 ZP
M 10	x	130	S	50	124,00 ZP
M 10	x	140	S	50	171,00 ZP
M 10	x	150	S	50	203,00 ZP
M 10	x	160	S	50	246,00 ZP
M 10	x	170	S	50	250,00 ZP
M 10	x	180	S	50	275,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	190	S	50	335,00 ZP
M 10	x	200	S	50	242,00 ZP
M 10	x	210	S	50	355,00 ZP
M 10	x	220	S	50	650,00 ZP
M 10	x	230	S	50	860,00 ZP
M 10	x	240	S	50	700,00 ZP
M 10	x	250	S	50	930,00 ZP
M 10	x	260	S	50	760,00 ZP
M 10	x	270	S	50	990,00 ZP
M 10	x	280	S	50	810,00 ZP
M 10	x	300	S	50	850,00 ZP
M 12	x	45	S	100	45,50 ZP
M 12	x	50	S	100	47,50 ZP
M 12	x	55	S	100	49,50 ZP
M 12	x	60	S	100	53,00 ZP
M 12	x	65	S	50	57,00 ZP
M 12	x	70	S	50	59,00 ZP
M 12	x	75	S	50	62,00 ZP
M 12	x	80	S	50	65,00 ZP
M 12	x	85	S	50	81,00 ZP
M 12	x	90	S	50	74,00 ZP
M 12	x	95	S	50	88,00 ZP
M 12	x	100	S	50	90,00 ZP
M 12	x	110	S	50	132,00 ZP
M 12	x	115	S	50	233,00 ZP
M 12	x	120	S	50	144,00 ZP
M 12	x	130	S	50	160,00 ZP
M 12	x	140	S	50	216,00 ZP
M 12	x	150	S	50	209,00 ZP
M 12	x	160	S	25	460,00 ZP
M 12	x	170	S	25	350,00 ZP
M 12	x	180	S	25	255,00 ZP
M 12	x	190	S	25	410,00 ZP
M 12	x	200	S	25	445,00 ZP
M 12	x	210	S	25	500,00 ZP
M 12	x	220	S	25	500,00 ZP
M 12	x	230	S	25	670,00 ZP
M 12	x	240	S	25	680,00 ZP
M 12	x	250	S	25	760,00 ZP
M 12	x	260	S	25	740,00 ZP
M 12	x	270	S	25	820,00 ZP
M 12	x	280	S	25	810,00 ZP
M 12	x	290	S	25	840,00 ZP
M 12	x	300	S	25	880,00 ZP
M 12	x	310	S	25	1360,00 ZP
M 12	x	320	S	25	1260,00 ZP
M 12	x	330	S	1	1780,00 ZP
M 14	x	50	S	100	113,00 ZP
M 14	x	55	S	50	120,00 ZP
M 14	x	60	S	50	123,00 ZP
M 14	x	65	S	50	134,00 ZP
M 14	x	70	S	50	136,00 ZP
M 14	x	75	S	50	163,00 ZP
M 14	x	80	S	50	170,00 ZP
M 14	x	85	S	50	187,00 ZP
M 14	x	90	S	50	189,00 ZP
M 14	x	95	S	50	210,00 ZP
M 14	x	100	S	50	211,00 ZP
M 14	x	110	S	50	241,00 ZP
M 14	x	120	S	50	275,00 ZP
M 14	x	130	S	50	310,00 ZP
M 14	x	140	S	25	335,00 ZP
M 14	x	150	S	25	365,00 ZP
M 14	x	160	S	25	405,00 ZP
M 14	x	170	S	25	460,00 ZP
M 14	x	180	S	25	465,00 ZP
M 14	x	190	S	25	550,00 ZP
M 14	x	200	S	25	550,00 ZP
M 14	x	220	S	25	690,00 ZP
M 14	x	240	S	25	760,00 ZP
M 16	x	50	S	50	89,00 ZP
M 16	x	55	S	50	89,00 ZP
M 16	x	60	S	50	92,00 ZP
M 16	x	65	S	25	99,00 ZP
M 16	x	70	S	25	104,00 ZP
M 16	x	75	S	25	110,00 ZP
M 16	x	80	S	25	116,00 ZP
M 16	x	85	S	25	142,00 ZP
M 16	x	90	S	25	130,00 ZP
M 16	x	95	S	25	154,00 ZP
M 16	x	100	S	25	155,00 ZP
M 16	x	110	S	25	229,00 ZP
M 16	x	120	S	25	255,00 ZP
M 16	x	130	S	25	270,00 ZP
M 16	x	140	S	25	345,00 ZP
M 16	x	150	S	25	385,00 ZP
M 16	x	160	S	25	430,00 ZP
M 16	x	170	S	25	520,00 ZP
M 16	x	180	S	25	520,00 ZP
M 16	x	190	S	25	600,00 ZP
M 16	x	200	S	25	610,00 ZP
M 16	x	210	S	25	760,00 ZP
M 16	x	220	S	1	760,00 ZP
M 16	x	230	S	1	840,00 ZP
M 16	x	240	S	1	850,00 ZP
M 16	x	250	S	1	950,00 ZP
M 16	x	260	S	1	950,00 ZP
M 16	x	270	S	1	1260,00 ZP
M 16	x	280	S	1	1270,00 ZP
M 16	x	290	S	1	1410,00 ZP
M 16	x	300	S	1	1420,00 ZP
M 16	x	310	S	1	1670,00 ZP
M 16	x	320	S	1	1590,00 ZP
M 16	x	330	S	1	1780,00 ZP
M 16	x	340	S	1	1610,00 ZP
M 16	x	350	S	1	1990,00 ZP
M 16	x	360	S	1	1790,00 ZP
M 16	x	370	S	1	2390,00 ZP
M 16	x	380	S	1	2200,00 ZP
M 16	x	390	S	1	2700,00 ZP
M 16	x	400	S	1	2480,00 ZP
M 16	x	420	S	1	2800,00 ZP
M 16	x	430	S	1	3400,00 ZP
M 16	x	440	S	1	3150,00 ZP
M 18	x	65	S	25	320,00 ZP
M 18	x	70	S	25	335,00 ZP
M 18	x	75	S	25	345,00 ZP
M 18	x	80	S	25	345,00 ZP
M 18	x	90	S	25	375,00 ZP
M 18	x	95	S	25	405,00 ZP
M 18	x	100	S	25	410,00 ZP
M 18	x	110	S	25	460,00 ZP
M 18	x	120	S	25	470,00 ZP
M 18	x	130	S	25	510,00 ZP
M 18	x	140	S	25	610,00 ZP
M 18	x	150	S	25	620,00 ZP
M 18	x	160	S	25	690,00 ZP
M 18	x	170	S	25	910,00 ZP
M 18	x	180	S	25	910,00 ZP
M 18	x	190	S	1	1230,00 ZP
M 18	x	200	S	1	1240,00 ZP
M 18	x	220	S	1	1460,00 ZP
M 18	x	230	S	1	1620,00 ZP
M 18	x	240	S	1	1630,00 ZP
M 20	x	65	S	25	172,00 ZP
M 20	x	70	S	25	177,00 ZP
M 20	x	75	S	25	186,00 ZP
M 20	x	80	S	25	193,00 ZP
M 20	x	85	S	25	210,00 ZP
M 20	x	90	S	25	212,00 ZP
M 20	x	95	S	25	250,00 ZP
M 20	x	100	S	25	255,00 ZP
M 20	x	110	S	25	385,00 ZP
M 20	x	120	S	25	405,00 ZP
M 20	x	130	S	25	410,00 ZP
M 20	x	140	S	25	530,00 ZP
M 20	x	150	S	25	590,00 ZP
M 20	x	160	S	10	650,00 ZP
M 20	x	170	S	10	810,00 ZP
M 20	x	180	S	10	810,00 ZP
M 20	x	190	S	1	1190,00 ZP
M 20	x	200	S	1	1200,00 ZP
M 20	x	210	S	1	1460,00 ZP
M 20	x	220	S	1	1470,00 ZP
M 20	x	230	S	1	1620,00 ZP
M 20	x	240	S	1	1630,00 ZP
M 20	x	250	S	1	1780,00 ZP
M 20	x	260	S	1	1790,00 ZP
M 20	x	270	S	1	1870,00 ZP
M 20	x	280	S	1	2020,00 ZP
M 20	x	290	S	1	2150,00 ZP
M 20	x	300	S	1	2300,00 ZP
M 20	x	310	S	1	2490,00 ZP
M 20	x	320	S	1	2440,00 ZP
M 20	x	330	S	1	2550,00 ZP
M 20	x	340	S	1	2650,00 ZP
M 20	x	350	S	1	2850,00 ZP
M 20	x	360	S	1	2850,00 ZP
M 20	x	380	S	1	3050,00 ZP
M 20	x	390	S	1	3200,00 ZP
M 20	x	400	S	1	3200,00 ZP
M 20	x	420	S	1	3250,00 ZP
M 20	x	430	S	1	4000,00 ZP
M 20	x	440	S	1	4000,00 ZP
M 20	x	450	S	1	4050,00 ZP
M 20	x	460	S	1	4050,00 ZP
M 20	x	480	S	1	4100,00 ZP
M 20	x	500	S	1	4150,00 ZP
M 22	x	70	S	25	590,00 ZP
M 22	x	75	S	25	620,00 ZP
M 22	x	80	S	25	620,00 ZP
M 22	x	90	S	25	650,00 ZP
M 22	x	100	S	10	710,00 ZP
M 22	x	110	S	10	760,00 ZP
M 22	x	120	S	10	820,00 ZP
M 22	x	130	S	10	870,00 ZP
M 22	x	140	S	10	880,00 ZP
M 22	x	150	S	10	1020,00 ZP
M 22	x	160	S	10	1140,00 ZP
M 22	x	180	S	10	1410,00 ZP
M 22	x	200	S	10	1740,00 ZP
M 22	x	240	S	1	2180,00 ZP
M 22	x	260	S	1	2650,00 ZP
M 22	x	280	S	1	2950,00 ZP
M 22	x	300	S	1	3250,00 ZP
M 24	x	75	S	25	305,00 ZP
M 24	x	80	S	25	310,00 ZP
M 24	x	85	S	10	385,00 ZP
M 24	x	90	S	10	370,00 ZP
M 24	x	95	S	10	395,00 ZP
M 24	x	100	S	10	400,00 ZP
M 24	x	110	S	10	600,00 ZP
M 24	x	120	S	10	640,00 ZP
M 24	x	130	S	10	660,00 ZP
M 24	x	140	S	10	850,00 ZP
M 24	x	150	S	10	920,00 ZP
M 24	x	160	S	10	1010,00 ZP
M 24	x	170	S	1	1240,00 ZP
M 24	x	180	S	1	1250,00 ZP
M 24	x	190	S	1	1700,00 ZP
M 24	x	200	S	1	1710,00 ZP
M 24	x	210	S	1	1980,00 ZP
M 24	x	220	S	1	2140,00 ZP
M 24	x	230	S	1	2190,00 ZP
M 24	x	240	S	1	2300,00 ZP
M 24	x	250	S	1	2420,00 ZP
M 24	x	260	S	1	2370,00 ZP
M 24	x	270	S	1	2850,00 ZP
M 24	x	280	S	1	2800,00 ZP
M 24	x	300	S	1	3050,00 ZP
M 24	x	310	S	1	3200,00 ZP
M 24	x	320	S	1	3100,00 ZP
M 24	x	330	S	1	3250,00 ZP
M 24	x	340	S	1	3200,00 ZP
M 24	x	350	S	1	3400,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	360	S	1	3350,00 ZP
M 24	x	380	S	1	3550,00 ZP
M 24	x	390	S	1	3850,00 ZP
M 24	x	400	S	1	3900,00 ZP
M 24	x	410	S	1	4150,00 ZP
M 24	x	420	S	1	4150,00 ZP
M 24	x	430	S	1	4400,00 ZP
M 24	x	440	S	1	4400,00 ZP
M 24	x	450	S	1	4700,00 ZP
M 27	x	80	S	10	760,00 ZP
M 27	x	90	S	10	920,00 ZP
M 27	x	100	S	10	1070,00 ZP
M 27	x	110	S	1	1230,00 ZP
M 27	x	120	S	1	1240,00 ZP
M 27	x	130	S	1	1320,00 ZP
M 27	x	140	S	1	1340,00 ZP
M 27	x	150	S	1	1390,00 ZP
M 27	x	160	S	1	1400,00 ZP
M 27	x	170	S	1	1470,00 ZP
M 27	x	180	S	1	1480,00 ZP
M 27	x	190	S	1	1730,00 ZP
M 27	x	200	S	1	1740,00 ZP
M 27	x	220	S	1	2450,00 ZP
M 27	x	230	S	1	2550,00 ZP
M 27	x	240	S	1	2650,00 ZP
M 27	x	260	S	1	2850,00 ZP
M 27	x	270	S	1	3050,00 ZP
M 27	x	280	S	1	3100,00 ZP
M 27	x	300	S	1	3500,00 ZP
M 27	x	320	S	1	4450,00 ZP
M 30	x	80	S	1	1810,00 ZP
M 30	x	90	S	1	1780,00 ZP
M 30	x	100	S	1	1800,00 ZP
M 30	x	110	S	1	2110,00 ZP
M 30	x	120	S	1	2130,00 ZP
M 30	x	130	S	1	2340,00 ZP
M 30	x	140	S	1	2360,00 ZP
M 30	x	150	S	1	2450,00 ZP
M 30	x	160	S	1	2460,00 ZP
M 30	x	170	S	1	2700,00 ZP
M 30	x	180	S	1	2750,00 ZP
M 30	x	190	S	1	2900,00 ZP
M 30	x	200	S	1	2950,00 ZP
M 30	x	210	S	1	3050,00 ZP
M 30	x	220	S	1	3050,00 ZP
M 30	x	230	S	1	3100,00 ZP
M 30	x	240	S	1	3250,00 ZP
M 30	x	250	S	1	3500,00 ZP
M 30	x	260	S	1	3600,00 ZP
M 30	x	280	S	1	3650,00 ZP
M 30	x	290	S	1	3300,00 ZP
M 30	x	300	S	1	3800,00 ZP
M 30	x	310	S	1	4100,00 ZP
M 30	x	320	S	1	4350,00 ZP
M 30	x	330	S	1	4600,00 ZP
M 30	x	340	S	1	4600,00 ZP
M 30	x	350	S	1	4900,00 ZP
M 30	x	360	S	1	4900,00 ZP
M 30	x	380	S	1	5200,00 ZP
M 33	x	100	S	1	2080,00 ZP
M 33	x	110	S	1	2200,00 ZP
M 33	x	120	S	1	2320,00 ZP
M 33	x	130	S	1	2430,00 ZP
M 33	x	140	S	1	2550,00 ZP
M 33	x	150	S	1	2650,00 ZP
M 33	x	160	S	1	3100,00 ZP
M 33	x	170	S	1	3200,00 ZP
M 33	x	180	S	1	3200,00 ZP
M 33	x	190	S	1	3300,00 ZP
M 33	x	200	S	1	3350,00 ZP
M 33	x	210	S	1	3450,00 ZP
M 33	x	220	S	1	3450,00 ZP
M 33	x	240	S	1	3700,00 ZP
M 33	x	260	S	1	4250,00 ZP
M 33	x	280	S	1	4450,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 33	x	300	S	1	4700,00 ZP
M 36	x	110	S	1	2650,00 ZP
M 36	x	120	S	1	2800,00 ZP
M 36	x	130	S	1	2950,00 ZP
M 36	x	140	S	1	3100,00 ZP
M 36	x	150	S	1	3250,00 ZP
M 36	x	160	S	1	3550,00 ZP
M 36	x	170	S	1	3800,00 ZP
M 36	x	180	S	1	3800,00 ZP
M 36	x	190	S	1	4050,00 ZP
M 36	x	200	S	1	4050,00 ZP
M 36	x	210	S	1	4250,00 ZP
M 36	x	220	S	1	4250,00 ZP
M 36	x	230	S	1	4650,00 ZP
M 36	x	240	S	1	4650,00 ZP
M 36	x	250	S	1	4900,00 ZP
M 36	x	260	S	1	4900,00 ZP
M 36	x	270	S	1	5300,00 ZP
M 36	x	280	S	1	5200,00 ZP
M 36	x	300	S	1	5400,00 ZP
M 36	x	320	S	1	6600,00 ZP
M 36	x	360	S	1	7100,00 ZP
M 36	x	400	S	1	7500,00 ZP
M 39	x	140	S	1	4650,00 ZP
M 39	x	150	S	1	4900,00 ZP
M 39	x	160	S	1	5100,00 ZP
M 39	x	170	S	1	5300,00 ZP
M 39	x	180	S	1	5600,00 ZP
M 39	x	190	S	1	5800,00 ZP
M 39	x	200	S	1	6100,00 ZP
M 42	x	120	S	1	4600,00 ZP
M 42	x	130	S	1	5000,00 ZP
M 42	x	140	S	1	5200,00 ZP
M 42	x	150	S	1	5600,00 ZP
M 42	x	160	S	1	5700,00 ZP
M 42	x	170	S	1	6000,00 ZP
M 42	x	180	S	1	6300,00 ZP
M 42	x	190	S	1	6500,00 ZP
M 42	x	200	S	1	6700,00 ZP
M 42	x	220	S	1	7400,00 ZP
M 42	x	240	S	1	7900,00 ZP
M 42	x	250	S	1	8400,00 ZP
M 42	x	260	S	1	8400,00 ZP
M 42	x	280	S	1	9300,00 ZP
M 48	x	140	S	1	8100,00 ZP
M 48	x	150	S	1	8700,00 ZP
M 48	x	160	S	1	9100,00 ZP
M 48	x	170	S	1	9400,00 ZP
M 48	x	180	S	1	9500,00 ZP
M 48	x	200	S	1	10100,00 ZP
M 48	x	220	S	1	10700,00 ZP
M 48	x	240	S	1	11400,00 ZP

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Dimensions	PU	Pieces	€/100/Mat.
ISO	04014.870		*

4014 **8.8 zinc plated 8 TLP****



Hexagon head bolts

short dimensions partly thread nearly to head,
*M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401,
**< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ REACh SVHC free

M 5	x	40	S	200	20,90 ZP TLP
M 5	x	45	S	200	21,60 ZP TLP
M 5	x	50	S	200	23,90 ZP TLP
M 6	x	30	S	500	10,50 ZP TLP
M 6	x	35	S	200	11,80 ZP TLP
M 6	x	40	S	200	13,30 ZP TLP
M 6	x	45	S	200	14,80 ZP TLP
M 6	x	50	S	200	17,30 ZP TLP
M 6	x	55	S	200	21,40 ZP TLP
M 6	x	60	S	200	22,90 ZP TLP
M 6	x	65	S	200	30,50 ZP TLP
M 6	x	70	S	200	36,50 ZP TLP
M 6	x	75	S	200	39,50 ZP TLP
M 6	x	80	S	200	48,00 ZP TLP
M 6	x	90	S	100	63,00 ZP TLP
M 6	x	100	S	100	78,00 ZP TLP
M 6	x	110	S	100	80,00 ZP TLP
M 6	x	120	S	100	98,00 ZP TLP
M 8	x	35	S	200	19,40 ZP TLP
M 8	x	40	S	200	21,80 ZP TLP
M 8	x	45	S	200	24,50 ZP TLP
M 8	x	50	S	200	26,50 ZP TLP
M 8	x	55	S	200	27,00 ZP TLP
M 8	x	60	S	200	29,00 ZP TLP
M 8	x	65	S	200	32,50 ZP TLP
M 8	x	70	S	200	33,50 ZP TLP
M 8	x	75	S	200	40,00 ZP TLP
M 8	x	80	S	200	42,00 ZP TLP
M 8	x	85	S	100	65,00 ZP TLP
M 8	x	90	S	100	67,00 ZP TLP
M 8	x	100	S	100	89,00 ZP TLP
M 8	x	110	S	100	102,00 ZP TLP
M 8	x	120	S	100	119,00 ZP TLP
M 8	x	130	S	100	130,00 ZP TLP
M 8	x	140	S	50	93,00 ZP TLP
M 8	x	150	S	100	184,00 ZP TLP
M 10	x	40	S	100	37,00 ZP TLP
M 10	x	45	S	100	39,00 ZP TLP
M 10	x	50	S	100	41,00 ZP TLP
M 10	x	55	S	100	44,50 ZP TLP
M 10	x	60	S	100	46,00 ZP TLP
M 10	x	65	S	100	49,50 ZP TLP
M 10	x	70	S	100	51,00 ZP TLP
M 10	x	75	S	100	56,00 ZP TLP
M 10	x	80	S	100	57,00 ZP TLP
M 10	x	85	S	100	71,00 ZP TLP
M 10	x	90	S	100	72,00 ZP TLP
M 10	x	95	S	100	81,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	100	S	100	82,00 ZP TLP
M 10	x	110	S	50	123,00 ZP TLP
M 10	x	120	S	50	138,00 ZP TLP
M 10	x	130	S	50	155,00 ZP TLP
M 10	x	140	S	50	215,00 ZP TLP
M 10	x	150	S	50	255,00 ZP TLP
M 12	x	45	S	100	57,00 ZP TLP
M 12	x	50	S	100	59,00 ZP TLP
M 12	x	55	S	100	62,00 ZP TLP
M 12	x	60	S	100	66,00 ZP TLP
M 12	x	65	S	50	71,00 ZP TLP
M 12	x	70	S	50	73,00 ZP TLP
M 12	x	75	S	50	78,00 ZP TLP
M 12	x	80	S	50	81,00 ZP TLP
M 12	x	85	S	50	101,00 ZP TLP
M 12	x	90	S	50	92,00 ZP TLP
M 12	x	100	S	50	112,00 ZP TLP
M 12	x	110	S	50	166,00 ZP TLP
M 12	x	120	S	50	181,00 ZP TLP
M 12	x	130	S	50	200,00 ZP TLP
M 12	x	140	S	50	270,00 ZP TLP
M 12	x	150	S	50	305,00 ZP TLP
M 12	x	160	S	25	390,00 ZP TLP
M 12	x	180	S	25	485,00 ZP TLP
M 16	x	55	S	50	111,00 ZP TLP
M 16	x	60	S	50	115,00 ZP TLP
M 16	x	65	S	25	124,00 ZP TLP
M 16	x	70	S	25	131,00 ZP TLP
M 16	x	75	S	25	137,00 ZP TLP
M 16	x	80	S	25	146,00 ZP TLP
M 16	x	90	S	25	163,00 ZP TLP
M 16	x	100	S	25	194,00 ZP TLP
M 16	x	110	S	25	290,00 ZP TLP
M 16	x	120	S	25	315,00 ZP TLP
M 16	x	130	S	25	340,00 ZP TLP
M 16	x	140	S	25	430,00 ZP TLP
M 16	x	150	S	25	480,00 ZP TLP
M 16	x	160	S	25	540,00 ZP TLP
M 16	x	180	S	25	650,00 ZP TLP
M 16	x	190	S	25	750,00 ZP TLP
M 16	x	200	S	25	760,00 ZP TLP
M 20	x	70	S	25	222,00 ZP TLP
M 20	x	75	S	25	233,00 ZP TLP
M 20	x	80	S	25	241,00 ZP TLP
M 20	x	100	S	25	315,00 ZP TLP
M 20	x	110	S	25	480,00 ZP TLP
M 20	x	120	S	25	510,00 ZP TLP
M 20	x	130	S	25	520,00 ZP TLP
M 20	x	140	S	25	660,00 ZP TLP
M 20	x	160	S	10	810,00 ZP TLP
M 20	x	240	S	1	2040,00 ZP TLP
M 24	x	75	S	25	380,00 ZP TLP
M 24	x	80	S	25	390,00 ZP TLP
M 24	x	90	S	10	460,00 ZP TLP
M 24	x	100	S	10	500,00 ZP TLP
M 24	x	110	S	10	740,00 ZP TLP
M 24	x	120	S	10	800,00 ZP TLP
M 24	x	130	S	10	820,00 ZP TLP
M 24	x	140	S	10	1060,00 ZP TLP
M 24	x	150	S	10	1150,00 ZP TLP
M 24	x	180	S	1	1560,00 ZP TLP
M 24	x	200	S	1	2130,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04014.428		401
4014	**8.8 zinc plated 8 TLP* + SL****		



Hexagon head bolts

*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 - 0,18, salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	50	S	200	22,90 ZP TLP
M 6	x	30	S	500	10,10 ZP TLP
M 6	x	35	S	200	11,30 ZP TLP
M 6	x	40	S	200	12,80 ZP TLP
M 6	x	45	S	200	14,10 ZP TLP
M 6	x	50	S	200	16,60 ZP TLP
M 6	x	55	S	200	20,50 ZP TLP
M 6	x	60	S	200	22,00 ZP TLP
M 6	x	65	S	200	34,50 ZP TLP
M 6	x	70	S	200	35,00 ZP TLP
M 6	x	75	S	200	38,00 ZP TLP
M 6	x	80	S	200	46,00 ZP TLP
M 6	x	90	S	100	60,00 ZP TLP
M 6	x	95	S	100	79,00 ZP TLP
M 6	x	100	S	100	75,00 ZP TLP
M 6	x	110	S	100	77,00 ZP TLP
M 6	x	120	S	100	94,00 ZP TLP
M 6	x	130	S	100	107,00 ZP TLP
M 6	x	140	S	100	151,00 ZP TLP
M 6	x	175	S	100	222,00 ZP TLP
M 6	x	220	S	100	1020,00 ZP TLP
M 8	x	35	S	200	18,60 ZP TLP
M 8	x	40	S	200	22,50 ZP TLP
M 8	x	45	S	200	23,50 ZP TLP
M 8	x	50	S	200	25,00 ZP TLP
M 8	x	55	S	200	26,00 ZP TLP
M 8	x	60	S	200	28,00 ZP TLP
M 8	x	65	S	200	31,00 ZP TLP
M 8	x	70	S	200	32,00 ZP TLP
M 8	x	75	S	200	38,50 ZP TLP
M 8	x	80	S	200	40,50 ZP TLP
M 8	x	85	S	100	62,00 ZP TLP
M 8	x	90	S	100	64,00 ZP TLP
M 8	x	95	S	100	85,00 ZP TLP
M 8	x	100	S	100	85,00 ZP TLP
M 8	x	110	S	100	98,00 ZP TLP
M 8	x	115	S	100	176,00 ZP TLP
M 8	x	120	S	100	114,00 ZP TLP
M 8	x	130	S	100	124,00 ZP TLP
M 8	x	140	S	100	90,00 ZP TLP
M 8	x	150	S	100	176,00 ZP TLP
M 8	x	160	S	100	194,00 ZP TLP
M 8	x	180	S	100	255,00 ZP TLP
M 10	x	40	S	100	35,50 ZP TLP
M 10	x	45	S	100	37,50 ZP TLP
M 10	x	50	S	100	39,00 ZP TLP
M 10	x	55	S	100	42,50 ZP TLP
M 10	x	60	S	100	44,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	65	S	100	47,00 ZP TLP
M 10	x	70	S	100	48,50 ZP TLP
M 10	x	75	S	100	53,00 ZP TLP
M 10	x	80	S	100	54,00 ZP TLP
M 10	x	85	S	100	68,00 ZP TLP
M 10	x	90	S	100	69,00 ZP TLP
M 10	x	95	S	100	78,00 ZP TLP
M 10	x	100	S	100	78,00 ZP TLP
M 10	x	100	S	50	117,00 ZP TLP
M 10	x	120	S	50	132,00 ZP TLP
M 10	x	130	S	50	149,00 ZP TLP
M 10	x	140	S	50	205,00 ZP TLP
M 10	x	150	S	50	243,00 ZP TLP
M 10	x	160	S	50	275,00 ZP TLP
M 10	x	170	S	50	310,00 ZP TLP
M 10	x	200	S	50	430,00 ZP TLP
M 12	x	45	S	100	55,00 ZP TLP
M 12	x	50	S	100	57,00 ZP TLP
M 12	x	55	S	100	59,00 ZP TLP
M 12	x	60	S	100	64,00 ZP TLP
M 12	x	65	S	50	68,00 ZP TLP
M 12	x	70	S	50	70,00 ZP TLP
M 12	x	75	S	50	74,00 ZP TLP
M 12	x	80	S	50	78,00 ZP TLP
M 12	x	85	S	50	97,00 ZP TLP
M 12	x	90	S	50	89,00 ZP TLP
M 12	x	95	S	50	97,00 ZP TLP
M 12	x	100	S	50	108,00 ZP TLP
M 12	x	110	S	50	159,00 ZP TLP
M 12	x	120	S	50	173,00 ZP TLP
M 12	x	130	S	50	192,00 ZP TLP
M 12	x	135	S	50	221,00 ZP TLP
M 12	x	140	S	50	260,00 ZP TLP
M 12	x	150	S	50	295,00 ZP TLP
M 12	x	160	S	25	375,00 ZP TLP
M 12	x	170	S	25	415,00 ZP TLP
M 12	x	180	S	25	465,00 ZP TLP
M 12	x	200	S	25	560,00 ZP TLP
M 14	x	50	S	100	127,00 ZP TLP
M 14	x	55	S	50	136,00 ZP TLP
M 14	x	60	S	50	143,00 ZP TLP
M 14	x	70	S	50	148,00 ZP TLP
M 14	x	75	S	50	185,00 ZP TLP
M 14	x	80	S	50	198,00 ZP TLP
M 14	x	85	S	50	213,00 ZP TLP
M 14	x	90	S	50	232,00 ZP TLP
M 14	x	100	S	50	244,00 ZP TLP
M 14	x	110	S	50	290,00 ZP TLP
M 14	x	120	S	50	325,00 ZP TLP
M 14	x	130	S	50	370,00 ZP TLP
M 14	x	140	S	25	405,00 ZP TLP
M 14	x	150	S	25	450,00 ZP TLP
M 14	x	160	S	25	490,00 ZP TLP
M 14	x	220	S	25	530,00 ZP TLP
M 16	x	55	S	50	107,00 ZP TLP
M 16	x	60	S	50	110,00 ZP TLP
M 16	x	65	S	25	118,00 ZP TLP
M 16	x	70	S	25	125,00 ZP TLP
M 16	x	75	S	25	131,00 ZP TLP
M 16	x	80	S	25	139,00 ZP TLP
M 16	x	90	S	25	156,00 ZP TLP
M 16	x	100	S	25	186,00 ZP TLP
M 16	x	110	S	25	275,00 ZP TLP
M 16	x	120	S	25	305,00 ZP TLP
M 16	x	130	S	25	325,00 ZP TLP
M 16	x	140	S	25	410,00 ZP TLP
M 16	x	150	S	25	460,00 ZP TLP
M 16	x	160	S	25	520,00 ZP TLP
M 16	x	170	S	25	610,00 ZP TLP
M 16	x	180	S	25	630,00 ZP TLP
M 16	x	190	S	25	720,00 ZP TLP
M 16	x	200	S	25	730,00 ZP TLP
M 16	x	220	S	25	780,00 ZP TLP
M 16	x	230	S	25	880,00 ZP TLP
M 16	x	260	S	25	1180,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	280	S	25	1280,00 ZP TLP
M 16	x	300	S	25	1540,00 ZP TLP
M 16	x	320	S	10	1800,00 ZP TLP
M 16	x	360	S	10	2050,00 ZP TLP
M 16	x	480	S	10	2850,00 ZP TLP
M 18	x	70	S	25	425,00 ZP TLP
M 20	x	65	S	25	207,00 ZP TLP
M 20	x	70	S	25	212,00 ZP TLP
M 20	x	75	S	25	223,00 ZP TLP
M 20	x	80	S	25	231,00 ZP TLP
M 20	x	90	S	25	255,00 ZP TLP
M 20	x	100	S	25	305,00 ZP TLP
M 20	x	105	S	25	370,00 ZP TLP
M 20	x	110	S	25	460,00 ZP TLP
M 20	x	120	S	25	485,00 ZP TLP
M 20	x	130	S	25	495,00 ZP TLP
M 20	x	140	S	25	640,00 ZP TLP
M 20	x	150	S	25	660,00 ZP TLP
M 20	x	160	S	10	770,00 ZP TLP
M 20	x	170	S	10	860,00 ZP TLP
M 20	x	180	S	10	950,00 ZP TLP
M 20	x	190	S	10	1460,00 ZP TLP
M 20	x	200	S	1	1580,00 ZP TLP
M 20	x	210	S	1	1710,00 ZP TLP
M 20	x	220	S	1	1850,00 ZP TLP
M 20	x	230	S	10	1930,00 ZP TLP
M 20	x	240	S	1	1960,00 ZP TLP
M 20	x	260	S	10	2130,00 ZP TLP
M 20	x	280	S	10	2290,00 ZP TLP
M 20	x	300	S	10	2600,00 ZP TLP
M 24	x	75	S	25	365,00 ZP TLP
M 24	x	80	S	25	375,00 ZP TLP
M 24	x	90	S	10	440,00 ZP TLP
M 24	x	100	S	10	480,00 ZP TLP
M 24	x	110	S	10	710,00 ZP TLP
M 24	x	120	S	10	770,00 ZP TLP
M 24	x	130	S	10	790,00 ZP TLP
M 24	x	140	S	10	1020,00 ZP TLP
M 24	x	150	S	10	1100,00 ZP TLP
M 24	x	180	S	1	1500,00 ZP TLP
M 24	x	200	S	1	2050,00 ZP TLP
M 24	x	300	S	1	4250,00 ZP TLP
M 27	x	180	S	1	1720,00 ZP TLP
M 30	x	170	S	1	3400,00 ZP TLP

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions			PU	Pieces	€/100/Mat.
ISO		04014.353			1530
4014		**8.8 flZn/TL480h**			



Hexagon head bolts

short dimensions partly thread nearly to head,
TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

M 6	x	30	S	500	10,90 flZn
M 6	x	35	S	200	12,30 flZn
M 6	x	40	S	200	13,80 flZn
M 6	x	45	S	200	15,40 flZn
M 6	x	50	S	200	18,00 flZn
M 6	x	55	S	200	22,30 flZn
M 6	x	60	S	200	23,80 flZn
M 6	x	65	S	200	37,50 flZn
M 6	x	70	S	200	37,50 flZn
M 6	x	75	S	200	41,00 flZn
M 6	x	80	S	200	50,00 flZn
M 8	x	35	S	200	21,20 flZn
M 8	x	40	S	200	22,70 flZn
M 8	x	45	S	200	25,50 flZn
M 8	x	50	S	200	27,50 flZn
M 8	x	55	S	200	28,50 flZn
M 8	x	60	S	200	30,00 flZn
M 8	x	65	S	200	33,50 flZn
M 8	x	70	S	200	34,50 flZn
M 8	x	75	S	200	42,00 flZn
M 8	x	80	S	200	44,00 flZn
M 8	x	90	S	100	69,00 flZn
M 8	x	100	S	100	92,00 flZn
M 10	x	40	S	100	38,00 flZn
M 10	x	45	S	100	40,50 flZn
M 10	x	50	S	100	42,50 flZn
M 10	x	55	S	100	46,00 flZn
M 10	x	60	S	100	49,50 flZn
M 10	x	65	S	100	51,00 flZn
M 10	x	70	S	100	58,00 flZn
M 10	x	75	S	100	63,00 flZn
M 10	x	80	S	100	69,00 flZn
M 10	x	90	S	100	74,00 flZn
M 10	x	100	S	100	85,00 flZn
M 10	x	110	S	50	128,00 flZn
M 10	x	120	S	50	143,00 flZn
M 12	x	45	S	100	59,00 flZn
M 12	x	50	S	100	64,00 flZn
M 12	x	55	S	100	69,00 flZn
M 12	x	60	S	100	74,00 flZn
M 12	x	65	S	50	76,00 flZn
M 12	x	70	S	50	81,00 flZn
M 12	x	75	S	50	89,00 flZn
M 12	x	80	S	50	96,00 flZn
M 12	x	90	S	50	117,00 flZn
M 12	x	100	S	50	127,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	110	S	50	172,00 flZn
M 12	x	120	S	50	188,00 flZn
M 16	x	55	S	50	116,00 flZn
M 16	x	60	S	50	133,00 flZn
M 16	x	65	S	25	136,00 flZn
M 16	x	70	S	25	139,00 flZn
M 16	x	75	S	25	143,00 flZn
M 16	x	80	S	25	152,00 flZn
M 16	x	90	S	25	170,00 flZn
M 16	x	100	S	25	203,00 flZn
M 16	x	110	S	25	300,00 flZn
M 16	x	120	S	25	330,00 flZn
M 16	x	130	S	25	350,00 flZn
M 16	x	140	S	25	445,00 flZn
M 20	x	65	S	25	224,00 flZn
M 20	x	70	S	25	230,00 flZn
M 20	x	75	S	25	241,00 flZn
M 20	x	80	S	25	255,00 flZn
M 20	x	90	S	25	310,00 flZn
M 20	x	100	S	25	330,00 flZn
M 20	x	110	S	25	500,00 flZn
M 20	x	120	S	25	530,00 flZn
M 20	x	130	S	25	540,00 flZn
M 20	x	140	S	25	690,00 flZn
M 20	x	150	S	25	760,00 flZn
M 20	x	160	S	10	840,00 flZn
M 20	x	170	S	10	1050,00 flZn
M 20	x	180	S	10	1060,00 flZn
M 24	x	75	S	25	395,00 flZn
M 24	x	80	S	25	530,00 flZn
M 24	x	90	S	10	560,00 flZn
M 24	x	100	S	10	770,00 flZn
M 24	x	110	S	10	800,00 flZn
M 24	x	120	S	10	830,00 flZn
M 24	x	130	S	10	850,00 flZn
M 24	x	140	S	10	1100,00 flZn
M 24	x	150	S	10	1200,00 flZn
M 24	x	160	S	10	1310,00 flZn
M 24	x	170	S	1	1610,00 flZn
M 24	x	180	S	1	1630,00 flZn

ISO	04014.820	*
4014	**8.8 hot dip galvanized**	



Hexagon head bolts

short dimensions partly thread nearly to head,
thread tolerance 6h (6az + HDG = U),
*M 10/12/14/22 = RAZ 3230 other ∅ = RAZ 403

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

M 8	x	35	S	200	115,00 HDG
M 8	x	40	S	200	126,00 HDG
M 8	x	45	S	200	132,00 HDG
M 8	x	50	S	200	151,00 HDG
M 8	x	60	S	200	167,00 HDG
M 8	x	65	S	200	184,00 HDG
M 8	x	70	S	200	195,00 HDG
M 8	x	80	S	200	315,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	100	S	200	350,00 HDG
M 10	x	40	S	100	78,00 HDG
M 10	x	45	S	100	84,00 HDG
M 10	x	50	S	100	88,00 HDG
M 10	x	55	S	100	95,00 HDG
M 10	x	60	S	100	99,00 HDG
M 10	x	65	S	100	107,00 HDG
M 10	x	70	S	100	110,00 HDG
M 10	x	75	S	100	119,00 HDG
M 10	x	80	S	100	123,00 HDG
M 10	x	90	S	100	153,00 HDG
M 10	x	100	S	100	172,00 HDG
M 10	x	110	S	50	260,00 HDG
M 10	x	120	S	50	214,00 HDG
M 12	x	45	S	100	121,00 HDG
M 12	x	50	S	100	128,00 HDG
M 12	x	55	S	100	138,00 HDG
M 12	x	60	S	100	143,00 HDG
M 12	x	65	S	50	153,00 HDG
M 12	x	70	S	50	158,00 HDG
M 12	x	75	S	50	167,00 HDG
M 12	x	80	S	50	176,00 HDG
M 12	x	90	S	50	200,00 HDG
M 12	x	100	S	50	236,00 HDG
M 12	x	110	S	50	315,00 HDG
M 12	x	120	S	50	340,00 HDG
M 12	x	130	S	50	112,00 HDG
M 12	x	140	S	50	495,00 HDG
M 12	x	150	S	50	560,00 HDG
M 12	x	160	S	25	700,00 HDG
M 12	x	180	S	25	246,00 HDG
M 12	x	200	S	25	990,00 HDG
M 16	x	55	S	50	241,00 HDG
M 16	x	60	S	50	255,00 HDG
M 16	x	65	S	25	275,00 HDG
M 16	x	70	S	25	285,00 HDG
M 16	x	75	S	25	305,00 HDG
M 16	x	80	S	25	320,00 HDG
M 16	x	90	S	25	385,00 HDG
M 16	x	100	S	25	415,00 HDG
M 16	x	110	S	25	550,00 HDG
M 16	x	120	S	25	600,00 HDG
M 16	x	130	S	25	630,00 HDG
M 16	x	140	S	25	800,00 HDG
M 16	x	150	S	25	880,00 HDG
M 16	x	160	S	25	980,00 HDG
M 16	x	180	S	25	1180,00 HDG
M 16	x	190	S	25	1400,00 HDG
M 16	x	200	S	25	1360,00 HDG
M 16	x	220	S	1	1700,00 HDG
M 16	x	240	S	1	1910,00 HDG
M 16	x	260	S	1	2140,00 HDG
M 16	x	300	S	1	3150,00 HDG
M 20	x	65	S	25	470,00 HDG
M 20	x	70	S	25	480,00 HDG
M 20	x	75	S	25	510,00 HDG
M 20	x	80	S	25	530,00 HDG
M 20	x	85	S	25	1050,00 HDG
M 20	x	90	S	25	580,00 HDG
M 20	x	100	S	25	670,00 HDG
M 20	x	110	S	25	910,00 HDG
M 20	x	120	S	25	960,00 HDG
M 20	x	130	S	25	980,00 HDG
M 20	x	140	S	25	1230,00 HDG
M 20	x	150	S	25	1350,00 HDG
M 20	x	160	S	10	1490,00 HDG
M 20	x	180	S	10	1850,00 HDG
M 20	x	200	S	10	2700,00 HDG
M 20	x	210	S	1	3150,00 HDG
M 20	x	220	S	1	3250,00 HDG
M 20	x	240	S	1	3600,00 HDG
M 20	x	260	S	1	4000,00 HDG
M 20	x	300	S	1	5100,00 HDG
M 24	x	75	S	25	810,00 HDG
M 24	x	80	S	25	840,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	85	S	10	2550,00 HDG
M 24	x	90	S	10	980,00 HDG
M 24	x	95	S	10	2550,00 HDG
M 24	x	100	S	10	1050,00 HDG
M 24	x	110	S	10	1400,00 HDG
M 24	x	120	S	10	1500,00 HDG
M 24	x	130	S	10	1550,00 HDG
M 24	x	140	S	10	1990,00 HDG
M 24	x	150	S	10	2140,00 HDG
M 24	x	160	S	10	2320,00 HDG
M 24	x	180	S	1	2850,00 HDG
M 24	x	200	S	1	3850,00 HDG
M 24	x	220	S	1	4750,00 HDG
M 24	x	240	S	1	5100,00 HDG
M 24	x	260	S	1	5300,00 HDG
M 24	x	300	S	1	6700,00 HDG
M 27	x	90	S	10	2080,00 HDG
M 27	x	100	S	10	2470,00 HDG
M 27	x	110	S	1	2900,00 HDG
M 27	x	120	S	1	3000,00 HDG
M 27	x	130	S	1	3000,00 HDG
M 27	x	140	S	1	3100,00 HDG
M 27	x	150	S	1	3150,00 HDG
M 27	x	160	S	1	3200,00 HDG
M 27	x	180	S	1	3600,00 HDG
M 27	x	200	S	1	4600,00 HDG
M 30	x	90	S	1	4000,00 HDG
M 30	x	100	S	1	4000,00 HDG
M 30	x	110	S	1	4650,00 HDG
M 30	x	120	S	1	4750,00 HDG
M 30	x	130	S	1	5200,00 HDG
M 30	x	140	S	1	5300,00 HDG
M 30	x	150	S	1	5500,00 HDG
M 30	x	160	S	1	5500,00 HDG
M 30	x	180	S	1	6100,00 HDG
M 30	x	200	S	1	6600,00 HDG
M 30	x	220	S	1	7500,00 HDG
M 30	x	240	S	1	8700,00 HDG
M 30	x	260	S	1	9800,00 HDG
M 30	x	280	S	1	10900,00 HDG
M 30	x	300	S	1	12300,00 HDG
M 33	x	120	S	1	5600,00 HDG
M 33	x	130	S	1	6000,00 HDG
M 33	x	140	S	1	6100,00 HDG
M 33	x	180	S	1	7100,00 HDG
M 33	x	200	S	1	7500,00 HDG
M 36	x	120	S	1	6200,00 HDG
M 36	x	130	S	1	6600,00 HDG
M 36	x	140	S	1	6900,00 HDG
M 36	x	150	S	1	7200,00 HDG
M 36	x	160	S	1	7900,00 HDG
M 36	x	180	S	1	8400,00 HDG
M 36	x	190	S	1	8800,00 HDG
M 36	x	200	S	1	8900,00 HDG
M 36	x	220	S	1	9200,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions	PU	Pieces	€/100/Mat.
ISO	04014.809		1400

4014 **8.8** **AD W7**

-50 up to +300 °C



Hexagon head bolts, applicable from -50 up to +300 °C

with inspection certificate 3.1, prices are plus certificate costs

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

ISO 4014 ➔ replaces DIN 931

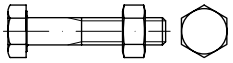
RoHS ✓ REACh SVHC free

M 8	x	35	S	200	14,80
M 8	x	40	S	200	16,70
M 10	x	45	S	100	29,00
M 10	x	50	S	100	30,50
M 10	x	55	S	100	33,00
M 10	x	60	S	100	34,00
M 10	x	65	S	100	36,50
M 10	x	70	S	100	37,00
M 10	x	75	S	100	41,00
M 10	x	80	S	100	41,00
M 10	x	90	S	100	56,00
M 10	x	100	S	100	64,00
M 10	x	120	S	50	111,00
M 12	x	50	S	100	44,50
M 12	x	55	S	100	45,50
M 12	x	60	S	100	48,50
M 12	x	65	S	50	53,00
M 12	x	70	S	50	54,00
M 12	x	75	S	50	57,00
M 12	x	80	S	50	60,00
M 12	x	90	S	50	69,00
M 12	x	100	S	50	86,00
M 12	x	110	S	50	129,00
M 12	x	120	S	50	140,00
M 16	x	55	S	50	162,00
M 16	x	60	S	50	83,00
M 16	x	65	S	25	88,00
M 16	x	70	S	25	188,00
M 16	x	75	S	25	99,00
M 16	x	80	S	25	105,00
M 16	x	90	S	25	117,00
M 16	x	100	S	25	145,00
M 16	x	110	S	25	218,00
M 16	x	120	S	25	242,00
M 16	x	130	S	25	260,00
M 16	x	140	S	25	350,00
M 20	x	65	S	25	158,00
M 20	x	70	S	25	161,00
M 20	x	75	S	25	168,00
M 20	x	80	S	25	174,00
M 20	x	90	S	25	193,00
M 20	x	100	S	25	237,00
M 20	x	110	S	25	370,00
M 20	x	120	S	25	385,00
M 20	x	130	S	25	390,00
M 20	x	140	S	25	540,00
M 20	x	150	S	25	600,00
M 20	x	160	S	10	670,00
M 20	x	170	S	10	870,00

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	180	S	10	870,00
M 24	x	75	S	25	290,00
M 24	x	80	S	25	290,00
M 24	x	90	S	10	350,00
M 24	x	100	S	10	380,00
M 24	x	110	S	10	580,00
M 24	x	120	S	10	620,00
M 24	x	140	S	10	870,00
M 24	x	150	S	10	950,00
M 24	x	160	S	10	1050,00
M 24	x	180	S	1	1340,00
M 27	x	90	S	10	980,00
M 27	x	100	S	10	1160,00
M 27	x	110	S	1	1340,00
M 27	x	120	S	1	1340,00
M 27	x	130	S	1	1440,00
M 27	x	150	S	1	1490,00
M 27	x	160	S	1	1490,00

ISO | 04014.813 | 401

4014 Mu 8.8 zinc plated SB



Hexagon head bolts,
Mu = with hexagon nuts ISO 4032,
SB = acc. to EN 15048

for bolted fastenings by steel structures that are not preloaded,
with inspection certificate 3.1,
prices are plus certificate costs

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-248
Standard conversion ➔ TI-6

CE | RoHS ✓ | REACh SVHC free

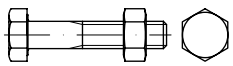
Declaration of performance ➔ www.reyher.de

M 10	x	45	S	100	90,00 ZP
M 10	x	50	S	100	95,00 ZP
M 10	x	55	S	100	100,00 ZP
M 10	x	60	S	100	106,00 ZP
M 10	x	65	S	100	111,00 ZP
M 10	x	70	S	100	117,00 ZP
M 10	x	75	S	100	121,00 ZP
M 10	x	80	S	100	126,00 ZP
M 10	x	90	S	100	137,00 ZP
M 10	x	100	S	100	148,00 ZP
M 10	x	110	S	50	164,00 ZP
M 10	x	120	S	50	170,00 ZP
M 12	x	50	S	100	138,00 ZP
M 12	x	55	S	100	146,00 ZP
M 12	x	60	S	100	153,00 ZP
M 12	x	65	S	50	159,00 ZP
M 12	x	70	S	50	166,00 ZP
M 12	x	75	S	50	174,00 ZP
M 12	x	80	S	50	182,00 ZP
M 12	x	90	S	50	197,00 ZP
M 12	x	100	S	50	211,00 ZP
M 12	x	110	S	50	227,00 ZP
M 12	x	120	S	50	242,00 ZP
M 16	x	55	S	50	285,00 ZP
M 16	x	60	S	50	295,00 ZP
M 16	x	65	S	25	310,00 ZP
M 16	x	70	S	25	325,00 ZP
M 16	x	75	S	25	335,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	80	S	25	350,00 ZP
M 16	x	90	S	25	375,00 ZP
M 16	x	100	S	25	400,00 ZP
M 16	x	110	S	25	435,00 ZP
M 16	x	120	S	25	460,00 ZP
M 16	x	130	S	25	485,00 ZP
M 16	x	140	S	25	510,00 ZP
M 16	x	150	S	25	540,00 ZP
M 16	x	160	S	25	570,00 ZP
M 20	x	65	S	25	540,00 ZP
M 20	x	70	S	25	570,00 ZP
M 20	x	75	S	25	580,00 ZP
M 20	x	80	S	25	610,00 ZP
M 20	x	90	S	25	650,00 ZP
M 20	x	100	S	25	690,00 ZP
M 20	x	110	S	25	730,00 ZP
M 20	x	120	S	25	770,00 ZP
M 20	x	130	S	25	810,00 ZP
M 20	x	140	S	25	850,00 ZP
M 20	x	150	S	25	890,00 ZP
M 20	x	160	S	10	940,00 ZP
M 20	x	170	S	10	990,00 ZP
M 20	x	180	S	10	1030,00 ZP
M 24	x	75	S	25	930,00 ZP
M 24	x	80	S	25	970,00 ZP
M 24	x	90	S	10	1030,00 ZP
M 24	x	100	S	10	1100,00 ZP
M 24	x	110	S	10	1170,00 ZP
M 24	x	120	S	10	1220,00 ZP
M 24	x	130	S	10	1270,00 ZP
M 24	x	140	S	10	1330,00 ZP
M 24	x	150	S	10	1390,00 ZP
M 24	x	160	S	10	1460,00 ZP
M 24	x	180	S	1	1580,00 ZP
M 27	x	90	S	10	1610,00 ZP
M 27	x	100	S	10	1700,00 ZP
M 27	x	110	S	1	1770,00 ZP
M 27	x	120	S	1	1860,00 ZP
M 27	x	130	S	1	1910,00 ZP
M 27	x	140	S	1	2010,00 ZP
M 27	x	150	S	1	2100,00 ZP

ISO | 04014.825 | 403

4014 Mu 8.8 hot dip galvanized SB



Hexagon head bolts,
Mu = with hexagon nuts ISO 4032,
SB = acc. to EN 15048

for bolted fastenings by steel structures that are not preloaded,
with inspection certificate 3.1,
prices are plus certificate costs

washers ➔ ISO 7090 300HV HDG

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-248
Standard conversion ➔ TI-6

CE | RoHS ✓ | REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 10	x	40	S	100	181,00 HDG
M 10	x	45	S	100	138,00 HDG
M 10	x	50	S	100	147,00 HDG
M 10	x	55	S	100	154,00 HDG
M 10	x	60	S	100	165,00 HDG
M 10	x	65	S	100	172,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	70	S	100	178,00 HDG
M 10	x	75	S	100	189,00 HDG
M 10	x	80	S	100	199,00 HDG
M 10	x	90	S	100	245,00 HDG
M 10	x	100	S	100	265,00 HDG
M 10	x	110	S	50	345,00 HDG
M 10	x	120	S	50	385,00 HDG
M 12	x	45	S	100	290,00 HDG
M 12	x	50	S	100	226,00 HDG
M 12	x	55	S	100	240,00 HDG
M 12	x	60	S	100	249,00 HDG
M 12	x	65	S	50	265,00 HDG
M 12	x	70	S	50	275,00 HDG
M 12	x	75	S	50	285,00 HDG
M 12	x	80	S	50	300,00 HDG
M 12	x	90	S	50	325,00 HDG
M 12	x	100	S	50	395,00 HDG
M 12	x	110	S	50	490,00 HDG
M 12	x	120	S	50	540,00 HDG
M 12	x	130	S	50	495,00 HDG
M 12	x	140	S	50	510,00 HDG
M 12	x	150	S	50	540,00 HDG
M 12	x	160	S	25	560,00 HDG
M 12	x	180	S	25	600,00 HDG
M 12	x	200	S	25	660,00 HDG
M 16	x	55	S	50	475,00 HDG
M 16	x	60	S	50	495,00 HDG
M 16	x	65	S	25	520,00 HDG
M 16	x	70	S	25	540,00 HDG
M 16	x	75	S	25	570,00 HDG
M 16	x	80	S	25	580,00 HDG
M 16	x	90	S	25	690,00 HDG
M 16	x	100	S	25	740,00 HDG
M 16	x	110	S	25	940,00 HDG
M 16	x	120	S	25	950,00 HDG
M 16	x	130	S	25	990,00 HDG
M 16	x	140	S	25	1220,00 HDG
M 16	x	150	S	25	1410,00 HDG
M 16	x	160	S	25	1460,00 HDG
M 16	x	180	S	25	1010,00 HDG
M 16	x	200	S	25	1080,00 HDG
M 16	x	220	S	1	1230,00 HDG
M 16	x	240	S	1	1310,00 HDG
M 16	x	260	S	1	1610,00 HDG
M 16	x	300	S	1	1820,00 HDG
M 20	x	65	S	25	840,00 HDG
M 20	x	70	S	25	850,00 HDG
M 20	x	75	S	25	900,00 HDG
M 20	x	80	S	25	930,00 HDG
M 20	x	85	S	25	1010,00 HDG
M 20	x	90	S	25	1020,00 HDG
M 20	x	100	S	25	1080,00 HDG
M 20	x	110	S	25	1390,00 HDG
M 20	x	120	S	25	1470,00 HDG
M 20	x	130	S	25	1570,00 HDG
M 20	x	140	S	25	1920,00 HDG
M 20	x	150	S	25	2070,00 HDG
M 20	x	160	S	10	2260,00 HDG
M 20	x	170	S	10	2440,00 HDG
M 20	x	180	S	10	2700,00 HDG
M 20	x	200	S	10	1720,00 HDG
M 20	x	220	S	1	2340,00 HDG
M 20	x	240	S	1	2490,00 HDG
M 20	x	260	S	1	2950,00 HDG
M 20	x	300	S	1	3300,00 HDG
M 24	x	75	S	25	1490,00 HDG
M 24	x	80	S	25	1540,00 HDG
M 24	x	85	S	10	1600,00 HDG
M 24	x	90	S	10	1630,00 HDG
M 24	x	100	S	10	1740,00 HDG
M 24	x	110	S	10	2230,00 HDG
M 24	x	120	S	10	2390,00 HDG
M 24	x	130	S	10	2490,00 HDG
M 24	x	140	S	10	3250,00 HDG
M 24	x	150	S	10	3450,00 HDG

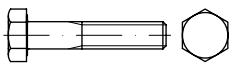
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	160	S	10	3600,00 HDG
M 24	x	180	S	1	4200,00 HDG
M 24	x	200	S	1	2600,00 HDG
M 24	x	220	S	1	3950,00 HDG
M 24	x	240	S	1	4250,00 HDG
M 24	x	260	S	1	4750,00 HDG
M 24	x	300	S	1	5500,00 HDG
M 27	x	90	S	10	4150,00 HDG
M 27	x	100	S	10	4350,00 HDG
M 27	x	110	S	1	4550,00 HDG
M 27	x	120	S	1	4800,00 HDG
M 27	x	130	S	1	5000,00 HDG
M 27	x	140	S	1	5000,00 HDG
M 27	x	150	S	1	5500,00 HDG
M 27	x	160	S	1	4150,00 HDG
M 27	x	180	S	1	4450,00 HDG
M 27	x	200	S	1	4750,00 HDG
M 30	x	90	S	1	3850,00 HDG
M 30	x	100	S	1	4000,00 HDG
M 30	x	110	S	1	4200,00 HDG
M 30	x	120	S	1	4400,00 HDG
M 30	x	130	S	1	4550,00 HDG
M 30	x	140	S	1	4800,00 HDG
M 30	x	150	S	1	5000,00 HDG
M 30	x	160	S	1	5200,00 HDG
M 30	x	180	S	1	5600,00 HDG
M 30	x	200	S	1	5900,00 HDG
M 30	x	220	S	1	6300,00 HDG
M 30	x	240	S	1	6700,00 HDG
M 30	x	260	S	1	7600,00 HDG
M 30	x	280	S	1	8000,00 HDG
M 30	x	300	S	1	8400,00 HDG
M 36	x	120	S	1	6800,00 HDG
M 36	x	130	S	1	7100,00 HDG
M 36	x	140	S	1	7300,00 HDG
M 36	x	150	S	1	7700,00 HDG
M 36	x	160	S	1	8000,00 HDG
M 36	x	180	S	1	9100,00 HDG
M 36	x	190	S	1	9400,00 HDG
M 36	x	200	S	1	9700,00 HDG
M 36	x	220	S	1	10300,00 HDG
M 36	x	240	S	1	10900,00 HDG
M 36	x	260	S	1	11700,00 HDG
M 36	x	280	S	1	12300,00 HDG
M 36	x	300	S	1	12900,00 HDG

ISO	04014.100	*

4014

10.9



Hexagon head bolts

short dimensions partly thread nearly to head,
*M 10/12/14/22 = RAZ 3250 other ∅ = RAZ 405

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25	S	500	24,60
M 5	x	30	S	500	26,00
M 5	x	35	S	200	27,50
M 5	x	40	S	200	29,50
M 5	x	45	S	200	31,50
M 5	x	50	S	200	33,00
M 5	x	55	S	200	35,00
M 5	x	60	S	200	38,00
M 5	x	65	S	200	51,00
M 5	x	65	S	200	52,00
M 5	x	75	S	200	58,00
M 5	x	80	S	200	63,00
M 6	x	30	S	500	14,90
M 6	x	35	S	200	15,70
M 6	x	40	S	200	16,70
M 6	x	45	S	200	19,70
M 6	x	50	S	200	22,00
M 6	x	55	S	200	24,20
M 6	x	60	S	200	26,50
M 6	x	65	S	200	32,00
M 6	x	70	S	200	32,00
M 6	x	80	S	200	70,00
M 6	x	90	S	200	120,00
M 6	x	100	S	100	129,00
M 6	x	110	S	100	138,00
M 6	x	120	S	100	152,00
M 6	x	130	S	100	189,00
M 6	x	140	S	100	209,00
M 8	x	35	S	200	27,00
M 8	x	40	S	200	29,50
M 8	x	45	S	200	33,00
M 8	x	50	S	200	33,50
M 8	x	55	S	200	33,50
M 8	x	60	S	200	35,00
M 8	x	65	S	200	39,50
M 8	x	70	S	200	42,50
M 8	x	75	S	200	54,00
M 8	x	80	S	200	54,00
M 8	x	90	S	100	59,00
M 8	x	100	S	100	68,00
M 8	x	110	S	100	83,00
M 8	x	120	S	100	92,00
M 8	x	130	S	100	148,00
M 8	x	140	S	100	176,00
M 8	x	150	S	100	199,00
M 8	x	160	S	100	224,00
M 8	x	170	S	100	275,00
M 8	x	180	S	100	246,00
M 8	x	190	S	100	320,00
M 8	x	200	S	100	295,00
M 8	x	220	S	100	395,00
M 8	x	240	S	100	465,00
M 10	x	35	S	100	42,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	45,00
M 10	x	50	S	100	48,50
M 10	x	55	S	100	50,00
M 10	x	60	S	100	53,00
M 10	x	65	S	100	53,00
M 10	x	70	S	100	58,00
M 10	x	75	S	100	64,00
M 10	x	80	S	100	64,00
M 10	x	90	S	100	78,00
M 10	x	100	S	100	88,00
M 10	x	110	S	50	110,00
M 10	x	120	S	50	123,00
M 10	x	130	S	50	161,00
M 10	x	140	S	50	174,00
M 10	x	150	S	50	197,00
M 10	x	160	S	50	470,00
M 10	x	170	S	50	500,00
M 10	x	180	S	50	530,00
M 10	x	190	S	50	550,00
M 10	x	200	S	50	560,00
M 10	x	210	S	25	750,00
M 10	x	220	S	50	600,00
M 10	x	240	S	50	650,00
M 10	x	260	S	50	710,00
M 12	x	40	S	100	63,00
M 12	x	45	S	100	63,00
M 12	x	50	S	100	71,00
M 12	x	55	S	100	71,00
M 12	x	60	S	100	75,00
M 12	x	65	S	50	78,00
M 12	x	70	S	50	86,00
M 12	x	75	S	50	95,00
M 12	x	80	S	50	95,00
M 12	x	85	S	50	108,00
M 12	x	90	S	50	108,00
M 12	x	95	S	50	119,00
M 12	x	100	S	50	119,00
M 12	x	110	S	50	142,00
M 12	x	120	S	50	158,00
M 12	x	130	S	50	187,00
M 12	x	140	S	50	213,00
M 12	x	150	S	50	236,00
M 12	x	160	S	25	470,00
M 12	x	170	S	25	500,00
M 12	x	180	S	25	530,00
M 12	x	190	S	25	550,00
M 12	x	200	S	25	560,00
M 12	x	210	S	25	750,00
M 12	x	220	S	25	600,00
M 12	x	240	S	25	650,00
M 12	x	260	S	25	710,00
M 12	x	280	S	25	750,00
M 12	x	300	S	25	790,00
M 12	x	320	S	25	940,00
M 14	x	45	S	100	108,00
M 14	x	50	S	100	108,00
M 14	x	55	S	50	108,00
M 14	x	60	S	50	112,00
M 14	x	65	S	50	130,00
M 14	x	70	S	50	130,00
M 14	x	75	S	50	143,00
M 14	x	80	S	50	143,00
M 14	x	90	S	50	161,00
M 14	x	100	S	50	170,00
M 14	x	110	S	50	199,00
M 14	x	120	S	50	226,00
M 14	x	130	S	50	280,00
M 14	x	140	S	25	300,00
M 14	x	150	S	25	325,00
M 14	x	160	S	25	630,00
M 14	x	170	S	25	690,00
M 14	x	180	S	25	720,00
M 14	x	190	S	25	730,00
M 14	x	200	S	25	760,00
M 14	x	220	S	25	810,00
M 16	x	55	S	50	143,00
M 16	x	60	S	50	151,00
M 16	x	65	S	25	166,00
M 16	x	70	S	25	174,00
M 16	x	75	S	25	187,00
M 16	x	80	S	25	189,00
M 16	x	85	S	25	195,00
M 16	x	90	S	25	195,00
M 16	x	95	S	25	209,00
M 16	x	100	S	25	209,00
M 16	x	110	S	25	255,00
M 16	x	120	S	25	255,00
M 16	x	130	S	25	285,00
M 16	x	140	S	25	305,00
M 16	x	150	S	25	540,00
M 16	x	160	S	25	630,00
M 16	x	170	S	25	690,00
M 16	x	180	S	25	720,00
M 16	x	190	S	25	730,00
M 16	x	200	S	25	760,00
M 16	x	210	S	25	960,00
M 16	x	220	S	25	810,00
M 16	x	230	S	25	1020,00
M 16	x	240	S	25	870,00
M 16	x	250	S	25	1100,00
M 16	x	260	S	25	920,00

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 270	S	25	1240,00
M 16 x 280	S	25	1160,00
M 16 x 290	S	1	1430,00
M 16 x 300	S	1	1590,00
M 16 x 310	S	1	1700,00
M 16 x 320	S	1	1680,00
M 16 x 330	S	1	1780,00
M 16 x 340	S	1	1950,00
M 16 x 350	S	1	2070,00
M 16 x 360	S	1	1930,00
M 16 x 380	S	1	2470,00
M 16 x 400	S	1	2750,00
M 16 x 420	S	1	3450,00
M 18 x 65	S	25	340,00
M 18 x 70	S	25	350,00
M 18 x 75	S	25	370,00
M 18 x 80	S	25	375,00
M 18 x 90	S	25	420,00
M 18 x 100	S	25	440,00
M 18 x 110	S	25	455,00
M 18 x 120	S	25	470,00
M 18 x 130	S	25	560,00
M 18 x 140	S	25	610,00
M 18 x 150	S	25	680,00
M 18 x 160	S	25	960,00
M 18 x 170	S	25	980,00
M 18 x 180	S	25	1030,00
M 18 x 190	S	1	1090,00
M 18 x 200	S	1	1110,00
M 18 x 220	S	1	1160,00
M 18 x 240	S	1	1760,00
M 18 x 260	S	1	1830,00
M 18 x 280	S	1	1950,00
M 18 x 300	S	1	2120,00
M 18 x 320	S	1	2420,00
M 20 x 65	S	25	340,00
M 20 x 70	S	25	350,00
M 20 x 75	S	25	370,00
M 20 x 80	S	25	375,00
M 20 x 85	S	25	420,00
M 20 x 90	S	25	420,00
M 20 x 95	S	25	440,00
M 20 x 100	S	25	440,00
M 20 x 110	S	25	455,00
M 20 x 120	S	25	470,00
M 20 x 130	S	25	560,00
M 20 x 140	S	25	610,00
M 20 x 150	S	25	680,00
M 20 x 160	S	10	960,00
M 20 x 170	S	10	980,00
M 20 x 180	S	10	1030,00
M 20 x 190	S	1	1090,00
M 20 x 200	S	1	1110,00
M 20 x 210	S	1	1350,00
M 20 x 220	S	1	1160,00
M 20 x 230	S	1	1450,00
M 20 x 240	S	1	1240,00
M 20 x 250	S	1	1580,00
M 20 x 260	S	1	1330,00
M 20 x 270	S	1	1680,00
M 20 x 280	S	1	1400,00
M 20 x 290	S	1	1950,00
M 20 x 300	S	1	1500,00
M 20 x 310	S	1	2250,00
M 20 x 320	S	1	1730,00
M 20 x 330	S	1	2380,00
M 20 x 340	S	1	1880,00
M 20 x 350	S	1	2700,00
M 20 x 360	S	1	2050,00
M 20 x 370	S	1	3350,00
M 20 x 380	S	1	3350,00
M 20 x 390	S	1	3750,00
M 20 x 400	S	1	3750,00
M 22 x 70	S	25	1170,00
M 22 x 75	S	25	1170,00
M 22 x 80	S	25	850,00
M 22 x 90	S	25	970,00
M 22 x 100	S	10	1030,00
M 22 x 110	S	10	1110,00
M 22 x 120	S	10	1140,00
M 22 x 130	S	10	1190,00
M 22 x 140	S	10	1240,00
M 22 x 150	S	10	1290,00
M 22 x 160	S	10	1340,00
M 22 x 170	S	10	1380,00
M 22 x 180	S	10	1420,00
M 22 x 200	S	10	1500,00
M 22 x 220	S	10	1590,00
M 22 x 230	S	1	1880,00
M 22 x 240	S	1	1680,00
M 22 x 260	S	1	1760,00
M 22 x 280	S	1	1860,00
M 22 x 300	S	1	3000,00
M 22 x 320	S	1	3400,00
M 24 x 75	S	25	850,00
M 24 x 80	S	25	850,00
M 24 x 85	S	10	970,00
M 24 x 90	S	10	970,00
M 24 x 100	S	10	1080,00
M 24 x 110	S	10	1110,00
M 24 x 120	S	10	1140,00
M 24 x 130	S	10	1190,00
M 24 x 140	S	10	1240,00
M 24 x 150	S	10	1290,00
M 24 x 160	S	10	1340,00
M 24 x 170	S	1	1380,00
M 24 x 180	S	1	1420,00
M 24 x 190	S	1	1460,00
M 24 x 200	S	1	1500,00
M 24 x 210	S	1	1770,00
M 24 x 220	S	1	1590,00
M 24 x 230	S	1	1880,00
M 24 x 240	S	1	1680,00
M 24 x 250	S	1	2030,00
M 24 x 260	S	1	1760,00
M 24 x 270	S	1	2140,00
M 24 x 280	S	1	1860,00
M 24 x 290	S	1	2380,00
M 24 x 300	S	1	1990,00
M 24 x 310	S	1	2850,00
M 24 x 320	S	1	2320,00
M 24 x 330	S	1	3000,00
M 24 x 340	S	1	2600,00
M 24 x 350	S	1	3250,00
M 24 x 360	S	1	2800,00
M 24 x 370	S	1	4350,00
M 24 x 380	S	1	4350,00
M 24 x 390	S	1	4650,00
M 24 x 400	S	1	4650,00
M 27 x 80	S	10	1200,00
M 27 x 90	S	10	1230,00
M 27 x 100	S	10	1290,00
M 27 x 110	S	10	1340,00
M 27 x 120	S	10	1400,00
M 27 x 130	S	10	1460,00
M 27 x 140	S	1	1530,00
M 27 x 150	S	1	1600,00
M 27 x 160	S	1	1690,00
M 27 x 170	S	1	1780,00
M 27 x 180	S	1	1860,00
M 27 x 190	S	1	1950,00
M 27 x 200	S	1	2040,00
M 27 x 210	S	1	2700,00
M 27 x 220	S	1	2190,00
M 27 x 230	S	1	3000,00
M 27 x 240	S	1	2380,00
M 27 x 250	S	1	3200,00
M 27 x 260	S	1	2550,00
M 27 x 270	S	1	3400,00
M 27 x 280	S	1	2750,00
M 27 x 290	S	1	3950,00
M 27 x 300	S	1	2950,00
M 27 x 320	S	1	3250,00
M 30 x 80	S	1	1420,00
M 30 x 90	S	1	1470,00
M 30 x 100	S	1	1500,00
M 30 x 110	S	1	1540,00
M 30 x 120	S	1	1660,00
M 30 x 130	S	1	1740,00
M 30 x 140	S	1	1850,00
M 30 x 150	S	1	1910,00
M 30 x 160	S	1	1990,00
M 30 x 170	S	1	2090,00
M 30 x 180	S	1	2190,00
M 30 x 190	S	1	2290,00
M 30 x 200	S	1	2370,00
M 30 x 210	S	1	2700,00
M 30 x 220	S	1	2450,00
M 30 x 230	S	1	3000,00
M 30 x 240	S	1	2700,00
M 30 x 250	S	1	3200,00
M 30 x 260	S	1	2900,00
M 30 x 270	S	1	3400,00
M 30 x 280	S	1	3100,00
M 30 x 290	S	1	3950,00
M 30 x 300	S	1	3300,00
M 30 x 320	S	1	3800,00
M 30 x 330	S	1	4850,00
M 30 x 340	S	1	4050,00
M 30 x 350	S	1	5100,00
M 30 x 360	S	1	4400,00
M 30 x 380	S	1	4650,00
M 30 x 400	S	1	4900,00
M 33 x 100	S	1	1800,00
M 33 x 110	S	1	1910,00
M 33 x 120	S	1	2050,00
M 33 x 130	S	1	2160,00
M 33 x 140	S	1	2290,00
M 33 x 150	S	1	2420,00
M 33 x 160	S	1	2550,00
M 33 x 170	S	1	2700,00
M 33 x 180	S	1	2800,00
M 33 x 190	S	1	2950,00
M 33 x 200	S	1	3050,00
M 33 x 220	S	1	3200,00
M 33 x 240	S	1	3400,00
M 33 x 250	S	1	4750,00
M 33 x 260	S	1	3650,00
M 33 x 280	S	1	3900,00
M 33 x 300	S	1	4150,00
M 33 x 320	S	1	4750,00
M 36 x 110	S	1	2280,00
M 36 x 120	S	1	2430,00
M 36 x 130	S	1	2600,00
M 36 x 140	S	1	2750,00
M 36 x 150	S	1	2900,00
M 36 x 160	S	1	3000,00
M 36 x 170	S	1	3150,00
M 36 x 180	S	1	3300,00
M 36 x 190	S	1	3450,00
M 36 x 200	S	1	3600,00
M 36 x 210	S	1	4100,00
M 36 x 220	S	1	3750,00
M 36 x 230	S	1	4400,00
M 36 x 240	S	1	4000,00
M 36 x 250	S	1	4750,00
M 36 x 260	S	1	4350,00
M 36 x 270	S	1	5100,00
M 36 x 280	S	1	4600,00
M 36 x 290	S	1	5900,00
M 36 x 300	S	1	4900,00
M 36 x 320	S	1	5600,00
M 36 x 340	S	1	6000,00
M 36 x 360	S	1	6300,00
M 36 x 380	S	1	6700,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 36	x	400	S	1	7300,00
M 39	x	110	S	1	3250,00
M 39	x	120	S	1	3250,00
M 39	x	130	S	1	3450,00
M 39	x	140	S	1	3600,00
M 39	x	150	S	1	3800,00
M 39	x	160	S	1	3900,00
M 39	x	170	S	1	4050,00
M 39	x	180	S	1	4250,00
M 39	x	200	S	1	4600,00
M 39	x	220	S	1	4950,00
M 39	x	240	S	1	5300,00
M 39	x	260	S	1	5700,00
M 39	x	280	S	1	6000,00
M 39	x	300	S	1	6400,00
M 39	x	320	S	1	7100,00
M 42	x	120	S	1	3850,00
M 42	x	130	S	1	4050,00
M 42	x	140	S	1	4250,00
M 42	x	150	S	1	4450,00
M 42	x	160	S	1	4550,00
M 42	x	170	S	1	4750,00
M 42	x	180	S	1	4950,00
M 42	x	190	S	1	5200,00
M 42	x	200	S	1	5400,00
M 42	x	220	S	1	5800,00
M 42	x	240	S	1	6200,00
M 42	x	260	S	1	6600,00
M 42	x	280	S	1	7000,00
M 42	x	300	S	1	7500,00
M 42	x	320	S	1	8300,00
M 45	x	130	S	1	9700,00
M 45	x	140	S	1	10100,00
M 45	x	150	S	1	10500,00
M 45	x	160	S	1	11200,00
M 45	x	180	S	1	12000,00
M 45	x	200	S	1	13100,00
M 45	x	220	S	1	14000,00
M 45	x	240	S	1	14900,00
M 45	x	260	S	1	15900,00
M 45	x	280	S	1	16800,00
M 45	x	300	S	1	17700,00
M 45	x	320	S	1	21400,00
M 48	x	140	S	1	12200,00
M 48	x	150	S	1	13100,00
M 48	x	160	S	1	13700,00
M 48	x	180	S	1	14000,00
M 48	x	200	S	1	15700,00
M 48	x	220	S	1	16400,00
M 48	x	240	S	1	17400,00
M 48	x	260	S	1	18700,00
M 48	x	280	S	1	20500,00
M 48	x	300	S	1	23200,00
M 48	x	320	S	1	26100,00

RKP®
REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions			PU	Pieces	€/100/Mat.
ISO		04014.110			*
4014		**10.9 zinc plated**			



Hexagon head bolts

short dimensions partly thread nearly to head, baked,
*M 10/12/14/22 = RAZ 3250 other ∅ = RAZ 405

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

M 6	x	30	S	500	20,00 ZP
M 6	x	35	S	200	20,80 ZP
M 6	x	40	S	200	21,80 ZP
M 6	x	45	S	200	25,50 ZP
M 6	x	50	S	200	28,00 ZP
M 6	x	55	S	200	31,00 ZP
M 6	x	60	S	200	33,50 ZP
M 6	x	65	S	200	39,50 ZP
M 6	x	70	S	200	41,50 ZP
M 6	x	80	S	200	79,00 ZP
M 6	x	90	S	200	134,00 ZP
M 6	x	100	S	100	140,00 ZP
M 8	x	35	S	200	36,50 ZP
M 8	x	40	S	200	39,50 ZP
M 8	x	45	S	200	44,00 ZP
M 8	x	50	S	200	46,00 ZP
M 8	x	55	S	200	46,50 ZP
M 8	x	60	S	200	48,00 ZP
M 8	x	65	S	200	54,00 ZP
M 8	x	70	S	200	58,00 ZP
M 8	x	75	S	200	69,00 ZP
M 8	x	80	S	200	70,00 ZP
M 8	x	100	S	100	89,00 ZP
M 8	x	110	S	100	106,00 ZP
M 8	x	120	S	100	117,00 ZP
M 8	x	130	S	100	176,00 ZP
M 8	x	140	S	100	206,00 ZP
M 8	x	150	S	100	230,00 ZP
M 10	x	40	S	100	60,00 ZP
M 10	x	45	S	100	64,00 ZP
M 10	x	50	S	100	68,00 ZP
M 10	x	55	S	100	72,00 ZP
M 10	x	60	S	100	74,00 ZP
M 10	x	65	S	100	77,00 ZP
M 10	x	70	S	100	83,00 ZP
M 10	x	75	S	100	91,00 ZP
M 10	x	80	S	100	92,00 ZP
M 10	x	90	S	100	109,00 ZP
M 10	x	100	S	100	123,00 ZP
M 10	x	110	S	50	147,00 ZP
M 10	x	120	S	50	163,00 ZP
M 10	x	130	S	50	205,00 ZP
M 10	x	140	S	100	224,00 ZP
M 10	x	150	S	50	249,00 ZP
M 10	x	160	S	50	530,00 ZP
M 10	x	170	S	50	560,00 ZP
M 10	x	180	S	50	590,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	45	S	100	88,00 ZP
M 12	x	50	S	100	93,00 ZP
M 12	x	55	S	100	101,00 ZP
M 12	x	60	S	100	101,00 ZP
M 12	x	65	S	50	104,00 ZP
M 12	x	70	S	50	113,00 ZP
M 12	x	75	S	50	126,00 ZP
M 12	x	80	S	50	129,00 ZP
M 12	x	85	S	50	143,00 ZP
M 12	x	90	S	50	147,00 ZP
M 12	x	95	S	50	165,00 ZP
M 12	x	100	S	50	161,00 ZP
M 12	x	110	S	50	186,00 ZP
M 12	x	120	S	50	205,00 ZP
M 12	x	130	S	50	240,00 ZP
M 12	x	140	S	50	280,00 ZP
M 12	x	150	S	50	305,00 ZP
M 12	x	160	S	25	550,00 ZP
M 12	x	170	S	25	590,00 ZP
M 12	x	180	S	25	620,00 ZP
M 12	x	190	S	25	630,00 ZP
M 12	x	200	S	25	650,00 ZP
M 14	x	45	S	100	140,00 ZP
M 14	x	50	S	50	144,00 ZP
M 14	x	55	S	50	148,00 ZP
M 14	x	60	S	50	154,00 ZP
M 14	x	70	S	50	177,00 ZP
M 14	x	75	S	50	197,00 ZP
M 14	x	80	S	50	195,00 ZP
M 14	x	90	S	50	217,00 ZP
M 14	x	100	S	50	230,00 ZP
M 14	x	110	S	50	270,00 ZP
M 14	x	120	S	50	305,00 ZP
M 14	x	130	S	50	365,00 ZP
M 14	x	140	S	25	390,00 ZP
M 14	x	150	S	25	420,00 ZP
M 16	x	55	S	50	197,00 ZP
M 16	x	60	S	50	200,00 ZP
M 16	x	65	S	25	227,00 ZP
M 16	x	70	S	25	222,00 ZP
M 16	x	75	S	25	246,00 ZP
M 16	x	80	S	25	260,00 ZP
M 16	x	85	S	25	270,00 ZP
M 16	x	90	S	25	270,00 ZP
M 16	x	100	S	25	290,00 ZP
M 16	x	110	S	25	345,00 ZP
M 16	x	120	S	25	350,00 ZP
M 16	x	130	S	25	410,00 ZP
M 16	x	140	S	25	420,00 ZP
M 16	x	150	S	25	660,00 ZP
M 16	x	160	S	25	760,00 ZP
M 16	x	170	S	25	830,00 ZP
M 16	x	180	S	25	860,00 ZP
M 16	x	190	S	25	890,00 ZP
M 16	x	200	S	25	930,00 ZP
M 16	x	210	S	25	1140,00 ZP
M 16	x	230	S	25	1210,00 ZP
M 16	x	240	S	25	1060,00 ZP
M 16	x	250	S	25	1320,00 ZP
M 16	x	260	S	25	1130,00 ZP
M 16	x	270	S	25	1460,00 ZP
M 16	x	280	S	25	1400,00 ZP
M 18	x	65	S	25	420,00 ZP
M 18	x	70	S	25	445,00 ZP
M 18	x	80	S	25	470,00 ZP
M 18	x	90	S	25	530,00 ZP
M 18	x	100	S	25	550,00 ZP
M 18	x	110	S	25	590,00 ZP
M 18	x	120	S	25	620,00 ZP
M 18	x	130	S	25	690,00 ZP
M 18	x	140	S	25	760,00 ZP
M 18	x	160	S	25	1130,00 ZP
M 20	x	65	S	25	445,00 ZP
M 20	x	70	S	25	440,00 ZP
M 20	x	75	S	25	460,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	80	S	25	475,00 ZP
M 20	x	85	S	25	550,00 ZP
M 20	x	90	S	25	530,00 ZP
M 20	x	100	S	25	560,00 ZP
M 20	x	110	S	25	610,00 ZP
M 20	x	115	S	25	630,00 ZP
M 20	x	120	S	25	640,00 ZP
M 20	x	130	S	25	740,00 ZP
M 20	x	140	S	25	790,00 ZP
M 20	x	150	S	25	870,00 ZP
M 20	x	160	S	10	1270,00 ZP
M 20	x	170	S	10	1210,00 ZP
M 20	x	180	S	10	1360,00 ZP
M 20	x	200	S	10	1370,00 ZP
M 20	x	220	S	1	1440,00 ZP
M 20	x	230	S	1	1750,00 ZP
M 20	x	240	S	1	1540,00 ZP
M 20	x	250	S	1	1890,00 ZP
M 20	x	260	S	1	1670,00 ZP
M 20	x	270	S	1	2030,00 ZP
M 20	x	280	S	1	1760,00 ZP
M 20	x	290	S	1	2330,00 ZP
M 20	x	300	S	1	1880,00 ZP
M 20	x	310	S	1	2650,00 ZP
M 20	x	320	S	1	2130,00 ZP
M 20	x	340	S	1	2180,00 ZP
M 24	x	75	S	25	1010,00 ZP
M 24	x	80	S	25	1030,00 ZP
M 24	x	90	S	10	1170,00 ZP
M 24	x	100	S	10	1240,00 ZP
M 24	x	110	S	10	1350,00 ZP
M 24	x	120	S	10	1390,00 ZP
M 24	x	130	S	10	1450,00 ZP
M 24	x	140	S	10	1500,00 ZP
M 24	x	145	S	10	1590,00 ZP
M 24	x	150	S	10	1590,00 ZP
M 24	x	160	S	10	1660,00 ZP
M 24	x	170	S	1	1720,00 ZP
M 24	x	180	S	1	1760,00 ZP
M 24	x	190	S	1	1810,00 ZP
M 24	x	200	S	1	1880,00 ZP
M 24	x	220	S	1	2130,00 ZP
M 24	x	240	S	1	2260,00 ZP
M 24	x	250	S	1	2370,00 ZP
M 24	x	260	S	1	2380,00 ZP
M 24	x	270	S	1	2470,00 ZP
M 24	x	280	S	1	2550,00 ZP
M 24	x	290	S	1	2600,00 ZP
M 24	x	300	S	1	2550,00 ZP
M 27	x	80	S	10	1440,00 ZP
M 27	x	90	S	10	1490,00 ZP
M 27	x	100	S	10	1580,00 ZP
M 27	x	110	S	10	1650,00 ZP
M 27	x	120	S	10	1740,00 ZP
M 27	x	130	S	10	1790,00 ZP
M 27	x	140	S	1	1890,00 ZP
M 30	x	80	S	1	1730,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	90	S	1	1810,00 ZP
M 30	x	100	S	1	1860,00 ZP
M 30	x	110	S	1	1930,00 ZP
M 30	x	120	S	1	2070,00 ZP
M 30	x	130	S	1	2180,00 ZP
M 30	x	140	S	1	2300,00 ZP
M 30	x	150	S	1	2400,00 ZP
M 30	x	160	S	1	2500,00 ZP
M 30	x	170	S	1	2650,00 ZP
M 30	x	180	S	1	2800,00 ZP
M 30	x	190	S	1	2900,00 ZP
M 30	x	200	S	1	3000,00 ZP
M 30	x	210	S	1	3350,00 ZP
M 30	x	220	S	1	3150,00 ZP
M 30	x	230	S	1	3700,00 ZP
M 30	x	240	S	1	3450,00 ZP
M 30	x	250	S	1	3950,00 ZP
M 30	x	260	S	1	3650,00 ZP
M 30	x	270	S	1	4250,00 ZP
M 30	x	280	S	1	3950,00 ZP
M 30	x	300	S	1	4200,00 ZP

ISO	04014.354	1540
4014	**10.9**	
	flZn/TL480h	



Hexagon head bolts

short dimensions partly thread nearly to head,
TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	23,00 flZn
M 6	x	35	S	200	23,90 flZn
M 6	x	40	S	200	25,50 flZn
M 6	x	45	S	200	29,50 flZn
M 6	x	50	S	200	32,50 flZn
M 6	x	55	S	200	36,00 flZn
M 6	x	60	S	200	38,50 flZn
M 6	x	65	S	200	45,50 flZn
M 6	x	70	S	200	47,50 flZn
M 6	x	80	S	200	91,00 flZn
M 8	x	35	S	200	42,00 flZn
M 8	x	40	S	200	45,50 flZn
M 8	x	45	S	200	51,00 flZn
M 8	x	50	S	200	53,00 flZn
M 8	x	55	S	200	54,00 flZn
M 8	x	60	S	200	56,00 flZn
M 8	x	65	S	200	62,00 flZn
M 8	x	70	S	200	67,00 flZn
M 8	x	75	S	200	80,00 flZn
M 8	x	80	S	200	81,00 flZn
M 8	x	100	S	100	102,00 flZn
M 10	x	40	S	100	69,00 flZn
M 10	x	45	S	100	74,00 flZn
M 10	x	50	S	100	78,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	55	S	100	83,00 flZn
M 10	x	60	S	100	86,00 flZn
M 10	x	65	S	100	88,00 flZn
M 10	x	70	S	100	95,00 flZn
M 10	x	75	S	100	105,00 flZn
M 10	x	80	S	100	106,00 flZn
M 10	x	90	S	100	125,00 flZn
M 10	x	100	S	100	142,00 flZn
M 10	x	110	S	50	170,00 flZn
M 10	x	120	S	50	188,00 flZn
M 12	x	45	S	100	102,00 flZn
M 12	x	50	S	100	107,00 flZn
M 12	x	55	S	100	116,00 flZn
M 12	x	60	S	100	116,00 flZn
M 12	x	65	S	50	120,00 flZn
M 12	x	70	S	50	131,00 flZn
M 12	x	75	S	50	146,00 flZn
M 12	x	80	S	50	148,00 flZn
M 12	x	90	S	50	170,00 flZn
M 12	x	100	S	50	186,00 flZn
M 12	x	110	S	50	213,00 flZn
M 12	x	120	S	50	236,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	230,00 flZn
M 16	x	65	S	25	265,00 flZn
M 16	x	70	S	25	260,00 flZn
M 16	x	75	S	25	285,00 flZn
M 16	x	80	S	25	295,00 flZn
M 16	x	90	S	25	315,00 flZn
M 16	x	100	S	25	335,00 flZn
M 16	x	110	S	25	395,00 flZn
M 16	x	120	S	25	405,00 flZn
M 16	x	130	S	25	470,00 flZn
M 16	x	140	S	25	480,00 flZn
M 20	x	65	S	25	510,00 flZn
M 20	x	70	S	25	510,00 flZn
M 20	x	75	S	25	530,00 flZn
M 20	x	80	S	25	550,00 flZn
M 20	x	90	S	25	610,00 flZn
M 20	x	100	S	25	640,00 flZn
M 20	x	110	S	25	700,00 flZn
M 20	x	120	S	25	740,00 flZn
M 20	x	130	S	25	850,00 flZn
M 20	x	140	S	25	910,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1460,00 flZn
M 20	x	170	S	10	1390,00 flZn
M 20	x	180	S	10	1560,00 flZn
M 24	x	75	S	25	1170,00 flZn
M 24	x	80	S	25	1180,00 flZn
M 24	x	90	S	10	1340,00 flZn
M 24	x	100	S	10	1420,00 flZn
M 24	x	110	S	10	1550,00 flZn
M 24	x	120	S	10	1590,00 flZn
M 24	x	130	S	10	1670,00 flZn
M 24	x	140	S	10	1730,00 flZn
M 24	x	150	S	10	1820,00 flZn
M 24	x	160	S	10	1900,00 flZn
M 24	x	170	S	1	1980,00 flZn
M 24	x	180	S	1	2030,00 flZn
M 24	x	200	S	1	2130,00 flZn
M 24	x	230	S	1	2180,00 flZn

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU Pieces	€/100/Mat.
ISO	04014.133	1540

4014 **10.9 flZnL480h**



Hexagon head bolts

short dimensions partly thread nearly to head,
flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	23,00 flZn
M 6	x	35	S	200	23,90 flZn
M 6	x	40	S	200	25,50 flZn
M 6	x	45	S	200	29,50 flZn
M 6	x	50	S	200	32,50 flZn
M 6	x	55	S	200	36,00 flZn
M 6	x	60	S	200	38,50 flZn
M 6	x	65	S	200	45,50 flZn
M 6	x	70	S	200	47,50 flZn
M 6	x	80	S	200	91,00 flZn
M 8	x	35	S	200	42,00 flZn
M 8	x	40	S	200	45,50 flZn
M 8	x	45	S	200	51,00 flZn
M 8	x	50	S	200	53,00 flZn
M 8	x	55	S	200	54,00 flZn
M 8	x	60	S	200	56,00 flZn
M 8	x	65	S	200	62,00 flZn
M 8	x	70	S	200	67,00 flZn
M 8	x	75	S	200	80,00 flZn
M 8	x	80	S	200	81,00 flZn
M 8	x	90	S	100	90,00 flZn
M 8	x	100	S	100	102,00 flZn
M 8	x	150	S	100	365,00 flZn
M 8	x	240	S	100	530,00 flZn
M 10	x	40	S	100	69,00 flZn
M 10	x	45	S	100	74,00 flZn
M 10	x	50	S	100	78,00 flZn
M 10	x	55	S	100	83,00 flZn
M 10	x	60	S	100	86,00 flZn
M 10	x	65	S	100	88,00 flZn
M 10	x	70	S	100	95,00 flZn
M 10	x	75	S	100	105,00 flZn
M 10	x	80	S	100	106,00 flZn
M 10	x	90	S	100	125,00 flZn
M 10	x	100	S	100	142,00 flZn
M 10	x	110	S	50	170,00 flZn
M 10	x	120	S	50	188,00 flZn
M 10	x	140	S	50	239,00 flZn
M 10	x	180	S	50	380,00 flZn
M 12	x	45	S	100	102,00 flZn
M 12	x	50	S	100	107,00 flZn
M 12	x	55	S	100	116,00 flZn
M 12	x	60	S	100	116,00 flZn
M 12	x	65	S	50	120,00 flZn
M 12	x	70	S	50	131,00 flZn
M 12	x	75	S	50	146,00 flZn
M 12	x	80	S	50	148,00 flZn
M 12	x	90	S	50	170,00 flZn
M 12	x	100	S	50	186,00 flZn
M 12	x	110	S	50	213,00 flZn
M 12	x	120	S	50	236,00 flZn
M 12	x	130	S	50	265,00 flZn
M 12	x	140	S	50	300,00 flZn
M 12	x	150	S	50	320,00 flZn
M 12	x	160	S	25	360,00 flZn
M 12	x	170	S	25	385,00 flZn
M 14	x	55	S	50	132,00 flZn
M 14	x	60	S	50	138,00 flZn
M 14	x	100	S	50	221,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	230,00 flZn
M 16	x	65	S	25	265,00 flZn
M 16	x	70	S	25	260,00 flZn
M 16	x	75	S	25	285,00 flZn
M 16	x	80	S	25	295,00 flZn
M 16	x	90	S	25	315,00 flZn
M 16	x	95	S	25	320,00 flZn
M 16	x	100	S	25	335,00 flZn
M 16	x	110	S	25	395,00 flZn
M 16	x	120	S	25	405,00 flZn
M 16	x	125	S	25	435,00 flZn
M 16	x	130	S	25	470,00 flZn
M 16	x	140	S	25	480,00 flZn
M 16	x	150	S	25	510,00 flZn
M 16	x	190	S	25	550,00 flZn
M 16	x	200	S	25	570,00 flZn
M 18	x	90	S	25	335,00 flZn
M 18	x	100	S	25	355,00 flZn
M 20	x	65	S	25	510,00 flZn
M 20	x	70	S	25	510,00 flZn
M 20	x	75	S	25	530,00 flZn
M 20	x	80	S	25	550,00 flZn
M 20	x	90	S	25	610,00 flZn
M 20	x	95	S	25	620,00 flZn
M 20	x	100	S	25	640,00 flZn
M 20	x	105	S	25	670,00 flZn
M 20	x	110	S	25	700,00 flZn
M 20	x	120	S	25	740,00 flZn
M 20	x	130	S	25	850,00 flZn
M 20	x	140	S	25	910,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1460,00 flZn
M 20	x	170	S	10	1390,00 flZn
M 20	x	180	S	10	1560,00 flZn
M 20	x	200	S	10	2170,00 flZn
M 20	x	290	S	1	2600,00 flZn
M 20	x	340	S	1	3100,00 flZn
M 20	x	360	S	1	3200,00 flZn
M 20	x	380	S	1	3350,00 flZn
M 22	x	110	S	10	830,00 flZn
M 24	x	75	S	25	1170,00 flZn
M 24	x	80	S	25	1180,00 flZn
M 24	x	90	S	10	1340,00 flZn
M 24	x	100	S	10	1420,00 flZn
M 24	x	110	S	10	1550,00 flZn
M 24	x	120	S	10	1590,00 flZn
M 24	x	130	S	10	1670,00 flZn
M 24	x	135	S	10	1710,00 flZn
M 24	x	140	S	10	1730,00 flZn
M 24	x	150	S	10	1820,00 flZn
M 24	x	160	S	10	1900,00 flZn
M 24	x	170	S	1	1980,00 flZn
M 24	x	180	S	1	2030,00 flZn
M 24	x	200	S	1	2130,00 flZn
M 24	x	230	S	1	2180,00 flZn
M 24	x	240	S	1	2320,00 flZn
M 24	x	300	S	1	2600,00 flZn

Dimensions	PU Pieces	€/100/Mat.
ISO	04014.200	*

4014 **12.9**



Hexagon head bolts

short dimensions partly thread nearly to head,
*M 10/12/14/22 = RAZ 3260 other ∅ = RAZ 406

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	40	S	100	180,00
M 10	x	45	S	100	180,00
M 10	x	50	S	100	213,00
M 10	x	60	S	100	285,00
M 10	x	70	S	100	360,00
M 10	x	80	S	100	395,00
M 10	x	90	S	100	480,00
M 10	x	100	S	100	510,00
M 12	x	45	S	100	199,00
M 12	x	50	S	100	236,00
M 12	x	55	S	100	260,00
M 12	x	60	S	100	315,00
M 12	x	65	S	50	365,00
M 12	x	70	S	50	395,00
M 12	x	80	S	50	480,00
M 12	x	90	S	50	630,00
M 12	x	100	S	50	720,00
M 12	x	120	S	50	840,00
M 12	x	140	S	50	860,00
M 14	x	60	S	50	920,00
M 14	x	80	S	50	960,00
M 14	x	100	S	50	1010,00
M 16	x	55	S	50	560,00
M 16	x	60	S	50	560,00
M 16	x	70	S	25	600,00
M 16	x	80	S	25	780,00
M 16	x	90	S	25	960,00
M 16	x	100	S	25	1020,00
M 16	x	120	S	25	1150,00
M 16	x	130	S	25	1240,00
M 16	x	140	S	25	1340,00
M 16	x	150	S	25	1540,00
M 20	x	65	S	25	600,00
M 20	x	70	S	25	790,00
M 20	x	80	S	25	840,00
M 20	x	90	S	25	880,00
M 20	x	100	S	25	1030,00
M 20	x	110	S	25	1200,00
M 20	x	120	S	25	1240,00
M 20	x	130	S	25	1430,00
M 20	x	140	S	25	1510,00
M 20	x	150	S	25	1900,00
M 20	x	160	S	25	2040,00
M 24	x	80	S	25	1510,00
M 24	x	90	S	10	1580,00
M 24	x	100	S	10	1900,00
M 24	x	110	S	10	2010,00
M 24	x	120	S	10	2100,00
M 24	x	130	S	10	2360,00
M 24	x	140	S	10	2450,00
M 24	x	150	S	10	2550,00

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	160	S	10	2650,00
M 24	x	180	S	10	2700,00
M 24	x	200	S	10	3000,00
M 24	x	220	S	10	3000,00
M 24	x	240	S	10	3050,00
M 30	x	90	S	5	3150,00
M 30	x	100	S	5	3300,00
M 30	x	110	S	5	3400,00
M 30	x	120	S	5	3600,00
M 30	x	130	S	5	3950,00
M 30	x	140	S	5	4200,00
M 30	x	150	S	5	4400,00
M 30	x	160	S	5	4600,00
M 30	x	180	S	5	4800,00
M 30	x	200	S	5	5600,00

ISO	04014.240	1545
4014	**12.9 flZnL480h**	



Hexagon head bolts

short dimensions partly thread nearly to head,
flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 529
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

M 10	x	40	S	100	265,00 flZn
M 10	x	45	S	100	265,00 flZn
M 10	x	50	S	100	315,00 flZn
M 10	x	60	S	100	320,00 flZn
M 10	x	70	S	100	530,00 flZn
M 10	x	80	S	100	580,00 flZn
M 10	x	90	S	100	710,00 flZn
M 10	x	100	S	100	740,00 flZn
M 12	x	45	S	100	290,00 flZn
M 12	x	50	S	100	345,00 flZn
M 12	x	55	S	100	385,00 flZn
M 12	x	60	S	100	460,00 flZn
M 12	x	65	S	50	530,00 flZn
M 12	x	70	S	50	580,00 flZn
M 12	x	80	S	50	710,00 flZn
M 12	x	90	S	50	920,00 flZn
M 12	x	100	S	50	1050,00 flZn
M 16	x	55	S	50	820,00 flZn
M 16	x	60	S	50	830,00 flZn
M 16	x	70	S	25	880,00 flZn
M 16	x	80	S	25	1130,00 flZn
M 16	x	90	S	25	1400,00 flZn
M 16	x	100	S	25	1480,00 flZn
M 16	x	120	S	25	1670,00 flZn
M 20	x	65	S	25	880,00 flZn
M 20	x	70	S	25	1030,00 flZn
M 20	x	80	S	25	375,00 flZn
M 20	x	90	S	25	1280,00 flZn
M 20	x	100	S	25	1510,00 flZn
M 20	x	120	S	25	1800,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
ISO	04017.(*)		**
4017	**5.6**		**AD W7**



Hexagon head screws

M 6 – M 39 for pressure vessel const.
as per AD reguations,
products with renunciation of inspection certificate,
*≤ M 39 = (504), > M 36 = (500)
**M 10/12/14 = RAZ 3210 other ∅ = RAZ 400

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

M 6	x	10	S	500	25,50
M 6	x	12	S	500	34,00
M 6	x	16	S	500	21,50
M 6	x	20	S	500	23,70
M 6	x	25	S	500	24,40
M 6	x	30	S	500	29,50
M 6	x	35	S	200	80,00
M 6	x	40	S	200	86,00
M 6	x	50	S	200	126,00
M 8	x	10	S	200	48,50
M 8	x	12	S	200	35,50
M 8	x	16	S	200	28,50
M 8	x	20	S	200	28,50
M 8	x	25	S	200	28,50
M 8	x	30	S	200	30,00
M 8	x	35	S	200	37,00
M 8	x	40	S	200	42,50
M 8	x	50	S	200	91,00
M 8	x	65	S	200	285,00
M 8	x	70	S	200	161,00
M 8	x	80	S	200	200,00
M 10	x	16	S	200	58,00
M 10	x	20	S	200	52,00
M 10	x	25	S	200	52,00
M 10	x	30	S	200	54,00
M 10	x	35	S	100	57,00
M 10	x	40	S	100	61,00
M 10	x	45	S	100	65,00
M 10	x	50	S	100	117,00
M 10	x	55	S	100	151,00
M 10	x	60	S	100	160,00
M 10	x	70	S	100	182,00
M 10	x	80	S	100	212,00
M 12	x	20	S	100	66,00
M 12	x	25	S	100	64,00
M 12	x	30	S	100	66,00
M 12	x	35	S	100	71,00
M 12	x	40	S	100	76,00
M 12	x	45	S	100	85,00
M 12	x	50	S	100	91,00
M 12	x	55	S	100	99,00
M 12	x	60	S	100	107,00
M 12	x	65	S	100	204,00
M 12	x	70	S	50	220,00
M 12	x	80	S	50	305,00
M 12	x	90	S	50	610,00
M 12	x	100	S	50	730,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	110	S	50	1070,00
M 14	x	50	S	100	435,00
M 16	x	25	S	50	174,00
M 16	x	30	S	50	142,00
M 16	x	35	S	50	143,00
M 16	x	40	S	50	146,00
M 16	x	45	S	50	152,00
M 16	x	50	S	50	158,00
M 16	x	55	S	50	175,00
M 16	x	60	S	50	183,00
M 16	x	65	S	25	206,00
M 16	x	70	S	25	215,00
M 16	x	80	S	25	265,00
M 16	x	90	S	25	730,00
M 16	x	100	S	25	1010,00
M 16	x	110	S	25	1080,00
M 16	x	120	S	25	1150,00
M 20	x	30	S	25	315,00
M 20	x	35	S	25	315,00
M 20	x	40	S	25	280,00
M 20	x	45	S	25	295,00
M 20	x	50	S	25	300,00
M 20	x	55	S	25	315,00
M 20	x	60	S	25	330,00
M 20	x	65	S	25	340,00
M 20	x	70	S	25	355,00
M 20	x	75	S	25	395,00
M 20	x	80	S	25	510,00
M 20	x	90	S	25	690,00
M 20	x	100	S	25	730,00
M 20	x	110	S	25	880,00
M 20	x	120	S	25	1010,00
M 20	x	130	S	25	1170,00
M 20	x	140	S	25	1280,00
M 20	x	150	S	25	1460,00
M 20	x	160	S	10	1510,00
M 20	x	180	S	1	1590,00
M 20	x	200	S	1	1690,00
M 22	x	50	S	25	1060,00
M 24	x	30	S	25	790,00
M 24	x	35	S	25	790,00
M 24	x	40	S	25	790,00
M 24	x	50	S	25	540,00
M 24	x	55	S	25	570,00
M 24	x	60	S	25	570,00
M 24	x	65	S	25	620,00
M 24	x	70	S	25	660,00
M 24	x	75	S	25	720,00
M 24	x	80	S	25	720,00
M 24	x	85	S	10	920,00
M 24	x	90	S	10	920,00
M 24	x	100	S	10	1010,00
M 24	x	110	S	10	1350,00
M 24	x	120	S	10	1410,00
M 24	x	130	S	1	1750,00
M 24	x	140	S	1	1870,00
M 24	x	150	S	1	1990,00
M 24	x	160	S	1	2100,00
M 24	x	180	S	1	2300,00
M 24	x	200	S	1	2650,00
M 27	x	50	S	1	1200,00
M 27	x	60	S	1	1200,00
M 27	x	65	S	1	1200,00
M 27	x	70	S	1	1200,00
M 27	x	75	S	1	1200,00
M 27	x	80	S	1	1070,00
M 27	x	90	S	1	1130,00
M 27	x	100	S	1	1360,00
M 27	x	110	S	1	1410,00
M 27	x	120	S	1	1510,00
M 27	x	140	S	1	2330,00
M 30	x	40	S	1	1080,00
M 30	x	50	S	1	1230,00
M 30	x	55	S	1	1290,00
M 30	x	60	S	1	1310,00

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	65	S	1	1380,00
M 30	x	70	S	1	1380,00
M 30	x	75	S	1	1480,00
M 30	x	80	S	1	1480,00
M 30	x	90	S	1	1550,00
M 30	x	100	S	1	1580,00
M 30	x	110	S	1	1670,00
M 30	x	120	S	1	1710,00
M 30	x	130	S	1	1820,00
M 30	x	140	S	1	1920,00
M 30	x	150	S	1	2000,00
M 30	x	180	S	1	3700,00
M 30	x	200	S	1	3950,00
M 33	x	90	S	1	2000,00
M 33	x	100	S	1	2220,00
M 33	x	110	S	1	2300,00
M 33	x	120	S	1	2330,00
M 33	x	130	S	1	2380,00
M 36	x	50	S	1	2420,00
M 36	x	55	S	1	2600,00
M 36	x	70	S	1	2130,00
M 36	x	80	S	1	2260,00
M 36	x	90	S	1	2360,00
M 36	x	100	S	1	2550,00
M 36	x	110	S	1	2650,00
M 36	x	120	S	1	2750,00
M 36	x	130	S	1	2800,00

ISO	04017.514	*
4017	**5.6** **zinc plated**	**AD W7**



Hexagon head screws

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *M 10/12/14 = RAZ 3210 other ∅ = RAZ 400

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

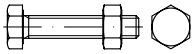
Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ REACh SVHC free

M 6	x	12	S	500	36,00 ZP
M 6	x	16	S	500	23,00 ZP
M 6	x	20	S	500	25,50 ZP
M 6	x	25	S	500	26,50 ZP
M 6	x	30	S	500	31,50 ZP
M 6	x	35	S	200	86,00 ZP
M 6	x	40	S	200	92,00 ZP
M 6	x	50	S	200	134,00 ZP
M 8	x	10	S	200	54,00 ZP
M 8	x	12	S	200	38,50 ZP
M 8	x	16	S	200	31,50 ZP
M 8	x	20	S	200	32,00 ZP
M 8	x	25	S	200	32,50 ZP
M 8	x	30	S	200	34,50 ZP
M 8	x	35	S	200	42,50 ZP
M 8	x	40	S	200	48,00 ZP
M 8	x	45	S	200	100,00 ZP
M 8	x	50	S	200	107,00 ZP
M 8	x	60	S	200	115,00 ZP
M 8	x	80	S	200	222,00 ZP
M 10	x	16	S	200	64,00 ZP
M 10	x	20	S	200	58,00 ZP
M 10	x	25	S	200	59,00 ZP
M 10	x	30	S	200	62,00 ZP
M 10	x	35	S	100	66,00 ZP
M 10	x	40	S	100	71,00 ZP
M 10	x	45	S	100	75,00 ZP
M 10	x	50	S	100	142,00 ZP
M 10	x	55	S	100	175,00 ZP
M 10	x	60	S	100	186,00 ZP
M 10	x	70	S	100	211,00 ZP
M 10	x	80	S	100	355,00 ZP
M 12	x	20	S	100	76,00 ZP
M 12	x	25	S	100	74,00 ZP
M 12	x	30	S	100	78,00 ZP
M 12	x	35	S	100	84,00 ZP
M 12	x	40	S	100	90,00 ZP
M 12	x	45	S	100	100,00 ZP
M 12	x	50	S	100	107,00 ZP
M 12	x	55	S	100	117,00 ZP
M 12	x	60	S	100	125,00 ZP
M 12	x	65	S	50	345,00 ZP
M 12	x	70	S	50	265,00 ZP
M 12	x	80	S	50	350,00 ZP
M 12	x	90	S	50	660,00 ZP
M 12	x	100	S	50	780,00 ZP
M 12	x	110	S	50	870,00 ZP
M 14	x	50	S	100	570,00 ZP
M 16	x	25	S	50	195,00 ZP
M 16	x	30	S	50	164,00 ZP
M 16	x	35	S	50	167,00 ZP
M 16	x	40	S	50	172,00 ZP
M 16	x	45	S	50	182,00 ZP
M 16	x	50	S	50	189,00 ZP
M 16	x	55	S	50	209,00 ZP
M 16	x	60	S	50	217,00 ZP
M 16	x	65	S	25	244,00 ZP
M 16	x	70	S	25	255,00 ZP
M 16	x	80	S	25	310,00 ZP
M 16	x	90	S	25	860,00 ZP
M 16	x	100	S	25	1140,00 ZP
M 16	x	110	S	25	1240,00 ZP
M 16	x	120	S	25	1320,00 ZP
M 20	x	35	S	25	360,00 ZP
M 20	x	40	S	25	330,00 ZP
M 20	x	45	S	25	345,00 ZP
M 20	x	50	S	25	355,00 ZP
M 20	x	55	S	25	370,00 ZP
M 20	x	60	S	25	385,00 ZP
M 20	x	65	S	25	400,00 ZP
M 20	x	70	S	25	420,00 ZP
M 20	x	75	S	25	450,00 ZP
M 20	x	80	S	25	580,00 ZP
M 20	x	90	S	25	760,00 ZP
M 20	x	100	S	25	810,00 ZP
M 20	x	130	S	25	1340,00 ZP
M 20	x	140	S	25	1460,00 ZP
M 20	x	150	S	25	1640,00 ZP
M 20	x	160	S	10	1700,00 ZP
M 20	x	180	S	1	1820,00 ZP
M 20	x	200	S	1	1940,00 ZP
M 24	x	40	S	25	910,00 ZP
M 24	x	50	S	25	620,00 ZP
M 24	x	55	S	25	660,00 ZP
M 24	x	60	S	25	660,00 ZP
M 24	x	65	S	25	710,00 ZP
M 24	x	70	S	25	750,00 ZP
M 24	x	75	S	25	820,00 ZP
M 24	x	80	S	25	820,00 ZP
M 24	x	85	S	10	1050,00 ZP
M 24	x	90	S	10	1040,00 ZP
M 24	x	100	S	10	1150,00 ZP
M 24	x	110	S	10	1580,00 ZP
M 24	x	120	S	10	1640,00 ZP
M 24	x	130	S	1	2000,00 ZP
M 24	x	150	S	1	2270,00 ZP
M 24	x	160	S	1	2390,00 ZP
M 24	x	180	S	1	2650,00 ZP
M 24	x	220	S	1	2950,00 ZP
M 27	x	60	S	1	1340,00 ZP
M 27	x	65	S	1	1360,00 ZP
M 27	x	70	S	1	1360,00 ZP
M 27	x	75	S	1	1430,00 ZP
M 27	x	80	S	1	1210,00 ZP
M 27	x	90	S	1	1310,00 ZP
M 27	x	95	S	1	1550,00 ZP
M 27	x	100	S	1	1400,00 ZP
M 27	x	110	S	1	1700,00 ZP
M 27	x	120	S	1	1820,00 ZP
M 27	x	140	S	1	2700,00 ZP
M 30	x	60	S	1	1520,00 ZP
M 30	x	65	S	1	1550,00 ZP
M 30	x	70	S	1	1600,00 ZP
M 30	x	75	S	1	1740,00 ZP
M 30	x	80	S	1	1800,00 ZP
M 30	x	90	S	1	1830,00 ZP
M 30	x	100	S	1	1830,00 ZP
M 30	x	110	S	1	2060,00 ZP
M 30	x	120	S	1	2120,00 ZP
M 33	x	90	S	1	2420,00 ZP
M 33	x	100	S	1	2700,00 ZP
M 33	x	110	S	1	2650,00 ZP
M 33	x	120	S	1	2700,00 ZP
M 33	x	130	S	1	2950,00 ZP

ISO	04017.524	3200
4017	**Mu 5.6** **hot dip galvanized**	**AD W7**



Hexagon head screws, Mu = with hexagon nuts ISO 4032/5-2

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

Caution!
Note information about hot dip galvanizing.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ REACh SVHC free

M 12	x	30	S	100	114,00 HDG
M 12	x	35	S	100	120,00 HDG
M 12	x	40	S	100	126,00 HDG
M 12	x	45	S	100	136,00 HDG
M 16	x	35	S	50	234,00 HDG
M 16	x	40	S	50	241,00 HDG
M 16	x	45	S	50	255,00 HDG
M 16	x	50	S	50	260,00 HDG
M 16	x	55	S	50	340,00 HDG
M 16	x	60	S	50	350,00 HDG
M 20	x	40	S	25	500,00 HDG
M 20	x	45	S	25	510,00 HDG
M 20	x	50	S	25	520,00 HDG
M 20	x	55	S	25	540,00 HDG
M 20	x	60	S	25	550,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	65	S	25	580,00 HDG
M 20	x	70	S	25	660,00 HDG
M 20	x	75	S	25	720,00 HDG
M 24	x	50	S	25	940,00 HDG
M 24	x	55	S	25	1030,00 HDG
M 24	x	60	S	25	1130,00 HDG
M 24	x	65	S	25	1180,00 HDG
M 24	x	70	S	25	1250,00 HDG
M 24	x	75	S	25	1310,00 HDG
M 24	x	80	S	25	1370,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

ISO	04017.398	400

4017

1.7218 +QT (25CrMo4)



Hexagon head screws

approved for use acc. to pressure equipment directive ➔ cert. 3.1 on request

Dimensions ➔ TI-15
Material properties ➔ TI-240
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

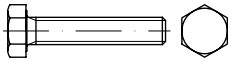
PED approval | RoHS ✓ | REACh SVHC free

M 12	x	20	S	100	111,00
M 12	x	25	S	100	115,00
M 12	x	30	S	100	119,00
M 12	x	35	S	100	124,00
M 12	x	40	S	100	132,00
M 12	x	45	S	100	148,00
M 12	x	50	S	100	158,00
M 12	x	55	S	100	174,00
M 12	x	60	S	100	188,00
M 12	x	70	S	50	385,00
M 12	x	80	S	50	530,00
M 12	x	90	S	50	1060,00
M 12	x	100	S	50	1270,00
M 12	x	110	S	50	1870,00
M 12	x	120	S	50	1890,00
M 16	x	25	S	50	244,00
M 16	x	30	S	50	249,00
M 16	x	35	S	50	255,00
M 16	x	40	S	50	255,00
M 16	x	45	S	50	265,00
M 16	x	50	S	50	280,00
M 16	x	55	S	50	305,00
M 16	x	60	S	50	320,00
M 16	x	65	S	25	365,00
M 16	x	70	S	25	380,00
M 16	x	80	S	25	465,00
M 16	x	90	S	25	1280,00
M 16	x	100	S	25	1760,00
M 16	x	110	S	25	1890,00
M 16	x	120	S	25	2020,00
M 20	x	30	S	25	530,00
M 20	x	35	S	25	540,00
M 20	x	40	S	25	560,00
M 20	x	45	S	25	560,00
M 20	x	50	S	25	570,00
M 20	x	55	S	25	570,00
M 20	x	60	S	25	580,00
M 20	x	65	S	25	600,00
M 20	x	70	S	25	620,00
M 20	x	75	S	25	690,00
M 20	x	80	S	25	880,00
M 20	x	90	S	25	1210,00
M 20	x	100	S	25	1280,00
M 20	x	110	S	25	1530,00
M 20	x	120	S	25	1760,00
M 20	x	130	S	25	2040,00
M 20	x	140	S	25	2230,00
M 20	x	150	S	25	2550,00
M 20	x	160	S	10	2650,00
M 20	x	180	S	1	2800,00
M 20	x	200	S	1	2950,00
M 24	x	30	S	25	820,00
M 24	x	35	S	25	840,00
M 24	x	40	S	25	890,00
M 24	x	45	S	25	910,00
M 24	x	50	S	25	940,00
M 24	x	55	S	25	1000,00
M 24	x	60	S	25	1000,00
M 24	x	65	S	25	1090,00
M 24	x	70	S	25	1150,00
M 24	x	75	S	25	1250,00
M 24	x	80	S	25	1250,00
M 24	x	85	S	10	1610,00
M 24	x	90	S	10	1610,00
M 24	x	100	S	10	1760,00
M 24	x	110	S	10	2360,00
M 24	x	120	S	10	2460,00
M 24	x	130	S	1	3050,00
M 24	x	140	S	1	3300,00
M 24	x	150	S	1	3500,00
M 24	x	160	S	1	3700,00
M 24	x	180	S	1	4050,00
M 24	x	200	S	1	4600,00
M 27	x	60	S	1	2100,00
M 27	x	65	S	1	2100,00
M 27	x	70	S	1	2100,00
M 27	x	75	S	1	2100,00
M 27	x	80	S	1	2110,00
M 27	x	90	S	1	2220,00
M 27	x	100	S	1	2380,00
M 27	x	110	S	1	2460,00
M 27	x	120	S	1	2650,00
M 27	x	140	S	1	4100,00
M 30	x	50	S	1	2140,00
M 30	x	55	S	1	2250,00
M 30	x	60	S	1	2290,00
M 30	x	65	S	1	2420,00
M 30	x	70	S	1	2420,00
M 30	x	75	S	1	2600,00
M 30	x	80	S	1	2600,00
M 30	x	90	S	1	2750,00
M 30	x	100	S	1	2800,00
M 30	x	110	S	1	2950,00
M 30	x	120	S	1	2950,00
M 30	x	130	S	1	3200,00
M 30	x	140	S	1	3350,00
M 30	x	150	S	1	3500,00
M 30	x	180	S	1	6500,00
M 30	x	200	S	1	6900,00
M 33	x	90	S	1	3500,00
M 33	x	100	S	1	3900,00
M 33	x	110	S	1	4050,00
M 33	x	120	S	1	4100,00
M 33	x	130	S	1	4200,00
M 36	x	70	S	1	3750,00
M 36	x	80	S	1	3950,00
M 36	x	90	S	1	4150,00
M 36	x	100	S	1	4400,00
M 36	x	110	S	1	4650,00
M 36	x	120	S	1	4800,00
M 36	x	130	S	1	4850,00

ISO	04017.397	400

4017

1.7218 +QT (25CrMo4) zinc plated



Hexagon head screws

approved for use acc. to pressure equipment directive ➔ cert. 3.1 on request

Dimensions ➔ TI-15
Material properties ➔ TI-240
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

PED approval | RoHS ✓ | REACh SVHC free

M 12	x	20	S	100	132,00 ZP
M 12	x	25	S	100	136,00 ZP
M 12	x	30	S	100	143,00 ZP
M 12	x	35	S	100	147,00 ZP
M 12	x	40	S	100	157,00 ZP
M 12	x	45	S	100	175,00 ZP
M 12	x	50	S	100	186,00 ZP
M 12	x	55	S	100	205,00 ZP
M 12	x	60	S	100	220,00 ZP
M 12	x	65	S	50	610,00 ZP
M 12	x	70	S	50	460,00 ZP
M 12	x	80	S	50	610,00 ZP
M 12	x	90	S	50	1150,00 ZP
M 12	x	100	S	50	1370,00 ZP
M 16	x	25	S	50	285,00 ZP
M 16	x	30	S	50	290,00 ZP
M 16	x	35	S	50	295,00 ZP
M 16	x	40	S	50	305,00 ZP
M 16	x	45	S	50	320,00 ZP
M 16	x	50	S	50	335,00 ZP
M 16	x	55	S	50	365,00 ZP
M 16	x	60	S	50	380,00 ZP
M 16	x	65	S	25	430,00 ZP
M 16	x	70	S	25	445,00 ZP
M 16	x	80	S	25	550,00 ZP
M 16	x	90	S	25	1510,00 ZP
M 16	x	100	S	25	2000,00 ZP
M 16	x	110	S	25	2160,00 ZP
M 16	x	120	S	25	2310,00 ZP
M 20	x	30	S	25	560,00 ZP
M 20	x	35	S	25	570,00 ZP
M 20	x	40	S	25	580,00 ZP
M 20	x	45	S	25	610,00 ZP
M 20	x	50	S	25	620,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 55	S	25	650,00 ZP
M 20 x 60	S	25	680,00 ZP
M 20 x 65	S	25	700,00 ZP
M 20 x 70	S	25	730,00 ZP
M 20 x 75	S	25	790,00 ZP
M 20 x 80	S	25	1010,00 ZP
M 20 x 90	S	25	1330,00 ZP
M 20 x 100	S	25	1410,00 ZP
M 20 x 130	S	25	2330,00 ZP
M 20 x 140	S	25	2550,00 ZP
M 20 x 150	S	25	2900,00 ZP
M 20 x 160	S	10	3000,00 ZP
M 20 x 180	S	1	3200,00 ZP
M 20 x 200	S	1	3400,00 ZP
M 24 x 35	S	25	1050,00 ZP
M 24 x 40	S	25	1060,00 ZP
M 24 x 45	S	25	1070,00 ZP
M 24 x 50	S	25	1080,00 ZP
M 24 x 55	S	25	1150,00 ZP
M 24 x 60	S	25	1160,00 ZP
M 24 x 65	S	25	1250,00 ZP
M 24 x 70	S	25	1310,00 ZP
M 24 x 75	S	25	1430,00 ZP
M 24 x 80	S	25	1440,00 ZP
M 24 x 85	S	10	1840,00 ZP
M 24 x 90	S	10	1930,00 ZP
M 24 x 100	S	10	2010,00 ZP
M 24 x 110	S	10	2800,00 ZP
M 24 x 120	S	10	2900,00 ZP
M 24 x 130	S	1	3500,00 ZP
M 24 x 150	S	1	4550,00 ZP
M 24 x 160	S	1	4550,00 ZP
M 24 x 180	S	1	4600,00 ZP
M 24 x 220	S	1	5100,00 ZP
M 27 x 60	S	1	2330,00 ZP
M 27 x 65	S	1	2380,00 ZP
M 27 x 70	S	1	2400,00 ZP
M 27 x 75	S	1	2500,00 ZP
M 27 x 80	S	1	2600,00 ZP
M 27 x 90	S	1	2700,00 ZP
M 27 x 95	S	1	2750,00 ZP
M 27 x 100	S	1	2850,00 ZP
M 27 x 110	S	1	3000,00 ZP
M 27 x 120	S	1	3200,00 ZP
M 27 x 140	S	1	4750,00 ZP
M 30 x 60	S	1	2650,00 ZP
M 30 x 65	S	1	2750,00 ZP
M 30 x 70	S	1	2800,00 ZP
M 30 x 75	S	1	3050,00 ZP
M 30 x 80	S	1	3050,00 ZP
M 30 x 90	S	1	3200,00 ZP
M 30 x 100	S	1	3200,00 ZP
M 30 x 110	S	1	3600,00 ZP
M 30 x 120	S	1	3750,00 ZP
M 33 x 100	S	1	4700,00 ZP
M 33 x 110	S	1	4700,00 ZP
M 33 x 120	S	1	4750,00 ZP
M 33 x 130	S	1	5100,00 ZP

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Dimensions	PU	Pieces	€/100/Mat.
ISO	04017.800		*

4017

8.8



Hexagon head screws

*M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 5	S	500	11,70
M 3 x 5	K	100	15,40
M 3 x 6	S	500	5,80
M 3 x 6	K	100	9,40
M 3 x 8	S	500	5,80
M 3 x 8	K	100	9,40
M 3 x 10	S	500	5,80
M 3 x 10	K	100	9,40
M 3 x 12	S	500	6,30
M 3 x 12	K	100	10,00
M 3 x 16	S	500	6,30
M 3 x 16	K	100	10,00
M 3 x 18	S	500	7,20
M 3 x 20	S	500	6,60
M 3 x 20	K	100	10,30
M 3 x 22	S	500	8,00
M 3 x 25	S	500	7,40
M 3 x 25	K	100	11,10
M 3 x 30	S	500	20,40
M 3 x 35	S	500	44,00
M 3 x 40	S	500	55,00
M 3 x 50	S	500	84,00
M 3 x 60	S	500	91,00
M 4 x 6	S	500	5,80
M 4 x 6	K	100	9,40
M 4 x 8	S	500	5,80
M 4 x 8	K	100	9,40
M 4 x 10	S	500	5,80
M 4 x 10	K	100	9,40
M 4 x 12	S	500	6,30
M 4 x 12	K	100	10,00
M 4 x 14	S	500	6,90
M 4 x 16	S	500	6,30
M 4 x 16	K	100	10,00
M 4 x 18	S	500	7,20
M 4 x 20	S	500	6,60
M 4 x 20	K	100	10,30
M 4 x 22	S	500	8,00
M 4 x 25	S	500	7,40
M 4 x 25	K	100	11,10
M 4 x 30	S	500	8,60
M 4 x 30	K	100	12,20
M 4 x 35	S	500	9,10
M 4 x 35	K	100	12,80
M 4 x 40	S	500	9,90
M 4 x 40	K	100	13,50
M 4 x 45	S	500	11,70
M 4 x 50	S	500	12,70
M 4 x 50	K	100	16,30
M 4 x 55	S	100	58,00

Dimensions	PU	Pieces	€/100/Mat.
M 4 x 60	S	100	88,00
M 4 x 65	S	200	125,00
M 4 x 70	S	100	125,00
M 5 x 6	S	500	15,30
M 5 x 6	K	100	19,00
M 5 x 8	S	500	4,10
M 5 x 8	K	100	7,70
M 5 x 10	S	500	4,10
M 5 x 10	K	100	7,70
M 5 x 12	S	500	4,20
M 5 x 12	K	100	7,80
M 5 x 14	S	500	4,40
M 5 x 16	S	500	4,20
M 5 x 16	K	100	7,80
M 5 x 18	S	500	4,60
M 5 x 18	K	100	8,20
M 5 x 20	S	500	4,40
M 5 x 20	K	100	8,20
M 5 x 22	S	500	11,50
M 5 x 25	S	500	5,00
M 5 x 25	K	100	8,60
M 5 x 30	S	500	5,80
M 5 x 30	K	100	9,40
M 5 x 35	S	200	6,60
M 5 x 40	S	200	8,90
M 5 x 45	S	200	10,40
M 5 x 50	S	200	11,50
M 5 x 55	S	200	17,10
M 5 x 60	S	200	17,30
M 5 x 65	S	200	56,00
M 5 x 70	S	200	56,00
M 5 x 80	S	200	84,00
M 5 x 90	S	200	135,00
M 5 x 100	S	200	158,00
M 6 x 6	S	500	21,90
M 6 x 6	K	100	25,50
M 6 x 8	S	500	6,10
M 6 x 8	K	100	9,70
M 6 x 10	S	500	5,50
M 6 x 10	K	100	9,20
M 6 x 12	S	500	5,50
M 6 x 12	K	100	9,20
M 6 x 14	S	500	4,85
M 6 x 16	S	500	4,85
M 6 x 16	K	100	8,50
M 6 x 18	S	500	5,10
M 6 x 18	K	100	8,80
M 6 x 20	S	500	5,10
M 6 x 20	K	100	8,80
M 6 x 22	S	500	5,50
M 6 x 22	K	100	9,20
M 6 x 25	S	500	5,50
M 6 x 25	K	100	9,20
M 6 x 28	S	500	12,10
M 6 x 28	K	100	15,70
M 6 x 30	S	500	5,90
M 6 x 30	K	100	9,60
M 6 x 35	S	200	6,60
M 6 x 40	S	200	7,20
M 6 x 45	S	200	10,60
M 6 x 50	S	200	10,80
M 6 x 55	S	200	18,60
M 6 x 60	S	200	21,00
M 6 x 65	S	200	27,50
M 6 x 70	S	200	34,00
M 6 x 75	S	200	40,50
M 6 x 80	S	200	40,50
M 6 x 85	S	200	73,00
M 6 x 90	S	200	72,00
M 6 x 100	S	100	111,00
M 6 x 110	S	100	129,00
M 6 x 120	S	100	137,00
M 6 x 130	S	100	216,00
M 6 x 140	S	100	232,00
M 6 x 150	S	100	280,00

Dimensions	PU	Pieces	€/100/Mat.
M 7 x 12	S	500	18,90
M 7 x 16	S	500	14,60
M 7 x 20	S	500	15,30
M 7 x 25	S	500	17,80
M 7 x 30	S	500	19,20
M 7 x 35	S	200	21,40
M 7 x 40	S	200	23,20
M 7 x 45	S	200	24,90
M 8 x 8	S	200	30,50
M 8 x 10	S	200	10,40
M 8 x 12	S	200	9,20
M 8 x 14	S	200	9,20
M 8 x 16	S	200	7,10
M 8 x 18	S	200	7,60
M 8 x 20	S	200	7,60
M 8 x 22	S	200	8,70
M 8 x 25	S	200	8,70
M 8 x 28	S	200	9,40
M 8 x 30	S	200	9,40
M 8 x 35	S	200	10,40
M 8 x 40	S	200	11,40
M 8 x 45	S	200	14,00
M 8 x 50	S	200	16,20
M 8 x 55	S	200	22,70
M 8 x 60	S	200	24,30
M 8 x 65	S	200	33,50
M 8 x 70	S	200	42,00
M 8 x 75	S	200	51,00
M 8 x 80	S	200	51,00
M 8 x 85	S	200	64,00
M 8 x 90	S	100	60,00
M 8 x 100	S	100	69,00
M 8 x 110	S	100	88,00
M 8 x 120	S	100	92,00
M 8 x 130	S	100	148,00
M 8 x 140	S	100	184,00
M 8 x 150	S	100	226,00
M 8 x 160	S	100	290,00
M 8 x 170	S	100	330,00
M 8 x 180	S	100	355,00
M 8 x 200	S	100	460,00
M 10 x 10	S	200	59,00
M 10 x 12	S	200	21,50
M 10 x 16	S	200	13,70
M 10 x 18	S	200	12,80
M 10 x 20	S	200	12,80
M 10 x 22	S	200	13,70
M 10 x 25	S	200	13,70
M 10 x 28	S	200	16,50
M 10 x 30	S	200	14,60
M 10 x 35	S	100	16,20
M 10 x 40	S	100	17,30
M 10 x 45	S	100	20,70
M 10 x 50	S	100	21,60
M 10 x 55	S	100	30,00
M 10 x 60	S	100	32,50
M 10 x 65	S	100	50,00
M 10 x 70	S	100	50,00
M 10 x 75	S	100	56,00
M 10 x 80	S	100	70,00
M 10 x 85	S	100	84,00
M 10 x 90	S	100	84,00
M 10 x 100	S	100	99,00
M 10 x 110	S	50	136,00
M 10 x 120	S	50	141,00
M 10 x 130	S	50	186,00
M 10 x 140	S	50	193,00
M 10 x 150	S	50	212,00
M 10 x 160	S	50	325,00
M 10 x 170	S	50	650,00
M 10 x 180	S	50	640,00
M 10 x 190	S	50	660,00
M 10 x 200	S	50	690,00
M 10 x 220	S	50	1020,00
M 10 x 240	S	50	1930,00
M 10 x 300	S	50	2290,00
M 12 x 10	S	100	211,00
M 12 x 12	S	100	132,00
M 12 x 16	S	100	25,50
M 12 x 18	S	100	25,50
M 12 x 20	S	100	22,50
M 12 x 22	S	100	22,50
M 12 x 25	S	100	22,50
M 12 x 28	S	100	24,10
M 12 x 30	S	100	23,20
M 12 x 35	S	100	24,60
M 12 x 40	S	100	25,50
M 12 x 45	S	100	28,00
M 12 x 50	S	100	30,00
M 12 x 55	S	100	37,50
M 12 x 60	S	100	40,50
M 12 x 65	S	50	61,00
M 12 x 70	S	50	61,00
M 12 x 75	S	50	69,00
M 12 x 80	S	50	87,00
M 12 x 85	S	50	104,00
M 12 x 90	S	50	104,00
M 12 x 100	S	50	116,00
M 12 x 110	S	50	180,00
M 12 x 120	S	50	182,00
M 12 x 130	S	50	217,00
M 12 x 140	S	50	226,00
M 12 x 150	S	50	244,00
M 12 x 160	S	25	475,00
M 12 x 170	S	25	580,00
M 12 x 180	S	25	580,00
M 12 x 190	S	25	700,00
M 12 x 200	S	25	700,00
M 12 x 220	S	25	820,00
M 12 x 240	S	25	900,00
M 12 x 300	S	25	2850,00
M 14 x 16	S	100	250,00
M 14 x 20	S	100	63,00
M 14 x 25	S	100	63,00
M 14 x 30	S	100	71,00
M 14 x 35	S	100	80,00
M 14 x 40	S	100	80,00
M 14 x 45	S	100	87,00
M 14 x 50	S	100	91,00
M 14 x 55	S	100	106,00
M 14 x 60	S	50	106,00
M 14 x 65	S	50	118,00
M 14 x 70	S	50	118,00
M 14 x 75	S	50	147,00
M 14 x 80	S	50	147,00
M 14 x 90	S	50	209,00
M 14 x 100	S	50	239,00
M 14 x 110	S	50	435,00
M 14 x 120	S	50	315,00
M 14 x 130	S	50	510,00
M 14 x 140	S	50	550,00
M 14 x 150	S	50	570,00
M 14 x 160	S	25	710,00
M 14 x 170	S	25	760,00
M 14 x 180	S	25	800,00
M 14 x 200	S	25	870,00
M 14 x 220	S	25	3850,00
M 16 x 12	S	50	201,00
M 16 x 16	S	50	205,00
M 16 x 20	S	50	47,50
M 16 x 25	S	50	47,50
M 16 x 30	S	50	45,00
M 16 x 35	S	50	47,50
M 16 x 40	S	50	49,50
M 16 x 45	S	50	53,00
M 16 x 50	S	50	57,00
M 16 x 55	S	50	69,00
M 16 x 60	S	50	72,00
M 16 x 65	S	25	102,00
M 16 x 70	S	25	102,00
M 16 x 75	S	25	121,00
M 16 x 80	S	25	153,00
M 16 x 85	S	25	199,00
M 16 x 90	S	25	199,00
M 16 x 95	S	25	226,00
M 16 x 100	S	25	226,00
M 16 x 110	S	25	300,00
M 16 x 120	S	25	325,00
M 16 x 130	S	25	335,00
M 16 x 140	S	25	355,00
M 16 x 150	S	25	400,00
M 16 x 160	S	25	660,00
M 16 x 170	S	25	750,00
M 16 x 180	S	25	750,00
M 16 x 190	S	25	900,00
M 16 x 200	S	25	900,00
M 16 x 210	S	25	940,00
M 16 x 220	S	1	970,00
M 16 x 230	S	1	1010,00
M 16 x 240	S	1	1050,00
M 16 x 250	S	1	1320,00
M 16 x 260	S	1	1420,00
M 16 x 280	S	1	1530,00
M 16 x 300	S	1	1780,00
M 16 x 320	S	1	2010,00
M 16 x 340	S	1	2180,00
M 16 x 400	S	1	3350,00
M 16 x 500	S	1	4300,00
M 18 x 20	S	50	285,00
M 18 x 25	S	50	285,00
M 18 x 30	S	50	209,00
M 18 x 35	S	50	215,00
M 18 x 40	S	50	215,00
M 18 x 45	S	50	215,00
M 18 x 50	S	50	222,00
M 18 x 55	S	25	239,00
M 18 x 60	S	25	239,00
M 18 x 65	S	25	255,00
M 18 x 70	S	25	255,00
M 18 x 75	S	25	300,00
M 18 x 80	S	25	300,00
M 18 x 85	S	25	385,00
M 18 x 90	S	25	385,00
M 18 x 100	S	25	385,00
M 18 x 110	S	25	500,00
M 18 x 120	S	25	500,00
M 18 x 130	S	25	870,00
M 18 x 140	S	25	940,00
M 18 x 150	S	25	1010,00
M 18 x 160	S	25	1080,00
M 18 x 170	S	25	1140,00
M 18 x 180	S	25	1200,00
M 18 x 190	S	25	1260,00
M 18 x 200	S	25	1310,00
M 20 x 20	S	25	241,00
M 20 x 25	S	25	182,00
M 20 x 30	S	25	106,00
M 20 x 35	S	25	106,00
M 20 x 40	S	25	99,00
M 20 x 45	S	25	100,00
M 20 x 50	S	25	101,00
M 20 x 55	S	25	107,00
M 20 x 60	S	25	108,00
M 20 x 65	S	25	126,00
M 20 x 70	S	25	130,00
M 20 x 75	S	25	166,00
M 20 x 80	S	25	161,00
M 20 x 85	S	25	240,00
M 20 x 90	S	25	240,00
M 20 x 100	S	25	345,00
M 20 x 110	S	25	380,00
M 20 x 120	S	25	420,00
M 20 x 130	S	25	540,00
M 20 x 140	S	25	630,00
M 20 x 150	S	25	720,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 160	S	10	780,00
M 20 x 170	S	1	1140,00
M 20 x 180	S	1	1200,00
M 20 x 190	S	1	1250,00
M 20 x 200	S	1	1300,00
M 20 x 210	S	1	1580,00
M 20 x 220	S	1	1680,00
M 20 x 230	S	1	1770,00
M 20 x 240	S	1	1860,00
M 20 x 250	S	1	1880,00
M 20 x 260	S	1	1980,00
M 20 x 280	S	1	2100,00
M 20 x 300	S	1	2270,00
M 20 x 360	S	1	4850,00
M 22 x 30	S	25	610,00
M 22 x 35	S	25	610,00
M 22 x 40	S	25	530,00
M 22 x 45	S	25	395,00
M 22 x 50	S	25	395,00
M 22 x 55	S	25	440,00
M 22 x 60	S	25	440,00
M 22 x 65	S	25	540,00
M 22 x 70	S	25	540,00
M 22 x 75	S	25	590,00
M 22 x 80	S	25	590,00
M 22 x 90	S	10	590,00
M 22 x 100	S	10	730,00
M 22 x 110	S	10	880,00
M 22 x 120	S	10	880,00
M 22 x 130	S	10	1130,00
M 22 x 140	S	10	1200,00
M 22 x 150	S	10	1280,00
M 22 x 160	S	10	1440,00
M 22 x 170	S	10	1510,00
M 22 x 180	S	10	1580,00
M 22 x 190	S	10	1650,00
M 22 x 200	S	10	1720,00
M 24 x 25	S	25	530,00
M 24 x 30	S	25	530,00
M 24 x 35	S	25	330,00
M 24 x 40	S	25	183,00
M 24 x 45	S	25	183,00
M 24 x 50	S	25	171,00
M 24 x 55	S	25	181,00
M 24 x 60	S	25	186,00
M 24 x 65	S	25	212,00
M 24 x 70	S	25	212,00
M 24 x 75	S	25	295,00
M 24 x 80	S	25	270,00
M 24 x 85	S	10	415,00
M 24 x 90	S	10	415,00
M 24 x 100	S	10	560,00
M 24 x 110	S	10	650,00
M 24 x 120	S	10	680,00
M 24 x 130	S	1	1150,00
M 24 x 140	S	1	1220,00
M 24 x 150	S	1	1280,00
M 24 x 160	S	1	1350,00
M 24 x 170	S	1	1510,00
M 24 x 180	S	1	1510,00
M 24 x 190	S	1	1750,00
M 24 x 200	S	1	1750,00
M 24 x 210	S	1	1940,00
M 24 x 220	S	1	2010,00
M 24 x 230	S	1	2090,00
M 24 x 240	S	1	2160,00
M 24 x 250	S	1	2240,00
M 24 x 260	S	1	2700,00
M 24 x 280	S	1	2950,00
M 24 x 300	S	1	3100,00
M 24 x 320	S	1	3500,00
M 24 x 500	S	1	8700,00
M 27 x 30	S	10	970,00
M 27 x 40	S	10	970,00
M 27 x 45	S	10	970,00
M 27 x 50	S	10	830,00
M 27 x 55	S	10	830,00
M 27 x 60	S	10	830,00
M 27 x 65	S	10	880,00
M 27 x 70	S	10	880,00
M 27 x 75	S	10	910,00
M 27 x 80	S	10	910,00
M 27 x 85	S	10	960,00
M 27 x 90	S	1	960,00
M 27 x 100	S	1	1020,00
M 27 x 110	S	1	1310,00
M 27 x 120	S	1	1310,00
M 27 x 130	S	1	1320,00
M 27 x 140	S	1	1650,00
M 27 x 150	S	1	1730,00
M 27 x 160	S	1	1930,00
M 27 x 170	S	1	2030,00
M 27 x 180	S	1	2120,00
M 27 x 190	S	1	2210,00
M 27 x 200	S	1	2300,00
M 27 x 300	S	1	4450,00
M 30 x 35	S	1	1090,00
M 30 x 40	S	1	1090,00
M 30 x 45	S	1	1090,00
M 30 x 50	S	1	1090,00
M 30 x 55	S	1	1090,00
M 30 x 60	S	1	1090,00
M 30 x 65	S	1	1170,00
M 30 x 70	S	1	1170,00
M 30 x 75	S	1	1250,00
M 30 x 80	S	1	1250,00
M 30 x 85	S	1	1310,00
M 30 x 90	S	1	1310,00
M 30 x 100	S	1	1360,00
M 30 x 110	S	1	1440,00
M 30 x 120	S	1	1520,00
M 30 x 130	S	1	1650,00
M 30 x 140	S	1	1710,00
M 30 x 150	S	1	1770,00
M 30 x 160	S	1	1980,00
M 30 x 170	S	1	2090,00
M 30 x 180	S	1	2160,00
M 30 x 190	S	1	2240,00
M 30 x 200	S	1	2310,00
M 30 x 210	S	1	2650,00
M 30 x 220	S	1	2700,00
M 30 x 230	S	1	2800,00
M 30 x 240	S	1	2850,00
M 30 x 250	S	1	3350,00
M 30 x 260	S	1	3450,00
M 30 x 280	S	1	3750,00
M 30 x 300	S	1	4100,00
M 30 x 320	S	1	4600,00
M 30 x 340	S	1	4950,00
M 30 x 360	S	1	5400,00
M 30 x 380	S	1	5800,00
M 30 x 400	S	1	6400,00
M 30 x 500	S	1	10100,00
M 30 x 600	S	1	11300,00
M 33 x 40	S	1	1440,00
M 33 x 50	S	1	1440,00
M 33 x 60	S	1	1440,00
M 33 x 65	S	1	1580,00
M 33 x 70	S	1	1580,00
M 33 x 75	S	1	1620,00
M 33 x 80	S	1	1620,00
M 33 x 90	S	1	1710,00
M 33 x 100	S	1	1800,00
M 33 x 110	S	1	1970,00
M 33 x 120	S	1	1970,00
M 33 x 130	S	1	2350,00
M 33 x 140	S	1	2550,00
M 33 x 150	S	1	2700,00
M 33 x 160	S	1	3000,00
M 33 x 170	S	1	3150,00
M 33 x 180	S	1	3250,00
M 33 x 190	S	1	3400,00
M 33 x 200	S	1	3550,00
M 33 x 300	S	1	5100,00
M 36 x 40	S	1	1740,00
M 36 x 45	S	1	1740,00
M 36 x 50	S	1	1740,00
M 36 x 55	S	1	1740,00
M 36 x 60	S	1	1740,00
M 36 x 65	S	1	1810,00
M 36 x 70	S	1	1810,00
M 36 x 75	S	1	1900,00
M 36 x 80	S	1	1900,00
M 36 x 85	S	1	2030,00
M 36 x 90	S	1	2030,00
M 36 x 100	S	1	2160,00
M 36 x 110	S	1	2270,00
M 36 x 120	S	1	2330,00
M 36 x 130	S	1	2500,00
M 36 x 140	S	1	2600,00
M 36 x 150	S	1	2750,00
M 36 x 160	S	1	2850,00
M 36 x 170	S	1	3000,00
M 36 x 180	S	1	3150,00
M 36 x 190	S	1	3300,00
M 36 x 200	S	1	3450,00
M 36 x 220	S	1	4400,00
M 36 x 260	S	1	5300,00
M 36 x 280	S	1	5800,00
M 36 x 300	S	1	6200,00
M 36 x 320	S	1	11000,00
M 36 x 340	S	1	11400,00
M 36 x 400	S	1	12300,00
M 36 x 600	S	1	15400,00
M 39 x 80	S	1	4050,00
M 39 x 90	S	1	4250,00
M 39 x 100	S	1	4550,00
M 39 x 110	S	1	4800,00
M 39 x 120	S	1	5300,00
M 39 x 130	S	1	5400,00
M 39 x 140	S	1	5800,00
M 39 x 150	S	1	6200,00
M 39 x 160	S	1	6800,00
M 39 x 180	S	1	7900,00
M 39 x 190	S	1	8800,00
M 39 x 200	S	1	8800,00
M 42 x 50	S	1	4100,00
M 42 x 55	S	1	4100,00
M 42 x 60	S	1	4100,00
M 42 x 70	S	1	4100,00
M 42 x 75	S	1	4200,00
M 42 x 80	S	1	4200,00
M 42 x 85	S	1	4400,00
M 42 x 90	S	1	4400,00
M 42 x 100	S	1	4600,00
M 42 x 110	S	1	5100,00
M 42 x 120	S	1	5400,00
M 42 x 130	S	1	5600,00
M 42 x 140	S	1	5800,00
M 42 x 150	S	1	6200,00
M 42 x 160	S	1	6300,00
M 42 x 170	S	1	7200,00
M 42 x 180	S	1	7500,00
M 42 x 190	S	1	7800,00
M 42 x 200	S	1	8300,00
M 42 x 220	S	1	9900,00
M 42 x 250	S	1	11500,00
M 42 x 260	S	1	12300,00
M 42 x 300	S	1	14000,00
M 42 x 360	S	1	16000,00
M 42 x 400	S	1	16700,00
M 45 x 90	S	1	7700,00
M 45 x 100	S	1	7900,00
M 45 x 110	S	1	8300,00
M 45 x 120	S	1	8200,00

ISO 4017

Dimensions			PU	Pieces	€/100/Mat.
M 45	x	130	S	1	8800,00
M 45	x	140	S	1	9100,00
M 45	x	150	S	1	9400,00
M 48	x	60	S	1	9400,00
M 48	x	70	S	1	9400,00
M 48	x	80	S	1	9400,00
M 48	x	90	S	1	9400,00
M 48	x	100	S	1	9600,00
M 48	x	110	S	1	10000,00
M 48	x	120	S	1	10300,00
M 48	x	130	S	1	10600,00
M 48	x	140	S	1	10700,00
M 48	x	150	S	1	11000,00
M 48	x	160	S	1	11200,00
M 48	x	170	S	1	12000,00
M 48	x	180	S	1	12900,00
M 48	x	190	S	1	13600,00
M 48	x	200	S	1	14600,00
M 48	x	420	S	1	20400,00

ISO	04017.810	*
4017	**8.8 zinc plated**	



Hexagon head screws

*M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	5	S	500	12,10 ZP
M 3	x	6	S	500	6,00 ZP
M 3	x	8	S	500	6,00 ZP
M 3	x	8	K	100	9,70 ZP
M 3	x	10	S	500	6,10 ZP
M 3	x	10	K	100	9,70 ZP
M 3	x	12	S	500	6,60 ZP
M 3	x	12	K	100	10,30 ZP
M 3	x	16	S	500	6,70 ZP
M 3	x	16	K	100	10,30 ZP
M 3	x	20	S	500	6,90 ZP
M 3	x	20	K	100	10,60 ZP
M 3	x	25	S	500	7,90 ZP
M 3	x	30	S	500	21,00 ZP
M 3	x	35	S	500	48,50 ZP
M 3	x	40	S	500	56,00 ZP
M 3	x	50	S	500	86,00 ZP
M 4	x	6	S	500	6,20 ZP
M 4	x	8	S	500	6,30 ZP
M 4	x	8	K	100	9,90 ZP
M 4	x	10	S	500	6,30 ZP
M 4	x	10	K	100	9,90 ZP
M 4	x	12	S	500	6,90 ZP
M 4	x	12	K	100	10,60 ZP
M 4	x	14	S	500	7,40 ZP
M 4	x	16	S	500	6,90 ZP
M 4	x	16	K	100	10,60 ZP
M 4	x	18	S	500	7,90 ZP
M 4	x	20	S	500	7,40 ZP
M 4	x	20	K	100	11,00 ZP
M 4	x	22	S	500	8,80 ZP
M 4	x	25	S	500	8,30 ZP
M 4	x	25	K	100	11,90 ZP
M 4	x	30	S	500	9,50 ZP
M 4	x	30	K	100	13,10 ZP
M 4	x	35	S	500	10,60 ZP
M 4	x	35	K	100	14,20 ZP
M 4	x	40	S	500	11,50 ZP
M 4	x	40	K	100	15,10 ZP
M 4	x	45	S	500	13,50 ZP
M 4	x	50	S	500	14,60 ZP
M 4	x	55	S	100	65,00 ZP
M 4	x	60	S	100	91,00 ZP
M 4	x	70	S	100	129,00 ZP
M 5	x	6	S	500	16,00 ZP
M 5	x	8	S	500	4,60 ZP
M 5	x	8	K	100	8,30 ZP
M 5	x	10	S	500	4,70 ZP
M 5	x	10	K	100	8,30 ZP
M 5	x	12	S	500	4,85 ZP
M 5	x	12	K	100	8,50 ZP
M 5	x	14	S	500	5,20 ZP
M 5	x	16	S	500	5,00 ZP
M 5	x	16	K	100	8,60 ZP
M 5	x	18	S	500	5,40 ZP
M 5	x	20	S	500	5,40 ZP
M 5	x	20	K	100	8,90 ZP
M 5	x	22	S	500	12,60 ZP
M 5	x	25	S	500	6,10 ZP
M 5	x	25	K	100	9,70 ZP
M 5	x	30	S	500	6,90 ZP
M 5	x	30	K	100	10,60 ZP
M 5	x	35	S	200	7,90 ZP
M 5	x	40	S	200	10,40 ZP
M 5	x	45	S	200	12,00 ZP
M 5	x	50	S	200	13,20 ZP
M 5	x	55	S	200	19,60 ZP
M 5	x	60	S	200	20,00 ZP
M 5	x	65	S	200	59,00 ZP
M 5	x	70	S	200	59,00 ZP
M 5	x	75	S	200	160,00 ZP
M 5	x	80	S	200	88,00 ZP
M 5	x	90	S	200	141,00 ZP
M 5	x	100	S	200	164,00 ZP
M 6	x	6	S	500	23,00 ZP
M 6	x	6	K	100	27,00 ZP
M 6	x	8	S	500	6,90 ZP
M 6	x	8	K	100	10,60 ZP
M 6	x	10	S	500	6,50 ZP
M 6	x	10	K	100	10,20 ZP
M 6	x	12	S	500	6,60 ZP
M 6	x	12	K	100	10,20 ZP
M 6	x	14	S	500	5,90 ZP
M 6	x	16	S	500	6,10 ZP
M 6	x	16	K	100	9,70 ZP
M 6	x	18	S	500	6,30 ZP
M 6	x	18	K	100	10,00 ZP
M 6	x	20	S	500	6,40 ZP
M 6	x	20	K	100	10,10 ZP
M 6	x	22	S	500	6,90 ZP
M 6	x	22	K	100	10,60 ZP
M 6	x	25	S	500	7,10 ZP
M 6	x	25	K	100	10,70 ZP
M 6	x	28	S	500	14,30 ZP
M 6	x	30	S	500	7,70 ZP
M 6	x	30	K	100	11,20 ZP
M 6	x	35	S	200	8,50 ZP
M 6	x	40	S	200	9,40 ZP
M 6	x	45	S	200	12,90 ZP
M 6	x	50	S	200	13,20 ZP
M 6	x	55	S	200	22,20 ZP
M 6	x	60	S	200	24,90 ZP
M 6	x	65	S	200	31,50 ZP
M 6	x	70	S	200	38,50 ZP
M 6	x	75	S	200	45,00 ZP
M 6	x	80	S	200	45,50 ZP
M 6	x	85	S	200	78,00 ZP
M 6	x	90	S	200	78,00 ZP
M 6	x	100	S	200	118,00 ZP
M 6	x	110	S	100	137,00 ZP
M 6	x	120	S	100	147,00 ZP
M 6	x	130	S	100	226,00 ZP
M 6	x	140	S	100	241,00 ZP
M 6	x	150	S	100	290,00 ZP
M 7	x	12	S	500	22,30 ZP
M 7	x	16	S	500	16,90 ZP
M 7	x	20	S	500	18,00 ZP
M 7	x	25	S	500	20,90 ZP
M 7	x	30	S	500	22,60 ZP
M 7	x	40	S	500	27,50 ZP
M 7	x	45	S	200	30,00 ZP
M 8	x	8	S	200	33,00 ZP
M 8	x	10	S	200	12,50 ZP
M 8	x	12	S	200	11,50 ZP
M 8	x	14	S	200	11,70 ZP
M 8	x	16	S	200	9,70 ZP
M 8	x	18	S	200	10,20 ZP
M 8	x	20	S	200	10,30 ZP
M 8	x	22	S	200	11,70 ZP
M 8	x	25	S	200	11,80 ZP
M 8	x	28	S	200	17,20 ZP
M 8	x	30	S	200	12,90 ZP
M 8	x	35	S	200	14,30 ZP
M 8	x	40	S	200	15,70 ZP
M 8	x	45	S	200	18,60 ZP
M 8	x	50	S	200	21,20 ZP
M 8	x	55	S	200	30,00 ZP
M 8	x	60	S	200	32,00 ZP
M 8	x	65	S	200	41,50 ZP
M 8	x	70	S	200	51,00 ZP
M 8	x	75	S	200	60,00 ZP
M 8	x	80	S	200	60,00 ZP
M 8	x	85	S	200	74,00 ZP
M 8	x	90	S	100	70,00 ZP
M 8	x	95	S	100	80,00 ZP
M 8	x	100	S	100	80,00 ZP
M 8	x	110	S	100	101,00 ZP
M 8	x	120	S	100	105,00 ZP
M 8	x	130	S	100	164,00 ZP
M 8	x	140	S	100	201,00 ZP
M 8	x	150	S	100	242,00 ZP
M 8	x	160	S	100	305,00 ZP
M 8	x	170	S	100	350,00 ZP
M 8	x	180	S	100	375,00 ZP
M 8	x	190	S	100	540,00 ZP
M 8	x	200	S	100	490,00 ZP
M 10	x	10	S	200	65,00 ZP
M 10	x	12	S	200	25,50 ZP
M 10	x	14	S	200	18,10 ZP
M 10	x	16	S	200	18,10 ZP
M 10	x	18	S	200	17,40 ZP
M 10	x	20	S	200	17,70 ZP
M 10	x	22	S	200	18,70 ZP
M 10	x	25	S	200	19,10 ZP
M 10	x	28	S	200	22,20 ZP
M 10	x	30	S	200	20,60 ZP
M 10	x	35	S	100	22,70 ZP
M 10	x	40	S	100	24,40 ZP
M 10	x	45	S	100	28,50 ZP
M 10	x	50	S	100	30,00 ZP
M 10	x	55	S	100	39,00 ZP
M 10	x	60	S	100	42,00 ZP
M 10	x	65	S	100	63,00 ZP
M 10	x	70	S	100	64,00 ZP
M 10	x	75	S	100	71,00 ZP
M 10	x	80	S	100	86,00 ZP
M 10	x	85	S	100	100,00 ZP
M 10	x	90	S	100	101,00 ZP
M 10	x	95	S	100	176,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 100	S	100	118,00 ZP
M 10 x 110	S	50	157,00 ZP
M 10 x 120	S	50	161,00 ZP
M 10 x 130	S	50	210,00 ZP
M 10 x 140	S	50	216,00 ZP
M 10 x 150	S	50	239,00 ZP
M 10 x 160	S	50	360,00 ZP
M 10 x 170	S	50	680,00 ZP
M 10 x 180	S	50	670,00 ZP
M 10 x 190	S	50	700,00 ZP
M 10 x 200	S	50	730,00 ZP
M 10 x 220	S	50	1070,00 ZP
M 12 x 12	S	100	142,00 ZP
M 12 x 16	S	100	31,50 ZP
M 12 x 18	S	100	32,00 ZP
M 12 x 20	S	100	29,50 ZP
M 12 x 22	S	100	30,00 ZP
M 12 x 25	S	100	30,50 ZP
M 12 x 28	S	100	38,00 ZP
M 12 x 30	S	100	30,00 ZP
M 12 x 35	S	100	32,50 ZP
M 12 x 40	S	100	35,50 ZP
M 12 x 45	S	100	39,00 ZP
M 12 x 50	S	100	42,00 ZP
M 12 x 55	S	100	51,00 ZP
M 12 x 60	S	100	54,00 ZP
M 12 x 65	S	50	80,00 ZP
M 12 x 70	S	50	81,00 ZP
M 12 x 75	S	50	91,00 ZP
M 12 x 80	S	50	109,00 ZP
M 12 x 85	S	50	129,00 ZP
M 12 x 90	S	50	129,00 ZP
M 12 x 95	S	50	199,00 ZP
M 12 x 100	S	50	144,00 ZP
M 12 x 110	S	50	209,00 ZP
M 12 x 120	S	50	213,00 ZP
M 12 x 130	S	50	255,00 ZP
M 12 x 140	S	50	265,00 ZP
M 12 x 150	S	100	285,00 ZP
M 12 x 160	S	25	520,00 ZP
M 12 x 170	S	25	620,00 ZP
M 12 x 180	S	25	620,00 ZP
M 12 x 190	S	25	750,00 ZP
M 12 x 200	S	25	750,00 ZP
M 12 x 220	S	25	880,00 ZP
M 12 x 240	S	25	950,00 ZP
M 12 x 260	S	25	2650,00 ZP
M 14 x 20	S	100	78,00 ZP
M 14 x 25	S	100	80,00 ZP
M 14 x 30	S	100	89,00 ZP
M 14 x 35	S	100	99,00 ZP
M 14 x 40	S	100	100,00 ZP
M 14 x 45	S	100	110,00 ZP
M 14 x 50	S	100	115,00 ZP
M 14 x 55	S	100	131,00 ZP
M 14 x 60	S	50	132,00 ZP
M 14 x 65	S	50	146,00 ZP
M 14 x 70	S	50	147,00 ZP
M 14 x 75	S	50	177,00 ZP
M 14 x 80	S	50	180,00 ZP
M 14 x 90	S	50	242,00 ZP
M 14 x 100	S	50	280,00 ZP
M 14 x 110	S	50	475,00 ZP
M 14 x 120	S	50	355,00 ZP
M 14 x 130	S	50	570,00 ZP
M 14 x 140	S	50	590,00 ZP
M 14 x 200	S	25	940,00 ZP
M 8 x 200	S	50	220,00 ZP
M 16 x 20	S	50	62,00 ZP
M 16 x 25	S	50	64,00 ZP
M 16 x 30	S	50	63,00 ZP
M 16 x 35	S	50	67,00 ZP
M 16 x 40	S	50	70,00 ZP
M 16 x 45	S	50	75,00 ZP
M 16 x 50	S	50	80,00 ZP
M 16 x 55	S	50	94,00 ZP
M 16 x 60	S	50	99,00 ZP
M 16 x 65	S	25	141,00 ZP
M 16 x 70	S	25	143,00 ZP
M 16 x 75	S	50	164,00 ZP
M 16 x 80	S	25	195,00 ZP
M 16 x 85	S	25	244,00 ZP
M 16 x 90	S	25	245,00 ZP
M 16 x 95	S	25	280,00 ZP
M 16 x 100	S	25	280,00 ZP
M 16 x 110	S	25	355,00 ZP
M 16 x 120	S	25	380,00 ZP
M 16 x 130	S	25	400,00 ZP
M 16 x 140	S	25	420,00 ZP
M 16 x 150	S	25	470,00 ZP
M 16 x 160	S	25	740,00 ZP
M 16 x 170	S	25	820,00 ZP
M 16 x 180	S	25	830,00 ZP
M 16 x 190	S	25	980,00 ZP
M 16 x 200	S	25	990,00 ZP
M 16 x 210	S	25	1050,00 ZP
M 16 x 220	S	1	1070,00 ZP
M 16 x 230	S	1	1110,00 ZP
M 16 x 240	S	1	1150,00 ZP
M 16 x 250	S	1	1430,00 ZP
M 16 x 260	S	1	1550,00 ZP
M 16 x 280	S	1	1680,00 ZP
M 16 x 300	S	1	1940,00 ZP
M 16 x 320	S	1	2170,00 ZP
M 16 x 340	S	1	2360,00 ZP
M 18 x 20	S	50	315,00 ZP
M 18 x 25	S	50	315,00 ZP
M 18 x 30	S	50	240,00 ZP
M 18 x 35	S	50	249,00 ZP
M 18 x 40	S	50	255,00 ZP
M 18 x 45	S	50	255,00 ZP
M 18 x 50	S	50	265,00 ZP
M 18 x 55	S	25	285,00 ZP
M 18 x 60	S	25	285,00 ZP
M 18 x 65	S	25	305,00 ZP
M 18 x 70	S	25	305,00 ZP
M 18 x 75	S	25	350,00 ZP
M 18 x 80	S	25	355,00 ZP
M 18 x 90	S	25	445,00 ZP
M 18 x 100	S	25	450,00 ZP
M 20 x 20	S	25	305,00 ZP
M 20 x 25	S	25	220,00 ZP
M 20 x 30	S	25	137,00 ZP
M 20 x 35	S	25	141,00 ZP
M 20 x 40	S	25	135,00 ZP
M 20 x 45	S	25	138,00 ZP
M 20 x 50	S	25	143,00 ZP
M 20 x 55	S	25	151,00 ZP
M 20 x 60	S	25	154,00 ZP
M 20 x 65	S	25	174,00 ZP
M 20 x 70	S	25	181,00 ZP
M 20 x 75	S	25	217,00 ZP
M 20 x 80	S	25	215,00 ZP
M 20 x 85	S	25	315,00 ZP
M 20 x 90	S	25	320,00 ZP
M 20 x 100	S	25	430,00 ZP
M 20 x 110	S	25	470,00 ZP
M 20 x 120	S	25	520,00 ZP
M 20 x 130	S	25	650,00 ZP
M 20 x 140	S	25	740,00 ZP
M 20 x 150	S	25	830,00 ZP
M 20 x 160	S	10	900,00 ZP
M 20 x 170	S	10	1290,00 ZP
M 20 x 180	S	1	1480,00 ZP
M 20 x 190	S	1	1540,00 ZP
M 20 x 200	S	1	1610,00 ZP
M 20 x 210	S	1	1780,00 ZP
M 20 x 220	S	1	1960,00 ZP
M 20 x 230	S	1	1970,00 ZP
M 20 x 240	S	1	2170,00 ZP
M 20 x 250	S	1	2190,00 ZP
M 20 x 260	S	1	2260,00 ZP
M 20 x 280	S	1	2390,00 ZP
M 20 x 300	S	1	2600,00 ZP
M 20 x 320	S	1	4100,00 ZP
M 20 x 340	S	1	4300,00 ZP
M 20 x 360	S	1	5200,00 ZP
M 20 x 460	S	1	7900,00 ZP
M 22 x 40	S	25	620,00 ZP
M 22 x 50	S	25	460,00 ZP
M 22 x 55	S	25	510,00 ZP
M 22 x 60	S	25	520,00 ZP
M 22 x 65	S	25	620,00 ZP
M 22 x 70	S	25	620,00 ZP
M 22 x 75	S	25	670,00 ZP
M 22 x 80	S	25	680,00 ZP
M 22 x 90	S	25	680,00 ZP
M 22 x 100	S	10	840,00 ZP
M 22 x 110	S	10	990,00 ZP
M 22 x 120	S	10	1000,00 ZP
M 24 x 25	S	25	600,00 ZP
M 24 x 30	S	25	610,00 ZP
M 24 x 35	S	25	400,00 ZP
M 24 x 40	S	25	239,00 ZP
M 24 x 45	S	25	242,00 ZP
M 24 x 50	S	25	233,00 ZP
M 24 x 55	S	25	245,00 ZP
M 24 x 60	S	25	260,00 ZP
M 24 x 65	S	25	285,00 ZP
M 24 x 70	S	25	290,00 ZP
M 24 x 75	S	25	375,00 ZP
M 24 x 80	S	25	355,00 ZP
M 24 x 85	S	25	530,00 ZP
M 24 x 90	S	10	530,00 ZP
M 24 x 95	S	10	890,00 ZP
M 24 x 100	S	10	690,00 ZP
M 24 x 110	S	10	790,00 ZP
M 24 x 120	S	10	820,00 ZP
M 24 x 130	S	1	1300,00 ZP
M 24 x 140	S	1	1390,00 ZP
M 24 x 150	S	1	1460,00 ZP
M 24 x 160	S	1	1540,00 ZP
M 24 x 170	S	1	1740,00 ZP
M 24 x 180	S	1	1700,00 ZP
M 24 x 190	S	1	2000,00 ZP
M 24 x 200	S	1	1970,00 ZP
M 24 x 210	S	1	2160,00 ZP
M 24 x 220	S	1	1970,00 ZP
M 24 x 240	S	1	2470,00 ZP
M 24 x 250	S	1	2550,00 ZP
M 24 x 260	S	1	3050,00 ZP
M 24 x 280	S	1	3300,00 ZP
M 24 x 300	S	1	3450,00 ZP
M 24 x 320	S	1	3900,00 ZP
M 27 x 40	S	10	1200,00 ZP
M 27 x 45	S	10	1460,00 ZP
M 27 x 50	S	10	1330,00 ZP
M 27 x 55	S	10	1340,00 ZP
M 27 x 60	S	10	960,00 ZP
M 27 x 65	S	10	950,00 ZP
M 27 x 70	S	10	1020,00 ZP
M 27 x 75	S	10	1120,00 ZP
M 27 x 80	S	10	1060,00 ZP
M 27 x 90	S	1	1120,00 ZP
M 27 x 100	S	1	1190,00 ZP
M 27 x 110	S	1	1490,00 ZP
M 27 x 120	S	1	1500,00 ZP
M 27 x 130	S	1	1530,00 ZP
M 27 x 140	S	1	1860,00 ZP
M 27 x 150	S	1	1960,00 ZP
M 27 x 160	S	1	2170,00 ZP
M 27 x 180	S	1	2390,00 ZP
M 27 x 200	S	1	2600,00 ZP
M 30 x 35	S	1	1250,00 ZP
M 30 x 40	S	1	1230,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 30 x 45	S	1	1230,00 ZP
M 30 x 50	S	1	1240,00 ZP
M 30 x 55	S	1	1250,00 ZP
M 30 x 60	S	1	1260,00 ZP
M 30 x 65	S	1	1340,00 ZP
M 30 x 70	S	1	1350,00 ZP
M 30 x 75	S	1	1440,00 ZP
M 30 x 80	S	1	1440,00 ZP
M 30 x 85	S	1	1520,00 ZP
M 30 x 90	S	1	1520,00 ZP
M 30 x 100	S	1	1580,00 ZP
M 30 x 110	S	1	1670,00 ZP
M 30 x 120	S	1	1770,00 ZP
M 30 x 130	S	1	1910,00 ZP
M 30 x 140	S	1	1990,00 ZP
M 30 x 150	S	1	2070,00 ZP
M 30 x 160	S	1	2280,00 ZP
M 30 x 170	S	1	2350,00 ZP
M 30 x 180	S	1	2500,00 ZP
M 30 x 190	S	1	2700,00 ZP
M 30 x 200	S	1	2700,00 ZP
M 30 x 210	S	1	2900,00 ZP
M 30 x 220	S	1	3100,00 ZP
M 30 x 240	S	1	3300,00 ZP
M 30 x 260	S	1	4200,00 ZP
M 30 x 280	S	1	4550,00 ZP
M 30 x 300	S	1	4950,00 ZP
M 30 x 320	S	1	5300,00 ZP
M 33 x 60	S	1	1650,00 ZP
M 33 x 70	S	1	1810,00 ZP
M 33 x 75	S	1	1910,00 ZP
M 33 x 80	S	1	1870,00 ZP
M 33 x 90	S	1	1970,00 ZP
M 33 x 100	S	1	2080,00 ZP
M 33 x 110	S	1	2260,00 ZP
M 33 x 120	S	1	2280,00 ZP
M 33 x 130	S	1	2700,00 ZP
M 33 x 140	S	1	2900,00 ZP
M 33 x 150	S	1	3050,00 ZP
M 33 x 160	S	1	3400,00 ZP
M 33 x 170	S	1	3550,00 ZP
M 33 x 180	S	1	3700,00 ZP
M 33 x 190	S	1	3850,00 ZP
M 33 x 200	S	1	4000,00 ZP
M 36 x 50	S	1	1980,00 ZP
M 36 x 55	S	1	1990,00 ZP
M 36 x 60	S	1	2000,00 ZP
M 36 x 70	S	1	2080,00 ZP
M 36 x 75	S	1	2190,00 ZP
M 36 x 80	S	1	2200,00 ZP
M 36 x 85	S	1	2340,00 ZP
M 36 x 90	S	1	2350,00 ZP
M 36 x 100	S	1	2500,00 ZP
M 36 x 110	S	1	2650,00 ZP
M 36 x 120	S	1	2750,00 ZP
M 36 x 130	S	1	2900,00 ZP
M 36 x 140	S	1	3000,00 ZP
M 36 x 150	S	1	3200,00 ZP
M 36 x 160	S	1	3300,00 ZP
M 36 x 170	S	1	3500,00 ZP
M 36 x 180	S	1	3650,00 ZP
M 36 x 190	S	1	3800,00 ZP
M 36 x 200	S	1	4000,00 ZP
M 36 x 220	S	1	5000,00 ZP
M 36 x 280	S	1	5200,00 ZP
M 39 x 80	S	1	4500,00 ZP
M 39 x 90	S	1	4500,00 ZP
M 39 x 100	S	1	5100,00 ZP
M 39 x 110	S	1	5300,00 ZP
M 39 x 120	S	1	5900,00 ZP
M 39 x 130	S	1	6000,00 ZP
M 39 x 140	S	1	6400,00 ZP
M 39 x 150	S	1	6900,00 ZP
M 39 x 160	S	1	7500,00 ZP
M 39 x 180	S	1	8600,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 39 x 200	S	1	9600,00 ZP
M 42 x 50	S	1	4550,00 ZP
M 42 x 60	S	1	4550,00 ZP
M 42 x 70	S	1	4600,00 ZP
M 42 x 75	S	1	4750,00 ZP
M 42 x 80	S	1	4750,00 ZP
M 42 x 90	S	1	4950,00 ZP
M 42 x 100	S	1	5200,00 ZP
M 42 x 110	S	1	5700,00 ZP
M 42 x 120	S	1	6000,00 ZP
M 42 x 130	S	1	6300,00 ZP
M 42 x 140	S	1	6600,00 ZP
M 42 x 150	S	1	7000,00 ZP
M 42 x 160	S	1	7100,00 ZP
M 42 x 170	S	1	8100,00 ZP
M 42 x 180	S	1	8400,00 ZP
M 42 x 190	S	1	8700,00 ZP
M 42 x 200	S	1	9200,00 ZP
M 42 x 220	S	1	10900,00 ZP
M 48 x 60	S	1	10100,00 ZP
M 48 x 70	S	1	10100,00 ZP
M 48 x 80	S	1	10200,00 ZP
M 48 x 90	S	1	10200,00 ZP
M 48 x 100	S	1	10500,00 ZP
M 48 x 110	S	1	10800,00 ZP
M 48 x 120	S	1	11200,00 ZP
M 48 x 130	S	1	11500,00 ZP
M 48 x 140	S	1	11800,00 ZP
M 48 x 150	S	1	12000,00 ZP
M 48 x 200	S	1	19500,00 ZP

ISO	04017.317 *
4017	**8.8** **zinc plated 8 TLP****



Hexagon head screws

*M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401,
**< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 8	S	500	7,50 ZP TLP
M 3 x 10	S	500	7,60 ZP TLP
M 3 x 12	S	500	8,30 ZP TLP
M 3 x 16	S	500	8,30 ZP TLP
M 3 x 20	S	500	8,70 ZP TLP
M 3 x 25	S	500	9,90 ZP TLP
M 4 x 6	S	500	7,80 ZP TLP
M 4 x 10	S	500	7,90 ZP TLP
M 4 x 12	S	500	8,60 ZP TLP
M 4 x 16	S	500	8,70 ZP TLP
M 4 x 20	S	500	9,20 ZP TLP
M 4 x 25	S	500	10,30 ZP TLP
M 4 x 30	S	500	12,00 ZP TLP
M 4 x 35	S	500	13,20 ZP TLP
M 4 x 40	S	500	14,40 ZP TLP
M 5 x 8	S	500	5,80 ZP TLP
M 5 x 10	S	500	5,90 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 12	S	500	6,10 ZP TLP
M 5 x 16	S	500	6,30 ZP TLP
M 5 x 20	S	500	6,70 ZP TLP
M 5 x 25	S	500	7,60 ZP TLP
M 5 x 30	S	500	8,70 ZP TLP
M 5 x 35	S	200	9,90 ZP TLP
M 5 x 40	S	200	13,00 ZP TLP
M 5 x 50	S	200	16,90 ZP TLP
M 6 x 8	S	500	8,60 ZP TLP
M 6 x 10	S	500	8,10 ZP TLP
M 6 x 12	S	500	8,20 ZP TLP
M 6 x 16	S	500	7,60 ZP TLP
M 6 x 18	S	500	7,90 ZP TLP
M 6 x 20	S	500	8,00 ZP TLP
M 6 x 30	S	100	9,60 ZP TLP
M 6 x 35	S	200	10,60 ZP TLP
M 6 x 40	S	200	11,70 ZP TLP
M 6 x 45	S	200	16,10 ZP TLP
M 6 x 50	S	200	16,60 ZP TLP
M 6 x 55	S	200	28,00 ZP TLP
M 6 x 60	S	200	31,50 ZP TLP
M 6 x 65	S	200	39,50 ZP TLP
M 6 x 70	S	200	48,00 ZP TLP
M 6 x 75	S	200	56,00 ZP TLP
M 6 x 80	S	200	57,00 ZP TLP
M 8 x 10	S	200	15,70 ZP TLP
M 8 x 12	S	200	14,40 ZP TLP
M 8 x 16	S	200	12,10 ZP TLP
M 8 x 18	S	200	12,80 ZP TLP
M 8 x 20	S	200	12,90 ZP TLP
M 8 x 22	S	200	14,60 ZP TLP
M 8 x 25	S	200	14,80 ZP TLP
M 8 x 30	S	200	16,10 ZP TLP
M 8 x 35	S	200	17,90 ZP TLP
M 8 x 40	S	200	19,60 ZP TLP
M 8 x 45	S	200	23,20 ZP TLP
M 8 x 50	S	200	26,50 ZP TLP
M 8 x 55	S	200	37,50 ZP TLP
M 8 x 60	S	200	40,00 ZP TLP
M 8 x 65	S	200	52,00 ZP TLP
M 8 x 70	S	200	63,00 ZP TLP
M 8 x 75	S	200	75,00 ZP TLP
M 8 x 80	S	200	75,00 ZP TLP
M 8 x 90	S	100	88,00 ZP TLP
M 8 x 100	S	100	101,00 ZP TLP
M 8 x 110	S	100	126,00 ZP TLP
M 10 x 12	S	200	32,00 ZP TLP
M 10 x 16	S	200	22,60 ZP TLP
M 10 x 20	S	200	22,10 ZP TLP
M 10 x 25	S	200	23,90 ZP TLP
M 10 x 30	S	200	26,00 ZP TLP
M 10 x 35	S	100	28,50 ZP TLP
M 10 x 40	S	100	30,50 ZP TLP
M 10 x 45	S	100	36,00 ZP TLP
M 10 x 50	S	100	37,50 ZP TLP
M 10 x 55	S	100	48,50 ZP TLP
M 10 x 60	S	100	53,00 ZP TLP
M 10 x 65	S	100	79,00 ZP TLP
M 10 x 70	S	100	80,00 ZP TLP
M 10 x 80	S	100	108,00 ZP TLP
M 10 x 90	S	100	126,00 ZP TLP
M 10 x 100	S	100	148,00 ZP TLP
M 10 x 110	S	50	197,00 ZP TLP
M 10 x 120	S	50	203,00 ZP TLP
M 10 x 130	S	50	265,00 ZP TLP
M 12 x 16	S	100	39,50 ZP TLP
M 12 x 20	S	100	37,00 ZP TLP
M 12 x 25	S	100	38,00 ZP TLP
M 12 x 30	S	100	37,50 ZP TLP
M 12 x 35	S	100	41,00 ZP TLP
M 12 x 40	S	100	44,50 ZP TLP
M 12 x 45	S	100	49,00 ZP TLP
M 12 x 50	S	100	53,00 ZP TLP
M 12 x 55	S	100	63,00 ZP TLP
M 12 x 60	S	100	67,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	65	S	50	100,00 ZP TLP
M 12	x	70	S	50	101,00 ZP TLP
M 12	x	75	S	50	113,00 ZP TLP
M 12	x	80	S	50	136,00 ZP TLP
M 12	x	90	S	50	161,00 ZP TLP
M 12	x	100	S	50	181,00 ZP TLP
M 12	x	120	S	50	270,00 ZP TLP
M 14	x	30	S	100	111,00 ZP TLP
M 14	x	35	S	100	124,00 ZP TLP
M 14	x	40	S	100	125,00 ZP TLP
M 14	x	45	S	100	137,00 ZP TLP
M 14	x	50	S	100	144,00 ZP TLP
M 16	x	20	S	50	78,00 ZP TLP
M 16	x	25	S	50	80,00 ZP TLP
M 16	x	30	S	50	78,00 ZP TLP
M 16	x	35	S	50	84,00 ZP TLP
M 16	x	40	S	50	88,00 ZP TLP
M 16	x	45	S	50	94,00 ZP TLP
M 16	x	50	S	50	101,00 ZP TLP
M 16	x	55	S	50	118,00 ZP TLP
M 16	x	60	S	50	125,00 ZP TLP
M 16	x	65	S	25	176,00 ZP TLP
M 16	x	70	S	25	180,00 ZP TLP
M 16	x	75	S	25	205,00 ZP TLP
M 16	x	80	S	25	245,00 ZP TLP
M 16	x	85	S	25	305,00 ZP TLP
M 16	x	90	S	25	310,00 ZP TLP
M 16	x	100	S	25	350,00 ZP TLP
M 16	x	120	S	25	480,00 ZP TLP
M 16	x	130	S	25	500,00 ZP TLP
M 16	x	150	S	25	590,00 ZP TLP
M 20	x	30	S	25	172,00 ZP TLP
M 20	x	35	S	25	176,00 ZP TLP
M 20	x	40	S	25	169,00 ZP TLP
M 20	x	45	S	25	174,00 ZP TLP
M 20	x	50	S	25	180,00 ZP TLP
M 20	x	60	S	25	193,00 ZP TLP
M 20	x	65	S	25	217,00 ZP TLP
M 20	x	70	S	25	227,00 ZP TLP
M 20	x	75	S	25	275,00 ZP TLP
M 20	x	80	S	25	270,00 ZP TLP
M 20	x	90	S	25	400,00 ZP TLP
M 20	x	100	S	25	540,00 ZP TLP
M 20	x	110	S	25	590,00 ZP TLP
M 20	x	120	S	25	650,00 ZP TLP
M 24	x	50	S	25	295,00 ZP TLP
M 24	x	55	S	25	310,00 ZP TLP
M 24	x	60	S	25	320,00 ZP TLP
M 24	x	65	S	25	360,00 ZP TLP
M 24	x	70	S	25	365,00 ZP TLP
M 24	x	75	S	25	465,00 ZP TLP
M 24	x	80	S	25	445,00 ZP TLP
M 24	x	90	S	10	670,00 ZP TLP
M 24	x	100	S	10	860,00 ZP TLP
M 24	x	110	S	10	990,00 ZP TLP
M 30	x	100	S	1	1970,00 ZP TLP
M 30	x	120	S	1	2210,00 ZP TLP

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Dimensions			PU	Pieces	€/100/Mat.
ISO		04017.428			401
4017		**8.8 zinc plated 8 TLP* + SL****			
M 3	x	8	S	500	7,20 ZP TLP
M 3	x	10	S	500	7,30 ZP TLP
M 3	x	12	S	500	8,00 ZP TLP
M 3	x	16	S	500	8,00 ZP TLP
M 3	x	20	S	500	8,30 ZP TLP
M 3	x	25	S	500	9,40 ZP TLP
M 4	x	6	S	500	7,50 ZP TLP
M 4	x	8	S	500	7,50 ZP TLP
M 4	x	10	S	500	7,60 ZP TLP
M 4	x	12	S	500	8,30 ZP TLP
M 4	x	16	S	500	8,30 ZP TLP
M 4	x	20	S	500	8,80 ZP TLP
M 4	x	25	S	500	9,90 ZP TLP
M 4	x	30	S	500	11,40 ZP TLP
M 4	x	35	S	500	12,70 ZP TLP
M 4	x	40	S	500	13,80 ZP TLP
M 5	x	8	S	500	5,60 ZP TLP
M 5	x	10	S	500	5,60 ZP TLP
M 5	x	12	S	500	5,90 ZP TLP
M 5	x	16	S	500	6,00 ZP TLP
M 5	x	20	S	500	6,40 ZP TLP
M 5	x	25	S	500	7,30 ZP TLP
M 5	x	30	S	500	8,30 ZP TLP
M 5	x	35	S	200	9,50 ZP TLP
M 5	x	40	S	200	12,50 ZP TLP
M 5	x	50	S	200	16,20 ZP TLP
M 6	x	8	S	500	8,30 ZP TLP
M 6	x	10	S	500	7,70 ZP TLP
M 6	x	12	S	500	7,90 ZP TLP
M 6	x	16	S	500	7,30 ZP TLP
M 6	x	18	S	500	7,60 ZP TLP
M 6	x	20	S	500	7,70 ZP TLP
M 6	x	22	S	500	7,90 ZP TLP
M 6	x	25	S	500	8,50 ZP TLP
M 6	x	30	S	500	9,20 ZP TLP
M 6	x	35	S	200	10,10 ZP TLP
M 6	x	40	S	200	11,20 ZP TLP
M 6	x	45	S	200	15,40 ZP TLP
M 6	x	50	S	200	15,90 ZP TLP
M 6	x	55	S	200	27,00 ZP TLP
M 6	x	60	S	200	30,00 ZP TLP
M 6	x	65	S	200	37,50 ZP TLP
M 6	x	70	S	200	46,00 ZP TLP
M 6	x	75	S	200	54,00 ZP TLP
M 6	x	80	S	200	55,00 ZP TLP
M 8	x	10	S	200	15,00 ZP TLP
M 8	x	12	S	200	13,80 ZP TLP



Hexagon head screws

*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 – 0,18, salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓
REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	14	S	200	12,80 ZP TLP
M 8	x	16	S	200	11,60 ZP TLP
M 8	x	18	S	200	12,20 ZP TLP
M 8	x	20	S	200	12,40 ZP TLP
M 8	x	22	S	200	14,00 ZP TLP
M 8	x	25	S	200	14,20 ZP TLP
M 8	x	28	S	200	14,70 ZP TLP
M 8	x	30	S	200	15,40 ZP TLP
M 8	x	35	S	200	17,20 ZP TLP
M 8	x	40	S	200	18,80 ZP TLP
M 8	x	45	S	200	22,30 ZP TLP
M 8	x	50	S	200	25,50 ZP TLP
M 8	x	55	S	200	36,00 ZP TLP
M 8	x	60	S	200	38,50 ZP TLP
M 8	x	65	S	200	50,00 ZP TLP
M 8	x	70	S	200	61,00 ZP TLP
M 8	x	75	S	200	72,00 ZP TLP
M 8	x	80	S	200	72,00 ZP TLP
M 8	x	90	S	100	84,00 ZP TLP
M 8	x	100	S	100	96,00 ZP TLP
M 8	x	110	S	100	121,00 ZP TLP
M 10	x	12	S	200	30,50 ZP TLP
M 10	x	16	S	200	21,70 ZP TLP
M 10	x	20	S	200	21,20 ZP TLP
M 10	x	25	S	200	22,90 ZP TLP
M 10	x	28	S	200	23,70 ZP TLP
M 10	x	30	S	200	24,70 ZP TLP
M 10	x	35	S	100	27,50 ZP TLP
M 10	x	40	S	100	29,50 ZP TLP
M 10	x	45	S	100	34,50 ZP TLP
M 10	x	50	S	100	36,00 ZP TLP
M 10	x	55	S	100	46,50 ZP TLP
M 10	x	60	S	100	51,00 ZP TLP
M 10	x	65	S	100	76,00 ZP TLP
M 10	x	70	S	100	77,00 ZP TLP
M 10	x	80	S	100	103,00 ZP TLP
M 10	x	85	S	100	111,00 ZP TLP
M 10	x	90	S	100	121,00 ZP TLP
M 10	x	100	S	100	142,00 ZP TLP
M 10	x	110	S	50	188,00 ZP TLP
M 10	x	120	S	50	194,00 ZP TLP
M 10	x	130	S	50	255,00 ZP TLP
M 10	x	140	S	50	280,00 ZP TLP
M 10	x	180	S	50	910,00 ZP TLP
M 12	x	16	S	100	38,00 ZP TLP
M 12	x	20	S	100	35,50 ZP TLP
M 12	x	25	S	100	36,50 ZP TLP
M 12	x	30	S	100	36,00 ZP TLP
M 12	x	35	S	100	39,00 ZP TLP
M 12	x	40	S	100	43,00 ZP TLP
M 12	x	45	S	100	47,00 ZP TLP
M 12	x	50	S	100	50,00 ZP TLP
M 12	x	55	S	100	61,00 ZP TLP
M 12	x	60	S	100	64,00 ZP TLP
M 12	x	65	S	50	96,00 ZP TLP
M 12	x	70	S	50	97,00 ZP TLP
M 12	x	75	S	50	109,00 ZP TLP
M 12	x	80	S	50	130,00 ZP TLP
M 12	x	85	S	50	150,00 ZP TLP
M 12	x	90	S	50	154,00 ZP TLP
M 12	x	100	S	50	173,00 ZP TLP
M 12	x	110	S	50	250,00 ZP TLP
M 12	x	120	S	50	260,00 ZP TLP
M 12	x	130	S	50	295,00 ZP TLP
M 12	x	140	S	50	335,00 ZP TLP
M 12	x	150	S	50	370,00 ZP TLP
M 12	x	200	S	25	600,00 ZP TLP
M 12	x	220	S	25	680,00 ZP TLP
M 14	x	20	S	100	91,00 ZP TLP
M 14	x	30	S	100	107,00 ZP TLP
M 14	x	35	S	100	118,00 ZP TLP
M 14	x	40	S	100	120,00 ZP TLP
M 14	x	45	S	100	131,00 ZP TLP
M 14	x	50	S	100	138,00 ZP TLP
M 14	x	60	S	50	147,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
M 14	x	150	S	25	174,00 ZP TLP
M 16	x	20	S	50	75,00 ZP TLP
M 16	x	25	S	50	77,00 ZP TLP
M 16	x	30	S	50	75,00 ZP TLP
M 16	x	35	S	50	80,00 ZP TLP
M 16	x	40	S	50	84,00 ZP TLP
M 16	x	45	S	50	90,00 ZP TLP
M 16	x	50	S	50	96,00 ZP TLP
M 16	x	55	S	50	113,00 ZP TLP
M 16	x	60	S	50	119,00 ZP TLP
M 16	x	65	S	25	169,00 ZP TLP
M 16	x	70	S	25	172,00 ZP TLP
M 16	x	75	S	25	197,00 ZP TLP
M 16	x	80	S	25	234,00 ZP TLP
M 16	x	85	S	25	295,00 ZP TLP
M 16	x	90	S	25	295,00 ZP TLP
M 16	x	100	S	25	335,00 ZP TLP
M 16	x	110	S	25	425,00 ZP TLP
M 16	x	120	S	25	460,00 ZP TLP
M 16	x	130	S	25	480,00 ZP TLP
M 16	x	140	S	25	510,00 ZP TLP
M 16	x	150	S	25	570,00 ZP TLP
M 16	x	180	S	25	830,00 ZP TLP
M 16	x	200	S	25	860,00 ZP TLP
M 18	x	100	S	25	255,00 ZP TLP
M 20	x	30	S	25	165,00 ZP TLP
M 20	x	40	S	25	162,00 ZP TLP
M 20	x	45	S	25	166,00 ZP TLP
M 20	x	50	S	25	172,00 ZP TLP
M 20	x	55	S	25	181,00 ZP TLP
M 20	x	60	S	25	185,00 ZP TLP
M 20	x	65	S	25	208,00 ZP TLP
M 20	x	70	S	25	217,00 ZP TLP
M 20	x	75	S	25	260,00 ZP TLP
M 20	x	80	S	25	260,00 ZP TLP
M 20	x	85	S	25	325,00 ZP TLP
M 20	x	90	S	25	385,00 ZP TLP
M 20	x	100	S	25	520,00 ZP TLP
M 20	x	110	S	25	570,00 ZP TLP
M 20	x	120	S	25	620,00 ZP TLP
M 20	x	150	S	25	1030,00 ZP TLP
M 24	x	50	S	25	280,00 ZP TLP
M 24	x	55	S	25	295,00 ZP TLP
M 24	x	60	S	25	310,00 ZP TLP
M 24	x	65	S	25	345,00 ZP TLP
M 24	x	70	S	25	350,00 ZP TLP
M 24	x	75	S	25	445,00 ZP TLP
M 24	x	80	S	25	425,00 ZP TLP
M 24	x	90	S	10	640,00 ZP TLP
M 24	x	100	S	10	820,00 ZP TLP
M 24	x	110	S	10	950,00 ZP TLP
M 30	x	100	S	1	1890,00 ZP TLP
M 30	x	120	S	1	2120,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
ISO		04017.353			1530
4017		**8.8 flZn/TL480h**			



Hexagon head screws

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	S	500	8,40 flZn
M 6	x	12	S	500	8,60 flZn
M 6	x	14	S	500	7,70 flZn
M 6	x	16	S	500	7,90 flZn
M 6	x	18	S	500	8,30 flZn
M 6	x	20	S	500	8,30 flZn
M 6	x	25	S	500	9,20 flZn
M 6	x	30	S	500	10,00 flZn
M 6	x	35	S	200	11,00 flZn
M 6	x	40	S	200	12,20 flZn
M 6	x	45	S	200	16,70 flZn
M 6	x	50	S	200	17,20 flZn
M 6	x	55	S	200	29,00 flZn
M 6	x	60	S	200	32,50 flZn
M 8	x	12	S	200	15,00 flZn
M 8	x	16	S	200	12,60 flZn
M 8	x	20	S	200	13,40 flZn
M 8	x	25	S	200	15,40 flZn
M 8	x	30	S	200	16,70 flZn
M 8	x	35	S	200	18,60 flZn
M 8	x	40	S	200	20,40 flZn
M 8	x	45	S	200	24,10 flZn
M 8	x	50	S	200	27,50 flZn
M 8	x	55	S	200	39,00 flZn
M 8	x	60	S	200	41,50 flZn
M 8	x	65	S	200	54,00 flZn
M 8	x	70	S	200	66,00 flZn
M 10	x	16	S	200	23,50 flZn
M 10	x	20	S	200	23,00 flZn
M 10	x	25	S	200	24,90 flZn
M 10	x	30	S	200	28,00 flZn
M 10	x	35	S	100	30,00 flZn
M 10	x	40	S	100	32,00 flZn
M 10	x	45	S	100	37,00 flZn
M 10	x	50	S	100	39,00 flZn
M 10	x	55	S	100	51,00 flZn
M 10	x	60	S	100	55,00 flZn
M 10	x	65	S	100	82,00 flZn
M 10	x	70	S	100	83,00 flZn
M 10	x	80	S	100	112,00 flZn
M 10	x	90	S	100	131,00 flZn
M 10	x	100	S	100	154,00 flZn
M 12	x	20	S	100	38,50 flZn
M 12	x	25	S	100	39,50 flZn
M 12	x	30	S	100	39,00 flZn
M 12	x	35	S	100	42,50 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	40	S	100	46,50 flZn
M 12	x	45	S	100	51,00 flZn
M 12	x	50	S	100	55,00 flZn
M 12	x	55	S	100	66,00 flZn
M 12	x	60	S	100	70,00 flZn
M 12	x	65	S	50	103,00 flZn
M 12	x	70	S	50	105,00 flZn
M 12	x	75	S	50	118,00 flZn
M 12	x	80	S	50	142,00 flZn
M 12	x	90	S	50	167,00 flZn
M 12	x	100	S	50	188,00 flZn
M 16	x	25	S	50	83,00 flZn
M 16	x	30	S	50	82,00 flZn
M 16	x	35	S	50	87,00 flZn
M 16	x	40	S	50	91,00 flZn
M 16	x	45	S	50	98,00 flZn
M 16	x	50	S	50	109,00 flZn
M 16	x	55	S	50	123,00 flZn
M 16	x	60	S	50	130,00 flZn
M 16	x	65	S	25	183,00 flZn
M 16	x	70	S	25	187,00 flZn
M 16	x	75	S	25	213,00 flZn
M 16	x	80	S	25	255,00 flZn
M 16	x	90	S	25	320,00 flZn
M 16	x	100	S	25	365,00 flZn
M 16	x	110	S	25	460,00 flZn
M 16	x	120	S	25	495,00 flZn
M 20	x	30	S	25	178,00 flZn
M 20	x	35	S	25	183,00 flZn
M 20	x	40	S	25	176,00 flZn
M 20	x	45	S	25	181,00 flZn
M 20	x	50	S	25	187,00 flZn
M 20	x	55	S	25	197,00 flZn
M 20	x	60	S	25	201,00 flZn
M 20	x	65	S	25	226,00 flZn
M 20	x	70	S	25	235,00 flZn
M 20	x	75	S	25	285,00 flZn
M 20	x	80	S	25	280,00 flZn
M 20	x	90	S	25	415,00 flZn
M 20	x	100	S	25	560,00 flZn
M 20	x	110	S	25	610,00 flZn
M 20	x	120	S	25	670,00 flZn
M 24	x	40	S	25	365,00 flZn
M 24	x	45	S	25	315,00 flZn
M 24	x	50	S	25	305,00 flZn
M 24	x	55	S	25	320,00 flZn
M 24	x	60	S	25	455,00 flZn
M 24	x	65	S	25	380,00 flZn
M 24	x	70	S	25	470,00 flZn
M 24	x	75	S	25	485,00 flZn
M 24	x	80	S	25	820,00 flZn
M 24	x	90	S	10	790,00 flZn
M 24	x	100	S	10	890,00 flZn
M 24	x	110	S	10	1030,00 flZn
M 24	x	120	S	10	1070,00 flZn

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU	Pieces	€/100/Mat.
ISO 04017.820 *			
4017 8.8 hot dip galvanized			



Hexagon head screws

*M 10/12/14/22 = RAZ 3230 other ∅ = RAZ 403,
thread tolerance 6h (6az + HDG = U)

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

M 6	x	12	S	500	61,00	HDG
M 6	x	16	S	500	60,00	HDG
M 6	x	20	S	500	63,00	HDG
M 6	x	25	S	500	66,00	HDG
M 6	x	30	S	500	75,00	HDG
M 6	x	35	S	200	79,00	HDG
M 6	x	40	S	200	98,00	HDG
M 8	x	10	S	200	92,00	HDG
M 8	x	12	S	200	28,50	HDG
M 8	x	16	S	200	25,50	HDG
M 8	x	18	S	200	76,00	HDG
M 8	x	20	S	200	27,50	HDG
M 8	x	25	S	200	31,50	HDG
M 8	x	30	S	200	34,50	HDG
M 8	x	35	S	200	38,50	HDG
M 8	x	40	S	200	42,00	HDG
M 8	x	45	S	200	49,00	HDG
M 8	x	50	S	200	55,00	HDG
M 8	x	60	S	200	75,00	HDG
M 8	x	70	S	200	114,00	HDG
M 8	x	80	S	200	135,00	HDG
M 8	x	90	S	100	430,00	HDG
M 8	x	100	S	100	450,00	HDG
M 10	x	12	S	200	62,00	HDG
M 10	x	16	S	200	47,50	HDG
M 10	x	18	S	200	142,00	HDG
M 10	x	20	S	200	47,50	HDG
M 10	x	25	S	200	52,00	HDG
M 10	x	30	S	200	57,00	HDG
M 10	x	35	S	100	62,00	HDG
M 10	x	40	S	100	66,00	HDG
M 10	x	45	S	100	76,00	HDG
M 10	x	50	S	100	81,00	HDG
M 10	x	55	S	100	100,00	HDG
M 10	x	60	S	100	107,00	HDG
M 10	x	70	S	100	148,00	HDG
M 10	x	80	S	100	195,00	HDG
M 10	x	90	S	100	234,00	HDG
M 10	x	100	S	100	270,00	HDG
M 12	x	16	S	100	80,00	HDG
M 12	x	20	S	100	77,00	HDG
M 12	x	25	S	100	80,00	HDG
M 12	x	30	S	100	81,00	HDG
M 12	x	35	S	100	89,00	HDG
M 12	x	40	S	100	96,00	HDG
M 12	x	45	S	100	105,00	HDG
M 12	x	50	S	100	113,00	HDG
M 12	x	55	S	100	132,00	HDG
M 12	x	60	S	100	141,00	HDG
M 12	x	65	S	50	177,00	HDG
M 12	x	70	S	50	193,00	HDG
M 12	x	80	S	50	255,00	HDG
M 12	x	90	S	50	295,00	HDG
M 12	x	100	S	50	330,00	HDG
M 12	x	120	S	50	475,00	HDG
M 16	x	20	S	50	161,00	HDG
M 16	x	25	S	50	167,00	HDG
M 16	x	30	S	50	167,00	HDG
M 16	x	35	S	50	181,00	HDG
M 16	x	40	S	50	193,00	HDG
M 16	x	45	S	50	204,00	HDG
M 16	x	50	S	50	220,00	HDG
M 16	x	55	S	50	255,00	HDG
M 16	x	60	S	50	265,00	HDG
M 16	x	65	S	25	335,00	HDG
M 16	x	70	S	25	340,00	HDG
M 16	x	80	S	25	460,00	HDG
M 16	x	85	S	25	510,00	HDG
M 16	x	90	S	25	570,00	HDG
M 16	x	100	S	25	630,00	HDG
M 16	x	110	S	25	800,00	HDG
M 16	x	120	S	25	860,00	HDG
M 16	x	130	S	25	950,00	HDG
M 16	x	140	S	25	960,00	HDG
M 16	x	150	S	25	1010,00	HDG
M 16	x	160	S	25	1080,00	HDG
M 16	x	170	S	25	1140,00	HDG
M 16	x	180	S	25	1190,00	HDG
M 16	x	200	S	25	1310,00	HDG
M 16	x	220	S	1	1380,00	HDG
M 16	x	240	S	1	1540,00	HDG
M 16	x	260	S	1	1640,00	HDG
M 16	x	280	S	1	1770,00	HDG
M 16	x	300	S	1	2180,00	HDG
M 20	x	30	S	25	350,00	HDG
M 20	x	35	S	25	365,00	HDG
M 20	x	40	S	25	360,00	HDG
M 20	x	45	S	25	370,00	HDG
M 20	x	50	S	25	385,00	HDG
M 20	x	55	S	25	410,00	HDG
M 20	x	60	S	25	420,00	HDG
M 20	x	65	S	25	470,00	HDG
M 20	x	70	S	25	480,00	HDG
M 20	x	75	S	25	540,00	HDG
M 20	x	80	S	25	570,00	HDG
M 20	x	90	S	25	750,00	HDG
M 20	x	100	S	25	980,00	HDG
M 20	x	110	S	25	1010,00	HDG
M 20	x	120	S	25	1180,00	HDG
M 20	x	130	S	1	1380,00	HDG
M 20	x	140	S	1	1780,00	HDG
M 20	x	150	S	1	1880,00	HDG
M 20	x	160	S	1	1940,00	HDG
M 20	x	180	S	1	2180,00	HDG
M 24	x	40	S	25	620,00	HDG
M 24	x	45	S	25	630,00	HDG
M 24	x	50	S	25	620,00	HDG
M 24	x	55	S	25	660,00	HDG
M 24	x	60	S	25	690,00	HDG
M 24	x	65	S	25	750,00	HDG
M 24	x	70	S	25	770,00	HDG
M 24	x	80	S	25	920,00	HDG
M 24	x	90	S	10	1230,00	HDG
M 24	x	100	S	10	1560,00	HDG
M 24	x	110	S	10	2900,00	HDG
M 24	x	120	S	10	3550,00	HDG
M 24	x	130	S	10	4200,00	HDG
M 24	x	140	S	10	4500,00	HDG
M 24	x	150	S	1	4950,00	HDG
M 24	x	180	S	1	6400,00	HDG
M 30	x	60	S	1	2800,00	HDG
M 30	x	70	S	1	3000,00	HDG
M 30	x	80	S	1	3250,00	HDG
M 30	x	90	S	1	3450,00	HDG
M 30	x	100	S	1	3700,00	HDG
M 30	x	120	S	1	3850,00	HDG
M 30	x	130	S	1	3950,00	HDG
M 30	x	140	S	1	4050,00	HDG
M 30	x	150	S	1	4100,00	HDG
M 30	x	160	S	1	4400,00	HDG
M 30	x	170	S	1	4550,00	HDG
M 30	x	180	S	1	4600,00	HDG
M 30	x	190	S	1	4700,00	HDG
M 30	x	200	S	1	4750,00	HDG

ISO 04017.809 1400			
4017 8.8 AD W7 –50 up to +300 °C			



Hexagon head screws, applicable from –50 up to +300 °C

with inspection certificate 3.1,
prices are plus certificate costs

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

M 8	x	12	S	200	12,00	
M 8	x	16	S	200	9,30	
M 8	x	20	S	200	9,80	
M 8	x	25	S	200	11,30	
M 8	x	30	S	200	12,20	
M 8	x	35	S	200	13,60	
M 8	x	40	S	200	14,80	
M 8	x	45	S	200	18,10	
M 8	x	50	S	200	21,10	
M 8	x	70	S	200	55,00	
M 10	x	16	S	200	17,90	
M 10	x	20	S	200	16,70	
M 10	x	25	S	200	17,90	
M 10	x	30	S	200	19,00	
M 10	x	35	S	100	21,10	
M 10	x	40	S	100	22,60	
M 10	x	45	S	100	27,00	
M 10	x	50	S	100	28,50	
M 10	x	60	S	100	42,50	
M 10	x	65	S	100	65,00	
M 10	x	70	S	100	65,00	
M 10	x	80	S	100	91,00	
M 10	x	90	S	100	110,00	
M 10	x	100	S	100	130,00	
M 12	x	20	S	100	29,50	
M 12	x	25	S	100	29,50	
M 12	x	30	S	100	28,00	
M 12	x	35	S	100	30,50	
M 12	x	40	S	100	33,00	
M 12	x	45	S	100	36,50	
M 12	x	50	S	100	39,00	
M 12	x	55	S	100	49,00	
M 12	x	60	S	100	53,00	
M 12	x	65	S	50	79,00	
M 12	x	70	S	50	79,00	
M 12	x	75	S	50	90,00	
M 12	x	80	S	50	114,00	

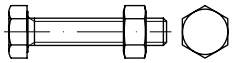
Dimensions			PU	Pieces	€/100/Mat.
M 12	x	90	S	50	136,00
M 12	x	100	S	50	152,00
M 16	x	25	S	50	62,00
M 16	x	30	S	50	59,00
M 16	x	35	S	50	62,00
M 16	x	40	S	50	65,00
M 16	x	45	S	50	68,00
M 16	x	50	S	50	74,00
M 16	x	55	S	50	89,00
M 16	x	60	S	50	94,00
M 16	x	65	S	25	134,00
M 16	x	70	S	25	134,00
M 16	x	75	S	25	158,00
M 16	x	80	S	25	199,00
M 16	x	90	S	25	260,00
M 16	x	100	S	25	295,00
M 20	x	30	S	25	138,00
M 20	x	35	S	25	138,00
M 20	x	40	S	25	129,00
M 20	x	45	S	25	131,00
M 20	x	50	S	25	133,00
M 20	x	55	S	25	139,00
M 20	x	60	S	25	141,00
M 20	x	65	S	25	164,00
M 20	x	70	S	25	169,00
M 20	x	75	S	25	217,00
M 20	x	80	S	25	210,00
M 20	x	90	S	25	315,00
M 20	x	100	S	25	445,00
M 20	x	120	S	25	550,00
M 24	x	40	S	25	238,00
M 24	x	45	S	25	238,00
M 24	x	50	S	25	222,00
M 24	x	55	S	25	235,00
M 24	x	60	S	25	242,00
M 24	x	65	S	25	280,00
M 24	x	70	S	25	280,00
M 24	x	80	S	25	355,00
M 24	x	90	S	10	540,00
M 24	x	100	S	10	730,00
M 24	x	120	S	10	880,00
M 27	x	65	S	10	1150,00
M 27	x	90	S	1	1250,00
M 27	x	100	S	1	1330,00

RKP®
REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions			PU	Pieces	€/100/Mat.
ISO		04017.813			401
4017		**Mu 8.8 zinc plated**			**SB**



Hexagon head screws, Mu = with hexagon nuts ISO 4032, SB = acc. to EN 15048

for bolted fastenings by steel structures that are not preloaded,
with inspection certificate 3.1,
prices are plus certificate costs

Dimensions → TI-15
Material properties → TI-232
Corrosion protection → TI-228
Tightening torque → TI-248
Standard conversion → TI-6

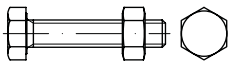
CE RoHS ✓ REACh SVHC free

Declaration of performance → www.reyher.de

M 10	x	16	S	200	59,00 ZP
M 10	x	20	S	200	62,00 ZP
M 10	x	25	S	200	66,00 ZP
M 10	x	30	S	200	69,00 ZP
M 10	x	35	S	100	74,00 ZP
M 10	x	40	S	100	78,00 ZP
M 10	x	45	S	100	83,00 ZP
M 10	x	50	S	100	88,00 ZP
M 10	x	55	S	100	91,00 ZP
M 10	x	60	S	100	96,00 ZP
M 10	x	65	S	100	100,00 ZP
M 10	x	70	S	100	105,00 ZP
M 10	x	80	S	100	113,00 ZP
M 10	x	90	S	100	121,00 ZP
M 10	x	100	S	100	130,00 ZP
M 12	x	20	S	100	94,00 ZP
M 12	x	25	S	100	100,00 ZP
M 12	x	30	S	100	106,00 ZP
M 12	x	35	S	100	112,00 ZP
M 12	x	40	S	100	115,00 ZP
M 12	x	45	S	100	121,00 ZP
M 12	x	50	S	100	128,00 ZP
M 12	x	55	S	100	134,00 ZP
M 12	x	60	S	100	138,00 ZP
M 12	x	65	S	50	146,00 ZP
M 12	x	70	S	50	152,00 ZP
M 12	x	80	S	50	164,00 ZP
M 12	x	90	S	50	177,00 ZP
M 12	x	100	S	50	189,00 ZP
M 16	x	25	S	50	209,00 ZP
M 16	x	30	S	50	221,00 ZP
M 16	x	35	S	50	232,00 ZP
M 16	x	40	S	50	240,00 ZP
M 16	x	45	S	50	255,00 ZP
M 16	x	50	S	50	265,00 ZP
M 16	x	55	S	50	275,00 ZP
M 16	x	60	S	50	285,00 ZP
M 16	x	65	S	25	295,00 ZP
M 16	x	70	S	25	305,00 ZP
M 16	x	75	S	50	320,00 ZP
M 16	x	80	S	25	330,00 ZP
M 16	x	90	S	25	350,00 ZP
M 16	x	100	S	25	375,00 ZP
M 16	x	110	S	25	405,00 ZP
M 16	x	120	S	25	425,00 ZP
M 20	x	30	S	25	405,00 ZP
M 20	x	35	S	25	425,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	40	S	25	435,00 ZP
M 20	x	45	S	25	450,00 ZP
M 20	x	50	S	25	470,00 ZP
M 20	x	55	S	25	485,00 ZP
M 20	x	60	S	25	510,00 ZP
M 20	x	65	S	25	520,00 ZP
M 20	x	70	S	25	540,00 ZP
M 20	x	75	S	25	560,00 ZP
M 20	x	80	S	25	580,00 ZP
M 20	x	90	S	25	610,00 ZP
M 20	x	100	S	25	650,00 ZP
M 20	x	110	S	25	690,00 ZP
M 20	x	120	S	25	720,00 ZP
M 24	x	40	S	25	720,00 ZP
M 24	x	45	S	25	750,00 ZP
M 24	x	50	S	25	780,00 ZP
M 24	x	55	S	25	800,00 ZP
M 24	x	60	S	25	830,00 ZP
M 24	x	65	S	25	850,00 ZP
M 24	x	70	S	25	880,00 ZP
M 24	x	80	S	25	930,00 ZP
M 24	x	90	S	10	980,00 ZP
M 24	x	100	S	10	1030,00 ZP
M 24	x	110	S	10	1090,00 ZP
M 24	x	120	S	10	1140,00 ZP

ISO		04017.827			403
4017		**Mu 8.8 hot dip galvanized**			**SB**



Hexagon head screws, Mu = with hexagon nuts ISO 4032, SB = acc. to EN 15048

for bolted fastenings by steel structures that are not preloaded,
with inspection certificate 3.1,
prices are plus certificate costs

washers → ISO 7090 300HV HDG

Dimensions → TI-15
Material properties → TI-232
Corrosion protection → TI-231
Tightening torque → TI-248
Standard conversion → TI-6

CE RoHS ✓ REACh SVHC free

Declaration of performance → www.reyher.de

M 8	x	16	S	200	102,00 HDG
M 8	x	20	S	200	107,00 HDG
M 8	x	25	S	200	113,00 HDG
M 8	x	30	S	200	118,00 HDG
M 8	x	35	S	200	124,00 HDG
M 8	x	40	S	200	130,00 HDG
M 8	x	45	S	200	140,00 HDG
M 8	x	50	S	200	146,00 HDG
M 8	x	60	S	200	166,00 HDG
M 8	x	70	S	200	180,00 HDG
M 8	x	80	S	200	201,00 HDG
M 8	x	90	S	100	220,00 HDG
M 8	x	100	S	100	249,00 HDG
M 10	x	16	S	200	91,00 HDG
M 10	x	20	S	200	100,00 HDG
M 10	x	25	S	200	104,00 HDG
M 10	x	30	S	200	111,00 HDG
M 10	x	35	S	100	119,00 HDG
M 10	x	40	S	100	125,00 HDG
M 10	x	45	S	100	134,00 HDG
M 10	x	50	S	100	138,00 HDG
M 10	x	55	S	100	164,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	60	S	100	187,00 HDG
M 10	x	65	S	100	217,00 HDG
M 10	x	70	S	100	242,00 HDG
M 10	x	80	S	100	325,00 HDG
M 10	x	90	S	100	370,00 HDG
M 10	x	100	S	100	405,00 HDG
M 10	x	110	S	50	355,00 HDG
M 10	x	120	S	50	370,00 HDG
M 12	x	20	S	100	144,00 HDG
M 12	x	25	S	100	152,00 HDG
M 12	x	30	S	100	161,00 HDG
M 12	x	35	S	100	169,00 HDG
M 12	x	40	S	100	176,00 HDG
M 12	x	45	S	100	186,00 HDG
M 12	x	50	S	100	195,00 HDG
M 12	x	55	S	100	228,00 HDG
M 12	x	60	S	100	235,00 HDG
M 12	x	65	S	50	300,00 HDG
M 12	x	70	S	50	335,00 HDG
M 12	x	80	S	50	420,00 HDG
M 12	x	90	S	50	480,00 HDG
M 12	x	100	S	50	520,00 HDG
M 12	x	120	S	50	460,00 HDG
M 16	x	25	S	50	355,00 HDG
M 16	x	30	S	50	350,00 HDG
M 16	x	35	S	50	360,00 HDG
M 16	x	40	S	50	375,00 HDG
M 16	x	45	S	50	390,00 HDG
M 16	x	50	S	50	450,00 HDG
M 16	x	55	S	50	470,00 HDG
M 16	x	60	S	50	485,00 HDG
M 16	x	65	S	25	610,00 HDG
M 16	x	70	S	25	630,00 HDG
M 16	x	75	S	25	730,00 HDG
M 16	x	80	S	25	800,00 HDG
M 16	x	90	S	25	960,00 HDG
M 16	x	100	S	25	1090,00 HDG
M 16	x	110	S	25	1300,00 HDG
M 16	x	120	S	25	1410,00 HDG
M 16	x	130	S	25	790,00 HDG
M 16	x	140	S	25	830,00 HDG
M 16	x	150	S	25	860,00 HDG
M 16	x	160	S	25	890,00 HDG
M 16	x	170	S	25	1340,00 HDG
M 16	x	180	S	25	1370,00 HDG
M 16	x	200	S	25	1440,00 HDG
M 20	x	30	S	25	670,00 HDG
M 20	x	35	S	25	680,00 HDG
M 20	x	40	S	25	680,00 HDG
M 20	x	45	S	25	710,00 HDG
M 20	x	50	S	25	730,00 HDG
M 20	x	55	S	25	760,00 HDG
M 20	x	60	S	25	790,00 HDG
M 20	x	65	S	25	820,00 HDG
M 20	x	70	S	25	850,00 HDG
M 20	x	75	S	25	910,00 HDG
M 20	x	80	S	25	990,00 HDG
M 20	x	90	S	25	1250,00 HDG
M 20	x	100	S	25	1620,00 HDG
M 20	x	110	S	25	1760,00 HDG
M 20	x	120	S	25	1820,00 HDG
M 20	x	130	S	1	1230,00 HDG
M 20	x	140	S	1	1280,00 HDG
M 20	x	150	S	1	1320,00 HDG
M 20	x	160	S	1	1670,00 HDG
M 20	x	180	S	1	1780,00 HDG
M 20	x	200	S	1	1890,00 HDG
M 24	x	40	S	25	1140,00 HDG
M 24	x	45	S	25	1140,00 HDG
M 24	x	50	S	25	1230,00 HDG
M 24	x	55	S	25	1270,00 HDG
M 24	x	60	S	25	1340,00 HDG
M 24	x	65	S	25	1380,00 HDG
M 24	x	70	S	25	1410,00 HDG
M 24	x	80	S	25	1660,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	90	S	10	2200,00 HDG
M 24	x	100	S	10	2700,00 HDG
M 24	x	110	S	10	4800,00 HDG
M 24	x	120	S	10	5800,00 HDG
M 24	x	130	S	10	1890,00 HDG
M 24	x	140	S	10	1980,00 HDG
M 24	x	150	S	1	2050,00 HDG
M 24	x	160	S	1	2600,00 HDG
M 24	x	180	S	1	2900,00 HDG
M 24	x	200	S	1	3100,00 HDG
M 27	x	40	S	1	1400,00 HDG
M 27	x	45	S	1	1430,00 HDG
M 27	x	50	S	1	1480,00 HDG
M 27	x	55	S	1	1490,00 HDG
M 27	x	60	S	1	1540,00 HDG
M 27	x	65	S	1	1590,00 HDG
M 27	x	70	S	1	1640,00 HDG
M 27	x	80	S	1	1740,00 HDG
M 27	x	90	S	1	1840,00 HDG
M 27	x	100	S	1	1940,00 HDG
M 27	x	110	S	1	3400,00 HDG
M 27	x	120	S	1	3600,00 HDG
M 27	x	130	S	1	4500,00 HDG
M 27	x	140	S	1	4750,00 HDG
M 27	x	150	S	1	4950,00 HDG
M 27	x	160	S	1	5100,00 HDG
M 27	x	180	S	1	5600,00 HDG
M 27	x	200	S	1	5900,00 HDG
M 30	x	60	S	1	3300,00 HDG
M 30	x	70	S	1	3300,00 HDG
M 30	x	80	S	1	3450,00 HDG
M 30	x	90	S	1	3650,00 HDG
M 30	x	100	S	1	3800,00 HDG
M 30	x	120	S	1	4100,00 HDG
M 30	x	130	S	1	4250,00 HDG
M 30	x	140	S	1	4450,00 HDG
M 30	x	150	S	1	4550,00 HDG
M 30	x	160	S	1	4750,00 HDG
M 30	x	170	S	1	4950,00 HDG
M 30	x	180	S	1	5100,00 HDG
M 30	x	190	S	1	5300,00 HDG
M 30	x	200	S	1	5400,00 HDG
M 36	x	60	S	1	3650,00 HDG
M 36	x	70	S	1	3700,00 HDG
M 36	x	80	S	1	3700,00 HDG
M 36	x	90	S	1	3900,00 HDG
M 36	x	100	S	1	4150,00 HDG
M 36	x	120	S	1	4450,00 HDG
M 36	x	130	S	1	4600,00 HDG
M 36	x	140	S	1	4800,00 HDG
M 36	x	150	S	1	5000,00 HDG
M 36	x	160	S	1	5200,00 HDG
M 36	x	170	S	1	5400,00 HDG
M 36	x	180	S	1	5600,00 HDG
M 36	x	190	S	1	5700,00 HDG
M 36	x	200	S	1	5900,00 HDG

RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions	PU	Pieces	€/100/Mat.
ISO	04017.100		*

4017

10.9



Hexagon head screws

*M 10/12/14/22 = RAZ 3250 other ∅ = RAZ 405

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	10	S	500	8,20
M 5	x	12	S	500	8,40
M 5	x	14	S	500	8,80
M 5	x	16	S	500	9,00
M 5	x	18	S	500	9,20
M 5	x	22	S	500	9,50
M 5	x	22	S	500	9,70
M 5	x	25	S	500	10,00
M 5	x	30	S	500	11,50
M 5	x	35	S	200	13,10
M 6	x	10	S	500	22,50
M 6	x	12	S	500	13,80
M 6	x	12	K	100	17,50
M 6	x	16	S	500	11,80
M 6	x	16	K	100	15,50
M 6	x	18	S	500	12,60
M 6	x	20	S	500	12,60
M 6	x	20	K	100	16,20
M 6	x	22	S	500	13,10
M 6	x	25	S	500	13,10
M 6	x	25	K	100	16,70
M 6	x	30	S	500	15,80
M 6	x	30	K	100	20,10
M 6	x	35	S	200	18,00
M 6	x	40	S	200	19,70
M 6	x	45	S	200	77,00
M 6	x	50	S	200	92,00
M 6	x	55	S	200	107,00
M 6	x	60	S	200	123,00
M 6	x	70	S	200	236,00
M 6	x	80	S	200	255,00
M 8	x	12	S	200	23,00
M 8	x	16	S	200	16,40
M 8	x	18	S	200	17,10
M 8	x	20	S	200	17,70
M 8	x	22	S	200	19,60
M 8	x	25	S	200	20,70
M 8	x	30	S	200	20,70
M 8	x	35	S	200	24,40
M 8	x	40	S	200	26,50
M 8	x	45	S	200	39,00
M 8	x	50	S	200	42,50
M 8	x	55	S	200	55,00
M 8	x	60	S	200	55,00
M 8	x	65	S	200	138,00
M 8	x	70	S	200	138,00
M 8	x	75	S	200	170,00
M 8	x	80	S	200	170,00
M 8	x	90	S	100	222,00
M 8	x	100	S	100	325,00

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 110	S	100	445,00
M 8 x 120	S	100	500,00
M 8 x 130	S	100	690,00
M 8 x 140	S	100	750,00
M 8 x 150	S	100	780,00
M 8 x 180	S	100	940,00
M 10 x 12	S	200	47,00
M 10 x 16	S	200	33,50
M 10 x 18	S	200	33,50
M 10 x 20	S	200	29,50
M 10 x 22	S	200	31,50
M 10 x 25	S	200	31,50
M 10 x 30	S	200	33,00
M 10 x 35	S	100	35,50
M 10 x 40	S	100	37,50
M 10 x 45	S	100	44,50
M 10 x 50	S	100	50,00
M 10 x 55	S	100	83,00
M 10 x 60	S	100	83,00
M 10 x 65	S	100	176,00
M 10 x 70	S	100	194,00
M 10 x 75	S	100	223,00
M 10 x 80	S	100	223,00
M 10 x 90	S	100	335,00
M 10 x 100	S	100	415,00
M 10 x 110	S	50	480,00
M 10 x 120	S	50	660,00
M 10 x 130	S	50	750,00
M 10 x 140	S	50	810,00
M 10 x 150	S	50	860,00
M 10 x 200	S	50	1180,00
M 12 x 16	S	100	190,00
M 12 x 20	S	100	55,00
M 12 x 25	S	100	51,00
M 12 x 30	S	100	54,00
M 12 x 35	S	100	56,00
M 12 x 40	S	100	59,00
M 12 x 45	S	100	67,00
M 12 x 50	S	100	70,00
M 12 x 55	S	100	97,00
M 12 x 60	S	100	104,00
M 12 x 65	S	50	170,00
M 12 x 70	S	50	215,00
M 12 x 75	S	50	295,00
M 12 x 80	S	50	295,00
M 12 x 90	S	50	390,00
M 12 x 100	S	50	460,00
M 12 x 110	S	50	530,00
M 12 x 120	S	50	590,00
M 12 x 130	S	50	760,00
M 12 x 140	S	50	830,00
M 12 x 150	S	50	870,00
M 12 x 160	S	25	910,00
M 12 x 170	S	25	940,00
M 12 x 180	S	25	1020,00
M 12 x 200	S	25	1190,00
M 14 x 25	S	100	101,00
M 14 x 30	S	100	96,00
M 14 x 35	S	100	99,00
M 14 x 40	S	100	104,00
M 14 x 45	S	50	108,00
M 14 x 50	S	50	113,00
M 14 x 55	S	50	138,00
M 14 x 60	S	50	138,00
M 14 x 65	S	50	245,00
M 14 x 70	S	50	245,00
M 14 x 75	S	50	280,00
M 14 x 80	S	50	340,00
M 14 x 90	S	50	490,00
M 14 x 100	S	50	590,00
M 14 x 110	S	50	880,00
M 14 x 120	S	50	920,00
M 14 x 160	S	25	1340,00
M 14 x 200	S	25	1740,00
M 16 x 20	S	50	176,00

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 25	S	50	110,00
M 16 x 30	S	50	110,00
M 16 x 35	S	50	110,00
M 16 x 40	S	50	120,00
M 16 x 45	S	50	123,00
M 16 x 50	S	50	136,00
M 16 x 55	S	50	147,00
M 16 x 60	S	50	147,00
M 16 x 65	S	25	310,00
M 16 x 70	S	25	310,00
M 16 x 75	S	25	395,00
M 16 x 80	S	25	325,00
M 16 x 90	S	25	460,00
M 16 x 100	S	25	590,00
M 16 x 110	S	25	660,00
M 16 x 120	S	25	720,00
M 16 x 130	S	25	810,00
M 16 x 140	S	25	870,00
M 16 x 150	S	25	910,00
M 16 x 160	S	25	960,00
M 16 x 170	S	25	1010,00
M 16 x 180	S	25	1060,00
M 16 x 190	S	25	1160,00
M 16 x 200	S	25	1250,00
M 16 x 220	S	1	1390,00
M 16 x 240	S	1	1730,00
M 16 x 260	S	1	1890,00
M 16 x 280	S	1	2050,00
M 16 x 300	S	1	2200,00
M 18 x 30	S	50	300,00
M 18 x 35	S	50	300,00
M 18 x 40	S	50	270,00
M 18 x 45	S	50	290,00
M 18 x 50	S	50	295,00
M 18 x 55	S	25	305,00
M 18 x 60	S	25	320,00
M 18 x 65	S	25	730,00
M 18 x 70	S	25	840,00
M 18 x 75	S	25	840,00
M 18 x 80	S	25	1030,00
M 18 x 90	S	25	1050,00
M 18 x 100	S	25	1070,00
M 18 x 120	S	25	1210,00
M 18 x 130	S	25	1310,00
M 18 x 160	S	25	1610,00
M 18 x 200	S	25	1980,00
M 20 x 30	S	25	440,00
M 20 x 35	S	25	300,00
M 20 x 40	S	25	270,00
M 20 x 45	S	25	290,00
M 20 x 50	S	25	295,00
M 20 x 55	S	25	305,00
M 20 x 60	S	25	320,00
M 20 x 65	S	25	610,00
M 20 x 70	S	25	620,00
M 20 x 75	S	25	640,00
M 20 x 80	S	25	640,00
M 20 x 90	S	25	640,00
M 20 x 100	S	25	680,00
M 20 x 110	S	25	1050,00
M 20 x 120	S	25	1060,00
M 20 x 130	S	25	1220,00
M 20 x 140	S	25	1300,00
M 20 x 150	S	25	1390,00
M 20 x 160	S	25	1490,00
M 20 x 170	S	25	1580,00
M 20 x 180	S	25	1680,00
M 20 x 190	S	25	1750,00
M 20 x 200	S	1	1830,00
M 20 x 210	S	1	2130,00
M 20 x 220	S	1	2130,00
M 20 x 240	S	1	2390,00
M 20 x 260	S	1	2650,00
M 20 x 280	S	1	3000,00
M 20 x 300	S	1	3250,00

Dimensions	PU	Pieces	€/100/Mat.
M 22 x 50	S	25	1050,00
M 22 x 55	S	25	1230,00
M 22 x 60	S	25	1050,00
M 22 x 65	S	25	1230,00
M 22 x 70	S	25	1290,00
M 22 x 75	S	25	1360,00
M 22 x 80	S	25	1400,00
M 22 x 90	S	25	1530,00
M 22 x 100	S	10	1580,00
M 22 x 110	S	10	1780,00
M 22 x 120	S	10	1910,00
M 22 x 130	S	10	2100,00
M 22 x 140	S	10	2240,00
M 22 x 150	S	10	2360,00
M 22 x 200	S	10	3250,00
M 24 x 30	S	25	630,00
M 24 x 35	S	25	630,00
M 24 x 40	S	25	475,00
M 24 x 45	S	25	475,00
M 24 x 50	S	25	780,00
M 24 x 55	S	25	780,00
M 24 x 60	S	25	780,00
M 24 x 65	S	25	790,00
M 24 x 70	S	25	810,00
M 24 x 75	S	25	820,00
M 24 x 80	S	25	830,00
M 24 x 90	S	10	840,00
M 24 x 100	S	10	880,00
M 24 x 110	S	10	980,00
M 24 x 120	S	10	1050,00
M 24 x 130	S	1	1400,00
M 24 x 140	S	1	1490,00
M 24 x 150	S	1	1580,00
M 24 x 160	S	1	1740,00
M 24 x 170	S	1	1870,00
M 24 x 180	S	1	1960,00
M 24 x 190	S	1	2040,00
M 24 x 200	S	1	2140,00
M 24 x 210	S	1	2390,00
M 24 x 220	S	1	2390,00
M 24 x 240	S	1	2800,00
M 24 x 260	S	1	3200,00
M 24 x 280	S	1	3700,00
M 24 x 300	S	1	4000,00
M 27 x 50	S	10	1050,00
M 27 x 55	S	10	1050,00
M 27 x 60	S	10	1050,00
M 27 x 65	S	10	1060,00
M 27 x 70	S	10	1090,00
M 27 x 75	S	10	1110,00
M 27 x 80	S	10	1120,00
M 27 x 90	S	10	1140,00
M 27 x 100	S	10	1190,00
M 27 x 110	S	10	1320,00
M 27 x 120	S	10	1390,00
M 27 x 130	S	1	1460,00
M 27 x 140	S	1	1610,00
M 27 x 150	S	1	1690,00
M 27 x 160	S	1	1880,00
M 27 x 180	S	1	2080,00
M 27 x 200	S	1	2250,00
M 30 x 40	S	1	1140,00
M 30 x 50	S	1	1140,00
M 30 x 55	S	1	1140,00
M 30 x 60	S	1	1200,00
M 30 x 65	S	1	1230,00
M 30 x 70	S	1	1250,00
M 30 x 75	S	1	1270,00
M 30 x 80	S	1	1290,00
M 30 x 90	S	1	1340,00
M 30 x 100	S	1	1420,00
M 30 x 110	S	1	1590,00
M 30 x 120	S	1	1690,00
M 30 x 130	S	1	1780,00
M 30 x 140	S	1	1930,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	150	S	1	2040,00
M 30	x	160	S	1	2280,00
M 30	x	170	S	1	3350,00
M 30	x	180	S	1	3200,00
M 30	x	190	S	1	3650,00
M 30	x	200	S	1	3450,00
M 33	x	100	S	1	3900,00
M 33	x	160	S	1	4750,00
M 33	x	200	S	1	5700,00
M 36	x	40	S	1	2040,00
M 36	x	50	S	1	2040,00
M 36	x	55	S	1	2040,00
M 36	x	60	S	1	2040,00
M 36	x	65	S	1	2040,00
M 36	x	70	S	1	2080,00
M 36	x	75	S	1	2130,00
M 36	x	80	S	1	2170,00
M 36	x	90	S	1	2250,00
M 36	x	100	S	1	2350,00
M 36	x	110	S	1	2600,00
M 36	x	120	S	1	2750,00
M 36	x	130	S	1	2900,00
M 36	x	140	S	1	3150,00
M 36	x	150	S	1	3250,00
M 36	x	160	S	1	3650,00
M 36	x	170	S	1	4550,00
M 36	x	180	S	1	3950,00
M 36	x	190	S	1	4950,00
M 36	x	200	S	1	4250,00
M 42	x	100	S	1	5900,00
M 42	x	110	S	1	6600,00
M 42	x	130	S	1	7300,00
M 42	x	200	S	1	10800,00

ISO	04017.110	*
4017	**10.9** **zinc plated**	



Hexagon head screws

*M 10/12/14/22 = RAZ 3250 other ∅ = RAZ 405, baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	S	500	24,40 ZP
M 6	x	12	S	500	15,90 ZP
M 6	x	16	S	500	14,20 ZP
M 6	x	20	S	500	15,30 ZP
M 6	x	22	S	500	16,10 ZP
M 6	x	25	S	500	16,20 ZP
M 6	x	30	S	500	19,30 ZP
M 6	x	35	S	500	22,10 ZP
M 6	x	40	S	500	24,10 ZP
M 6	x	45	S	200	81,00 ZP
M 6	x	50	S	200	97,00 ZP
M 6	x	55	S	200	112,00 ZP
M 6	x	60	S	200	127,00 ZP
M 8	x	12	S	200	28,00 ZP
M 8	x	16	S	200	21,40 ZP
M 8	x	18	S	200	22,70 ZP
M 8	x	20	S	200	23,30 ZP
M 8	x	22	S	200	26,50 ZP
M 8	x	25	S	200	27,00 ZP
M 8	x	30	S	200	28,00 ZP
M 8	x	35	S	200	32,50 ZP
M 8	x	40	S	200	35,00 ZP
M 8	x	45	S	200	49,50 ZP
M 8	x	50	S	200	53,00 ZP
M 8	x	55	S	200	66,00 ZP
M 8	x	60	S	200	68,00 ZP
M 8	x	70	S	200	152,00 ZP
M 8	x	75	S	200	184,00 ZP
M 8	x	80	S	200	182,00 ZP
M 8	x	100	S	100	340,00 ZP
M 10	x	12	S	200	56,00 ZP
M 10	x	16	S	200	43,00 ZP
M 10	x	18	S	200	43,00 ZP
M 10	x	20	S	200	39,50 ZP
M 10	x	25	S	200	42,50 ZP
M 10	x	30	S	200	45,50 ZP
M 10	x	35	S	100	48,00 ZP
M 10	x	40	S	100	52,00 ZP
M 10	x	45	S	200	61,00 ZP
M 10	x	50	S	100	67,00 ZP
M 10	x	55	S	100	98,00 ZP
M 10	x	60	S	100	102,00 ZP
M 10	x	70	S	100	216,00 ZP
M 10	x	75	S	100	247,00 ZP
M 10	x	80	S	100	247,00 ZP
M 10	x	90	S	100	360,00 ZP
M 10	x	100	S	100	445,00 ZP
M 10	x	110	S	50	510,00 ZP
M 12	x	20	S	100	69,00 ZP
M 12	x	25	S	100	66,00 ZP
M 12	x	30	S	100	70,00 ZP
M 12	x	35	S	100	75,00 ZP
M 12	x	40	S	100	80,00 ZP
M 12	x	45	S	100	88,00 ZP
M 12	x	50	S	100	88,00 ZP
M 12	x	55	S	100	120,00 ZP
M 12	x	60	S	100	132,00 ZP
M 12	x	65	S	50	200,00 ZP
M 12	x	70	S	50	246,00 ZP
M 12	x	75	S	50	270,00 ZP
M 12	x	80	S	50	310,00 ZP
M 12	x	90	S	50	425,00 ZP
M 12	x	100	S	50	510,00 ZP
M 12	x	110	S	100	570,00 ZP
M 12	x	120	S	100	630,00 ZP
M 12	x	130	S	50	770,00 ZP
M 12	x	140	S	50	880,00 ZP
M 12	x	150	S	50	930,00 ZP
M 12	x	160	S	25	970,00 ZP
M 12	x	180	S	25	1090,00 ZP
M 12	x	200	S	25	1270,00 ZP
M 14	x	30	S	100	125,00 ZP
M 14	x	35	S	100	129,00 ZP
M 14	x	40	S	100	136,00 ZP
M 14	x	45	S	50	141,00 ZP
M 14	x	50	S	50	151,00 ZP
M 14	x	60	S	50	181,00 ZP
M 14	x	65	S	50	295,00 ZP
M 14	x	70	S	50	295,00 ZP
M 14	x	80	S	50	395,00 ZP
M 14	x	90	S	50	550,00 ZP
M 16	x	20	S	50	208,00 ZP
M 16	x	25	S	50	142,00 ZP
M 16	x	30	S	50	146,00 ZP
M 16	x	35	S	50	151,00 ZP
M 16	x	40	S	50	161,00 ZP
M 16	x	45	S	50	166,00 ZP
M 16	x	50	S	50	182,00 ZP
M 16	x	55	S	50	197,00 ZP
M 16	x	60	S	50	201,00 ZP
M 16	x	65	S	25	365,00 ZP
M 16	x	70	S	25	365,00 ZP
M 16	x	75	S	25	385,00 ZP
M 16	x	80	S	25	390,00 ZP
M 16	x	90	S	25	540,00 ZP
M 16	x	100	S	25	670,00 ZP
M 16	x	110	S	25	750,00 ZP
M 16	x	120	S	25	820,00 ZP
M 16	x	140	S	25	970,00 ZP
M 16	x	150	S	25	1020,00 ZP
M 16	x	160	S	25	1080,00 ZP
M 16	x	170	S	25	1130,00 ZP
M 16	x	180	S	25	1190,00 ZP
M 16	x	190	S	25	1290,00 ZP
M 16	x	200	S	25	1390,00 ZP
M 16	x	220	S	1	1550,00 ZP
M 16	x	240	S	1	1900,00 ZP
M 16	x	260	S	1	2070,00 ZP
M 16	x	280	S	1	2240,00 ZP
M 16	x	300	S	1	2410,00 ZP
M 18	x	40	S	50	330,00 ZP
M 18	x	45	S	50	350,00 ZP
M 18	x	50	S	50	355,00 ZP
M 18	x	55	S	25	370,00 ZP
M 18	x	60	S	25	390,00 ZP
M 18	x	70	S	25	900,00 ZP
M 20	x	30	S	25	510,00 ZP
M 20	x	35	S	25	285,00 ZP
M 20	x	40	S	25	345,00 ZP
M 20	x	45	S	25	365,00 ZP
M 20	x	50	S	25	375,00 ZP
M 20	x	55	S	25	385,00 ZP
M 20	x	60	S	25	410,00 ZP
M 20	x	65	S	25	710,00 ZP
M 20	x	70	S	25	720,00 ZP
M 20	x	75	S	25	750,00 ZP
M 20	x	80	S	25	750,00 ZP
M 20	x	90	S	25	760,00 ZP
M 20	x	100	S	25	810,00 ZP
M 20	x	110	S	25	1200,00 ZP
M 20	x	120	S	25	1210,00 ZP
M 20	x	130	S	25	1380,00 ZP
M 20	x	140	S	25	1470,00 ZP
M 20	x	150	S	25	1570,00 ZP
M 20	x	160	S	25	1680,00 ZP
M 20	x	170	S	25	1780,00 ZP
M 20	x	180	S	25	1890,00 ZP
M 20	x	190	S	25	1970,00 ZP
M 20	x	200	S	25	2060,00 ZP
M 20	x	210	S	1	2370,00 ZP
M 20	x	220	S	1	2380,00 ZP
M 20	x	240	S	1	2700,00 ZP
M 20	x	260	S	1	2950,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042). Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU Pieces	€/100/Mat.
ISO	04017.354	1540
4017	**10.9 flZn/TL480h**	



Hexagon head screws

TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

M 6	x	10	S	500	28,50 flZn
M 6	x	12	S	500	18,30 flZn
M 6	x	16	S	500	16,40 flZn
M 6	x	20	S	500	17,60 flZn
M 6	x	22	S	500	18,50 flZn
M 6	x	25	S	500	18,60 flZn
M 6	x	30	S	500	22,30 flZn
M 6	x	35	S	200	25,50 flZn
M 6	x	40	S	200	28,00 flZn
M 6	x	45	S	200	93,00 flZn
M 6	x	50	S	200	111,00 flZn
M 6	x	55	S	200	129,00 flZn
M 6	x	60	S	200	147,00 flZn
M 8	x	12	S	200	32,50 flZn
M 8	x	16	S	200	24,60 flZn
M 8	x	20	S	200	27,00 flZn
M 8	x	25	S	200	31,00 flZn
M 8	x	30	S	200	32,00 flZn
M 8	x	35	S	200	37,50 flZn
M 8	x	40	S	200	40,00 flZn
M 8	x	45	S	200	57,00 flZn
M 8	x	50	S	200	61,00 flZn
M 8	x	55	S	200	76,00 flZn
M 8	x	60	S	200	78,00 flZn
M 8	x	70	S	200	174,00 flZn
M 10	x	16	S	200	49,50 flZn
M 10	x	20	S	200	45,50 flZn
M 10	x	25	S	200	49,00 flZn
M 10	x	30	S	200	52,00 flZn
M 10	x	35	S	100	56,00 flZn
M 10	x	40	S	100	60,00 flZn
M 10	x	45	S	100	70,00 flZn
M 10	x	50	S	100	77,00 flZn
M 10	x	55	S	100	113,00 flZn
M 10	x	60	S	100	117,00 flZn
M 10	x	70	S	100	249,00 flZn
M 10	x	80	S	100	285,00 flZn
M 10	x	90	S	100	415,00 flZn
M 10	x	100	S	100	510,00 flZn
M 12	x	20	S	100	80,00 flZn
M 12	x	25	S	100	76,00 flZn
M 12	x	30	S	100	81,00 flZn
M 12	x	35	S	100	86,00 flZn
M 12	x	40	S	100	92,00 flZn
M 12	x	45	S	100	102,00 flZn
M 12	x	50	S	100	107,00 flZn
M 12	x	55	S	100	138,00 flZn
M 12	x	60	S	100	153,00 flZn
M 12	x	65	S	50	230,00 flZn
M 12	x	70	S	50	285,00 flZn
M 12	x	80	S	50	380,00 flZn
M 12	x	90	S	50	490,00 flZn
M 12	x	100	S	50	580,00 flZn
M 16	x	25	S	50	164,00 flZn
M 16	x	30	S	50	167,00 flZn
M 16	x	35	S	50	174,00 flZn
M 16	x	40	S	50	186,00 flZn
M 16	x	45	S	50	192,00 flZn
M 16	x	50	S	50	210,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	232,00 flZn
M 16	x	65	S	25	420,00 flZn
M 16	x	70	S	25	420,00 flZn
M 16	x	75	S	25	435,00 flZn
M 16	x	80	S	25	450,00 flZn
M 16	x	90	S	25	620,00 flZn
M 16	x	100	S	25	770,00 flZn
M 16	x	110	S	25	860,00 flZn
M 16	x	120	S	25	940,00 flZn
M 20	x	30	S	25	580,00 flZn
M 20	x	35	S	25	330,00 flZn
M 20	x	40	S	25	395,00 flZn
M 20	x	45	S	25	420,00 flZn
M 20	x	50	S	25	430,00 flZn
M 20	x	55	S	25	445,00 flZn
M 20	x	60	S	25	470,00 flZn
M 20	x	65	S	25	810,00 flZn
M 20	x	70	S	25	830,00 flZn
M 20	x	75	S	25	860,00 flZn
M 20	x	80	S	25	860,00 flZn
M 20	x	90	S	25	870,00 flZn
M 20	x	100	S	25	930,00 flZn
M 20	x	110	S	25	1380,00 flZn
M 20	x	120	S	25	1390,00 flZn
M 24	x	40	S	25	680,00 flZn
M 24	x	45	S	25	690,00 flZn
M 24	x	50	S	25	1030,00 flZn
M 24	x	55	S	25	1050,00 flZn
M 24	x	60	S	25	1050,00 flZn
M 24	x	65	S	25	1080,00 flZn
M 24	x	70	S	25	1110,00 flZn
M 24	x	75	S	25	1130,00 flZn
M 24	x	80	S	25	1140,00 flZn
M 24	x	90	S	10	1160,00 flZn
M 24	x	100	S	10	1230,00 flZn
M 24	x	110	S	10	1370,00 flZn
M 24	x	120	S	10	1470,00 flZn
M 24	x	160	S	1	2250,00 flZn

Dimensions	PU Pieces	€/100/Mat.
ISO	04017.133	1540
4017	**10.9 flZnL480h**	



Hexagon head screws

flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

M 6	x	10	S	500	28,50 flZn
M 6	x	12	S	500	18,30 flZn
M 6	x	16	S	500	16,40 flZn
M 6	x	20	S	500	17,60 flZn
M 6	x	22	S	500	18,50 flZn
M 6	x	25	S	500	18,60 flZn
M 6	x	30	S	500	22,30 flZn
M 6	x	35	S	200	25,50 flZn
M 6	x	40	S	200	28,00 flZn
M 6	x	45	S	200	93,00 flZn
M 6	x	50	S	200	111,00 flZn
M 6	x	55	S	200	129,00 flZn
M 6	x	60	S	200	147,00 flZn
M 8	x	12	S	200	32,50 flZn
M 8	x	16	S	200	24,60 flZn
M 8	x	20	S	200	27,00 flZn
M 8	x	22	S	200	28,50 flZn
M 8	x	25	S	200	31,00 flZn
M 8	x	30	S	200	32,00 flZn
M 8	x	35	S	200	37,50 flZn
M 8	x	40	S	200	40,00 flZn
M 8	x	45	S	200	57,00 flZn
M 8	x	50	S	200	61,00 flZn
M 8	x	55	S	200	76,00 flZn
M 8	x	60	S	200	78,00 flZn
M 8	x	70	S	200	174,00 flZn
M 10	x	16	S	200	49,50 flZn
M 10	x	20	S	200	45,50 flZn
M 10	x	25	S	200	49,00 flZn
M 10	x	30	S	200	52,00 flZn
M 10	x	35	S	100	56,00 flZn
M 10	x	40	S	100	60,00 flZn
M 10	x	45	S	100	70,00 flZn
M 10	x	50	S	100	77,00 flZn
M 10	x	55	S	100	113,00 flZn
M 10	x	60	S	100	117,00 flZn
M 10	x	65	S	100	200,00 flZn
M 10	x	70	S	100	249,00 flZn
M 10	x	80	S	100	285,00 flZn
M 10	x	90	S	100	415,00 flZn
M 10	x	100	S	100	510,00 flZn
M 12	x	20	S	100	80,00 flZn
M 12	x	25	S	100	76,00 flZn
M 12	x	30	S	100	81,00 flZn
M 12	x	35	S	100	86,00 flZn
M 12	x	40	S	100	92,00 flZn
M 12	x	45	S	100	102,00 flZn
M 12	x	50	S	100	107,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	55	S	100	138,00 flZn
M 12	x	60	S	100	153,00 flZn
M 12	x	65	S	50	230,00 flZn
M 12	x	70	S	50	285,00 flZn
M 12	x	80	S	50	380,00 flZn
M 12	x	90	S	50	490,00 flZn
M 12	x	100	S	50	580,00 flZn
M 12	x	110	S	50	670,00 flZn
M 12	x	130	S	50	790,00 flZn
M 14	x	45	S	50	164,00 flZn
M 16	x	25	S	50	164,00 flZn
M 16	x	30	S	50	167,00 flZn
M 16	x	35	S	50	174,00 flZn
M 16	x	40	S	50	186,00 flZn
M 16	x	45	S	50	192,00 flZn
M 16	x	50	S	50	210,00 flZn
M 16	x	55	S	50	227,00 flZn
M 16	x	60	S	50	232,00 flZn
M 16	x	65	S	25	420,00 flZn
M 16	x	70	S	25	420,00 flZn
M 16	x	75	S	25	435,00 flZn
M 16	x	80	S	25	450,00 flZn
M 16	x	90	S	25	620,00 flZn
M 16	x	100	S	25	770,00 flZn
M 16	x	110	S	25	860,00 flZn
M 16	x	120	S	25	940,00 flZn
M 18	x	80	S	25	620,00 flZn
M 20	x	30	S	25	580,00 flZn
M 20	x	35	S	25	330,00 flZn
M 20	x	40	S	25	395,00 flZn
M 20	x	45	S	25	420,00 flZn
M 20	x	50	S	25	430,00 flZn
M 20	x	55	S	25	445,00 flZn
M 20	x	60	S	25	470,00 flZn
M 20	x	65	S	25	810,00 flZn
M 20	x	70	S	25	830,00 flZn
M 20	x	75	S	25	860,00 flZn
M 20	x	80	S	25	860,00 flZn
M 20	x	90	S	25	870,00 flZn
M 20	x	100	S	25	930,00 flZn
M 20	x	110	S	25	1380,00 flZn
M 20	x	120	S	25	1390,00 flZn
M 24	x	40	S	25	680,00 flZn
M 24	x	45	S	25	690,00 flZn
M 24	x	50	S	25	1030,00 flZn
M 24	x	55	S	25	1050,00 flZn
M 24	x	60	S	25	1050,00 flZn
M 24	x	65	S	25	1080,00 flZn
M 24	x	70	S	25	1110,00 flZn
M 24	x	75	S	25	1130,00 flZn
M 24	x	80	S	25	1140,00 flZn
M 24	x	90	S	10	1160,00 flZn
M 24	x	100	S	10	1230,00 flZn
M 24	x	110	S	10	1370,00 flZn
M 24	x	120	S	10	1470,00 flZn
M 30	x	110	S	1	1920,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
ISO	04017.200		*

4017 12.9



Hexagon head screws

*M 10/12/14/22 = RAZ 3260 other ∅ = RAZ 406

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

M 6	x	12	S	500	103,00
M 6	x	16	S	500	106,00
M 6	x	20	S	500	108,00
M 6	x	25	S	500	128,00
M 6	x	30	S	500	136,00
M 8	x	16	S	200	114,00
M 8	x	20	S	200	114,00
M 8	x	25	S	200	135,00
M 8	x	30	S	200	143,00
M 8	x	35	S	200	151,00
M 8	x	40	S	200	172,00
M 8	x	45	S	200	189,00
M 8	x	50	S	200	224,00
M 8	x	60	S	200	246,00
M 10	x	20	S	200	120,00
M 10	x	25	S	200	142,00
M 10	x	30	S	200	152,00
M 10	x	35	S	100	158,00
M 10	x	40	S	100	181,00
M 10	x	45	S	100	199,00
M 10	x	50	S	100	236,00
M 10	x	60	S	100	260,00
M 12	x	25	S	100	158,00
M 12	x	30	S	100	199,00
M 12	x	35	S	100	236,00
M 12	x	40	S	100	260,00
M 12	x	45	S	100	280,00
M 12	x	50	S	100	365,00
M 12	x	60	S	100	395,00
M 14	x	35	S	100	280,00
M 14	x	40	S	100	440,00
M 14	x	50	S	50	630,00
M 16	x	30	S	50	315,00
M 16	x	35	S	50	340,00
M 16	x	40	S	50	360,00
M 16	x	45	S	50	385,00
M 16	x	50	S	50	395,00
M 16	x	60	S	50	495,00
M 16	x	70	S	25	520,00
M 16	x	80	S	25	560,00
M 16	x	90	S	25	610,00
M 16	x	100	S	25	670,00
M 20	x	40	S	25	395,00
M 20	x	45	S	25	480,00
M 20	x	50	S	25	560,00
M 20	x	55	S	25	630,00
M 20	x	60	S	25	680,00
M 20	x	70	S	25	730,00
M 20	x	80	S	25	770,00
M 20	x	90	S	25	790,00

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	100	S	25	880,00
M 24	x	60	S	25	1200,00
M 24	x	70	S	25	1260,00
M 24	x	80	S	25	1430,00
M 24	x	90	S	10	1470,00
M 24	x	100	S	10	1900,00

ISO	04017.270	1545

4017 12.9 flZnL480h



Hexagon head screws

flZnL = int. lubricant with μ = 0,12 - 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 534
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

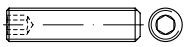
M 6	x	12	S	500	151,00 flZn
M 6	x	16	S	500	154,00 flZn
M 6	x	20	S	500	158,00 flZn
M 6	x	25	S	500	186,00 flZn
M 6	x	30	S	500	198,00 flZn
M 8	x	16	S	200	166,00 flZn
M 8	x	20	S	200	166,00 flZn
M 8	x	25	S	200	195,00 flZn
M 8	x	30	S	200	209,00 flZn
M 8	x	35	S	200	218,00 flZn
M 8	x	40	S	200	250,00 flZn
M 10	x	20	S	200	175,00 flZn
M 10	x	25	S	200	206,00 flZn
M 10	x	30	S	200	221,00 flZn
M 10	x	35	S	100	229,00 flZn
M 10	x	40	S	100	265,00 flZn
M 10	x	50	S	100	345,00 flZn
M 10	x	60	S	100	385,00 flZn
M 12	x	25	S	100	229,00 flZn
M 12	x	30	S	100	290,00 flZn
M 12	x	35	S	100	345,00 flZn
M 12	x	40	S	100	385,00 flZn
M 12	x	50	S	100	530,00 flZn
M 12	x	60	S	100	580,00 flZn
M 16	x	30	S	50	460,00 flZn
M 16	x	35	S	50	500,00 flZn
M 16	x	40	S	50	530,00 flZn
M 16	x	45	S	50	560,00 flZn
M 16	x	50	S	50	580,00 flZn
M 16	x	60	S	50	720,00 flZn
M 20	x	40	S	25	580,00 flZn
M 20	x	45	S	25	710,00 flZn
M 20	x	50	S	25	1320,00 flZn
M 20	x	60	S	25	1400,00 flZn

ISO 4026

Dimensions	PU Pieces	€/100/Mat.
ISO	04026.200	370

4026

45 H



Hexagon socket set screws with flat point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Standard conversion ➔ TI-6
Material properties ➔ TI-232
REACH ➔ TI-262
Stainless ➔ pg. 541

ISO 4026 ➔ replaces DIN 913

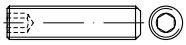
RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 1,6	x	2	S	500	305,00
M 1,6	x	2,5	S	500	128,00
M 1,6	x	3	S	500	113,00
M 1,6	x	4	S	500	112,00
M 1,6	x	5	S	500	118,00
M 1,6	x	6	S	500	118,00
M 1,6	x	8	S	500	119,00
M 1,6	x	10	S	500	119,00
M 2	x	2	S	500	112,00
M 2	x	3	S	500	101,00
M 2	x	4	S	500	103,00
M 2	x	5	S	500	105,00
M 2	x	6	S	500	108,00
M 2	x	8	S	500	114,00
M 2	x	10	S	500	123,00
M 2,5	x	3	S	500	83,00
M 2,5	x	4	S	500	86,00
M 2,5	x	5	S	500	89,00
M 2,5	x	6	S	500	94,00
M 2,5	x	8	S	500	97,00
M 2,5	x	10	S	500	101,00
M 3	x	3	S	1000	9,40
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	6	K	200	9,10
M 3	x	8	S	1000	9,50
M 3	x	8	K	200	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	3	S	1000	7,70
M 4	x	4	S	1000	8,20
M 4	x	5	S	1000	7,80
M 4	x	6	S	1000	7,90
M 4	x	6	K	200	7,90
M 4	x	8	S	1000	8,20
M 4	x	8	K	200	8,20
M 4	x	10	S	1000	8,40
M 4	x	10	K	200	8,40
M 4	x	12	S	1000	8,90
M 4	x	16	S	1000	10,10
M 4	x	16	K	200	10,10
M 4	x	20	S	500	10,30
M 4	x	25	S	500	17,00
M 4	x	30	S	200	45,00
M 4	x	35	S	200	62,00
M 4	x	40	S	200	73,00
M 5	x	4	S	1000	11,90
M 5	x	5	S	1000	8,90
M 5	x	6	S	1000	8,60
M 5	x	8	S	1000	8,90
M 5	x	8	K	200	8,90
M 5	x	10	S	1000	9,20
M 5	x	10	K	200	9,20
M 5	x	12	S	1000	9,90
M 5	x	16	S	1000	10,70
M 5	x	18	S	500	11,80
M 5	x	20	S	500	11,80
M 5	x	25	S	500	17,20
M 5	x	30	S	200	19,00
M 5	x	35	S	200	26,00
M 5	x	40	S	200	29,50
M 6	x	4	S	1000	19,40
M 6	x	5	S	1000	13,20
M 6	x	6	S	1000	10,10
M 6	x	6	K	200	10,10
M 6	x	8	S	1000	9,40
M 6	x	8	K	200	9,40
M 6	x	10	S	1000	9,60
M 6	x	10	K	200	9,60
M 6	x	12	S	1000	10,10
M 6	x	12	K	200	10,10
M 6	x	16	S	500	11,30
M 6	x	16	K	200	11,30
M 6	x	18	S	500	12,90
M 6	x	20	S	500	12,90
M 6	x	20	K	200	12,90
M 6	x	25	S	200	17,60
M 6	x	30	S	200	19,30
M 6	x	35	S	200	23,50
M 6	x	40	S	200	28,00
M 6	x	45	S	200	33,00
M 6	x	50	S	200	36,50
M 6	x	55	S	100	91,00
M 6	x	60	S	100	41,00
M 6	x	70	S	100	184,00
M 8	x	6	S	500	15,30
M 8	x	8	S	500	11,70
M 8	x	8	K	200	11,70
M 8	x	10	S	500	10,90
M 8	x	12	S	500	11,80
M 8	x	16	S	200	13,00
M 8	x	18	S	200	15,50
M 8	x	20	S	200	15,50
M 8	x	25	S	200	20,30
M 8	x	30	S	200	24,60
M 8	x	35	S	200	27,00
M 8	x	40	S	200	34,50
M 8	x	45	S	100	41,50
M 8	x	50	S	100	47,50
M 8	x	55	S	100	68,00
M 8	x	60	S	100	68,00
M 8	x	70	S	100	78,00
M 8	x	80	S	100	92,00
M 10	x	8	S	200	22,80
M 10	x	10	S	200	17,20
M 10	x	12	S	200	15,90
M 10	x	16	S	200	18,20
M 10	x	18	S	200	21,50
M 10	x	20	S	200	21,50
M 10	x	25	S	100	25,50
M 10	x	30	S	100	29,50
M 10	x	35	S	100	34,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	54,00
M 10	x	50	S	100	60,00
M 10	x	55	S	100	92,00
M 10	x	60	S	100	92,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	134,00
M 10	x	90	S	100	136,00
M 10	x	100	S	100	155,00
M 12	x	10	S	200	42,50
M 12	x	12	S	200	32,50
M 12	x	16	S	200	29,50
M 12	x	18	S	100	34,00
M 12	x	20	S	100	34,00
M 12	x	25	S	100	38,00
M 12	x	30	S	100	42,00
M 12	x	35	S	100	45,50
M 12	x	40	S	100	50,00
M 12	x	45	S	100	57,00
M 12	x	50	S	100	68,00
M 12	x	55	S	100	82,00
M 12	x	60	S	50	82,00
M 12	x	70	S	50	114,00
M 12	x	80	S	50	136,00
M 12	x	90	S	50	355,00
M 12	x	100	S	50	610,00
M 14	x	16	S	100	310,00
M 14	x	20	S	100	91,00
M 14	x	30	S	100	105,00
M 14	x	40	S	50	118,00
M 14	x	50	S	50	151,00
M 16	x	12	S	100	255,00
M 16	x	16	S	100	63,00
M 16	x	18	S	100	68,00
M 16	x	20	S	100	68,00
M 16	x	25	S	100	74,00
M 16	x	30	S	100	79,00
M 16	x	35	S	100	85,00
M 16	x	40	S	50	89,00
M 16	x	45	S	50	101,00
M 16	x	50	S	50	113,00
M 16	x	55	S	50	129,00
M 16	x	60	S	50	159,00
M 16	x	70	S	50	181,00
M 16	x	80	S	50	204,00
M 16	x	90	S	25	227,00
M 16	x	100	S	25	580,00
M 20	x	20	S	100	124,00
M 20	x	25	S	100	132,00
M 20	x	30	S	50	141,00
M 20	x	35	S	50	148,00
M 20	x	40	S	50	157,00
M 20	x	45	S	50	165,00
M 20	x	50	S	50	177,00
M 20	x	60	S	25	230,00
M 20	x	70	S	25	290,00
M 20	x	80	S	25	315,00
M 20	x	90	S	25	370,00
M 24	x	20	S	50	680,00
M 24	x	25	S	50	610,00
M 24	x	30	S	50	255,00
M 24	x	35	S	50	265,00
M 24	x	40	S	25	280,00
M 24	x	45	S	25	550,00
M 24	x	50	S	25	325,00
M 24	x	60	S	25	480,00
M 24	x	70	S	25	530,00
M 24	x	80	S	25	570,00
M 24	x	90	S	25	620,00
M 24	x	100	S	25	890,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
ISO	04026.210	370

4026 **45 H zinc plated**



Hexagon socket set screws with flat point

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-232 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 541

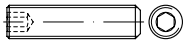
ISO 4026 ➔ replaces DIN 913

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	4	S	500	182,00 ZP
M 2	x	6	S	500	195,00 ZP
M 2	x	8	S	500	201,00 ZP
M 2	x	10	S	500	225,00 ZP
M 3	x	3	S	1000	14,60 ZP
M 3	x	4	S	1000	13,20 ZP
M 3	x	5	S	1000	13,40 ZP
M 3	x	6	S	1000	13,60 ZP
M 3	x	8	S	1000	14,20 ZP
M 3	x	10	S	1000	14,70 ZP
M 3	x	12	S	1000	15,70 ZP
M 3	x	16	S	500	18,10 ZP
M 3	x	20	S	500	18,70 ZP
M 4	x	4	S	1000	10,50 ZP
M 4	x	5	S	1000	10,10 ZP
M 4	x	6	S	1000	10,30 ZP
M 4	x	8	S	1000	12,10 ZP
M 4	x	10	S	1000	12,60 ZP
M 4	x	12	S	1000	13,40 ZP
M 4	x	14	S	1000	30,00 ZP
M 4	x	16	S	1000	15,00 ZP
M 4	x	18	S	1000	15,50 ZP
M 4	x	20	S	500	15,50 ZP
M 4	x	25	S	500	25,50 ZP
M 4	x	30	S	500	68,00 ZP
M 4	x	35	S	500	92,00 ZP
M 4	x	40	S	500	108,00 ZP
M 5	x	4	S	1000	17,80 ZP
M 5	x	5	S	1000	17,90 ZP
M 5	x	6	S	1000	11,30 ZP
M 5	x	8	S	1000	11,80 ZP
M 5	x	10	S	1000	12,40 ZP
M 5	x	12	S	1000	14,10 ZP
M 5	x	16	S	1000	15,20 ZP
M 5	x	18	S	500	17,10 ZP
M 5	x	20	S	500	17,10 ZP
M 5	x	25	S	500	26,00 ZP
M 5	x	30	S	200	31,00 ZP
M 5	x	35	S	200	39,00 ZP
M 5	x	40	S	200	44,50 ZP
M 6	x	5	S	1000	23,50 ZP
M 6	x	6	S	1000	13,40 ZP
M 6	x	8	S	1000	12,60 ZP
M 6	x	10	S	1000	13,10 ZP
M 6	x	12	S	1000	14,10 ZP
M 6	x	14	S	1000	17,50 ZP
M 6	x	16	S	500	16,70 ZP
M 6	x	18	S	500	35,50 ZP
M 6	x	20	S	500	19,50 ZP
M 6	x	25	S	200	26,50 ZP
M 6	x	30	S	200	29,50 ZP
M 6	x	35	S	200	37,00 ZP
M 6	x	40	S	200	42,50 ZP
M 6	x	45	S	200	53,00 ZP
M 6	x	50	S	200	67,00 ZP
M 6	x	60	S	100	72,00 ZP
M 8	x	6	S	500	30,50 ZP
M 8	x	8	S	500	16,00 ZP
M 8	x	10	S	500	15,40 ZP
M 8	x	12	S	500	16,70 ZP
M 8	x	16	S	200	19,30 ZP
M 8	x	18	S	200	27,50 ZP
M 8	x	20	S	200	23,20 ZP
M 8	x	25	S	200	33,00 ZP
M 8	x	30	S	200	39,50 ZP
M 8	x	35	S	200	35,50 ZP
M 8	x	40	S	200	52,00 ZP
M 8	x	45	S	100	62,00 ZP
M 8	x	50	S	100	72,00 ZP
M 8	x	55	S	100	108,00 ZP
M 8	x	60	S	100	118,00 ZP
M 8	x	70	S	100	132,00 ZP
M 8	x	80	S	100	194,00 ZP
M 8	x	90	S	100	345,00 ZP
M 8	x	100	S	100	385,00 ZP
M 8	x	130	S	50	480,00 ZP
M 10	x	8	S	200	34,50 ZP
M 10	x	10	S	200	24,20 ZP
M 10	x	12	S	200	23,20 ZP
M 10	x	16	S	200	27,50 ZP
M 10	x	20	S	200	35,50 ZP
M 10	x	25	S	100	42,50 ZP
M 10	x	30	S	100	51,00 ZP
M 10	x	35	S	100	57,00 ZP
M 10	x	40	S	100	71,00 ZP
M 10	x	45	S	100	86,00 ZP
M 10	x	50	S	100	96,00 ZP
M 10	x	60	S	100	164,00 ZP
M 10	x	70	S	100	195,00 ZP
M 10	x	80	S	100	233,00 ZP
M 10	x	90	S	100	590,00 ZP
M 10	x	100	S	100	670,00 ZP
M 12	x	10	S	200	77,00 ZP
M 12	x	12	S	200	48,00 ZP
M 12	x	14	S	200	44,00 ZP
M 12	x	16	S	200	44,00 ZP
M 12	x	20	S	200	54,00 ZP
M 12	x	25	S	100	62,00 ZP
M 12	x	30	S	100	72,00 ZP
M 12	x	35	S	100	78,00 ZP
M 12	x	40	S	100	91,00 ZP
M 12	x	45	S	100	105,00 ZP
M 12	x	50	S	100	120,00 ZP
M 12	x	55	S	100	143,00 ZP
M 12	x	60	S	50	146,00 ZP
M 12	x	70	S	50	201,00 ZP
M 12	x	80	S	50	242,00 ZP
M 12	x	90	S	50	340,00 ZP
M 12	x	100	S	50	1060,00 ZP
M 14	x	20	S	100	140,00 ZP
M 14	x	50	S	50	199,00 ZP
M 14	x	60	S	50	275,00 ZP
M 16	x	16	S	100	111,00 ZP
M 16	x	20	S	100	120,00 ZP
M 16	x	25	S	100	132,00 ZP
M 16	x	30	S	100	138,00 ZP
M 16	x	35	S	100	149,00 ZP
M 16	x	40	S	50	160,00 ZP
M 16	x	45	S	50	182,00 ZP
M 16	x	50	S	50	206,00 ZP
M 16	x	55	S	50	249,00 ZP
M 16	x	60	S	50	249,00 ZP
M 16	x	70	S	50	335,00 ZP
M 16	x	80	S	50	365,00 ZP
M 16	x	90	S	25	410,00 ZP
M 20	x	20	S	100	216,00 ZP
M 20	x	25	S	100	232,00 ZP
M 20	x	30	S	50	250,00 ZP
M 20	x	35	S	50	260,00 ZP
M 20	x	40	S	50	280,00 ZP
M 20	x	50	S	50	315,00 ZP
M 20	x	60	S	25	340,00 ZP
M 20	x	70	S	25	640,00 ZP
M 20	x	80	S	25	710,00 ZP
M 20	x	90	S	25	790,00 ZP
M 24	x	25	S	50	800,00 ZP
M 24	x	30	S	50	450,00 ZP
M 24	x	35	S	50	460,00 ZP
M 24	x	40	S	25	495,00 ZP
M 24	x	60	S	25	840,00 ZP
M 24	x	70	S	25	950,00 ZP
M 24	x	80	S	25	1050,00 ZP

~ISO	04026.205	370

4026 **45 H** **fine**



Hexagon socket set screws with flat point, with metric fine pitch thread

Caution! Not for tensile loading.

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-232 REACH ➔ TI-262

ISO 4026 ➔ replaces DIN 913

RoHS ✓

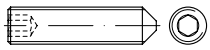
Dimensions					PU	Pieces	€/100/Mat.
M 4	x	0,5	x	4	S	1000	236,00
M 4	x	0,5	x	5	S	1000	265,00
M 4	x	0,5	x	6	S	1000	280,00
M 5	x	0,5	x	6	S	1000	158,00
M 5	x	0,5	x	8	S	1000	170,00
M 5	x	0,5	x	10	S	1000	255,00
M 5	x	0,5	x	12	S	1000	187,00
M 5	x	0,5	x	16	S	1000	212,00
M 5	x	0,5	x	20	S	500	590,00
M 5	x	0,5	x	25	S	500	620,00
M 5	x	0,5	x	30	S	200	650,00
M 6	x	0,75	x	5	S	1000	128,00
M 6	x	0,5	x	6	S	1000	210,00
M 6	x	0,75	x	6	S	1000	188,00
M 6	x	0,5	x	8	S	1000	230,00
M 6	x	0,75	x	8	S	1000	265,00
M 6	x	0,5	x	10	S	1000	178,00
M 6	x	0,75	x	10	S	1000	295,00
M 6	x	0,5	x	12	S	1000	315,00
M 6	x	0,75	x	12	S	1000	295,00
M 6	x	0,5	x	16	S	500	238,00
M 6	x	0,5	x	20	S	500	217,00
M 6	x	0,75	x	20	S	500	325,00
M 8	x	1	x	5	S	500	102,00
M 8	x	1	x	6	S	500	55,00
M 8	x	0,75	x	8	S	500	204,00
M 8	x	1	x	8	S	500	140,00
M 8	x	0,5	x	10	S	500	345,00
M 8	x	0,75	x	10	S	500	290,00
M 8	x	1	x	10	S	500	200,00
M 8	x	0,5	x	12	S	500	209,00
M 8	x	0,75	x	12	S	500	111,00
M 8	x	1	x	12	S	500	230,00

Dimensions						PU	Pieces	€/100/Mat.
M 8	x	0,5	x	16		S	200	580,00
M 8	x	0,75	x	16		S	200	158,00
M 8	x	1	x	16		S	200	236,00
M 8	x	0,75	x	20		S	200	199,00
M 8	x	1	x	20		S	200	265,00
M 8	x	0,75	x	25		S	200	216,00
M 8	x	1	x	25		S	200	121,00
M 8	x	0,75	x	30		S	200	242,00
M 8	x	1	x	30		S	200	128,00
M 8	x	1	x	35		S	200	131,00
M 8	x	1	x	40		S	200	140,00
M 8	x	1	x	50		S	100	182,00
M 8	x	1	x	60		S	100	242,00
M 8	x	1	x	70		S	100	280,00
M 8	x	1	x	80		S	100	325,00
M 8	x	1	x	90		S	100	380,00
M 8	x	1	x	100		S	100	420,00
M 10	x	1	x	8		S	200	250,00
M 10	x	1,25	x	8		S	200	325,00
M 10	x	1	x	10		S	200	250,00
M 10	x	1,25	x	10		S	200	138,00
M 10	x	1	x	12		S	200	233,00
M 10	x	1,25	x	12		S	200	157,00
M 10	x	1	x	16		S	200	335,00
M 10	x	1,25	x	16		S	200	192,00
M 10	x	1	x	20		S	200	345,00
M 10	x	1,25	x	20		S	200	205,00
M 10	x	1	x	25		S	100	119,00
M 10	x	1,25	x	25		S	100	228,00
M 10	x	1	x	30		S	100	136,00
M 10	x	1,25	x	30		S	100	234,00
M 10	x	1	x	35		S	100	146,00
M 10	x	1,25	x	35		S	100	247,00
M 10	x	1	x	40		S	100	221,00
M 10	x	1,25	x	40		S	100	265,00
M 10	x	1	x	45		S	100	221,00
M 10	x	1	x	50		S	100	232,00
M 10	x	1,25	x	50		S	100	340,00
M 10	x	1	x	60		S	100	255,00
M 10	x	1,25	x	60		S	100	345,00
M 12	x	1	x	8		S	100	182,00
M 12	x	1	x	10		S	200	560,00
M 12	x	1,25	x	10		S	200	186,00
M 12	x	1,5	x	10		S	200	600,00
M 12	x	1,25	x	12		S	200	171,00
M 12	x	1,5	x	12		S	200	131,00
M 12	x	1	x	16		S	200	620,00
M 12	x	1,25	x	16		S	200	188,00
M 12	x	1,5	x	16		S	200	137,00
M 12	x	1	x	20		S	100	640,00
M 12	x	1,25	x	20		S	100	199,00
M 12	x	1,5	x	20		S	100	147,00
M 12	x	1	x	25		S	100	790,00
M 12	x	1,25	x	25		S	100	212,00
M 12	x	1,5	x	25		S	100	155,00
M 12	x	1	x	30		S	100	157,00
M 12	x	1,25	x	30		S	100	224,00
M 12	x	1,5	x	30		S	100	165,00
M 12	x	1	x	40		S	100	201,00
M 12	x	1,25	x	40		S	100	236,00
M 12	x	1,5	x	40		S	100	201,00
M 12	x	1	x	45		S	100	245,00
M 12	x	1,5	x	45		S	100	245,00
M 12	x	1	x	50		S	100	249,00
M 12	x	1,5	x	55		S	100	300,00
M 12	x	1	x	60		S	50	385,00
M 12	x	1,5	x	70		S	50	520,00
M 14	x	1	x	10		S	200	415,00
M 14	x	1,5	x	10		S	200	485,00
M 14	x	1	x	12		S	200	425,00
M 14	x	1,5	x	12		S	200	355,00
M 14	x	1	x	16		S	100	490,00
M 14	x	1,5	x	16		S	100	325,00
M 14	x	1	x	20		S	100	720,00
M 14	x	1,5	x	20		S	100	295,00
M 14	x	1,5	x	25		S	100	305,00
M 14	x	1,5	x	30		S	100	320,00
M 14	x	1,5	x	35		S	50	335,00
M 14	x	1,5	x	40		S	50	345,00
M 14	x	1,5	x	45		S	50	360,00
M 14	x	1,5	x	50		S	50	415,00
M 14	x	1,5	x	60		S	50	460,00
M 16	x	1	x	12		S	100	530,00
M 16	x	1,5	x	12		S	100	260,00
M 16	x	1	x	16		S	100	425,00
M 16	x	1,5	x	16		S	100	320,00
M 16	x	1	x	20		S	100	510,00
M 16	x	1,5	x	20		S	100	325,00
M 16	x	1,5	x	25		S	100	340,00
M 16	x	1,5	x	30		S	100	345,00
M 16	x	1,5	x	40		S	50	380,00
M 16	x	1,5	x	50		S	50	395,00
M 16	x	1,5	x	60		S	50	415,00
M 16	x	1,5	x	70		S	50	460,00
M 20	x	1,5	x	20		S	100	590,00
M 20	x	1,5	x	25		S	100	630,00
M 20	x	1,5	x	30		S	50	670,00
M 20	x	1,5	x	35		S	50	710,00
M 20	x	1,5	x	40		S	50	740,00
M 20	x	1,5	x	45		S	50	790,00
M 20	x	1,5	x	50		S	50	850,00
M 20	x	1,5	x	60		S	25	920,00
M 20	x	1,5	x	70		S	25	1020,00
M 20	x	1,5	x	80		S	25	1120,00
M 20	x	1,5	x	100		S	25	1230,00
M 24	x	1,5	x	25		S	50	1120,00
M 24	x	1,5	x	30		S	50	1170,00
M 24	x	1,5	x	40		S	25	1350,00
M 24	x	1,5	x	60		S	25	1470,00

ISO	04027.200	370

4027

45 H



Hexagon socket set screws with cone point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 542

ISO 4027 ➔ replaces DIN 914

RoHS ✓

M 2	x	2	S	500	129,00
M 2	x	3	S	500	117,00
M 2	x	4	S	500	119,00
M 2	x	5	S	500	121,00
M 2	x	6	S	500	126,00
M 2	x	8	S	500	134,00
M 2	x	10	S	500	143,00
M 2,5	x	3	S	500	97,00
M 2,5	x	4	S	500	100,00
M 2,5	x	5	S	500	102,00
M 2,5	x	6	S	500	109,00
M 2,5	x	8	S	500	114,00
M 2,5	x	10	S	500	117,00
M 3	x	3	S	1000	10,30
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	8	S	1000	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	4	S	1000	8,90
M 4	x	5	S	1000	7,80
M 4	x	6	S	1000	7,90
M 4	x	8	S	1000	8,20
M 4	x	10	S	1000	8,40
M 4	x	12	S	1000	8,90
M 4	x	16	S	1000	10,10
M 4	x	18	S	1000	10,30
M 4	x	20	S	500	10,30
M 4	x	25	S	500	17,00
M 4	x	30	S	200	45,00
M 4	x	35	S	200	62,00
M 4	x	40	S	200	73,00
M 5	x	4	S	1000	11,90
M 5	x	5	S	1000	9,90
M 5	x	6	S	1000	8,60
M 5	x	8	S	1000	8,90
M 5	x	10	S	1000	9,20
M 5	x	12	S	1000	9,90
M 5	x	16	S	1000	10,70
M 5	x	18	S	500	11,80
M 5	x	20	S	500	11,80
M 5	x	25	S	500	17,20
M 5	x	30	S	200	19,00
M 5	x	35	S	200	26,00
M 5	x	40	S	200	29,50
M 6	x	5	S	1000	13,20
M 6	x	6	S	1000	11,10
M 6	x	8	S	1000	9,40
M 6	x	10	S	1000	9,60
M 6	x	12	S	500	10,10
M 6	x	16	S	500	11,30
M 6	x	18	S	500	12,90
M 6	x	20	S	500	12,90
M 6	x	25	S	200	17,60
M 6	x	30	S	200	19,30
M 6	x	35	S	200	23,50
M 6	x	40	S	200	28,00
M 6	x	45	S	200	33,00
M 6	x	50	S	200	36,50
M 8	x	6	S	500	15,30
M 8	x	8	S	500	12,90
M 8	x	10	S	500	10,90
M 8	x	12	S	500	11,80
M 8	x	16	S	500	13,00
M 8	x	18	S	200	15,50
M 8	x	20	S	200	15,50
M 8	x	25	S	200	20,30
M 8	x	30	S	200	24,60
M 8	x	35	S	200	27,00
M 8	x	40	S	200	34,50
M 8	x	45	S	100	41,50
M 8	x	50	S	100	47,50
M 8	x	55	S	100	68,00
M 8	x	60	S	100	68,00
M 8	x	70	S	100	78,00
M 8	x	80	S	100	92,00
M 10	x	8	S	200	22,80
M 10	x	10	S	200	18,90
M 10	x	12	S	200	15,90
M 10	x	16	S	200	18,20
M 10	x	18	S	200	21,50
M 10	x	20	S	200	21,50
M 10	x	25	S	100	25,50
M 10	x	30	S	100	29,50
M 10	x	35	S	100	34,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	54,00
M 10	x	50	S	100	60,00

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	60	S	100	92,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	134,00
M 10	x	100	S	100	229,00
M 12	x	10	S	200	42,50
M 12	x	12	S	200	35,50
M 12	x	16	S	200	29,50
M 12	x	20	S	100	34,00
M 12	x	25	S	100	38,00
M 12	x	30	S	100	42,00
M 12	x	35	S	100	45,50
M 12	x	40	S	100	50,00
M 12	x	45	S	100	57,00
M 12	x	50	S	100	68,00
M 12	x	55	S	100	82,00
M 12	x	60	S	50	82,00
M 12	x	70	S	50	114,00
M 12	x	80	S	50	136,00
M 14	x	20	S	100	91,00
M 14	x	30	S	100	105,00
M 14	x	40	S	50	118,00
M 16	x	16	S	100	69,00
M 16	x	20	S	100	68,00
M 16	x	25	S	100	74,00
M 16	x	30	S	100	79,00
M 16	x	35	S	100	85,00
M 16	x	40	S	50	89,00
M 16	x	45	S	50	121,00
M 16	x	50	S	50	133,00
M 16	x	55	S	50	149,00
M 16	x	60	S	50	149,00
M 16	x	70	S	50	181,00
M 16	x	80	S	50	204,00
M 16	x	90	S	25	227,00
M 20	x	20	S	100	136,00
M 20	x	25	S	100	132,00
M 20	x	30	S	50	141,00
M 20	x	35	S	50	148,00
M 20	x	40	S	50	157,00
M 20	x	45	S	50	195,00
M 20	x	50	S	50	207,00
M 20	x	60	S	25	223,00
M 20	x	70	S	25	300,00
M 20	x	80	S	25	345,00
M 20	x	90	S	25	385,00
M 24	x	30	S	50	255,00
M 24	x	35	S	50	265,00
M 24	x	40	S	25	280,00
M 24	x	50	S	25	325,00
M 24	x	60	S	25	480,00
M 24	x	80	S	25	570,00
M 24	x	100	S	25	890,00

Dimensions			PU	Pieces	€/100/Mat.
ISO		04027.210			370
4027		**45 H zinc plated**			



Hexagon socket set screws with cone point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 542

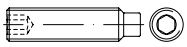
ISO 4027 ➔ replaces DIN 914

RoHS ✓

M 3	x	3	S	1000	18,20 ZP
M 3	x	4	S	1000	11,30 ZP
M 3	x	5	S	1000	11,40 ZP
M 3	x	6	S	1000	11,70 ZP
M 3	x	8	S	1000	12,30 ZP
M 3	x	10	S	1000	13,20 ZP
M 4	x	4	S	1000	11,40 ZP
M 4	x	5	S	1000	10,30 ZP
M 4	x	6	S	1000	10,30 ZP
M 4	x	8	S	1000	10,60 ZP
M 4	x	10	S	1000	11,20 ZP
M 4	x	12	S	1000	12,30 ZP
M 4	x	16	S	1000	13,80 ZP
M 4	x	18	S	1000	18,20 ZP
M 4	x	20	S	500	15,50 ZP
M 4	x	25	S	500	30,00 ZP
M 4	x	30	S	500	79,00 ZP
M 4	x	35	S	500	108,00 ZP
M 5	x	4	S	1000	20,80 ZP
M 5	x	5	S	1000	17,60 ZP
M 5	x	6	S	1000	11,30 ZP
M 5	x	8	S	1000	11,80 ZP
M 5	x	10	S	1000	12,30 ZP
M 5	x	12	S	1000	13,40 ZP
M 5	x	16	S	1000	14,60 ZP
M 5	x	20	S	500	16,30 ZP
M 5	x	25	S	500	55,00 ZP
M 5	x	30	S	200	61,00 ZP
M 6	x	5	S	1000	16,30 ZP
M 6	x	6	S	1000	14,10 ZP
M 6	x	8	S	1000	12,50 ZP
M 6	x	10	S	1000	13,10 ZP
M 6	x	12	S	1000	13,80 ZP
M 6	x	16	S	500	16,00 ZP
M 6	x	18	S	500	22,50 ZP
M 6	x	20	S	500	18,30 ZP
M 6	x	25	S	200	26,50 ZP
M 6	x	30	S	200	29,50 ZP
M 6	x	40	S	200	49,00 ZP
M 6	x	45	S	200	58,00 ZP
M 8	x	8	S	500	20,00 ZP
M 8	x	10	S	500	15,30 ZP
M 8	x	12	S	500	17,60 ZP
M 8	x	16	S	200	19,20 ZP
M 8	x	20	S	200	23,00 ZP
M 8	x	25	S	200	33,00 ZP
M 8	x	30	S	200	39,50 ZP
M 8	x	35	S	200	44,00 ZP
M 8	x	40	S	200	61,00 ZP
M 8	x	45	S	100	72,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	50	S	100	83,00 ZP
M 8	x	60	S	100	119,00 ZP
M 10	x	10	S	200	27,50 ZP
M 10	x	12	S	200	24,50 ZP
M 10	x	16	S	200	27,50 ZP
M 10	x	20	S	200	38,50 ZP
M 10	x	25	S	100	42,50 ZP
M 10	x	30	S	100	51,00 ZP
M 10	x	35	S	100	63,00 ZP
M 10	x	40	S	100	77,00 ZP
M 10	x	45	S	100	97,00 ZP
M 10	x	50	S	100	105,00 ZP
M 12	x	10	S	200	60,00 ZP
M 12	x	12	S	200	52,00 ZP
M 12	x	16	S	200	46,00 ZP
M 12	x	20	S	100	54,00 ZP
M 12	x	25	S	100	62,00 ZP
M 12	x	30	S	100	72,00 ZP
M 12	x	35	S	100	92,00 ZP
M 12	x	40	S	100	77,00 ZP
M 12	x	50	S	100	120,00 ZP
M 12	x	60	S	50	134,00 ZP
M 16	x	16	S	100	121,00 ZP
M 16	x	20	S	100	120,00 ZP
M 16	x	25	S	100	132,00 ZP
M 16	x	30	S	100	138,00 ZP
M 16	x	35	S	100	144,00 ZP
M 16	x	40	S	50	158,00 ZP
M 16	x	45	S	50	182,00 ZP
M 16	x	50	S	50	200,00 ZP
M 16	x	60	S	50	230,00 ZP
M 16	x	70	S	50	325,00 ZP
M 16	x	80	S	50	360,00 ZP
M 16	x	90	S	25	400,00 ZP
M 20	x	20	S	100	238,00 ZP
M 20	x	30	S	50	265,00 ZP
M 20	x	35	S	50	164,00 ZP
M 20	x	40	S	50	280,00 ZP
M 20	x	50	S	50	315,00 ZP
M 20	x	60	S	25	345,00 ZP

ISO		04028.200			370
4028		**45 H**			



Hexagon socket set screws with full dog point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Material properties ➔ TI-236
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 543

ISO 4028 ➔ replaces DIN 915

RoHS ✓

M 3	x	3	S	1000	10,30
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	8	S	1000	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	4	S	1000	8,90

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	5	S	1000	7,80
M 4	x	6	S	1000	7,90
M 4	x	8	S	1000	8,20
M 4	x	10	S	1000	8,40
M 4	x	12	S	1000	8,90
M 4	x	16	S	1000	10,10
M 4	x	20	S	500	10,30
M 4	x	25	S	500	17,00
M 4	x	30	S	200	45,00
M 4	x	35	S	200	62,00
M 4	x	40	S	200	73,00
M 5	x	4	S	1000	11,90
M 5	x	5	S	1000	9,90
M 5	x	6	S	1000	8,60
M 5	x	8	S	1000	8,90
M 5	x	10	S	1000	9,20
M 5	x	12	S	1000	9,90
M 5	x	16	S	1000	10,70
M 5	x	18	S	500	11,80
M 5	x	20	S	500	11,80
M 5	x	25	S	500	17,20
M 5	x	30	S	200	19,00
M 5	x	35	S	200	26,00
M 5	x	40	S	200	29,50
M 6	x	5	S	1000	13,20
M 6	x	6	S	1000	11,10
M 6	x	8	S	1000	9,40
M 6	x	10	S	1000	9,60
M 6	x	12	S	1000	10,10
M 6	x	16	S	500	11,30
M 6	x	18	S	500	12,90
M 6	x	20	S	500	12,90
M 6	x	25	S	500	17,60
M 6	x	30	S	200	19,30
M 6	x	35	S	200	23,50
M 6	x	40	S	200	28,00
M 6	x	45	S	200	33,00
M 6	x	50	S	200	36,50
M 8	x	6	S	500	15,30
M 8	x	8	S	500	12,90
M 8	x	10	S	500	10,90
M 8	x	12	S	500	11,80
M 8	x	16	S	200	13,00
M 8	x	18	S	200	15,50
M 8	x	20	S	200	15,50
M 8	x	25	S	200	20,30
M 8	x	30	S	200	24,60
M 8	x	35	S	200	27,00
M 8	x	40	S	200	34,50
M 8	x	45	S	100	41,50
M 8	x	50	S	100	47,50
M 8	x	55	S	100	68,00
M 8	x	60	S	100	68,00
M 8	x	70	S	100	78,00
M 8	x	80	S	100	92,00
M 10	x	8	S	200	22,80
M 10	x	10	S	200	18,90
M 10	x	12	S	200	15,90
M 10	x	16	S	200	18,20
M 10	x	18	S	200	21,50
M 10	x	20	S	200	21,50
M 10	x	25	S	100	25,50
M 10	x	30	S	100	29,50
M 10	x	35	S	100	34,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	54,00
M 10	x	50	S	100	60,00
M 10	x	55	S	100	99,00
M 10	x	60	S	100	92,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	134,00
M 12	x	10	S	200	42,50
M 12	x	12	S	200	35,50
M 12	x	16	S	200	29,50
M 12	x	18	S	100	34,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	20	S	100	34,00
M 12	x	25	S	100	38,00
M 12	x	30	S	100	42,00
M 12	x	35	S	100	45,50
M 12	x	40	S	100	50,00
M 12	x	45	S	100	57,00
M 12	x	50	S	100	68,00
M 12	x	55	S	100	82,00
M 12	x	60	S	50	82,00
M 12	x	70	S	50	114,00
M 12	x	80	S	50	136,00
M 14	x	20	S	100	91,00
M 14	x	30	S	100	105,00
M 14	x	40	S	50	118,00
M 16	x	16	S	100	69,00
M 16	x	20	S	100	68,00
M 16	x	25	S	100	74,00
M 16	x	30	S	100	79,00
M 16	x	35	S	100	85,00
M 16	x	40	S	50	89,00
M 16	x	45	S	50	101,00
M 16	x	50	S	50	113,00
M 16	x	55	S	50	129,00
M 16	x	60	S	50	149,00
M 16	x	70	S	50	181,00
M 16	x	80	S	50	204,00
M 16	x	90	S	25	227,00
M 16	x	100	S	25	265,00
M 20	x	20	S	100	136,00
M 20	x	25	S	100	132,00
M 20	x	30	S	50	141,00
M 20	x	35	S	50	148,00
M 20	x	40	S	50	157,00
M 20	x	45	S	50	230,00
M 20	x	50	S	50	177,00
M 20	x	60	S	25	255,00
M 20	x	70	S	25	270,00
M 20	x	80	S	25	340,00
M 20	x	90	S	25	395,00
M 24	x	30	S	50	255,00
M 24	x	35	S	50	265,00
M 24	x	40	S	25	280,00
M 24	x	45	S	25	315,00
M 24	x	50	S	25	325,00
M 24	x	60	S	25	480,00
M 24	x	70	S	25	530,00
M 24	x	80	S	25	570,00
M 24	x	90	S	25	620,00
M 24	x	100	S	25	890,00

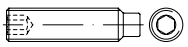
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REYHER ENGINEERING MANAGEMENT

Technical Competence
REM – REYHER Engineering Management

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- Technology hotline for customer consulting
- Our training lifts you to the cutting-edge of technology

Dimensions	PU	Pieces	€/100/Mat.
ISO	04028.210		370

4028 **45 H**
zinc plated



Hexagon socket set screws with full dog point

Caution! Not for tensile loading.

Dimensions ➔ TI-20
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 543

ISO 4028 ➔ replaces DIN 915

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	1000	12,00 ZP
M 3	x	8	S	1000	12,40 ZP
M 3	x	10	S	1000	12,80 ZP
M 3	x	12	S	1000	13,40 ZP
M 3	x	16	S	1000	14,60 ZP
M 3	x	20	S	500	15,00 ZP
M 4	x	4	S	1000	19,70 ZP
M 4	x	5	S	1000	18,20 ZP
M 4	x	6	S	1000	16,70 ZP
M 4	x	8	S	1000	11,10 ZP
M 4	x	10	S	1000	11,50 ZP
M 4	x	12	S	1000	18,20 ZP
M 4	x	16	S	1000	21,80 ZP
M 4	x	20	S	500	27,00 ZP
M 4	x	25	S	500	30,50 ZP
M 4	x	30	S	500	79,00 ZP
M 5	x	5	S	1000	13,20 ZP
M 5	x	6	S	1000	17,60 ZP
M 5	x	8	S	1000	18,00 ZP
M 5	x	10	S	1000	12,60 ZP
M 5	x	12	S	1000	13,80 ZP
M 5	x	16	S	1000	15,20 ZP
M 5	x	20	S	500	29,50 ZP
M 5	x	25	S	500	20,60 ZP
M 5	x	30	S	200	22,60 ZP
M 6	x	6	S	1000	22,10 ZP
M 6	x	8	S	1000	18,70 ZP
M 6	x	10	S	1000	13,50 ZP
M 6	x	12	S	1000	14,40 ZP
M 6	x	16	S	500	16,60 ZP
M 6	x	20	S	500	32,50 ZP
M 6	x	25	S	200	37,50 ZP
M 6	x	30	S	200	41,00 ZP
M 6	x	35	S	200	47,50 ZP
M 6	x	40	S	200	33,50 ZP
M 6	x	45	S	200	38,00 ZP
M 6	x	50	S	200	42,00 ZP
M 8	x	8	S	500	18,70 ZP
M 8	x	10	S	500	16,70 ZP
M 8	x	12	S	500	17,60 ZP
M 8	x	16	S	200	20,30 ZP
M 8	x	20	S	200	24,50 ZP
M 8	x	25	S	200	52,00 ZP
M 8	x	30	S	200	59,00 ZP
M 8	x	35	S	200	36,00 ZP
M 8	x	40	S	200	78,00 ZP
M 8	x	50	S	100	107,00 ZP
M 10	x	8	S	200	36,50 ZP
M 10	x	12	S	200	30,00 ZP
M 10	x	16	S	200	32,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	20	S	200	35,50 ZP
M 10	x	25	S	100	42,50 ZP
M 10	x	30	S	100	56,00 ZP
M 10	x	35	S	100	44,00 ZP
M 10	x	40	S	100	77,00 ZP
M 10	x	50	S	100	148,00 ZP
M 10	x	55	S	100	113,00 ZP
M 10	x	60	S	100	213,00 ZP
M 12	x	12	S	200	56,00 ZP
M 12	x	16	S	200	59,00 ZP
M 12	x	20	S	100	54,00 ZP
M 12	x	25	S	100	66,00 ZP
M 12	x	30	S	100	74,00 ZP
M 12	x	35	S	100	81,00 ZP
M 12	x	40	S	100	87,00 ZP
M 12	x	50	S	100	136,00 ZP
M 12	x	55	S	100	102,00 ZP
M 12	x	60	S	50	102,00 ZP
M 12	x	70	S	50	134,00 ZP
M 12	x	80	S	50	156,00 ZP
M 16	x	16	S	100	134,00 ZP
M 16	x	20	S	100	131,00 ZP
M 16	x	25	S	100	148,00 ZP
M 16	x	30	S	100	161,00 ZP
M 16	x	35	S	100	175,00 ZP
M 16	x	40	S	50	189,00 ZP
M 16	x	45	S	50	211,00 ZP
M 16	x	50	S	50	226,00 ZP
M 16	x	55	S	50	242,00 ZP
M 16	x	60	S	50	255,00 ZP
M 16	x	70	S	50	365,00 ZP
M 20	x	25	S	100	231,00 ZP
M 20	x	35	S	50	260,00 ZP
M 20	x	40	S	50	275,00 ZP
M 20	x	50	S	50	310,00 ZP
M 20	x	60	S	25	340,00 ZP
M 20	x	70	S	25	450,00 ZP
M 20	x	80	S	25	500,00 ZP
M 24	x	30	S	50	255,00 ZP
M 24	x	40	S	25	270,00 ZP

ISO	04029.200	370

4029

45 H



Hexagon socket set screws with cup point

Caution! Not for tensile loading.

Dimensions ➔ TI-21
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 543

ISO 4029 ➔ replaces DIN 916

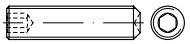
RoHS ✓

M 2	x	2,5	S	500	112,00
M 2	x	3	S	500	101,00
M 2	x	4	S	500	103,00
M 2	x	5	S	500	105,00
M 2	x	6	S	500	108,00
M 2,5	x	3	S	500	83,00
M 2,5	x	4	S	500	86,00
M 2,5	x	5	S	500	89,00
M 2,5	x	6	S	500	94,00
M 2,5	x	10	S	500	101,00

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	3	S	1000	9,40
M 3	x	4	S	1000	8,80
M 3	x	5	S	1000	8,90
M 3	x	6	S	1000	9,10
M 3	x	8	S	1000	9,50
M 3	x	10	S	1000	9,90
M 3	x	12	S	1000	10,50
M 3	x	16	S	500	11,70
M 3	x	20	S	500	12,40
M 4	x	4	S	1000	8,20
M 4	x	5	S	1000	7,80
M 4	x	6	S	1000	7,90
M 4	x	8	S	1000	8,20
M 4	x	10	S	1000	8,40
M 4	x	12	S	1000	8,90
M 4	x	16	S	1000	10,10
M 4	x	20	S	500	10,30
M 4	x	25	S	500	17,00
M 4	x	30	S	200	45,00
M 4	x	40	S	200	73,00
M 5	x	4	S	1000	11,90
M 5	x	5	S	1000	8,90
M 5	x	6	S	1000	8,60
M 5	x	8	S	1000	7,80
M 5	x	8	K	200	8,90
M 5	x	10	S	1000	9,20
M 5	x	12	S	1000	9,90
M 5	x	16	S	1000	10,70
M 5	x	18	S	500	11,80
M 5	x	20	S	500	11,80
M 5	x	25	S	500	16,70
M 5	x	30	S	200	19,00
M 5	x	35	S	200	26,00
M 5	x	40	S	200	29,50
M 6	x	5	S	1000	13,20
M 6	x	6	S	1000	8,80
M 6	x	6	K	200	10,10
M 6	x	8	S	1000	8,20
M 6	x	8	K	200	9,40
M 6	x	10	S	1000	8,30
M 6	x	10	K	200	9,60
M 6	x	12	S	1000	8,80
M 6	x	12	K	200	10,10
M 6	x	16	S	500	9,90
M 6	x	16	K	200	11,30
M 6	x	18	S	500	12,90
M 6	x	20	S	500	12,90
M 6	x	25	S	200	17,60
M 6	x	30	S	200	19,30
M 6	x	35	S	200	23,50
M 6	x	40	S	200	28,00
M 6	x	45	S	200	33,00
M 6	x	50	S	200	36,50
M 8	x	6	S	500	15,30
M 8	x	8	S	500	10,20
M 8	x	8	K	200	11,70
M 8	x	10	S	500	10,90
M 8	x	12	S	500	11,80
M 8	x	16	S	200	13,00
M 8	x	18	S	200	15,50
M 8	x	20	S	200	15,50
M 8	x	25	S	200	20,30
M 8	x	30	S	200	24,60
M 8	x	35	S	200	27,00
M 8	x	40	S	200	34,50
M 8	x	45	S	100	41,50
M 8	x	50	S	100	47,50
M 8	x	55	S	100	68,00
M 8	x	60	S	100	68,00
M 8	x	70	S	100	78,00
M 8	x	80	S	100	92,00
M 10	x	8	S	200	22,80
M 10	x	10	S	200	17,20
M 10	x	12	S	200	15,90
M 10	x	16	S	200	18,20

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	20	S	200	21,50
M 10	x	25	S	100	25,50
M 10	x	30	S	100	29,50
M 10	x	35	S	100	34,00
M 10	x	40	S	100	42,00
M 10	x	45	S	100	54,00
M 10	x	50	S	100	60,00
M 10	x	60	S	100	92,00
M 10	x	70	S	100	112,00
M 10	x	80	S	100	134,00
M 12	x	10	S	200	42,50
M 12	x	12	S	200	32,50
M 12	x	16	S	200	29,50
M 12	x	20	S	100	34,00
M 12	x	25	S	100	38,00
M 12	x	30	S	100	42,00
M 12	x	35	S	100	45,50
M 12	x	40	S	100	50,00
M 12	x	45	S	100	57,00
M 12	x	50	S	100	68,00
M 12	x	55	S	100	82,00
M 12	x	60	S	50	82,00
M 12	x	70	S	50	114,00
M 12	x	80	S	50	136,00
M 14	x	20	S	100	91,00
M 14	x	30	S	100	105,00
M 14	x	40	S	50	118,00
M 14	x	50	S	50	151,00
M 16	x	16	S	100	63,00
M 16	x	20	S	100	68,00
M 16	x	25	S	100	74,00
M 16	x	30	S	100	79,00
M 16	x	35	S	100	85,00
M 16	x	40	S	50	89,00
M 16	x	45	S	50	101,00
M 16	x	50	S	50	113,00
M 16	x	55	S	50	129,00
M 16	x	60	S	50	129,00
M 16	x	70	S	50	181,00
M 16	x	80	S	50	204,00
M 16	x	90	S	25	227,00
M 16	x	100	S	25	495,00
M 20	x	20	S	100	124,00
M 20	x	25	S	100	132,00
M 20	x	30	S	50	141,00
M 20	x	35	S	50	148,00
M 20	x	40	S	50	157,00
M 20	x	45	S	50	165,00
M 20	x	50	S	50	177,00
M 20	x	60	S	25	193,00
M 20	x	70	S	25	260,00
M 20	x	80	S	25	285,00
M 20	x	90	S	25	315,00
M 24	x	30	S	50	255,00
M 24	x	35	S	50	265,00
M 24	x	50	S	25	325,00
M 24	x	60	S	25	480,00
M 24	x	70	S	25	530,00
M 24	x	90	S	25	620,00
M 24	x	100	S	25	890,00

Dimensions	PU Pieces	€/100/Mat.
ISO	04029.210	370
4029	**45 H zinc plated**	



Hexagon socket set screws with cup point

Caution! Not for tensile loading.

Dimensions ➔ TI-21
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 543

ISO 4029 ➔ replaces DIN 916

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	3	S	1000	11,80 ZP
M 3	x	4	S	1000	11,20 ZP
M 3	x	5	S	1000	11,40 ZP
M 3	x	6	S	1000	11,70 ZP
M 3	x	8	S	1000	12,10 ZP
M 3	x	10	S	1000	12,40 ZP
M 3	x	12	S	1000	13,10 ZP
M 3	x	16	S	500	14,20 ZP
M 3	x	20	S	500	15,00 ZP
M 4	x	4	S	1000	10,30 ZP
M 4	x	5	S	1000	10,30 ZP
M 4	x	6	S	1000	10,30 ZP
M 4	x	8	S	1000	10,60 ZP
M 4	x	10	S	1000	15,30 ZP
M 4	x	12	S	1000	16,60 ZP
M 4	x	16	S	1000	18,10 ZP
M 4	x	20	S	500	18,70 ZP
M 5	x	5	S	1000	11,70 ZP
M 5	x	6	S	1000	11,30 ZP
M 5	x	8	S	1000	11,80 ZP
M 5	x	10	S	1000	12,40 ZP
M 5	x	12	S	1000	18,10 ZP
M 5	x	16	S	1000	18,70 ZP
M 5	x	20	S	500	20,70 ZP
M 5	x	25	S	500	31,00 ZP
M 5	x	30	S	200	33,50 ZP
M 5	x	40	S	200	43,50 ZP
M 6	x	5	S	1000	23,60 ZP
M 6	x	6	S	1000	16,10 ZP
M 6	x	8	S	1000	12,60 ZP
M 6	x	10	S	1000	13,10 ZP
M 6	x	12	S	1000	13,80 ZP
M 6	x	16	S	500	16,00 ZP
M 6	x	20	S	500	19,50 ZP
M 6	x	25	S	200	26,50 ZP
M 6	x	30	S	200	34,50 ZP
M 6	x	35	S	200	41,50 ZP
M 6	x	40	S	200	60,00 ZP
M 6	x	45	S	200	58,00 ZP
M 6	x	50	S	200	67,00 ZP
M 8	x	6	S	500	28,00 ZP
M 8	x	8	S	500	16,00 ZP
M 8	x	10	S	500	15,40 ZP
M 8	x	12	S	500	16,70 ZP
M 8	x	16	S	200	19,30 ZP
M 8	x	20	S	200	24,90 ZP
M 8	x	25	S	200	33,00 ZP
M 8	x	30	S	200	39,50 ZP
M 8	x	35	S	200	42,00 ZP
M 8	x	40	S	200	49,50 ZP
M 8	x	45	S	100	72,00 ZP
M 8	x	50	S	100	83,00 ZP
M 10	x	8	S	200	27,00 ZP
M 10	x	10	S	200	26,00 ZP
M 10	x	12	S	200	23,20 ZP
M 10	x	14	S	200	36,50 ZP
M 10	x	16	S	200	27,50 ZP
M 10	x	20	S	200	33,00 ZP
M 10	x	25	S	100	44,50 ZP
M 10	x	30	S	100	48,50 ZP
M 10	x	35	S	100	63,00 ZP
M 10	x	40	S	100	77,00 ZP
M 10	x	50	S	100	105,00 ZP
M 10	x	60	S	100	128,00 ZP
M 10	x	70	S	100	147,00 ZP
M 10	x	80	S	100	147,00 ZP
M 12	x	10	S	200	47,50 ZP
M 12	x	12	S	200	38,00 ZP
M 12	x	16	S	200	47,00 ZP
M 12	x	20	S	100	54,00 ZP
M 12	x	25	S	100	62,00 ZP
M 12	x	30	S	100	72,00 ZP
M 12	x	35	S	100	78,00 ZP
M 12	x	40	S	100	85,00 ZP
M 12	x	45	S	100	100,00 ZP
M 12	x	50	S	100	94,00 ZP
M 12	x	60	S	50	102,00 ZP
M 16	x	16	S	100	111,00 ZP
M 16	x	20	S	100	120,00 ZP
M 16	x	25	S	100	132,00 ZP
M 16	x	30	S	100	138,00 ZP
M 16	x	35	S	100	147,00 ZP
M 16	x	40	S	50	160,00 ZP
M 16	x	50	S	50	184,00 ZP
M 16	x	60	S	50	200,00 ZP
M 16	x	70	S	50	255,00 ZP
M 16	x	90	S	25	305,00 ZP
M 20	x	20	S	100	197,00 ZP
M 20	x	30	S	50	213,00 ZP

~ISO	04029.205	370
4029	**45 H**	**fine**



Hexagon socket set screws with cup point, with metric fine pitch thread

Caution! Not for tensile loading.

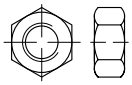
Dimensions ➔ TI-21
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

ISO 4029 ➔ replaces DIN 916

RoHS ✓

Dimensions					PU	Pieces	€/100/Mat.
M 6	x	0,75	x	6	S	1000	111,00
M 6	x	0,75	x	8	S	1000	119,00
M 6	x	0,75	x	10	S	1000	130,00
M 6	x	0,75	x	12	S	1000	136,00
M 6	x	0,75	x	16	S	500	144,00
M 6	x	0,75	x	20	S	500	146,00
M 8	x	1	x	6	S	500	57,00
M 8	x	1	x	8	S	500	39,00
M 8	x	1	x	10	S	200	50,00
M 8	x	1	x	12	S	200	60,00
M 8	x	1	x	16	S	200	89,00
M 8	x	1	x	20	S	200	99,00
M 8	x	1	x	25	S	200	124,00
M 8	x	1	x	30	S	200	134,00
M 8	x	1	x	40	S	200	169,00
M 8	x	1	x	50	S	100	210,00
M 10	x	1	x	8	S	200	78,00
M 10	x	1,25	x	8	S	200	365,00
M 10	x	1	x	10	S	200	59,00
M 10	x	1,25	x	10	S	200	192,00
M 10	x	1	x	12	S	200	80,00
M 10	x	1,25	x	12	S	200	236,00
M 10	x	1	x	16	S	200	100,00
M 10	x	1,25	x	16	S	200	260,00
M 10	x	1	x	20	S	200	147,00
M 10	x	1,25	x	20	S	200	265,00
M 10	x	1	x	25	S	100	151,00
M 10	x	1,25	x	25	S	100	270,00
M 10	x	1	x	30	S	100	157,00
M 10	x	1,25	x	30	S	100	285,00
M 12	x	1	x	10	S	200	410,00
M 12	x	1,5	x	10	S	200	211,00
M 12	x	1	x	12	S	200	160,00
M 12	x	1,25	x	12	S	200	244,00
M 12	x	1,5	x	12	S	200	215,00
M 12	x	1	x	16	S	200	175,00
M 12	x	1,25	x	16	S	200	250,00
M 12	x	1,25	x	20	S	100	270,00
M 12	x	1,5	x	20	S	100	244,00
M 12	x	1,25	x	25	S	100	285,00
M 12	x	1,5	x	25	S	100	255,00
M 12	x	1,25	x	30	S	100	300,00
M 16	x	1,5	x	16	S	100	365,00
M 16	x	1,5	x	20	S	100	370,00
M 16	x	1,5	x	25	S	100	380,00
M 16	x	1,5	x	30	S	100	400,00
M 16	x	1,5	x	40	S	50	425,00

ISO	04032.(**)	*
4032	**5-2**	**AD W7**



Hexagon nuts, ISO type 1

for press. vessel const. as per AD regul. ≤ M 39,
*M 5 – M 39 = RAZ 3320 other ∅ = RAZ 411,
**M 6 – M 39 = 504 others ∅ = 500

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 544

ISO 4032 ➔ replaces DIN 934

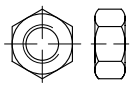
RoHS ✓

Dimensions	PU	Pieces	€/100/Mat.
M 6	S	100	11,80
M 8	S	100	13,80
M 10	S	100	19,70
M 12	S	100	21,60
M 14	S	100	38,00
M 16	S	100	39,00
M 18	S	50	69,00
M 20	S	50	82,00
M 22	S	50	107,00
M 24	S	50	125,00
M 27	S	50	199,00
M 30	S	25	260,00

Dimensions	PU	Pieces	€/100/Mat.
M 33	S	10	410,00
M 36	S	10	495,00
M 39	S	5	720,00
M 42	S	1	1080,00
M 45	S	1	1320,00

ISO | 04032.514 | 3320

4032 | **5-2** | **AD W7** | **zinc plated**



Hexagon nuts, ISO type 1

for pressure vessel const. as per AD regulations

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 544

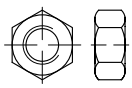
ISO 4032 ➔ replaces DIN 934

RoHS ✓

M 6	S	100	15,30 ZP
M 8	S	100	19,40 ZP
M 10	S	100	23,20 ZP
M 12	S	100	27,00 ZP
M 16	S	100	48,50 ZP
M 20	S	100	101,00 ZP
M 24	S	50	158,00 ZP
M 27	S	50	246,00 ZP
M 30	S	25	330,00 ZP
M 33	S	10	495,00 ZP
M 36	S	10	620,00 ZP
M 39	S	10	820,00 ZP

ISO | 04032.524 | 3320

4032 | **5-2** | **AD W7** | **hot dip galvanized**



Hexagon nuts, ISO type 1

for pressure vessel const. as per AD regulations, thread tolerance 6H

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 544

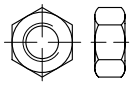
ISO 4032 ➔ replaces DIN 934

M 10	S	100	36,50 HDG
M 12	S	100	38,00 HDG
M 16	S	100	69,00 HDG
M 20	S	50	138,00 HDG
M 24	S	50	223,00 HDG
M 27	S	50	305,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
M 30	S	25	390,00 HDG
M 33	S	25	485,00 HDG
M 36	S	10	910,00 HDG

ISO | 04032.004 | 3320

4032 | **C35** | **AD W7**



Hexagon nuts, ISO type 1

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7

Stainless ➔ pg. 544

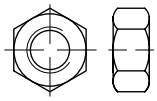
ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 12	S	100	47,50
M 16	S	100	84,00
M 20	S	50	126,00
M 24	S	25	215,00
M 27	S	25	345,00
M 30	S	25	510,00
M 33	S	10	720,00
M 36	S	10	920,00

ISO | 04032.374 | 400

4032 | **1.7218 +QT (25CrMo4)**



Hexagon nuts, ISO type 1

approved for use acc. to pressure equipment directive ➔ cert. 3.1 on request

Dimensions ➔ TI-15
Material properties ➔ TI-240
Tightening torque ➔ TI-245
Standard conversion ➔ TI-7

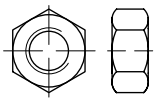
ISO 4032 ➔ replaces DIN 934

PED approval | RoHS ✓ | REACh SVHC free

M 12	S	100	39,00
M 16	S	100	68,00
M 20	S	50	143,00
M 24	S	50	220,00
M 27	S	50	350,00
M 30	S	25	450,00
M 33	S	10	720,00
M 36	S	10	860,00
M 39	S	5	1700,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.375		400

4032 | **1.7218 +QT (25CrMo4)** | **zinc plated**



Hexagon nuts, ISO type 1

approved for use acc. to pressure equipment directive ➔ cert. 3.1 on request

Dimensions ➔ TI-62
Material properties ➔ TI-240
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-245
Standard conversion ➔ TI-7

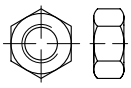
ISO 4032 ➔ replaces DIN 934

PED approval | RoHS ✓ | REACh SVHC free

M 12	S	100	47,50 ZP
M 16	S	100	85,00 ZP
M 20	S	100	177,00 ZP
M 24	S	50	280,00 ZP
M 27	S	50	435,00 ZP
M 30	S	25	580,00 ZP
M 33	S	10	860,00 ZP
M 36	S	10	1090,00 ZP

ISO | 04032.301 | *

4032 | **6 AU**



Hexagon nuts, ISO type 1

*M 5 - M 39 = RAZ 3320 other ∅ = RAZ 411, marking from ∅ M 12

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓

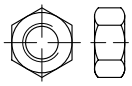
M 1	K	100	226,00
M 1,2	K	100	148,00
M 1,4	K	100	153,00
M 1,6	K	100	102,00
M 1,7	K	100	99,00
M 2	S	1000	27,00
M 2	K	100	35,00
M 2,3	S	1000	17,70
M 2,5	S	1000	17,70
M 2,5	K	100	35,00
M 2,6	S	1000	29,00
M 2,6	K	100	35,00
M 3	S	1000	29,00
M 3	K	100	33,00
M 3,5	S	1000	30,50
M 3,5	K	100	34,00
M 4	S	1000	19,70
M 4	K	100	34,50
M 5	S	1000	26,00

Dimensions	PU	Pieces	€/100/Mat.
M 6	S	1000	33,00
M 8	S	1000	64,00
M 10	S	500	106,00
M 12	S	250	151,00
M 14	S	250	226,00
M 16	S	100	335,00
M 18	S	50	510,00
M 20	S	50	630,00
M 22	S	50	760,00
M 24	S	25	1090,00
M 27	S	25	1750,00
M 30	S	10	2550,00
M 36	S	10	4300,00
M 39	S	5	5400,00
M 42	S	1	7100,00
M 45	S	1	8700,00
M 48	S	1	10400,00
M 52	S	1	12600,00
M 56	S	1	17200,00
M 60	S	1	20600,00
M 64	S	1	33900,00
M 68	S	1	38800,00

ISO | 04032.304 | *

4032

6 AU **left**



Hexagon nuts, ISO type 1, with metric left hand thread

*M 5 -M 39 = RAZ 3320 other ∅ = RAZ 411, marking from ∅ M 12

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 546

ISO 4032 ➔ replaces DIN 934

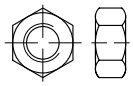
RoHS ✓

M 4	S	100	119,00
M 5	S	100	119,00
M 6	S	100	119,00
M 8	S	100	124,00
M 10	S	100	47,00
M 12	S	100	230,00
M 14	S	50	96,00
M 16	S	50	124,00
M 18	S	50	175,00
M 20	S	50	232,00
M 22	S	25	285,00
M 24	S	25	365,00
M 27	S	10	570,00
M 30	S	10	730,00
M 36	S	5	1280,00
M 42	S	1	9100,00
M 48	S	1	14300,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.800		*

4032

8



Hexagon nuts, ISO type 1

*M 5 - M 39 = RAZ 3330 other ∅ = RAZ 412

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

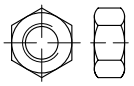
RoHS ✓ REACh SVHC free

M 2,5	S	1000	2,60
M 2,5	K	100	5,40
M 3	S	1000	1,70
M 3	K	100	4,45
M 4	S	1000	1,90
M 4	K	100	4,75
M 5	S	1000	2,45
M 6	S	1000	2,90
M 7	S	1000	4,70
M 8	S	1000	4,60
M 10	S	500	9,40
M 12	S	500	13,50
M 14	S	500	18,70
M 16	S	200	27,00
M 18	S	100	41,00
M 20	S	100	47,50
M 22	S	50	88,00
M 24	S	50	84,00
M 27	S	25	152,00
M 30	S	25	190,00
M 33	S	10	255,00
M 36	S	10	310,00
M 39	S	5	600,00
M 42	S	5	820,00
M 45	S	1	1050,00
M 48	S	1	1540,00
M 52	S	1	1810,00
M 56	S	1	3450,00
M 60	S	1	3950,00
M 64	S	1	4850,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.810		*

4032

8
zinc plated



Hexagon nuts, ISO type 1

*M 5 - M 39 = RAZ 3330 other ∅ = RAZ 412

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

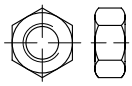
Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ REACh SVHC free

M 2	S	1000	2,60 ZP
M 2	K	100	5,50 ZP
M 2,5	S	1000	2,70 ZP
M 2,5	K	100	5,50 ZP
M 3	S	1000	1,75 ZP
M 3	K	100	4,60 ZP
M 4	S	1000	2,15 ZP
M 4	K	100	4,95 ZP
M 5	S	1000	2,80 ZP
M 5	K	100	6,10 ZP
M 6	S	1000	3,45 ZP
M 6	K	100	6,80 ZP
M 7	S	1000	5,30 ZP
M 8	S	1000	5,60 ZP
M 8	K	100	8,90 ZP
M 10	S	500	11,20 ZP
M 10	K	100	14,80 ZP
M 12	S	500	16,30 ZP
M 12	K	100	19,90 ZP
M 14	S	500	23,00 ZP
M 16	S	200	33,50 ZP
M 16	K	50	39,00 ZP
M 18	S	100	49,50 ZP
M 20	S	100	60,00 ZP
M 20	K	25	77,00 ZP
M 22	S	50	89,00 ZP
M 24	S	50	102,00 ZP
M 27	S	50	183,00 ZP
M 30	S	25	230,00 ZP
M 33	S	10	345,00 ZP
M 36	S	10	385,00 ZP
M 39	S	5	680,00 ZP
M 42	S	1	910,00 ZP
M 45	S	1	1150,00 ZP
M 48	S	1	1720,00 ZP
M 52	S	1	2010,00 ZP
M 56	S	1	3800,00 ZP
M 60	S	1	5100,00 ZP
M 64	S	1	5300,00 ZP
M 68	S	1	6700,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.359		3330*
4032	**8**** **zinc plated 8 TLP*****		



Hexagon nuts, ISO type 1

*< M 5 = RAZ 412,
**≤ M5: property class = 6,
***< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

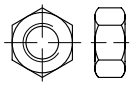
Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 2,5	S	1000	3,55 ZP TLP
M 3	S	1000	2,30 ZP TLP
M 3	K	100	6,00 ZP TLP
M 4	S	1000	2,85 ZP TLP
M 4	K	100	6,70 ZP TLP
M 5	S	1000	3,60 ZP TLP
M 6	S	1000	4,70 ZP TLP
M 8	S	1000	7,50 ZP TLP
M 10	S	500	15,40 ZP TLP
M 12	S	500	22,20 ZP TLP
M 14	S	100	39,00 ZP TLP
M 16	S	200	45,00 ZP TLP
M 20	S	100	78,00 ZP TLP
M 24	S	50	130,00 ZP TLP
M 30	S	25	315,00 ZP TLP
M 36	S	10	520,00 ZP TLP

ISO	04032.428	412
4032	**8*** **zinc plated 8 TLP** + SL*****	



Hexagon nuts, ISO type 1

*≤ M 5: property class = 6,
**< M 6 min. coating thickness 5µm,
***SL = sealer and lubrication with µ = 0,12 – 0,18,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

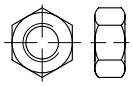
ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 3	S	1000	2,20 ZP TLP
M 4	S	1000	2,70 ZP TLP
M 5	S	1000	3,95 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
M 6	S	1000	4,45 ZP TLP
M 8	S	1000	7,20 ZP TLP
M 10	S	500	14,30 ZP TLP
M 12	S	500	21,00 ZP TLP
M 14	S	200	30,50 ZP TLP
M 16	S	200	44,50 ZP TLP
M 20	S	100	79,00 ZP TLP
M 24	S	50	162,00 ZP TLP
M 30	S	25	300,00 ZP TLP
M 36	S	10	495,00 ZP TLP

ISO	04032.353	1550
4032	**8** **flZn/TL480h**	



Hexagon nuts, ISO type 1

TL = lubricant in topcoat with µ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-7

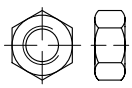
Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	1000	5,40 flZn
M 8	S	1000	15,30 flZn
M 10	S	500	30,00 flZn
M 12	S	500	51,00 flZn
M 16	S	200	77,00 flZn
M 20	S	100	199,00 flZn
M 24	S	50	310,00 flZn

ISO	04032.820	*
4032	**8** **hot dip galvanized**	



Hexagon nuts, ISO type 1

thread tolerance 6H,
*M 5 – M 39 = RAZ 3340 other ∅ = RAZ 413

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

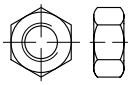
ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	1000	6,30 HDG
M 8	S	1000	11,50 HDG
M 10	S	500	20,30 HDG

Dimensions	PU	Pieces	€/100/Mat.
M 12	S	500	28,00 HDG
M 14	S	500	48,00 HDG
M 16	S	200	54,00 HDG
M 18	S	50	103,00 HDG
M 20	S	100	96,00 HDG
M 22	S	50	181,00 HDG
M 24	S	50	160,00 HDG
M 27	S	25	295,00 HDG
M 30	S	25	365,00 HDG
M 33	S	10	495,00 HDG
M 36	S	10	630,00 HDG
M 39	S	5	1140,00 HDG
M 42	S	5	1580,00 HDG
M 45	S	1	2050,00 HDG
M 48	S	1	2410,00 HDG
M 52	S	1	3650,00 HDG
M 56	S	1	5600,00 HDG
M 64	S	1	7200,00 HDG

ISO	04032.830	*
4032	**8** **nickel plated**	



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3330 other ∅ = RAZ 412

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

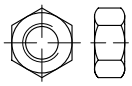
Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 3	S	1000	2,25 NP
M 4	S	1000	2,75 NP
M 5	S	1000	8,70 NP
M 6	S	1000	4,85 NP
M 8	S	1000	9,60 NP
M 10	S	500	18,80 NP

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.805	3330
4032	**8**	**left**



Hexagon nuts, ISO type 1 with metric left hand thread

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

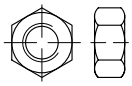
Stainless ➔ pg. 546

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6 -LH	S	100	14,30
M 8 -LH	S	100	11,50
M 10 -LH	S	100	18,80
M 12 -LH	S	100	33,00
M 16 -LH	S	50	63,00
M 20 -LH	S	50	91,00
M 24 -LH	S	50	207,00
M 30 -LH	S	25	345,00

ISO	04032.814	*
4032	**8 zinc plated**	**left**



Hexagon nuts, ISO type 1, with metric left hand thread

*M 5 – M 39 = RAZ 3330 other ∅ = RAZ 412

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

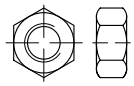
Stainless ➔ pg. 546

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 4	S	100	8,40 ZP
M 5	S	100	760,00 ZP
M 6	S	100	10,20 ZP
M 8	S	100	12,80 ZP
M 10	S	100	21,00 ZP
M 12	S	100	31,50 ZP
M 16	S	50	72,00 ZP
M 20	S	50	102,00 ZP
M 24	S	50	230,00 ZP
M 30	S	25	390,00 ZP
M 36	S	1	1150,00 ZP
M 39	S	1	2120,00 ZP
M 42	S	1	2700,00 ZP
M 48	S	1	4250,00 ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.809	1400
4032	**8 –50 to +300 °C**	**AD W7**



Hexagon nuts, ISO type 1, applicable from –50 up to +300 °C

with inspection certificate 3.1, prices are plus certificate costs

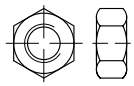
Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 8	S	1000	6,00
M 10	S	500	12,30
M 12	S	500	17,60
M 16	S	200	35,50
M 20	S	100	62,00
M 24	S	50	110,00
M 27	S	25	198,00

ISO	04032.819	1400
4032	**8 ZP, –50 to +300°C**	**AD W7**



Hexagon nuts, ISO type 1, applicable from –50 up to +300 °C

with inspection certificate 3.1, prices are plus certificate costs

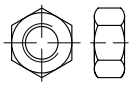
Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 8	S	1000	7,30 ZP
M 10	S	500	14,60 ZP
M 12	S	500	21,20 ZP
M 16	S	200	62,50 ZP
M 20	S	100	79,00 ZP
M 24	S	50	215,00 ZP
M 27	S	25	239,00 ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.100	*
4032	**10**	



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3320 other ∅ = RAZ 411

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

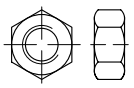
Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 4	S	1000	6,20
M 4	K	100	8,80
M 5	S	1000	6,20
M 6	S	1000	6,90
M 8	S	1000	9,50
M 10	S	500	17,20
M 12	S	500	27,50
M 14	S	100	44,50
M 16	S	100	54,00
M 18	S	100	79,00
M 20	S	50	84,00
M 22	S	50	124,00
M 24	S	50	137,00
M 27	S	50	190,00
M 30	S	10	295,00
M 33	S	10	390,00
M 36	S	10	510,00
M 39	S	5	860,00
M 42	S	1	1310,00
M 45	S	1	1610,00
M 48	S	1	1870,00
M 52	S	1	3700,00

ISO	04032.110	*
4032	**10 zinc plated**	



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3320 other ∅ = RAZ 411

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

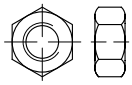
M 4	S	1000	6,80 ZP
M 4	K	100	9,40 ZP
M 5	S	1000	6,80 ZP
M 6	S	1000	7,60 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 8	S	1000	10,60 ZP
M 10	S	500	19,80 ZP
M 12	S	500	31,50 ZP
M 14	S	100	51,00 ZP
M 16	S	100	62,00 ZP
M 18	S	100	87,00 ZP
M 20	S	50	97,00 ZP
M 22	S	50	134,00 ZP
M 24	S	50	163,00 ZP
M 27	S	50	200,00 ZP
M 30	S	10	345,00 ZP
M 33	S	10	500,00 ZP
M 36	S	10	620,00 ZP
M 39	S	1	990,00 ZP
M 42	S	5	1470,00 ZP
M 48	S	1	1470,00 ZP
M 52	S	1	3900,00 ZP

ISO | 04032.180 | 3320

4032 **10**
zinc plated 8 TLP*



Hexagon nuts, ISO type 1

*< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions → TI-62
Material properties → TI-233
Corrosion protection → TI-228
Tightening torque → TI-244
Standard conversion → TI-7

Stainless → pg. 544
Brass, Aluminium, Titanium, Copper → pg. 637

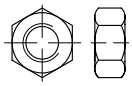
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 5	S	1000	8,10 ZP TLP
M 6	S	1000	9,50 ZP TLP
M 8	S	1000	13,40 ZP TLP
M 10	S	500	25,50 ZP TLP
M 12	S	500	41,50 ZP TLP
M 16	S	100	79,00 ZP TLP
M 20	S	50	124,00 ZP TLP
M 24	S	50	206,00 ZP TLP
M 27	S	50	290,00 ZP TLP
M 30	S	10	450,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.354		1560

4032 **10**
flZn/TL480h



Hexagon nuts, ISO type 1

TL = lubricant in topcoat with µ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions → TI-62
Material properties → TI-233
Corrosion protection → TI-230
Tightening torque → TI-245
Standard conversion → TI-7

Stainless → pg. 544
Brass, Aluminium, Titanium, Copper → pg. 637

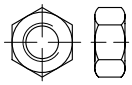
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	1000	9,90 flZn
M 8	S	1000	15,80 flZn
M 10	S	500	27,50 flZn
M 12	S	500	45,00 flZn
M 16	S	100	85,00 flZn
M 20	S	50	175,00 flZn
M 24	S	50	247,00 flZn
M 30	S	25	310,00 flZn

ISO | 04032.133 | 1560

4032 **10**
flZnL480h



Hexagon nuts, ISO type 1

flZnL = int. lubricant with µ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions → TI-62
Material properties → TI-233
Corrosion protection → TI-230
Tightening torque → TI-245
Standard conversion → TI-7

Stainless → pg. 544
Brass, Aluminium, Titanium, Copper → pg. 637

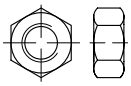
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	1000	9,90 flZn
M 8	S	1000	15,80 flZn
M 10	S	500	27,50 flZn
M 12	S	500	45,00 flZn
M 16	S	100	85,00 flZn
M 18	S	100	128,00 flZn
M 20	S	50	175,00 flZn
M 24	S	50	247,00 flZn
M 30	S	25	355,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.120		3340

4032 **10**
hot dip galvanized



Hexagon nuts, ISO type 1

thread tolerance 6H

Dimensions → TI-62
Material properties → TI-233
Corrosion protection → TI-231
Tightening torque → TI-244
Standard conversion → TI-7

Stainless → pg. 544
Brass, Aluminium, Titanium, Copper → pg. 637

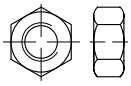
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 12	S	100	73,00 HDG
M 16	S	100	218,00 HDG
M 20	S	100	94,00 HDG
M 22	S	50	425,00 HDG
M 24	S	50	440,00 HDG
M 27	S	25	730,00 HDG
M 30	S	25	670,00 HDG
M 33	S	10	1150,00 HDG
M 36	S	10	1340,00 HDG
M 42	S	1	3650,00 HDG
M 48	S	1	4550,00 HDG

ISO | 04032.200 | 3320

4032 **12**



Hexagon nuts, ISO type 1

Dimensions → TI-62
Material properties → TI-233
Tightening torque → TI-244
Standard conversion → TI-7

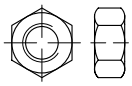
Stainless → pg. 544
Brass, Aluminium, Titanium, Copper → pg. 637

ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	100	16,50
M 8	S	100	23,20
M 10	S	100	41,50
M 12	S	500	59,00
M 16	S	100	86,00
M 20	S	50	172,00
M 24	S	25	305,00
M 27	S	25	570,00
M 30	S	10	860,00
M 36	S	10	940,00

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.270	1565
4032	**12 flZnL480h**	



Hexagon nuts, ISO type 1

flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

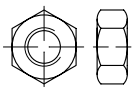
Stainless ➔ pg. 544
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	100	24,00
M 8	S	100	34,00
M 10	S	100	60,00
M 12	S	100	85,00
M 16	S	100	125,00
M 20	S	50	250,00

ISO	04033.200	3350
4033	**12**	



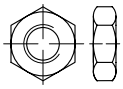
Hexagon nuts, ISO type 2

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

RoHS ✓ | REACh SVHC free

M 6	S	100	16,50
M 8	S	100	23,20
M 10	S	100	41,50
M 12	S	100	59,00
M 16	S	100	86,00
M 20	S	50	172,00
M 24	S	50	305,00
M 27	S	25	570,00
M 30	S	10	860,00
M 36	S	10	1250,00

Dimensions	PU Pieces	€/100/Mat.
ISO	04035.400	170*
4035	**04**	



Hexagon thin nuts, chamfered

*M 10, 12, 14, 22 = RAZ 3370

Dimensions ➔ TI-61
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

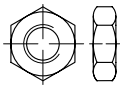
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓

M 2	S	1000	3,90
M 2	K	100	7,70
M 2,5	S	1000	3,90
M 2,5	K	100	7,70
M 3	S	1000	3,10
M 3	K	100	6,60
M 3,5	K	100	7,00
M 4	S	1000	3,45
M 4	K	100	7,20
M 5	S	1000	3,95
M 5	K	100	7,60
M 6	S	1000	4,40
M 6	K	100	7,90
M 8	S	1000	8,50
M 8	K	100	11,90
M 10	S	500	16,40
M 12	S	100	29,50
M 14	S	100	36,00
M 16	S	100	39,00
M 18	S	100	73,00
M 20	S	50	86,00
M 22	S	50	132,00
M 24	S	50	155,00
M 27	S	25	295,00
M 30	S	25	310,00
M 33	S	10	560,00
M 36	S	10	660,00
M 42	S	10	1350,00

Dimensions	PU Pieces	€/100/Mat.
ISO	04035.410	170*
4035	**04 zinc plated**	



Hexagon thin nuts, chamfered

*M 10, 12, 14, 22 = RAZ 3370

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

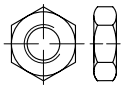
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓

M 2	S	1000	3,95 ZP
M 2,5	S	1000	3,95 ZP
M 3	S	1000	3,15 ZP
M 3	K	100	6,70 ZP
M 4	S	1000	3,70 ZP
M 4	K	100	7,30 ZP
M 5	S	1000	4,30 ZP
M 5	K	100	7,80 ZP
M 6	S	1000	4,95 ZP
M 6	K	100	8,50 ZP
M 8	S	1000	9,60 ZP
M 8	K	100	13,20 ZP
M 10	S	500	19,00 ZP
M 12	S	100	33,50 ZP
M 14	S	100	41,00 ZP
M 16	S	100	44,50 ZP
M 20	S	50	96,00 ZP
M 24	S	50	174,00 ZP
M 30	S	25	345,00 ZP
M 33	S	10	630,00 ZP
M 36	S	10	730,00 ZP
M 42	S	10	1420,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04035.308		170
4035	04 zinc plated 8 TLP*		



Hexagon thin nuts, chamfered

*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

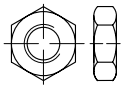
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓

M 3	S	1000	4,25 ZP TLP
M 4	S	1000	5,10 ZP TLP
M 5	S	1000	6,00 ZP TLP
M 6	S	100	6,90 ZP TLP
M 8	S	1000	13,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04035.470		170*
4035	04 flZn/TL480h		



Hexagon thin nuts, chamfered

TL = lubricant in topcoat with µ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free, *M 10, 12 = RAZ 3370

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
REACH ➔ TI-262

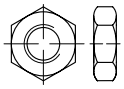
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓

M 6	S	1000	6,50 flZn
M 8	S	1000	12,50 flZn
M 10	S	500	35,50 flZn
M 12	S	100	44,00 flZn
M 16	S	100	58,00 flZn
M 20	S	50	125,00 flZn
M 24	S	50	226,00 flZn
M 30	S	25	510,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
ISO	04035.420		170*
4035	04 hot dip galvanized		



Hexagon thin nuts, chamfered

thread tolerance 6H, *M 10, 12 = RAZ 3370

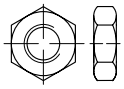
Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-231
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

M 8	S	100	48,50 HDG
M 10	S	100	48,50 HDG
M 12	S	100	48,50 HDG
M 16	S	100	56,00 HDG
M 20	S	50	118,00 HDG
M 24	S	50	210,00 HDG
M 27	S	25	380,00 HDG
M 30	S	25	420,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
ISO	04035.414		170*
4035	04 zinc plated		left



Hexagon thin nuts, chamfered, with metric fine left hand thread

*M 10, 12 = RAZ 3370

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

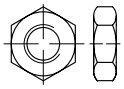
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓

M 6	S	100	36,50 ZP
M 8	S	100	18,20 ZP
M 10	S	100	36,50 ZP
M 12	S	100	73,00 ZP
M 16	S	50	115,00 ZP
M 20	S	50	218,00 ZP
M 24	S	25	425,00 ZP
M 30	S	25	730,00 ZP
M 36	S	10	1940,00 ZP
M 42	S	10	2180,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	04035.500		3370
4035	05		



Hexagon thin nuts, chamfered

Dimensions ➔ TI-61
Material properties ➔ TI-233
Standard conversion ➔ TI-7

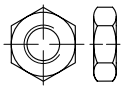
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓ REACh SVHC free

M 10	S	500	42,50
M 12	S	100	78,00
M 14	S	100	234,00
M 22	S	50	470,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	04035.510		3370
4035	05 zinc plated		



Hexagon thin nuts, chamfered

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7

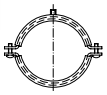
Stainless ➔ pg. 547
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓ REACh SVHC free

M 4	S	1000	29,50 ZP
M 5	S	1000	36,50 ZP
M 6	S	1000	39,00 ZP
M 8	S	1000	42,50 ZP
M 10	S	500	44,50 ZP
M 12	S	100	83,00 ZP
M 14	S	100	240,00 ZP
M 16	S	100	305,00 ZP
M 20	S	50	410,00 ZP
M 22	S	50	485,00 ZP

Dimensions		PU	Pieces	€/100/Mat.
~DIN	04109.010			560
4109	**Steel + insulating insert zinc plated**			



Screwed tubular clamps, comb. thread connector M8/M10, noise protection inlay ~ DIN 4109

≤ 71 = steel strip 20 x 1,0,
≥ 72 = steel strip 25 x 2,5,
temperature-resistant -50 up to +110 °C

Dimensions ➔ TI-132

RoHS ✓ | REACh SVHC free

for pipe ∅ from - to / combined thread connector

20-23 M8/M10	S	100	335,00 ZP
25-28 M8/M10	S	100	360,00 ZP
32-35 M8/M10	S	100	380,00 ZP
40-43 M8/M10	S	100	425,00 ZP
48-53 M8/M10	S	50	510,00 ZP
57-61 M8/M10	S	50	570,00 ZP
60-64 M8/M10	S	50	610,00 ZP

ISO	04762.800			360
4762	**8.8**			



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6
Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

M 3	x	4	S	500	33,50
M 3	x	5	S	500	33,50
M 3	x	6	S	500	9,40
M 3	x	8	S	500	6,50
M 3	x	10	S	500	5,40
M 3	x	12	S	500	5,70
M 3	x	14	S	500	9,20
M 3	x	16	S	500	5,90
M 3	x	18	S	500	6,20
M 3	x	20	S	500	6,30
M 3	x	22	S	500	11,80
M 3	x	25	S	500	6,80
M 3	x	30	S	500	7,60
M 3	x	35	S	500	29,50
M 3	x	35	K	100	33,00
M 3	x	40	S	500	31,00
M 3	x	40	K	100	35,00
M 3	x	45	S	500	79,00
M 3	x	45	K	100	83,00
M 3	x	50	S	500	88,00
M 3	x	50	K	100	91,00
M 4	x	4	S	500	105,00
M 4	x	5	S	500	19,50
M 4	x	5	K	100	23,20
M 4	x	6	S	500	11,20
M 4	x	6	K	100	14,90
M 4	x	8	S	500	6,60
M 4	x	8	K	100	10,20
M 4	x	10	S	500	4,85
M 4	x	10	K	100	8,60
M 4	x	12	S	500	5,30
M 4	x	12	K	100	8,90
M 4	x	14	S	500	8,30
M 4	x	16	S	500	5,00
M 4	x	16	K	100	8,70
M 4	x	18	S	500	5,30
M 4	x	18	K	100	8,90
M 4	x	20	S	500	5,40
M 4	x	20	K	100	9,10
M 4	x	22	S	500	10,20
M 4	x	25	S	500	6,00
M 4	x	25	K	100	9,70
M 4	x	28	S	500	11,80
M 4	x	30	S	500	6,60
M 4	x	30	K	100	10,30
M 4	x	35	S	500	7,90
M 4	x	35	K	100	11,60
M 4	x	40	S	500	8,30
M 4	x	40	K	100	12,00
M 4	x	45	S	500	18,00
M 4	x	45	K	100	21,60
M 4	x	50	S	500	19,90
M 4	x	50	K	100	23,60
M 4	x	55	S	200	23,90
M 4	x	55	K	100	27,50
M 4	x	60	S	200	23,90
M 4	x	60	K	100	27,50
M 4	x	65	S	200	37,50
M 4	x	65	K	100	41,00
M 4	x	70	S	200	37,50
M 4	x	70	K	100	41,00
M 4	x	75	S	200	68,00
M 4	x	80	S	200	78,00
M 4	x	85	S	200	300,00
M 4	x	90	S	200	330,00
M 4	x	95	S	200	365,00
M 4	x	100	S	200	390,00
M 4	x	110	S	200	420,00
M 4	x	120	S	200	480,00
M 5	x	5	S	500	107,00
M 5	x	6	S	500	11,80
M 5	x	6	K	100	15,50
M 5	x	8	S	500	9,20
M 5	x	8	K	100	12,80
M 5	x	10	S	500	4,75
M 5	x	10	K	100	8,40
M 5	x	12	S	500	4,85
M 5	x	12	K	100	8,60
M 5	x	14	S	500	8,30
M 5	x	16	S	500	4,75
M 5	x	16	K	100	8,40
M 5	x	18	S	500	5,10
M 5	x	18	K	100	8,80
M 5	x	20	S	500	5,30
M 5	x	20	K	100	8,90
M 5	x	22	S	500	9,40
M 5	x	25	S	500	5,40
M 5	x	25	K	100	9,10
M 5	x	30	S	500	6,60
M 5	x	30	K	100	10,30
M 5	x	35	S	200	7,10
M 5	x	40	S	200	7,60
M 5	x	45	S	200	12,90
M 5	x	50	S	200	18,40
M 5	x	55	S	200	22,70
M 5	x	60	S	200	24,20
M 5	x	65	S	200	34,50
M 5	x	70	S	200	35,50
M 5	x	75	S	200	44,50
M 5	x	80	S	200	47,00
M 5	x	85	S	200	65,00
M 5	x	90	S	200	60,00
M 5	x	95	S	200	77,00
M 5	x	100	S	200	64,00
M 5	x	105	S	100	165,00
M 5	x	110	S	200	72,00
M 5	x	115	S	100	195,00
M 5	x	120	S	100	79,00
M 5	x	125	S	100	335,00
M 5	x	130	S	100	305,00
M 5	x	135	S	100	365,00
M 5	x	140	S	100	510,00
M 5	x	145	S	100	680,00
M 5	x	150	S	100	660,00
M 5	x	155	S	100	690,00
M 5	x	160	S	100	670,00
M 5	x	165	S	100	720,00
M 5	x	170	S	100	710,00
M 5	x	175	S	100	760,00
M 5	x	180	S	100	740,00
M 5	x	185	S	100	910,00
M 5	x	190	S	100	910,00
M 5	x	195	S	100	990,00
M 5	x	200	S	100	970,00
M 5	x	210	S	100	1150,00
M 5	x	220	S	100	1180,00
M 6	x	6	S	500	31,00
M 6	x	8	S	500	10,40
M 6	x	8	K	100	14,10
M 6	x	10	S	500	5,00
M 6	x	10	K	100	8,70
M 6	x	12	S	500	5,30
M 6	x	12	K	100	8,90
M 6	x	14	S	500	7,70
M 6	x	16	S	500	4,85
M 6	x	16	K	100	8,60
M 6	x	18	S	500	5,30
M 6	x	18	K	100	8,90
M 6	x	20	S	500	5,30
M 6	x	20	K	100	8,90
M 6	x	22	S	500	9,40
M 6	x	22	K	100	13,10
M 6	x	25	S	500	5,40
M 6	x	25	K	100	9,10
M 6	x	28	S	500	14,60
M 6	x	30	S	500	6,30
M 6	x	30	K	100	9,90
M 6	x	35	S	200	6,80
M 6	x	40	S	200	7,60
M 6	x	45	S	200	9,90
M 6	x	50	S	200	10,30
M 6	x	55	S	200	16,40
M 6	x	60	S	200	17,50
M 6	x	65	S	200	23,60
M 6	x	70	S	200	24,20
M 6	x	75	S	200	34,00
M 6	x	80	S	200	34,50
M 6	x	85	S	200	45,50
M 6	x	90	S	200	41,00
M 6	x	95	S	200	107,00
M 6	x	100	S	200	48,00
M 6	x	105	S	100	107,00
M 6	x	110	S	100	70,00
M 6	x	115	S	100	135,00
M 6	x	120	S	100	81,00
M 6	x	125	S	100	184,00
M 6	x	130	S	100	130,00
M 6	x	135	S	100	206,00
M 6	x	140	S	100	176,00
M 6	x	145	S	100	400,00
M 6	x	150	S	100	209,00
M 6	x	155	S	100	520,00
M 6	x	160	S	100	590,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 165	S	100	620,00
M 6 x 170	S	100	710,00
M 6 x 175	S	100	800,00
M 6 x 180	S	100	800,00
M 6 x 185	S	100	970,00
M 6 x 190	S	100	970,00
M 6 x 195	S	100	1060,00
M 6 x 200	S	100	1060,00
M 6 x 210	S	100	1120,00
M 6 x 220	S	100	1180,00
M 6 x 230	S	100	1270,00
M 6 x 240	S	100	1270,00
M 6 x 250	S	100	1330,00
M 6 x 280	S	100	1430,00
M 6 x 300	S	100	1590,00
M 8 x 8	S	200	27,50
M 8 x 10	S	200	12,30
M 8 x 12	S	200	12,80
M 8 x 14	S	200	12,90
M 8 x 16	S	200	7,90
M 8 x 18	S	200	8,40
M 8 x 20	S	200	8,00
M 8 x 22	S	200	14,30
M 8 x 25	S	200	8,80
M 8 x 30	S	200	9,20
M 8 x 35	S	200	10,50
M 8 x 40	S	200	11,90
M 8 x 45	S	200	12,60
M 8 x 50	S	200	13,00
M 8 x 55	S	200	15,30
M 8 x 60	S	200	17,00
M 8 x 65	S	200	24,70
M 8 x 70	S	200	25,50
M 8 x 75	S	200	31,50
M 8 x 80	S	200	40,50
M 8 x 85	S	100	60,00
M 8 x 90	S	100	50,00
M 8 x 95	S	100	83,00
M 8 x 100	S	100	56,00
M 8 x 105	S	100	83,00
M 8 x 110	S	100	66,00
M 8 x 115	S	100	129,00
M 8 x 120	S	100	78,00
M 8 x 125	S	100	164,00
M 8 x 130	S	100	102,00
M 8 x 135	S	100	174,00
M 8 x 140	S	100	114,00
M 8 x 145	S	100	300,00
M 8 x 150	S	100	192,00
M 8 x 155	S	100	330,00
M 8 x 160	S	100	242,00
M 8 x 165	S	100	355,00
M 8 x 170	S	100	375,00
M 8 x 180	S	100	335,00
M 8 x 190	S	100	440,00
M 8 x 200	S	100	355,00
M 8 x 210	S	100	490,00
M 8 x 220	S	100	510,00
M 8 x 230	S	100	550,00
M 8 x 240	S	100	590,00
M 8 x 250	S	100	610,00
M 8 x 260	S	100	650,00
M 8 x 270	S	100	670,00
M 8 x 280	S	100	690,00
M 8 x 300	S	100	730,00
M 10 x 10	S	200	104,00
M 10 x 12	S	200	45,50
M 10 x 14	S	200	35,50
M 10 x 16	S	200	23,20
M 10 x 18	S	200	47,50
M 10 x 20	S	200	14,50
M 10 x 22	S	200	28,50
M 10 x 25	S	200	14,90
M 10 x 28	S	200	32,50
M 10 x 30	S	200	16,10

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 35	S	100	17,50
M 10 x 40	S	100	18,60
M 10 x 45	S	100	20,50
M 10 x 50	S	100	21,80
M 10 x 55	S	100	23,60
M 10 x 60	S	100	25,50
M 10 x 65	S	100	27,50
M 10 x 70	S	100	28,50
M 10 x 75	S	100	35,00
M 10 x 80	S	100	36,00
M 10 x 85	S	100	71,00
M 10 x 90	S	100	47,50
M 10 x 95	S	100	124,00
M 10 x 100	S	100	52,00
M 10 x 105	S	100	136,00
M 10 x 110	S	100	60,00
M 10 x 115	S	100	147,00
M 10 x 120	S	50	73,00
M 10 x 125	S	50	166,00
M 10 x 130	S	50	108,00
M 10 x 135	S	50	204,00
M 10 x 140	S	50	131,00
M 10 x 150	S	50	180,00
M 10 x 155	S	50	285,00
M 10 x 160	S	50	197,00
M 10 x 170	S	50	325,00
M 10 x 180	S	50	300,00
M 10 x 185	S	50	440,00
M 10 x 190	S	50	355,00
M 10 x 200	S	50	330,00
M 10 x 210	S	50	650,00
M 10 x 220	S	50	650,00
M 10 x 230	S	50	670,00
M 10 x 240	S	50	670,00
M 10 x 250	S	50	830,00
M 10 x 260	S	50	800,00
M 10 x 270	S	50	880,00
M 10 x 280	S	50	880,00
M 10 x 290	S	50	960,00
M 10 x 300	S	50	960,00
M 10 x 320	S	50	1280,00
M 10 x 340	S	50	1440,00
M 12 x 14	S	100	137,00
M 12 x 16	S	100	29,00
M 12 x 18	S	100	50,00
M 12 x 20	S	100	27,00
M 12 x 22	S	100	46,00
M 12 x 25	S	100	23,50
M 12 x 30	S	100	23,40
M 12 x 35	S	100	24,70
M 12 x 40	S	100	27,00
M 12 x 45	S	100	29,00
M 12 x 50	S	100	29,50
M 12 x 55	S	100	33,50
M 12 x 60	S	100	35,00
M 12 x 65	S	50	39,00
M 12 x 70	S	50	40,00
M 12 x 75	S	50	42,00
M 12 x 80	S	50	45,00
M 12 x 85	S	50	94,00
M 12 x 90	S	50	53,00
M 12 x 95	S	50	147,00
M 12 x 100	S	50	66,00
M 12 x 105	S	50	158,00
M 12 x 110	S	50	75,00
M 12 x 115	S	50	174,00
M 12 x 120	S	50	88,00
M 12 x 125	S	50	195,00
M 12 x 130	S	50	125,00
M 12 x 135	S	50	215,00
M 12 x 140	S	50	148,00
M 12 x 145	S	50	241,00
M 12 x 150	S	50	190,00
M 12 x 155	S	50	260,00
M 12 x 160	S	50	229,00

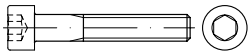
Dimensions	PU	Pieces	€/100/Mat.
M 12 x 165	S	50	380,00
M 12 x 170	S	50	310,00
M 12 x 180	S	50	310,00
M 12 x 190	S	50	360,00
M 12 x 200	S	50	360,00
M 12 x 210	S	25	920,00
M 12 x 220	S	25	670,00
M 12 x 230	S	25	990,00
M 12 x 240	S	25	750,00
M 12 x 250	S	25	1070,00
M 12 x 260	S	25	820,00
M 12 x 270	S	25	1140,00
M 12 x 280	S	25	880,00
M 12 x 290	S	25	1370,00
M 12 x 300	S	25	950,00
M 12 x 310	S	25	1190,00
M 12 x 320	S	25	1190,00
M 12 x 340	S	25	1410,00
M 12 x 360	S	25	1990,00
M 12 x 380	S	25	2120,00
M 12 x 400	S	25	2210,00
M 14 x 20	S	100	111,00
M 14 x 25	S	100	82,00
M 14 x 30	S	100	74,00
M 14 x 35	S	100	85,00
M 14 x 40	S	100	76,00
M 14 x 45	S	50	86,00
M 14 x 50	S	50	85,00
M 14 x 55	S	50	106,00
M 14 x 60	S	50	97,00
M 14 x 65	S	50	123,00
M 14 x 70	S	50	124,00
M 14 x 75	S	50	137,00
M 14 x 80	S	50	143,00
M 14 x 85	S	50	154,00
M 14 x 90	S	50	154,00
M 14 x 95	S	50	182,00
M 14 x 100	S	50	170,00
M 14 x 110	S	50	204,00
M 14 x 120	S	50	223,00
M 14 x 130	S	50	255,00
M 14 x 140	S	25	265,00
M 14 x 150	S	25	345,00
M 14 x 160	S	25	600,00
M 14 x 170	S	25	630,00
M 14 x 180	S	25	660,00
M 14 x 190	S	25	680,00
M 14 x 200	S	25	700,00
M 14 x 210	S	25	1060,00
M 14 x 220	S	25	850,00
M 14 x 230	S	25	1100,00
M 14 x 240	S	25	880,00
M 14 x 250	S	25	1160,00
M 14 x 260	S	25	920,00
M 14 x 270	S	25	1220,00
M 14 x 280	S	25	970,00
M 14 x 290	S	25	1410,00
M 14 x 300	S	25	1040,00
M 16 x 16	S	50	325,00
M 16 x 18	S	50	325,00
M 16 x 20	S	50	99,00
M 16 x 25	S	50	73,00
M 16 x 30	S	50	46,50
M 16 x 35	S	50	47,00
M 16 x 40	S	50	51,00
M 16 x 45	S	50	54,00
M 16 x 50	S	50	58,00
M 16 x 55	S	50	62,00
M 16 x 60	S	50	66,00
M 16 x 65	S	25	75,00
M 16 x 70	S	25	78,00
M 16 x 75	S	25	83,00
M 16 x 80	S	25	85,00
M 16 x 85	S	25	216,00
M 16 x 90	S	25	101,00

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 95	S	25	171,00
M 16 x 100	S	25	111,00
M 16 x 110	S	25	146,00
M 16 x 120	S	25	160,00
M 16 x 130	S	25	183,00
M 16 x 140	S	25	236,00
M 16 x 150	S	25	305,00
M 16 x 160	S	25	320,00
M 16 x 170	S	25	420,00
M 16 x 180	S	25	375,00
M 16 x 190	S	25	600,00
M 16 x 200	S	25	450,00
M 16 x 210	S	25	720,00
M 16 x 220	S	25	540,00
M 16 x 230	S	25	810,00
M 16 x 240	S	25	690,00
M 16 x 250	S	25	750,00
M 16 x 260	S	25	750,00
M 16 x 270	S	25	960,00
M 16 x 280	S	25	810,00
M 16 x 290	S	25	980,00
M 16 x 300	S	25	950,00
M 16 x 310	S	10	1750,00
M 16 x 320	S	10	1600,00
M 16 x 330	S	10	2050,00
M 16 x 340	S	10	1880,00
M 16 x 350	S	10	2440,00
M 16 x 360	S	10	2220,00
M 16 x 370	S	10	2750,00
M 16 x 380	S	10	2480,00
M 16 x 390	S	10	2950,00
M 16 x 400	S	10	2650,00
M 16 x 410	S	10	3200,00
M 16 x 420	S	10	2950,00
M 16 x 440	S	10	3100,00
M 16 x 460	S	10	3400,00
M 16 x 480	S	10	3550,00
M 16 x 500	S	10	4250,00
M 16 x 520	S	10	4450,00
M 16 x 540	S	10	4700,00
M 16 x 560	S	10	5100,00
M 16 x 580	S	10	5300,00
M 16 x 600	S	10	5700,00
M 18 x 30	S	50	242,00
M 18 x 35	S	50	242,00
M 18 x 40	S	50	212,00
M 18 x 45	S	50	226,00
M 18 x 50	S	50	230,00
M 18 x 55	S	25	239,00
M 18 x 60	S	25	244,00
M 18 x 65	S	25	270,00
M 18 x 70	S	25	280,00
M 18 x 75	S	25	290,00
M 18 x 80	S	25	295,00
M 18 x 85	S	25	320,00
M 18 x 90	S	25	320,00
M 18 x 100	S	25	355,00
M 18 x 110	S	25	465,00
M 18 x 120	S	25	510,00
M 18 x 130	S	25	540,00
M 18 x 140	S	25	630,00
M 18 x 150	S	25	740,00
M 18 x 160	S	25	800,00
M 18 x 170	S	25	840,00
M 18 x 180	S	25	880,00
M 18 x 190	S	25	920,00
M 18 x 200	S	1	1090,00
M 18 x 210	S	1	1420,00
M 18 x 220	S	1	1160,00
M 18 x 230	S	1	1590,00
M 18 x 240	S	1	1220,00
M 18 x 250	S	1	1700,00
M 18 x 260	S	1	1300,00
M 18 x 270	S	1	1820,00
M 18 x 280	S	1	1390,00
M 18 x 300	S	1	1490,00
M 18 x 320	S	1	1860,00
M 18 x 350	S	1	2600,00
M 20 x 20	S	25	400,00
M 20 x 25	S	25	400,00
M 20 x 30	S	25	184,00
M 20 x 35	S	25	184,00
M 20 x 40	S	25	105,00
M 20 x 45	S	25	109,00
M 20 x 50	S	25	112,00
M 20 x 55	S	25	119,00
M 20 x 60	S	25	119,00
M 20 x 65	S	25	131,00
M 20 x 70	S	25	131,00
M 20 x 75	S	25	138,00
M 20 x 80	S	25	140,00
M 20 x 85	S	25	1050,00
M 20 x 90	S	25	171,00
M 20 x 95	S	25	1100,00
M 20 x 100	S	25	182,00
M 20 x 110	S	25	197,00
M 20 x 120	S	25	212,00
M 20 x 130	S	25	310,00
M 20 x 140	S	25	455,00
M 20 x 150	S	25	530,00
M 20 x 160	S	10	530,00
M 20 x 170	S	10	650,00
M 20 x 180	S	10	650,00
M 20 x 190	S	10	770,00
M 20 x 200	S	1	770,00
M 20 x 210	S	1	870,00
M 20 x 220	S	1	870,00
M 20 x 230	S	1	1020,00
M 20 x 240	S	1	1020,00
M 20 x 250	S	1	1080,00
M 20 x 260	S	1	1080,00
M 20 x 270	S	1	1220,00
M 20 x 280	S	1	1220,00
M 20 x 290	S	1	1330,00
M 20 x 300	S	1	1330,00
M 20 x 310	S	1	1520,00
M 20 x 320	S	1	1160,00
M 20 x 330	S	1	1490,00
M 20 x 340	S	1	1510,00
M 20 x 350	S	1	1770,00
M 20 x 360	S	1	1610,00
M 20 x 370	S	1	2050,00
M 20 x 380	S	1	1860,00
M 20 x 390	S	1	2400,00
M 20 x 400	S	1	2180,00
M 20 x 410	S	1	2250,00
M 20 x 420	S	1	2250,00
M 20 x 440	S	1	2410,00
M 20 x 450	S	1	2850,00
M 20 x 460	S	1	2600,00
M 20 x 480	S	1	2750,00
M 20 x 500	S	1	2900,00
M 20 x 520	S	1	3850,00
M 20 x 540	S	1	4000,00
M 20 x 560	S	1	4150,00
M 20 x 580	S	1	4350,00
M 20 x 600	S	1	4600,00
M 22 x 35	S	25	630,00
M 22 x 40	S	25	630,00
M 22 x 45	S	25	630,00
M 22 x 50	S	25	790,00
M 22 x 55	S	25	790,00
M 22 x 60	S	25	790,00
M 22 x 65	S	25	820,00
M 22 x 70	S	25	820,00
M 22 x 75	S	25	850,00
M 22 x 80	S	25	850,00
M 22 x 85	S	25	850,00
M 22 x 90	S	25	910,00
M 22 x 100	S	10	930,00
M 22 x 110	S	1	950,00
M 22 x 120	S	1	970,00
M 22 x 130	S	1	1000,00
M 22 x 140	S	1	1040,00
M 22 x 150	S	1	1070,00
M 22 x 160	S	1	1090,00
M 22 x 170	S	1	1300,00
M 22 x 180	S	1	1180,00
M 22 x 190	S	1	1400,00
M 22 x 200	S	1	1270,00
M 22 x 210	S	1	1880,00
M 22 x 220	S	1	1500,00
M 22 x 240	S	1	1600,00
M 22 x 250	S	1	2100,00
M 22 x 260	S	1	1680,00
M 22 x 280	S	1	1770,00
M 22 x 300	S	1	1890,00
M 24 x 30	S	25	1250,00
M 24 x 35	S	25	1250,00
M 24 x 40	S	25	720,00
M 24 x 45	S	25	720,00
M 24 x 50	S	25	260,00
M 24 x 55	S	25	290,00
M 24 x 60	S	25	290,00
M 24 x 65	S	25	310,00
M 24 x 70	S	25	310,00
M 24 x 75	S	25	315,00
M 24 x 80	S	25	315,00
M 24 x 85	S	10	1060,00
M 24 x 90	S	10	380,00
M 24 x 95	S	10	1100,00
M 24 x 100	S	10	395,00
M 24 x 105	S	10	1060,00
M 24 x 110	S	10	460,00
M 24 x 120	S	10	495,00
M 24 x 125	S	10	1060,00
M 24 x 130	S	1	570,00
M 24 x 140	S	1	730,00
M 24 x 150	S	1	910,00
M 24 x 160	S	1	800,00
M 24 x 170	S	1	860,00
M 24 x 180	S	1	890,00
M 24 x 190	S	1	950,00
M 24 x 200	S	1	970,00
M 24 x 210	S	1	1660,00
M 24 x 220	S	1	1330,00
M 24 x 230	S	1	1760,00
M 24 x 240	S	1	1420,00
M 24 x 250	S	1	1870,00
M 24 x 260	S	1	1500,00
M 24 x 270	S	1	2010,00
M 24 x 280	S	1	1610,00
M 24 x 290	S	1	2190,00
M 24 x 300	S	1	1750,00
M 24 x 310	S	1	3000,00
M 24 x 320	S	1	2600,00
M 24 x 330	S	1	3050,00
M 24 x 340	S	1	2650,00
M 24 x 350	S	1	3100,00
M 24 x 360	S	1	3000,00
M 24 x 370	S	1	3200,00
M 24 x 380	S	1	3200,00
M 24 x 390	S	1	3400,00
M 24 x 400	S	1	3400,00
M 24 x 410	S	1	3650,00
M 24 x 420	S	1	3650,00
M 24 x 430	S	1	3900,00
M 24 x 440	S	1	3900,00
M 24 x 450	S	1	4150,00
M 24 x 460	S	1	4150,00
M 24 x 470	S	1	4400,00
M 24 x 480	S	1	4400,00
M 24 x 490	S	1	4700,00
M 24 x 500	S	1	4700,00
M 24 x 520	S	1	6400,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 530	S	1	6700,00
M 24 x 540	S	1	6900,00
M 24 x 560	S	1	7200,00
M 24 x 580	S	1	7500,00
M 24 x 600	S	1	7700,00
M 27 x 40	S	10	1550,00
M 27 x 45	S	10	1550,00
M 27 x 50	S	10	1080,00
M 27 x 55	S	10	1080,00
M 27 x 60	S	10	1080,00
M 27 x 65	S	10	1120,00
M 27 x 70	S	10	1120,00
M 27 x 75	S	10	1170,00
M 27 x 80	S	10	1170,00
M 27 x 85	S	10	1220,00
M 27 x 90	S	10	1220,00
M 27 x 100	S	10	1270,00
M 27 x 110	S	10	1310,00
M 27 x 120	S	10	1440,00
M 27 x 130	S	1	1500,00
M 27 x 140	S	1	1560,00
M 27 x 150	S	1	1620,00
M 27 x 160	S	1	1660,00
M 27 x 170	S	1	1910,00
M 27 x 180	S	1	1780,00
M 27 x 190	S	1	2020,00
M 27 x 200	S	1	1860,00
M 27 x 210	S	1	2800,00
M 27 x 220	S	1	2010,00
M 27 x 230	S	1	3000,00
M 27 x 240	S	1	2170,00
M 27 x 250	S	1	3200,00
M 27 x 260	S	1	2310,00
M 27 x 270	S	1	3450,00
M 27 x 280	S	1	2460,00
M 27 x 300	S	1	2650,00
M 27 x 320	S	1	5500,00
M 30 x 35	S	10	1990,00
M 30 x 40	S	10	1990,00
M 30 x 45	S	10	1990,00
M 30 x 50	S	10	1310,00
M 30 x 55	S	10	1310,00
M 30 x 60	S	10	1310,00
M 30 x 65	S	10	1340,00
M 30 x 70	S	10	1370,00
M 30 x 75	S	10	1430,00
M 30 x 80	S	10	1430,00
M 30 x 85	S	1	1480,00
M 30 x 90	S	1	1480,00
M 30 x 95	S	1	1480,00
M 30 x 100	S	1	1540,00
M 30 x 110	S	1	1590,00
M 30 x 120	S	1	1650,00
M 30 x 130	S	1	1710,00
M 30 x 140	S	1	1760,00
M 30 x 150	S	1	1850,00
M 30 x 160	S	1	1930,00
M 30 x 170	S	1	1990,00
M 30 x 180	S	1	2050,00
M 30 x 190	S	1	2130,00
M 30 x 200	S	1	2220,00
M 30 x 210	S	1	2390,00
M 30 x 220	S	1	2390,00
M 30 x 230	S	1	2500,00
M 30 x 240	S	1	2500,00
M 30 x 250	S	1	2650,00
M 30 x 260	S	1	2650,00
M 30 x 270	S	1	2800,00
M 30 x 280	S	1	2800,00
M 30 x 290	S	1	3800,00
M 30 x 300	S	1	3000,00
M 30 x 310	S	1	3800,00
M 30 x 320	S	1	3400,00
M 30 x 330	S	1	3850,00
M 30 x 340	S	1	3600,00
M 30 x 350	S	1	3850,00
M 30 x 360	S	1	4000,00
M 30 x 370	S	1	5400,00
M 30 x 380	S	1	5400,00
M 30 x 390	S	1	5900,00
M 30 x 400	S	1	5900,00
M 30 x 420	S	1	5900,00
M 30 x 430	S	1	5900,00
M 30 x 440	S	1	6400,00
M 30 x 450	S	1	6400,00
M 30 x 460	S	1	7500,00
M 30 x 470	S	1	7900,00
M 30 x 480	S	1	7900,00
M 30 x 490	S	1	8400,00
M 30 x 500	S	1	8400,00
M 30 x 540	S	1	15500,00
M 30 x 700	S	1	18400,00
M 33 x 50	S	1	3900,00
M 33 x 55	S	1	3900,00
M 33 x 60	S	1	1600,00
M 33 x 65	S	1	1600,00
M 33 x 70	S	1	1600,00
M 33 x 80	S	1	1600,00
M 33 x 90	S	1	1690,00
M 33 x 100	S	1	1820,00
M 33 x 110	S	1	1900,00
M 33 x 120	S	1	2040,00
M 33 x 130	S	1	2110,00
M 33 x 140	S	1	2230,00
M 33 x 150	S	1	2360,00
M 33 x 160	S	1	2410,00
M 33 x 180	S	1	2650,00
M 33 x 190	S	1	3800,00
M 33 x 200	S	1	2850,00
M 36 x 50	S	1	2120,00
M 36 x 55	S	1	2120,00
M 36 x 60	S	1	2120,00
M 36 x 65	S	1	2120,00
M 36 x 70	S	1	2080,00
M 36 x 75	S	1	2080,00
M 36 x 80	S	1	2080,00
M 36 x 85	S	1	2140,00
M 36 x 90	S	1	2140,00
M 36 x 95	S	1	2200,00
M 36 x 100	S	1	2200,00
M 36 x 110	S	1	2250,00
M 36 x 120	S	1	2360,00
M 36 x 130	S	1	2430,00
M 36 x 140	S	1	2550,00
M 36 x 150	S	1	2650,00
M 36 x 160	S	1	2700,00
M 36 x 170	S	1	3100,00
M 36 x 180	S	1	2950,00
M 36 x 190	S	1	3350,00
M 36 x 200	S	1	3150,00
M 36 x 210	S	1	3700,00
M 36 x 220	S	1	3350,00
M 36 x 230	S	1	3900,00
M 36 x 240	S	1	3500,00
M 36 x 250	S	1	4100,00
M 36 x 260	S	1	3700,00
M 36 x 270	S	1	4350,00
M 36 x 280	S	1	3950,00
M 36 x 290	S	1	4750,00
M 36 x 300	S	1	4300,00
M 36 x 310	S	1	6400,00
M 36 x 320	S	1	5800,00
M 36 x 330	S	1	6900,00
M 36 x 340	S	1	6300,00
M 36 x 350	S	1	7600,00
M 36 x 360	S	1	6900,00
M 36 x 370	S	1	9400,00
M 36 x 380	S	1	8500,00
M 36 x 390	S	1	9900,00
M 36 x 400	S	1	9000,00
M 36 x 420	S	1	17500,00
M 36 x 430	S	1	17800,00
M 36 x 440	S	1	17800,00
M 36 x 500	S	1	18800,00
M 36 x 560	S	1	19800,00
M 36 x 600	S	1	20500,00
M 42 x 70	S	1	3600,00
M 42 x 80	S	1	3600,00
M 42 x 90	S	1	3600,00
M 42 x 100	S	1	3700,00
M 42 x 110	S	1	3700,00
M 42 x 120	S	1	3900,00
M 42 x 130	S	1	4050,00
M 42 x 140	S	1	4000,00
M 42 x 150	S	1	4500,00
M 42 x 160	S	1	4200,00
M 42 x 170	S	1	4850,00
M 42 x 180	S	1	4450,00
M 42 x 190	S	1	5400,00
M 42 x 200	S	1	5100,00
M 42 x 210	S	1	5800,00
M 42 x 220	S	1	5800,00
M 42 x 240	S	1	9600,00
M 42 x 260	S	1	10300,00
M 42 x 270	S	1	20200,00
M 42 x 280	S	1	10900,00
M 42 x 300	S	1	11800,00
M 42 x 350	S	1	22600,00
M 42 x 400	S	1	23900,00
M 42 x 500	S	1	27100,00
M 42 x 560	S	1	28900,00
M 48 x 80	S	1	6600,00
M 48 x 90	S	1	6600,00
M 48 x 100	S	1	6600,00
M 48 x 110	S	1	7000,00
M 48 x 120	S	1	7300,00
M 48 x 130	S	1	7600,00
M 48 x 140	S	1	8000,00
M 48 x 150	S	1	8500,00
M 48 x 160	S	1	8900,00
M 48 x 170	S	1	9700,00
M 48 x 180	S	1	9700,00
M 48 x 190	S	1	10400,00
M 48 x 200	S	1	10400,00
M 48 x 210	S	1	13900,00
M 48 x 220	S	1	13900,00
M 48 x 240	S	1	15100,00
M 48 x 260	S	1	16300,00
M 48 x 270	S	1	25000,00
M 48 x 280	S	1	17400,00
M 48 x 300	S	1	18000,00
M 56 x 120	S	1	15800,00
M 56 x 130	S	1	17200,00
M 56 x 140	S	1	17900,00
M 56 x 150	S	1	19100,00
M 56 x 160	S	1	19900,00
M 56 x 180	S	1	20600,00
M 56 x 200	S	1	22000,00
M 56 x 210	S	1	24700,00
M 56 x 220	S	1	22400,00
M 56 x 230	S	1	26000,00
M 56 x 260	S	1	24400,00
M 56 x 280	S	1	25700,00
M 56 x 300	S	1	27700,00

Dimensions	PU Pieces	€/100/Mat.
ISO	04762.810	360
4762	**8.8 zinc plated**	



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions	PU Pieces	€/100/Mat.
M 3 x 4	S 500	33,50 ZP
M 3 x 5	S 500	33,50 ZP
M 3 x 6	S 500	9,40 ZP
M 3 x 8	S 500	6,60 ZP
M 3 x 10	S 500	5,60 ZP
M 3 x 12	S 500	5,80 ZP
M 3 x 14	S 500	9,40 ZP
M 3 x 16	S 500	6,20 ZP
M 3 x 18	S 500	6,30 ZP
M 3 x 20	S 500	6,60 ZP
M 3 x 22	S 500	12,10 ZP
M 3 x 25	S 500	7,10 ZP
M 3 x 30	S 500	7,90 ZP
M 3 x 35	S 500	30,00 ZP
M 3 x 40	S 500	31,50 ZP
M 3 x 45	S 500	80,00 ZP
M 3 x 50	S 500	89,00 ZP
M 4 x 4	S 500	106,00 ZP
M 4 x 5	S 500	20,00 ZP
M 4 x 6	S 500	11,60 ZP
M 4 x 6	K 100	15,20 ZP
M 4 x 8	S 500	6,80 ZP
M 4 x 8	K 100	10,50 ZP
M 4 x 10	S 500	5,30 ZP
M 4 x 10	K 100	8,90 ZP
M 4 x 12	S 500	5,50 ZP
M 4 x 12	K 100	9,20 ZP
M 4 x 14	S 500	8,80 ZP
M 4 x 16	S 500	5,40 ZP
M 4 x 16	K 100	9,10 ZP
M 4 x 18	S 500	5,70 ZP
M 4 x 20	S 500	5,90 ZP
M 4 x 20	K 100	9,50 ZP
M 4 x 22	S 500	10,90 ZP
M 4 x 25	S 500	6,60 ZP
M 4 x 25	K 100	10,30 ZP
M 4 x 28	S 500	12,80 ZP
M 4 x 30	S 500	7,20 ZP
M 4 x 30	K 100	10,90 ZP
M 4 x 35	S 500	8,60 ZP
M 4 x 35	K 100	12,30 ZP
M 4 x 40	S 500	9,20 ZP
M 4 x 40	K 100	12,80 ZP
M 4 x 45	S 500	19,20 ZP
M 4 x 50	S 500	21,20 ZP
M 4 x 55	S 200	29,00 ZP
M 4 x 60	S 200	29,00 ZP
M 4 x 65	S 200	44,00 ZP
M 4 x 70	S 200	44,00 ZP
M 4 x 75	S 200	76,00 ZP
M 4 x 80	S 200	86,00 ZP
M 4 x 85	S 200	310,00 ZP
M 4 x 90	S 200	340,00 ZP
M 4 x 95	S 200	370,00 ZP
M 4 x 100	S 200	400,00 ZP
M 4 x 110	S 200	430,00 ZP
M 4 x 120	S 200	495,00 ZP
M 5 x 5	S 500	107,00 ZP
M 5 x 6	S 500	12,40 ZP
M 5 x 6	K 100	16,10 ZP
M 5 x 8	S 500	9,80 ZP
M 5 x 8	K 100	13,50 ZP
M 5 x 10	S 500	5,30 ZP
M 5 x 10	K 100	8,90 ZP
M 5 x 12	S 500	5,40 ZP
M 5 x 12	K 100	9,10 ZP
M 5 x 14	S 500	9,10 ZP
M 5 x 14	K 100	12,80 ZP
M 5 x 16	S 500	5,40 ZP
M 5 x 16	K 100	9,10 ZP
M 5 x 18	S 500	5,70 ZP
M 5 x 18	K 100	9,40 ZP
M 5 x 20	S 500	5,90 ZP
M 5 x 20	K 100	9,50 ZP
M 5 x 22	S 500	10,30 ZP
M 5 x 22	K 100	14,00 ZP
M 5 x 25	S 500	6,30 ZP
M 5 x 25	K 100	9,90 ZP
M 5 x 30	S 500	7,70 ZP
M 5 x 30	K 100	11,30 ZP
M 5 x 35	S 200	8,20 ZP
M 5 x 40	S 200	8,70 ZP
M 5 x 45	S 200	14,70 ZP
M 5 x 50	S 200	20,40 ZP
M 5 x 55	S 200	25,00 ZP
M 5 x 60	S 200	26,50 ZP
M 5 x 65	S 200	37,00 ZP
M 5 x 70	S 200	38,00 ZP
M 5 x 75	S 200	47,50 ZP
M 5 x 80	S 200	50,00 ZP
M 5 x 85	S 200	69,00 ZP
M 5 x 90	S 200	63,00 ZP
M 5 x 95	S 200	80,00 ZP
M 5 x 100	S 200	68,00 ZP
M 5 x 110	S 200	76,00 ZP
M 5 x 115	S 100	200,00 ZP
M 5 x 120	S 100	83,00 ZP
M 5 x 125	S 100	340,00 ZP
M 5 x 130	S 100	310,00 ZP
M 5 x 140	S 100	520,00 ZP
M 5 x 150	S 100	660,00 ZP
M 5 x 160	S 100	680,00 ZP
M 5 x 170	S 100	720,00 ZP
M 5 x 180	S 100	750,00 ZP
M 5 x 200	S 100	980,00 ZP
M 6 x 6	S 500	32,00 ZP
M 6 x 6	K 100	36,00 ZP
M 6 x 8	S 500	11,50 ZP
M 6 x 8	K 100	15,10 ZP
M 6 x 10	S 500	5,80 ZP
M 6 x 10	K 100	9,40 ZP
M 6 x 12	S 500	6,10 ZP
M 6 x 12	K 100	9,70 ZP
M 6 x 14	S 500	8,90 ZP
M 6 x 14	K 100	12,60 ZP
M 6 x 16	S 500	5,90 ZP
M 6 x 16	K 100	9,50 ZP
M 6 x 18	S 500	6,30 ZP
M 6 x 18	K 100	9,90 ZP
M 6 x 20	S 500	6,40 ZP
M 6 x 20	K 100	10,10 ZP
M 6 x 22	S 500	11,00 ZP
M 6 x 22	K 100	14,60 ZP
M 6 x 25	S 500	6,80 ZP
M 6 x 25	K 100	10,40 ZP
M 6 x 28	S 500	16,00 ZP
M 6 x 28	K 100	19,60 ZP
M 6 x 30	S 500	7,70 ZP
M 6 x 30	K 100	11,50 ZP
M 6 x 35	S 200	8,50 ZP
M 6 x 40	S 200	9,40 ZP
M 6 x 45	S 200	12,00 ZP
M 6 x 50	S 200	12,60 ZP
M 6 x 55	S 200	19,70 ZP
M 6 x 60	S 200	21,00 ZP
M 6 x 65	S 200	27,50 ZP
M 6 x 70	S 200	28,50 ZP
M 6 x 75	S 200	38,00 ZP
M 6 x 80	S 200	39,50 ZP
M 6 x 85	S 200	50,00 ZP
M 6 x 90	S 200	46,00 ZP
M 6 x 95	S 200	112,00 ZP
M 6 x 100	S 200	54,00 ZP
M 6 x 105	S 100	112,00 ZP
M 6 x 110	S 100	77,00 ZP
M 6 x 115	S 100	141,00 ZP
M 6 x 120	S 100	88,00 ZP
M 6 x 125	S 100	190,00 ZP
M 6 x 130	S 100	138,00 ZP
M 6 x 140	S 100	184,00 ZP
M 6 x 145	S 100	410,00 ZP
M 6 x 150	S 100	216,00 ZP
M 6 x 160	S 100	600,00 ZP
M 6 x 170	S 100	740,00 ZP
M 6 x 180	S 100	810,00 ZP
M 6 x 200	S 100	1080,00 ZP
M 6 x 210	S 100	1140,00 ZP
M 6 x 220	S 100	1190,00 ZP
M 6 x 230	S 100	1290,00 ZP
M 6 x 280	S 100	1450,00 ZP
M 6 x 300	S 100	1620,00 ZP
M 8 x 8	S 200	30,00 ZP
M 8 x 10	S 200	14,10 ZP
M 8 x 12	S 200	14,70 ZP
M 8 x 14	S 200	15,50 ZP
M 8 x 16	S 200	10,00 ZP
M 8 x 18	S 200	10,60 ZP
M 8 x 20	S 200	10,30 ZP
M 8 x 22	S 200	17,50 ZP
M 8 x 25	S 200	11,30 ZP
M 8 x 30	S 200	12,10 ZP
M 8 x 35	S 200	13,20 ZP
M 8 x 40	S 200	15,00 ZP
M 8 x 45	S 200	15,50 ZP
M 8 x 50	S 200	17,30 ZP
M 8 x 55	S 200	20,00 ZP
M 8 x 60	S 200	22,00 ZP
M 8 x 65	S 200	32,00 ZP
M 8 x 70	S 200	33,00 ZP
M 8 x 75	S 200	39,50 ZP
M 8 x 80	S 200	49,00 ZP
M 8 x 85	S 100	75,00 ZP
M 8 x 90	S 100	60,00 ZP
M 8 x 95	S 100	85,00 ZP
M 8 x 100	S 100	66,00 ZP
M 8 x 105	S 100	94,00 ZP
M 8 x 110	S 100	78,00 ZP
M 8 x 115	S 100	142,00 ZP
M 8 x 120	S 100	90,00 ZP
M 8 x 125	S 100	176,00 ZP
M 8 x 130	S 100	116,00 ZP
M 8 x 135	S 100	187,00 ZP
M 8 x 140	S 100	128,00 ZP
M 8 x 145	S 100	310,00 ZP
M 8 x 150	S 100	206,00 ZP
M 8 x 160	S 100	260,00 ZP
M 8 x 170	S 100	390,00 ZP
M 8 x 180	S 100	355,00 ZP
M 8 x 190	S 100	460,00 ZP
M 8 x 200	S 100	375,00 ZP
M 8 x 210	S 100	510,00 ZP
M 8 x 220	S 100	550,00 ZP
M 8 x 230	S 100	590,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 240	S	100	630,00 ZP
M 8 x 250	S	100	650,00 ZP
M 8 x 260	S	100	650,00 ZP
M 8 x 270	S	100	710,00 ZP
M 8 x 280	S	100	890,00 ZP
M 10 x 10	S	200	108,00 ZP
M 10 x 12	S	200	50,00 ZP
M 10 x 14	S	200	39,50 ZP
M 10 x 16	S	200	27,00 ZP
M 10 x 18	S	200	53,00 ZP
M 10 x 20	S	200	18,40 ZP
M 10 x 22	S	200	34,00 ZP
M 10 x 25	S	200	19,30 ZP
M 10 x 30	S	200	20,90 ZP
M 10 x 35	S	100	22,40 ZP
M 10 x 40	S	100	24,40 ZP
M 10 x 45	S	100	27,00 ZP
M 10 x 50	S	100	29,00 ZP
M 10 x 55	S	100	31,00 ZP
M 10 x 60	S	100	33,50 ZP
M 10 x 65	S	100	36,00 ZP
M 10 x 70	S	100	37,50 ZP
M 10 x 75	S	100	44,50 ZP
M 10 x 80	S	100	46,00 ZP
M 10 x 85	S	100	62,00 ZP
M 10 x 90	S	100	63,00 ZP
M 10 x 95	S	100	142,00 ZP
M 10 x 100	S	100	69,00 ZP
M 10 x 110	S	100	78,00 ZP
M 10 x 115	S	100	166,00 ZP
M 10 x 120	S	50	93,00 ZP
M 10 x 125	S	50	187,00 ZP
M 10 x 130	S	50	129,00 ZP
M 10 x 135	S	50	224,00 ZP
M 10 x 140	S	50	154,00 ZP
M 10 x 150	S	50	203,00 ZP
M 10 x 155	S	50	310,00 ZP
M 10 x 160	S	50	223,00 ZP
M 10 x 170	S	50	315,00 ZP
M 10 x 180	S	50	325,00 ZP
M 10 x 190	S	50	385,00 ZP
M 10 x 200	S	50	360,00 ZP
M 10 x 210	S	50	680,00 ZP
M 10 x 220	S	50	680,00 ZP
M 10 x 230	S	50	710,00 ZP
M 10 x 240	S	50	710,00 ZP
M 10 x 250	S	50	870,00 ZP
M 10 x 260	S	50	850,00 ZP
M 10 x 270	S	50	930,00 ZP
M 10 x 280	S	50	930,00 ZP
M 10 x 300	S	50	1010,00 ZP
M 12 x 14	S	100	143,00 ZP
M 12 x 16	S	100	34,00 ZP
M 12 x 20	S	100	32,50 ZP
M 12 x 22	S	100	54,00 ZP
M 12 x 25	S	100	29,00 ZP
M 12 x 30	S	100	30,50 ZP
M 12 x 35	S	100	31,50 ZP
M 12 x 40	S	100	33,00 ZP
M 12 x 45	S	100	35,00 ZP
M 12 x 50	S	100	38,50 ZP
M 12 x 55	S	100	42,00 ZP
M 12 x 60	S	100	45,00 ZP
M 12 x 65	S	50	51,00 ZP
M 12 x 70	S	50	53,00 ZP
M 12 x 75	S	50	56,00 ZP
M 12 x 80	S	50	57,00 ZP
M 12 x 85	S	50	118,00 ZP
M 12 x 90	S	50	69,00 ZP
M 12 x 95	S	50	163,00 ZP
M 12 x 100	S	50	83,00 ZP
M 12 x 110	S	50	101,00 ZP
M 12 x 115	S	50	200,00 ZP
M 12 x 120	S	50	115,00 ZP
M 12 x 125	S	50	222,00 ZP
M 12 x 130	S	50	155,00 ZP
M 12 x 135	S	50	241,00 ZP
M 12 x 140	S	50	181,00 ZP
M 12 x 145	S	50	275,00 ZP
M 12 x 150	S	50	223,00 ZP
M 12 x 155	S	50	295,00 ZP
M 12 x 160	S	50	265,00 ZP
M 12 x 170	S	50	350,00 ZP
M 12 x 180	S	50	350,00 ZP
M 12 x 190	S	50	405,00 ZP
M 12 x 200	S	50	405,00 ZP
M 12 x 210	S	25	970,00 ZP
M 12 x 220	S	25	720,00 ZP
M 12 x 230	S	25	1040,00 ZP
M 12 x 240	S	25	800,00 ZP
M 12 x 250	S	25	1130,00 ZP
M 12 x 260	S	25	880,00 ZP
M 12 x 270	S	25	1200,00 ZP
M 12 x 290	S	25	1430,00 ZP
M 12 x 300	S	25	1010,00 ZP
M 14 x 20	S	100	120,00 ZP
M 14 x 25	S	100	93,00 ZP
M 14 x 30	S	100	86,00 ZP
M 14 x 35	S	100	98,00 ZP
M 14 x 40	S	100	91,00 ZP
M 14 x 45	S	50	102,00 ZP
M 14 x 50	S	50	102,00 ZP
M 14 x 55	S	50	126,00 ZP
M 14 x 60	S	50	117,00 ZP
M 14 x 65	S	50	144,00 ZP
M 14 x 70	S	50	148,00 ZP
M 14 x 75	S	50	161,00 ZP
M 14 x 80	S	50	167,00 ZP
M 14 x 90	S	50	182,00 ZP
M 14 x 100	S	50	201,00 ZP
M 14 x 110	S	50	236,00 ZP
M 14 x 120	S	50	260,00 ZP
M 14 x 130	S	50	295,00 ZP
M 14 x 140	S	25	310,00 ZP
M 14 x 150	S	25	390,00 ZP
M 14 x 160	S	25	650,00 ZP
M 14 x 200	S	25	760,00 ZP
M 16 x 20	S	50	114,00 ZP
M 16 x 25	S	50	89,00 ZP
M 16 x 30	S	50	60,00 ZP
M 16 x 35	S	50	62,00 ZP
M 16 x 40	S	50	65,00 ZP
M 16 x 45	S	50	70,00 ZP
M 16 x 50	S	50	76,00 ZP
M 16 x 55	S	50	82,00 ZP
M 16 x 60	S	50	86,00 ZP
M 16 x 65	S	25	97,00 ZP
M 16 x 70	S	25	98,00 ZP
M 16 x 75	S	25	109,00 ZP
M 16 x 80	S	25	111,00 ZP
M 16 x 85	S	25	250,00 ZP
M 16 x 90	S	25	131,00 ZP
M 16 x 95	S	25	205,00 ZP
M 16 x 100	S	25	144,00 ZP
M 16 x 110	S	25	193,00 ZP
M 16 x 120	S	25	211,00 ZP
M 16 x 130	S	25	236,00 ZP
M 16 x 140	S	25	295,00 ZP
M 16 x 150	S	25	370,00 ZP
M 16 x 160	S	25	385,00 ZP
M 16 x 170	S	25	485,00 ZP
M 16 x 180	S	25	445,00 ZP
M 16 x 190	S	25	690,00 ZP
M 16 x 200	S	25	530,00 ZP
M 16 x 210	S	25	820,00 ZP
M 16 x 220	S	25	630,00 ZP
M 16 x 230	S	25	920,00 ZP
M 16 x 240	S	25	780,00 ZP
M 16 x 250	S	25	850,00 ZP
M 16 x 260	S	25	850,00 ZP
M 16 x 270	S	25	1070,00 ZP
M 16 x 280	S	25	920,00 ZP
M 16 x 300	S	25	1070,00 ZP
M 16 x 320	S	10	1720,00 ZP
M 16 x 340	S	10	2010,00 ZP
M 16 x 360	S	10	2360,00 ZP
M 18 x 30	S	50	270,00 ZP
M 18 x 35	S	50	270,00 ZP
M 18 x 40	S	50	242,00 ZP
M 18 x 45	S	50	260,00 ZP
M 18 x 50	S	50	265,00 ZP
M 18 x 55	S	25	275,00 ZP
M 18 x 60	S	25	285,00 ZP
M 18 x 70	S	25	320,00 ZP
M 18 x 80	S	25	345,00 ZP
M 18 x 90	S	25	375,00 ZP
M 18 x 100	S	25	415,00 ZP
M 18 x 110	S	25	530,00 ZP
M 18 x 120	S	25	580,00 ZP
M 20 x 25	S	25	425,00 ZP
M 20 x 30	S	25	213,00 ZP
M 20 x 35	S	25	216,00 ZP
M 20 x 40	S	25	131,00 ZP
M 20 x 45	S	25	137,00 ZP
M 20 x 50	S	25	143,00 ZP
M 20 x 55	S	25	152,00 ZP
M 20 x 60	S	25	154,00 ZP
M 20 x 65	S	25	166,00 ZP
M 20 x 70	S	25	170,00 ZP
M 20 x 75	S	25	180,00 ZP
M 20 x 80	S	25	181,00 ZP
M 20 x 85	S	25	1090,00 ZP
M 20 x 90	S	25	217,00 ZP
M 20 x 100	S	25	232,00 ZP
M 20 x 110	S	25	270,00 ZP
M 20 x 120	S	25	295,00 ZP
M 20 x 130	S	25	395,00 ZP
M 20 x 140	S	25	550,00 ZP
M 20 x 150	S	25	620,00 ZP
M 20 x 160	S	10	640,00 ZP
M 20 x 170	S	10	770,00 ZP
M 20 x 180	S	10	770,00 ZP
M 20 x 190	S	10	890,00 ZP
M 20 x 200	S	1	900,00 ZP
M 20 x 210	S	1	1000,00 ZP
M 20 x 220	S	1	1010,00 ZP
M 20 x 230	S	1	1160,00 ZP
M 20 x 240	S	1	1160,00 ZP
M 20 x 250	S	1	1230,00 ZP
M 20 x 260	S	1	1230,00 ZP
M 20 x 270	S	1	1380,00 ZP
M 20 x 280	S	1	1390,00 ZP
M 20 x 300	S	1	1480,00 ZP
M 20 x 310	S	1	1710,00 ZP
M 20 x 320	S	1	1720,00 ZP
M 22 x 50	S	25	850,00 ZP
M 22 x 80	S	25	930,00 ZP
M 22 x 100	S	10	1030,00 ZP
M 24 x 30	S	25	1270,00 ZP
M 24 x 40	S	25	780,00 ZP
M 24 x 45	S	25	780,00 ZP
M 24 x 50	S	25	310,00 ZP
M 24 x 55	S	25	345,00 ZP
M 24 x 60	S	25	345,00 ZP
M 24 x 65	S	25	370,00 ZP
M 24 x 70	S	25	375,00 ZP
M 24 x 75	S	25	380,00 ZP
M 24 x 80	S	25	385,00 ZP
M 24 x 85	S	10	1130,00 ZP
M 24 x 90	S	10	455,00 ZP
M 24 x 100	S	10	475,00 ZP
M 24 x 110	S	10	580,00 ZP
M 24 x 120	S	10	620,00 ZP
M 24 x 130	S	1	710,00 ZP
M 24 x 140	S	1	870,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	150	S	1	1060,00 ZP
M 24	x	160	S	1	950,00 ZP
M 24	x	170	S	10	1020,00 ZP
M 24	x	180	S	1	1060,00 ZP
M 24	x	200	S	1	1160,00 ZP
M 24	x	210	S	1	1530,00 ZP
M 24	x	220	S	1	1530,00 ZP
M 24	x	230	S	1	1630,00 ZP
M 24	x	240	S	1	1630,00 ZP
M 24	x	250	S	1	1720,00 ZP
M 24	x	260	S	1	1730,00 ZP
M 24	x	280	S	1	1860,00 ZP
M 24	x	300	S	1	2010,00 ZP
M 25	x	50	S	10	1170,00 ZP
M 27	x	60	S	10	1180,00 ZP
M 27	x	65	S	10	1220,00 ZP
M 27	x	70	S	10	1220,00 ZP
M 27	x	80	S	10	1280,00 ZP
M 27	x	90	S	10	1340,00 ZP
M 27	x	100	S	10	1410,00 ZP
M 27	x	110	S	10	1450,00 ZP
M 27	x	120	S	10	1600,00 ZP
M 27	x	130	S	1	1670,00 ZP
M 27	x	140	S	1	1740,00 ZP
M 27	x	200	S	1	2100,00 ZP
M 30	x	35	S	10	2040,00 ZP
M 30	x	40	S	10	2040,00 ZP
M 30	x	50	S	10	1360,00 ZP
M 30	x	55	S	10	1360,00 ZP
M 30	x	60	S	10	1360,00 ZP
M 30	x	65	S	10	1390,00 ZP
M 30	x	70	S	10	1420,00 ZP
M 30	x	80	S	10	1480,00 ZP
M 30	x	85	S	1	1540,00 ZP
M 30	x	90	S	1	1540,00 ZP
M 30	x	100	S	1	1600,00 ZP
M 30	x	110	S	1	1660,00 ZP
M 30	x	120	S	1	1720,00 ZP
M 30	x	130	S	1	1780,00 ZP
M 30	x	140	S	1	1840,00 ZP
M 30	x	150	S	1	1950,00 ZP
M 30	x	160	S	1	2020,00 ZP
M 30	x	170	S	1	2110,00 ZP
M 30	x	180	S	1	2130,00 ZP
M 30	x	190	S	1	2240,00 ZP
M 30	x	200	S	1	2320,00 ZP
M 30	x	210	S	1	2500,00 ZP
M 30	x	220	S	1	2500,00 ZP
M 30	x	240	S	1	2650,00 ZP
M 30	x	250	S	1	2800,00 ZP
M 30	x	260	S	1	2800,00 ZP
M 30	x	280	S	1	2900,00 ZP
M 30	x	300	S	1	3200,00 ZP
M 36	x	50	S	1	2340,00 ZP
M 36	x	60	S	1	2340,00 ZP
M 36	x	65	S	1	2340,00 ZP
M 36	x	70	S	1	2300,00 ZP
M 36	x	80	S	1	2320,00 ZP
M 36	x	90	S	1	2400,00 ZP
M 36	x	100	S	1	2480,00 ZP
M 36	x	110	S	1	2600,00 ZP
M 36	x	120	S	1	2700,00 ZP
M 36	x	130	S	1	2800,00 ZP
M 36	x	140	S	1	2900,00 ZP
M 36	x	150	S	1	3000,00 ZP
M 36	x	160	S	1	3100,00 ZP
M 36	x	180	S	1	3350,00 ZP
M 36	x	200	S	1	3600,00 ZP
M 36	x	220	S	1	3850,00 ZP
M 36	x	230	S	1	4050,00 ZP
M 36	x	260	S	1	4250,00 ZP
M 36	x	310	S	1	7100,00 ZP
M 36	x	320	S	1	6500,00 ZP
M 42	x	70	S	1	3950,00 ZP
M 42	x	80	S	1	3950,00 ZP
M 42	x	90	S	1	4000,00 ZP
M 42	x	100	S	1	4150,00 ZP

ISO	04762.317	360
4762	**8.8** **zinc plated 8 TLP***	



Hexagon socket head cap screws

*< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓

REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	500	11,80 ZP TLP
M 3	x	8	S	500	8,20 ZP TLP
M 3	x	10	S	500	7,00 ZP TLP
M 3	x	12	S	500	7,20 ZP TLP
M 3	x	16	S	500	7,70 ZP TLP
M 3	x	20	S	500	8,20 ZP TLP
M 4	x	6	S	500	14,40 ZP TLP
M 4	x	8	S	500	8,50 ZP TLP
M 4	x	10	S	500	6,60 ZP TLP
M 4	x	12	S	500	6,90 ZP TLP
M 4	x	16	S	500	6,70 ZP TLP
M 4	x	20	S	500	7,30 ZP TLP
M 4	x	25	S	500	8,30 ZP TLP
M 4	x	30	S	500	8,90 ZP TLP
M 4	x	35	S	500	10,90 ZP TLP
M 4	x	40	S	500	11,50 ZP TLP
M 5	x	6	S	500	15,50 ZP TLP
M 5	x	8	S	500	12,30 ZP TLP
M 5	x	10	S	500	6,60 ZP TLP
M 5	x	12	S	500	6,80 ZP TLP
M 5	x	16	S	500	6,80 ZP TLP
M 5	x	20	S	500	7,30 ZP TLP
M 5	x	25	S	500	7,90 ZP TLP
M 5	x	30	S	500	9,60 ZP TLP
M 5	x	35	S	200	10,30 ZP TLP
M 5	x	40	S	200	10,90 ZP TLP
M 5	x	45	S	200	20,00 ZP TLP
M 5	x	50	S	200	26,00 ZP TLP
M 6	x	8	S	500	14,40 ZP TLP
M 6	x	10	S	500	7,20 ZP TLP
M 6	x	12	S	500	7,60 ZP TLP
M 6	x	16	S	500	7,30 ZP TLP
M 6	x	20	S	500	8,10 ZP TLP
M 6	x	22	S	500	14,10 ZP TLP
M 6	x	25	S	500	9,60 ZP TLP
M 6	x	30	S	500	10,30 ZP TLP
M 6	x	35	S	200	10,80 ZP TLP
M 6	x	40	S	200	11,70 ZP TLP
M 6	x	45	S	200	15,00 ZP TLP
M 6	x	50	S	200	15,80 ZP TLP
M 6	x	55	S	200	24,60 ZP TLP
M 6	x	60	S	200	26,50 ZP TLP
M 6	x	65	S	200	38,00 ZP TLP
M 6	x	70	S	200	39,50 ZP TLP
M 6	x	75	S	200	52,00 ZP TLP
M 6	x	80	S	200	54,00 ZP TLP
M 6	x	100	S	200	67,00 ZP TLP
M 8	x	10	S	200	17,60 ZP TLP
M 8	x	12	S	200	18,40 ZP TLP
M 8	x	16	S	200	12,60 ZP TLP
M 8	x	20	S	200	12,90 ZP TLP
M 8	x	25	S	200	14,10 ZP TLP
M 8	x	30	S	200	15,20 ZP TLP
M 8	x	35	S	200	16,60 ZP TLP
M 8	x	40	S	200	18,70 ZP TLP
M 8	x	45	S	200	19,40 ZP TLP
M 8	x	50	S	200	21,60 ZP TLP
M 8	x	55	S	200	33,00 ZP TLP
M 8	x	60	S	200	28,00 ZP TLP
M 8	x	65	S	200	47,00 ZP TLP
M 8	x	70	S	200	49,50 ZP TLP
M 8	x	80	S	200	69,00 ZP TLP
M 8	x	90	S	100	78,00 ZP TLP
M 8	x	100	S	100	94,00 ZP TLP
M 10	x	16	S	200	34,00 ZP TLP
M 10	x	20	S	200	23,00 ZP TLP
M 10	x	25	S	200	24,50 ZP TLP
M 10	x	30	S	200	26,50 ZP TLP
M 10	x	35	S	100	28,50 ZP TLP
M 10	x	40	S	100	31,00 ZP TLP
M 10	x	45	S	100	34,50 ZP TLP
M 10	x	50	S	100	36,00 ZP TLP
M 10	x	55	S	100	39,00 ZP TLP
M 10	x	60	S	100	42,00 ZP TLP
M 10	x	70	S	100	62,00 ZP TLP
M 10	x	80	S	100	75,00 ZP TLP
M 10	x	90	S	100	94,00 ZP TLP
M 10	x	100	S	100	101,00 ZP TLP
M 12	x	20	S	100	50,00 ZP TLP
M 12	x	25	S	100	36,50 ZP TLP
M 12	x	30	S	100	38,50 ZP TLP
M 12	x	35	S	100	39,50 ZP TLP
M 12	x	40	S	100	41,50 ZP TLP
M 12	x	45	S	100	44,50 ZP TLP
M 12	x	50	S	100	48,00 ZP TLP
M 12	x	60	S	100	57,00 ZP TLP
M 12	x	65	S	50	64,00 ZP TLP
M 12	x	70	S	50	66,00 ZP TLP
M 12	x	75	S	50	70,00 ZP TLP
M 12	x	80	S	50	71,00 ZP TLP
M 12	x	90	S	50	87,00 ZP TLP
M 16	x	25	S	50	107,00 ZP TLP
M 16	x	30	S	50	76,00 ZP TLP
M 16	x	35	S	50	77,00 ZP TLP
M 16	x	40	S	50	82,00 ZP TLP
M 16	x	50	S	50	95,00 ZP TLP
M 16	x	55	S	50	110,00 ZP TLP
M 16	x	60	S	50	141,00 ZP TLP
M 16	x	65	S	25	124,00 ZP TLP
M 16	x	70	S	25	125,00 ZP TLP
M 16	x	80	S	25	182,00 ZP TLP
M 16	x	90	S	25	212,00 ZP TLP
M 16	x	100	S	25	230,00 ZP TLP
M 16	x	120	S	25	310,00 ZP TLP

Dimensions			PU	Pieces	€/100/Mat.
ISO	04762.428				360
4762	**8.8** **zinc plated 8 TLP* + SL****				
M 3	x	6	S	500	11,30 ZP TLP
M 3	x	8	S	500	7,90 ZP TLP
M 3	x	10	S	500	6,70 ZP TLP
M 3	x	12	S	500	6,90 ZP TLP
M 3	x	16	S	500	7,40 ZP TLP
M 3	x	20	S	500	7,90 ZP TLP
M 4	x	6	S	500	13,80 ZP TLP
M 4	x	8	S	500	8,20 ZP TLP
M 4	x	10	S	500	6,30 ZP TLP
M 4	x	12	S	500	6,60 ZP TLP
M 4	x	16	S	500	6,40 ZP TLP
M 4	x	20	S	500	7,00 ZP TLP
M 4	x	25	S	500	8,00 ZP TLP
M 4	x	30	S	500	8,50 ZP TLP
M 4	x	35	S	500	10,40 ZP TLP
M 4	x	40	S	500	11,10 ZP TLP
M 4	x	45	S	500	24,00 ZP TLP
M 4	x	50	S	500	28,50 ZP TLP
M 5	x	6	S	500	14,90 ZP TLP
M 5	x	8	S	500	11,70 ZP TLP
M 5	x	10	S	500	6,40 ZP TLP
M 5	x	12	S	500	6,50 ZP TLP
M 5	x	14	S	500	11,10 ZP TLP
M 5	x	16	S	500	6,40 ZP TLP
M 5	x	20	S	500	7,00 ZP TLP
M 5	x	22	S	500	12,90 ZP TLP
M 5	x	25	S	500	7,50 ZP TLP
M 5	x	30	S	500	9,20 ZP TLP
M 5	x	35	S	200	9,90 ZP TLP
M 5	x	40	S	200	10,50 ZP TLP
M 5	x	45	S	200	19,20 ZP TLP
M 5	x	50	S	200	24,70 ZP TLP
M 5	x	55	S	200	27,00 ZP TLP
M 6	x	8	S	500	13,80 ZP TLP
M 6	x	10	S	500	6,90 ZP TLP
M 6	x	12	S	500	7,30 ZP TLP
M 6	x	16	S	500	7,00 ZP TLP
M 6	x	20	S	500	7,70 ZP TLP
M 6	x	22	S	500	13,50 ZP TLP
M 6	x	25	S	500	8,10 ZP TLP
M 6	x	30	S	500	9,30 ZP TLP
M 6	x	32	S	200	9,80 ZP TLP
M 6	x	35	S	200	10,30 ZP TLP
M 6	x	40	S	200	11,20 ZP TLP
M 6	x	45	S	200	14,40 ZP TLP
M 6	x	50	S	200	15,20 ZP TLP
M 6	x	55	S	200	23,60 ZP TLP
M 6	x	60	S	200	25,50 ZP TLP
M 6	x	65	S	200	36,50 ZP TLP
M 6	x	70	S	200	37,50 ZP TLP
M 6	x	75	S	200	49,50 ZP TLP
M 6	x	80	S	200	51,00 ZP TLP
M 6	x	85	S	200	47,50 ZP TLP
M 6	x	100	S	200	64,00 ZP TLP
M 6	x	105	S	100	154,00 ZP TLP
M 6	x	110	S	100	62,00 ZP TLP
M 6	x	130	S	100	76,00 ZP TLP
M 8	x	10	S	200	16,90 ZP TLP
M 8	x	12	S	200	17,60 ZP TLP
M 8	x	16	S	200	12,20 ZP TLP
M 8	x	20	S	200	12,40 ZP TLP
M 8	x	25	S	200	13,60 ZP TLP
M 8	x	30	S	200	14,60 ZP TLP
M 8	x	35	S	200	15,90 ZP TLP
M 8	x	40	S	200	18,00 ZP TLP
M 8	x	45	S	200	18,60 ZP TLP
M 8	x	50	S	200	20,70 ZP TLP
M 8	x	55	S	200	31,50 ZP TLP
M 8	x	60	S	200	26,50 ZP TLP
M 8	x	65	S	200	45,00 ZP TLP
M 8	x	70	S	200	47,50 ZP TLP
M 8	x	80	S	200	67,00 ZP TLP
M 8	x	85	S	200	59,00 ZP TLP
M 8	x	90	S	100	75,00 ZP TLP
M 8	x	100	S	100	90,00 ZP TLP
M 8	x	110	S	100	104,00 ZP TLP
M 8	x	200	S	50	200,00 ZP TLP
M 10	x	12	S	200	60,00 ZP TLP
M 10	x	16	S	200	32,50 ZP TLP
M 10	x	20	S	200	22,10 ZP TLP
M 10	x	25	S	200	23,40 ZP TLP
M 10	x	30	S	200	25,50 ZP TLP
M 10	x	35	S	100	27,00 ZP TLP
M 10	x	40	S	100	30,00 ZP TLP
M 10	x	45	S	100	33,00 ZP TLP
M 10	x	50	S	100	34,50 ZP TLP
M 10	x	55	S	100	37,50 ZP TLP
M 10	x	60	S	100	40,50 ZP TLP
M 10	x	65	S	100	39,50 ZP TLP
M 10	x	70	S	100	60,00 ZP TLP
M 10	x	80	S	100	72,00 ZP TLP
M 10	x	90	S	100	90,00 ZP TLP
M 10	x	100	S	100	97,00 ZP TLP
M 10	x	110	S	100	108,00 ZP TLP
M 10	x	120	S	50	128,00 ZP TLP
M 10	x	135	S	50	152,00 ZP TLP
M 12	x	20	S	100	48,00 ZP TLP
M 12	x	25	S	100	35,00 ZP TLP
M 12	x	30	S	100	37,00 ZP TLP
M 12	x	35	S	100	37,50 ZP TLP
M 12	x	40	S	100	40,00 ZP TLP
M 12	x	45	S	100	42,50 ZP TLP
M 12	x	50	S	100	106,00 ZP TLP
M 12	x	60	S	100	54,00 ZP TLP
M 12	x	65	S	50	61,00 ZP TLP
M 12	x	70	S	50	64,00 ZP TLP
M 12	x	75	S	50	67,00 ZP TLP
M 12	x	80	S	50	68,00 ZP TLP
M 12	x	90	S	50	83,00 ZP TLP
M 12	x	100	S	50	106,00 ZP TLP
M 12	x	110	S	50	105,00 ZP TLP
M 12	x	120	S	50	128,00 ZP TLP
M 14	x	30	S	100	79,00 ZP TLP
M 16	x	25	S	50	103,00 ZP TLP
M 16	x	30	S	50	73,00 ZP TLP
M 16	x	35	S	50	74,00 ZP TLP
M 16	x	40	S	50	78,00 ZP TLP
M 16	x	45	S	50	87,00 ZP TLP
M 16	x	50	S	50	92,00 ZP TLP
M 16	x	55	S	50	105,00 ZP TLP
M 16	x	60	S	50	135,00 ZP TLP
M 16	x	65	S	25	118,00 ZP TLP
M 16	x	70	S	25	120,00 ZP TLP
M 16	x	75	S	25	137,00 ZP TLP
M 16	x	80	S	25	175,00 ZP TLP
M 16	x	85	S	25	305,00 ZP TLP
M 16	x	90	S	25	204,00 ZP TLP
M 16	x	100	S	25	221,00 ZP TLP
M 16	x	120	S	25	295,00 ZP TLP
M 16	x	130	S	25	330,00 ZP TLP
M 16	x	140	S	25	365,00 ZP TLP
M 16	x	150	S	25	455,00 ZP TLP
M 16	x	180	S	25	540,00 ZP TLP
M 16	x	300	S	25	1070,00 ZP TLP
M 20	x	35	S	25	136,00 ZP TLP
M 20	x	50	S	25	172,00 ZP TLP
M 20	x	55	S	25	147,00 ZP TLP
M 20	x	60	S	25	185,00 ZP TLP
M 20	x	65	S	25	199,00 ZP TLP
M 20	x	70	S	25	195,00 ZP TLP
M 20	x	100	S	25	236,00 ZP TLP
M 20	x	120	S	25	345,00 ZP TLP
M 20	x	150	S	25	760,00 ZP TLP
M 20	x	180	S	25	770,00 ZP TLP

Hexagon socket head cap screws

*< M 6 min. coating thickness 5µm,
** SL = sealer and lubrication with µ = 0,12 – 0,18,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
ISO	04762.353				1570
4762	**8.8** **flZn/TL480h**				
M 6	x	12	S	500	10,30 flZn
M 6	x	14	S	500	15,30 flZn
M 6	x	16	S	500	9,90 flZn
M 6	x	18	S	500	10,70 flZn
M 6	x	20	S	500	10,80 flZn
M 6	x	22	S	500	18,60 flZn
M 6	x	25	S	500	11,50 flZn
M 6	x	28	S	500	27,00 flZn
M 6	x	30	S	500	13,20 flZn
M 6	x	35	S	200	14,30 flZn
M 6	x	40	S	200	15,90 flZn
M 6	x	45	S	200	20,50 flZn
M 6	x	50	S	200	21,40 flZn
M 6	x	55	S	200	34,00 flZn
M 6	x	60	S	200	36,00 flZn
M 6	x	65	S	200	47,00 flZn
M 6	x	70	S	200	48,50 flZn
M 6	x	75	S	200	65,00 flZn
M 6	x	80	S	200	67,00 flZn
M 8	x	16	S	200	17,10 flZn
M 8	x	20	S	200	17,50 flZn
M 8	x	25	S	200	19,20 flZn
M 8	x	30	S	200	20,50 flZn
M 8	x	35	S	200	22,40 flZn
M 8	x	40	S	200	25,50 flZn
M 8	x	45	S	200	26,50 flZn

Hexagon socket head cap screws

TL = lubricant in topcoat with µ = 0,09 – 0,14,
480h salt spray test, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	50	S	200	29,50 flZn
M 8	x	55	S	200	34,00 flZn
M 8	x	60	S	200	38,00 flZn
M 8	x	65	S	200	54,00 flZn
M 8	x	70	S	200	56,00 flZn
M 8	x	75	S	200	68,00 flZn
M 8	x	80	S	200	84,00 flZn
M 8	x	90	S	100	102,00 flZn
M 10	x	20	S	200	31,50 flZn
M 10	x	25	S	200	33,50 flZn
M 10	x	30	S	200	36,00 flZn
M 10	x	35	S	100	38,50 flZn
M 10	x	40	S	100	42,00 flZn
M 10	x	45	S	100	45,50 flZn
M 10	x	50	S	100	49,00 flZn
M 10	x	55	S	100	53,00 flZn
M 10	x	60	S	100	57,00 flZn
M 10	x	65	S	100	62,00 flZn
M 10	x	70	S	100	64,00 flZn
M 10	x	75	S	100	76,00 flZn
M 10	x	80	S	100	78,00 flZn
M 10	x	90	S	100	107,00 flZn
M 12	x	20	S	100	55,00 flZn
M 12	x	25	S	100	49,50 flZn
M 12	x	30	S	100	52,00 flZn
M 12	x	35	S	100	54,00 flZn
M 12	x	40	S	100	56,00 flZn
M 12	x	45	S	100	60,00 flZn
M 12	x	50	S	100	65,00 flZn
M 12	x	55	S	100	72,00 flZn
M 12	x	60	S	100	77,00 flZn
M 12	x	65	S	50	86,00 flZn
M 12	x	70	S	50	90,00 flZn
M 12	x	75	S	50	94,00 flZn
M 12	x	80	S	50	97,00 flZn
M 12	x	90	S	50	118,00 flZn
M 12	x	100	S	50	141,00 flZn
M 16	x	30	S	50	102,00 flZn
M 16	x	35	S	50	105,00 flZn
M 16	x	40	S	50	111,00 flZn
M 16	x	45	S	50	119,00 flZn
M 16	x	50	S	50	129,00 flZn
M 16	x	55	S	50	138,00 flZn
M 16	x	60	S	50	145,00 flZn
M 16	x	65	S	25	164,00 flZn
M 16	x	70	S	25	167,00 flZn
M 16	x	75	S	25	185,00 flZn
M 16	x	80	S	25	188,00 flZn
M 16	x	90	S	25	223,00 flZn
M 16	x	100	S	25	245,00 flZn
M 16	x	110	S	25	335,00 flZn
M 16	x	120	S	25	360,00 flZn
M 20	x	65	S	25	285,00 flZn
M 20	x	70	S	25	290,00 flZn
M 20	x	75	S	25	305,00 flZn
M 20	x	80	S	25	310,00 flZn
M 20	x	90	S	25	375,00 flZn
M 20	x	100	S	25	400,00 flZn
M 20	x	110	S	25	465,00 flZn
M 20	x	120	S	25	495,00 flZn
M 20	x	130	S	25	680,00 flZn
M 20	x	140	S	25	930,00 flZn
M 20	x	150	S	25	1060,00 flZn
M 20	x	160	S	10	1080,00 flZn
M 20	x	170	S	10	1290,00 flZn
M 20	x	180	S	10	1290,00 flZn
M 24	x	75	S	25	650,00 flZn
M 24	x	80	S	25	650,00 flZn
M 24	x	90	S	10	770,00 flZn
M 24	x	100	S	10	810,00 flZn
M 24	x	110	S	10	980,00 flZn
M 24	x	120	S	10	1060,00 flZn
M 24	x	130	S	1	1200,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	140	S	1	1470,00 flZn
M 24	x	150	S	1	1790,00 flZn
M 24	x	160	S	1	1620,00 flZn
M 24	x	170	S	1	1720,00 flZn
M 24	x	180	S	1	1800,00 flZn

~ISO	04762.388	364

4762 **8.8** **FT**



Hexagon socket head cap screws, FT = full thread

Dimensions → TI-12
Material properties → TI-232
Tightening torque → TI-244
Standard conversion → TI-6

design and other dimensions identical to ISO 4762

RoHS ✓ REACh SVHC free

M 5	x	40	S	200	24,60
M 5	x	50	S	200	28,50
M 5	x	60	S	200	31,50
M 5	x	70	S	200	35,00
M 5	x	80	S	200	38,50
M 6	x	40	S	200	27,50
M 6	x	50	S	200	34,00
M 6	x	60	S	200	41,00
M 6	x	70	S	200	46,50
M 6	x	80	S	200	52,00
M 6	x	90	S	200	67,00
M 6	x	100	S	200	138,00
M 8	x	50	S	200	52,00
M 8	x	60	S	200	59,00
M 8	x	70	S	200	73,00
M 8	x	80	S	200	88,00
M 8	x	90	S	100	95,00
M 8	x	100	S	100	111,00
M 10	x	50	S	100	80,00
M 10	x	60	S	100	131,00
M 10	x	70	S	100	152,00
M 10	x	80	S	100	177,00
M 10	x	90	S	100	255,00
M 10	x	100	S	100	295,00
M 12	x	70	S	50	182,00
M 12	x	80	S	50	218,00
M 12	x	90	S	50	295,00
M 12	x	100	S	50	415,00
M 16	x	70	S	25	242,00
M 16	x	80	S	25	295,00
M 16	x	90	S	25	390,00
M 16	x	100	S	25	550,00
M 16	x	120	S	25	660,00

Dimensions	PU	Pieces	€/100/Mat.
~ISO	04762.329		364
4762	**8.8 zinc plated**		**FT**



Hexagon socket head cap screws, FT = full thread

Dimensions → TI-12
Material properties → TI-232
Corrosion protection → TI-228
Tightening torque → TI-244
Standard conversion → TI-6

design and other dimensions identical to ISO 4762

RoHS ✓ REACh SVHC free

M 4	x	30	S	500	35,50 ZP
M 5	x	40	S	200	35,50 ZP
M 5	x	45	S	200	38,00 ZP
M 5	x	50	S	200	40,50 ZP
M 5	x	60	S	200	45,00 ZP
M 5	x	70	S	200	50,00 ZP
M 5	x	80	S	200	55,00 ZP
M 6	x	40	S	200	39,00 ZP
M 6	x	50	S	200	48,50 ZP
M 6	x	60	S	200	58,00 ZP
M 6	x	70	S	200	67,00 ZP
M 6	x	75	S	200	91,00 ZP
M 6	x	80	S	200	74,00 ZP
M 6	x	90	S	200	95,00 ZP
M 6	x	100	S	200	197,00 ZP
M 8	x	45	S	200	71,00 ZP
M 8	x	50	S	200	74,00 ZP
M 8	x	60	S	200	85,00 ZP
M 8	x	70	S	200	105,00 ZP
M 8	x	75	S	200	115,00 ZP
M 8	x	80	S	200	125,00 ZP
M 8	x	90	S	100	136,00 ZP
M 8	x	100	S	100	159,00 ZP
M 10	x	50	S	100	114,00 ZP
M 10	x	60	S	100	187,00 ZP
M 10	x	80	S	100	255,00 ZP
M 10	x	90	S	100	360,00 ZP
M 10	x	100	S	100	420,00 ZP
M 12	x	60	S	100	222,00 ZP
M 12	x	80	S	50	315,00 ZP
M 12	x	100	S	50	590,00 ZP

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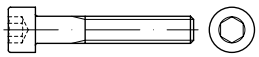
Technical Competence
REM – REYHER Engineering Management

- Experienced engineers and technicians with comprehensive specialist expertise
- Technology hotline for customer consulting
- Our training lifts you to the cutting-edge of technology

Dimensions	PU Pieces	€/100/Mat.
ISO	04762.100	362

4762

10.9



Hexagon socket head cap screws

Dimensions ➔ TI-12
Tightening torque ➔ TI-244
Material properties ➔ TI-232
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓

REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	500	10,10
M 3	x	8	S	500	8,00
M 3	x	10	S	500	6,60
M 3	x	12	S	500	6,90
M 3	x	14	S	500	16,30
M 3	x	16	S	500	7,10
M 3	x	20	S	500	7,60
M 3	x	25	S	500	8,20
M 3	x	30	S	500	9,40
M 4	x	6	S	500	20,20
M 4	x	8	S	500	7,70
M 4	x	10	S	500	7,10
M 4	x	12	S	500	7,20
M 4	x	14	S	500	20,40
M 4	x	16	S	500	7,30
M 4	x	18	S	500	7,60
M 4	x	20	S	500	7,70
M 4	x	22	S	500	20,50
M 4	x	25	S	500	8,00
M 4	x	30	S	500	8,60
M 4	x	35	S	500	8,90
M 4	x	40	S	500	9,70
M 4	x	45	S	500	25,00
M 4	x	50	S	500	26,00
M 4	x	55	S	200	28,50
M 4	x	60	S	200	30,50
M 4	x	65	S	200	31,00
M 4	x	70	S	200	34,50
M 5	x	6	S	500	23,50
M 5	x	8	S	500	16,70
M 5	x	10	S	500	6,20
M 5	x	12	S	500	6,50
M 5	x	14	S	500	17,00
M 5	x	16	S	500	6,60
M 5	x	18	S	500	8,00
M 5	x	20	S	500	6,90
M 5	x	22	S	500	17,70
M 5	x	25	S	500	7,30
M 5	x	30	S	500	7,80
M 5	x	35	S	200	10,40
M 5	x	40	S	200	10,60
M 5	x	45	S	200	18,00
M 5	x	50	S	200	24,20
M 5	x	55	S	200	27,50
M 5	x	60	S	200	29,00
M 5	x	65	S	200	40,00
M 5	x	70	S	200	40,50
M 5	x	75	S	200	64,00
M 5	x	80	S	200	64,00
M 5	x	85	S	200	136,00
M 5	x	90	S	200	70,00
M 5	x	95	S	200	194,00
M 5	x	100	S	200	78,00
M 5	x	110	S	100	181,00
M 5	x	120	S	100	186,00
M 5	x	130	S	100	530,00
M 5	x	135	S	100	640,00
M 5	x	140	S	100	640,00
M 5	x	150	S	100	650,00
M 5	x	160	S	100	660,00
M 5	x	170	S	100	700,00
M 5	x	180	S	100	720,00
M 5	x	190	S	100	830,00
M 5	x	200	S	100	910,00
M 6	x	8	S	500	18,60
M 6	x	10	S	500	6,30
M 6	x	12	S	500	6,50
M 6	x	14	S	500	14,60
M 6	x	16	S	500	6,60
M 6	x	18	S	500	7,40
M 6	x	20	S	500	6,70
M 6	x	22	S	500	18,10
M 6	x	25	S	500	6,90
M 6	x	30	S	500	7,90
M 6	x	35	S	200	8,40
M 6	x	40	S	200	9,40
M 6	x	45	S	200	12,30
M 6	x	50	S	200	14,60
M 6	x	55	S	200	23,20
M 6	x	60	S	200	23,60
M 6	x	65	S	200	30,00
M 6	x	70	S	200	39,50
M 6	x	75	S	200	49,00
M 6	x	80	S	200	54,00
M 6	x	85	S	200	96,00
M 6	x	90	S	200	66,00
M 6	x	95	S	200	115,00
M 6	x	100	S	200	79,00
M 6	x	110	S	100	108,00
M 6	x	120	S	100	117,00
M 6	x	130	S	100	360,00
M 6	x	135	S	100	420,00
M 6	x	140	S	100	380,00
M 6	x	145	S	100	520,00
M 6	x	150	S	100	425,00
M 6	x	160	S	100	720,00
M 6	x	170	S	100	790,00
M 6	x	180	S	100	840,00
M 6	x	190	S	100	1030,00
M 6	x	200	S	100	1140,00
M 6	x	210	S	50	1170,00
M 6	x	220	S	50	1190,00
M 6	x	230	S	50	1290,00
M 6	x	240	S	50	1290,00
M 8	x	10	S	200	15,30
M 8	x	12	S	200	15,30
M 8	x	14	S	200	22,70
M 8	x	16	S	200	10,80
M 8	x	18	S	200	11,70
M 8	x	20	S	200	10,20
M 8	x	22	S	200	23,50
M 8	x	25	S	200	11,00
M 8	x	30	S	200	11,60
M 8	x	35	S	200	12,90
M 8	x	40	S	200	14,30
M 8	x	45	S	200	15,10
M 8	x	50	S	200	16,60
M 8	x	55	S	200	22,50
M 8	x	60	S	200	23,00
M 8	x	65	S	200	31,00
M 8	x	70	S	200	32,00
M 8	x	75	S	200	39,50
M 8	x	80	S	200	52,00
M 8	x	85	S	100	78,00
M 8	x	90	S	100	63,00
M 8	x	95	S	100	90,00
M 8	x	100	S	100	74,00
M 8	x	110	S	100	96,00
M 8	x	120	S	100	97,00
M 8	x	125	S	100	209,00
M 8	x	130	S	100	148,00
M 8	x	135	S	100	224,00
M 8	x	140	S	50	163,00
M 8	x	150	S	50	275,00
M 8	x	160	S	50	310,00
M 8	x	170	S	50	355,00
M 8	x	180	S	50	375,00
M 8	x	190	S	50	590,00
M 8	x	200	S	50	590,00
M 8	x	220	S	50	660,00
M 8	x	240	S	50	830,00
M 8	x	250	S	50	880,00
M 8	x	260	S	50	880,00
M 8	x	270	S	50	950,00
M 8	x	280	S	50	950,00
M 8	x	300	S	50	1000,00
M 10	x	10	S	200	70,00
M 10	x	12	S	200	70,00
M 10	x	16	S	200	31,00
M 10	x	18	S	200	72,00
M 10	x	20	S	200	18,70
M 10	x	22	S	200	53,00
M 10	x	25	S	200	20,30
M 10	x	30	S	200	21,00
M 10	x	35	S	100	22,30
M 10	x	40	S	100	23,20
M 10	x	45	S	100	26,00
M 10	x	50	S	100	27,50
M 10	x	55	S	100	30,00
M 10	x	60	S	100	30,50
M 10	x	65	S	100	32,00
M 10	x	70	S	100	33,00
M 10	x	75	S	100	45,00
M 10	x	80	S	100	46,00
M 10	x	85	S	100	104,00
M 10	x	90	S	100	60,00
M 10	x	95	S	100	113,00
M 10	x	100	S	100	67,00
M 10	x	110	S	50	111,00
M 10	x	115	S	50	229,00
M 10	x	120	S	50	146,00
M 10	x	125	S	50	229,00
M 10	x	130	S	50	172,00
M 10	x	135	S	50	260,00
M 10	x	140	S	50	193,00
M 10	x	145	S	50	380,00
M 10	x	150	S	50	285,00
M 10	x	160	S	50	320,00
M 10	x	170	S	50	375,00
M 10	x	180	S	50	395,00
M 10	x	190	S	50	445,00
M 10	x	200	S	50	445,00
M 10	x	210	S	50	560,00
M 10	x	220	S	50	540,00
M 10	x	230	S	50	650,00
M 10	x	240	S	50	630,00
M 10	x	250	S	50	690,00
M 10	x	260	S	50	710,00
M 10	x	270	S	50	960,00
M 10	x	280	S	50	800,00
M 10	x	290	S	50	1070,00
M 10	x	300	S	50	890,00
M 10	x	310	S	50	2180,00
M 10	x	320	S	50	2350,00
M 10	x	340	S	50	2850,00
M 10	x	350	S	50	3700,00
M 10	x	400	S	50	4900,00
M 12	x	12	S	100	285,00
M 12	x	14	S	100	83,00
M 12	x	16	S	100	83,00
M 12	x	18	S	100	83,00
M 12	x	20	S	100	37,00
M 12	x	25	S	100	31,00
M 12	x	30	S	100	32,50

Dimensions	PU	Pieces	€/100/Mat.
M 12 x 35	S	100	33,50
M 12 x 40	S	100	34,00
M 12 x 45	S	100	36,00
M 12 x 50	S	100	37,50
M 12 x 55	S	100	41,50
M 12 x 60	S	100	43,50
M 12 x 65	S	50	48,00
M 12 x 70	S	50	50,00
M 12 x 75	S	50	53,00
M 12 x 80	S	50	54,00
M 12 x 85	S	50	144,00
M 12 x 90	S	50	68,00
M 12 x 95	S	50	160,00
M 12 x 100	S	50	76,00
M 12 x 110	S	50	116,00
M 12 x 120	S	50	130,00
M 12 x 125	S	50	265,00
M 12 x 130	S	50	200,00
M 12 x 135	S	50	315,00
M 12 x 140	S	50	234,00
M 12 x 150	S	50	305,00
M 12 x 160	S	25	340,00
M 12 x 170	S	25	365,00
M 12 x 180	S	25	390,00
M 12 x 190	S	25	770,00
M 12 x 200	S	25	500,00
M 12 x 210	S	25	740,00
M 12 x 220	S	25	740,00
M 12 x 230	S	25	860,00
M 12 x 240	S	25	840,00
M 12 x 250	S	25	1240,00
M 12 x 260	S	25	920,00
M 12 x 270	S	25	1260,00
M 12 x 280	S	25	980,00
M 12 x 290	S	25	1280,00
M 12 x 300	S	25	1060,00
M 12 x 310	S	25	2080,00
M 12 x 320	S	25	2280,00
M 12 x 330	S	25	2700,00
M 12 x 340	S	25	2700,00
M 12 x 360	S	25	3400,00
M 12 x 380	S	25	4050,00
M 12 x 400	S	25	4400,00
M 14 x 20	S	100	197,00
M 14 x 25	S	100	152,00
M 14 x 30	S	100	146,00
M 14 x 35	S	100	151,00
M 14 x 40	S	100	120,00
M 14 x 45	S	50	124,00
M 14 x 50	S	50	131,00
M 14 x 55	S	50	197,00
M 14 x 60	S	50	144,00
M 14 x 65	S	50	176,00
M 14 x 70	S	50	182,00
M 14 x 75	S	50	206,00
M 14 x 80	S	50	206,00
M 14 x 90	S	50	221,00
M 14 x 100	S	50	249,00
M 14 x 110	S	50	265,00
M 14 x 120	S	50	300,00
M 14 x 125	S	50	660,00
M 14 x 130	S	50	335,00
M 14 x 140	S	25	425,00
M 14 x 150	S	25	485,00
M 14 x 160	S	25	780,00
M 14 x 170	S	25	820,00
M 14 x 180	S	25	860,00
M 14 x 190	S	25	880,00
M 14 x 200	S	25	910,00
M 16 x 20	S	50	197,00
M 16 x 25	S	50	143,00
M 16 x 30	S	50	66,00
M 16 x 35	S	50	69,00
M 16 x 40	S	50	71,00
M 16 x 45	S	50	73,00
M 16 x 50	S	50	75,00
M 16 x 55	S	50	78,00
M 16 x 60	S	50	81,00
M 16 x 65	S	25	93,00
M 16 x 70	S	25	93,00
M 16 x 75	S	25	106,00
M 16 x 80	S	25	106,00
M 16 x 85	S	25	375,00
M 16 x 90	S	25	129,00
M 16 x 100	S	25	141,00
M 16 x 110	S	25	170,00
M 16 x 120	S	25	205,00
M 16 x 125	S	25	450,00
M 16 x 130	S	25	290,00
M 16 x 140	S	25	375,00
M 16 x 150	S	25	425,00
M 16 x 160	S	25	520,00
M 16 x 170	S	25	610,00
M 16 x 180	S	25	610,00
M 16 x 190	S	25	760,00
M 16 x 200	S	25	860,00
M 16 x 210	S	25	1360,00
M 16 x 220	S	25	920,00
M 16 x 230	S	25	1410,00
M 16 x 240	S	25	920,00
M 16 x 250	S	25	1500,00
M 16 x 260	S	25	1030,00
M 16 x 270	S	25	1590,00
M 16 x 280	S	25	1130,00
M 16 x 290	S	25	1830,00
M 16 x 300	S	25	1270,00
M 16 x 320	S	10	1700,00
M 16 x 330	S	10	1700,00
M 16 x 340	S	10	1840,00
M 16 x 350	S	10	1860,00
M 16 x 360	S	10	1980,00
M 16 x 380	S	10	2800,00
M 16 x 400	S	10	2950,00
M 18 x 35	S	50	375,00
M 18 x 40	S	50	315,00
M 18 x 45	S	50	320,00
M 18 x 50	S	50	320,00
M 18 x 55	S	25	320,00
M 18 x 60	S	25	320,00
M 18 x 65	S	25	345,00
M 18 x 70	S	25	345,00
M 18 x 75	S	25	385,00
M 18 x 80	S	25	380,00
M 18 x 90	S	25	385,00
M 18 x 120	S	25	495,00
M 18 x 130	S	25	850,00
M 18 x 140	S	25	930,00
M 18 x 150	S	25	1040,00
M 18 x 160	S	25	1140,00
M 18 x 180	S	25	1260,00
M 18 x 200	S	25	1260,00
M 18 x 210	S	10	1500,00
M 18 x 220	S	10	1500,00
M 18 x 240	S	10	1590,00
M 18 x 250	S	10	1700,00
M 18 x 260	S	10	1700,00
M 18 x 280	S	10	1820,00
M 18 x 300	S	10	1930,00
M 20 x 20	S	25	570,00
M 20 x 25	S	25	570,00
M 20 x 30	S	25	315,00
M 20 x 35	S	25	315,00
M 20 x 40	S	25	136,00
M 20 x 45	S	25	137,00
M 20 x 50	S	25	138,00
M 20 x 55	S	25	147,00
M 20 x 60	S	25	152,00
M 20 x 65	S	25	165,00
M 20 x 70	S	25	165,00
M 20 x 75	S	25	172,00
M 20 x 80	S	25	172,00
M 20 x 85	S	25	425,00
M 20 x 90	S	25	201,00
M 20 x 95	S	25	780,00
M 20 x 100	S	25	220,00
M 20 x 110	S	25	249,00
M 20 x 120	S	25	305,00
M 20 x 125	S	25	1420,00
M 20 x 130	S	25	390,00
M 20 x 135	S	25	1450,00
M 20 x 140	S	25	570,00
M 20 x 145	S	25	1480,00
M 20 x 150	S	25	660,00
M 20 x 160	S	10	860,00
M 20 x 170	S	10	1050,00
M 20 x 180	S	10	920,00
M 20 x 190	S	10	1020,00
M 20 x 200	S	10	860,00
M 20 x 210	S	1	1780,00
M 20 x 220	S	1	1250,00
M 20 x 230	S	1	2000,00
M 20 x 240	S	1	1330,00
M 20 x 250	S	1	2140,00
M 20 x 260	S	1	1400,00
M 20 x 270	S	1	2290,00
M 20 x 280	S	1	1470,00
M 20 x 290	S	1	2650,00
M 20 x 300	S	1	1630,00
M 20 x 310	S	1	2060,00
M 20 x 320	S	1	2120,00
M 20 x 330	S	1	2330,00
M 20 x 340	S	1	2400,00
M 20 x 350	S	1	2600,00
M 20 x 360	S	1	2650,00
M 20 x 380	S	1	2900,00
M 20 x 400	S	1	3200,00
M 22 x 40	S	25	1070,00
M 22 x 45	S	25	860,00
M 22 x 50	S	25	1070,00
M 22 x 60	S	25	1130,00
M 22 x 65	S	25	1160,00
M 22 x 70	S	25	1160,00
M 22 x 75	S	25	1220,00
M 22 x 80	S	25	1220,00
M 22 x 90	S	25	1300,00
M 22 x 100	S	10	1330,00
M 22 x 110	S	10	1360,00
M 22 x 120	S	10	1360,00
M 22 x 130	S	10	1430,00
M 22 x 140	S	10	1490,00
M 22 x 150	S	10	1530,00
M 22 x 160	S	10	1560,00
M 22 x 180	S	10	1750,00
M 22 x 200	S	10	2050,00
M 22 x 220	S	10	2120,00
M 24 x 30	S	25	930,00
M 24 x 35	S	25	930,00
M 24 x 40	S	25	840,00
M 24 x 45	S	25	860,00
M 24 x 50	S	25	420,00
M 24 x 55	S	25	445,00
M 24 x 60	S	25	445,00
M 24 x 65	S	25	460,00
M 24 x 70	S	25	460,00
M 24 x 75	S	25	480,00
M 24 x 80	S	25	480,00
M 24 x 85	S	10	870,00
M 24 x 90	S	10	550,00
M 24 x 95	S	10	900,00
M 24 x 100	S	10	570,00
M 24 x 110	S	10	630,00
M 24 x 120	S	10	650,00
M 24 x 130	S	10	850,00
M 24 x 140	S	10	1080,00
M 24 x 150	S	10	1270,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 160	S	10	1360,00
M 24 x 170	S	10	1630,00
M 24 x 180	S	10	1690,00
M 24 x 190	S	10	2060,00
M 24 x 200	S	10	1810,00
M 24 x 210	S	1	2320,00
M 24 x 220	S	1	2110,00
M 24 x 230	S	1	2550,00
M 24 x 240	S	1	2300,00
M 24 x 250	S	1	2750,00
M 24 x 260	S	1	2460,00
M 24 x 270	S	1	2900,00
M 24 x 280	S	1	2550,00
M 24 x 290	S	1	3050,00
M 24 x 300	S	1	2650,00
M 24 x 310	S	1	2850,00
M 24 x 320	S	1	2850,00
M 24 x 330	S	1	3200,00
M 24 x 340	S	1	3200,00
M 24 x 350	S	1	3500,00
M 24 x 360	S	1	3500,00
M 24 x 380	S	1	3750,00
M 24 x 400	S	1	4100,00
M 24 x 420	S	1	5400,00
M 24 x 440	S	1	5900,00
M 24 x 450	S	1	6000,00
M 24 x 460	S	1	6300,00
M 24 x 480	S	1	6800,00
M 24 x 500	S	1	7300,00
M 24 x 520	S	1	7700,00
M 27 x 40	S	10	1660,00
M 27 x 45	S	10	1660,00
M 27 x 50	S	10	1350,00
M 27 x 55	S	10	1350,00
M 27 x 60	S	10	1350,00
M 27 x 65	S	10	1410,00
M 27 x 70	S	10	1410,00
M 27 x 75	S	10	1470,00
M 27 x 80	S	10	1470,00
M 27 x 85	S	10	1520,00
M 27 x 90	S	10	1520,00
M 27 x 95	S	10	1590,00
M 27 x 100	S	10	1590,00
M 27 x 110	S	10	1630,00
M 27 x 120	S	10	1800,00
M 27 x 130	S	1	1880,00
M 27 x 140	S	1	1950,00
M 27 x 150	S	1	2020,00
M 27 x 160	S	1	2080,00
M 27 x 170	S	1	2600,00
M 27 x 180	S	1	2230,00
M 27 x 190	S	1	2800,00
M 27 x 200	S	1	2330,00
M 27 x 210	S	1	3600,00
M 27 x 220	S	1	2650,00
M 27 x 230	S	1	3900,00
M 27 x 240	S	1	2850,00
M 27 x 250	S	1	4150,00
M 27 x 260	S	1	3050,00
M 27 x 270	S	1	3150,00
M 27 x 280	S	1	3200,00
M 27 x 290	S	1	3300,00
M 27 x 300	S	1	3450,00
M 27 x 320	S	1	5000,00
M 27 x 340	S	1	5400,00
M 27 x 360	S	1	5800,00
M 27 x 380	S	1	6600,00
M 27 x 400	S	1	7800,00
M 30 x 40	S	10	1670,00
M 30 x 45	S	10	1670,00
M 30 x 50	S	10	1530,00
M 30 x 55	S	10	1530,00
M 30 x 60	S	10	1530,00
M 30 x 65	S	10	1590,00
M 30 x 70	S	10	1590,00

Dimensions	PU	Pieces	€/100/Mat.
M 30 x 75	S	10	1630,00
M 30 x 80	S	10	1630,00
M 30 x 85	S	10	1700,00
M 30 x 90	S	10	1700,00
M 30 x 95	S	10	1800,00
M 30 x 100	S	10	1800,00
M 30 x 110	S	10	1890,00
M 30 x 120	S	10	1980,00
M 30 x 130	S	10	2050,00
M 30 x 140	S	10	2130,00
M 30 x 150	S	10	2240,00
M 30 x 160	S	10	2340,00
M 30 x 170	S	10	2460,00
M 30 x 180	S	10	2480,00
M 30 x 190	S	10	2650,00
M 30 x 200	S	10	2700,00
M 30 x 210	S	1	2950,00
M 30 x 220	S	1	2950,00
M 30 x 230	S	1	3250,00
M 30 x 240	S	1	3250,00
M 30 x 250	S	1	3500,00
M 30 x 260	S	1	3500,00
M 30 x 270	S	1	3750,00
M 30 x 280	S	1	3400,00
M 30 x 290	S	1	4300,00
M 30 x 300	S	1	3700,00
M 30 x 310	S	1	5500,00
M 30 x 320	S	1	4800,00
M 30 x 330	S	1	5900,00
M 30 x 340	S	1	6100,00
M 30 x 350	S	1	7000,00
M 30 x 360	S	1	6600,00
M 30 x 380	S	1	7200,00
M 30 x 400	S	1	7900,00
M 30 x 420	S	1	8400,00
M 30 x 440	S	1	10900,00
M 30 x 450	S	1	11900,00
M 30 x 460	S	1	11900,00
M 30 x 480	S	1	13300,00
M 30 x 500	S	1	13900,00
M 30 x 520	S	1	14200,00
M 33 x 60	S	1	2000,00
M 33 x 70	S	1	2000,00
M 33 x 80	S	1	2000,00
M 33 x 90	S	1	2120,00
M 33 x 100	S	1	2280,00
M 33 x 110	S	1	2380,00
M 33 x 120	S	1	2550,00
M 33 x 130	S	1	2650,00
M 33 x 140	S	1	2800,00
M 33 x 150	S	1	2950,00
M 33 x 160	S	1	3050,00
M 33 x 170	S	1	3950,00
M 33 x 180	S	1	3350,00
M 33 x 190	S	1	4250,00
M 33 x 200	S	1	3550,00
M 33 x 220	S	1	3850,00
M 33 x 240	S	1	4100,00
M 33 x 260	S	1	4400,00
M 33 x 280	S	1	4600,00
M 33 x 300	S	1	4950,00
M 33 x 320	S	1	5700,00
M 33 x 340	S	1	6200,00
M 33 x 360	S	1	6500,00
M 33 x 380	S	1	7100,00
M 33 x 400	S	1	7700,00
M 36 x 50	S	1	4000,00
M 36 x 55	S	1	4000,00
M 36 x 60	S	1	2700,00
M 36 x 65	S	1	2700,00
M 36 x 70	S	1	2700,00
M 36 x 75	S	1	2700,00
M 36 x 80	S	1	2700,00
M 36 x 90	S	1	2800,00
M 36 x 100	S	1	2850,00

Dimensions	PU	Pieces	€/100/Mat.
M 36 x 110	S	1	2950,00
M 36 x 120	S	1	3050,00
M 36 x 130	S	1	3200,00
M 36 x 140	S	1	3300,00
M 36 x 150	S	1	3400,00
M 36 x 160	S	1	3500,00
M 36 x 170	S	1	4350,00
M 36 x 180	S	1	3800,00
M 36 x 190	S	1	3950,00
M 36 x 200	S	1	4100,00
M 36 x 210	S	1	4350,00
M 36 x 220	S	1	4350,00
M 36 x 230	S	1	4550,00
M 36 x 240	S	1	4550,00
M 36 x 250	S	1	4800,00
M 36 x 260	S	1	4800,00
M 36 x 270	S	1	4850,00
M 36 x 280	S	1	5100,00
M 36 x 290	S	1	5400,00
M 36 x 300	S	1	5600,00
M 36 x 310	S	1	6200,00
M 36 x 320	S	1	6600,00
M 36 x 330	S	1	6900,00
M 36 x 340	S	1	7000,00
M 36 x 350	S	1	7200,00
M 36 x 360	S	1	7300,00
M 36 x 380	S	1	7700,00
M 36 x 400	S	1	8300,00
M 36 x 420	S	1	10600,00
M 36 x 440	S	1	12800,00
M 36 x 450	S	1	13300,00
M 36 x 460	S	1	13300,00
M 36 x 480	S	1	13900,00
M 36 x 500	S	1	14300,00
M 42 x 80	S	1	9100,00
M 42 x 90	S	1	9100,00
M 42 x 100	S	1	4500,00
M 42 x 110	S	1	4650,00
M 42 x 120	S	1	4950,00
M 42 x 130	S	1	5000,00
M 42 x 140	S	1	5600,00
M 42 x 150	S	1	5900,00
M 42 x 160	S	1	6100,00
M 42 x 170	S	1	6300,00
M 42 x 180	S	1	6400,00
M 42 x 190	S	1	6700,00
M 42 x 200	S	1	7000,00
M 42 x 220	S	1	8100,00
M 42 x 240	S	1	8800,00
M 42 x 260	S	1	9500,00
M 42 x 280	S	1	10000,00
M 42 x 300	S	1	10900,00
M 42 x 320	S	1	19000,00
M 42 x 400	S	1	22800,00
M 42 x 420	S	1	23200,00
M 48 x 110	S	1	8800,00
M 48 x 160	S	1	10700,00
M 48 x 200	S	1	12500,00
M 48 x 400	S	1	51500,00

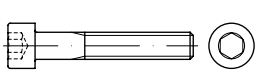
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Absolute reliability for Kanban supplies

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- Flexible labelling with product images

ISO 4762

Dimensions	PU Pieces	€/100/Mat.
ISO	04762.110	362
4762	**10.9 zinc plated**	



Hexagon socket head cap screws

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	500	10,50 ZP
M 3	x	8	S	500	8,50 ZP
M 3	x	10	S	500	7,10 ZP
M 3	x	12	S	500	7,50 ZP
M 3	x	16	S	500	7,90 ZP
M 3	x	20	S	500	8,40 ZP
M 3	x	25	S	500	9,20 ZP
M 3	x	30	S	500	10,60 ZP
M 4	x	6	S	500	14,80 ZP
M 4	x	8	S	500	8,70 ZP
M 4	x	10	S	500	8,20 ZP
M 4	x	12	S	500	8,30 ZP
M 4	x	14	S	500	21,70 ZP
M 4	x	16	S	500	8,60 ZP
M 4	x	18	S	500	8,80 ZP
M 4	x	20	S	500	9,10 ZP
M 4	x	25	S	500	9,70 ZP
M 4	x	30	S	500	10,60 ZP
M 4	x	35	S	500	11,50 ZP
M 4	x	40	S	500	12,50 ZP
M 4	x	45	S	500	28,00 ZP
M 4	x	50	S	500	29,50 ZP
M 4	x	60	S	200	33,50 ZP
M 4	x	65	S	200	34,50 ZP
M 5	x	6	S	500	24,90 ZP
M 5	x	8	S	500	18,20 ZP
M 5	x	10	S	500	7,70 ZP
M 5	x	12	S	500	8,20 ZP
M 5	x	14	S	500	18,20 ZP
M 5	x	16	S	500	8,60 ZP
M 5	x	18	S	500	10,30 ZP
M 5	x	20	S	500	9,20 ZP
M 5	x	25	S	500	9,90 ZP
M 5	x	30	S	500	10,80 ZP
M 5	x	35	S	200	13,70 ZP
M 5	x	40	S	200	14,40 ZP
M 5	x	45	S	200	22,10 ZP
M 5	x	50	S	200	29,00 ZP
M 5	x	55	S	200	32,50 ZP
M 5	x	60	S	200	34,50 ZP
M 5	x	65	S	200	46,00 ZP
M 5	x	70	S	200	47,00 ZP
M 5	x	75	S	200	71,00 ZP
M 5	x	80	S	200	71,00 ZP
M 5	x	85	S	200	143,00 ZP
M 5	x	90	S	200	77,00 ZP
M 5	x	95	S	200	201,00 ZP
M 5	x	100	S	200	85,00 ZP
M 5	x	110	S	100	189,00 ZP
M 5	x	120	S	100	193,00 ZP
M 5	x	130	S	100	540,00 ZP
M 5	x	140	S	100	540,00 ZP
M 5	x	150	S	100	660,00 ZP
M 5	x	160	S	100	670,00 ZP
M 6	x	8	S	500	23,00 ZP
M 6	x	10	S	500	11,80 ZP
M 6	x	12	S	500	12,30 ZP
M 6	x	14	S	500	20,00 ZP
M 6	x	16	S	500	12,60 ZP
M 6	x	18	S	500	13,90 ZP
M 6	x	20	S	500	13,20 ZP
M 6	x	22	S	500	24,60 ZP
M 6	x	25	S	500	14,00 ZP
M 6	x	30	S	500	15,90 ZP
M 6	x	35	S	200	16,70 ZP
M 6	x	40	S	200	19,50 ZP
M 6	x	45	S	200	21,00 ZP
M 6	x	50	S	200	22,10 ZP
M 6	x	55	S	200	31,00 ZP
M 6	x	60	S	200	32,50 ZP
M 6	x	65	S	200	38,00 ZP
M 6	x	70	S	200	49,50 ZP
M 6	x	75	S	200	59,00 ZP
M 6	x	80	S	200	63,00 ZP
M 6	x	85	S	200	106,00 ZP
M 6	x	90	S	200	76,00 ZP
M 6	x	100	S	200	88,00 ZP
M 6	x	110	S	100	118,00 ZP
M 6	x	120	S	100	128,00 ZP
M 6	x	125	S	100	221,00 ZP
M 6	x	130	S	100	375,00 ZP
M 6	x	140	S	100	395,00 ZP
M 6	x	150	S	100	445,00 ZP
M 6	x	160	S	100	750,00 ZP
M 8	x	10	S	200	20,10 ZP
M 8	x	12	S	200	20,10 ZP
M 8	x	14	S	200	28,50 ZP
M 8	x	16	S	200	16,10 ZP
M 8	x	20	S	200	21,70 ZP
M 8	x	22	S	200	35,00 ZP
M 8	x	25	S	200	23,60 ZP
M 8	x	30	S	200	25,00 ZP
M 8	x	35	S	200	28,00 ZP
M 8	x	40	S	200	31,00 ZP
M 8	x	45	S	200	32,50 ZP
M 8	x	50	S	200	36,00 ZP
M 8	x	55	S	200	43,50 ZP
M 8	x	60	S	200	45,00 ZP
M 8	x	65	S	200	53,00 ZP
M 8	x	70	S	200	50,00 ZP
M 8	x	75	S	200	57,00 ZP
M 8	x	80	S	200	72,00 ZP
M 8	x	90	S	100	84,00 ZP
M 8	x	100	S	100	95,00 ZP
M 8	x	120	S	100	128,00 ZP
M 8	x	125	S	100	240,00 ZP
M 8	x	130	S	100	178,00 ZP
M 8	x	140	S	50	193,00 ZP
M 8	x	150	S	50	305,00 ZP
M 8	x	160	S	50	345,00 ZP
M 8	x	170	S	50	390,00 ZP
M 8	x	180	S	50	415,00 ZP
M 8	x	200	S	50	640,00 ZP
M 10	x	10	S	200	80,00 ZP
M 10	x	12	S	200	80,00 ZP
M 10	x	16	S	200	42,50 ZP
M 10	x	20	S	200	39,00 ZP
M 10	x	25	S	200	43,00 ZP
M 10	x	30	S	200	45,00 ZP
M 10	x	35	S	100	48,00 ZP
M 10	x	40	S	100	51,00 ZP
M 10	x	45	S	100	42,50 ZP
M 10	x	50	S	100	45,50 ZP
M 10	x	55	S	100	54,00 ZP
M 10	x	60	S	100	57,00 ZP
M 10	x	65	S	100	58,00 ZP
M 10	x	70	S	100	63,00 ZP
M 10	x	75	S	100	76,00 ZP
M 10	x	80	S	100	78,00 ZP
M 10	x	85	S	100	134,00 ZP
M 10	x	90	S	100	94,00 ZP
M 10	x	95	S	100	147,00 ZP
M 10	x	100	S	100	104,00 ZP
M 10	x	110	S	50	152,00 ZP
M 10	x	120	S	50	190,00 ZP
M 10	x	130	S	50	218,00 ZP
M 10	x	140	S	50	239,00 ZP
M 10	x	160	S	50	365,00 ZP
M 10	x	170	S	50	420,00 ZP
M 10	x	180	S	50	445,00 ZP
M 10	x	210	S	50	610,00 ZP
M 10	x	220	S	50	610,00 ZP
M 12	x	20	S	100	51,00 ZP
M 12	x	25	S	100	64,00 ZP
M 12	x	30	S	100	67,00 ZP
M 12	x	35	S	100	70,00 ZP
M 12	x	40	S	100	72,00 ZP
M 12	x	45	S	100	65,00 ZP
M 12	x	50	S	100	82,00 ZP
M 12	x	55	S	100	89,00 ZP
M 12	x	60	S	100	94,00 ZP
M 12	x	65	S	50	103,00 ZP
M 12	x	70	S	50	107,00 ZP
M 12	x	75	S	50	114,00 ZP
M 12	x	80	S	50	115,00 ZP
M 12	x	85	S	50	187,00 ZP
M 12	x	90	S	50	116,00 ZP
M 12	x	95	S	50	206,00 ZP
M 12	x	100	S	50	132,00 ZP
M 12	x	110	S	50	188,00 ZP
M 12	x	120	S	50	193,00 ZP
M 12	x	125	S	50	325,00 ZP
M 12	x	130	S	50	295,00 ZP
M 12	x	135	S	50	375,00 ZP
M 12	x	140	S	50	335,00 ZP
M 12	x	150	S	50	410,00 ZP
M 12	x	160	S	25	450,00 ZP
M 12	x	170	S	25	485,00 ZP
M 12	x	180	S	25	520,00 ZP
M 12	x	190	S	25	910,00 ZP
M 12	x	200	S	25	640,00 ZP
M 12	x	210	S	25	880,00 ZP
M 12	x	220	S	25	890,00 ZP
M 12	x	230	S	25	1020,00 ZP
M 12	x	240	S	25	1010,00 ZP
M 12	x	250	S	25	1410,00 ZP
M 12	x	260	S	25	1100,00 ZP
M 12	x	270	S	25	1440,00 ZP
M 12	x	280	S	25	1170,00 ZP
M 12	x	290	S	25	1480,00 ZP
M 12	x	300	S	25	1270,00 ZP
M 12	x	310	S	25	2290,00 ZP
M 12	x	320	S	25	2500,00 ZP
M 12	x	330	S	25	2950,00 ZP
M 12	x	340	S	25	2950,00 ZP
M 12	x	360	S	25	3600,00 ZP
M 12	x	380	S	25	4300,00 ZP
M 14	x	30	S	100	171,00 ZP
M 14	x	35	S	100	178,00 ZP
M 14	x	40	S	100	151,00 ZP
M 14	x	45	S	50	158,00 ZP
M 14	x	50	S	50	167,00 ZP
M 14	x	55	S	50	236,00 ZP
M 14	x	60	S	50	187,00 ZP
M 14	x	65	S	50	221,00 ZP
M 14	x	70	S	50	229,00 ZP
M 14	x	80	S	50	260,00 ZP
M 14	x	90	S	50	280,00 ZP
M 14	x	100	S	50	315,00 ZP

€/100 = price in € plus VAT when ordering full package unit

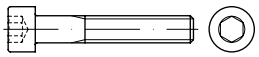
Dimensions			PU	Pieces	€/100/Mat.
M 14	x	110	S	50	335,00 ZP
M 14	x	120	S	50	375,00 ZP
M 14	x	130	S	50	415,00 ZP
M 16	x	20	S	50	228,00 ZP
M 16	x	25	S	50	178,00 ZP
M 16	x	30	S	50	109,00 ZP
M 16	x	35	S	50	116,00 ZP
M 16	x	40	S	50	111,00 ZP
M 16	x	45	S	50	116,00 ZP
M 16	x	50	S	50	123,00 ZP
M 16	x	55	S	50	143,00 ZP
M 16	x	60	S	50	149,00 ZP
M 16	x	65	S	25	163,00 ZP
M 16	x	70	S	25	166,00 ZP
M 16	x	75	S	25	175,00 ZP
M 16	x	80	S	25	175,00 ZP
M 16	x	85	S	25	445,00 ZP
M 16	x	90	S	25	213,00 ZP
M 16	x	100	S	25	244,00 ZP
M 16	x	110	S	25	280,00 ZP
M 16	x	120	S	25	330,00 ZP
M 16	x	125	S	25	560,00 ZP
M 16	x	130	S	25	420,00 ZP
M 16	x	140	S	25	510,00 ZP
M 16	x	150	S	25	560,00 ZP
M 16	x	160	S	25	720,00 ZP
M 16	x	170	S	25	830,00 ZP
M 16	x	180	S	25	840,00 ZP
M 16	x	200	S	25	1110,00 ZP
M 16	x	210	S	25	1630,00 ZP
M 16	x	230	S	25	1600,00 ZP
M 16	x	240	S	25	1120,00 ZP
M 16	x	250	S	25	1710,00 ZP
M 16	x	270	S	25	1810,00 ZP
M 18	x	50	S	50	395,00 ZP
M 18	x	55	S	25	400,00 ZP
M 18	x	60	S	25	400,00 ZP
M 18	x	65	S	25	425,00 ZP
M 18	x	70	S	25	430,00 ZP
M 18	x	80	S	25	480,00 ZP
M 18	x	90	S	25	500,00 ZP
M 18	x	120	S	25	640,00 ZP
M 18	x	130	S	25	1000,00 ZP
M 18	x	140	S	25	1080,00 ZP
M 18	x	150	S	25	1200,00 ZP
M 18	x	160	S	25	1320,00 ZP
M 18	x	180	S	25	1460,00 ZP
M 20	x	20	S	25	660,00 ZP
M 20	x	30	S	25	400,00 ZP
M 20	x	35	S	25	400,00 ZP
M 20	x	40	S	25	221,00 ZP
M 20	x	45	S	25	224,00 ZP
M 20	x	50	S	25	236,00 ZP
M 20	x	55	S	25	260,00 ZP
M 20	x	60	S	25	265,00 ZP
M 20	x	65	S	25	285,00 ZP
M 20	x	70	S	25	290,00 ZP
M 20	x	75	S	25	285,00 ZP
M 20	x	80	S	25	310,00 ZP
M 20	x	90	S	25	340,00 ZP
M 20	x	100	S	25	385,00 ZP
M 20	x	110	S	25	420,00 ZP
M 20	x	120	S	25	485,00 ZP
M 20	x	130	S	25	590,00 ZP
M 20	x	140	S	25	780,00 ZP
M 20	x	150	S	25	880,00 ZP
M 20	x	160	S	10	1100,00 ZP
M 20	x	170	S	10	1290,00 ZP
M 20	x	180	S	10	1180,00 ZP
M 20	x	190	S	10	1400,00 ZP
M 20	x	200	S	10	1250,00 ZP
M 20	x	210	S	1	2200,00 ZP
M 20	x	220	S	1	1680,00 ZP
M 20	x	230	S	1	2430,00 ZP
M 20	x	240	S	1	2430,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	260	S	1	1840,00 ZP
M 24	x	40	S	25	990,00 ZP
M 24	x	45	S	25	1000,00 ZP
M 24	x	50	S	25	580,00 ZP
M 24	x	60	S	25	630,00 ZP
M 24	x	65	S	25	630,00 ZP
M 24	x	70	S	25	660,00 ZP
M 24	x	80	S	25	700,00 ZP
M 24	x	90	S	10	790,00 ZP
M 24	x	100	S	10	830,00 ZP
M 24	x	110	S	10	910,00 ZP
M 24	x	120	S	10	950,00 ZP
M 24	x	130	S	10	1170,00 ZP
M 24	x	140	S	10	1420,00 ZP
M 24	x	150	S	10	1630,00 ZP
M 24	x	160	S	10	1740,00 ZP
M 24	x	170	S	10	2020,00 ZP
M 24	x	180	S	10	2110,00 ZP
M 24	x	190	S	10	2490,00 ZP
M 24	x	200	S	10	2270,00 ZP
M 24	x	210	S	1	2750,00 ZP
M 24	x	220	S	1	2600,00 ZP
M 24	x	230	S	1	3000,00 ZP
M 24	x	240	S	1	2800,00 ZP
M 24	x	260	S	1	2950,00 ZP
M 24	x	280	S	1	3050,00 ZP
M 24	x	300	S	1	3150,00 ZP
M 24	x	320	S	1	4400,00 ZP
M 24	x	330	S	1	3800,00 ZP
M 27	x	50	S	10	1530,00 ZP
M 27	x	60	S	10	1550,00 ZP
M 27	x	65	S	10	1610,00 ZP
M 27	x	70	S	10	1620,00 ZP
M 30	x	40	S	10	1900,00 ZP
M 30	x	50	S	10	1780,00 ZP
M 30	x	60	S	10	1810,00 ZP
M 30	x	65	S	1	1880,00 ZP
M 30	x	70	S	10	1890,00 ZP
M 30	x	80	S	10	1970,00 ZP
M 30	x	90	S	10	2060,00 ZP
M 30	x	100	S	10	2200,00 ZP
M 30	x	110	S	10	2300,00 ZP
M 30	x	120	S	10	2420,00 ZP
M 30	x	130	S	10	2550,00 ZP
M 30	x	150	S	10	2800,00 ZP
M 30	x	160	S	10	2900,00 ZP
M 30	x	170	S	10	3050,00 ZP
M 30	x	180	S	10	3100,00 ZP
M 30	x	200	S	10	3350,00 ZP
M 30	x	220	S	1	3650,00 ZP
M 30	x	230	S	1	4000,00 ZP
M 30	x	240	S	1	4000,00 ZP
M 30	x	250	S	1	4250,00 ZP
M 30	x	260	S	1	4300,00 ZP
M 30	x	280	S	1	4300,00 ZP
M 30	x	300	S	1	4600,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	320	S	1	5800,00 ZP
M 30	x	340	S	1	7300,00 ZP
M 30	x	350	S	1	8000,00 ZP
M 36	x	50	S	1	4450,00 ZP
M 36	x	60	S	1	3150,00 ZP
M 36	x	70	S	1	3200,00 ZP
M 36	x	80	S	1	3200,00 ZP
M 36	x	90	S	1	3350,00 ZP
M 36	x	100	S	1	3450,00 ZP
M 36	x	110	S	1	3600,00 ZP
M 36	x	130	S	1	3900,00 ZP
M 36	x	140	S	1	4000,00 ZP
M 36	x	150	S	1	4200,00 ZP
M 36	x	160	S	1	4350,00 ZP
M 36	x	170	S	1	4550,00 ZP
M 36	x	180	S	1	4700,00 ZP
M 36	x	200	S	1	5400,00 ZP
M 36	x	220	S	1	5400,00 ZP

ISO	04762.354	1580

4762 **10.9 flZn/TL480h**



Hexagon socket head cap screws

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	S	500	14,10 flZn
M 6	x	14	S	500	23,60 flZn
M 6	x	16	S	500	14,60 flZn
M 6	x	18	S	500	16,00 flZn
M 6	x	20	S	500	15,20 flZn
M 6	x	22	S	500	28,50 flZn
M 6	x	25	S	500	16,10 flZn
M 6	x	30	S	500	18,30 flZn
M 6	x	35	S	200	19,20 flZn
M 6	x	40	S	200	22,50 flZn
M 6	x	45	S	200	24,10 flZn
M 6	x	50	S	200	25,50 flZn
M 6	x	55	S	200	35,50 flZn
M 6	x	60	S	200	37,50 flZn
M 6	x	65	S	200	43,50 flZn
M 6	x	70	S	200	57,00 flZn
M 6	x	75	S	200	68,00 flZn
M 6	x	80	S	200	73,00 flZn
M 8	x	16	S	200	18,50 flZn
M 8	x	20	S	200	25,00 flZn
M 8	x	25	S	200	27,50 flZn
M 8	x	30	S	200	29,00 flZn
M 8	x	35	S	200	32,50 flZn
M 8	x	40	S	200	36,00 flZn
M 8	x	45	S	200	37,50 flZn
M 8	x	50	S	200	41,50 flZn
M 8	x	55	S	200	50,00 flZn
M 8	x	60	S	200	52,00 flZn

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	65	S	200	61,00 flZn
M 8	x	70	S	200	58,00 flZn
M 8	x	75	S	200	66,00 flZn
M 8	x	80	S	200	83,00 flZn
M 8	x	90	S	100	97,00 flZn
M 10	x	20	S	200	45,00 flZn
M 10	x	25	S	200	49,50 flZn
M 10	x	30	S	200	52,00 flZn
M 10	x	35	S	100	55,00 flZn
M 10	x	40	S	100	59,00 flZn
M 10	x	45	S	100	49,00 flZn
M 10	x	50	S	100	52,00 flZn
M 10	x	55	S	100	62,00 flZn
M 10	x	60	S	100	66,00 flZn
M 10	x	65	S	100	67,00 flZn
M 10	x	70	S	100	72,00 flZn
M 10	x	75	S	100	88,00 flZn
M 10	x	80	S	100	89,00 flZn
M 10	x	90	S	100	108,00 flZn
M 12	x	20	S	100	59,00 flZn
M 12	x	25	S	100	74,00 flZn
M 12	x	30	S	100	77,00 flZn
M 12	x	35	S	100	81,00 flZn
M 12	x	40	S	100	83,00 flZn
M 12	x	45	S	100	75,00 flZn
M 12	x	50	S	100	94,00 flZn
M 12	x	55	S	100	103,00 flZn
M 12	x	60	S	100	109,00 flZn
M 12	x	65	S	50	118,00 flZn
M 12	x	70	S	50	123,00 flZn
M 12	x	75	S	50	132,00 flZn
M 12	x	80	S	50	132,00 flZn
M 12	x	90	S	50	135,00 flZn
M 12	x	100	S	50	153,00 flZn
M 16	x	30	S	50	126,00 flZn
M 16	x	35	S	50	135,00 flZn
M 16	x	40	S	50	128,00 flZn
M 16	x	45	S	50	134,00 flZn
M 16	x	50	S	50	142,00 flZn
M 16	x	55	S	50	165,00 flZn
M 16	x	60	S	50	172,00 flZn
M 16	x	65	S	25	188,00 flZn
M 16	x	70	S	25	192,00 flZn
M 16	x	75	S	25	201,00 flZn
M 16	x	80	S	25	201,00 flZn
M 16	x	90	S	25	246,00 flZn
M 16	x	100	S	25	285,00 flZn
M 16	x	110	S	25	320,00 flZn
M 16	x	120	S	25	380,00 flZn
M 20	x	65	S	25	325,00 flZn
M 20	x	70	S	25	335,00 flZn
M 20	x	75	S	25	330,00 flZn
M 20	x	80	S	25	360,00 flZn
M 20	x	90	S	25	390,00 flZn
M 20	x	100	S	25	445,00 flZn
M 20	x	110	S	25	480,00 flZn
M 20	x	120	S	25	560,00 flZn
M 20	x	130	S	25	670,00 flZn
M 20	x	140	S	25	890,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1260,00 flZn
M 20	x	170	S	10	1490,00 flZn
M 20	x	180	S	10	1360,00 flZn
M 24	x	80	S	25	810,00 flZn
M 24	x	90	S	10	910,00 flZn
M 24	x	100	S	10	950,00 flZn
M 24	x	110	S	10	1050,00 flZn
M 24	x	120	S	10	1090,00 flZn
M 24	x	130	S	10	1350,00 flZn
M 24	x	140	S	10	1630,00 flZn
M 24	x	150	S	10	1880,00 flZn
M 24	x	160	S	10	2010,00 flZn
M 24	x	170	S	10	2320,00 flZn
M 24	x	180	S	10	2420,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
ISO	04762.133		1580

4762 **10.9 flZnL480h**



Hexagon socket head cap screws

flZnL = int. lubricant with μ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ REACh SVHC free

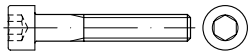
Dimensions			PU	Pieces	€/100/Mat.
M 4	x	35	S	500	21,20 flZn
M 5	x	30	S	500	11,90 flZn
M 5	x	35	S	200	16,40 flZn
M 5	x	40	S	200	18,40 flZn
M 5	x	45	S	200	22,00 flZn
M 6	x	12	S	500	14,10 flZn
M 6	x	14	S	500	23,60 flZn
M 6	x	16	S	500	14,60 flZn
M 6	x	18	S	500	16,00 flZn
M 6	x	20	S	500	15,20 flZn
M 6	x	22	S	500	28,50 flZn
M 6	x	25	S	500	16,10 flZn
M 6	x	30	S	500	18,30 flZn
M 6	x	35	S	200	19,20 flZn
M 6	x	40	S	200	22,50 flZn
M 6	x	45	S	200	24,10 flZn
M 6	x	50	S	200	25,50 flZn
M 6	x	55	S	200	35,50 flZn
M 6	x	60	S	200	37,50 flZn
M 6	x	65	S	200	43,50 flZn
M 6	x	70	S	200	57,00 flZn
M 6	x	75	S	200	68,00 flZn
M 6	x	80	S	200	73,00 flZn
M 8	x	16	S	200	18,50 flZn
M 8	x	20	S	200	25,00 flZn
M 8	x	25	S	200	27,50 flZn
M 8	x	30	S	200	29,00 flZn
M 8	x	35	S	200	32,50 flZn
M 8	x	40	S	200	36,00 flZn
M 8	x	45	S	200	37,50 flZn
M 8	x	50	S	200	41,50 flZn
M 8	x	55	S	200	50,00 flZn
M 8	x	60	S	200	52,00 flZn
M 8	x	65	S	200	61,00 flZn
M 8	x	70	S	200	58,00 flZn
M 8	x	75	S	200	66,00 flZn
M 8	x	80	S	200	83,00 flZn
M 8	x	90	S	100	97,00 flZn
M 10	x	20	S	200	45,00 flZn
M 10	x	25	S	200	49,50 flZn
M 10	x	30	S	200	52,00 flZn
M 10	x	35	S	100	55,00 flZn
M 10	x	40	S	100	59,00 flZn
M 10	x	45	S	100	49,00 flZn
M 10	x	50	S	100	52,00 flZn
M 10	x	55	S	100	62,00 flZn
M 10	x	60	S	100	66,00 flZn
M 10	x	65	S	100	67,00 flZn
M 10	x	70	S	100	72,00 flZn
M 10	x	75	S	100	88,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	80	S	100	89,00 flZn
M 10	x	90	S	100	108,00 flZn
M 10	x	100	S	100	128,00 flZn
M 12	x	20	S	100	59,00 flZn
M 12	x	25	S	100	74,00 flZn
M 12	x	30	S	100	77,00 flZn
M 12	x	35	S	100	81,00 flZn
M 12	x	40	S	100	83,00 flZn
M 12	x	45	S	100	75,00 flZn
M 12	x	50	S	100	94,00 flZn
M 12	x	55	S	100	103,00 flZn
M 12	x	60	S	100	109,00 flZn
M 12	x	65	S	50	118,00 flZn
M 12	x	70	S	50	123,00 flZn
M 12	x	75	S	50	132,00 flZn
M 12	x	80	S	50	132,00 flZn
M 12	x	90	S	50	135,00 flZn
M 12	x	100	S	50	153,00 flZn
M 12	x	110	S	50	171,00 flZn
M 12	x	140	S	50	209,00 flZn
M 14	x	60	S	50	125,00 flZn
M 14	x	70	S	50	152,00 flZn
M 16	x	30	S	50	126,00 flZn
M 16	x	35	S	50	135,00 flZn
M 16	x	40	S	50	128,00 flZn
M 16	x	45	S	50	134,00 flZn
M 16	x	50	S	50	142,00 flZn
M 16	x	55	S	50	165,00 flZn
M 16	x	60	S	50	172,00 flZn
M 16	x	65	S	25	188,00 flZn
M 16	x	70	S	25	192,00 flZn
M 16	x	75	S	25	201,00 flZn
M 16	x	80	S	25	201,00 flZn
M 16	x	90	S	25	246,00 flZn
M 16	x	100	S	25	285,00 flZn
M 16	x	110	S	25	320,00 flZn
M 16	x	120	S	25	380,00 flZn
M 16	x	180	S	25	580,00 flZn
M 16	x	200	S	25	620,00 flZn
M 20	x	45	S	25	285,00 flZn
M 20	x	55	S	25	300,00 flZn
M 20	x	60	S	25	305,00 flZn
M 20	x	65	S	25	325,00 flZn
M 20	x	70	S	25	335,00 flZn
M 20	x	75	S	25	330,00 flZn
M 20	x	80	S	25	360,00 flZn
M 20	x	90	S	25	390,00 flZn
M 20	x	100	S	25	445,00 flZn
M 20	x	110	S	25	480,00 flZn
M 20	x	120	S	25	560,00 flZn
M 20	x	130	S	25	670,00 flZn
M 20	x	140	S	25	890,00 flZn
M 20	x	150	S	25	1010,00 flZn
M 20	x	160	S	10	1260,00 flZn
M 20	x	170	S	10	1490,00 flZn
M 20	x	180	S	10	1360,00 flZn
M 24	x	80	S	25	810,00 flZn
M 24	x	90	S	10	910,00 flZn
M 24	x	100	S	10	950,00 flZn
M 24	x	110	S	10	1050,00 flZn
M 24	x	120	S	10	1090,00 flZn
M 24	x	130	S	10	1350,00 flZn
M 24	x	140	S	10	1630,00 flZn
M 24	x	150	S	10	1880,00 flZn
M 24	x	160	S	10	2010,00 flZn
M 24	x	170	S	10	2320,00 flZn
M 24	x	180	S	10	2420,00 flZn
M 24	x	300	S	1	3750,00 flZn

Dimensions	PU Pieces	€/100/Mat.
ISO	04762.200	363

4762

12.9



Hexagon socket head cap screws

Dimensions ➔ TI-12
Tightening torque ➔ TI-244
Material properties ➔ TI-232
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 1,4	x	6	S	100	155,00
M 1,4	x	10	S	100	184,00
M 1,6	x	3	S	100	114,00
M 1,6	x	4	S	100	126,00
M 1,6	x	5	S	100	134,00
M 1,6	x	6	S	100	137,00
M 2	x	3	S	100	95,00
M 2	x	4	S	100	98,00
M 2	x	5	S	100	99,00
M 2	x	6	S	100	105,00
M 2	x	8	S	100	108,00
M 2	x	10	S	100	113,00
M 2	x	12	S	100	135,00
M 2,5	x	4	S	100	81,00
M 2,5	x	5	S	100	85,00
M 2,5	x	6	S	100	90,00
M 2,5	x	8	S	100	91,00
M 2,5	x	10	S	100	95,00
M 2,5	x	12	S	100	115,00
M 2,5	x	16	S	100	137,00
M 2,5	x	20	S	100	158,00
M 3	x	4	S	500	36,00
M 3	x	5	S	500	36,00
M 3	x	5	K	100	39,50
M 3	x	6	S	500	10,10
M 3	x	6	K	100	13,70
M 3	x	8	S	500	8,00
M 3	x	8	K	100	11,70
M 3	x	10	S	500	6,60
M 3	x	10	K	100	10,20
M 3	x	12	S	500	6,90
M 3	x	12	K	100	10,50
M 3	x	14	S	500	7,10
M 3	x	14	K	100	10,80
M 3	x	16	S	500	7,10
M 3	x	16	K	100	10,80
M 3	x	18	S	500	7,60
M 3	x	18	K	100	11,20
M 3	x	20	S	500	7,60
M 3	x	20	K	100	11,20
M 3	x	22	S	500	8,20
M 3	x	22	K	100	11,80
M 3	x	25	S	500	8,20
M 3	x	25	K	100	11,80
M 3	x	30	S	500	9,40
M 3	x	30	K	100	13,10
M 3	x	35	S	500	26,50
M 3	x	35	K	100	30,50
M 3	x	40	S	500	44,00
M 3	x	45	S	500	58,00
M 3	x	50	S	500	65,00
M 4	x	5	S	500	37,00
M 4	x	5	K	100	40,50
M 4	x	6	S	500	20,40
M 4	x	6	K	100	24,10
M 4	x	8	S	500	7,70
M 4	x	8	K	100	11,40
M 4	x	10	S	500	7,10
M 4	x	10	K	100	10,80
M 4	x	12	S	500	7,20
M 4	x	12	K	100	10,90
M 4	x	14	S	500	20,00
M 4	x	14	K	100	23,60
M 4	x	16	S	500	7,30
M 4	x	16	K	100	11,00
M 4	x	18	S	500	7,60
M 4	x	18	K	100	11,20
M 4	x	20	S	500	7,70
M 4	x	20	K	100	11,40
M 4	x	22	S	500	19,70
M 4	x	22	K	100	23,40
M 4	x	25	S	500	8,00
M 4	x	25	K	100	11,70
M 4	x	30	S	500	8,60
M 4	x	30	K	100	12,20
M 4	x	35	S	500	8,90
M 4	x	35	K	100	12,60
M 4	x	40	S	500	9,70
M 4	x	40	K	100	13,40
M 4	x	45	S	500	23,80
M 4	x	45	K	100	27,50
M 4	x	50	S	500	23,80
M 4	x	50	K	100	27,50
M 4	x	55	S	200	28,50
M 4	x	60	S	200	29,50
M 4	x	65	S	200	36,50
M 4	x	70	S	200	42,50
M 4	x	75	S	500	105,00
M 4	x	80	S	200	113,00
M 4	x	90	S	200	375,00
M 4	x	100	S	200	410,00
M 4	x	110	S	200	600,00
M 4	x	120	S	200	620,00
M 5	x	6	S	500	23,50
M 5	x	6	K	100	27,50
M 5	x	8	S	500	16,70
M 5	x	8	K	100	20,40
M 5	x	10	S	500	6,20
M 5	x	10	K	100	9,80
M 5	x	12	S	500	6,50
M 5	x	12	K	100	10,20
M 5	x	14	S	500	17,00
M 5	x	14	K	100	20,60
M 5	x	16	S	500	6,60
M 5	x	16	K	100	10,20
M 5	x	18	S	500	8,00
M 5	x	18	K	100	11,70
M 5	x	20	S	500	6,90
M 5	x	20	K	100	10,60
M 5	x	22	S	500	17,70
M 5	x	22	K	100	21,30
M 5	x	25	S	500	7,30
M 5	x	25	K	100	11,00
M 5	x	30	S	500	7,80
M 5	x	30	K	100	11,50
M 5	x	35	S	200	10,40
M 5	x	40	S	200	10,60
M 5	x	45	S	200	18,00
M 5	x	50	S	200	24,20
M 5	x	55	S	200	27,50
M 5	x	60	S	200	29,00
M 5	x	65	S	200	40,00
M 5	x	70	S	200	40,50
M 5	x	75	S	200	63,00
M 5	x	80	S	200	64,00
M 5	x	85	S	200	73,00
M 5	x	90	S	200	70,00
M 5	x	95	S	200	82,00
M 5	x	100	S	200	78,00
M 5	x	105	S	100	182,00
M 5	x	110	S	100	87,00
M 5	x	115	S	100	212,00
M 5	x	120	S	100	128,00
M 5	x	125	S	100	590,00
M 5	x	130	S	100	530,00
M 5	x	135	S	100	650,00
M 5	x	140	S	100	670,00
M 5	x	145	S	100	650,00
M 5	x	150	S	100	670,00
M 5	x	155	S	100	660,00
M 5	x	160	S	100	710,00
M 5	x	165	S	100	700,00
M 5	x	170	S	100	750,00
M 5	x	175	S	100	750,00
M 5	x	180	S	100	750,00
M 5	x	190	S	100	910,00
M 5	x	200	S	100	910,00
M 5	x	210	S	100	1150,00
M 5	x	220	S	100	1150,00
M 5	x	230	S	100	1170,00
M 5	x	240	S	100	1220,00
M 6	x	6	S	500	192,00
M 6	x	6	K	100	195,00
M 6	x	8	S	500	18,60
M 6	x	8	K	100	22,20
M 6	x	10	S	500	6,30
M 6	x	10	K	100	10,00
M 6	x	12	S	500	14,20
M 6	x	12	K	100	17,90
M 6	x	14	S	500	14,60
M 6	x	16	S	500	6,60
M 6	x	16	K	100	10,20
M 6	x	18	S	500	7,40
M 6	x	18	K	100	11,10
M 6	x	20	S	500	6,60
M 6	x	20	K	100	10,30
M 6	x	22	S	500	16,20
M 6	x	22	K	100	19,90
M 6	x	25	S	500	6,90
M 6	x	25	K	100	10,60
M 6	x	30	S	500	7,80
M 6	x	30	K	100	11,50
M 6	x	35	S	200	8,40
M 6	x	40	S	200	9,40
M 6	x	45	S	200	12,30
M 6	x	50	S	200	14,60
M 6	x	55	S	200	23,20
M 6	x	60	S	200	23,60
M 6	x	65	S	200	30,00
M 6	x	70	S	200	39,50
M 6	x	75	S	200	49,00
M 6	x	80	S	200	54,00
M 6	x	85	S	200	101,00
M 6	x	90	S	100	66,00
M 6	x	95	S	100	130,00
M 6	x	100	S	100	79,00
M 6	x	105	S	100	160,00
M 6	x	110	S	100	108,00
M 6	x	115	S	100	209,00
M 6	x	120	S	100	117,00
M 6	x	125	S	100	330,00
M 6	x	130	S	100	350,00
M 6	x	135	S	100	460,00
M 6	x	140	S	100	365,00
M 6	x	145	S	100	650,00
M 6	x	150	S	100	700,00
M 6	x	155	S	100	720,00
M 6	x	160	S	100	700,00
M 6	x	165	S	100	750,00
M 6	x	170	S	100	770,00
M 6	x	175	S	100	830,00
M 6	x	180	S	100	820,00
M 6	x	185	S	100	1020,00
M 6	x	190	S	100	1000,00

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 200	S	100	1110,00
M 6 x 210	S	100	1160,00
M 6 x 220	S	100	1200,00
M 6 x 230	S	100	1300,00
M 6 x 240	S	100	1320,00
M 6 x 250	S	100	1440,00
M 6 x 260	S	100	1470,00
M 6 x 270	S	100	1620,00
M 6 x 280	S	100	2040,00
M 6 x 290	S	100	2370,00
M 6 x 300	S	100	2800,00
M 8 x 8	S	200	181,00
M 8 x 10	S	200	15,30
M 8 x 12	S	200	15,30
M 8 x 14	S	200	22,60
M 8 x 16	S	200	10,80
M 8 x 18	S	200	11,70
M 8 x 20	S	200	10,20
M 8 x 22	S	200	23,50
M 8 x 25	S	200	11,00
M 8 x 30	S	200	11,60
M 8 x 35	S	200	12,90
M 8 x 40	S	200	14,30
M 8 x 45	S	200	15,10
M 8 x 50	S	200	16,60
M 8 x 55	S	200	22,50
M 8 x 60	S	200	23,00
M 8 x 65	S	200	31,00
M 8 x 70	S	200	32,00
M 8 x 75	S	200	39,50
M 8 x 80	S	200	52,00
M 8 x 90	S	100	63,00
M 8 x 100	S	100	74,00
M 8 x 110	S	100	96,00
M 8 x 120	S	100	97,00
M 8 x 130	S	100	148,00
M 8 x 140	S	50	163,00
M 8 x 150	S	50	275,00
M 8 x 160	S	50	325,00
M 8 x 170	S	50	375,00
M 8 x 180	S	50	400,00
M 8 x 190	S	50	660,00
M 8 x 200	S	50	570,00
M 8 x 210	S	50	710,00
M 8 x 220	S	50	730,00
M 8 x 230	S	50	770,00
M 8 x 240	S	50	800,00
M 8 x 250	S	50	850,00
M 8 x 260	S	50	890,00
M 8 x 270	S	50	920,00
M 8 x 280	S	50	950,00
M 8 x 290	S	50	1220,00
M 8 x 300	S	50	1300,00
M 8 x 310	S	50	1640,00
M 10 x 10	S	200	235,00
M 10 x 12	S	200	79,00
M 10 x 16	S	200	31,00
M 10 x 18	S	200	31,00
M 10 x 20	S	200	18,70
M 10 x 22	S	200	52,00
M 10 x 25	S	200	20,30
M 10 x 30	S	200	21,00
M 10 x 35	S	100	22,30
M 10 x 40	S	100	23,20
M 10 x 45	S	100	26,00
M 10 x 50	S	100	27,50
M 10 x 55	S	100	30,00
M 10 x 60	S	100	33,00
M 10 x 65	S	100	37,00
M 10 x 70	S	100	33,00
M 10 x 75	S	100	45,00
M 10 x 80	S	100	46,00
M 10 x 85	S	100	104,00
M 10 x 90	S	100	60,00
M 10 x 100	S	100	67,00

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 110	S	50	111,00
M 10 x 120	S	50	146,00
M 10 x 130	S	50	172,00
M 10 x 140	S	50	193,00
M 10 x 150	S	50	285,00
M 10 x 160	S	50	355,00
M 10 x 170	S	50	420,00
M 10 x 180	S	50	445,00
M 10 x 190	S	50	600,00
M 10 x 200	S	50	500,00
M 10 x 210	S	50	560,00
M 10 x 220	S	50	540,00
M 10 x 230	S	50	650,00
M 10 x 240	S	50	630,00
M 10 x 250	S	50	690,00
M 10 x 260	S	50	710,00
M 10 x 270	S	50	960,00
M 10 x 280	S	50	800,00
M 10 x 290	S	50	1070,00
M 10 x 300	S	50	890,00
M 12 x 12	S	100	325,00
M 12 x 16	S	100	42,00
M 12 x 18	S	100	42,00
M 12 x 20	S	100	37,00
M 12 x 22	S	100	102,00
M 12 x 25	S	100	31,00
M 12 x 30	S	100	32,50
M 12 x 35	S	100	33,50
M 12 x 40	S	100	34,00
M 12 x 45	S	100	36,00
M 12 x 50	S	100	37,50
M 12 x 55	S	100	41,50
M 12 x 60	S	100	43,50
M 12 x 65	S	50	48,00
M 12 x 70	S	50	50,00
M 12 x 75	S	50	59,00
M 12 x 80	S	50	60,00
M 12 x 90	S	50	68,00
M 12 x 100	S	50	76,00
M 12 x 110	S	50	116,00
M 12 x 120	S	50	130,00
M 12 x 130	S	50	200,00
M 12 x 140	S	50	234,00
M 12 x 150	S	50	310,00
M 12 x 160	S	25	345,00
M 12 x 170	S	25	390,00
M 12 x 180	S	25	395,00
M 12 x 190	S	25	510,00
M 12 x 200	S	25	510,00
M 12 x 220	S	25	790,00
M 12 x 230	S	25	1130,00
M 12 x 240	S	25	840,00
M 12 x 250	S	25	1240,00
M 12 x 260	S	25	920,00
M 12 x 280	S	25	980,00
M 12 x 300	S	25	1060,00
M 12 x 310	S	25	2900,00
M 12 x 320	S	1	2900,00
M 12 x 340	S	1	3150,00
M 12 x 360	S	1	3600,00
M 12 x 380	S	1	5600,00
M 12 x 400	S	1	6400,00
M 14 x 20	S	100	193,00
M 14 x 25	S	100	152,00
M 14 x 30	S	100	146,00
M 14 x 35	S	100	151,00
M 14 x 40	S	100	135,00
M 14 x 45	S	50	138,00
M 14 x 50	S	50	147,00
M 14 x 55	S	50	197,00
M 14 x 60	S	50	161,00
M 14 x 65	S	50	176,00
M 14 x 70	S	50	182,00
M 14 x 75	S	50	206,00
M 14 x 80	S	50	206,00

Dimensions	PU	Pieces	€/100/Mat.
M 14 x 90	S	50	221,00
M 14 x 100	S	50	249,00
M 14 x 110	S	50	265,00
M 14 x 120	S	50	300,00
M 14 x 130	S	50	335,00
M 14 x 140	S	25	425,00
M 14 x 150	S	25	485,00
M 14 x 160	S	25	780,00
M 14 x 170	S	25	820,00
M 14 x 180	S	25	860,00
M 14 x 190	S	25	880,00
M 14 x 200	S	25	910,00
M 14 x 220	S	10	1100,00
M 14 x 240	S	10	1140,00
M 14 x 260	S	10	1190,00
M 14 x 280	S	10	1260,00
M 14 x 300	S	10	1340,00
M 16 x 20	S	50	197,00
M 16 x 22	S	50	480,00
M 16 x 25	S	50	143,00
M 16 x 30	S	50	66,00
M 16 x 35	S	50	69,00
M 16 x 40	S	50	71,00
M 16 x 45	S	50	73,00
M 16 x 50	S	50	75,00
M 16 x 55	S	50	78,00
M 16 x 60	S	50	81,00
M 16 x 65	S	25	93,00
M 16 x 70	S	25	93,00
M 16 x 75	S	25	106,00
M 16 x 80	S	25	106,00
M 16 x 85	S	25	129,00
M 16 x 90	S	25	129,00
M 16 x 100	S	25	141,00
M 16 x 110	S	25	170,00
M 16 x 120	S	25	205,00
M 16 x 130	S	25	305,00
M 16 x 140	S	25	335,00
M 16 x 150	S	25	395,00
M 16 x 160	S	25	440,00
M 16 x 170	S	25	540,00
M 16 x 180	S	25	540,00
M 16 x 190	S	25	710,00
M 16 x 200	S	25	610,00
M 16 x 210	S	25	1380,00
M 16 x 220	S	25	920,00
M 16 x 230	S	25	1440,00
M 16 x 240	S	25	920,00
M 16 x 250	S	25	1500,00
M 16 x 260	S	25	1030,00
M 16 x 270	S	25	1590,00
M 16 x 280	S	25	1130,00
M 16 x 290	S	25	1830,00
M 16 x 300	S	25	1270,00
M 16 x 310	S	1	1560,00
M 16 x 320	S	1	1700,00
M 16 x 330	S	1	1700,00
M 16 x 340	S	1	1840,00
M 16 x 350	S	1	1860,00
M 16 x 360	S	1	1980,00
M 16 x 370	S	1	2900,00
M 16 x 380	S	1	2800,00
M 16 x 390	S	1	3350,00
M 16 x 400	S	1	2950,00
M 16 x 420	S	1	3750,00
M 18 x 30	S	50	415,00
M 18 x 35	S	50	415,00
M 18 x 40	S	50	315,00
M 18 x 45	S	50	320,00
M 18 x 50	S	50	320,00
M 18 x 55	S	25	320,00
M 18 x 60	S	25	320,00
M 18 x 65	S	25	345,00
M 18 x 70	S	25	345,00
M 18 x 75	S	25	380,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 18 x 80	S	25	380,00
M 18 x 90	S	25	385,00
M 18 x 100	S	25	420,00
M 18 x 110	S	25	450,00
M 18 x 120	S	25	495,00
M 18 x 130	S	25	550,00
M 18 x 140	S	25	650,00
M 18 x 150	S	25	760,00
M 18 x 160	S	25	1040,00
M 18 x 170	S	25	1100,00
M 18 x 180	S	25	1150,00
M 18 x 190	S	25	1190,00
M 18 x 200	S	10	1230,00
M 18 x 220	S	10	1500,00
M 18 x 240	S	10	1590,00
M 18 x 260	S	1	1700,00
M 18 x 280	S	1	1820,00
M 18 x 300	S	1	1930,00
M 20 x 30	S	25	355,00
M 20 x 35	S	25	355,00
M 20 x 40	S	25	136,00
M 20 x 45	S	25	137,00
M 20 x 50	S	25	138,00
M 20 x 55	S	25	147,00
M 20 x 60	S	25	152,00
M 20 x 65	S	25	165,00
M 20 x 70	S	25	165,00
M 20 x 75	S	25	172,00
M 20 x 80	S	25	192,00
M 20 x 90	S	25	201,00
M 20 x 100	S	25	220,00
M 20 x 110	S	25	249,00
M 20 x 120	S	25	305,00
M 20 x 130	S	25	390,00
M 20 x 140	S	25	570,00
M 20 x 150	S	25	660,00
M 20 x 160	S	10	670,00
M 20 x 170	S	10	940,00
M 20 x 180	S	10	920,00
M 20 x 190	S	10	1020,00
M 20 x 200	S	10	860,00
M 20 x 210	S	10	1780,00
M 20 x 220	S	10	1250,00
M 20 x 230	S	10	2000,00
M 20 x 240	S	10	1330,00
M 20 x 250	S	10	2140,00
M 20 x 260	S	10	1400,00
M 20 x 270	S	10	2290,00
M 20 x 280	S	10	1470,00
M 20 x 290	S	10	2650,00
M 20 x 300	S	10	1630,00
M 20 x 310	S	1	2060,00
M 20 x 320	S	1	2120,00
M 20 x 330	S	1	2330,00
M 20 x 340	S	1	2400,00
M 20 x 350	S	1	2600,00
M 20 x 360	S	1	2650,00
M 20 x 380	S	1	2900,00
M 20 x 400	S	1	3200,00
M 20 x 420	S	1	3550,00
M 20 x 440	S	1	3900,00
M 20 x 460	S	1	4250,00
M 20 x 480	S	1	4600,00
M 20 x 500	S	1	4950,00
M 22 x 40	S	25	820,00
M 22 x 45	S	25	820,00
M 22 x 50	S	25	1030,00
M 22 x 55	S	25	1170,00
M 22 x 60	S	25	1170,00
M 22 x 65	S	25	1210,00
M 22 x 70	S	25	1210,00
M 22 x 75	S	25	1270,00
M 22 x 80	S	25	1270,00
M 22 x 90	S	25	1360,00
M 22 x 100	S	10	1390,00
M 22 x 110	S	10	1420,00
M 22 x 120	S	10	1450,00
M 22 x 130	S	1	1490,00
M 22 x 140	S	1	1550,00
M 22 x 150	S	1	1590,00
M 22 x 160	S	1	1630,00
M 22 x 170	S	1	1700,00
M 22 x 180	S	1	1750,00
M 22 x 200	S	1	2050,00
M 22 x 220	S	1	2120,00
M 22 x 240	S	1	2230,00
M 22 x 260	S	1	2310,00
M 22 x 280	S	1	2390,00
M 22 x 300	S	1	2460,00
M 24 x 40	S	25	840,00
M 24 x 45	S	25	860,00
M 24 x 50	S	25	420,00
M 24 x 55	S	25	445,00
M 24 x 60	S	25	445,00
M 24 x 65	S	25	460,00
M 24 x 70	S	25	460,00
M 24 x 75	S	25	480,00
M 24 x 80	S	25	480,00
M 24 x 90	S	10	550,00
M 24 x 100	S	10	570,00
M 24 x 110	S	10	630,00
M 24 x 120	S	10	650,00
M 24 x 130	S	1	1080,00
M 24 x 140	S	1	1100,00
M 24 x 150	S	1	1290,00
M 24 x 160	S	1	1700,00
M 24 x 170	S	1	1900,00
M 24 x 180	S	1	2130,00
M 24 x 190	S	1	2240,00
M 24 x 200	S	1	2240,00
M 24 x 210	S	1	2440,00
M 24 x 220	S	1	2300,00
M 24 x 230	S	1	2600,00
M 24 x 240	S	1	2390,00
M 24 x 250	S	1	2750,00
M 24 x 260	S	1	2470,00
M 24 x 270	S	1	2900,00
M 24 x 280	S	1	2550,00
M 24 x 290	S	1	3050,00
M 24 x 300	S	1	2650,00
M 24 x 310	S	1	2850,00
M 24 x 320	S	1	2850,00
M 24 x 330	S	1	3200,00
M 24 x 340	S	1	3200,00
M 24 x 350	S	1	3500,00
M 24 x 360	S	1	3500,00
M 24 x 380	S	1	3750,00
M 24 x 400	S	1	4100,00
M 24 x 420	S	1	5400,00
M 24 x 440	S	1	5900,00
M 24 x 450	S	1	6500,00
M 24 x 460	S	1	6300,00
M 24 x 480	S	1	6800,00
M 24 x 500	S	1	7300,00
M 27 x 50	S	10	1410,00
M 27 x 55	S	10	1410,00
M 27 x 60	S	10	1410,00
M 27 x 65	S	10	1460,00
M 27 x 70	S	10	1460,00
M 27 x 75	S	10	1520,00
M 27 x 80	S	10	1520,00
M 27 x 90	S	10	1580,00
M 27 x 100	S	10	1660,00
M 27 x 110	S	10	1700,00
M 27 x 120	S	10	1870,00
M 27 x 130	S	1	1950,00
M 27 x 140	S	1	2030,00
M 27 x 150	S	1	2110,00
M 27 x 160	S	1	2160,00
M 27 x 170	S	1	3100,00
M 27 x 180	S	1	2310,00
M 27 x 190	S	1	3400,00
M 27 x 200	S	1	2420,00
M 27 x 210	S	1	3650,00
M 27 x 220	S	1	2650,00
M 27 x 230	S	1	3900,00
M 27 x 240	S	1	2850,00
M 27 x 250	S	1	4150,00
M 27 x 260	S	1	3050,00
M 27 x 280	S	1	3200,00
M 27 x 300	S	1	3450,00
M 30 x 45	S	1	1570,00
M 30 x 50	S	1	1570,00
M 30 x 55	S	1	1570,00
M 30 x 60	S	1	1570,00
M 30 x 65	S	1	1610,00
M 30 x 70	S	1	1640,00
M 30 x 75	S	1	1640,00
M 30 x 80	S	1	1710,00
M 30 x 90	S	1	1780,00
M 30 x 100	S	1	1850,00
M 30 x 110	S	1	1920,00
M 30 x 120	S	1	1990,00
M 30 x 130	S	1	2060,00
M 30 x 140	S	1	2130,00
M 30 x 150	S	1	2240,00
M 30 x 160	S	1	2340,00
M 30 x 170	S	1	2460,00
M 30 x 180	S	1	2480,00
M 30 x 190	S	1	2650,00
M 30 x 200	S	1	2700,00
M 30 x 210	S	1	2950,00
M 30 x 220	S	1	2950,00
M 30 x 230	S	1	3250,00
M 30 x 240	S	1	3050,00
M 30 x 250	S	1	3500,00
M 30 x 260	S	1	3500,00
M 30 x 270	S	1	3750,00
M 30 x 280	S	1	3400,00
M 30 x 290	S	1	4300,00
M 30 x 300	S	1	3700,00
M 30 x 320	S	1	4800,00
M 30 x 340	S	1	6100,00
M 30 x 360	S	1	6600,00
M 30 x 380	S	1	7200,00
M 30 x 400	S	1	7900,00
M 30 x 420	S	1	8400,00
M 30 x 440	S	1	10900,00
M 30 x 460	S	1	11900,00
M 33 x 60	S	1	2080,00
M 33 x 70	S	1	2080,00
M 33 x 80	S	1	2080,00
M 33 x 90	S	1	2200,00
M 33 x 100	S	1	2370,00
M 33 x 110	S	1	2470,00
M 33 x 120	S	1	2650,00
M 33 x 130	S	1	2750,00
M 33 x 140	S	1	2900,00
M 33 x 150	S	1	3100,00
M 33 x 160	S	1	3150,00
M 33 x 170	S	1	4650,00
M 33 x 180	S	1	3450,00
M 33 x 200	S	1	3650,00
M 33 x 210	S	1	5500,00
M 33 x 220	S	1	3950,00
M 33 x 240	S	1	4300,00
M 33 x 260	S	1	4600,00
M 33 x 280	S	1	4900,00
M 33 x 300	S	1	5200,00
M 36 x 60	S	1	2700,00
M 36 x 70	S	1	2700,00
M 36 x 80	S	1	2700,00
M 36 x 90	S	1	2800,00
M 36 x 100	S	1	2850,00
M 36 x 110	S	1	2950,00

Dimensions			PU	Pieces	€/100/Mat.
M 36	x	120	S	1	3050,00
M 36	x	130	S	1	3200,00
M 36	x	140	S	1	3300,00
M 36	x	150	S	1	3400,00
M 36	x	160	S	1	3500,00
M 36	x	170	S	1	4350,00
M 36	x	180	S	1	3800,00
M 36	x	200	S	1	4100,00
M 36	x	220	S	1	4350,00
M 36	x	240	S	1	4550,00
M 36	x	260	S	1	4800,00
M 36	x	280	S	1	5100,00
M 36	x	300	S	1	5600,00
M 36	x	320	S	1	6600,00
M 36	x	340	S	1	7000,00
M 36	x	360	S	1	7300,00
M 36	x	380	S	1	7700,00
M 36	x	400	S	1	8300,00
M 36	x	420	S	1	10600,00
M 39	x	100	S	1	4750,00
M 39	x	110	S	1	5200,00
M 39	x	120	S	1	5400,00
M 39	x	130	S	1	5700,00
M 39	x	140	S	1	6000,00
M 39	x	150	S	1	6300,00
M 39	x	160	S	1	6400,00
M 39	x	170	S	1	6800,00
M 39	x	180	S	1	7000,00
M 39	x	200	S	1	7600,00
M 39	x	220	S	1	8200,00
M 39	x	240	S	1	8800,00
M 39	x	260	S	1	9800,00
M 39	x	280	S	1	10300,00
M 39	x	300	S	1	10900,00
M 42	x	120	S	1	4950,00
M 42	x	130	S	1	5000,00
M 42	x	140	S	1	5600,00
M 42	x	150	S	1	5900,00
M 42	x	160	S	1	6100,00
M 42	x	170	S	1	6300,00
M 42	x	180	S	1	6400,00
M 42	x	190	S	1	6700,00
M 42	x	200	S	1	7000,00
M 42	x	220	S	1	8100,00
M 42	x	240	S	1	8800,00
M 42	x	260	S	1	9500,00
M 42	x	280	S	1	10000,00
M 42	x	300	S	1	10900,00
M 48	x	120	S	1	8800,00
M 48	x	130	S	1	9100,00
M 48	x	140	S	1	9600,00
M 48	x	150	S	1	10100,00
M 48	x	160	S	1	10700,00
M 48	x	180	S	1	11700,00
M 48	x	200	S	1	12500,00
M 48	x	220	S	1	16700,00
M 48	x	240	S	1	18100,00
M 48	x	260	S	1	19600,00
M 48	x	280	S	1	20900,00
M 48	x	300	S	1	21700,00

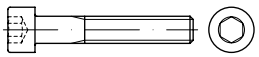
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Dimensions	PU	Pieces	€/100/Mat.
ISO	04762.280		1580

4762 **12.9 flZn/TL480h**



Hexagon socket head cap screws

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-245
Standard conversion ➔ TI-6

Stainless ➔ pg. 547

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

M 6	x	12	S	500	15,60 flZn
M 6	x	14	S	500	26,00 flZn
M 6	x	16	S	500	16,00 flZn
M 6	x	18	S	500	17,70 flZn
M 6	x	20	S	500	16,70 flZn
M 6	x	22	S	500	31,50 flZn
M 6	x	25	S	500	17,70 flZn
M 6	x	30	S	500	20,10 flZn
M 6	x	35	S	200	21,20 flZn
M 6	x	40	S	200	24,70 flZn
M 6	x	45	S	200	26,50 flZn
M 6	x	50	S	200	28,00 flZn
M 6	x	55	S	200	39,00 flZn
M 6	x	60	S	200	41,00 flZn
M 6	x	65	S	200	47,50 flZn
M 6	x	70	S	200	63,00 flZn
M 6	x	75	S	200	75,00 flZn
M 6	x	80	S	200	80,00 flZn
M 8	x	16	S	200	20,40 flZn
M 8	x	20	S	200	27,50 flZn
M 8	x	25	S	200	30,00 flZn
M 8	x	30	S	200	32,00 flZn
M 8	x	35	S	200	35,50 flZn
M 8	x	40	S	200	39,50 flZn
M 8	x	45	S	200	41,50 flZn
M 8	x	50	S	200	46,00 flZn
M 8	x	55	S	200	55,00 flZn
M 8	x	60	S	200	57,00 flZn
M 8	x	65	S	200	67,00 flZn
M 8	x	70	S	200	64,00 flZn
M 8	x	75	S	200	72,00 flZn
M 8	x	80	S	200	91,00 flZn
M 8	x	90	S	100	106,00 flZn
M 10	x	20	S	200	49,50 flZn
M 10	x	25	S	200	54,00 flZn
M 10	x	30	S	200	57,00 flZn
M 10	x	35	S	100	61,00 flZn
M 10	x	40	S	100	65,00 flZn
M 10	x	45	S	100	54,00 flZn
M 10	x	50	S	100	58,00 flZn
M 10	x	55	S	100	68,00 flZn
M 10	x	60	S	100	72,00 flZn
M 10	x	65	S	100	74,00 flZn
M 10	x	70	S	100	79,00 flZn
M 10	x	75	S	100	97,00 flZn
M 10	x	80	S	100	98,00 flZn
M 10	x	90	S	100	119,00 flZn

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	20	S	100	65,00 flZn
M 12	x	25	S	100	81,00 flZn
M 12	x	30	S	100	85,00 flZn
M 12	x	35	S	100	89,00 flZn
M 12	x	40	S	100	92,00 flZn
M 12	x	45	S	100	82,00 flZn
M 12	x	50	S	100	104,00 flZn
M 12	x	55	S	100	113,00 flZn
M 12	x	60	S	100	119,00 flZn
M 12	x	65	S	50	130,00 flZn
M 12	x	70	S	50	136,00 flZn
M 12	x	75	S	50	146,00 flZn
M 12	x	80	S	50	146,00 flZn
M 12	x	90	S	50	149,00 flZn
M 12	x	100	S	50	169,00 flZn
M 16	x	30	S	50	140,00 flZn
M 16	x	35	S	50	149,00 flZn
M 16	x	40	S	50	141,00 flZn
M 16	x	45	S	50	147,00 flZn
M 16	x	50	S	50	157,00 flZn
M 16	x	55	S	50	182,00 flZn
M 16	x	60	S	50	190,00 flZn
M 16	x	65	S	25	207,00 flZn
M 16	x	70	S	25	211,00 flZn
M 16	x	75	S	25	222,00 flZn
M 16	x	80	S	25	222,00 flZn
M 16	x	90	S	25	275,00 flZn
M 16	x	100	S	25	310,00 flZn
M 16	x	110	S	25	355,00 flZn
M 16	x	120	S	25	420,00 flZn
M 20	x	65	S	25	360,00 flZn
M 20	x	70	S	25	370,00 flZn
M 20	x	75	S	25	365,00 flZn
M 20	x	80	S	25	395,00 flZn
M 20	x	90	S	25	430,00 flZn
M 20	x	100	S	25	490,00 flZn
M 20	x	110	S	25	530,00 flZn
M 20	x	120	S	25	610,00 flZn
M 20	x	130	S	25	740,00 flZn
M 20	x	140	S	25	980,00 flZn
M 20	x	150	S	25	1110,00 flZn
M 20	x	160	S	10	1390,00 flZn
M 20	x	170	S	10	1640,00 flZn
M 20	x	180	S	10	1500,00 flZn
M 24	x	80	S	25	890,00 flZn
M 24	x	90	S	10	1000,00 flZn
M 24	x	100	S	10	1050,00 flZn
M 24	x	110	S	10	1150,00 flZn
M 24	x	120	S	10	1200,00 flZn
M 24	x	130	S	10	1480,00 flZn
M 24	x	140	S	10	1800,00 flZn
M 24	x	150	S	10	2070,00 flZn
M 24	x	160	S	10	2210,00 flZn
M 24	x	170	S	10	2550,00 flZn
M 24	x	180	S	10	2700,00 flZn

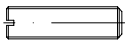
E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU	Pieces	€/100/Mat.
ISO 04766.000			230

4766 **14 H**



Slotted grub screws with flat point

Dimensions ➔ TI-19
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 552
Brass, Plastic ➔ pg. 638

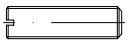
ISO 4766 ➔ replaces DIN 551 (compatible)

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 1,6	x	2	K	100	15,10
M 1,6	x	3	K	100	12,10
M 2	x	3	K	200	10,60
M 2	x	4	K	200	10,70
M 2	x	5	K	200	10,80
M 2	x	6	K	200	11,10
M 2	x	8	K	200	11,20
M 2,5	x	3	K	200	11,20
M 2,5	x	4	K	200	10,80
M 2,5	x	5	K	200	11,10
M 2,5	x	6	K	200	11,20
M 2,5	x	8	K	200	11,30
M 2,5	x	10	K	200	11,80
M 2,5	x	16	K	200	13,40
M 3	x	3	S	1000	7,40
M 3	x	3	K	200	8,40
M 3	x	4	S	1000	4,15
M 3	x	4	K	200	5,00
M 3	x	5	S	1000	3,95
M 3	x	5	K	200	5,30
M 3	x	6	S	1000	4,10
M 3	x	6	K	200	5,50
M 3	x	8	S	1000	4,15
M 3	x	8	K	200	5,60
M 3	x	10	S	1000	4,15
M 3	x	10	K	200	5,60
M 3	x	12	S	1000	4,60
M 3	x	12	K	200	5,90
M 3	x	16	K	200	6,30
M 3	x	20	K	200	7,20
M 3	x	22	K	200	10,30
M 3	x	25	K	200	11,20
M 3	x	30	K	200	12,90
M 4	x	3	K	200	13,20
M 4	x	4	S	1000	4,15
M 4	x	4	K	200	5,10
M 4	x	5	S	1000	4,30
M 4	x	5	K	200	5,30
M 4	x	6	S	1000	4,30
M 4	x	6	K	200	5,30
M 4	x	8	S	1000	4,30
M 4	x	8	K	200	5,30
M 4	x	10	S	1000	4,60
M 4	x	10	K	200	5,50
M 4	x	12	S	1000	4,85
M 4	x	12	K	200	5,90
M 4	x	16	S	1000	5,40
M 4	x	16	K	200	6,60
M 4	x	20	K	200	7,20
M 4	x	25	K	200	7,90
M 4	x	30	K	200	9,40
M 4	x	40	K	100	42,50
M 5	x	4	K	200	9,40
M 5	x	5	S	1000	5,50
M 5	x	5	K	200	6,50
M 5	x	6	S	1000	4,85
M 5	x	6	K	200	5,90
M 5	x	8	S	1000	5,30
M 5	x	8	K	200	6,20
M 5	x	10	S	1000	5,90
M 5	x	10	K	200	6,80
M 5	x	12	S	1000	6,20
M 5	x	12	K	200	7,30
M 5	x	16	S	1000	7,90
M 5	x	16	K	200	8,80
M 5	x	20	K	200	9,20
M 5	x	25	K	200	9,70
M 5	x	30	K	200	11,30
M 5	x	35	K	100	23,80
M 5	x	40	K	100	23,90
M 6	x	4	K	200	9,40
M 6	x	5	K	200	9,40
M 6	x	6	S	1000	5,90
M 6	x	6	K	200	6,80
M 6	x	8	S	1000	6,30
M 6	x	8	K	200	7,40
M 6	x	10	S	1000	6,70
M 6	x	10	K	200	7,70
M 6	x	12	S	1000	7,20
M 6	x	12	K	200	9,20
M 6	x	16	S	1000	8,20
M 6	x	16	K	200	9,40
M 6	x	18	K	200	9,60
M 6	x	20	S	1000	9,10
M 6	x	20	K	200	9,90
M 6	x	25	S	1000	10,50
M 6	x	25	K	100	11,80
M 6	x	30	K	100	13,80
M 6	x	35	K	100	16,30
M 6	x	40	K	100	56,00
M 6	x	50	K	100	60,00
M 6	x	60	K	100	66,00
M 8	x	5	K	100	23,90
M 8	x	6	K	100	16,70
M 8	x	8	K	100	9,40
M 8	x	10	K	100	10,50
M 8	x	12	S	1000	9,70
M 8	x	12	K	100	11,80
M 8	x	16	S	1000	10,30
M 8	x	16	K	100	12,40
M 8	x	18	K	100	14,30
M 8	x	20	S	1000	12,60
M 8	x	20	K	100	14,70
M 8	x	25	S	1000	14,10
M 8	x	25	K	100	16,10
M 8	x	30	K	100	19,70
M 8	x	35	K	100	22,30
M 8	x	40	K	100	30,00
M 8	x	45	K	100	46,00
M 8	x	50	K	100	48,00
M 8	x	60	K	100	53,00
M 8	x	70	K	100	57,00
M 8	x	80	K	100	62,00
M 10	x	6	K	100	33,00
M 10	x	8	K	100	33,00
M 10	x	10	K	100	23,20
M 10	x	12	K	100	23,50
M 10	x	16	K	100	25,00
M 10	x	20	K	100	27,50
M 10	x	25	K	100	30,00
M 10	x	30	K	100	32,50
M 10	x	35	K	100	34,50
M 10	x	40	K	100	37,00
M 10	x	45	K	100	67,00
M 10	x	50	K	100	49,50
M 10	x	60	K	100	62,00
M 10	x	70	K	100	84,00
M 10	x	80	K	100	91,00
M 12	x	20	S	100	51,00
M 12	x	25	S	100	54,00
M 12	x	30	S	100	65,00
M 12	x	35	S	100	68,00
M 12	x	40	S	100	73,00
M 12	x	60	S	50	103,00

Dimensions	PU	Pieces	€/100/Mat.
ISO 04766.010			230

4766 **14 H zinc plated**



Slotted grub screws with flat point

Dimensions ➔ TI-19
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 552
Brass, Plastic ➔ pg. 638

ISO 4766 ➔ replaces DIN 551 (compatible)

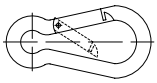
RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	3	S	200	11,20 ZP
M 3	x	4	S	200	7,80 ZP
M 3	x	5	S	200	7,70 ZP
M 3	x	6	S	200	7,80 ZP
M 3	x	8	S	200	7,80 ZP
M 3	x	10	S	200	7,80 ZP
M 3	x	12	S	200	8,30 ZP
M 3	x	16	S	200	9,10 ZP
M 3	x	20	S	200	18,40 ZP
M 4	x	4	S	200	7,80 ZP
M 4	x	5	S	200	8,00 ZP
M 4	x	6	S	200	8,20 ZP
M 4	x	8	S	200	8,20 ZP
M 4	x	10	S	200	8,30 ZP
M 4	x	12	S	200	8,60 ZP
M 4	x	16	S	200	9,10 ZP
M 4	x	20	S	200	9,90 ZP
M 4	x	25	S	200	10,70 ZP
M 4	x	30	S	200	12,10 ZP
M 4	x	40	S	200	46,00 ZP
M 5	x	5	S	200	9,20 ZP
M 5	x	6	S	200	8,60 ZP
M 5	x	8	S	200	9,00 ZP
M 5	x	10	S	200	10,00 ZP
M 5	x	12	S	200	10,10 ZP
M 5	x	16	S	200	11,10 ZP
M 5	x	20	S	200	11,90 ZP
M 5	x	25	S	200	46,00 ZP
M 5	x	30	S	200	14,90 ZP
M 5	x	35	S	100	21,80 ZP
M 6	x	6	S	200	10,10 ZP
M 6	x	8	S	200	10,60 ZP
M 6	x	10	S	200	11,20 ZP
M 6	x	12	S	200	11,50 ZP
M 6	x	16	S	200	11,80 ZP
M 6	x	20	S	200	12,60 ZP
M 6	x	25	S	100	14,20 ZP
M 6	x	30	S	100	16,60 ZP
M 6	x	35	S	100	19,00 ZP
M 6	x	40	S	100	53,00 ZP
M 6	x	50	S	100	55,00 ZP
M 8	x	6	S	100	22,10 ZP
M 8	x	8	S	100	13,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	10	S	100	14,90 ZP
M 8	x	12	S	100	16,30 ZP
M 8	x	16	S	100	18,40 ZP
M 8	x	20	S	100	19,20 ZP
M 8	x	25	S	100	21,60 ZP
M 8	x	30	S	100	23,90 ZP
M 8	x	35	S	100	27,00 ZP
M 8	x	40	S	100	34,50 ZP
M 8	x	45	S	100	51,00 ZP
M 8	x	50	S	100	53,00 ZP
M 8	x	60	S	100	57,00 ZP
M 10	x	6	S	100	43,00 ZP
M 10	x	10	S	100	28,00 ZP
M 10	x	12	S	100	26,50 ZP
M 10	x	16	S	100	28,00 ZP
M 10	x	20	S	100	30,50 ZP
M 10	x	25	S	100	33,00 ZP
M 10	x	30	S	100	35,50 ZP
M 10	x	35	S	100	33,00 ZP
M 10	x	40	S	100	42,00 ZP
M 10	x	45	S	100	72,00 ZP
M 10	x	50	S	100	54,00 ZP
M 10	x	60	S	100	59,00 ZP
M 10	x	70	S	100	89,00 ZP
M 10	x	80	S	100	97,00 ZP
M 12	x	12	S	100	56,00 ZP
M 12	x	16	S	100	56,00 ZP
M 12	x	20	S	100	56,00 ZP
M 12	x	25	S	100	59,00 ZP
M 12	x	30	S	100	69,00 ZP
M 12	x	35	S	100	74,00 ZP
M 12	x	40	S	100	79,00 ZP
M 12	x	45	S	100	85,00 ZP
M 12	x	50	S	100	97,00 ZP
M 12	x	60	S	50	109,00 ZP

DIN 05299.013 341

5299 Steel zinc plated type C



Snap hooks
C = pear-shaped

Dimensions ➔ TI-133 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

length x wire ∅					
C 40	x	4	S	100	330,00 ZP
C 50	x	5	S	100	340,00 ZP
C 60	x	6	S	100	400,00 ZP
C 70	x	7	S	50	510,00 ZP
C 80	x	8	S	50	610,00 ZP
C 100	x	10	S	50	1030,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
DIN 05406.000					481
5406 Steel					MB
MB 0/M10	x	0,75	S	25	170,00
MB 1/M 12	x	1	S	25	126,00
MB 2/M 15	x	1	S	25	117,00
MB 3/M 17	x	1	S	25	126,00
MB 4/M 20	x	1	S	25	147,00
MB 5/M 25	x	1,5	S	25	132,00
MB 6/M 30	x	1,5	S	25	132,00
MB 7/M 35	x	1,5	S	25	132,00
MB 8/M 40	x	1,5	S	25	132,00
MB 9/M 45	x	1,5	S	25	157,00
MB 10/M 50	x	1,5	S	25	177,00
MB 11/M 55	x	2	S	10	227,00
MB 12/M 60	x	2	S	10	260,00
MB 13/M 65	x	2	S	10	305,00
MB 14/M 70	x	2	S	10	345,00
MB 15/M 75	x	2	S	10	370,00
MB 16/M 80	x	2	S	10	455,00
MB 17/M 85	x	2	S	10	485,00
MB 18/M 90	x	2	S	10	530,00
MB 19/M 95	x	2	S	10	600,00
MB 20/M100	x	2	S	10	670,00
MB 21/M105	x	2	S	10	840,00
MB 22/M110	x	2	S	10	890,00
MB 23/M115	x	2	S	10	1120,00
MB 24/M120	x	2	S	10	1120,00
MB 25/M125	x	2	S	5	2120,00
MB 26/M130	x	2	S	5	2120,00
MB 27/M135	x	2	S	5	3100,00
MB 28/M140	x	2	S	5	2800,00
MB 29/M145	x	2	S	5	4950,00
MB 30/M150	x	2	S	5	3350,00



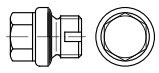
Lockwashers/safety plates
for locknuts acc. to DIN 981

Dimensions ➔ TI-98

RoHS ✓ REACh SVHC free

type / no. / for locknuts

Dimensions			PU	Pieces	€/100/Mat.
DIN 05586.014					570
5586 Steel zinc plated					type B
BG 1/8 A			S	100	730,00 ZP
BG 1/4 A			S	100	730,00 ZP
BG 1/2 A			S	50	1020,00 ZP
BG 3/4 A			S	25	1660,00 ZP
BG 1 A			S	25	2110,00 ZP
BG 1 1/2 A			S	25	5200,00 ZP
BG 2 A			S	10	7900,00 ZP



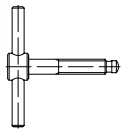
Hexagon head screw plugs
with collar and vent,
B = with melted sealing

Dimensions ➔ TI-24 REACH ➔ TI-262
Corrosion protection ➔ TI-228

RoHS ✓

DIN 06304.534 575

6304 5.8 browned type E



Tommy screws with fixed clamping bolt,
E = without thrust pad

thrust pads ➔ DIN 6311/S

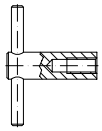
Dimensions ➔ TI-127 REACH ➔ TI-262

RoHS ✓

EM 6	x	40	S	1	1690,00 browned
EM 6	x	50	S	1	1750,00 browned
EM 8	x	50	S	1	2030,00 browned
EM 8	x	60	S	1	2150,00 browned
EM 10	x	60	S	1	2400,00 browned
EM 10	x	70	S	1	2600,00 browned
EM 12	x	70	S	1	3000,00 browned
EM 12	x	80	S	1	3150,00 browned
EM 16	x	75	S	1	4000,00 browned
EM 16	x	110	S	1	4400,00 browned
EM 20	x	90	S	1	6200,00 browned
EM 20	x	110	S	1	6600,00 browned

Dimensions	PU	Pieces	€/100/Mat.
DIN	06305.530		575

6305 5 browned



Tommy nuts with fixed clamping bolt

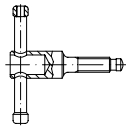
Dimensions ➔ TI-127 REACH ➔ TI-262

RoHS ✓

M 10	S	1	2030,00	browned
M 12	S	1	2330,00	browned
M 16	S	1	3150,00	browned
M 20	S	1	4750,00	browned

DIN	06306.534	575

6306 5.8 browned type D



Tommy screws with movable clamping bolt, D = without thrust pad

thrust pads ➔ DIN 6311/S

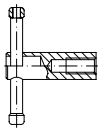
Dimensions ➔ TI-128 REACH ➔ TI-262

RoHS ✓

DM 10	x	40	S	1	3300,00	browned
DM 10	x	50	S	1	3350,00	browned
DM 12	x	50	S	1	3950,00	browned
DM 12	x	60	S	1	4000,00	browned
DM 16	x	55	S	1	5000,00	browned
DM 16	x	70	S	1	5300,00	browned
DM 16	x	90	S	1	5600,00	browned
DM 20	x	70	S	1	7300,00	browned
DM 20	x	90	S	1	7800,00	browned

Dimensions	PU	Pieces	€/100/Mat.
DIN	06307.530		575

6307 5 browned



Tommy nuts with movable clamping bolt

Dimensions ➔ TI-128 REACH ➔ TI-262

RoHS ✓

M 10	S	1	2900,00	browned
M 12	S	1	3150,00	browned
M 16	S	1	4100,00	browned
M 20	S	1	5700,00	browned

DIN	06311.004	575

6311 Steel type S



Thrust pads, S = with snap ring

- tommy screws ➔ DIN 6304/6306
- grub screws with thrust point ➔ DIN 6332

Dimensions ➔ TI-128 REACH ➔ TI-262

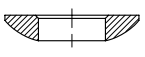
RoHS ✓

outside ∅ - for grub screw M

S 12 M 6	S	10	590,00
S 16 M 8	S	10	600,00
S 20 M 10	S	10	710,00
S 25 M 12	S	10	830,00
S 32 M 16	S	10	1250,00
S 40 M 20	S	5	1770,00

DIN	06319.003	570

6319 Steel type C



Spherical washers, case hardened

Dimensions ➔ TI-112

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

C 6,4	x	12	x	2,3	S	50	94,00
C 8,4	x	17	x	3,2	S	50	113,00
C10,5	x	21	x	4	S	50	158,00
C13	x	24	x	4,6	S	50	181,00
C17	x	30	x	5,3	S	25	290,00
C21	x	36	x	6,3	S	10	440,00
C25	x	44	x	8,2	S	10	720,00
C31	x	56	x	11,2	S	1	1230,00
C37	x	68	x	14	S	1	2800,00
C43	x	78	x	17	S	1	3950,00
C50	x	92	x	21	S	1	5900,00

DIN	06319.013	570

6319 Steel zinc plated type C



Spherical washers, case hardened

Dimensions ➔ TI-112 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

C 13	x	24	x	4,6	S	50	265,00 ZP
C 17	x	30	x	5,3	S	25	415,00 ZP
C 21	x	36	x	6,3	S	10	620,00 ZP
C 25	x	44	x	8,2	S	10	1080,00 ZP
C 31	x	56	x	11,2	S	1	1710,00 ZP
C 37	x	68	x	14	S	1	4500,00 ZP

DIN	06319.004	570

6319 Steel type D



Conical seats, case hardened

outside ∅ = outside ∅ of spherical washers

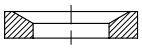
Dimensions ➔ TI-112

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

D 7,1	x	12	x	2,8	S	50	78,00
D 9,6	x	17	x	3,5	S	50	120,00
D 12	x	21	x	4,2	S	50	167,00
D 14,2	x	24	x	5	S	50	194,00
D 19	x	30	x	6,2	S	25	310,00
D 23,2	x	36	x	7,5	S	10	495,00
D 28	x	44	x	9,5	S	10	790,00
D 35	x	56	x	12	S	1	1310,00
D 42	x	68	x	14	S	1	2900,00
D 49	x	78	x	18	S	1	2950,00
D 56	x	92	x	22	S	1	3700,00

Dimensions	PU Pieces	€/100/Mat.
DIN	06319.014	570
6319	**Steel zinc plated***	**type D**



Conical seats, case hardened

outside ∅ = outside ∅ of spherical washers, *baked

Dimensions ➔ TI-112

Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness							
D 14,2	x	24	x	5	S	50	295,00 ZP
D 19	x	30	x	6,2	S	25	460,00 ZP
D 23,2	x	36	x	7,5	S	10	740,00 ZP
D 28	x	44	x	9,5	S	10	1190,00 ZP
D 35	x	56	x	12	S	1	1950,00 ZP
D 42	x	68	x	14	S	1	5500,00 ZP

DIN	06319.005	570
6319	**Steel**	**type G**



Conical seats, quenched and tempered

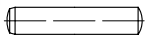
outside ∅ > outside ∅ of spherical washers

Dimensions ➔ TI-112

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness							
G 12	x	30	x	5	S	50	315,00
G 14,2	x	36	x	6	S	50	390,00
G 19	x	44	x	7	S	25	560,00
G 23,2	x	50	x	8	S	10	840,00
G 28	x	60	x	10	S	10	1460,00
G 35	x	68	x	12	S	1	2290,00

Dimensions	PU Pieces	€/100/Mat.
DIN	06325.000	570
6325	**Steel, hardened**	**m6**



Parallel pins, tolerance m6

Dimensions ➔ TI-116

DIN 6325 ➔ replaced by ISO 8734

RoHS ✓ | REACh SVHC free

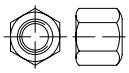
1 m6	x	4	S	1000	24,40
1 m6	x	5	S	1000	25,50
1 m6	x	6	S	1000	26,00
1 m6	x	8	S	1000	26,50
1 m6	x	10	S	1000	27,00
1 m6	x	12	S	1000	28,00
1,5 m6	x	4	S	1000	21,00
1,5 m6	x	5	S	1000	21,00
1,5 m6	x	6	S	1000	21,50
1,5 m6	x	8	S	1000	22,30
1,5 m6	x	10	S	1000	23,00
1,5 m6	x	12	S	1000	23,90
1,5 m6	x	14	S	1000	24,40
1,5 m6	x	16	S	1000	25,50
1,5 m6	x	20	S	1000	26,50
2 m6	x	4	S	1000	22,10
2 m6	x	5	S	1000	22,10
2 m6	x	6	S	1000	22,30
2 m6	x	8	S	1000	22,60
2 m6	x	10	S	1000	23,30
2 m6	x	12	S	1000	24,10
2 m6	x	14	S	1000	24,60
2 m6	x	16	S	1000	26,00
2 m6	x	18	S	1000	26,50
2 m6	x	20	S	1000	27,00
2 m6	x	24	S	1000	32,50
2 m6	x	30	S	1000	47,00
2 m6	x	32	S	500	48,00
2 m6	x	50	S	500	54,00
2,5 m6	x	6	S	1000	22,60
2,5 m6	x	8	S	1000	23,00
2,5 m6	x	10	S	1000	23,90
2,5 m6	x	12	S	1000	24,40
2,5 m6	x	14	S	1000	25,50
2,5 m6	x	16	S	1000	26,50
2,5 m6	x	18	S	1000	27,00
2,5 m6	x	20	S	1000	28,00
2,5 m6	x	24	S	1000	38,50
2,5 m6	x	26	S	1000	41,00
2,5 m6	x	28	S	1000	44,00
3 m6	x	6	S	500	23,30
3 m6	x	8	S	500	23,30
3 m6	x	10	S	500	24,10
3 m6	x	12	S	500	24,60
3 m6	x	14	S	500	26,00
3 m6	x	16	S	500	27,00
3 m6	x	18	S	500	27,50
3 m6	x	20	S	500	28,50
3 m6	x	22	S	500	29,50
3 m6	x	24	S	500	31,00
3 m6	x	26	S	500	31,50
3 m6	x	28	S	500	32,50
3 m6	x	30	S	500	33,50
3 m6	x	32	S	500	34,00
3 m6	x	40	S	500	49,50
3 m6	x	45	S	500	57,00

Dimensions	PU Pieces	€/100/Mat.
3 m6 x 50	S 500	67,00
4 m6 x 6	S 500	23,30
4 m6 x 8	S 500	25,50
4 m6 x 10	S 500	27,00
4 m6 x 12	S 500	29,00
4 m6 x 14	S 500	31,00
4 m6 x 16	S 500	31,50
4 m6 x 18	S 500	33,50
4 m6 x 20	S 500	34,50
4 m6 x 22	S 500	36,00
4 m6 x 24	S 500	38,00
4 m6 x 26	S 500	39,00
4 m6 x 28	S 500	41,50
4 m6 x 30	S 500	42,50
4 m6 x 32	S 500	44,00
4 m6 x 36	S 500	47,00
4 m6 x 40	S 500	53,00
4 m6 x 45	S 500	63,00
4 m6 x 50	S 500	76,00
4 m6 x 60	S 500	106,00
5 m6 x 8	S 500	33,50
5 m6 x 10	S 500	33,50
5 m6 x 12	S 500	33,50
5 m6 x 14	S 500	34,50
5 m6 x 16	S 500	37,00
5 m6 x 18	S 500	39,50
5 m6 x 20	S 500	41,50
5 m6 x 22	S 500	61,00
5 m6 x 24	S 500	46,00
5 m6 x 26	S 500	47,50
5 m6 x 28	S 500	51,00
5 m6 x 30	S 500	53,00
5 m6 x 32	S 500	54,00
5 m6 x 36	S 500	58,00
5 m6 x 40	S 500	63,00
5 m6 x 45	S 500	68,00
5 m6 x 50	S 500	82,00
5 m6 x 55	S 500	89,00
5 m6 x 60	S 500	96,00
5 m6 x 70	S 500	112,00
6 m6 x 8	S 200	38,00
6 m6 x 10	S 200	38,00
6 m6 x 12	S 200	38,00
6 m6 x 14	S 200	41,00
6 m6 x 16	S 200	43,00
6 m6 x 18	S 200	46,00
6 m6 x 20	S 200	48,50
6 m6 x 22	S 200	51,00
6 m6 x 24	S 200	54,00
6 m6 x 26	S 200	57,00
6 m6 x 28	S 200	60,00
6 m6 x 30	S 200	63,00
6 m6 x 32	S 200	67,00
6 m6 x 36	S 200	73,00
6 m6 x 40	S 200	77,00
6 m6 x 45	S 200	84,00
6 m6 x 50	S 200	92,00
6 m6 x 55	S 200	105,00
6 m6 x 60	S 200	112,00
6 m6 x 70	S 200	125,00
6 m6 x 80	S 200	166,00
6 m6 x 90	S 200	189,00
6 m6 x 100	S 200	211,00
8 m6 x 10	S 100	77,00
8 m6 x 12	S 100	71,00
8 m6 x 14	S 100	71,00
8 m6 x 16	S 100	77,00
8 m6 x 18	S 100	82,00
8 m6 x 20	S 100	85,00
8 m6 x 22	S 100	90,00
8 m6 x 24	S 100	94,00
8 m6 x 26	S 100	96,00
8 m6 x 28	S 100	101,00
8 m6 x 30	S 100	106,00
8 m6 x 32	S 100	111,00

Dimensions	PU	Pieces	€/100/Mat.
8 m6 x 36	S	100	117,00
8 m6 x 40	S	100	125,00
8 m6 x 45	S	100	136,00
8 m6 x 50	S	100	146,00
8 m6 x 55	S	100	155,00
8 m6 x 60	S	100	166,00
8 m6 x 70	S	100	190,00
8 m6 x 80	S	100	207,00
8 m6 x 90	S	100	229,00
8 m6 x 100	S	100	250,00
8 m6 x 120	S	100	295,00
10 m6 x 16	S	100	124,00
10 m6 x 20	S	100	126,00
10 m6 x 22	S	100	130,00
10 m6 x 24	S	100	131,00
10 m6 x 26	S	100	137,00
10 m6 x 28	S	100	143,00
10 m6 x 30	S	100	148,00
10 m6 x 32	S	100	155,00
10 m6 x 36	S	100	176,00
10 m6 x 40	S	100	186,00
10 m6 x 45	S	100	205,00
10 m6 x 50	S	100	216,00
10 m6 x 55	S	100	234,00
10 m6 x 60	S	100	246,00
10 m6 x 70	S	100	280,00
10 m6 x 80	S	100	310,00
10 m6 x 90	S	100	345,00
10 m6 x 100	S	100	380,00
10 m6 x 110	S	100	425,00
10 m6 x 120	S	100	520,00
12 m6 x 20	S	100	184,00
12 m6 x 24	S	100	200,00
12 m6 x 26	S	100	200,00
12 m6 x 28	S	100	200,00
12 m6 x 30	S	100	205,00
12 m6 x 32	S	100	213,00
12 m6 x 36	S	100	229,00
12 m6 x 40	S	100	244,00
12 m6 x 45	S	100	265,00
12 m6 x 50	S	100	285,00
12 m6 x 55	S	100	305,00
12 m6 x 60	S	100	325,00
12 m6 x 70	S	100	410,00
12 m6 x 80	S	100	445,00
12 m6 x 90	S	100	485,00
12 m6 x 100	S	100	530,00
12 m6 x 110	S	100	590,00
12 m6 x 120	S	100	630,00
14 m6 x 50	S	50	590,00
14 m6 x 60	S	50	680,00
14 m6 x 70	S	50	790,00
14 m6 x 80	S	50	950,00
14 m6 x 90	S	50	1030,00
14 m6 x 100	S	50	1110,00
14 m6 x 120	S	50	1310,00
16 m6 x 30	S	50	540,00
16 m6 x 40	S	50	570,00
16 m6 x 45	S	50	610,00
16 m6 x 50	S	50	650,00
16 m6 x 55	S	50	680,00
16 m6 x 60	S	50	740,00
16 m6 x 70	S	50	850,00
16 m6 x 80	S	50	990,00
16 m6 x 90	S	50	1050,00
16 m6 x 100	S	1	1140,00
16 m6 x 110	S	1	1260,00
16 m6 x 120	S	1	1350,00
20 m6 x 40	S	25	890,00
20 m6 x 50	S	25	910,00
20 m6 x 60	S	25	990,00
20 m6 x 80	S	25	1260,00
20 m6 x 100	S	25	1470,00
20 m6 x 120	S	25	1720,00

DIN 06330.102 — 570

6330 — 10 — type B



Hexagon nuts with a height of 1,5 d, B = with one spherical bearing face

Dimensions ➔ TI-64 Material properties ➔ TI-233

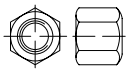
Stainless ➔ pg. 553

RoHS ✓ REACh SVHC free

thread - wrench size	PU	Pieces	€/100/Mat.
BM 6 s = 10	S	50	77,00
BM 8 s = 13	S	50	95,00
BM 10 s = 16	S	50	107,00
BM 12 s = 18	S	25	161,00
BM 14 s = 22	S	25	365,00
BM 16 s = 24	S	25	265,00
BM 18 s = 27	S	25	440,00
BM 20 s = 30	S	10	455,00
BM 22 s = 32	S	10	1320,00
BM 24 s = 36	S	10	720,00
BM 27 s = 41	S	1	1760,00
BM 30 s = 46	S	1	1420,00

DIN 06330.112 — 570

6330 — 10 zinc plated — type B



Hexagon nuts with a height of 1,5 d, B = with one spherical bearing face

Dimensions ➔ TI-64 Corrosion protection ➔ TI-228
Material properties ➔ TI-233

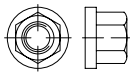
Stainless ➔ pg. 553

RoHS ✓ REACh SVHC free

thread - wrench size	PU	Pieces	€/100/Mat.
BM 6 s = 10	S	50	86,00 ZP
BM 8 s = 13	S	50	103,00 ZP
BM 10 s = 16	S	50	130,00 ZP
BM 12 s = 18	S	25	197,00 ZP
BM 14 s = 22	S	25	445,00 ZP
BM 16 s = 24	S	25	325,00 ZP
BM 18 s = 27	S	25	530,00 ZP
BM 20 s = 30	S	10	560,00 ZP
BM 24 s = 36	S	10	840,00 ZP
BM 27 s = 41	S	1	2040,00 ZP
BM 30 s = 46	S	1	1520,00 ZP

DIN 06331.100 — 570

6331 — 10 — type B



Hexagon nuts with collar with a height of 1,5 d

Dimensions ➔ TI-64 Material properties ➔ TI-233

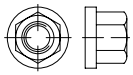
Stainless ➔ pg. 553

RoHS ✓ REACh SVHC free

thread - wrench size	PU	Pieces	€/100/Mat.
M 6 s = 10	S	100	79,00
M 8 s = 13	S	50	174,00
M 10 s = 16	S	50	265,00
M 12 s = 18	S	25	325,00
M 14 s = 22	S	10	630,00
M 16 s = 24	S	10	530,00
M 18 s = 27	S	10	690,00
M 20 s = 30	S	10	690,00
M 22 s = 32	S	1	1420,00
M 24 s = 36	S	1	1280,00
M 27 s = 41	S	1	3000,00
M 30 s = 46	S	1	2150,00
M 36 s = 55	S	1	5600,00
M 42 s = 65	S	1	9900,00

DIN 06331.110 — 570

6331 — 10 zinc plated



Hexagon nuts with collar with a height of 1,5 d

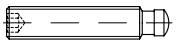
Dimensions ➔ TI-64 Corrosion protection ➔ TI-228
Material properties ➔ TI-233

Stainless ➔ pg. 553

RoHS ✓ REACh SVHC free

thread - wrench size	PU	Pieces	€/100/Mat.
M 6 s = 10	S	100	105,00 ZP
M 8 s = 13	S	50	193,00 ZP
M 10 s = 16	S	50	310,00 ZP
M 12 s = 18	S	25	385,00 ZP
M 14 s = 22	S	10	780,00 ZP
M 16 s = 24	S	10	670,00 ZP
M 20 s = 30	S	10	1050,00 ZP
M 24 s = 36	S	1	1920,00 ZP
M 27 s = 41	S	1	3650,00 ZP
M 30 s = 46	S	1	3050,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06332.534	575
6332	**5.8 browned**	**type IS**



Grub screws with thrust point, with hardened adaptor end, IS = with hexagon socket

thrust pads ➔ DIN 6311

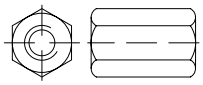
Dimensions ➔ TI-129 REACH ➔ TI-262
Material properties ➔ TI-233

type with slot (S/Sz) on request

RoHS ✓

IS M 6	x	30	S	1	380,00	browned
IS M 6	x	35	S	10	390,00	browned
IS M 6	x	40	S	10	390,00	browned
IS M 6	x	45	S	10	395,00	browned
IS M 6	x	50	S	10	410,00	browned
IS M 8	x	35	S	10	425,00	browned
IS M 8	x	40	S	10	440,00	browned
IS M 8	x	45	S	10	460,00	browned
IS M 8	x	50	S	10	480,00	browned
IS M 8	x	60	S	10	510,00	browned
IS M 8	x	70	S	10	560,00	browned
IS M 10	x	45	S	10	580,00	browned
IS M 10	x	50	S	10	590,00	browned
IS M 10	x	60	S	10	620,00	browned
IS M 10	x	80	S	10	780,00	browned
IS M 12	x	50	S	10	720,00	browned
IS M 12	x	60	S	10	740,00	browned
IS M 12	x	65	S	10	760,00	browned
IS M 12	x	70	S	10	790,00	browned
IS M 12	x	80	S	10	830,00	browned
IS M 12	x	100	S	10	920,00	browned
IS M 16	x	65	S	1	1070,00	browned
IS M 16	x	75	S	1	1170,00	browned
IS M 16	x	80	S	1	1210,00	browned
IS M 16	x	100	S	1	1410,00	browned
IS M 16	x	125	S	1	1520,00	browned
IS M 20	x	80	S	1	1950,00	browned
IS M 20	x	100	S	1	2150,00	browned
IS M 20	x	125	S	1	2360,00	browned
IS M 20	x	150	S	1	2600,00	browned

Dimensions	PU Pieces	€/100/Mat.
~DIN	06334.100	570
6334	**10**	



Hexagon nuts with a height of 3 d

Dimensions ➔ TI-64 Material properties ➔ TI-233

Stainless ➔ pg. 553

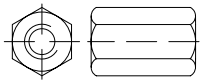
round and hexagon couplings
➔ article 88088/88087

RoHS ✓ REACh SVHC free

internal thread - wrench size

M 8	s = 13	S	100	222,00
M 10	s = 17	S	50	265,00
M 12	s = 19	S	50	335,00
M 16	s = 24	S	25	670,00
M 20	s = 30	S	25	1130,00
M 24	s = 36	S	10	1890,00
M 30	s = 46	S	10	3800,00
M 36	s = 55	S	1	7300,00

~DIN	06334.110	570
6334	**10 zinc plated**	



Hexagon nuts with a height of 3 d

Dimensions ➔ TI-64 Corrosion protection ➔ TI-228
Material properties ➔ TI-233

Stainless ➔ pg. 553

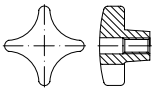
round and hexagon couplings
➔ article 88088/88087

RoHS ✓ REACh SVHC free

internal thread - wrench size

M 6	s = 10	S	100	218,00 ZP
M 8	s = 13	S	100	241,00 ZP
M 10	s = 17	S	50	280,00 ZP
M 12	s = 19	S	50	370,00 ZP
M 16	s = 24	S	25	740,00 ZP
M 20	s = 30	S	25	1200,00 ZP
M 24	s = 36	S	10	2040,00 ZP
M 30	s = 46	S	10	5400,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06335.004	575
6335	**Cast iron**	**type D**



Palm grips, D = with continuous thread

Dimensions ➔ TI-126

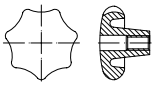
other types / finishes on request

RoHS ✓ REACh SVHC free

grip ∅ - internal thread

D 32 M 6	S	10	680,00
D 40 M 8	S	10	760,00
D 50 M 10	S	10	990,00
D 63 M 12	S	10	1410,00
D 80 M 16	S	5	2410,00
D 100 M 20	S	5	5100,00

DIN	06336.004	575
6336	**Cast iron**	**type D**



Star grips, D = with continuous thread

Dimensions ➔ TI-126

other types / finishes on request

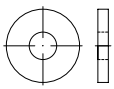
RoHS ✓ REACh SVHC free

grip ∅ - internal thread

D 32 M 6	S	10	730,00
D 40 M 8	S	10	880,00
D 50 M 8	S	10	1280,00
D 50 M 10	S	10	1740,00
D 63 M 10	S	10	1770,00
D 63 M 12	S	10	2410,00
D 80 M 12	S	5	3300,00
D 80 M 16	S	5	4100,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	06340.000		570

6340 Steel, QT



Washers for clamping devices, quenched and tempered

Dimensions ➔ TI-84

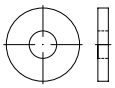
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

6,4	x	17	x	3	S	100	114,00
8,4	x	23	x	4	S	100	114,00
10,5	x	28	x	4	S	100	135,00
13	x	35	x	5	S	50	180,00
15	x	40	x	5	S	100	255,00
17	x	45	x	6	S	50	255,00
21	x	50	x	6	S	25	395,00
25	x	60	x	8	S	10	610,00
31	x	68	x	10	S	10	1110,00

DIN	06340.010	570

6340 Steel, QT zinc plated



Washers for clamping devices, quenched and tempered

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-84 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

6,4	x	17	x	3	S	100	128,00 ZP
8,4	x	23	x	4	S	100	138,00 ZP
10,5	x	28	x	4	S	100	164,00 ZP
13	x	35	x	5	S	50	204,00 ZP
15	x	40	x	5	S	100	290,00 ZP
17	x	45	x	6	S	50	290,00 ZP

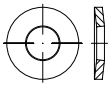
Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU	Pieces	€/100/Mat.
21 x 50 x 6	S	25	445,00 ZP
25 x 60 x 8	S	10	690,00 ZP
31 x 68 x 10	S	10	1180,00 ZP

DIN	06796.030	580

6796 Spring steel phosphated



Conical spring washers for screwed fastenings

Stainless ➔ pg. 553

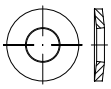
RoHS ✓ | REACh SVHC free

nominal ∅ x outside ∅ x thickness

3	x	7	x	0,6	S	10000	1,55
3	x	7	x	0,6	K	500	2,40
4	x	9	x	1	S	5000	2,40
4	x	9	x	1	K	250	3,95
5	x	11	x	1,2	S	2500	3,45
5	x	11	x	1,2	K	250	5,10
6	x	14	x	1,5	S	1000	5,90
6	x	14	x	1,5	K	250	7,80
8	x	18	x	2	S	1000	11,90
8	x	18	x	2	K	250	14,40
10	x	23	x	2,5	S	500	31,00
10	x	23	x	2,5	K	100	38,00
12	x	29	x	3	S	250	58,00
12	x	29	x	3	K	100	67,00
14	x	35	x	3,5	S	100	103,00
16	x	39	x	4	S	100	115,00
18	x	42	x	4,5	S	100	183,00
20	x	45	x	5	S	100	226,00
22	x	49	x	5,5	S	100	1050,00
24	x	56	x	6	S	50	1120,00
27	x	60	x	6,5	S	50	1520,00
30	x	70	x	7	S	50	1750,00

DIN	06796.014	580

6796 Spring steel mech. zinc plated



Conical spring washers for screwed fastenings

Stainless ➔ pg. 553

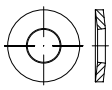
RoHS ✓ | REACh SVHC free

nominal ∅ x outside ∅ x thickness

5	x	11	x	1,2	S	2500	3,75 mech ZP
6	x	14	x	1,5	S	2500	6,50 mech ZP
8	x	18	x	2	S	1000	13,20 mech ZP
10	x	23	x	2,5	S	500	34,00 mech ZP
12	x	29	x	3	S	250	69,00 mech ZP
14	x	35	x	3,5	S	100	113,00 mech ZP
16	x	39	x	4	S	100	128,00 mech ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	06796.309		580

6796 Spring steel flZn/TL480h



Conical spring washers for screwed fastenings

salt spray test: 480h RR

Stainless ➔ pg. 553

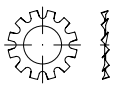
RoHS ✓ | REACh SVHC free

nominal ∅ x outside ∅ x thickness

6	x	14	x	1,5	S	2500	6,50 flZnnc
8	x	18	x	2	S	1000	13,20 flZnnc
10	x	23	x	2,5	S	500	34,00 flZnnc
12	x	29	x	3	S	250	69,00 flZnnc
14	x	35	x	3,5	S	100	113,00 flZnnc
16	x	39	x	4	S	100	128,00 flZnnc
18	x	42	x	4,5	S	100	193,00 flZnnc
20	x	45	x	5	S	100	249,00 flZnnc
22	x	49	x	5,5	S	100	1170,00 flZnnc
24	x	56	x	6	S	50	1310,00 flZnnc
27	x	60	x	6,5	S	50	1760,00 flZnnc
30	x	70	x	7	S	50	2070,00 flZnnc

~DIN	06797.001	580

6797 Spring steel type A



Toothed lock washers, A = external teeth

Dimensions ➔ TI-99

Stainless ➔ pg. 553

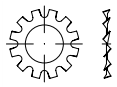
RoHS ✓ | REACh SVHC free

A 3,2	S	5000	1,60
A 3,2	K	500	2,90
A 4,3	S	5000	1,75
A 4,3	K	500	3,30
A 5,3	S	3000	2,20
A 5,3	K	500	3,60
A 6,4	S	2000	2,60
A 6,4	K	500	4,10
A 8,4	S	2000	4,80
A 8,4	K	250	7,30
A 10,5	S	1000	7,30
A 10,5	K	250	9,90
A 13	S	750	10,10
A 13	K	100	14,80
A 15	S	500	18,20
A 15	K	100	23,00
A 17	S	500	24,60
A 17	K	100	31,00
A 19	K	100	47,00

Dimensions	PU	Pieces	€/100/Mat.
A 21	S	200	44,00
A 21	K	100	52,00
A 23	S	100	63,00
A 25	S	100	67,00
A 31	S	100	105,00

~DIN 06797.011 580

6797 Spring steel zinc plated type A



Toothed lock washers, A = external teeth

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

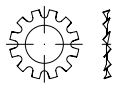
Stainless ➔ pg. 553

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
A 3,2	S	5000	1,85 ZP
A 3,2	K	500	3,15 ZP
A 3,7	K	500	3,30 ZP
A 4,3	S	5000	1,95 ZP
A 4,3	K	500	3,40 ZP
A 5,3	S	3000	2,70 ZP
A 5,3	K	500	4,15 ZP
A 6,4	S	2000	3,00 ZP
A 6,4	K	500	4,45 ZP
A 7,4	K	250	7,80 ZP
A 8,4	S	2000	5,90 ZP
A 8,4	K	250	8,40 ZP
A 10,5	S	1000	8,90 ZP
A 10,5	K	250	11,70 ZP
A 13	S	750	12,30 ZP
A 13	K	100	17,40 ZP
A 15	K	100	27,00 ZP
A 17	S	500	29,00 ZP
A 17	K	100	36,00 ZP
A 19	K	100	54,00 ZP
A 21	S	200	53,00 ZP
A 21	K	100	61,00 ZP
A 23	S	100	74,00 ZP
A 25	S	100	78,00 ZP
A 28	S	100	106,00 ZP
A 31	S	100	123,00 ZP

~DIN 06797.081 580

6797 Spring steel zinc plated 8 TLP* type A



Toothed lock washers, A = external teeth

*< Ø 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

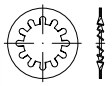
Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

Stainless ➔ pg. 553

Dimensions	PU	Pieces	€/100/Mat.
A 3,2	K	500	17,20 ZP TLP
A 4,3	K	500	18,50 ZP TLP
A 5,3	K	500	22,50 ZP TLP
A 6,4	K	500	24,10 ZP TLP
A 8,4	K	250	46,50 ZP TLP
A 10,5	K	250	65,00 ZP TLP

~DIN 06797.004 580

6797 Spring steel type I



Toothed lock washers, I = internal teeth

Dimensions ➔ TI-99

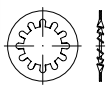
Stainless ➔ pg. 554

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
I 3,2	S	5000	1,60
I 3,2	K	500	2,90
I 4,3	S	5000	1,75
I 4,3	K	500	3,30
I 5,3	S	3000	2,20
I 5,3	K	500	3,60
I 6,4	S	2000	2,60
I 6,4	K	500	4,10
I 7,4	K	250	4,95
I 8,4	S	2000	4,80
I 8,4	K	250	7,30
I 10,5	S	1000	7,30
I 10,5	K	250	9,90
I 13	S	750	10,10
I 13	K	100	14,80
I 15	S	500	18,20
I 15	K	100	23,00
I 17	S	500	24,60
I 17	K	100	31,00
I 21	S	200	44,00
I 23	S	100	63,00
I 25	S	100	67,00
I 28	S	100	91,00
I 31	S	100	105,00

~DIN 06797.014 580

6797 Spring steel zinc plated type I



Toothed lock washers, I = internal teeth

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

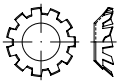
Stainless ➔ pg. 554

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
I 3,2	S	5000	1,85 ZP
I 3,2	K	500	3,15 ZP
I 3,7	K	500	3,30 ZP
I 4,3	S	5000	1,95 ZP
I 4,3	K	500	3,40 ZP
I 5,3	S	3000	2,70 ZP
I 5,3	K	500	4,15 ZP
I 6,4	K	500	3,00 ZP
I 6,4	S	2000	4,45 ZP
I 7,4	K	500	7,80 ZP
I 8,4	S	2000	5,90 ZP
I 8,4	K	250	8,40 ZP
I 10,5	S	1000	8,90 ZP
I 10,5	K	250	11,70 ZP
I 13	S	750	12,30 ZP
I 13	K	100	17,40 ZP
I 15	K	100	27,00 ZP
I 17	S	500	29,00 ZP
I 17	K	100	36,00 ZP
I 19	K	100	54,00 ZP
I 21	S	200	53,00 ZP
I 21	K	100	61,00 ZP
I 23	S	100	73,00 ZP
I 25	S	100	78,00 ZP
I 28	S	100	106,00 ZP
I 31	S	100	123,00 ZP

~DIN 06797.015 580

6797 Spring steel zinc plated type V



Toothed lock washers, V = countersunk

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

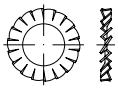
RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
V 3,2	S	5000	3,35 ZP
V 3,2	K	250	5,80 ZP
V 4,3	S	3000	3,70 ZP
V 4,3	K	250	6,00 ZP
V 5,3	S	4000	4,80 ZP
V 5,3	K	250	7,30 ZP
V 6,4	S	2000	5,50 ZP
V 6,4	K	250	7,90 ZP
V 8,4	S	2000	8,50 ZP
V 8,4	K	100	11,40 ZP
V 10,5	S	1000	11,40 ZP
V 10,5	K	100	26,50 ZP
V 13	S	500	24,50 ZP
V 13	K	100	31,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
~DIN	06798.001		580

6798 Spring steel type A



Serrated lock washers, A = external teeth

Dimensions ➔ TI-99

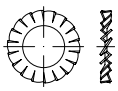
Stainless ➔ pg. 554
Bronze ➔ pg. 639

RoHS ✓ | REACh SVHC free

A 2,2	S	5000	1,60
A 2,2	K	500	2,90
A 2,5	K	500	2,90
A 2,7	K	500	2,90
A 3,2	S	5000	1,60
A 3,2	K	500	2,90
A 4,3	S	5000	1,75
A 4,3	K	500	3,30
A 5,3	S	3000	2,20
A 5,3	K	500	3,60
A 6,4	S	2000	2,60
A 6,4	K	500	4,10
A 8,4	S	2000	4,80
A 8,4	K	250	7,30
A 10,5	S	1000	7,30
A 10,5	K	250	9,90
A 13	S	750	10,10
A 13	K	100	14,80
A 15	K	100	19,50
A 17	S	500	21,30
A 17	K	100	26,50
A 19	K	100	41,50
A 21	S	200	44,00
A 21	K	100	52,00
A 23	S	100	63,00
A 25	S	100	66,00
A 28	S	100	91,00
A 31	S	100	105,00

~DIN	06798.011	580

6798 Spring steel zinc plated type A



Serrated lock washers, A = external teeth

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

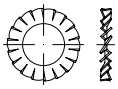
Stainless ➔ pg. 554
Bronze ➔ pg. 639

RoHS ✓ | REACh SVHC free

A 2,2	S	5000	1,70 ZP
A 2,2	K	500	3,15 ZP
A 2,5	S	5000	1,70 ZP
A 2,5	K	500	3,15 ZP
A 2,7	S	5000	1,85 ZP
A 2,7	K	500	3,30 ZP
A 3,2	S	5000	1,85 ZP
A 3,2	K	500	3,15 ZP
A 3,7	K	500	3,30 ZP
A 4,3	S	5000	1,95 ZP
A 4,3	K	500	3,40 ZP
A 5,3	S	3000	2,70 ZP
A 5,3	K	500	4,15 ZP
A 6,4	S	2000	3,00 ZP
A 6,4	K	500	4,45 ZP
A 7,4	K	250	7,80 ZP
A 8,4	S	2000	5,90 ZP
A 8,4	K	250	8,40 ZP
A 10,5	S	1000	8,90 ZP
A 10,5	K	250	11,70 ZP
A 13	S	750	12,30 ZP
A 13	K	100	17,40 ZP
A 15	K	100	27,00 ZP
A 17	S	500	29,00 ZP
A 17	K	100	36,00 ZP
A 19	K	100	54,00 ZP
A 21	S	200	53,00 ZP
A 21	K	100	61,00 ZP
A 23	S	100	73,00 ZP
A 25	S	100	78,00 ZP
A 28	S	100	106,00 ZP
A 31	S	100	123,00 ZP

~DIN	06798.081	580

6798 Spring steel zinc plated 8 TLP* type A



Serrated lock washers, A = external teeth

*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

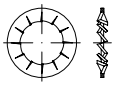
Stainless ➔ pg. 554
Bronze ➔ pg. 639

RoHS ✓ | REACh SVHC free

A 5,3	S	3000	3,35 ZP TLP
A 6,4	S	2000	3,75 ZP TLP
A 8,4	S	2000	7,40 ZP TLP
A 10,5	S	1000	11,40 ZP TLP
A 13	S	750	27,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	06798.004		580

6798 Spring steel type I



Serrated lock washers, I = internal teeth

Dimensions ➔ TI-99

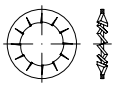
Stainless ➔ pg. 554

RoHS ✓ | REACh SVHC free

I 2,5	K	500	2,90
I 3,2	S	5000	1,60
I 3,2	K	500	2,90
I 4,3	S	5000	1,75
I 4,3	K	500	3,30
I 5,3	S	3000	2,20
I 5,3	K	500	3,60
I 6,4	S	2000	2,60
I 6,4	K	500	4,10
I 8,4	S	2000	4,80
I 8,4	K	250	7,30
I 10,5	S	1000	7,30
I 10,5	K	250	9,90
I 13	S	750	10,10
I 13	K	100	14,80
I 15	K	100	19,00
I 17	S	500	21,30
I 17	K	100	26,50
I 21	S	200	44,00
I 23	S	100	63,00
I 25	S	100	67,00

~DIN	06798.014	580

6798 Spring steel zinc plated type I



Serrated lock washers, I = internal teeth

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

Stainless ➔ pg. 554

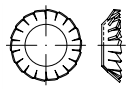
RoHS ✓ | REACh SVHC free

I 2,2	S	5000	1,70 ZP
I 2,2	K	500	3,15 ZP
I 3,2	S	5000	1,85 ZP
I 3,2	K	500	3,15 ZP
I 3,7	K	500	3,30 ZP
I 4,3	S	5000	1,95 ZP
I 4,3	K	500	3,40 ZP
I 5,3	S	3000	2,70 ZP
I 5,3	K	500	4,15 ZP
I 6,4	S	2000	3,00 ZP
I 6,4	K	500	4,45 ZP
I 7,4	K	250	7,80 ZP
I 8,4	S	2000	5,90 ZP

Dimensions	PU	Pieces	€/100/Mat.
I 8,4	K	250	8,40 ZP
I 10,5	S	1000	8,90 ZP
I 10,5	K	250	11,70 ZP
I 13	S	750	12,30 ZP
I 13	K	100	17,40 ZP
I 15	K	100	27,00 ZP
I 17	S	500	29,00 ZP
I 17	K	100	36,00 ZP
I 19	K	100	54,00 ZP
I 21	S	200	53,00 ZP
I 21	K	100	61,00 ZP
I 23	S	100	73,00 ZP
I 25	S	100	78,00 ZP
I 28	S	100	106,00 ZP
I 31	S	100	123,00 ZP

~DIN | 06798.005 | 580

6798 Spring steel type V



Serrated lock washers, V = countersunk

Dimensions ➔ TI-99

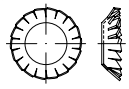
Stainless ➔ pg. 554

RoHS ✓ | REACh SVHC free

V 3,2	S	5000	3,25
V 3,2	K	250	5,50
V 4,3	S	3000	3,35
V 4,3	K	250	5,80
V 5,3	S	4000	4,55
V 5,3	K	250	6,80
V 6,4	S	2000	4,80
V 6,4	K	250	9,30
V 8,4	S	2000	7,80
V 8,4	K	100	12,50
V 10,5	S	1000	9,90
V 10,5	K	100	28,00
V 13	S	500	22,10
V 13	K	100	32,00

~DIN | 06798.015 | 580

6798 Spring steel zinc plated type V



Serrated lock washers, V = countersunk

Dimensions ➔ TI-99 Corrosion protection ➔ TI-228

Stainless ➔ pg. 554

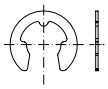
RoHS ✓ | REACh SVHC free

V 3,2	S	5000	3,35 ZP
V 3,2	K	250	5,80 ZP
V 4,3	S	3000	3,70 ZP
V 4,3	K	250	6,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
V 5,3	S	4000	4,80 ZP
V 5,3	K	250	7,30 ZP
V 6,4	S	2000	5,50 ZP
V 6,4	K	250	7,90 ZP
V 8,4	S	2000	8,50 ZP
V 8,4	K	100	11,40 ZP
V 10,5	S	1000	11,40 ZP
V 10,5	K	100	16,40 ZP
V 13	S	500	24,50 ZP
V 13	K	100	31,00 ZP

DIN | 06799.000 | 580

6799 Spring steel



Retaining rings for shafts

Dimensions ➔ TI-100

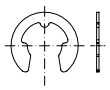
RoHS ✓ | REACh SVHC free

nominal size = slot ∅

0,8	K	500	10,10
1,2	K	500	3,40
1,5	S	10000	1,55
1,5	K	500	2,85
1,9	S	10000	1,55
1,9	K	500	2,90
2,3	S	5000	1,75
2,3	K	500	3,00
3,2	S	5000	1,85
3,2	K	500	3,35
4	S	5000	2,45
4	K	500	4,20
5	S	5000	3,00
5	K	500	5,00
6	S	2500	3,35
6	K	500	5,50
7	S	2500	4,85
7	K	250	8,60
8	S	2000	6,60
8	K	250	10,60
9	S	1000	8,80
9	K	250	13,40
10	S	1000	10,50
10	K	250	15,20
12	S	1000	13,40
12	K	200	20,70
15	S	500	23,00
15	K	150	34,00
19	S	250	59,00
19	K	150	79,00
24	S	100	84,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	06799.010		580

6799 Spring steel zinc plated



Retaining rings for shafts

Dimensions ➔ TI-100 Corrosion protection ➔ TI-228

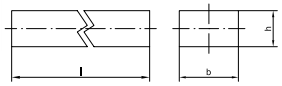
RoHS ✓ | REACh SVHC free

nominal size = slot ∅

2,3	S	500	5,50 ZP
3,2	S	500	6,10 ZP
4	S	500	7,30 ZP
5	S	500	9,10 ZP
6	S	500	10,30 ZP
7	S	250	10,90 ZP
8	S	250	12,10 ZP
9	S	250	14,00 ZP
10	S	250	14,60 ZP
12	S	200	15,80 ZP

DIN | 06880.000 | 590

6880 Steel C45+C



Key steel

Dimensions ➔ TI-137

RoHS ✓ | REACh SVHC free

width b x height h x length l

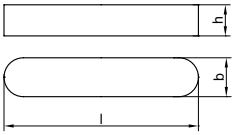
3	x	3	x	1000	S	1	1340,00
4	x	4	x	1000	S	1	1580,00
5	x	5	x	1000	S	1	1820,00
6	x	6	x	1000	S	1	2300,00
8	x	7	x	1000	S	1	3100,00
10	x	8	x	1000	S	1	4500,00
12	x	8	x	1000	S	1	5400,00
14	x	9	x	1000	S	1	7200,00
16	x	10	x	1000	S	1	9100,00
18	x	11	x	1000	S	1	11200,00
20	x	12	x	1000	S	1	14000,00
22	x	14	x	1000	S	1	17600,00
25	x	14	x	1000	S	1	20600,00
28	x	16	x	1000	S	1	25500,00
32	x	18	x	1000	S	1	32700,00
36	x	20	x	1000	S	1	38800,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU	Pieces	€/100/Mat.
DIN	06885.001			590

6885

Steel C45+C **type A**



Parallel keys, deep pattern,
A = round-ended without holes

Dimensions ➔ TI-138

Stainless ➔ pg. 555

RoHS ✓ REACh SVHC free

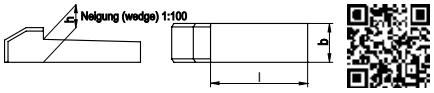
width b x height h x length l

A 2	x	2	x	8	S	100	34,50
A 2	x	2	x	10	S	100	36,50
A 2	x	2	x	12	S	100	37,00
A 2	x	2	x	16	S	100	48,50
A 3	x	3	x	8	S	100	32,50
A 3	x	3	x	10	S	100	34,00
A 3	x	3	x	12	S	100	34,00
A 3	x	3	x	14	S	100	31,50
A 3	x	3	x	16	S	100	31,50
A 3	x	3	x	18	S	100	31,50
A 3	x	3	x	20	S	100	32,50
A 3	x	3	x	22	S	100	48,50
A 3	x	3	x	25	S	100	34,00
A 4	x	4	x	8	S	100	32,50
A 4	x	4	x	10	S	100	33,50
A 4	x	4	x	12	S	100	33,50
A 4	x	4	x	14	S	100	31,50
A 4	x	4	x	16	S	100	31,50
A 4	x	4	x	18	S	100	31,50
A 4	x	4	x	20	S	100	33,00
A 4	x	4	x	22	S	100	33,00
A 4	x	4	x	25	S	100	33,50
A 4	x	4	x	28	S	100	33,50
A 4	x	4	x	30	S	100	34,50
A 4	x	4	x	32	S	100	34,50
A 4	x	4	x	36	S	100	36,00
A 4	x	4	x	40	S	100	36,50
A 5	x	5	x	10	S	100	33,00
A 5	x	5	x	12	S	100	33,00
A 5	x	5	x	14	S	100	31,50
A 5	x	5	x	16	S	100	32,50
A 5	x	5	x	18	S	100	32,50
A 5	x	5	x	20	S	100	33,00
A 5	x	5	x	22	S	100	33,00
A 5	x	5	x	25	S	100	34,50
A 5	x	5	x	28	S	100	34,50
A 5	x	5	x	30	S	100	36,00
A 5	x	5	x	32	S	100	36,00
A 5	x	5	x	36	S	100	36,50
A 5	x	5	x	40	S	100	37,00
A 5	x	5	x	50	S	100	39,50
A 5	x	5	x	56	S	100	39,50
A 6	x	6	x	10	S	100	39,00
A 6	x	6	x	12	S	100	39,00
A 6	x	6	x	14	S	100	36,50
A 6	x	6	x	16	S	100	37,00
A 6	x	6	x	18	S	50	37,00
A 6	x	6	x	20	S	50	43,00
A 6	x	6	x	22	S	50	43,00
A 6	x	6	x	25	S	50	44,50
A 6	x	6	x	28	S	50	44,50
A 6	x	6	x	30	S	50	46,00
A 6	x	6	x	32	S	50	46,00
A 6	x	6	x	36	S	50	47,50
A 6	x	6	x	40	S	50	48,50
A 6	x	6	x	45	S	50	51,00
A 6	x	6	x	50	S	50	52,00
A 6	x	6	x	56	S	50	57,00
A 6	x	6	x	60	S	50	61,00
A 6	x	6	x	63	S	50	63,00
A 6	x	6	x	70	S	50	66,00
A 6	x	6	x	80	S	50	66,00
A 6	x	6	x	100	S	50	78,00
A 8	x	7	x	16	S	50	46,00
A 8	x	7	x	18	S	50	52,00
A 8	x	7	x	20	S	50	52,00
A 8	x	7	x	22	S	50	52,00
A 8	x	7	x	25	S	50	54,00
A 8	x	7	x	28	S	50	54,00
A 8	x	7	x	30	S	50	56,00
A 8	x	7	x	32	S	50	56,00
A 8	x	7	x	35	S	50	57,00
A 8	x	7	x	36	S	50	57,00
A 8	x	7	x	40	S	50	59,00
A 8	x	7	x	45	S	50	61,00
A 8	x	7	x	50	S	50	63,00
A 8	x	7	x	56	S	50	66,00
A 8	x	7	x	60	S	50	68,00
A 8	x	7	x	63	S	50	72,00
A 8	x	7	x	70	S	50	73,00
A 8	x	7	x	80	S	50	78,00
A 8	x	7	x	90	S	50	83,00
A 8	x	7	x	100	S	50	86,00
A 8	x	7	x	110	S	50	96,00
A 8	x	7	x	120	S	50	103,00
A 10	x	8	x	20	S	50	56,00
A 10	x	8	x	22	S	50	59,00
A 10	x	8	x	25	S	50	59,00
A 10	x	8	x	28	S	50	59,00
A 10	x	8	x	30	S	50	62,00
A 10	x	8	x	32	S	50	62,00
A 10	x	8	x	36	S	50	63,00
A 10	x	8	x	40	S	50	66,00
A 10	x	8	x	45	S	50	68,00
A 10	x	8	x	50	S	50	72,00
A 10	x	8	x	55	S	50	77,00
A 10	x	8	x	56	S	50	77,00
A 10	x	8	x	60	S	50	79,00
A 10	x	8	x	63	S	25	88,00
A 10	x	8	x	70	S	25	94,00
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A 10	x	8	x	100	S	25	115,00
A 10	x	8	x	110	S	25	121,00
A 10	x	8	x	120	S	25	136,00
A 10	x	8	x	125	S	25	176,00
A 10	x	8	x	140	S	25	224,00
A 12	x	8	x	20	S	50	72,00
A 12	x	8	x	25	S	50	74,00
A 12	x	8	x	28	S	50	76,00
A 12	x	8	x	30	S	50	77,00
A 12	x	8	x	32	S	50	77,00
A 12	x	8	x	35	S	50	82,00
A 12	x	8	x	36	S	50	82,00
A 12	x	8	x	40	S	50	84,00
A 12	x	8	x	45	S	50	85,00
A 12	x	8	x	50	S	50	91,00
A 12	x	8	x	55	S	25	102,00
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A 12	x	8	x	60	S	25	105,00
A 12	x	8	x	63	S	25	108,00
A 12	x	8	x	65	S	25	108,00
A 12	x	8	x	70	S	25	114,00
A 12	x	8	x	75	S	25	119,00
A 12	x	8	x	80	S	25	123,00
A 12	x	8	x	90	S	25	130,00
A 12	x	8	x	100	S	25	138,00
A 12	x	8	x	110	S	25	161,00
A 12	x	8	x	120	S	25	167,00
A 12	x	8	x	125	S	25	176,00
A 12	x	8	x	140	S	25	217,00
A 12	x	8	x	150	S	25	255,00
A 14	x	9	x	28	S	25	102,00
A 14	x	9	x	30	S	25	103,00
A 14	x	9	x	32	S	25	103,00
A 14	x	9	x	36	S	25	105,00
A 14	x	9	x	40	S	25	108,00
A 14	x	9	x	45	S	25	113,00
A 14	x	9	x	50	S	25	117,00
A 14	x	9	x	56	S	25	125,00
A 14	x	9	x	60	S	25	130,00
A 14	x	9	x	63	S	25	135,00
A 14	x	9	x	70	S	25	141,00
A 14	x	9	x	80	S	25	157,00
A 14	x	9	x	90	S	25	172,00
A 14	x	9	x	100	S	25	200,00
A 14	x	9	x	110	S	25	203,00
A 14	x	9	x	120	S	25	204,00
A 14	x	9	x	125	S	25	205,00
A 14	x	9	x	140	S	10	265,00
A 14	x	9	x	150	S	10	315,00
A 14	x	9	x	160	S	10	340,00
A 14	x	9	x	180	S	10	385,00
A 14	x	9	x	200	S	10	510,00
A 16	x	10	x	36	S	25	148,00
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A 16	x	10	x	45	S	25	157,00
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A 16	x	10	x	55	S	25	177,00
A 16	x	10	x	56	S	25	177,00
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A 16	x	10	x	63	S	25	187,00
A 16	x	10	x	70	S	25	192,00
A 16	x	10	x	80	S	25	206,00
A 16	x	10	x	90	S	25	226,00
A 16	x	10	x	100	S	10	242,00
A 16	x	10	x	110	S	10	270,00
A 16	x	10	x	125	S	10	300,00
A 16	x	10	x	140	S	10	330,00
A 16	x	10	x	160	S	10	385,00
A 16	x	10	x	180	S	10	440,00
A 18	x	11	x	36	S	10	176,00
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A 18	x	11	x	45	S	10	176,00
A 18	x	11	x	50	S	10	176,00
A 18	x	11	x	56	S	10	184,00
A 18	x	11	x	60	S	10	194,00
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A 18	x	11	x	70	S	10	232,00
A 18	x	11	x	80	S	10	265,00
A 18	x	11	x	90	S	10	285,00
A 18	x	11	x	100	S	10	300,00
A 18	x	11	x	110	S	10	310,00
A 18	x	11	x	120	S	10	335,00
A 18	x	11	x	125	S	10	335,00
A 18	x	11	x	140	S	10	360,00
A 18	x	11	x	160	S	10	415,00
A 18	x	11	x	180	S	10	530,00
A 18	x	11	x	200	S	10	610,00
A 20	x	12	x	50	S	10	255,00
A 20	x	12	x	56	S	10	255,00
A 20	x	12	x	60	S	10	275,00
A 20	x	12	x	63	S	10	275,00
A 20	x	12	x	70	S	10	280,00
A 20	x	12	x	80	S	10	310,00
A 20	x	12	x	90	S	10	335,00
A 20	x	12	x	100	S	10	365,00
A 20	x	12	x	110	S	10	420,00
A 20	x	12	x	125	S	10	460,00
A 20	x	12	x	140	S	10	530,00
A 20	x	12	x	150	S	5	620,00
A 20	x	12	x	160	S	10	650,00
A 20	x	12	x	180	S	10	840,00

Dimensions						PU	Pieces	€/100/Mat.
A 20	x	12	x	200		S	10	920,00
A 20	x	12	x	220		S	10	950,00
A 20	x	12	x	250		S	10	1070,00
A 22	x	14	x	50		S	10	355,00
A 22	x	14	x	63		S	10	365,00
A 22	x	14	x	70		S	10	370,00
A 22	x	14	x	80		S	10	390,00
A 22	x	14	x	90		S	10	415,00
A 22	x	14	x	100		S	10	425,00
A 22	x	14	x	110		S	10	430,00
A 22	x	14	x	125		S	10	570,00
A 22	x	14	x	140		S	10	630,00
A 22	x	14	x	160		S	5	740,00
A 22	x	14	x	180		S	5	840,00
A 22	x	14	x	200		S	5	880,00
A 22	x	14	x	250		S	5	1110,00
A 25	x	14	x	70		S	1	530,00
A 25	x	14	x	80		S	1	530,00
A 25	x	14	x	90		S	1	560,00
A 25	x	14	x	100		S	1	600,00
A 25	x	14	x	110		S	1	660,00
A 25	x	14	x	125		S	1	690,00
A 25	x	14	x	140		S	1	820,00
A 25	x	14	x	160		S	1	920,00
A 25	x	14	x	180		S	1	1130,00
A 25	x	14	x	200		S	1	1170,00
A 28	x	16	x	80		S	1	670,00
A 28	x	16	x	90		S	1	720,00
A 28	x	16	x	100		S	1	770,00
A 28	x	16	x	110		S	1	890,00
A 28	x	16	x	120		S	1	890,00
A 28	x	16	x	125		S	1	910,00
A 28	x	16	x	140		S	1	1030,00
A 28	x	16	x	160		S	1	1170,00
A 28	x	16	x	180		S	1	1310,00
A 28	x	16	x	200		S	1	1480,00
A 28	x	16	x	220		S	1	1630,00
A 28	x	16	x	250		S	1	1840,00
A 28	x	16	x	320		S	1	2230,00
A 32	x	18	x	70		S	1	860,00
A 32	x	18	x	90		S	1	910,00
A 32	x	18	x	100		S	1	940,00
A 32	x	18	x	110		S	1	1110,00
A 32	x	18	x	125		S	1	1180,00
A 32	x	18	x	140		S	1	1250,00
A 32	x	18	x	160		S	1	1430,00
A 32	x	18	x	180		S	1	1600,00
A 32	x	18	x	200		S	1	1760,00
A 32	x	18	x	220		S	1	2150,00
A 32	x	18	x	250		S	1	2280,00
A 36	x	20	x	100		S	1	1140,00
A 36	x	20	x	125		S	1	1340,00
A 36	x	20	x	140		S	1	1540,00
A 36	x	20	x	160		S	1	1740,00
A 36	x	20	x	170		S	1	1940,00
A 36	x	20	x	180		S	1	2030,00
A 36	x	20	x	200		S	1	2170,00
A 36	x	20	x	220		S	1	2330,00
A 36	x	20	x	250		S	1	3000,00
A 40	x	22	x	140		S	1	1920,00
A 40	x	22	x	160		S	1	2130,00
A 40	x	22	x	240		S	1	3550,00
A 40	x	22	x	280		S	1	4000,00
A 45	x	25	x	200		S	1	4150,00
A 45	x	25	x	220		S	1	4200,00
A 45	x	25	x	250		S	1	4850,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	06887.000		590

6887 Steel C45+C



Taper keys with gib head

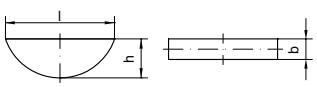
Dimensions ➔ TI-138

RoHS ✓ REACh SVHC free

width b x height h x length l								
6	x	6	x	32		S	50	167,00
6	x	6	x	40		S	50	171,00
6	x	6	x	50		S	50	175,00
8	x	7	x	32		S	25	239,00
8	x	7	x	36		S	25	239,00
8	x	7	x	40		S	25	236,00
8	x	7	x	45		S	25	242,00
8	x	7	x	50		S	25	250,00
8	x	7	x	60		S	25	265,00
8	x	7	x	63		S	25	265,00
10	x	8	x	40		S	25	345,00
10	x	8	x	45		S	25	345,00
10	x	8	x	50		S	25	365,00
10	x	8	x	60		S	25	380,00
10	x	8	x	70		S	10	415,00
10	x	8	x	80		S	10	430,00
10	x	8	x	90		S	10	510,00
10	x	8	x	100		S	10	570,00
12	x	8	x	40		S	25	360,00
12	x	8	x	50		S	25	370,00
12	x	8	x	56		S	10	385,00
12	x	8	x	60		S	10	410,00
12	x	8	x	63		S	10	410,00
12	x	8	x	70		S	10	420,00
12	x	8	x	80		S	10	440,00
12	x	8	x	90		S	10	460,00
12	x	8	x	100		S	10	485,00
14	x	9	x	56		S	10	475,00
14	x	9	x	60		S	10	495,00
14	x	9	x	63		S	10	495,00
14	x	9	x	70		S	10	540,00
14	x	9	x	80		S	10	560,00
14	x	9	x	90		S	10	590,00
14	x	9	x	100		S	10	620,00
16	x	10	x	70		S	10	630,00
16	x	10	x	80		S	10	660,00
16	x	10	x	90		S	10	680,00
16	x	10	x	100		S	10	690,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	06888.000		590

6888 Steel C45+C



Woodruff keys

Dimensions ➔ TI-138

RoHS ✓ REACh SVHC free

width b x height h						
2	x	2,6	S	100		18,40
2	x	3,7	S	100		26,00
2	x	5	S	100		31,50
2,5	x	3,7	S	100		26,00
3	x	3,7	S	100		26,00
3	x	5	S	100		33,50
3	x	6,5	S	100		41,50
3	x	7,5	S	100		48,00
4	x	5	S	100		33,00
4	x	6,5	S	100		41,50
4	x	7,5	S	100		48,00
4	x	9	S	100		56,00
5	x	6,5	S	100		41,50
5	x	7,5	S	100		48,00
5	x	9	S	100		56,00
5	x	10	S	100		63,00
6	x	7,5	S	100		48,00
6	x	9	S	50		56,00
6	x	10	S	50		63,00
6	x	11	S	50		69,00
8	x	9	S	50		56,00
8	x	11	S	50		69,00
8	x	13	S	50		88,00
10	x	11	S	25		92,00
10	x	13	S	25		102,00
10	x	16	S	25		168,00

DIN	06899.010	341

6899 Steel zinc plated type BF



Thimbles, BF = medium heavy, with deep groove for fibre ropes

clips for wire ropes ➔ DIN 741

Dimensions ➔ TI-133 Corrosion protection ➔ TI-228

other dimensions and thimbles acc. to DIN 3090 and 3091 on request

RoHS ✓ REACh SVHC free

nominal size / groove width = for rope nominal ∅				
BF 3,5 / RW 4	S	100		66,00 ZP
BF 4 / RW 5	S	100		73,00 ZP
BF 5 / RW 6	S	100		83,00 ZP
BF 6 / RW 7	S	100		101,00 ZP
BF 7 / RW 8	S	100		121,00 ZP
BF 9 / RW10	S	50		151,00 ZP
BF 11 / RW12	S	50		211,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06911.000	600

6911

Steel, QT blackened



Hexagon socket screw keys with pilot

pin wrench for DIN 6912

RoHS ✓ REACh SVHC free

s = 3	M 4	K	10	320,00
s = 4	M 5	K	10	320,00
s = 5	M 6	S	50	275,00
s = 5	M 6	K	10	375,00
s = 6	M 8	S	50	295,00
s = 6	M 8	K	10	390,00
s = 8	M 10	S	50	520,00
s = 8	M 10	K	10	630,00
s = 10	M 12	S	25	790,00
s = 10	M 12	K	5	890,00
s = 12	M 14	S	25	1020,00
s = 12	M 14	K	5	1200,00
s = 14	M 16/18	S	25	2220,00
s = 14	M 16/18	K	5	2280,00
s = 17	M 20	K	5	2750,00
s = 19	M 24	S	5	4350,00
s = 22	M 30	S	1	5800,00

DIN	06912.800	600

6912

08.8



Hexagon socket head cap screws, low head, with centre

Dimensions ➔ TI-12 Tightening torque ➔ TI-246
Material properties ➔ TI-232

Stainless ➔ pg. 555

RoHS ✓ REACh SVHC free

M 4	x	6	S	500	35,50
M 4	x	6	K	100	39,00
M 4	x	8	S	500	25,00
M 4	x	8	K	100	29,00
M 4	x	10	S	500	18,30
M 4	x	10	K	100	22,00
M 4	x	12	S	500	17,20
M 4	x	12	K	100	20,90
M 4	x	16	S	500	18,00
M 4	x	16	K	100	21,60
M 4	x	18	S	500	21,60
M 4	x	20	S	500	19,60
M 4	x	20	K	100	23,20
M 4	x	25	S	500	22,20
M 4	x	25	K	100	26,00
M 4	x	30	S	500	23,70
M 4	x	30	K	100	27,50
M 4	x	35	S	500	27,50
M 4	x	35	K	100	31,50
M 4	x	40	S	500	28,50
M 4	x	40	K	100	32,50
M 5	x	6	S	500	36,50
M 5	x	6	K	100	40,50
M 5	x	8	S	500	32,00
M 5	x	8	K	100	35,50
M 5	x	10	S	500	20,70
M 5	x	10	K	100	24,40
M 5	x	12	S	500	19,10
M 5	x	12	K	100	22,70
M 5	x	16	S	500	19,90
M 5	x	16	K	100	23,60
M 5	x	18	S	500	21,60
M 5	x	20	S	500	20,40
M 5	x	20	K	100	24,10
M 5	x	25	S	500	21,90
M 5	x	25	K	100	26,00
M 5	x	30	S	500	25,50
M 5	x	30	K	100	29,00
M 5	x	35	S	200	29,00
M 5	x	40	S	200	33,00
M 5	x	45	S	200	35,00
M 5	x	50	S	200	50,00
M 5	x	55	S	200	56,00
M 5	x	60	S	200	60,00
M 6	x	8	S	500	39,50
M 6	x	8	K	100	43,00
M 6	x	10	S	500	23,60
M 6	x	10	K	100	27,50
M 6	x	12	S	500	21,60
M 6	x	12	K	100	25,50
M 6	x	16	S	500	23,20
M 6	x	16	K	100	27,00
M 6	x	18	S	500	24,00
M 6	x	18	K	100	28,00
M 6	x	20	S	500	24,00
M 6	x	20	K	100	28,00
M 6	x	22	S	500	26,00
M 6	x	25	S	500	24,90
M 6	x	25	K	100	28,50
M 6	x	30	S	500	26,50
M 6	x	30	K	100	30,50
M 6	x	35	S	200	29,50
M 6	x	40	S	200	31,50
M 6	x	45	S	200	35,00
M 6	x	50	S	200	38,50
M 6	x	55	S	200	43,00
M 6	x	60	S	200	46,50
M 6	x	65	S	200	61,00
M 6	x	70	S	200	67,00
M 6	x	75	S	200	70,00
M 6	x	80	S	200	77,00
M 6	x	90	S	200	82,00
M 6	x	100	S	200	103,00
M 6	x	110	S	200	144,00
M 6	x	120	S	200	166,00
M 8	x	10	S	200	44,50
M 8	x	12	S	200	39,50
M 8	x	16	S	200	30,00
M 8	x	18	S	200	33,50
M 8	x	20	S	200	30,50
M 8	x	22	S	200	35,00
M 8	x	25	S	200	32,50
M 8	x	30	S	200	36,00
M 8	x	35	S	200	40,00
M 8	x	40	S	200	45,00
M 8	x	45	S	200	50,00
M 8	x	50	S	200	53,00
M 8	x	55	S	200	58,00
M 8	x	60	S	200	63,00
M 8	x	65	S	200	70,00
M 8	x	70	S	200	80,00
M 8	x	75	S	200	116,00
M 8	x	80	S	200	116,00
M 8	x	90	S	100	125,00
M 8	x	100	S	100	134,00
M 8	x	110	S	100	176,00
M 8	x	120	S	100	211,00
M 10	x	16	S	200	95,00
M 10	x	18	S	200	80,00
M 10	x	20	S	200	50,00
M 10	x	22	S	200	51,00
M 10	x	25	S	200	51,00
M 10	x	30	S	200	53,00
M 10	x	35	S	200	61,00
M 10	x	40	S	100	68,00
M 10	x	45	S	100	75,00
M 10	x	50	S	100	83,00
M 10	x	55	S	100	93,00
M 10	x	60	S	100	100,00
M 10	x	65	S	100	108,00
M 10	x	70	S	100	116,00
M 10	x	75	S	100	119,00
M 10	x	80	S	100	134,00
M 10	x	90	S	100	147,00
M 10	x	100	S	100	200,00
M 10	x	110	S	100	233,00
M 10	x	120	S	100	265,00
M 10	x	130	S	50	315,00
M 10	x	140	S	50	390,00
M 12	x	16	S	100	275,00
M 12	x	20	S	100	88,00
M 12	x	25	S	100	82,00
M 12	x	30	S	100	85,00
M 12	x	35	S	100	90,00
M 12	x	40	S	100	100,00
M 12	x	45	S	100	110,00
M 12	x	50	S	100	119,00
M 12	x	55	S	100	129,00
M 12	x	60	S	100	137,00
M 12	x	65	S	100	146,00
M 12	x	70	S	100	155,00
M 12	x	75	S	50	177,00
M 12	x	80	S	50	181,00
M 12	x	90	S	50	197,00
M 12	x	100	S	50	220,00
M 12	x	110	S	50	285,00
M 12	x	120	S	50	325,00
M 12	x	130	S	50	365,00
M 12	x	140	S	50	400,00
M 12	x	150	S	50	450,00
M 12	x	160	S	1	760,00
M 14	x	30	S	100	177,00
M 14	x	35	S	100	189,00
M 14	x	40	S	100	206,00
M 14	x	45	S	50	217,00
M 14	x	50	S	50	255,00
M 14	x	60	S	50	260,00
M 14	x	70	S	50	310,00
M 14	x	80	S	50	365,00
M 14	x	90	S	50	415,00
M 14	x	100	S	50	465,00
M 16	x	25	S	50	200,00
M 16	x	30	S	50	186,00
M 16	x	35	S	50	193,00
M 16	x	40	S	50	205,00
M 16	x	45	S	50	213,00
M 16	x	50	S	50	226,00
M 16	x	55	S	50	249,00
M 16	x	60	S	50	275,00
M 16	x	65	S	50	295,00
M 16	x	70	S	50	300,00
M 16	x	75	S	50	335,00
M 16	x	80	S	50	350,00
M 16	x	90	S	25	365,00
M 16	x	100	S	25	420,00
M 16	x	110	S	25	660,00
M 16	x	120	S	25	490,00

DIN 6912

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 130	S	25	530,00
M 16 x 140	S	25	600,00
M 16 x 150	S	25	700,00
M 16 x 160	S	25	770,00
M 16 x 180	S	25	880,00
M 16 x 200	S	25	960,00
M 20 x 30	S	25	1010,00
M 20 x 35	S	25	1020,00
M 20 x 40	S	25	660,00
M 20 x 45	S	25	670,00
M 20 x 50	S	25	680,00
M 20 x 55	S	25	680,00
M 20 x 60	S	25	690,00
M 20 x 65	S	25	710,00
M 20 x 70	S	25	740,00
M 20 x 80	S	25	790,00
M 20 x 90	S	25	850,00
M 20 x 100	S	25	910,00
M 20 x 110	S	25	1000,00
M 20 x 120	S	25	1080,00
M 20 x 130	S	25	1160,00
M 20 x 140	S	25	1240,00
M 20 x 150	S	25	1330,00
M 20 x 160	S	10	1490,00
M 20 x 180	S	10	1660,00
M 20 x 220	S	1	2600,00
M 24 x 40	S	1	1370,00
M 24 x 45	S	1	1410,00
M 24 x 50	S	1	1410,00
M 24 x 55	S	1	1500,00
M 24 x 60	S	1	1500,00
M 24 x 70	S	1	1590,00
M 24 x 80	S	1	1680,00
M 24 x 90	S	1	1810,00
M 24 x 100	S	1	1850,00
M 24 x 120	S	1	1940,00
M 24 x 130	S	1	2030,00
M 24 x 140	S	1	2120,00
M 24 x 180	S	1	3000,00
M 30 x 50	S	1	2160,00
M 30 x 55	S	1	2220,00
M 30 x 60	S	1	2220,00
M 30 x 70	S	1	2300,00
M 30 x 80	S	1	2390,00
M 30 x 90	S	1	2430,00
M 30 x 100	S	1	2550,00
M 30 x 110	S	1	2600,00
M 30 x 120	S	1	2700,00
M 30 x 150	S	1	3000,00
M 30 x 160	S	1	3050,00
M 36 x 60	S	1	4300,00
M 36 x 70	S	1	4450,00
M 36 x 80	S	1	4700,00

DIN	06912.810	600
6912	**08.8** **zinc plated**	



Hexagon socket head cap screws, low head, with centre

Dimensions ➔ TI-12
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 555

RoHS ✓
REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 4 x 6	S	500	35,50 ZP
M 4 x 8	S	500	25,50 ZP
M 4 x 10	S	500	18,70 ZP
M 4 x 12	S	500	17,80 ZP
M 4 x 14	S	500	21,60 ZP
M 4 x 16	S	500	18,60 ZP
M 4 x 18	S	500	22,70 ZP
M 4 x 20	S	500	20,40 ZP
M 4 x 25	S	500	23,20 ZP
M 4 x 30	S	500	24,90 ZP
M 4 x 35	S	500	29,00 ZP
M 4 x 40	S	500	30,00 ZP
M 5 x 6	S	500	37,50 ZP
M 5 x 8	S	500	32,50 ZP
M 5 x 10	S	500	21,50 ZP
M 5 x 12	S	500	20,00 ZP
M 5 x 16	S	500	21,00 ZP
M 5 x 18	S	500	22,90 ZP
M 5 x 20	S	500	21,70 ZP
M 5 x 25	S	500	23,50 ZP
M 5 x 30	S	500	27,50 ZP
M 5 x 35	S	200	31,00 ZP
M 5 x 40	S	200	35,50 ZP
M 5 x 45	S	200	37,50 ZP
M 5 x 50	S	200	53,00 ZP
M 5 x 55	S	200	59,00 ZP
M 5 x 60	S	200	63,00 ZP
M 6 x 8	S	500	40,50 ZP
M 6 x 10	S	500	24,90 ZP
M 6 x 12	S	500	23,00 ZP
M 6 x 14	S	500	23,00 ZP
M 6 x 16	S	500	24,90 ZP
M 6 x 18	S	500	26,00 ZP
M 6 x 20	S	500	26,00 ZP
M 6 x 22	S	500	28,00 ZP
M 6 x 25	S	500	27,00 ZP
M 6 x 30	S	500	29,50 ZP
M 6 x 35	S	200	31,50 ZP
M 6 x 40	S	200	36,00 ZP
M 6 x 45	S	200	39,00 ZP
M 6 x 50	S	200	42,50 ZP
M 6 x 55	S	200	47,50 ZP
M 6 x 60	S	200	52,00 ZP
M 6 x 65	S	200	66,00 ZP
M 6 x 70	S	200	72,00 ZP
M 6 x 80	S	200	86,00 ZP
M 6 x 90	S	200	91,00 ZP
M 6 x 100	S	200	112,00 ZP
M 6 x 110	S	200	154,00 ZP
M 6 x 120	S	200	176,00 ZP
M 8 x 10	S	200	47,50 ZP
M 8 x 12	S	200	42,00 ZP
M 8 x 14	S	200	107,00 ZP
M 8 x 16	S	200	33,00 ZP
M 8 x 18	S	200	36,00 ZP
M 8 x 20	S	200	34,00 ZP
M 8 x 22	S	200	38,00 ZP
M 8 x 25	S	200	37,00 ZP
M 8 x 30	S	200	40,50 ZP
M 8 x 35	S	200	45,50 ZP
M 8 x 40	S	200	51,00 ZP
M 8 x 45	S	200	57,00 ZP
M 8 x 50	S	200	61,00 ZP
M 8 x 55	S	200	67,00 ZP
M 8 x 60	S	200	72,00 ZP
M 8 x 65	S	200	80,00 ZP
M 8 x 70	S	200	90,00 ZP
M 8 x 75	S	200	129,00 ZP
M 8 x 80	S	200	129,00 ZP
M 8 x 90	S	100	138,00 ZP
M 8 x 100	S	100	148,00 ZP
M 8 x 105	S	100	600,00 ZP
M 8 x 110	S	100	190,00 ZP
M 10 x 16	S	200	100,00 ZP
M 10 x 18	S	200	86,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 20	S	200	56,00 ZP
M 10 x 25	S	200	58,00 ZP
M 10 x 30	S	200	61,00 ZP
M 10 x 35	S	200	70,00 ZP
M 10 x 40	S	100	78,00 ZP
M 10 x 45	S	100	86,00 ZP
M 10 x 50	S	100	95,00 ZP
M 10 x 55	S	100	107,00 ZP
M 10 x 60	S	100	114,00 ZP
M 10 x 65	S	100	124,00 ZP
M 10 x 70	S	100	134,00 ZP
M 10 x 75	S	100	144,00 ZP
M 10 x 80	S	100	153,00 ZP
M 10 x 90	S	100	167,00 ZP
M 10 x 100	S	100	223,00 ZP
M 10 x 120	S	100	295,00 ZP
M 10 x 130	S	100	350,00 ZP
M 10 x 140	S	50	385,00 ZP
M 12 x 16	S	100	285,00 ZP
M 12 x 20	S	100	97,00 ZP
M 12 x 25	S	100	92,00 ZP
M 12 x 30	S	100	97,00 ZP
M 12 x 35	S	100	103,00 ZP
M 12 x 40	S	100	114,00 ZP
M 12 x 45	S	100	126,00 ZP
M 12 x 50	S	100	137,00 ZP
M 12 x 55	S	100	148,00 ZP
M 12 x 60	S	100	157,00 ZP
M 12 x 65	S	100	167,00 ZP
M 12 x 70	S	100	180,00 ZP
M 12 x 80	S	50	206,00 ZP
M 12 x 90	S	50	226,00 ZP
M 12 x 100	S	50	255,00 ZP
M 12 x 110	S	50	325,00 ZP
M 12 x 120	S	50	395,00 ZP
M 12 x 130	S	50	710,00 ZP
M 12 x 140	S	50	440,00 ZP
M 12 x 150	S	50	540,00 ZP
M 12 x 160	S	1	800,00 ZP
M 12 x 180	S	1	860,00 ZP
M 14 x 30	S	100	207,00 ZP
M 14 x 35	S	100	220,00 ZP
M 14 x 40	S	100	236,00 ZP
M 14 x 45	S	50	247,00 ZP
M 14 x 50	S	50	285,00 ZP
M 14 x 60	S	50	295,00 ZP
M 14 x 70	S	50	345,00 ZP
M 16 x 25	S	50	230,00 ZP
M 16 x 30	S	50	210,00 ZP
M 16 x 35	S	50	217,00 ZP
M 16 x 40	S	50	233,00 ZP
M 16 x 45	S	50	242,00 ZP
M 16 x 50	S	50	260,00 ZP
M 16 x 60	S	50	310,00 ZP
M 16 x 70	S	50	345,00 ZP
M 16 x 80	S	50	400,00 ZP
M 16 x 90	S	25	420,00 ZP
M 16 x 100	S	25	480,00 ZP
M 16 x 110	S	25	680,00 ZP
M 16 x 120	S	25	560,00 ZP
M 16 x 130	S	25	780,00 ZP
M 16 x 140	S	25	870,00 ZP
M 16 x 150	S	25	970,00 ZP
M 16 x 160	S	25	840,00 ZP
M 16 x 180	S	25	950,00 ZP
M 16 x 200	S	25	1040,00 ZP
M 20 x 30	S	25	1060,00 ZP
M 20 x 35	S	25	1090,00 ZP
M 20 x 40	S	25	710,00 ZP
M 20 x 45	S	25	720,00 ZP
M 20 x 50	S	25	730,00 ZP
M 20 x 60	S	25	750,00 ZP
M 20 x 70	S	25	810,00 ZP
M 20 x 80	S	25	870,00 ZP
M 20 x 90	S	25	940,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	100	S	25	1010,00 ZP
M 20	x	110	S	25	1090,00 ZP
M 20	x	120	S	25	1170,00 ZP
M 20	x	130	S	25	1260,00 ZP
M 20	x	140	S	25	1340,00 ZP
M 20	x	150	S	25	1430,00 ZP
M 20	x	160	S	10	1590,00 ZP
M 20	x	180	S	10	1750,00 ZP
M 20	x	200	S	10	1920,00 ZP
M 20	x	220	S	1	2700,00 ZP
M 24	x	40	S	1	1520,00 ZP
M 24	x	45	S	1	1560,00 ZP
M 24	x	50	S	1	1560,00 ZP
M 24	x	60	S	1	1650,00 ZP
M 24	x	70	S	1	1740,00 ZP
M 24	x	80	S	1	1840,00 ZP
M 24	x	90	S	1	1970,00 ZP
M 24	x	100	S	1	2020,00 ZP
M 30	x	50	S	1	2210,00 ZP
M 30	x	55	S	1	2270,00 ZP
M 30	x	60	S	1	2270,00 ZP
M 30	x	70	S	1	2350,00 ZP
M 30	x	80	S	1	2350,00 ZP
M 30	x	90	S	1	2490,00 ZP
M 30	x	100	S	1	2600,00 ZP

DIN 06912.100 600

6912 010.9



Hexagon socket head cap screws, low head, with centre

Dimensions ➔ TI-12 Tightening torque ➔ TI-246
Material properties ➔ TI-232

Stainless ➔ pg. 555

RoHS ✓ REACh SVHC free

M 6	x	10	S	500	48,50
M 6	x	12	S	500	44,50
M 6	x	16	S	500	47,50
M 6	x	20	S	500	49,50
M 6	x	25	S	500	52,00
M 6	x	30	S	500	55,00
M 6	x	35	S	200	59,00
M 6	x	40	S	200	66,00
M 8	x	16	S	200	62,00
M 8	x	20	S	200	63,00
M 8	x	25	S	200	67,00
M 8	x	30	S	200	73,00
M 8	x	35	S	200	82,00
M 8	x	40	S	200	92,00
M 8	x	45	S	200	102,00
M 8	x	50	S	200	108,00
M 8	x	60	S	200	129,00
M 10	x	16	S	200	270,00
M 10	x	20	S	200	102,00
M 10	x	25	S	200	105,00
M 10	x	30	S	200	108,00
M 10	x	35	S	200	124,00
M 10	x	40	S	100	141,00
M 10	x	45	S	100	154,00
M 10	x	50	S	100	171,00
M 10	x	60	S	100	204,00
M 12	x	25	S	100	167,00
M 12	x	30	S	100	174,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	35	S	100	184,00
M 12	x	40	S	100	204,00
M 12	x	45	S	100	226,00
M 12	x	50	S	100	245,00
M 12	x	60	S	100	280,00
M 16	x	30	S	50	390,00
M 16	x	35	S	50	395,00
M 16	x	40	S	50	425,00
M 16	x	45	S	50	440,00
M 16	x	50	S	50	460,00
M 16	x	60	S	50	560,00
M 16	x	70	S	50	620,00
M 16	x	80	S	50	720,00
M 20	x	40	S	25	1230,00
M 20	x	50	S	25	1240,00
M 20	x	60	S	25	1250,00
M 20	x	70	S	25	1300,00
M 24	x	40	S	25	2550,00
M 24	x	50	S	25	2550,00
M 24	x	60	S	25	2700,00
M 24	x	70	S	25	3250,00
M 24	x	80	S	25	3300,00
M 24	x	90	S	25	3450,00

DIN 06912.110 600

6912 010.9 zinc plated



Hexagon socket head cap screws, low head, with centre

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-12 Corrosion protection ➔ TI-228
Material properties ➔ TI-232 Tightening torque ➔ TI-246

Stainless ➔ pg. 555

RoHS ✓ REACh SVHC free

M 6	x	12	S	500	109,00 ZP
M 6	x	16	S	500	111,00 ZP
M 6	x	20	S	500	117,00 ZP
M 6	x	25	S	500	120,00 ZP
M 6	x	30	S	500	130,00 ZP
M 8	x	16	S	200	200,00 ZP
M 8	x	20	S	200	201,00 ZP
M 8	x	25	S	200	220,00 ZP

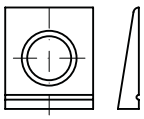
Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	30	S	200	239,00 ZP
M 10	x	20	S	200	285,00 ZP
M 10	x	25	S	200	300,00 ZP
M 10	x	30	S	200	310,00 ZP
M 10	x	40	S	100	340,00 ZP
M 12	x	25	S	100	520,00 ZP
M 12	x	30	S	100	530,00 ZP
M 16	x	30	S	50	1140,00 ZP
M 16	x	35	S	50	1150,00 ZP
M 16	x	40	S	50	1190,00 ZP

DIN 06917.000 610

6917 Steel, QT



Square taper washers, wedge angle 14 %, for friction grip bolts on double-T-beams in steel constructions

Dimensions ➔ TI-85

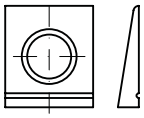
RoHS ✓ REACh SVHC free

• ÜH products

13	S	1	123,00
17	S	1	138,00
21	S	1	218,00
25	S	1	750,00

DIN 06917.020 610

6917 Steel, QT hot dip galvanized



Square taper washers, wedge angle 14 %, for friction grip bolts on double-T-beams in steel constructions

Dimensions ➔ TI-85 Corrosion protection ➔ TI-231

RoHS ✓ REACh SVHC free

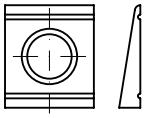
• ÜH products

13	S	1	130,00 HDG
17	S	1	150,00 HDG
21	S	1	238,00 HDG
23	S	1	600,00 HDG
25	S	1	840,00 HDG

Dimensions	PU Pieces	€/100/Mat.
DIN	06918.000	610

6918

Steel, QT



Square taper washers, wedge angle 8 %, for friction grip bolts on U-beams in steel constructions

Dimensions ➔ TI-85

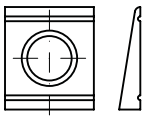
RoHS ✓ | REACh SVHC free

			• ÜH products
13	S	1	121,00
17	S	1	143,00
21	S	1	191,00
23	S	1	250,00
25	S	1	365,00
28	S	1	390,00
31	S	1	670,00

DIN	06918.020	610

6918

Steel, QT hot dip galvanized



Square taper washers, wedge angle 8 %, for friction grip bolts on U-beams in steel constructions

Dimensions ➔ TI-85 Corrosion protection ➔ TI-231

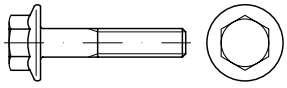
RoHS ✓ | REACh SVHC free

			• ÜH products
13	S	1	125,00 HDG
17	S	1	152,00 HDG
21	S	1	210,00 HDG
23	S	1	275,00 HDG
25	S	1	400,00 HDG
28	S	1	430,00 HDG
31	S	1	730,00 HDG

Dimensions	PU Pieces	€/100/Mat.
DIN	06921.800	615

6921

8.8



Hexagon flange bolts

Dimensions ➔ TI-17
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6
Stainless ➔ pg. 557

DIN 6921 ➔ replaced by EN 1665

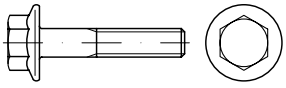
RoHS ✓ | REACh SVHC free

M 6	x	12	S	500	28,00
M 6	x	16	S	500	18,80
M 6	x	20	S	500	18,10
M 6	x	25	S	500	18,10
M 6	x	30	S	500	20,30
M 8	x	12	S	200	57,00
M 8	x	16	S	200	51,00
M 8	x	20	S	200	36,00
M 8	x	25	S	200	36,50
M 8	x	30	S	200	39,50
M 8	x	35	S	200	43,00
M 8	x	40	S	200	46,00
M 8	x	50	S	200	53,00
M 10	x	16	S	200	83,00
M 10	x	20	S	200	51,00
M 10	x	25	S	200	54,00
M 10	x	30	S	200	57,00
M 10	x	35	S	100	63,00
M 10	x	40	S	100	68,00
M 10	x	45	S	100	76,00
M 10	x	50	S	100	80,00
M 10	x	60	S	100	89,00
M 12	x	20	S	100	153,00
M 12	x	25	S	100	142,00
M 12	x	30	S	100	153,00
M 12	x	35	S	100	167,00
M 12	x	40	S	100	174,00
M 12	x	45	S	100	190,00
M 12	x	50	S	100	201,00
M 12	x	60	S	100	227,00
M 12	x	70	S	50	260,00
M 12	x	80	S	50	290,00
M 12	x	90	S	50	330,00
M 12	x	100	S	50	355,00
M 16	x	30	S	50	233,00
M 16	x	35	S	50	249,00
M 16	x	40	S	50	265,00
M 16	x	45	S	50	280,00
M 16	x	50	S	50	295,00
M 16	x	60	S	50	345,00
M 16	x	65	S	25	365,00
M 16	x	70	S	25	365,00

Dimensions	PU Pieces	€/100/Mat.
DIN	06921.810	615

6921

8.8 zinc plated



Hexagon flange bolts

Dimensions ➔ TI-17
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6
Stainless ➔ pg. 557

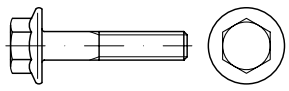
DIN 6921 ➔ replaced by EN 1665

RoHS ✓ | REACh SVHC free

M 6	x	12	S	500	30,50 ZP
M 6	x	16	S	500	21,10 ZP
M 6	x	20	S	500	21,10 ZP
M 6	x	25	S	500	22,40 ZP
M 8	x	12	S	200	62,00 ZP
M 8	x	16	S	200	56,00 ZP
M 8	x	20	S	200	41,00 ZP
M 8	x	25	S	200	42,50 ZP
M 8	x	30	S	200	45,50 ZP
M 8	x	35	S	200	49,50 ZP
M 8	x	40	S	200	50,00 ZP
M 8	x	50	S	200	61,00 ZP
M 8	x	60	S	200	69,00 ZP
M 10	x	20	S	200	59,00 ZP
M 10	x	25	S	200	62,00 ZP
M 10	x	30	S	200	74,00 ZP
M 12	x	20	S	100	165,00 ZP
M 12	x	25	S	100	155,00 ZP
M 12	x	30	S	100	166,00 ZP
M 12	x	35	S	100	181,00 ZP
M 12	x	40	S	100	188,00 ZP
M 12	x	45	S	100	206,00 ZP
M 12	x	50	S	100	218,00 ZP
M 12	x	60	S	100	245,00 ZP
M 12	x	70	S	50	280,00 ZP
M 12	x	80	S	50	310,00 ZP
M 12	x	90	S	50	355,00 ZP
M 16	x	30	S	50	260,00 ZP
M 16	x	35	S	50	275,00 ZP
M 16	x	40	S	50	290,00 ZP
M 16	x	50	S	50	315,00 ZP
M 16	x	60	S	50	380,00 ZP
M 16	x	70	S	25	425,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06921.100	615

6921 10.9



Hexagon flange bolts

Dimensions ➔ TI-17 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

Stainless ➔ pg. 557

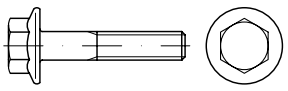
DIN 6921 ➔ replaced by EN 1665

RoHS ✓ | REACh SVHC free

M 5	x	10	S	500	28,50
M 5	x	12	S	500	29,50
M 5	x	16	S	500	30,50
M 5	x	20	S	500	31,00
M 6	x	12	S	500	36,00
M 6	x	16	S	500	23,30
M 6	x	20	S	500	24,00
M 6	x	25	S	500	24,90
M 6	x	30	S	500	26,00
M 8	x	10	S	200	56,00
M 8	x	12	S	200	55,00
M 8	x	16	S	200	53,00
M 8	x	20	S	200	44,50
M 8	x	25	S	200	46,00
M 8	x	30	S	200	49,50
M 8	x	35	S	200	54,00
M 8	x	40	S	200	57,00
M 8	x	50	S	200	66,00
M 10	x	16	S	200	92,00
M 10	x	20	S	200	63,00
M 10	x	25	S	200	68,00
M 10	x	30	S	200	73,00
M 10	x	35	S	100	80,00
M 10	x	40	S	100	85,00
M 10	x	50	S	100	101,00
M 10	x	60	S	100	113,00
M 12	x	25	S	100	136,00
M 12	x	30	S	100	141,00
M 12	x	35	S	100	146,00
M 12	x	40	S	100	153,00
M 12	x	45	S	100	189,00
M 12	x	50	S	100	189,00
M 12	x	60	S	100	226,00
M 12	x	80	S	50	360,00
M 16	x	30	S	50	330,00
M 16	x	35	S	50	345,00
M 16	x	40	S	50	365,00
M 16	x	50	S	50	410,00
M 16	x	60	S	50	480,00
M 16	x	70	S	25	510,00

Dimensions	PU Pieces	€/100/Mat.
DIN	06921.110	615

6921 10.9 zinc plated



Hexagon flange bolts

baked

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-17 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6
Corrosion protection ➔ TI-228

Stainless ➔ pg. 557

DIN 6921 ➔ replaced by EN 1665

RoHS ✓ | REACh SVHC free

M 5	x	10	S	500	37,00 ZP
M 5	x	12	S	500	38,00 ZP
M 5	x	16	S	500	40,00 ZP
M 5	x	20	S	500	40,00 ZP
M 6	x	12	S	500	45,50 ZP
M 6	x	16	S	500	33,00 ZP
M 6	x	20	S	500	34,00 ZP
M 6	x	25	S	500	34,50 ZP
M 6	x	30	S	500	35,50 ZP
M 8	x	10	S	200	66,00 ZP
M 8	x	16	S	200	66,00 ZP
M 8	x	20	S	200	57,00 ZP
M 8	x	25	S	200	59,00 ZP
M 8	x	30	S	200	62,00 ZP
M 8	x	35	S	200	69,00 ZP
M 8	x	40	S	200	69,00 ZP
M 8	x	50	S	200	78,00 ZP
M 10	x	16	S	200	108,00 ZP
M 10	x	20	S	200	82,00 ZP
M 10	x	25	S	200	88,00 ZP
M 10	x	30	S	200	91,00 ZP
M 10	x	40	S	100	103,00 ZP
M 10	x	50	S	100	120,00 ZP
M 10	x	60	S	100	134,00 ZP
M 12	x	25	S	100	160,00 ZP
M 12	x	30	S	100	165,00 ZP
M 12	x	35	S	100	176,00 ZP
M 12	x	40	S	100	183,00 ZP
M 12	x	45	S	100	226,00 ZP
M 12	x	50	S	100	226,00 ZP

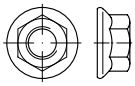
Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU Pieces	€/100/Mat.
M 12 x 60	S 100	265,00 ZP
M 12 x 70	S 50	395,00 ZP
M 12 x 80	S 50	395,00 ZP
M 16 x 35	S 50	390,00 ZP
M 16 x 40	S 50	410,00 ZP
M 16 x 50	S 50	450,00 ZP
M 16 x 60	S 50	530,00 ZP
M 16 x 70	S 25	560,00 ZP

DIN	06923.800	615

6923 8



Hexagon flange nuts

Dimensions ➔ TI-64 Tightening torque ➔ TI-244
Material properties ➔ TI-233 Standard conversion ➔ TI-7

Stainless ➔ pg. 558

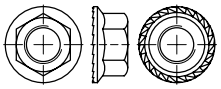
DIN 6923 ➔ replaced by EN 1661

RoHS ✓ | REACh SVHC free

M 4	S	1000	9,10
M 5	S	1000	10,30
M 6	S	1000	13,40
M 8	S	1000	19,40
M 10	S	500	36,50
M 12	S	250	51,00
M 16	S	50	158,00
M 20	S	50	270,00

~DIN	06923.804	615

6923 8 locking



Hexagon locking nuts with flange

Dimensions ➔ TI-64 Tightening torque ➔ TI-244
Material properties ➔ TI-233

Stainless ➔ pg. 558

nuts with hardened surface ➔ article 88934

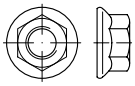
RoHS ✓ | REACh SVHC free

M 4	S	1000	9,70
M 5	S	1000	10,90
M 6	S	1000	13,40
M 8	S	1000	21,80
M 10	S	500	39,00
M 12	S	250	55,00
M 16	S	50	164,00
M 20	S	50	425,00

Dimensions | PU Pieces | €/100/Mat.

DIN | 06923.810 | 615

6923 8 zinc plated



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 558

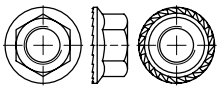
DIN 6923 ➔ replaced by EN 1661

RoHS ✓ | REACh SVHC free

M 4	S	1000	12,50 ZP
M 5	S	1000	14,30 ZP
M 6	S	1000	15,80 ZP
M 8	S	1000	22,70 ZP
M 10	S	500	41,50 ZP
M 12	S	250	57,00 ZP
M 16	S	50	177,00 ZP
M 20	S	50	295,00 ZP

~DIN | 06923.814 | 615

6923 8 zinc plated locking



Hexagon locking nuts with flange

Dimensions ➔ TI-64
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244

Stainless ➔ pg. 558

nuts with hardened surface ➔ article 88934

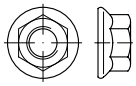
RoHS ✓ | REACh SVHC free

M 4	S	1000	13,40 ZP
M 5	S	1000	14,60 ZP
M 6	S	1000	16,40 ZP
M 8	S	1000	24,20 ZP
M 10	S	500	44,00 ZP
M 12	S	250	61,00 ZP
M 16	S	50	182,00 ZP
M 20	S	50	455,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN | 06923.100 | 615

6923 10



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 558

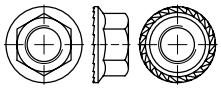
DIN 6923 ➔ replaced by EN 1661

RoHS ✓ | REACh SVHC free

M 5	S	1000	11,50
M 6	S	1000	16,40
M 8	S	1000	36,00
M 10	S	500	60,00
M 12	S	250	92,00
M 16	S	50	218,00
M 20	S	50	485,00

~DIN | 06923.104 | 615

6923 10 locking



Hexagon locking nuts with flange

Dimensions ➔ TI-64
Material properties ➔ TI-233
Tightening torque ➔ TI-244

Stainless ➔ pg. 558

nuts with hardened surface ➔ article 88934

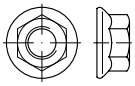
RoHS ✓ | REACh SVHC free

M 5	S	1000	12,10
M 6	S	1000	17,00
M 8	S	1000	36,50
M 10	S	500	61,00
M 12	S	250	95,00
M 16	S	50	223,00
M 20	S	50	510,00

Dimensions | PU Pieces | €/100/Mat.

DIN | 06923.110 | 615

6923 10 zinc plated



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 558

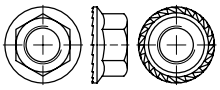
DIN 6923 ➔ replaced by EN 1661

RoHS ✓ | REACh SVHC free

M 5	S	1000	13,40 ZP
M 6	S	1000	18,20 ZP
M 8	S	1000	39,00 ZP
M 10	S	500	66,00 ZP
M 12	S	250	100,00 ZP
M 16	S	50	230,00 ZP
M 20	S	50	530,00 ZP

~DIN | 06923.114 | 615

6923 10 zinc plated locking



Hexagon locking nuts with flange

Dimensions ➔ TI-64
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244

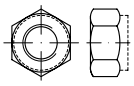
Stainless ➔ pg. 558

nuts with hardened surface ➔ article 88934

RoHS ✓ | REACh SVHC free

M 5	S	1000	14,60 ZP
M 6	S	1000	19,40 ZP
M 8	S	1000	41,50 ZP
M 10	S	500	68,00 ZP
M 12	S	250	103,00 ZP
M 16	S	50	242,00 ZP
M 20	S	50	550,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06924.810	615
6924	**8 zinc plated**	



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use under temperatures from -50 to +120 °C

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

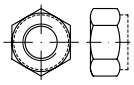
Stainless ➔ pg. 559

DIN 6924 corse thread
➔ replaced by ISO 7040 (compatible)

REACh SVHC free

M 4	S	200	20,00 ZP
M 5	S	200	19,00 ZP
M 6	S	100	22,10 ZP
M 8	S	100	28,00 ZP
M 10	S	100	48,00 ZP
M 12	S	100	62,00 ZP
M 16	S	50	120,00 ZP
M 20	S	50	227,00 ZP
M 24	S	25	360,00 ZP

DIN	06924.110	*
6924	**10 zinc plated**	



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from -50 to +120 °C,
*M 10/12 RAZ = 3395, other ∅ RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

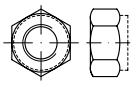
Stainless ➔ pg. 559

DIN 6924 corse thread
➔ replaced by ISO 7040 (compatible)

REACh SVHC free

M 10	S	100	77,00 ZP
M 12	S	100	111,00 ZP
M 16	S	50	197,00 ZP
M 20	S	50	360,00 ZP
M 24	S	25	480,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06924.115	480
6924	**10 fine zinc plated**	



Prevailing torque type hexagon nuts with non-metallic insert, high type, with metric fine pitch thread

for use under temperatures from -50 to +120 °C

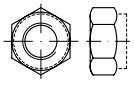
Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

DIN 6924 fine thread ➔ replaced by ISO 10512

REACh SVHC free

M 10	x 1	S	100	84,00 ZP
M 12	x 1,5	S	100	120,00 ZP
M 14	x 1,5	S	100	161,00 ZP
M 16	x 1,5	S	50	216,00 ZP
M 20	x 1,5	S	50	390,00 ZP
M 24	x 2	S	25	570,00 ZP

DIN	06925.810	*
6925	**8 zinc plated**	



Prevailing torque type hexagon nuts, all metal nuts

*< M 18 RAZ = 615, from M 18 RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

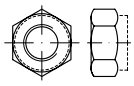
DIN 6925 corse thread ➔ replaced by ISO 7042

RoHS ✓

REACh SVHC free

M 4	S	100	9,10 ZP
M 5	S	100	9,10 ZP
M 6	S	100	10,80 ZP
M 8	S	100	15,20 ZP
M 10	S	100	26,50 ZP
M 12	S	100	43,00 ZP
M 14	S	100	59,00 ZP
M 16	S	100	84,00 ZP
M 18	S	50	126,00 ZP
M 20	S	50	131,00 ZP
M 24	S	25	230,00 ZP
M 27	S	25	510,00 ZP
M 30	S	10	600,00 ZP
M 33	S	10	1150,00 ZP
M 36	S	10	1210,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	06925.840	1525*
6925	**8 flZn/TL480h**	



Prevailing torque type hexagon nuts, all metal nuts

TL = lubricant in topcoat with μ = 0,09 - 0,14,
salt spray test: 480h RR, Cr(VI)-free,
*for dimensions M 10 and 12 RAZ = 3395

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

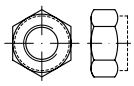
DIN 6925 corse thread ➔ replaced by ISO 7042

RoHS ✓

REACh SVHC free

M 6	S	1000	11,10 flZn
M 8	S	500	17,10 flZn
M 10	S	500	30,00 flZn
M 12	S	250	46,00 flZn
M 16	S	100	88,00 flZn
M 20	S	50	171,00 flZn
M 24	S	25	310,00 flZn

DIN	06925.815	480*
6925	**8 fine zinc plated**	



Prevailing torque type hexagon nuts, all metal nuts, with metric fine pitch thread

*for dimensions M 10, 12 and 14 RAZ = 3395

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

DIN 6925 fine thread ➔ replaced by ISO 10513

RoHS ✓

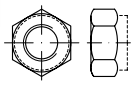
REACh SVHC free

M 8	x 1	S	100	30,00 ZP
M 10	x 1	S	100	34,50 ZP
M 12	x 1,5	S	100	42,00 ZP
M 14	x 1,5	S	100	60,00 ZP
M 16	x 1,5	S	100	79,00 ZP
M 18	x 1,5	S	50	136,00 ZP
M 20	x 1,5	S	50	131,00 ZP
M 24	x 1,5	S	25	239,00 ZP
M 24	x 2	S	25	239,00 ZP
M 30	x 2	S	10	620,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 06925.110 615

6925 10 zinc plated



Prevailing torque type hexagon nuts, all metal nuts

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

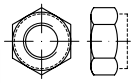
DIN 6925 corse thread ➔ replaced by ISO 7042

RoHS ✓ | REACh SVHC free

M 8	S	100	34,50 ZP
M 10	S	100	51,00 ZP
M 12	S	100	66,00 ZP
M 14	S	100	84,00 ZP
M 16	S	50	103,00 ZP
M 18	S	50	157,00 ZP
M 20	S	50	182,00 ZP
M 24	S	25	295,00 ZP
M 27	S	10	830,00 ZP
M 30	S	10	590,00 ZP
M 36	S	10	3050,00 ZP

DIN 06925.140 1525*

6925 10 flZn/TL480h



Prevailing torque type hexagon nuts all metal nuts

TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free,
*for dimensions M 10 and 12 RAZ = 3395

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

DIN 6925 corse thread ➔ replaced by ISO 7042

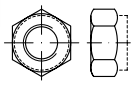
RoHS ✓ | REACh SVHC free

M 8	S	500	79,00 flZn
M 10	S	500	109,00 flZn
M 12	S	250	121,00 flZn
M 16	S	50	146,00 flZn
M 18	S	50	182,00 flZn
M 20	S	50	218,00 flZn
M 24	S	25	400,00 flZn

Dimensions | PU Pieces | €/100/Mat.

DIN 06925.115 480* fine

6925 10 zinc plated



Prevailing torque type hexagon nuts, all metal nuts, with metric fine pitch thread

*for dimensions M 10, 12 and 14 RAZ = 3395

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

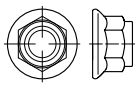
DIN 6925 fine thread ➔ replaced by ISO 10513

RoHS ✓ | REACh SVHC free

M 8	x 1	S	100	34,00 ZP
M 10	x 1	S	100	54,00 ZP
M 10	x 1,25	S	100	53,00 ZP
M 12	x 1,25	S	100	65,00 ZP
M 12	x 1,5	S	100	65,00 ZP
M 14	x 1,5	S	100	92,00 ZP
M 16	x 1,5	S	50	112,00 ZP
M 18	x 1,5	S	50	170,00 ZP
M 20	x 1,5	S	50	197,00 ZP
M 24	x 1,5	S	25	315,00 ZP
M 24	x 2	S	25	315,00 ZP

DIN 06926.810 615

6926 8 zinc plated



Prevailing torque type hexagon nuts with flange, with non metallic insert

for use under temperature from –50 to +120 °C

Dimensions ➔ TI-69
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

DIN 6926 corse thread ➔ replaced by EN 1663

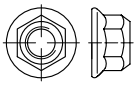
REACh SVHC free

M 5	S	100	14,60 ZP
M 6	S	100	18,10 ZP
M 8	S	100	22,20 ZP
M 16	S	100	84,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN 06927.810 615

6927 8 zinc plated



Prevailing torque type hexagon nuts with flange, all metal nuts

Dimensions ➔ TI-69
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

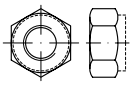
DIN 6927 corse thread ➔ replaced by EN 1664

RoHS ✓ | REACh SVHC free

M 5	S	100	14,60 ZP
M 6	S	100	18,10 ZP
M 8	S	100	22,20 ZP
M 10 s = 16	S	100	26,00 ZP
M 12	S	100	36,50 ZP
M 16	S	100	84,00 ZP

ISO 07040.810 *

7040 8 zinc plated



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from –50 to +120 °C,
*M 14 RAZ = 3395, M 20/24 RAZ = 480,
other ∅ RAZ = 615

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

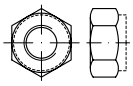
Stainless ➔ pg. 559

ISO 7040 ➔ replaces DIN 982 and 6924

REACh SVHC free

M 4	S	200	20,00 ZP
M 5	S	200	19,00 ZP
M 6	S	100	22,10 ZP
M 8	S	100	28,00 ZP
M 10	S	100	48,00 ZP
M 12	S	100	62,00 ZP
M 14	S	100	83,00 ZP
M 16	S	50	120,00 ZP
M 20	S	50	227,00 ZP
M 24	S	25	360,00 ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	07040.814	3395
7040	8 zinc plated	HS*



Prevailing torque type hexagon nuts with non-metallic insert, high type, with heat-stabilised* polyamide locking ring

*up to ~ +150/180 °C (BN 205107-03)

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

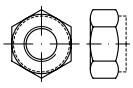
Stainless ➔ pg. 560

ISO 7040 ➔ replaces DIN 982 and 6924

REACh SVHC free

M 5	S	1000	22,40 ZP
M 6	S	1000	23,30 ZP
M 8	S	1000	32,50 ZP
M 10	S	500	53,00 ZP
M 12	S	500	72,00 ZP
M 16	S	200	160,00 ZP
M 20	S	50	445,00 ZP
M 24	S	25	510,00 ZP

ISO	07040.110	*
7040	10 zinc plated	



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from -50 to +120 °C,
*M 10/12 RAZ = 3395, other ∅ RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

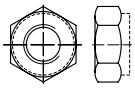
Stainless ➔ pg. 559

ISO 7040 ➔ replaces DIN 982 and 6924

REACh SVHC free

M 10	S	100	77,00 ZP
M 12	S	100	111,00 ZP
M 16	S	50	197,00 ZP
M 20	S	50	360,00 ZP
M 24	S	25	480,00 ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	07042.810	*
7042	8 zinc plated	



Prevailing torque type hexagon nuts, all metal nuts

*M 10/12/22 RAZ = 3395, M 14 RAZ = 615,
other ∅ RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

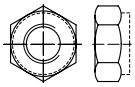
ISO 7042 ➔ replaces DIN 980 and 6925

RoHS ✓

REACh SVHC free

M 4	S	100	9,10 ZP
M 5	S	100	9,10 ZP
M 10	S	500	21,70 ZP
M 12	S	250	34,00 ZP
M 14	S	100	59,00 ZP
M 18	S	50	126,00 ZP
M 20	S	50	131,00 ZP
M 24	S	25	230,00 ZP
M 27	S	25	510,00 ZP
M 30	S	10	600,00 ZP
M 33	S	10	1150,00 ZP
M 36	S	10	1210,00 ZP

ISO	07042.841	1525
7042	8 flZn/TL 480h	



Prevailing torque type hexagon nuts, all metal nuts

TL = lubricant in topcoat with μ = 0,09 - 0,14,
salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

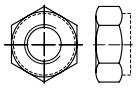
ISO 7042 ➔ replaces DIN 980 and 6925

RoHS ✓

REACh SVHC free

M 6	S	1000	11,10 flZn
M 8	S	500	17,10 flZn
M 10	S	500	30,00 flZn
M 12	S	250	46,00 flZn
M 16	S	100	88,00 flZn
M 20	S	50	171,00 flZn
M 24	S	25	310,00 flZn

Dimensions	PU Pieces	€/100/Mat.
ISO	07042.820	3395
7042	8 hot dip galvanized	



Prevailing torque type hexagon nuts, all metal nuts

thread tolerance 6H

➔ ISO 4014/4017 8.8 HDG SB

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-230
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

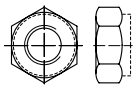
CE = also for use in steel construction as non-preloaded fastenings acc. to EN 15048

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 5	S	100	177,00 HDG
M 6	S	100	71,00 HDG
M 8	S	100	83,00 HDG
M 10	S	100	95,00 HDG
M 12	S	100	115,00 HDG
M 16	S	50	219,00 HDG
M 20	S	50	680,00 HDG
M 24	S	25	940,00 HDG

ISO	07042.110	*
7042	10 zinc plated	



Prevailing torque type hexagon nuts, all metal nuts

*M 22 RAZ = 3395, M 27/30/36 RAZ = 480,
other ∅ RAZ = 615

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256

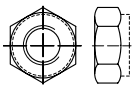
ISO 7042 ➔ replaces DIN 980 and 6925

RoHS ✓

REACh SVHC free

M 8	S	100	34,50 ZP
M 10	S	100	51,00 ZP
M 12	S	100	66,00 ZP
M 14	S	100	84,00 ZP
M 16	S	50	103,00 ZP
M 18	S	50	157,00 ZP
M 20	S	50	182,00 ZP
M 24	S	25	295,00 ZP
M 27	S	10	830,00 ZP
M 30	S	10	590,00 ZP
M 36	S	10	3050,00 ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	07042.140	1525
7042	**10 flZn/TL480h**	



Prevailing torque type hexagon nuts, all-metal nuts, single component

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Caution!
Different tightening torque to zinc plated.

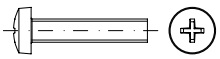
Dimensions ➔ TI-9 | Standard conversion ➔ TI-7
Material properties ➔ TI-233 | Lock of fasteners ➔ TI-256
Corrosion protection ➔ TI-230

ISO 7042 ➔ replaces DIN 980 and 6925

RoHS ✓ | REACh SVHC free

M 8	S	500	79,00 flZn
M 10	S	500	109,00 flZn
M 12	S	250	121,00 flZn
M 16	S	50	146,00 flZn
M 18	S	50	182,00 flZn
M 20	S	50	218,00 flZn
M 24	S	25	400,00 flZn

ISO	07045.404	710
7045	**4.8**	**H**



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40 | Standard conversion ➔ TI-11
Material properties ➔ TI-232 | REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 561

ISO 7045 ➔ replaces DIN 7985 (compatible)

RoHS ✓

M 3	x 5 -H	S	2000	6,10
M 3	x 6 -H	S	2000	3,45
M 3	x 8 -H	S	2000	2,30
M 3	x 10 -H	S	2000	2,40
M 3	x 12 -H	S	2000	2,45
M 3	x 16 -H	S	2000	2,75
M 3	x 20 -H	S	2000	3,10
M 4	x 6 -H	S	2000	5,10
M 4	x 8 -H	S	2000	3,30
M 4	x 10 -H	S	2000	3,40
M 4	x 12 -H	S	2000	3,45
M 4	x 16 -H	S	2000	4,10
M 4	x 20 -H	S	2000	4,20
M 4	x 25 -H	S	1000	4,40
M 4	x 30 -H	S	1000	6,00
M 5	x 8 -H	S	2000	4,80
M 5	x 10 -H	S	2000	4,85
M 5	x 12 -H	S	1000	5,10
M 5	x 16 -H	S	1000	5,60
M 5	x 20 -H	S	1000	6,00
M 5	x 25 -H	S	1000	6,90
M 6	x 10 -H	S	1000	7,20
M 6	x 12 -H	S	1000	7,20
M 6	x 16 -H	S	1000	7,90
M 6	x 20 -H	S	1000	8,20
M 6	x 25 -H	S	500	9,10
M 6	x 40 -H	S	500	13,60
M 8	x 16 -H	S	500	16,70
M 8	x 25 -H	S	200	20,60

ISO	07045.414	710
7045	**4.8 zinc plated**	**H**



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40 | Standard conversion ➔ TI-11
Material properties ➔ TI-232 | REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 561

ISO 7045 ➔ replaces DIN 7985 (compatible)

RoHS ✓

M 2	x 4 -H	S	2000	8,40 ZP
M 2	x 4 -H	K	200	11,30 ZP
M 2	x 5 -H	S	2000	8,40 ZP
M 2	x 5 -H	K	200	11,30 ZP
M 2	x 6 -H	S	2000	4,60 ZP
M 2	x 6 -H	K	200	6,30 ZP
M 2	x 8 -H	S	2000	4,60 ZP
M 2	x 8 -H	K	200	7,60 ZP
M 2	x 10 -H	S	2000	4,75 ZP
M 2	x 10 -H	K	200	7,70 ZP
M 2	x 12 -H	S	2000	4,85 ZP
M 2	x 12 -H	K	200	7,80 ZP
M 2	x 16 -H	S	2000	5,00 ZP
M 2	x 16 -H	K	200	7,90 ZP
M 2	x 20 -H	S	2000	5,30 ZP
M 2	x 20 -H	K	200	8,20 ZP
M 2,5	x 4 -H	S	2000	9,20 ZP
M 2,5	x 4 -H	K	200	12,10 ZP
M 2,5	x 5 -H	S	2000	9,20 ZP
M 2,5	x 5 -H	K	200	12,10 ZP
M 2,5	x 6 -H	S	2000	4,70 ZP
M 2,5	x 6 -H	K	200	7,70 ZP
M 2,5	x 8 -H	S	2000	4,70 ZP
M 2,5	x 8 -H	K	200	7,70 ZP
M 2,5	x 10 -H	S	2000	4,80 ZP
M 2,5	x 10 -H	K	200	7,80 ZP
M 2,5	x 12 -H	K	200	7,90 ZP
M 2,5	x 14 -H	S	2000	9,70 ZP
M 2,5	x 16 -H	S	2000	5,40 ZP
M 2,5	x 16 -H	K	200	8,40 ZP
M 2,5	x 20 -H	S	2000	5,80 ZP
M 2,5	x 20 -H	K	200	8,70 ZP
M 2,5	x 25 -H	S	2000	6,80 ZP
M 2,5	x 25 -H	K	200	9,70 ZP
M 2,5	x 30 -H	S	2000	14,60 ZP
M 2,5	x 30 -H	K	200	17,50 ZP
M 3	x 3 -H	S	2000	12,10 ZP
M 3	x 3 -H	K	200	14,60 ZP
M 3	x 4 -H	S	2000	10,00 ZP
M 3	x 4 -H	K	200	12,90 ZP
M 3	x 5 -H	S	2000	6,70 ZP
M 3	x 5 -H	K	200	9,60 ZP
M 3	x 6 -H	K	200	6,80 ZP
M 3	x 8 -H	K	200	5,50 ZP
M 3	x 10 -H	S	2000	2,60 ZP
M 3	x 10 -H	K	200	5,50 ZP
M 3	x 12 -H	S	2000	2,75 ZP
M 3	x 12 -H	K	200	5,70 ZP
M 3	x 14 -H	S	2000	3,25 ZP
M 3	x 14 -H	K	200	6,20 ZP
M 3	x 16 -H	S	2000	3,00 ZP
M 3	x 16 -H	K	200	5,90 ZP
M 3	x 18 -H	S	2000	3,40 ZP
M 3	x 18 -H	K	200	6,30 ZP
M 3	x 20 -H	S	2000	3,40 ZP
M 3	x 20 -H	K	200	6,30 ZP
M 3	x 22 -H	S	2000	3,85 ZP
M 3	x 22 -H	K	200	6,80 ZP
M 3	x 25 -H	S	2000	4,20 ZP
M 3	x 25 -H	K	200	7,20 ZP
M 3	x 28 -H	S	2000	13,40 ZP
M 3	x 28 -H	K	200	16,30 ZP
M 3	x 30 -H	S	2000	5,30 ZP
M 3	x 30 -H	K	200	8,20 ZP
M 3	x 35 -H	S	2000	8,20 ZP
M 3	x 35 -H	K	200	11,10 ZP
M 3	x 40 -H	S	1000	8,50 ZP
M 3	x 40 -H	K	200	11,40 ZP
M 3	x 45 -H	S	1000	12,80 ZP
M 3	x 45 -H	K	200	15,10 ZP
M 3	x 50 -H	S	1000	14,60 ZP
M 3	x 50 -H	K	200	17,50 ZP
M 3	x 55 -H	S	200	30,50 ZP
M 3,5	x 5 -H	S	2000	10,90 ZP
M 3,5	x 6 -H	S	2000	11,20 ZP
M 4	x 4 -H	S	2000	12,10 ZP
M 4	x 4 -H	K	200	15,10 ZP
M 4	x 5 -H	S	2000	8,60 ZP
M 4	x 5 -H	K	200	11,50 ZP
M 4	x 6 -H	S	2000	5,60 ZP
M 4	x 6 -H	K	200	8,60 ZP
M 4	x 8 -H	K	200	6,70 ZP
M 4	x 10 -H	K	200	6,80 ZP
M 4	x 12 -H	S	2000	3,90 ZP
M 4	x 12 -H	K	200	6,80 ZP
M 4	x 14 -H	S	2000	5,40 ZP
M 4	x 14 -H	K	200	8,40 ZP
M 4	x 16 -H	S	2000	4,40 ZP
M 4	x 16 -H	K	200	7,30 ZP
M 4	x 18 -H	S	2000	5,10 ZP
M 4	x 18 -H	K	200	8,00 ZP
M 4	x 20 -H	S	2000	4,60 ZP
M 4	x 20 -H	K	200	7,70 ZP
M 4	x 22 -H	S	2000	7,30 ZP
M 4	x 25 -H	S	1000	4,85 ZP
M 4	x 25 -H	K	200	7,90 ZP
M 4	x 30 -H	S	1000	6,70 ZP
M 4	x 30 -H	K	200	9,60 ZP
M 4	x 35 -H	S	1000	7,80 ZP
M 4	x 35 -H	K	200	10,70 ZP
M 4	x 40 -H	S	1000	8,80 ZP
M 4	x 40 -H	K	200	11,70 ZP
M 4	x 45 -H	S	1000	13,50 ZP
M 4	x 45 -H	K	200	16,50 ZP
M 4	x 50 -H	S	1000	16,10 ZP
M 4	x 50 -H	K	200	19,20 ZP
M 4	x 55 -H	S	500	23,20 ZP
M 4	x 60 -H	S	500	23,20 ZP
M 4	x 65 -H	S	500	47,50 ZP
M 4	x 70 -H	S	500	30,00 ZP
M 4	x 80 -H	S	500	38,50 ZP
M 4	x 85 -H	S	500	48,50 ZP
M 4	x 90 -H	S	200	67,00 ZP
M 4	x 100 -H	S	200	79,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	6 -H	S	2000	10,70 ZP
M 5	x	6 -H	K	200	13,60 ZP
M 5	x	8 -H	S	2000	5,30 ZP
M 5	x	8 -H	K	200	8,20 ZP
M 5	x	10 -H	K	200	8,40 ZP
M 5	x	12 -H	S	1000	5,60 ZP
M 5	x	12 -H	K	200	8,60 ZP
M 5	x	14 -H	S	1000	6,10 ZP
M 5	x	14 -H	K	200	9,00 ZP
M 5	x	16 -H	K	200	9,10 ZP
M 5	x	18 -H	S	1000	7,30 ZP
M 5	x	18 -H	K	200	10,20 ZP
M 5	x	20 -H	S	1000	6,70 ZP
M 5	x	20 -H	K	200	9,60 ZP
M 5	x	25 -H	S	1000	7,80 ZP
M 5	x	25 -H	K	200	10,70 ZP
M 5	x	30 -H	S	1000	9,20 ZP
M 5	x	30 -H	K	200	12,10 ZP
M 5	x	35 -H	S	500	10,60 ZP
M 5	x	35 -H	K	200	13,40 ZP
M 5	x	40 -H	S	500	10,60 ZP
M 5	x	40 -H	K	200	13,50 ZP
M 5	x	45 -H	S	500	12,40 ZP
M 5	x	45 -H	K	200	15,40 ZP
M 5	x	50 -H	S	500	18,10 ZP
M 5	x	50 -H	K	200	21,00 ZP
M 5	x	60 -H	S	200	23,90 ZP
M 5	x	70 -H	S	200	33,50 ZP
M 5	x	80 -H	S	200	42,00 ZP
M 5	x	90 -H	S	200	48,50 ZP
M 5	x	100 -H	S	200	57,00 ZP
M 6	x	8 -H	K	200	17,00 ZP
M 6	x	10 -H	S	1000	8,00 ZP
M 6	x	10 -H	K	200	10,90 ZP
M 6	x	12 -H	S	1000	7,80 ZP
M 6	x	12 -H	K	200	10,80 ZP
M 6	x	14 -H	S	1000	9,70 ZP
M 6	x	14 -H	K	200	12,80 ZP
M 6	x	16 -H	K	200	11,80 ZP
M 6	x	18 -H	S	1000	9,70 ZP
M 6	x	20 -H	S	1000	9,10 ZP
M 6	x	20 -H	K	200	12,00 ZP
M 6	x	25 -H	S	500	10,10 ZP
M 6	x	25 -H	K	200	13,00 ZP
M 6	x	30 -H	S	500	11,80 ZP
M 6	x	30 -H	K	200	14,80 ZP
M 6	x	35 -H	S	500	14,20 ZP
M 6	x	35 -H	K	200	17,10 ZP
M 6	x	40 -H	K	200	18,10 ZP
M 6	x	45 -H	S	500	15,80 ZP
M 6	x	45 -H	K	200	18,70 ZP
M 6	x	50 -H	S	200	18,00 ZP
M 6	x	55 -H	S	200	47,50 ZP
M 6	x	60 -H	S	200	22,20 ZP
M 6	x	70 -H	S	200	35,50 ZP
M 6	x	75 -H	S	200	41,00 ZP
M 6	x	80 -H	S	200	41,00 ZP
M 6	x	90 -H	S	100	49,50 ZP
M 6	x	100 -H	S	100	58,00 ZP
M 8	x	12 -H	S	500	26,50 ZP
M 8	x	12 -H	K	200	29,50 ZP
M 8	x	16 -H	S	500	18,60 ZP
M 8	x	16 -H	K	200	21,50 ZP
M 8	x	20 -H	S	500	19,70 ZP
M 8	x	20 -H	K	200	22,70 ZP
M 8	x	25 -H	S	200	22,70 ZP
M 8	x	30 -H	S	200	24,90 ZP
M 8	x	35 -H	S	200	28,00 ZP
M 8	x	40 -H	S	100	29,50 ZP
M 8	x	45 -H	S	100	34,50 ZP
M 8	x	50 -H	S	100	36,00 ZP
M 8	x	60 -H	S	100	44,50 ZP
M 8	x	70 -H	S	100	54,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	80 -H	S	100	68,00 ZP
M 8	x	90 -H	S	100	91,00 ZP
M 10	x	25 -H	S	100	115,00 ZP

ISO	07045.416	710
7045	**4.8** zinc plated	**Z**



Cheese head screws with Pozidriv cross recess Z

Dimensions → TI-40
Material properties → TI-232
Corrosion protection → TI-228
Standard conversion → TI-11
REACH → TI-262

Stainless → pg. 562

ISO 7045 → replaces DIN 7985 (compatible)

RoHS ✓

M 2,5	x	4 -Z	S	2000	9,20 ZP
M 2,5	x	5 -Z	S	2000	9,20 ZP
M 2,5	x	6 -Z	S	2000	4,70 ZP
M 2,5	x	8 -Z	S	2000	4,70 ZP
M 2,5	x	10 -Z	S	2000	4,80 ZP
M 2,5	x	12 -Z	S	2000	4,95 ZP
M 2,5	x	16 -Z	S	2000	5,40 ZP
M 3	x	4 -Z	S	2000	10,00 ZP
M 3	x	5 -Z	S	2000	6,70 ZP
M 3	x	6 -Z	S	2000	3,85 ZP
M 3	x	8 -Z	S	2000	2,60 ZP
M 3	x	10 -Z	S	2000	2,60 ZP
M 3	x	12 -Z	S	2000	2,75 ZP
M 3	x	16 -Z	S	2000	3,00 ZP
M 3	x	20 -Z	S	2000	3,40 ZP
M 3	x	25 -Z	S	2000	4,20 ZP
M 3	x	30 -Z	S	2000	5,30 ZP
M 3	x	35 -Z	S	2000	8,20 ZP
M 3	x	40 -Z	S	1000	8,50 ZP
M 4	x	5 -Z	S	2000	8,60 ZP
M 4	x	6 -Z	S	2000	5,60 ZP
M 4	x	8 -Z	S	2000	3,65 ZP
M 4	x	10 -Z	S	2000	3,75 ZP
M 4	x	12 -Z	S	2000	3,90 ZP
M 4	x	16 -Z	S	2000	4,40 ZP
M 4	x	18 -Z	S	2000	5,10 ZP
M 4	x	20 -Z	S	2000	4,60 ZP
M 4	x	25 -Z	S	1000	4,85 ZP
M 4	x	30 -Z	S	1000	6,70 ZP
M 4	x	35 -Z	S	1000	7,80 ZP
M 4	x	40 -Z	S	1000	8,80 ZP
M 4	x	45 -Z	S	1000	13,50 ZP
M 4	x	50 -Z	S	1000	16,10 ZP
M 4	x	60 -Z	S	500	23,20 ZP
M 4	x	70 -Z	S	500	30,00 ZP
M 5	x	6 -Z	S	2000	10,70 ZP
M 5	x	8 -Z	S	2000	5,30 ZP
M 5	x	10 -Z	S	2000	5,40 ZP
M 5	x	12 -Z	S	1000	5,60 ZP
M 5	x	16 -Z	S	1000	6,20 ZP
M 5	x	20 -Z	S	1000	6,70 ZP
M 5	x	25 -Z	S	1000	7,80 ZP
M 5	x	30 -Z	S	1000	9,20 ZP
M 5	x	35 -Z	S	500	10,60 ZP
M 5	x	40 -Z	S	500	10,60 ZP
M 5	x	45 -Z	S	500	12,40 ZP
M 5	x	50 -Z	S	500	18,10 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	60 -Z	S	200	23,90 ZP
M 5	x	70 -Z	S	200	33,50 ZP
M 5	x	80 -Z	S	200	42,00 ZP
M 6	x	8 -Z	S	1000	14,10 ZP
M 6	x	10 -Z	S	1000	8,00 ZP
M 6	x	12 -Z	S	1000	7,80 ZP
M 6	x	16 -Z	S	1000	8,80 ZP
M 6	x	20 -Z	S	1000	9,10 ZP
M 6	x	25 -Z	S	500	10,10 ZP
M 6	x	30 -Z	S	500	11,80 ZP
M 6	x	35 -Z	S	500	14,20 ZP
M 6	x	40 -Z	S	500	15,20 ZP
M 6	x	45 -Z	S	500	15,80 ZP
M 6	x	50 -Z	S	200	18,00 ZP
M 6	x	60 -Z	S	200	22,20 ZP

ISO	07045.435	710
7045	**4.8** zinc plated 8 TLP*	**H**



Cheese head screws with Phillips cross recess H

*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions → TI-40
Material properties → TI-232
Corrosion protection → TI-228
Standard conversion → TI-11
REACH → TI-262

Stainless → pg. 561

ISO 7045 → replaces DIN 7985 (compatible)

RoHS ✓

M 3	x	6-H	S	2000	5,10 ZP TLP
M 3	x	8-H	S	2000	3,55 ZP TLP
M 3	x	12-H	S	2000	4,00 ZP TLP
M 3	x	16-H	S	2000	4,10 ZP TLP
M 4	x	8-H	S	2000	5,10 ZP TLP
M 4	x	10-H	S	2000	5,30 ZP TLP
M 4	x	12-H	S	2000	5,50 ZP TLP
M 4	x	16-H	S	2000	6,00 ZP TLP
M 4	x	20-H	S	2000	6,20 ZP TLP
M 4	x	25-H	S	1000	7,60 ZP TLP
M 4	x	30-H	S	1000	8,50 ZP TLP
M 5	x	8-H	S	2000	6,70 ZP TLP
M 5	x	10-H	S	2000	7,30 ZP TLP
M 5	x	12-H	S	1000	7,60 ZP TLP
M 5	x	16-H	S	1000	8,40 ZP TLP
M 5	x	20-H	S	1000	8,70 ZP TLP
M 6	x	10-H	S	1000	10,70 ZP TLP
M 6	x	12-H	S	1000	10,90 ZP TLP
M 6	x	25-H	S	500	13,40 ZP TLP

Dimensions	PU Pieces	€/100/Mat.
ISO	07046.404	460

7046-1 4.8 H



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 563

ISO 7046 ➔ replaces DIN 965 (compatible)

RoHS ✓

M 2,5	x	6	-H	S 2000	4,55
M 2,5	x	8	-H	S 2000	4,60
M 3	x	5	-H	S 2000	5,40
M 3	x	6	-H	S 2000	3,70
M 3	x	8	-H	S 2000	1,95
M 3	x	10	-H	S 2000	2,15
M 3	x	12	-H	S 2000	2,20
M 3	x	16	-H	S 2000	2,75
M 3	x	20	-H	S 2000	2,80
M 3	x	25	-H	S 2000	3,95
M 4	x	6	-H	S 2000	5,20
M 4	x	8	-H	S 2000	2,80
M 4	x	10	-H	S 2000	2,85
M 4	x	12	-H	S 2000	3,10
M 4	x	16	-H	S 2000	3,35
M 4	x	20	-H	S 2000	3,65
M 4	x	25	-H	S 1000	4,15
M 4	x	30	-H	S 1000	5,40
M 5	x	8	-H	S 2000	7,30
M 5	x	10	-H	S 2000	3,90
M 5	x	12	-H	S 1000	4,10
M 5	x	16	-H	S 1000	4,40
M 5	x	20	-H	S 1000	5,00
M 5	x	25	-H	S 1000	5,60
M 5	x	40	-H	S 500	8,40
M 6	x	10	-H	S 1000	9,70
M 6	x	12	-H	S 1000	5,70
M 6	x	16	-H	S 1000	6,50
M 6	x	20	-H	S 1000	7,20
M 6	x	25	-H	S 500	8,20
M 6	x	30	-H	S 200	9,10
M 6	x	35	-H	S 500	10,70
M 8	x	16	-H	S 500	14,90
M 8	x	20	-H	S 500	15,50
M 8	x	25	-H	S 200	17,10
M 8	x	30	-H	S 200	19,50

Dimensions	PU Pieces	€/100/Mat.
ISO	07046.414	460

7046-1 4.8 zinc plated H



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 563

ISO 7046 ➔ replaces DIN 965 (compatible)

RoHS ✓

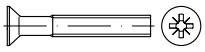
M 2	x	5	-H	S 2000	4,60 ZP
M 2	x	6	-H	S 2000	4,60 ZP
M 2	x	6	-H	K 200	7,60 ZP
M 2	x	8	-H	S 2000	4,60 ZP
M 2	x	8	-H	K 200	7,60 ZP
M 2	x	10	-H	K 200	7,70 ZP
M 2	x	12	-H	S 2000	4,85 ZP
M 2	x	12	-H	K 200	7,80 ZP
M 2	x	16	-H	S 2000	5,00 ZP
M 2	x	16	-H	K 200	7,90 ZP
M 2	x	20	-H	S 2000	5,30 ZP
M 2	x	20	-H	K 200	8,20 ZP
M 2,5	x	4	-H	S 2000	11,10 ZP
M 2,5	x	4	-H	K 200	14,00 ZP
M 2,5	x	5	-H	S 2000	6,70 ZP
M 2,5	x	5	-H	K 200	9,60 ZP
M 2,5	x	6	-H	S 2000	5,00 ZP
M 2,5	x	6	-H	K 200	8,00 ZP
M 2,5	x	8	-H	S 2000	4,60 ZP
M 2,5	x	8	-H	K 200	8,00 ZP
M 2,5	x	10	-H	K 200	8,20 ZP
M 2,5	x	12	-H	S 2000	5,30 ZP
M 2,5	x	12	-H	K 200	8,30 ZP
M 2,5	x	16	-H	S 2000	5,80 ZP
M 2,5	x	16	-H	K 200	8,80 ZP
M 2,5	x	20	-H	S 2000	8,30 ZP
M 2,5	x	20	-H	K 200	11,20 ZP
M 3	x	4	-H	S 2000	5,10 ZP
M 3	x	4	-H	K 200	7,70 ZP
M 3	x	5	-H	S 2000	5,90 ZP
M 3	x	5	-H	K 200	8,80 ZP
M 3	x	6	-H	K 200	7,10 ZP
M 3	x	8	-H	K 200	5,20 ZP
M 3	x	10	-H	K 200	5,30 ZP
M 3	x	12	-H	S 2000	2,40 ZP
M 3	x	12	-H	K 200	5,40 ZP
M 3	x	14	-H	S 2000	2,80 ZP
M 3	x	14	-H	K 200	5,80 ZP
M 3	x	16	-H	S 2000	3,00 ZP
M 3	x	16	-H	K 200	6,00 ZP
M 3	x	18	-H	S 2000	3,40 ZP
M 3	x	18	-H	K 200	6,30 ZP
M 3	x	20	-H	S 2000	3,15 ZP
M 3	x	20	-H	K 200	6,10 ZP
M 3	x	22	-H	S 2000	3,65 ZP
M 3	x	22	-H	K 200	6,60 ZP
M 3	x	25	-H	S 2000	4,40 ZP
M 3	x	25	-H	K 200	7,30 ZP
M 3	x	30	-H	S 2000	5,40 ZP
M 3	x	30	-H	K 200	8,60 ZP
M 3	x	35	-H	S 2000	7,90 ZP
M 3	x	40	-H	S 1000	9,10 ZP

M 3	x	45	-H	S 1000	10,30 ZP
M 3	x	50	-H	S 1000	11,30 ZP
M 4	x	5	-H	S 2000	5,70 ZP
M 4	x	5	-H	K 200	8,60 ZP
M 4	x	6	-H	S 2000	5,70 ZP
M 4	x	6	-H	K 200	8,60 ZP
M 4	x	8	-H	K 200	6,10 ZP
M 4	x	10	-H	S 2000	3,25 ZP
M 4	x	10	-H	K 200	6,20 ZP
M 4	x	12	-H	K 200	6,30 ZP
M 4	x	14	-H	S 2000	3,65 ZP
M 4	x	14	-H	K 200	6,70 ZP
M 4	x	16	-H	S 2000	3,70 ZP
M 4	x	16	-H	K 200	6,70 ZP
M 4	x	18	-H	S 2000	4,45 ZP
M 4	x	20	-H	S 2000	3,95 ZP
M 4	x	20	-H	K 200	6,90 ZP
M 4	x	25	-H	S 1000	4,55 ZP
M 4	x	25	-H	K 200	7,60 ZP
M 4	x	28	-H	S 1000	12,80 ZP
M 4	x	30	-H	S 1000	5,90 ZP
M 4	x	30	-H	K 200	8,90 ZP
M 4	x	35	-H	S 1000	7,40 ZP
M 4	x	35	-H	K 200	10,50 ZP
M 4	x	40	-H	S 1000	8,60 ZP
M 4	x	40	-H	K 200	11,50 ZP
M 4	x	45	-H	S 1000	10,60 ZP
M 4	x	45	-H	K 200	13,40 ZP
M 4	x	50	-H	S 1000	12,60 ZP
M 4	x	50	-H	K 200	15,70 ZP
M 4	x	60	-H	S 500	18,00 ZP
M 4	x	60	-H	K 200	21,00 ZP
M 4	x	70	-H	S 500	24,10 ZP
M 4	x	80	-H	S 500	31,00 ZP
M 4	x	90	-H	S 200	83,00 ZP
M 5	x	6	-H	S 2000	8,20 ZP
M 5	x	6	-H	K 200	11,50 ZP
M 5	x	8	-H	S 2000	8,20 ZP
M 5	x	8	-H	K 200	11,10 ZP
M 5	x	10	-H	S 2000	4,25 ZP
M 5	x	10	-H	K 200	7,20 ZP
M 5	x	12	-H	K 200	7,30 ZP
M 5	x	14	-H	S 1000	7,90 ZP
M 5	x	14	-H	K 200	10,90 ZP
M 5	x	16	-H	K 200	7,90 ZP
M 5	x	20	-H	K 200	8,50 ZP
M 5	x	25	-H	S 1000	6,20 ZP
M 5	x	25	-H	K 200	9,10 ZP
M 5	x	30	-H	S 1000	7,80 ZP
M 5	x	30	-H	K 200	10,80 ZP
M 5	x	35	-H	S 500	8,60 ZP
M 5	x	35	-H	K 200	11,70 ZP
M 5	x	40	-H	S 500	9,40 ZP
M 5	x	40	-H	K 200	12,30 ZP
M 5	x	45	-H	S 500	10,90 ZP
M 5	x	45	-H	K 200	13,80 ZP
M 5	x	50	-H	S 500	15,20 ZP
M 5	x	50	-H	K 200	18,10 ZP
M 5	x	55	-H	S 200	35,50 ZP
M 5	x	60	-H	S 200	19,30 ZP
M 5	x	70	-H	S 200	23,40 ZP
M 5	x	80	-H	S 200	36,00 ZP
M 5	x	90	-H	S 100	51,00 ZP
M 6	x	8	-H	S 1000	9,10 ZP
M 6	x	8	-H	K 200	12,00 ZP
M 6	x	10	-H	K 200	13,70 ZP
M 6	x	12	-H	K 200	9,20 ZP
M 6	x	14	-H	S 1000	8,60 ZP
M 6	x	16	-H	S 1000	7,20 ZP
M 6	x	16	-H	K 200	10,20 ZP
M 6	x	18	-H	S 1000	14,60 ZP
M 6	x	18	-H	K 200	18,20 ZP
M 6	x	20	-H	S 1000	7,90 ZP
M 6	x	20	-H	K 200	10,80 ZP
M 6	x	25	-H	S 500	8,90 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 25 -H	K	200	11,80 ZP
M 6 x 30 -H	S	500	10,20 ZP
M 6 x 30 -H	K	200	13,10 ZP
M 6 x 35 -H	S	500	11,80 ZP
M 6 x 35 -H	K	200	14,70 ZP
M 6 x 40 -H	S	500	13,20 ZP
M 6 x 40 -H	K	200	16,10 ZP
M 6 x 45 -H	S	200	15,50 ZP
M 6 x 50 -H	S	200	17,60 ZP
M 6 x 55 -H	S	200	26,00 ZP
M 6 x 60 -H	S	200	21,10 ZP
M 6 x 70 -H	S	200	26,50 ZP
M 6 x 80 -H	S	200	39,50 ZP
M 8 x 12 -H	S	500	44,50 ZP
M 8 x 16 -H	S	500	16,60 ZP
M 8 x 16 -H	K	200	19,50 ZP
M 8 x 20 -H	S	500	17,10 ZP
M 8 x 20 -H	K	200	20,10 ZP
M 8 x 25 -H	S	200	19,00 ZP
M 8 x 30 -H	S	200	21,60 ZP
M 8 x 35 -H	S	200	26,00 ZP
M 8 x 40 -H	S	100	30,50 ZP
M 8 x 45 -H	S	100	33,00 ZP
M 8 x 50 -H	S	100	34,00 ZP
M 8 x 55 -H	S	100	44,00 ZP
M 8 x 60 -H	S	100	39,00 ZP
M 8 x 70 -H	S	100	47,00 ZP
M 8 x 80 -H	S	100	57,00 ZP
M 8 x 90 -H	S	100	68,00 ZP
M 8 x 100 -H	S	100	78,00 ZP
M 10 x 16 -H	S	100	66,00 ZP
M 10 x 20 -H	S	100	38,50 ZP
M 10 x 25 -H	S	100	40,00 ZP
M 10 x 30 -H	S	100	44,00 ZP
M 10 x 40 -H	S	100	50,00 ZP
M 10 x 45 -H	S	100	54,00 ZP
M 10 x 50 -H	S	100	57,00 ZP
M 10 x 60 -H	S	100	72,00 ZP

ISO	07046.415	460
7046-1	**4.8** zinc plated	Z



Countersunk head screws with Pozidriv cross recess Z

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228

Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 564

ISO 7046 ➔ replaces DIN 965 (compatible)

RoHS ✓

Dimensions	PU	Pieces	€/100/Mat.
M 2,5 x 4 -Z	S	2000	11,10 ZP
M 2,5 x 5 -Z	S	2000	6,70 ZP
M 2,5 x 6 -Z	S	2000	5,00 ZP
M 2,5 x 8 -Z	S	2000	4,60 ZP
M 2,5 x 10 -Z	S	2000	5,20 ZP
M 2,5 x 12 -Z	S	2000	5,30 ZP
M 3 x 4 -Z	S	2000	5,70 ZP
M 3 x 5 -Z	S	2000	6,20 ZP
M 3 x 6 -Z	S	2000	4,15 ZP
M 3 x 8 -Z	S	2000	2,20 ZP
M 3 x 10 -Z	S	2000	2,30 ZP
M 3 x 12 -Z	S	2000	2,40 ZP
M 3 x 16 -Z	S	2000	3,00 ZP
M 3 x 20 -Z	S	2000	3,15 ZP
M 3 x 25 -Z	S	2000	4,40 ZP
M 4 x 6 -Z	S	2000	5,70 ZP
M 4 x 8 -Z	S	2000	3,10 ZP
M 4 x 10 -Z	S	2000	3,25 ZP
M 4 x 12 -Z	S	2000	3,35 ZP
M 4 x 16 -Z	S	2000	3,70 ZP
M 4 x 20 -Z	S	2000	3,95 ZP
M 4 x 25 -Z	S	1000	4,55 ZP
M 4 x 30 -Z	S	1000	5,90 ZP
M 4 x 35 -Z	S	1000	7,40 ZP
M 4 x 40 -Z	S	1000	8,60 ZP
M 4 x 45 -Z	S	500	10,60 ZP
M 4 x 50 -Z	S	500	12,60 ZP
M 5 x 8 -Z	S	2000	8,20 ZP
M 5 x 10 -Z	S	2000	4,25 ZP
M 5 x 12 -Z	S	1000	4,40 ZP
M 5 x 16 -Z	S	1000	4,85 ZP
M 5 x 20 -Z	S	1000	5,50 ZP
M 5 x 25 -Z	S	1000	6,20 ZP
M 5 x 30 -Z	S	1000	7,80 ZP
M 5 x 35 -Z	S	500	8,60 ZP
M 5 x 40 -Z	S	500	9,40 ZP
M 5 x 45 -Z	S	500	10,90 ZP
M 5 x 50 -Z	S	500	15,20 ZP
M 5 x 60 -Z	S	200	19,30 ZP
M 5 x 70 -Z	S	200	23,40 ZP
M 5 x 80 -Z	S	200	36,00 ZP
M 6 x 10 -Z	S	1000	10,80 ZP
M 6 x 12 -Z	S	1000	6,30 ZP
M 6 x 16 -Z	S	1000	7,20 ZP
M 6 x 20 -Z	S	1000	7,90 ZP
M 6 x 25 -Z	S	500	8,90 ZP
M 6 x 30 -Z	S	500	9,00 ZP
M 6 x 35 -Z	S	500	11,80 ZP
M 6 x 40 -Z	S	500	13,20 ZP
M 6 x 45 -Z	S	200	15,50 ZP
M 6 x 50 -Z	S	200	17,60 ZP
M 6 x 60 -Z	S	200	21,10 ZP

ISO	07047.414	460
7047	**4.8** zinc plated	H



Raised countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Corrosion protection ➔ TI-228

Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 565

ISO 7047 ➔ replaces DIN 966 (compatible)

RoHS ✓

Dimensions	PU	Pieces	€/100/Mat.
M 2,5 x 5 -H	S	2000	8,40 ZP
M 2,5 x 6 -H	S	2000	6,00 ZP
M 2,5 x 6 -H	K	200	8,90 ZP
M 2,5 x 8 -H	S	2000	6,20 ZP
M 2,5 x 8 -H	K	200	9,10 ZP
M 2,5 x 10 -H	S	2000	6,20 ZP
M 2,5 x 10 -H	K	200	9,10 ZP
M 3 x 5 -H	S	2000	6,00 ZP
M 3 x 5 -H	K	200	8,90 ZP
M 3 x 6 -H	S	2000	4,55 ZP
M 3 x 6 -H	K	200	7,60 ZP
M 3 x 8 -H	S	2000	2,40 ZP
M 3 x 8 -H	K	200	5,30 ZP
M 3 x 10 -H	S	2000	2,45 ZP
M 3 x 10 -H	K	200	5,40 ZP
M 3 x 12 -H	S	2000	3,00 ZP
M 3 x 12 -H	K	200	5,90 ZP
M 3 x 16 -H	S	2000	3,70 ZP
M 3 x 16 -H	K	200	6,60 ZP
M 3 x 20 -H	S	2000	3,90 ZP
M 3 x 20 -H	K	200	6,80 ZP
M 3 x 25 -H	S	2000	5,00 ZP
M 3 x 25 -H	K	200	8,90 ZP
M 3 x 30 -H	S	2000	6,30 ZP
M 3 x 30 -H	K	200	9,20 ZP
M 3 x 35 -H	S	2000	9,20 ZP
M 3 x 40 -H	S	1000	10,50 ZP
M 4 x 6 -H	S	2000	6,70 ZP
M 4 x 6 -H	K	200	9,60 ZP
M 4 x 8 -H	S	2000	3,30 ZP
M 4 x 8 -H	K	200	6,20 ZP
M 4 x 10 -H	S	2000	3,40 ZP
M 4 x 10 -H	K	200	6,30 ZP
M 4 x 12 -H	S	2000	3,60 ZP
M 4 x 12 -H	K	200	6,50 ZP
M 4 x 16 -H	S	2000	3,95 ZP
M 4 x 16 -H	K	200	6,90 ZP
M 4 x 20 -H	S	2000	4,25 ZP
M 4 x 20 -H	K	200	7,20 ZP
M 4 x 25 -H	S	1000	4,85 ZP
M 4 x 25 -H	K	200	7,80 ZP
M 4 x 30 -H	S	1000	6,80 ZP
M 4 x 30 -H	K	200	9,70 ZP
M 4 x 35 -H	S	1000	8,60 ZP
M 4 x 35 -H	K	200	11,50 ZP
M 4 x 40 -H	S	1000	9,90 ZP
M 4 x 40 -H	K	200	12,80 ZP
M 4 x 45 -H	S	1000	11,40 ZP
M 4 x 45 -H	K	200	14,30 ZP
M 4 x 50 -H	S	1000	15,80 ZP
M 4 x 50 -H	K	200	18,70 ZP
M 4 x 60 -H	S	500	22,70 ZP
M 5 x 8 -H	S	2000	9,40 ZP
M 5 x 8 -H	K	200	12,30 ZP
M 5 x 10 -H	S	2000	4,60 ZP
M 5 x 10 -H	K	200	7,60 ZP
M 5 x 12 -H	S	1000	4,70 ZP
M 5 x 12 -H	K	200	7,60 ZP
M 5 x 16 -H	S	1000	5,30 ZP
M 5 x 16 -H	K	200	8,20 ZP
M 5 x 20 -H	S	1000	6,70 ZP
M 5 x 20 -H	K	200	9,60 ZP
M 5 x 25 -H	S	1000	6,70 ZP
M 5 x 25 -H	K	200	9,60 ZP
M 5 x 30 -H	S	1000	8,50 ZP
M 5 x 30 -H	K	200	11,40 ZP
M 5 x 35 -H	S	500	9,40 ZP
M 5 x 40 -H	S	500	10,10 ZP
M 5 x 45 -H	S	500	12,60 ZP
M 5 x 50 -H	S	500	16,50 ZP
M 5 x 60 -H	S	200	22,40 ZP
M 5 x 70 -H	S	200	33,00 ZP
M 5 x 80 -H	S	200	42,00 ZP
M 6 x 10 -H	S	1000	11,50 ZP
M 6 x 10 -H	K	200	14,40 ZP
M 6 x 12 -H	S	1000	6,90 ZP
M 6 x 12 -H	K	200	9,90 ZP
M 6 x 16 -H	S	1000	7,80 ZP
M 6 x 16 -H	K	200	10,70 ZP
M 6 x 20 -H	S	1000	8,60 ZP
M 6 x 20 -H	K	200	11,50 ZP
M 6 x 25 -H	S	500	9,70 ZP
M 6 x 30 -H	S	500	11,10 ZP
M 6 x 35 -H	S	500	12,80 ZP
M 6 x 40 -H	S	500	14,30 ZP
M 6 x 45 -H	S	500	17,80 ZP
M 6 x 50 -H	S	200	18,90 ZP

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 60 -H	S	200	23,80 ZP
M 6 x 70 -H	S	200	33,00 ZP
M 6 x 80 -H	S	200	47,00 ZP
M 8 x 16 -H	S	500	31,50 ZP
M 8 x 20 -H	S	500	19,40 ZP
M 8 x 25 -H	S	200	23,40 ZP
M 8 x 30 -H	S	200	26,50 ZP
M 8 x 35 -H	S	200	30,00 ZP
M 8 x 40 -H	S	100	38,00 ZP
M 8 x 45 -H	S	100	40,00 ZP
M 8 x 50 -H	S	100	41,50 ZP
M 8 x 60 -H	S	100	48,50 ZP
M 8 x 70 -H	S	100	60,00 ZP
M 8 x 80 -H	S	100	72,00 ZP

ISO	07049.019	690

7049 Steel, hard. zinc plated type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

nominal length from 60 mm with partial thread

Dimensions ➔ TI-46
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
Stainless ➔ pg. 566

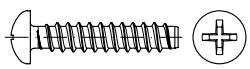
ISO 7049 ➔ replaces DIN 7981 (compatible)

RoHS ✓ REACh SVHC free

C2,2 x 4,5 -H	S	2000	6,30 ZP
C2,2 x 6,5 -H	S	2000	4,55 ZP
C2,2 x 6,5 -H	K	100	7,00 ZP
C2,2 x 9,5 -H	S	2000	4,25 ZP
C2,2 x 13 -H	S	2000	4,55 ZP
C2,2 x 16 -H	S	2000	5,50 ZP
C2,2 x 19 -H	S	2000	7,20 ZP
C2,2 x 22 -H	S	2000	8,90 ZP
C2,9 x 6,5 -H	K	100	5,60 ZP
C2,9 x 6,5 -H	S	2000	2,60 ZP
C2,9 x 9,5 -H	S	2000	2,30 ZP
C2,9 x 9,5 -H	K	100	5,40 ZP
C2,9 x 13 -H	S	2000	2,45 ZP
C2,9 x 13 -H	K	100	5,50 ZP
C2,9 x 16 -H	S	2000	2,60 ZP
C2,9 x 16 -H	K	100	5,60 ZP
C2,9 x 19 -H	S	2000	3,70 ZP
C2,9 x 19 -H	K	100	6,70 ZP
C2,9 x 22 -H	S	2000	4,60 ZP
C2,9 x 22 -H	K	100	7,70 ZP
C2,9 x 25 -H	S	1000	4,95 ZP
C2,9 x 25 -H	K	100	7,90 ZP
C2,9 x 32 -H	S	1000	5,90 ZP
C3,5 x 6,5 -H	S	1000	3,60 ZP
C3,5 x 6,5 -H	K	100	6,60 ZP
C3,5 x 9,5 -H	S	1000	2,75 ZP
C3,5 x 9,5 -H	K	100	5,70 ZP
C3,5 x 13 -H	S	1000	2,85 ZP
C3,5 x 13 -H	K	100	5,90 ZP
C3,5 x 16 -H	S	1000	3,00 ZP
C3,5 x 16 -H	K	100	6,00 ZP
C3,5 x 19 -H	S	1000	3,75 ZP
C3,5 x 19 -H	K	100	6,80 ZP
C3,5 x 22 -H	S	1000	5,30 ZP
C3,5 x 22 -H	K	100	8,30 ZP
C3,5 x 25 -H	S	500	5,50 ZP
C3,5 x 25 -H	K	100	8,60 ZP
C3,5 x 32 -H	S	500	6,00 ZP
C3,5 x 32 -H	K	100	9,00 ZP
C3,5 x 38 -H	S	500	6,70 ZP
C3,5 x 38 -H	K	100	9,60 ZP
C3,5 x 45 -H	S	500	10,90 ZP
C3,5 x 50 -H	S	500	13,20 ZP
C3,9 x 6,5 -H	S	2000	6,50 ZP
C3,9 x 9,5 -H	S	1000	3,25 ZP
C3,9 x 9,5 -H	K	100	6,20 ZP
C3,9 x 13 -H	S	1000	3,30 ZP
C3,9 x 13 -H	K	100	6,30 ZP
C3,9 x 16 -H	S	1000	3,60 ZP
C3,9 x 16 -H	K	100	6,70 ZP
C3,9 x 19 -H	S	1000	4,10 ZP
C3,9 x 19 -H	K	100	7,10 ZP
C3,9 x 22 -H	S	500	5,40 ZP
C3,9 x 22 -H	K	100	8,40 ZP
C3,9 x 25 -H	S	500	6,00 ZP
C3,9 x 25 -H	K	100	9,00 ZP
C3,9 x 32 -H	S	500	6,20 ZP
C3,9 x 32 -H	K	100	9,10 ZP
C3,9 x 38 -H	S	500	8,80 ZP
C3,9 x 38 -H	K	100	11,70 ZP
C3,9 x 45 -H	S	1000	9,00 ZP
C4,2 x 9,5 -H	S	1000	3,40 ZP
C4,2 x 9,5 -H	K	100	6,50 ZP
C4,2 x 13 -H	S	1000	3,45 ZP
C4,2 x 13 -H	K	100	6,50 ZP
C4,2 x 16 -H	S	1000	3,90 ZP
C4,2 x 16 -H	K	100	6,90 ZP
C4,2 x 19 -H	S	500	4,15 ZP
C4,2 x 19 -H	K	100	7,20 ZP
C4,2 x 22 -H	S	500	5,70 ZP
C4,2 x 22 -H	K	100	8,80 ZP
C4,2 x 25 -H	S	500	6,30 ZP
C4,2 x 25 -H	K	100	9,40 ZP
C4,2 x 32 -H	S	500	6,30 ZP
C4,2 x 32 -H	K	100	9,40 ZP
C4,2 x 38 -H	S	500	9,10 ZP
C4,2 x 38 -H	K	100	12,10 ZP
C4,2 x 45 -H	S	500	10,60 ZP
C4,2 x 45 -H	K	100	13,50 ZP
C4,2 x 50 -H	S	500	11,90 ZP
C4,2 x 50 -H	K	100	14,90 ZP
C4,2 x 60 -H	S	250	20,30 ZP
C4,2 x 70 -H	S	250	24,00 ZP
C4,2 x 80 -H	S	250	26,50 ZP
C4,8 x 9,5 -H	S	500	4,80 ZP
C4,8 x 9,5 -H	K	100	7,80 ZP
C4,8 x 13 -H	S	500	4,85 ZP
C4,8 x 13 -H	K	100	7,90 ZP
C4,8 x 16 -H	S	500	5,10 ZP
C4,8 x 16 -H	K	100	8,20 ZP
C4,8 x 19 -H	S	500	5,80 ZP
C4,8 x 19 -H	K	100	8,80 ZP
C4,8 x 22 -H	S	500	6,20 ZP
C4,8 x 22 -H	K	100	9,20 ZP
C4,8 x 25 -H	S	500	7,30 ZP
C4,8 x 25 -H	K	100	10,30 ZP
C4,8 x 32 -H	S	250	8,40 ZP
C4,8 x 32 -H	K	100	11,40 ZP
C4,8 x 38 -H	S	250	9,70 ZP
C4,8 x 38 -H	K	100	12,60 ZP
C4,8 x 45 -H	S	250	13,10 ZP
C4,8 x 45 -H	K	100	16,10 ZP
C4,8 x 50 -H	S	250	14,60 ZP
C4,8 x 50 -H	K	100	17,60 ZP
C4,8 x 60 -H	S	250	23,30 ZP
C4,8 x 70 -H	S	250	31,00 ZP
C4,8 x 80 -H	S	250	37,00 ZP
C4,8 x 90 -H	S	250	45,00 ZP
C4,8 x 100 -H	S	250	54,00 ZP
C4,8 x 110 -H	S	250	62,00 ZP
C4,8 x 120 -H	S	250	76,00 ZP
C5,5 x 13 -H	S	500	6,50 ZP
C5,5 x 13 -H	K	100	9,60 ZP
C5,5 x 16 -H	S	500	7,20 ZP
C5,5 x 16 -H	K	100	10,20 ZP
C5,5 x 19 -H	S	500	7,60 ZP
C5,5 x 19 -H	K	100	10,60 ZP
C5,5 x 22 -H	S	500	10,60 ZP
C5,5 x 22 -H	K	100	13,50 ZP
C5,5 x 25 -H	S	250	11,20 ZP
C5,5 x 25 -H	K	100	14,20 ZP
C5,5 x 32 -H	S	250	12,90 ZP
C5,5 x 32 -H	K	100	15,90 ZP
C5,5 x 38 -H	S	250	16,00 ZP
C5,5 x 38 -H	K	100	18,90 ZP
C5,5 x 45 -H	S	250	18,00 ZP
C5,5 x 45 -H	K	100	21,00 ZP
C5,5 x 50 -H	S	250	21,10 ZP
C5,5 x 50 -H	K	100	24,00 ZP
C5,5 x 60 -H	S	250	40,00 ZP
C5,5 x 70 -H	S	250	49,50 ZP
C5,5 x 80 -H	S	250	59,00 ZP
C6,3 x 13 -H	S	250	9,50 ZP
C6,3 x 13 -H	K	100	12,40 ZP
C6,3 x 16 -H	S	250	9,70 ZP
C6,3 x 16 -H	K	100	12,60 ZP
C6,3 x 19 -H	S	250	9,90 ZP
C6,3 x 19 -H	K	100	12,90 ZP
C6,3 x 22 -H	S	250	11,80 ZP
C6,3 x 22 -H	K	100	14,80 ZP
C6,3 x 25 -H	S	250	14,30 ZP
C6,3 x 25 -H	K	100	17,40 ZP
C6,3 x 32 -H	S	250	15,70 ZP
C6,3 x 32 -H	K	100	18,70 ZP
C6,3 x 38 -H	S	250	19,50 ZP
C6,3 x 38 -H	K	100	22,60 ZP
C6,3 x 45 -H	S	250	24,00 ZP
C6,3 x 45 -H	K	100	27,00 ZP
C6,3 x 50 -H	S	250	26,00 ZP
C6,3 x 50 -H	K	100	28,50 ZP
C6,3 x 60 -H	S	250	45,50 ZP
C6,3 x 70 -H	S	250	65,00 ZP
C6,3 x 80 -H	S	250	83,00 ZP
C6,3 x 90 -H	S	250	101,00 ZP
C6,3 x 100 -H	S	250	119,00 ZP

ISO	07049.014	690

7049 Steel, hard. zinc plated type F



Pan head tapping screws with Phillips cross recess H, F = with flat end

Dimensions ➔ TI-46
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
Stainless ➔ pg. 566

ISO 7049 ➔ replaces DIN 7981 (compatible)

RoHS ✓ REACh SVHC free

F 2,2 x 4,5 -H	S	2000	7,30 ZP
F 2,2 x 6,5 -H	S	2000	7,30 ZP
F 2,2 x 9,5 -H	S	2000	7,30 ZP
F 2,2 x 13 -H	S	2000	10,30 ZP
F 2,2 x 16 -H	S	2000	12,60 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
F 2,9 x 4,5 -H	S	2000	7,30 ZP
F 2,9 x 6,5 -H	S	2000	2,80 ZP
F 2,9 x 6,5 -H	K	100	5,60 ZP
F 2,9 x 9,5 -H	S	2000	2,60 ZP
F 2,9 x 9,5 -H	K	100	5,40 ZP
F 2,9 x 13 -H	S	2000	2,75 ZP
F 2,9 x 13 -H	K	100	5,50 ZP
F 2,9 x 16 -H	S	2000	2,90 ZP
F 2,9 x 16 -H	K	100	5,60 ZP
F 2,9 x 19 -H	S	2000	4,25 ZP
F 2,9 x 22 -H	S	2000	5,90 ZP
F 3,5 x 6,5 -H	S	1000	2,90 ZP
F 3,5 x 9,5 -H	S	2000	3,00 ZP
F 3,5 x 9,5 -H	K	100	5,70 ZP
F 3,5 x 13 -H	S	1000	3,10 ZP
F 3,5 x 13 -H	K	100	5,90 ZP
F 3,5 x 16 -H	S	1000	3,15 ZP
F 3,5 x 16 -H	K	100	6,00 ZP
F 3,5 x 19 -H	S	1000	3,40 ZP
F 3,5 x 22 -H	S	1000	4,25 ZP
F 3,5 x 25 -H	S	1000	6,00 ZP
F 3,9 x 6,5 -H	S	1000	4,25 ZP
F 3,9 x 9,5 -H	S	1000	3,60 ZP
F 3,9 x 9,5 -H	K	100	6,20 ZP
F 3,9 x 13 -H	S	1000	3,65 ZP
F 3,9 x 13 -H	K	100	6,30 ZP
F 3,9 x 16 -H	S	1000	3,95 ZP
F 3,9 x 16 -H	K	100	6,70 ZP
F 3,9 x 19 -H	S	1000	4,85 ZP
F 3,9 x 22 -H	S	1000	5,70 ZP
F 3,9 x 25 -H	S	1000	6,30 ZP
F 4,2 x 6,5 -H	S	1000	4,95 ZP
F 4,2 x 9,5 -H	S	1000	4,55 ZP
F 4,2 x 13 -H	S	1000	3,90 ZP
F 4,2 x 13 -H	K	100	6,50 ZP
F 4,2 x 16 -H	S	1000	3,75 ZP
F 4,2 x 19 -H	S	1000	6,10 ZP
F 4,2 x 22 -H	S	1000	6,10 ZP
F 4,2 x 25 -H	S	1000	7,30 ZP
F 4,2 x 32 -H	S	1000	7,30 ZP
F 4,8 x 6,5 -H	S	1000	6,10 ZP
F 4,8 x 9,5 -H	S	500	4,80 ZP
F 4,8 x 9,5 -H	K	100	7,80 ZP
F 4,8 x 13 -H	S	500	5,20 ZP
F 4,8 x 13 -H	K	100	7,90 ZP
F 4,8 x 16 -H	S	500	5,40 ZP
F 4,8 x 16 -H	K	100	8,20 ZP
F 4,8 x 19 -H	S	500	9,60 ZP
F 4,8 x 22 -H	S	500	11,10 ZP
F 4,8 x 25 -H	S	500	11,50 ZP
F 4,8 x 32 -H	S	500	14,90 ZP
F 4,8 x 38 -H	S	500	18,20 ZP
F 5,5 x 13 -H	S	500	6,00 ZP
F 5,5 x 16 -H	S	500	6,70 ZP
F 5,5 x 19 -H	S	500	10,30 ZP
F 5,5 x 22 -H	S	500	12,10 ZP
F 5,5 x 25 -H	S	250	15,20 ZP
F 5,5 x 32 -H	S	250	18,20 ZP
F 5,5 x 38 -H	S	250	23,00 ZP
F 6,3 x 13 -H	S	250	9,10 ZP
F 6,3 x 16 -H	S	250	13,40 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07049.303		690

7049 **Steel, hard. zinc plated** **type C-Z**



Pan head screws, with Pozidriv cross recess Z, C = with cone point

Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-6

ISO 7049 ➔ replaces DIN 7981 (compatible)

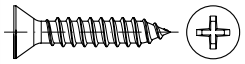
RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
2,2 x 4,5 -C-Z	S	2000	6,30 ZP
2,2 x 6,5 -C-Z	S	2000	4,55 ZP
2,2 x 6,5 -C-Z	K	100	7,00 ZP
2,2 x 9,5 -C-Z	S	2000	4,25 ZP
2,2 x 13 -C-Z	S	2000	4,55 ZP
2,2 x 16 -C-Z	S	2000	5,50 ZP
2,2 x 19 -C-Z	S	2000	7,20 ZP
2,2 x 22 -C-Z	S	2000	8,90 ZP
2,9 x 6,5 -C-Z	S	2000	2,60 ZP
2,9 x 6,5 -C-Z	K	100	5,60 ZP
2,9 x 9,5 -C-Z	S	2000	2,30 ZP
2,9 x 9,5 -C-Z	K	100	5,40 ZP
2,9 x 13 -C-Z	S	2000	2,45 ZP
2,9 x 13 -C-Z	K	100	5,50 ZP
2,9 x 16 -C-Z	S	2000	2,60 ZP
2,9 x 16 -C-Z	K	100	5,60 ZP
2,9 x 19 -C-Z	S	2000	3,70 ZP
2,9 x 19 -C-Z	K	100	6,70 ZP
2,9 x 22 -C-Z	S	1000	4,60 ZP
2,9 x 22 -C-Z	K	100	7,70 ZP
2,9 x 25 -C-Z	S	1000	4,95 ZP
2,9 x 25 -C-Z	K	100	7,90 ZP
2,9 x 32 -C-Z	S	1000	5,90 ZP
3,5 x 6,5 -C-Z	S	1000	3,60 ZP
3,5 x 6,5 -C-Z	K	100	6,60 ZP
3,5 x 9,5 -C-Z	S	1000	2,75 ZP
3,5 x 9,5 -C-Z	K	100	5,70 ZP
3,5 x 13 -C-Z	S	1000	2,85 ZP
3,5 x 13 -C-Z	K	100	5,90 ZP
3,5 x 16 -C-Z	S	1000	3,00 ZP
3,5 x 16 -C-Z	K	100	6,00 ZP
3,5 x 19 -C-Z	S	1000	3,75 ZP
3,5 x 19 -C-Z	K	100	6,80 ZP
3,5 x 22 -C-Z	S	1000	5,30 ZP
3,5 x 22 -C-Z	K	100	8,30 ZP
3,5 x 25 -C-Z	S	500	5,50 ZP
3,5 x 25 -C-Z	K	100	8,60 ZP
3,5 x 32 -C-Z	S	500	6,20 ZP
3,5 x 32 -C-Z	K	100	9,00 ZP
3,5 x 38 -C-Z	S	500	6,70 ZP
3,5 x 38 -C-Z	K	100	9,60 ZP
3,5 x 45 -C-Z	S	500	10,90 ZP
3,5 x 50 -C-Z	S	500	13,20 ZP
3,9 x 6,5 -C-Z	S	2000	6,50 ZP
3,9 x 9,5 -C-Z	S	1000	3,25 ZP
3,9 x 9,5 -C-Z	K	100	6,20 ZP
3,9 x 13 -C-Z	S	1000	3,30 ZP
3,9 x 13 -C-Z	K	100	6,30 ZP
3,9 x 16 -C-Z	S	1000	3,60 ZP
3,9 x 16 -C-Z	K	100	6,70 ZP
3,9 x 19 -C-Z	S	1000	4,10 ZP
3,9 x 19 -C-Z	K	100	7,10 ZP
3,9 x 22 -C-Z	S	500	5,40 ZP

Dimensions	PU	Pieces	€/100/Mat.
3,9 x 22 -C-Z	K	100	8,40 ZP
3,9 x 25 -C-Z	S	500	6,00 ZP
3,9 x 25 -C-Z	K	100	9,00 ZP
3,9 x 32 -C-Z	S	500	6,40 ZP
3,9 x 32 -C-Z	K	100	9,10 ZP
3,9 x 38 -C-Z	S	500	8,80 ZP
3,9 x 38 -C-Z	K	100	11,70 ZP
3,9 x 45 -C-Z	S	500	9,00 ZP
4,2 x 9,5 -C-Z	S	1000	3,40 ZP
4,2 x 9,5 -C-Z	K	100	6,50 ZP
4,2 x 13 -C-Z	S	1000	3,45 ZP
4,2 x 13 -C-Z	K	100	6,50 ZP
4,2 x 16 -C-Z	S	1000	3,90 ZP
4,2 x 16 -C-Z	K	100	6,90 ZP
4,2 x 19 -C-Z	S	500	4,15 ZP
4,2 x 19 -C-Z	K	100	7,20 ZP
4,2 x 22 -C-Z	S	500	5,70 ZP
4,2 x 22 -C-Z	K	100	8,80 ZP
4,2 x 25 -C-Z	S	500	6,30 ZP
4,2 x 25 -C-Z	K	100	9,40 ZP
4,2 x 32 -C-Z	S	500	6,30 ZP
4,2 x 32 -C-Z	K	100	9,40 ZP
4,2 x 38 -C-Z	S	500	9,10 ZP
4,2 x 38 -C-Z	K	100	12,10 ZP
4,2 x 45 -C-Z	S	500	10,60 ZP
4,2 x 45 -C-Z	K	100	13,50 ZP
4,2 x 50 -C-Z	S	500	11,90 ZP
4,2 x 50 -C-Z	K	100	14,90 ZP
4,2 x 60 -C-Z	S	250	20,30 ZP
4,2 x 70 -C-Z	S	250	24,00 ZP
4,2 x 80 -C-Z	S	250	26,50 ZP
4,8 x 9,5 -C-Z	S	500	4,80 ZP
4,8 x 9,5 -C-Z	K	100	7,80 ZP
4,8 x 13 -C-Z	S	500	4,85 ZP
4,8 x 13 -C-Z	K	100	7,90 ZP
4,8 x 16 -C-Z	S	500	5,10 ZP
4,8 x 16 -C-Z	K	100	8,20 ZP
4,8 x 19 -C-Z	S	500	5,80 ZP
4,8 x 19 -C-Z	K	100	8,80 ZP
4,8 x 22 -C-Z	S	500	6,20 ZP
4,8 x 22 -C-Z	K	100	9,20 ZP
4,8 x 25 -C-Z	S	500	7,30 ZP
4,8 x 25 -C-Z	K	100	10,30 ZP
4,8 x 32 -C-Z	S	250	8,40 ZP
4,8 x 32 -C-Z	K	100	11,40 ZP
4,8 x 38 -C-Z	S	250	9,70 ZP
4,8 x 38 -C-Z	K	100	12,60 ZP
4,8 x 45 -C-Z	S	250	13,10 ZP
4,8 x 45 -C-Z	K	100	16,10 ZP
4,8 x 50 -C-Z	S	250	14,60 ZP
4,8 x 50 -C-Z	K	100	17,60 ZP
4,8 x 60 -C-Z	S	250	23,30 ZP
4,8 x 70 -C-Z	S	250	31,00 ZP
4,8 x 80 -C-Z	S	250	37,00 ZP
4,8 x 90 -C-Z	S	250	45,00 ZP
4,8 x 100 -C-Z	S	250	54,00 ZP
4,8 x 110 -C-Z	S	250	62,00 ZP
4,8 x 120 -C-Z	S	250	76,00 ZP
5,5 x 13 -C-Z	S	500	6,50 ZP
5,5 x 13 -C-Z	K	100	9,60 ZP
5,5 x 16 -C-Z	S	500	7,20 ZP
5,5 x 16 -C-Z	K	100	10,20 ZP
5,5 x 19 -C-Z	S	500	7,20 ZP
5,5 x 19 -C-Z	K	100	10,60 ZP
5,5 x 22 -C-Z	S	500	10,60 ZP
5,5 x 22 -C-Z	K	100	13,50 ZP
5,5 x 25 -C-Z	S	250	11,20 ZP
5,5 x 25 -C-Z	K	100	14,20 ZP
5,5 x 32 -C-Z	S	250	12,90 ZP
5,5 x 32 -C-Z	K	100	15,90 ZP
5,5 x 38 -C-Z	S	250	12,90 ZP
5,5 x 38 -C-Z	K	100	18,90 ZP
5,5 x 45 -C-Z	S	250	18,00 ZP
5,5 x 45 -C-Z	K	100	21,00 ZP
5,5 x 50 -C-Z	S	250	21,10 ZP

Dimensions				PU	Pieces	€/100/Mat.
5,5	x	50	-C-Z	K	100	24,00 ZP
5,5	x	60	-C-Z	S	250	40,00 ZP
5,5	x	70	-C-Z	S	250	49,50 ZP
5,5	x	80	-C-Z	S	250	59,00 ZP
6,3	x	13	-C-Z	S	250	9,50 ZP
6,3	x	13	-C-Z	K	100	12,40 ZP
6,3	x	16	-C-Z	S	250	9,70 ZP
6,3	x	16	-C-Z	K	100	12,60 ZP
6,3	x	19	-C-Z	S	250	9,90 ZP
6,3	x	19	-C-Z	K	100	12,90 ZP
6,3	x	22	-C-Z	S	250	11,80 ZP
6,3	x	22	-C-Z	K	100	14,80 ZP
6,3	x	25	-C-Z	S	250	14,30 ZP
6,3	x	25	-C-Z	K	100	17,40 ZP
6,3	x	32	-C-Z	S	250	15,70 ZP
6,3	x	32	-C-Z	K	100	18,70 ZP
6,3	x	38	-C-Z	S	250	19,50 ZP
6,3	x	38	-C-Z	K	100	22,60 ZP
6,3	x	45	-C-Z	S	250	24,00 ZP
6,3	x	45	-C-Z	K	100	27,00 ZP
6,3	x	50	-C-Z	S	250	26,00 ZP
6,3	x	50	-C-Z	K	100	28,50 ZP
6,3	x	60	-C-Z	S	250	45,50 ZP
6,3	x	70	-C-Z	S	250	65,00 ZP
6,3	x	80	-C-Z	S	250	83,00 ZP
6,3	x	90	-C-Z	S	250	101,00 ZP
6,3	x	100	-C-Z	S	250	119,00 ZP

ISO	07050.014	690
7050	**Steel, hard. zinc plated**	**type C-H**



Countersunk head tapping screws with Phillips cross recess H, C = with cone end

nominal length from 60 mm with partial thread
countersunk ⊀ = 90°

Dimensions ➔ TI-47
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
Stainless ➔ pg. 567

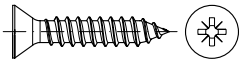
ISO 7050 ➔ replaces DIN 7982

RoHS ✓ | REACh SVHC free

2,2	x	6,5	-C-H	S	2000	5,60 ZP
2,2	x	9,5	-C-H	S	2000	5,30 ZP
2,2	x	13	-C-H	S	2000	5,30 ZP
2,2	x	16	-C-H	S	2000	7,90 ZP
2,9	x	6,5	-C-H	S	2000	5,70 ZP
2,9	x	9,5	-C-H	S	2000	2,30 ZP
2,9	x	13	-C-H	S	2000	2,45 ZP
2,9	x	16	-C-H	S	2000	2,60 ZP
2,9	x	19	-C-H	S	2000	3,70 ZP
2,9	x	22	-C-H	S	2000	4,30 ZP
2,9	x	25	-C-H	S	1000	5,30 ZP
2,9	x	32	-C-H	S	1000	6,00 ZP
3,5	x	6,5	-C-H	S	1000	3,65 ZP
3,5	x	9,5	-C-H	S	1000	2,75 ZP
3,5	x	13	-C-H	S	1000	2,85 ZP
3,5	x	16	-C-H	S	1000	3,00 ZP
3,5	x	19	-C-H	S	1000	3,90 ZP
3,5	x	22	-C-H	S	1000	4,70 ZP
3,5	x	25	-C-H	S	500	5,70 ZP
3,5	x	32	-C-H	S	500	7,20 ZP
3,5	x	38	-C-H	S	500	7,90 ZP

Dimensions				PU	Pieces	€/100/Mat.
4,2	x	9,5	-C-H	S	1000	3,40 ZP
4,2	x	13	-C-H	S	1000	3,45 ZP
4,2	x	16	-C-H	S	1000	3,85 ZP
4,2	x	19	-C-H	S	500	4,40 ZP
4,2	x	22	-C-H	S	500	5,00 ZP
4,2	x	25	-C-H	S	500	6,20 ZP
4,2	x	32	-C-H	S	500	7,80 ZP
4,2	x	38	-C-H	S	500	9,40 ZP
4,2	x	45	-C-H	S	500	10,50 ZP
4,2	x	50	-C-H	S	500	19,20 ZP
4,2	x	60	-C-H	S	250	22,00 ZP
4,2	x	70	-C-H	S	250	26,00 ZP
4,2	x	80	-C-H	S	250	28,50 ZP
4,8	x	9,5	-C-H	S	500	7,80 ZP
4,8	x	13	-C-H	S	500	4,85 ZP
4,8	x	16	-C-H	S	500	5,10 ZP
4,8	x	19	-C-H	S	500	4,70 ZP
4,8	x	22	-C-H	S	500	6,20 ZP
4,8	x	25	-C-H	S	500	7,30 ZP
4,8	x	32	-C-H	S	250	8,40 ZP
4,8	x	38	-C-H	S	250	9,70 ZP
4,8	x	45	-C-H	S	250	10,70 ZP
4,8	x	50	-C-H	S	250	20,30 ZP
4,8	x	60	-C-H	S	250	24,00 ZP
4,8	x	70	-C-H	S	250	29,50 ZP
4,8	x	80	-C-H	S	250	37,00 ZP
4,8	x	90	-C-H	S	250	44,00 ZP
4,8	x	100	-C-H	S	250	58,00 ZP
4,8	x	110	-C-H	S	100	73,00 ZP
4,8	x	120	-C-H	S	100	91,00 ZP
5,5	x	13	-C-H	S	500	8,00 ZP
5,5	x	16	-C-H	S	500	7,20 ZP
5,5	x	19	-C-H	S	500	7,60 ZP
5,5	x	22	-C-H	S	500	10,50 ZP
5,5	x	25	-C-H	S	250	11,20 ZP
5,5	x	32	-C-H	S	250	11,30 ZP
5,5	x	38	-C-H	S	250	14,70 ZP
5,5	x	45	-C-H	S	250	18,00 ZP
5,5	x	50	-C-H	S	250	21,80 ZP
5,5	x	60	-C-H	S	250	30,50 ZP
6,3	x	16	-C-H	S	250	11,70 ZP
6,3	x	19	-C-H	S	250	13,20 ZP
6,3	x	22	-C-H	S	250	14,70 ZP
6,3	x	25	-C-H	S	250	15,70 ZP
6,3	x	32	-C-H	S	250	17,20 ZP
6,3	x	38	-C-H	S	250	20,90 ZP
6,3	x	45	-C-H	S	250	24,00 ZP
6,3	x	50	-C-H	S	250	27,50 ZP
6,3	x	60	-C-H	S	250	49,50 ZP
6,3	x	70	-C-H	S	250	65,00 ZP
6,3	x	80	-C-H	S	250	79,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07050.016		690
7050	**Steel, hard. zinc plated**		**type C-Z**



Countersunk head tapping screws with Pozidriv cross recess Z, C = with cone point,

countersunk ⊀ = 90°

Dimensions ➔ TI-47
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11

ISO 7050 ➔ replaces DIN 7982

RoHS ✓ | REACh SVHC free

2,2	x	6,5	-C-Z	S	2000	8,40 ZP
2,2	x	9,5	-C-Z	S	2000	7,90 ZP
2,2	x	13	-C-Z	S	2000	8,00 ZP
2,2	x	16	-C-Z	S	2000	11,80 ZP
2,9	x	6,5	-C-Z	S	2000	8,60 ZP
2,9	x	9,5	-C-Z	S	2000	3,45 ZP
2,9	x	13	-C-Z	S	2000	3,65 ZP
2,9	x	16	-C-Z	S	2000	3,95 ZP
2,9	x	19	-C-Z	S	2000	5,60 ZP
2,9	x	22	-C-Z	S	2000	6,50 ZP
2,9	x	25	-C-Z	S	1000	8,00 ZP
2,9	x	32	-C-Z	S	1000	9,00 ZP
3,5	x	6,5	-C-Z	S	1000	5,50 ZP
3,5	x	9,5	-C-Z	S	1000	4,10 ZP
3,5	x	13	-C-Z	S	1000	4,30 ZP
3,5	x	16	-C-Z	S	1000	4,50 ZP
3,5	x	19	-C-Z	S	1000	5,90 ZP
3,5	x	22	-C-Z	S	1000	7,00 ZP
3,5	x	25	-C-Z	S	500	8,60 ZP
3,5	x	32	-C-Z	S	500	10,80 ZP
3,5	x	38	-C-Z	S	500	11,80 ZP
3,9	x	9,5	-C-Z	S	1000	4,85 ZP
3,9	x	13	-C-Z	S	1000	4,95 ZP
3,9	x	16	-C-Z	S	1000	5,40 ZP
3,9	x	19	-C-Z	S	1000	6,30 ZP
3,9	x	22	-C-Z	S	500	7,20 ZP
3,9	x	25	-C-Z	S	500	8,90 ZP
3,9	x	32	-C-Z	S	500	11,30 ZP
3,9	x	38	-C-Z	S	500	13,10 ZP
3,9	x	45	-C-Z	S	500	14,00 ZP
3,9	x	50	-C-Z	S	500	26,50 ZP
3,9	x	60	-C-Z	S	250	29,50 ZP
4,2	x	9,5	-C-Z	S	1000	5,10 ZP
4,2	x	13	-C-Z	S	1000	5,20 ZP
4,2	x	16	-C-Z	S	1000	5,80 ZP
4,2	x	19	-C-Z	S	500	6,60 ZP
4,2	x	22	-C-Z	S	500	7,50 ZP
4,2	x	25	-C-Z	S	500	9,30 ZP
4,2	x	32	-C-Z	S	500	11,70 ZP
4,2	x	38	-C-Z	S	500	14,00 ZP
4,2	x	45	-C-Z	S	500	15,70 ZP
4,2	x	50	-C-Z	S	500	29,00 ZP
4,2	x	60	-C-Z	S	250	33,00 ZP
4,2	x	70	-C-Z	S	250	38,50 ZP
4,2	x	80	-C-Z	S	250	43,00 ZP
4,8	x	9,5	-C-Z	S	500	11,70 ZP
4,8	x	13	-C-Z	S	500	7,30 ZP
4,8	x	16	-C-Z	S	500	7,70 ZP
4,8	x	19	-C-Z	S	500	7,00 ZP
4,8	x	22	-C-Z	S	500	9,30 ZP
4,8	x	25	-C-Z	S	500	10,90 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions				PU	Pieces	€/100/Mat.
4,8	x	32	-C-Z	S	250	12,60 ZP
4,8	x	38	-C-Z	S	250	14,60 ZP
4,8	x	45	-C-Z	S	250	16,00 ZP
4,8	x	50	-C-Z	S	250	30,50 ZP
4,8	x	60	-C-Z	S	250	36,00 ZP
4,8	x	70	-C-Z	S	250	44,00 ZP
4,8	x	80	-C-Z	S	250	56,00 ZP
4,8	x	90	-C-Z	S	250	66,00 ZP
4,8	x	100	-C-Z	S	250	87,00 ZP
4,8	x	110	-C-Z	S	100	109,00 ZP
4,8	x	120	-C-Z	S	100	137,00 ZP
5,5	x	13	-C-Z	S	500	12,00 ZP
5,5	x	16	-C-Z	S	500	10,80 ZP
5,5	x	19	-C-Z	S	500	11,30 ZP
5,5	x	22	-C-Z	S	500	15,70 ZP
5,5	x	25	-C-Z	S	250	16,70 ZP
5,5	x	32	-C-Z	S	250	16,90 ZP
5,5	x	38	-C-Z	S	250	22,00 ZP
5,5	x	45	-C-Z	S	250	27,00 ZP
5,5	x	50	-C-Z	S	250	33,00 ZP
5,5	x	60	-C-Z	S	250	45,50 ZP
6,3	x	16	-C-Z	S	250	17,50 ZP
6,3	x	19	-C-Z	S	250	19,80 ZP
6,3	x	22	-C-Z	S	250	22,00 ZP
6,3	x	25	-C-Z	S	250	23,50 ZP
6,3	x	32	-C-Z	S	250	26,00 ZP
6,3	x	38	-C-Z	S	250	31,50 ZP
6,3	x	45	-C-Z	S	250	36,00 ZP
6,3	x	50	-C-Z	S	250	41,50 ZP
6,3	x	60	-C-Z	S	250	74,00 ZP
6,3	x	70	-C-Z	S	250	97,00 ZP
6,3	x	80	-C-Z	S	250	118,00 ZP

ISO	07051.014	690

7051

Steel, hard. zinc plated type C-H



Raised csk head tapping screws with Phillips cross recess H, C = with cone end

countersunk ⊀ = 90°

Dimensions ➔ TI-47 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-11

Stainless ➔ pg. 567

ISO 7051 ➔ replaces DIN 7983

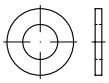
RoHS ✓ REACh SVHC free

Dimensions				PU	Pieces	€/100/Mat.
2,9	x	6,5	-C-H	S	2000	5,60 ZP
2,9	x	9,5	-C-H	S	2000	2,30 ZP
2,9	x	13	-C-H	S	2000	2,45 ZP
2,9	x	16	-C-H	S	2000	2,80 ZP
2,9	x	19	-C-H	S	2000	3,70 ZP
2,9	x	22	-C-H	S	2000	4,60 ZP
2,9	x	25	-C-H	S	1000	4,85 ZP
3,5	x	9,5	-C-H	S	1000	3,35 ZP
3,5	x	13	-C-H	S	1000	3,90 ZP
3,5	x	16	-C-H	S	1000	3,00 ZP
3,5	x	19	-C-H	S	1000	3,95 ZP
3,5	x	22	-C-H	S	1000	4,70 ZP
3,5	x	25	-C-H	S	500	5,30 ZP
3,5	x	32	-C-H	S	500	6,70 ZP
3,5	x	38	-C-H	S	500	7,30 ZP
4,2	x	9,5	-C-H	S	1000	2,85 ZP
4,2	x	13	-C-H	S	1000	3,45 ZP
4,2	x	16	-C-H	S	1000	3,85 ZP
4,2	x	19	-C-H	S	500	4,45 ZP
4,2	x	22	-C-H	S	500	6,20 ZP
4,2	x	25	-C-H	S	500	6,30 ZP
4,2	x	32	-C-H	S	500	7,30 ZP
4,2	x	38	-C-H	S	500	7,40 ZP
4,2	x	45	-C-H	S	500	10,50 ZP
4,2	x	50	-C-H	S	500	12,90 ZP
4,8	x	9,5	-C-H	S	500	7,80 ZP
4,8	x	13	-C-H	S	500	4,85 ZP
4,8	x	16	-C-H	S	500	5,10 ZP
4,8	x	19	-C-H	S	500	6,20 ZP
4,8	x	22	-C-H	S	500	7,10 ZP
4,8	x	25	-C-H	S	500	8,40 ZP
4,8	x	32	-C-H	S	250	9,00 ZP
4,8	x	38	-C-H	S	250	9,70 ZP
4,8	x	45	-C-H	S	250	10,70 ZP
4,8	x	50	-C-H	S	250	13,60 ZP
5,5	x	13	-C-H	S	500	8,80 ZP
5,5	x	16	-C-H	S	500	9,50 ZP
5,5	x	19	-C-H	S	500	10,20 ZP
5,5	x	22	-C-H	S	500	11,30 ZP
5,5	x	25	-C-H	S	250	12,10 ZP
5,5	x	32	-C-H	S	250	14,00 ZP
5,5	x	38	-C-H	S	250	14,70 ZP
5,5	x	45	-C-H	S	250	18,00 ZP
5,5	x	50	-C-H	S	250	20,70 ZP
6,3	x	16	-C-H	S	250	11,80 ZP
6,3	x	19	-C-H	S	250	12,30 ZP
6,3	x	22	-C-H	S	250	14,20 ZP
6,3	x	25	-C-H	S	250	14,30 ZP
6,3	x	32	-C-H	S	250	17,20 ZP
6,3	x	38	-C-H	S	250	18,00 ZP
6,3	x	45	-C-H	S	250	19,30 ZP
6,3	x	50	-C-H	S	250	25,50 ZP

ISO	07089.000	3380

7089

Steel 200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

RoHS ✓ REACh SVHC free

for screws M

	PU	Pieces	
1,6	S	100	33,50
2	S	5000	1,40
2,5	S	5000	1,50
3	S	5000	0,45
4	S	1000	1,35
5	S	1000	1,65
5	K	100	3,75
6	S	1000	2,75
6	K	100	5,20
8	S	1000	3,85
8	K	100	5,90
10	S	500	6,30
10	K	100	8,70
12	S	500	22,40
12	K	100	14,20
14	S	250	13,10
16	S	250	41,00
16	K	100	20,10
18	S	250	25,50
18	K	100	30,50
20	S	200	27,50
20	K	100	32,50
22	S	200	54,00
24	S	200	117,00
24	K	100	69,00
27	S	100	96,00
30	S	100	120,00
33	S	50	114,00
36	S	50	232,00

ISO	07089.010	3380

7089

Steel 200 HV zinc plated



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

RoHS ✓ REACh SVHC free

for screws M

	PU	Pieces	
2	S	5000	1,20 ZP
2,5	S	5000	1,55 ZP
3	S	1000	1,60 ZP
3	K	200	3,45 ZP
4	S	1000	1,95 ZP
4	K	200	4,25 ZP
5	S	1000	1,95 ZP
5	K	100	4,55 ZP
6	S	1000	3,45 ZP
6	K	100	6,80 ZP
8	S	1000	4,85 ZP
8	K	100	8,30 ZP
10	S	500	8,40 ZP
10	K	100	12,10 ZP
12	S	500	14,90 ZP
12	K	100	21,80 ZP
14	S	250	19,70 ZP
14	K	100	24,20 ZP
16	S	250	22,30 ZP
16	K	100	31,50 ZP
18	S	250	29,50 ZP
18	K	100	39,00 ZP
20	S	200	36,50 ZP
20	K	100	48,50 ZP
22	S	200	65,00 ZP
22	K	100	77,00 ZP
24	S	200	72,00 ZP
24	K	100	84,00 ZP
27	S	100	121,00 ZP
30	S	100	166,00 ZP
33	S	50	121,00 ZP
36	S	50	315,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07089.080		3380

7089 Steel 200 HV
zinc plated 8 TLP*



Plain washers, normal series, product grade A, without chamfer

*< ∅ 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

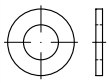
RoHS ✓ REACh SVHC free

for screws M

5	S	1000	2,60 ZP TLP
6	S	1000	4,75 ZP TLP
8	S	1000	6,30 ZP TLP
10	S	500	10,70 ZP TLP
12	S	500	19,20 ZP TLP
16	S	250	28,50 ZP TLP
20	S	200	47,00 ZP TLP
24	S	200	126,00 ZP TLP
30	S	100	212,00 ZP TLP
36	S	50	420,00 ZP TLP

ISO	07089.428	3380

7089 Steel 200 HV
zinc plated 8 TLP* + S**



Plain washers, normal series, product grade A, without chamfer

*< ∅ 6 min. coating thickness 5µm,
**S = sealer,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

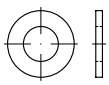
RoHS ✓ REACh SVHC free

for screws M

3	S	1000	1,05 ZP TLP
4	S	1000	1,60 ZP TLP
5	S	1000	2,50 ZP TLP
6	S	1000	4,45 ZP TLP
8	S	1000	6,00 ZP TLP
10	S	500	10,20 ZP TLP
12	S	500	18,30 ZP TLP
14	S	500	26,00 ZP TLP
16	S	250	27,00 ZP TLP
18	S	250	46,50 ZP TLP
20	S	200	44,50 ZP TLP
24	S	200	121,00 ZP TLP
30	S	100	204,00 ZP TLP
36	S	50	400,00 ZP TLP

ISO	07089.020	3380

7089 Steel 200 HV
hot dip galvanized



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

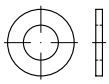
RoHS ✓ REACh SVHC free

for screws M

6	S	1000	6,80 HDG
8	S	1000	9,50 HDG
10	S	500	17,00 HDG
12	S	500	22,40 HDG
14	S	500	36,50 HDG
16	S	250	34,00 HDG
18	S	250	53,00 HDG
20	S	200	54,00 HDG
24	S	200	102,00 HDG
27	S	100	194,00 HDG
30	S	100	194,00 HDG
33	S	50	164,00 HDG

ISO	07089.031	3380

7089 Steel 200 HV
nickel plated



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

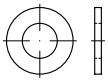
RoHS ✓ REACh SVHC free

for screws M

3	S	1000	3,20 NP
4	S	1000	3,90 NP
5	S	1000	3,90 NP
6	S	1000	6,90 NP
8	S	1000	9,70 NP
10	S	1000	16,80 NP

ISO	07089.005	3380

7089 Steel 200 HV
nitro carburet



Plain washers, normal series, product grade A, without chamfer

surface hardness max. 450 HV

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

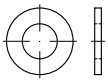
RoHS ✓ REACh SVHC free

for screws M

12	S	500	15,90
16	S	250	29,00
20	S	200	41,50
24	S	200	81,00
27	S	100	164,00
30	S	100	200,00
33	S	50	285,00
36	S	50	345,00
39	S	50	640,00

ISO	07089.012	3380

7089 Steel 200 HV
zp, nitro carburet



Plain washers, normal series, product grade A, without chamfer

surface hardness max. 450 HV

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

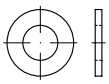
RoHS ✓ REACh SVHC free

for screws M

12	S	500	20,70 ZP
16	S	250	38,00 ZP
20	S	200	54,00 ZP
24	S	200	102,00 ZP
27	S	100	213,00 ZP
30	S	100	260,00 ZP
33	S	50	370,00 ZP
36	S	50	450,00 ZP
39	S	50	830,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07089.004		3381

7089 Steel, QT 300 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

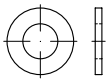
RoHS ✓ REACh SVHC free

for screws M

4	S	200	27,50
5	S	200	56,00
6	S	200	66,00
8	S	200	69,00
10	S	100	244,00
12	S	100	275,00
16	S	100	510,00
20	S	100	530,00
24	S	50	690,00
30	S	50	880,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	07089.015		3381

7089 Steel, QT 300 HV zinc plated



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

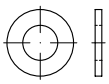
RoHS ✓ REACh SVHC free

for screws M

4	S	200	29,00 ZP
5	S	200	58,00 ZP
6	S	200	67,00 ZP
8	S	200	72,00 ZP
10	S	100	260,00 ZP
12	S	100	285,00 ZP
16	S	100	520,00 ZP
20	S	100	560,00 ZP
24	S	50	740,00 ZP
27	S	50	850,00 ZP
30	S	50	920,00 ZP
36	S	50	1060,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07089.438		3381

7089 Steel, QT 300 HV zinc plated 8 TLP* + S**



Plain washers, normal series, product grade A, without chamfer

*< ∅ 6 min. coating thickness 5µm,
**S = sealer,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

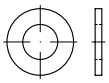
RoHS ✓ REACh SVHC free

for screws M

4	S	200	35,00 ZP TLP
5	S	200	69,00 ZP TLP
6	S	200	80,00 ZP TLP
8	S	200	86,00 ZP TLP
10	S	100	310,00 ZP TLP
12	S	100	340,00 ZP TLP
16	S	100	620,00 ZP TLP
20	S	100	670,00 ZP TLP
24	S	50	890,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07089.013		3381

7089 Steel, QT 300 HV zinc plated



Plain washers, normal series, product grade A, without chamfer

CE-conform only for usage with
REYHER SB-Sets acc. to EN 15048

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

ISO 7089 ➔ replaces DIN 125 type A

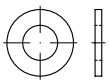
CE RoHS ✓ REACh SVHC free

for screws M Declaration of performance ➔ www.reyher.de

10	S	100	310,00 ZP
12	S	100	340,00 ZP
16	S	100	620,00 ZP
20	S	100	670,00 ZP
24	S	50	890,00 ZP
27	S	50	1010,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07089.024		3380

7089 Steel, QT 300 HV hot dip galvanized



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

Stainless ➔ pg. 568
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

RoHS ✓ REACh SVHC free

for screws M

10	S	500	30,50 HDG
12	S	500	39,00 HDG
16	S	250	83,00 HDG
20	S	200	102,00 HDG
24	S	200	200,00 HDG
27	S	100	340,00 HDG
30	S	50	1090,00 HDG
36	S	50	1280,00 HDG

ISO	07090.000	3380

7090 Steel 200 HV



Plain washers, chamfered, normal series, product grade A

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 569
Brass ➔ pg. 640

ISO 7090 ➔ replaces DIN 125 type B

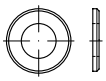
RoHS ✓ REACh SVHC free

for screws M

3	S	1000	3,40
4	S	1000	2,35
5	S	1000	3,35
6	S	1000	3,65
8	S	1000	6,20
10	S	500	11,40
12	S	500	13,20
14	S	250	19,40
16	S	250	19,70
18	S	250	22,40
20	S	200	30,00
22	S	200	35,50
24	S	200	57,00
27	S	50	94,00
30	S	100	120,00
33	S	50	224,00
36	S	50	232,00
39	S	25	260,00
42	S	25	445,00
45	S	25	475,00

Dimensions	PU	Pieces	€/100/Mat.
48	S	10	700,00
52	S	1	1120,00
56	S	1	1520,00
60	S	1	1810,00
64	S	1	1810,00

ISO	07090.010	3380
7090	**Steel 200 HV zinc plated**	



Plain washers, chamfered, normal series, product grade A

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 569
Brass ➔ pg. 640

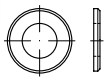
ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

for screws M

3	S	1000	3,40 ZP
3	K	100	5,30 ZP
4	S	1000	2,50 ZP
4	K	100	4,75 ZP
5	S	1000	3,65 ZP
5	K	100	6,30 ZP
6	S	1000	5,20 ZP
6	K	100	8,50 ZP
8	S	1000	7,70 ZP
8	K	100	11,10 ZP
10	S	500	14,30 ZP
10	K	100	18,10 ZP
12	S	500	16,70 ZP
12	K	100	23,60 ZP
14	S	250	23,00 ZP
16	S	250	26,00 ZP
16	K	100	34,50 ZP
18	S	250	33,00 ZP
20	S	200	38,00 ZP
20	K	100	50,00 ZP
22	S	200	40,00 ZP
24	S	200	72,00 ZP
24	K	100	84,00 ZP
27	S	50	128,00 ZP
30	S	100	166,00 ZP
33	S	50	249,00 ZP
36	S	50	315,00 ZP
39	S	25	380,00 ZP
42	S	25	610,00 ZP
45	S	25	670,00 ZP
48	S	10	980,00 ZP
52	S	1	1400,00 ZP
56	S	1	1940,00 ZP
60	S	1	2240,00 ZP
64	S	1	2280,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07090.080		3380
7090	**Steel 200 HV zinc plated 8 TLP***		



Plain washers, chamfered, normal series, product grade A

*< ∅ 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 569
Brass ➔ pg. 640

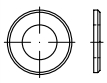
ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

for screws M

5	S	1000	4,55 ZP TLP
6	S	1000	6,90 ZP TLP
8	S	1000	10,90 ZP TLP
10	S	500	19,40 ZP TLP
12	S	500	22,70 ZP TLP
16	S	250	34,50 ZP TLP
20	S	200	51,00 ZP TLP
24	S	200	126,00 ZP TLP
30	S	100	212,00 ZP TLP
36	S	50	420,00 ZP TLP

ISO	07090.428	3380
7090	**Steel 200 HV zinc plated 8 TLP* + S****	



Plain washers, chamfered, normal series, product grade A

*< ∅ 6 min. coating thickness 5µm,
**S = sealer,
salt spray test: 120h WR, 264h RR

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 569
Brass ➔ pg. 640

ISO 7090 ➔ replaces DIN 125 type B

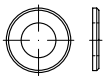
RoHS ✓ REACh SVHC free

for screws M

5	S	1000	11,20 ZP TLP
6	S	1000	6,70 ZP TLP
8	S	1000	10,50 ZP TLP
10	S	500	18,60 ZP TLP
12	S	500	21,70 ZP TLP
16	S	250	33,00 ZP TLP
20	S	200	49,00 ZP TLP
22	S	200	74,00 ZP TLP
24	S	200	121,00 ZP TLP
27	S	100	192,00 ZP TLP
30	S	100	204,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
36	S	50	400,00 ZP TLP
42	S	25	760,00 ZP TLP
48	S	25	760,00 ZP TLP

ISO	07090.353	1590
7090	**Steel 200 HV flZn/TL480h**	



Plain washers, chamfered, normal series, product grade A

friction coefficient 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-230

Stainless ➔ pg. 569
Brass ➔ pg. 640

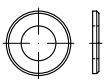
ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

for screws M

6	S	1000	8,20 flZn
8	S	1000	10,00 flZn
10	S	500	18,70 flZn
12	S	500	21,80 flZn
14	S	250	30,00 flZn
16	S	250	39,50 flZn
18	S	250	47,00 flZn
20	S	200	66,00 flZn
22	S	200	67,00 flZn
24	S	200	105,00 flZn

ISO	07090.318	1590
7090	**Steel 300 HV flZnL480h**	



Plain washers, chamfered, normal series, product grade A

flZnL = int. lubricant with µ = 0,12 – 0,18,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-230

Stainless ➔ pg. 569
Brass ➔ pg. 640

ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

for screws M

6	S	1000	8,20 flZn
8	S	1000	10,00 flZn
10	S	500	18,70 flZn
12	S	500	21,80 flZn
14	S	250	30,00 flZn
16	S	250	39,50 flZn
18	S	200	47,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
20	S	200	66,00 flZn
22	S	200	67,00 flZn
24	S	200	105,00 flZn

ISO 07090.020 3380

7090 Steel 200 HV hot dip galvanized



Plain washers, chamfered, normal series, product grade A

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

Stainless ➔ pg. 569
Brass ➔ pg. 640

ISO 7090 ➔ replaces DIN 125 type B

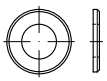
RoHS ✓ | REACh SVHC free

for screws M

6	S	1000	10,90 HDG
8	S	1000	17,00 HDG
10	S	1000	29,50 HDG
12	S	500	39,00 HDG
16	S	250	56,00 HDG
20	S	200	82,00 HDG
22	S	200	69,00 HDG
24	S	200	158,00 HDG
27	S	100	173,00 HDG
30	S	100	360,00 HDG
33	S	50	270,00 HDG
36	S	50	690,00 HDG
39	S	25	475,00 HDG
42	S	25	670,00 HDG
45	S	25	700,00 HDG
48	S	25	1300,00 HDG
52	S	1	1300,00 HDG

ISO 07090.016 3381

7090 Steel, QT 300 HV zinc plated



Plain washers, normal series, product grade A, with chamfer

CE-conform only for usage with
REYHER SB-Sets acc. to EN 15048

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

ISO 7090 ➔ replaces DIN 125 type B

CE | RoHS ✓ | REACh SVHC free

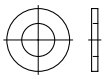
for screws M Declaration of performance ➔ www.reyher.de

10	S	100	310,00 ZP
12	S	100	340,00 ZP
16	S	100	620,00 ZP
20	S	100	670,00 ZP
24	S	50	890,00 ZP
27	S	50	1010,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
8	S	100	280,00 HDG
10	S	100	305,00 HDG
12	S	100	340,00 HDG
16	S	100	620,00 HDG
20	S	100	650,00 HDG
24	S	50	840,00 HDG
27	S	50	930,00 HDG
30	S	50	1090,00 HDG
36	S	50	1090,00 HDG

ISO 07091.000 100

7091 Steel 100 HV



Plain washers, normal series, product grade C

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

ISO 7091 ➔ replaces DIN 126 (compatible)

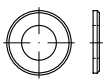
RoHS ✓ | REACh SVHC free

for screws M

5	S	1000	1,55
5	K	100	6,10
6	S	1000	1,75
6	K	100	6,30
8	S	1000	3,30
8	K	100	7,80
10	S	1000	4,85
10	K	100	9,90
12	S	500	6,90
12	K	100	13,80
14	K	100	18,40
16	S	250	10,20
16	K	100	16,70
18	K	100	24,20
20	S	250	16,60
20	K	100	22,90
22	S	100	21,20
24	S	100	26,50
27	S	100	36,00
30	S	100	43,00
33	S	100	66,00
36	S	100	84,00

ISO 07090.026 3381

7090 Steel 300 HV hot dip galvanized



Plain washers, chamfered, normal series, product grade A

CE-conform only for usage with
REYHER SB-Sets acc. to EN 15048

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

ISO 7090 ➔ replaces DIN 125 type B

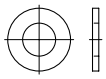
CE | RoHS ✓ | REACh SVHC free

for screws M Declaration of performance ➔ www.reyher.de

Dimensions	PU	Pieces	€/100/Mat.
39	S	50	101,00
42	S	50	158,00
45	S	50	181,00
48	S	25	224,00
52	S	25	475,00
56	S	25	680,00
60	S	10	760,00
64	S	10	820,00
72	S	10	1060,00
80	S	1	1700,00

ISO 07091.010 100

7091 Steel 100 HV zinc plated



Plain washers, normal series, product grade C

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

ISO 7091 ➔ replaces DIN 126 (compatible)

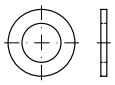
RoHS ✓ | REACh SVHC free

for screws M

5	S	1000	1,70 ZP
5	K	100	6,20 ZP
6	S	1000	2,20 ZP
6	K	100	6,70 ZP
8	S	1000	3,95 ZP
8	K	100	8,40 ZP
10	S	1000	6,20 ZP
10	K	100	11,10 ZP
12	S	500	9,20 ZP
12	K	100	16,00 ZP
14	K	100	21,50 ZP
16	S	250	14,30 ZP
16	K	100	20,50 ZP
18	K	100	29,50 ZP
20	S	250	22,90 ZP
20	K	100	28,50 ZP
22	S	100	28,00 ZP
24	S	100	38,50 ZP
27	S	100	49,50 ZP
30	S	100	61,00 ZP
33	S	100	89,00 ZP
36	S	100	113,00 ZP
39	S	50	143,00 ZP
42	S	50	216,00 ZP
45	S	50	255,00 ZP
48	S	25	325,00 ZP
52	S	25	590,00 ZP
56	S	25	830,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	07092.004		3380

7092 Steel 200 HV



Plain washers, small series, product grade A

primarily for cap screws

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 569
Brass ➔ pg. 641

ISO 7092 ➔ replaces DIN 433

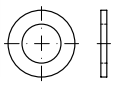
RoHS ✓ REACh SVHC free

for screws M

2	S	5000	3,50
3	S	5000	0,35
3,5	S	5000	1,70
4	S	5000	1,45
5	S	5000	1,00
6	S	1000	1,70
8	S	1000	3,15
10	S	1000	4,80
12	S	1000	7,60
14	S	500	11,10
16	S	500	14,20
18	S	500	21,20
20	S	500	25,50

ISO	07092.014	3380

7092 Steel 200 HV zinc plated



Plain washers, small series, product grade A

primarily for cap screws

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 569
Brass ➔ pg. 641

ISO 7092 ➔ replaces DIN 433

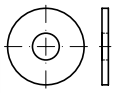
RoHS ✓ REACh SVHC free

for screws M

2	S	5000	1,45 ZP
2,5	S	5000	1,20 ZP
3	S	5000	0,55 ZP
4	S	5000	0,45 ZP
5	S	5000	1,05 ZP
6	S	1000	1,95 ZP
8	S	1000	3,65 ZP
10	S	1000	5,40 ZP
12	S	1000	8,40 ZP
14	S	500	12,30 ZP
16	S	500	15,70 ZP
18	S	500	23,50 ZP
20	S	500	28,50 ZP

ISO	07093.004	750

7093-1 Steel 200 HV



Plain washers, large series, product grade A

Dimensions ➔ TI-85 Standard conversion ➔ TI-84

Stainless ➔ pg. 570
Brass ➔ pg. 641

ISO 7093 ➔ replaces DIN 9021

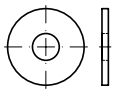
RoHS ✓ REACh SVHC free

for screws M

3	S	10000	0,75
4	S	5000	1,15
5	S	2500	1,50
6	S	2500	2,80
8	S	500	6,10
10	S	250	21,80
12	S	100	33,00
14	S	100	27,50
16	S	100	50,00
18	S	100	122,00
20	S	100	76,00
24	S	50	109,00
30	S	25	218,00
36	S	25	610,00

ISO	07093.014	750

7093-1 Steel 200 HV zinc plated



Plain washers, large series, product grade A

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 570
Brass ➔ pg. 641

ISO 7093 ➔ replaces DIN 9021

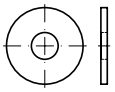
RoHS ✓ REACh SVHC free

for screws M

3	S	10000	1,85 ZP
4	S	5000	2,20 ZP
5	S	2500	2,55 ZP
6	S	2500	3,05 ZP
8	S	500	4,40 ZP
10	S	250	24,20 ZP
12	S	100	46,00 ZP
14	S	100	39,00 ZP
16	S	100	68,00 ZP
18	S	100	84,00 ZP
20	S	100	91,00 ZP
24	S	50	146,00 ZP
30	S	25	295,00 ZP
36	S	25	710,00 ZP

ISO	07093.024	750

7093-1 Steel 200 HV hot dip galvanized



Plain washers, large series, product grade A

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

Stainless ➔ pg. 570
Brass ➔ pg. 641

ISO 7093 ➔ replaces DIN 9021

RoHS ✓ REACh SVHC free

for screws M

6	S	2500	6,10 HDG
8	S	500	8,80 HDG
10	S	250	68,00 HDG
12	S	100	92,00 HDG
16	S	100	136,00 HDG
18	S	100	126,00 HDG
20	S	100	194,00 HDG
24	S	50	295,00 HDG
30	S	25	590,00 HDG
36	S	25	1340,00 HDG

ISO	07094.000	170

7094 Steel 100 HV



Plain washers, extra large series, product grade C

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84

Stainless ➔ pg. 570

ISO 7094 ➔ replaces DIN 440 type R (compatible)

RoHS ✓ REACh SVHC free

for screws M

5	S	100	6,20
6	S	100	6,80
8	S	100	11,40
10	S	100	16,00
12	S	100	28,50
16	S	50	49,50
20	S	50	83,00
22	S	50	126,00
24	S	50	164,00
27	S	25	215,00
30	S	25	250,00
33	S	25	285,00

Dimensions	PU	Pieces	€/100/Mat.
36	S	25	460,00
39	S	25	910,00
42	S	10	970,00

ISO 07094.010 170

7094 Steel 100 HV zinc plated



Plain washers, extra large series, product grade C

especially for wood constructions

Dimensions → TI-84 Standard conversion → TI-84
Corrosion protection → TI-228

Stainless → pg. 570

ISO 7094 → replaces DIN 440 type R (compatible)

RoHS ✓ REACh SVHC free

for screws M

5	S	100	7,20 ZP
6	S	100	8,30 ZP
8	S	100	14,70 ZP
10	S	100	20,70 ZP
12	S	100	39,50 ZP
16	S	50	73,00 ZP
20	S	50	142,00 ZP
22	S	50	181,00 ZP
24	S	50	224,00 ZP
27	S	25	300,00 ZP
30	S	25	345,00 ZP
33	S	25	395,00 ZP
36	S	25	630,00 ZP
39	S	25	1110,00 ZP

ISO 07094.020 170

7094 Steel 100 HV hot dip galvanized



Plain washers, extra large series, product grade C

especially for wood constructions

Dimensions → TI-84 Standard conversion → TI-84
Corrosion protection → TI-231

Stainless → pg. 570

ISO 7094 → replaces DIN 440 type R (compatible)

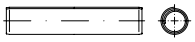
RoHS ✓ REACh SVHC free

for screws M

6	S	100	29,50 HDG
8	S	100	39,50 HDG
10	S	100	39,50 HDG
12	S	100	48,00 HDG
16	S	50	89,00 HDG
20	S	50	143,00 HDG
24	S	50	295,00 HDG

DIN 07343.000 623

7343 Spring steel



Spring-type straight pins, coiled, standard duty

Dimensions → TI-121 Standard conversion → TI-10

Stainless → pg. 571

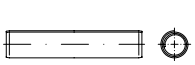
DIN 7343 → replaced by ISO 8750 (compatible)

RoHS ✓ REACh SVHC free

1,5	x	5	S	1000	6,50
1,5	x	6	S	1000	6,50
1,5	x	8	S	1000	6,90
1,5	x	10	S	1000	7,20
1,5	x	12	S	1000	7,20
2	x	6	S	1000	7,30
2	x	8	S	1000	7,40
2	x	10	S	1000	7,60
2	x	12	S	1000	7,70
2	x	14	S	1000	7,70
2	x	16	S	1000	7,70
2	x	18	S	1000	7,80
2	x	20	S	1000	8,60
2,5	x	10	S	1000	8,20
2,5	x	12	S	1000	8,40
2,5	x	16	S	1000	8,50
2,5	x	20	S	1000	9,10
3	x	8	S	1000	8,20
3	x	10	S	1000	8,50
3	x	12	S	1000	8,80
3	x	14	S	1000	8,90
3	x	16	S	1000	9,10
3	x	18	S	1000	9,40
3	x	20	S	1000	9,60
3	x	24	S	1000	10,10
3	x	26	S	1000	10,50
3	x	30	S	1000	10,50
3,5	x	20	S	1000	10,50
3,5	x	24	S	1000	11,30
4	x	8	S	500	10,50
4	x	10	S	500	10,50
4	x	12	S	500	10,50
4	x	14	S	500	10,70
4	x	16	S	500	11,10
4	x	18	S	500	11,30
4	x	20	S	500	11,50
4	x	24	S	500	12,10
4	x	26	S	500	12,50
4	x	30	S	500	13,60
4	x	32	S	500	14,80
4	x	36	S	500	16,00
4	x	40	S	500	17,10
4	x	50	S	500	20,40
5	x	20	S	500	15,50
5	x	22	S	500	16,30
5	x	24	S	500	16,60
5	x	26	S	500	17,50
5	x	30	S	500	18,70
5	x	32	S	500	19,40
5	x	40	S	500	22,00
6	x	14	S	500	19,40
6	x	18	S	500	20,00
6	x	20	S	500	20,60
6	x	24	S	500	23,50
6	x	26	S	500	22,70
6	x	30	S	500	28,00
6	x	35	S	500	31,50
6	x	40	S	250	33,50
6	x	45	S	250	37,00
6	x	50	S	250	41,00
8	x	20	S	500	39,00
8	x	24	S	500	41,00
8	x	30	S	250	51,00
8	x	35	S	250	57,00
8	x	40	S	500	60,00
8	x	45	S	500	67,00
8	x	50	S	250	72,00
10	x	40	S	250	92,00
10	x	50	S	250	113,00
10	x	55	S	250	103,00
10	x	60	S	200	111,00
10	x	70	S	100	164,00
12	x	40	S	50	211,00
12	x	50	S	100	226,00
12	x	60	S	50	240,00
12	x	80	S	50	285,00
14	x	50	S	25	270,00
14	x	70	S	25	310,00
16	x	60	S	25	305,00
16	x	90	S	25	690,00

DIN 07344.000 623

7344 Spring steel



Spring-type straight pins, coiled, heavy duty

Dimensions → TI-121 Standard conversion → TI-10

DIN 7344 → replaced by ISO 8748 (compatible)

RoHS ✓ REACh SVHC free

1,5	x	14	S	1000	8,30
2	x	8	S	1000	7,90
2	x	10	S	1000	8,20
2	x	12	S	1000	8,30
2	x	16	S	1000	8,50
2	x	18	S	1000	8,60
2,5	x	12	S	1000	8,50
2,5	x	14	S	1000	8,80
2,5	x	16	S	1000	8,80
2,5	x	20	S	1000	8,90
2,5	x	24	S	1000	9,10
3	x	8	S	1000	9,60
3	x	10	S	1000	9,90
3	x	12	S	1000	9,90
3	x	14	S	1000	10,10
3	x	16	S	1000	10,50
3	x	18	S	1000	10,70
3	x	20	S	1000	10,80
3	x	24	S	1000	11,30
3	x	30	S	1000	12,10
3	x	32	S	1000	11,70
4	x	12	S	1000	11,30
4	x	14	S	1000	11,50
4	x	16	S	1000	11,80
4	x	18	S	500	12,30
4	x	20	S	500	12,90
4	x	24	S	500	13,80

Dimensions			PU	Pieces	€/100/Mat.
4	x	26	S	500	15,50
4	x	30	S	500	16,00
4	x	40	S	500	19,00
5	x	12	S	1000	8,80
5	x	14	S	500	10,80
5	x	18	S	500	14,00
5	x	20	S	500	16,00
5	x	22	S	500	17,40
5	x	24	S	500	18,20
5	x	26	S	500	20,40
5	x	28	S	500	20,70
5	x	30	S	500	21,20
5	x	35	S	500	24,60
5	x	36	S	200	28,00
6	x	16	S	500	22,70
6	x	20	S	500	23,60
6	x	24	S	500	27,50
6	x	30	S	500	32,50
6	x	40	S	250	41,50
6	x	45	S	200	46,00
6	x	50	S	250	51,00
8	x	20	S	500	103,00
8	x	40	S	500	144,00
8	x	50	S	250	146,00

DIN	07346.000	620

7346

Spring steel





Spring-type straight pins, slotted, light duty

Dimensions ➔ TI-122 Standard conversion ➔ TI-10

DIN 7346 ➔ replaced by ISO 13337 (compatible)

RoHS ✓ REACh SVHC free

2	x	4	S	200	7,80
2	x	5	S	200	8,30
2	x	6	S	200	8,40
2	x	8	S	200	8,50
2	x	10	S	200	8,60
2	x	12	S	200	8,60
2	x	14	S	200	8,60
2	x	16	S	200	8,80
2	x	18	S	200	8,80
2	x	20	S	200	9,50
2	x	22	S	200	9,70
2	x	24	S	200	9,90
2	x	30	S	200	11,40
2,5	x	5	S	200	8,80
2,5	x	6	S	200	8,80
2,5	x	8	S	200	8,90
2,5	x	10	S	200	9,20
2,5	x	12	S	200	9,20
2,5	x	14	S	200	9,20
2,5	x	16	S	200	9,50
2,5	x	18	S	200	9,60
2,5	x	20	S	200	9,70
2,5	x	24	S	200	10,50
2,5	x	26	S	200	10,80
2,5	x	30	S	200	12,30
3	x	4	S	200	7,40
3	x	5	S	200	7,60
3	x	6	S	200	7,70
3	x	8	S	200	7,70
3	x	10	S	200	7,80
3	x	12	S	200	7,90
3	x	14	S	200	7,90
3	x	16	S	200	8,30
3	x	18	S	200	8,40
3	x	22	S	200	8,80
3	x	24	S	200	8,90
3	x	26	S	200	9,20
3	x	28	S	200	9,70
3	x	30	S	200	10,10
3	x	32	S	200	10,50
3	x	36	S	200	11,30
3	x	40	S	200	12,40
4	x	6	S	200	8,50
4	x	8	S	200	8,60
4	x	10	S	200	8,60
4	x	12	S	200	8,80
4	x	14	S	200	9,20
4	x	16	S	200	9,20
4	x	18	S	200	9,20
4	x	20	S	200	9,60
4	x	22	S	200	9,60
4	x	24	S	200	9,90
4	x	26	S	200	10,20
4	x	28	S	200	10,70
4	x	30	S	200	11,20
4	x	32	S	100	12,80
4	x	36	S	100	13,20
4	x	40	S	100	14,30
4	x	45	S	100	15,30
4	x	50	S	100	16,50
5	x	5	S	200	9,90
5	x	6	S	200	9,90
5	x	8	S	200	10,10
5	x	12	S	200	9,90
5	x	14	S	200	11,10
5	x	16	S	200	11,40
5	x	18	S	200	12,10
5	x	20	S	100	13,40
5	x	22	S	100	14,60
5	x	24	S	100	15,00
5	x	26	S	100	15,50
5	x	28	S	100	15,30
5	x	30	S	100	15,50
5	x	32	S	100	16,10
5	x	36	S	100	17,10
5	x	40	S	100	18,00
5	x	45	S	100	19,40
5	x	50	S	100	20,40
5	x	60	S	100	24,50
5	x	70	S	100	29,50
5	x	80	S	100	36,00
6	x	10	S	100	12,50
6	x	12	S	100	12,80
6	x	14	S	100	13,60
6	x	16	S	100	13,80
6	x	18	S	100	14,60
6	x	20	S	100	15,50
6	x	22	S	100	16,40
6	x	24	S	100	17,20
6	x	26	S	100	18,30
6	x	28	S	100	19,30
6	x	30	S	100	20,30
6	x	32	S	100	21,30
6	x	36	S	100	22,30
6	x	40	S	100	23,50
6	x	45	S	100	26,50
6	x	50	S	100	28,00
6	x	55	S	100	30,50
6	x	60	S	100	33,00
6	x	70	S	100	39,00
6	x	80	S	100	44,50
6	x	100	S	100	72,00
10	x	10	S	50	74,00
10	x	12	S	50	74,00
10	x	14	S	100	26,00
10	x	16	S	100	27,50
10	x	20	S	100	32,50
10	x	22	S	100	34,00
10	x	24	S	100	37,00
10	x	26	S	100	39,00
10	x	30	S	100	43,00
10	x	36	S	100	51,00
10	x	40	S	100	54,00
10	x	45	S	50	63,00
10	x	50	S	50	69,00
10	x	60	S	50	83,00
10	x	70	S	50	97,00
10	x	80	S	50	111,00
10	x	90	S	50	124,00
10	x	100	S	50	138,00
12	x	10	S	50	310,00
12	x	16	S	50	265,00
12	x	20	S	50	148,00
12	x	24	S	50	157,00
12	x	26	S	50	160,00
12	x	28	S	50	164,00
12	x	30	S	50	157,00
12	x	32	S	50	174,00
12	x	36	S	50	174,00
12	x	40	S	50	181,00
12	x	45	S	50	184,00
12	x	50	S	50	189,00
12	x	55	S	50	197,00
12	x	60	S	50	204,00
12	x	65	S	50	216,00
12	x	70	S	50	223,00
12	x	80	S	50	239,00
12	x	100	S	25	580,00
13	x	10	S	25	300,00
13	x	12	S	25	290,00
13	x	14	S	25	285,00
13	x	16	S	25	275,00
13	x	20	S	50	157,00
13	x	22	S	50	160,00
13	x	24	S	50	164,00
13	x	26	S	50	167,00
13	x	28	S	50	171,00
13	x	30	S	50	177,00
13	x	36	S	50	184,00
13	x	40	S	50	200,00
13	x	50	S	50	197,00
13	x	70	S	50	232,00
16	x	10	S	25	335,00
16	x	12	S	25	320,00
16	x	14	S	25	310,00
16	x	16	S	25	300,00
16	x	18	S	25	295,00
16	x	20	S	50	197,00
16	x	22	S	50	200,00
16	x	24	S	50	204,00
16	x	26	S	50	206,00
16	x	28	S	50	210,00
16	x	30	S	50	216,00
16	x	32	S	50	221,00
16	x	36	S	50	223,00
16	x	40	S	50	227,00
16	x	45	S	50	230,00
16	x	50	S	50	233,00
16	x	55	S	50	236,00
16	x	60	S	25	249,00
16	x	70	S	25	285,00
16	x	120	S	25	950,00
21	x	30	S	50	440,00
21	x	36	S	25	445,00
21	x	40	S	25	475,00
21	x	45	S	25	510,00
21	x	50	S	25	510,00
21	x	60	S	25	560,00
21	x	85	S	25	730,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions						PU	Pieces	€/100/Mat.
DIN	07349.000							620
7349	**Steel 100 HV**							





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85

Stainless → pg. 571

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

19	x	44	x	8	S	50		136,00
21	x	44	x	8	S	25		137,00
23	x	50	x	8	S	25		204,00
25	x	50	x	10	S	10		270,00
28	x	60	x	10	S	10		345,00
31	x	68	x	10	S	10		445,00

DIN	07349.010	620
7349	**Steel 100 HV zinc plated**	





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85 Corrosion protection → TI-228

Stainless → pg. 571

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

19	x	44	x	8	S	50		171,00 ZP
21	x	44	x	8	S	25		171,00 ZP
23	x	50	x	8	S	25		249,00 ZP
25	x	50	x	10	S	25		330,00 ZP
28	x	60	x	10	S	25		425,00 ZP
31	x	68	x	10	S	25		560,00 ZP

DIN	07349.080	620
7349	**Steel 100 HV zinc plated 8 TLP**	





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85 Corrosion protection → TI-228

Stainless → pg. 571

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

21	x	44	x	8	S	25		229,00 ZP TLP

Dimensions						PU	Pieces	€/100/Mat.
DIN	07349.020							620
7349	**Steel 100 HV hot dip galvanized**							





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85 Corrosion protection → TI-231

Stainless → pg. 571

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

21	x	44	x	8	S	50		244,00 HDG
25	x	50	x	10	S	25		480,00 HDG
31	x	68	x	10	S	25		630,00 HDG

DIN	07349.001	620
7349	**Steel 200 HV**	





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

3,2	x	9	x	1	S	1000		1,55
4,3	x	12	x	1,6	S	1000		2,60
5,3	x	15	x	2	S	1000		4,60
6,4	x	17	x	3	S	1000		9,60
8,4	x	21	x	4	S	500		20,00
10,5	x	25	x	4	S	500		29,50
13	x	30	x	6	S	250		52,00
15	x	36	x	6	S	250		69,00
17	x	40	x	6	S	250		84,00

DIN	07349.011	620
7349	**Steel 200 HV zinc plated**	





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85 Corrosion protection → TI-228

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

3,2	x	9	x	1	S	1000		1,65 ZP
4,3	x	12	x	1,6	S	1000		2,90 ZP
5,3	x	15	x	2	S	1000		5,30 ZP

Dimensions						PU	Pieces	€/100/Mat.
6,4	x	17	x	3	S	1000		11,40 ZP
8,4	x	21	x	4	S	500		24,10 ZP
10,5	x	25	x	4	S	500		36,00 ZP
13	x	30	x	6	S	250		65,00 ZP
15	x	36	x	6	S	250		88,00 ZP
17	x	40	x	6	S	250		105,00 ZP

DIN	07349.081	620
7349	**Steel 200 HV zinc plated 8 TLP**	





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85 Corrosion protection → TI-228

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

6,4	x	17	x	3	S	1000		14,40 ZP TLP
8,4	x	21	x	4	S	500		34,00 ZP TLP
10,5	x	25	x	4	S	500		41,50 ZP TLP
13	x	30	x	6	S	250		88,00 ZP TLP
17	x	40	x	6	S	250		143,00 ZP TLP

DIN	07349.021	620
7349	**Steel 200 HV hot dip galvanized**	





Washers for screws with heavy spring-type straight pins

Dimensions → TI-85 Corrosion protection → TI-231

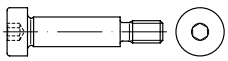
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

8,4	x	21	x	4	S	100		45,50 HDG
10,5	x	25	x	4	S	100		56,00 HDG
13	x	30	x	6	S	50		95,00 HDG
17	x	40	x	6	S	50		132,00 HDG

Dimensions	PU Pieces	€/100/Mat.
~ISO	07379.200	3400

7379 12.9 h8



Hex. socket head shoulder screws, outer nominal size = ISO 7379, tolerance of fit shank h8

Dimensions ➔ TI-13 Material properties ➔ TI-232

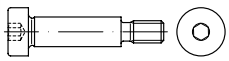
RoHS ✓ REACh SVHC free

shank ∅ / thread M x shank length

6	- M 5	x	10	S	50	226,00
6	- M 5	x	12	S	50	233,00
6	- M 5	x	16	S	50	242,00
6	- M 5	x	20	S	50	265,00
6	- M 5	x	25	S	50	285,00
6	- M 5	x	30	S	50	305,00
8	- M 6	x	10	S	50	275,00
8	- M 6	x	12	S	50	275,00
8	- M 6	x	16	S	50	280,00
8	- M 6	x	20	S	50	285,00
8	- M 6	x	25	S	50	295,00
8	- M 6	x	30	S	50	305,00
8	- M 6	x	40	S	50	360,00
8	- M 6	x	45	S	50	415,00
8	- M 6	x	50	S	50	475,00
10	- M 8	x	10	S	50	340,00
10	- M 8	x	12	S	50	340,00
10	- M 8	x	16	S	50	345,00
10	- M 8	x	20	S	50	345,00
10	- M 8	x	25	S	50	355,00
10	- M 8	x	30	S	50	365,00
10	- M 8	x	40	S	50	380,00
10	- M 8	x	45	S	50	390,00
10	- M 8	x	50	S	50	390,00
10	- M 8	x	60	S	25	410,00
10	- M 8	x	70	S	25	430,00
10	- M 8	x	80	S	25	455,00
12	- M 10	x	12	S	25	485,00
12	- M 10	x	16	S	25	510,00
12	- M 10	x	20	S	25	530,00
12	- M 10	x	25	S	25	530,00
12	- M 10	x	30	S	25	540,00
12	- M 10	x	35	S	25	540,00
12	- M 10	x	40	S	25	550,00
12	- M 10	x	50	S	25	560,00
12	- M 10	x	60	S	25	570,00
12	- M 10	x	70	S	10	590,00
12	- M 10	x	80	S	10	600,00
12	- M 10	x	100	S	10	610,00
16	- M 12	x	20	S	25	780,00
16	- M 12	x	25	S	25	780,00
16	- M 12	x	30	S	25	820,00
16	- M 12	x	40	S	25	850,00
16	- M 12	x	50	S	25	890,00
16	- M 12	x	70	S	25	960,00
20	- M 16	x	40	S	10	2550,00
20	- M 16	x	50	S	10	2750,00
20	- M 16	x	60	S	10	2950,00
20	- M 16	x	70	S	10	3150,00
20	- M 16	x	80	S	10	3350,00

Dimensions	PU Pieces	€/100/Mat.
~ISO	07379.204	3400

7379 12.9 f9



Hex. socket head shoulder screws, outer nominal size = ISO 7379, tolerance of fit shank f9

Dimensions ➔ TI-13 Material properties ➔ TI-232

Stainless ➔ pg. 572

RoHS ✓ REACh SVHC free

shank ∅ / thread M x shank length

6	- M 5	x	16	S	50	218,00
6	- M 5	x	20	S	50	235,00
6	- M 5	x	25	S	50	255,00
6	- M 5	x	30	S	50	275,00
8	- M 6	x	10	S	50	244,00
8	- M 6	x	12	S	50	244,00
8	- M 6	x	16	S	50	249,00
8	- M 6	x	20	S	50	255,00
8	- M 6	x	25	S	50	265,00
8	- M 6	x	30	S	50	275,00
8	- M 6	x	40	S	50	325,00
8	- M 6	x	45	S	50	425,00
8	- M 6	x	50	S	50	305,00
10	- M 8	x	10	S	50	305,00
10	- M 8	x	12	S	50	315,00
10	- M 8	x	16	S	50	315,00
10	- M 8	x	20	S	50	320,00
10	- M 8	x	25	S	50	330,00
10	- M 8	x	30	S	50	350,00
10	- M 8	x	40	S	50	350,00
10	- M 8	x	45	S	50	365,00
10	- M 8	x	50	S	50	385,00
10	- M 8	x	60	S	25	385,00
10	- M 8	x	70	S	25	440,00
10	- M 8	x	80	S	25	455,00
12	- M 10	x	12	S	25	470,00
12	- M 10	x	16	S	25	470,00
12	- M 10	x	20	S	25	480,00
12	- M 10	x	25	S	25	485,00
12	- M 10	x	30	S	25	495,00
12	- M 10	x	35	S	25	510,00
12	- M 10	x	40	S	25	520,00
12	- M 10	x	50	S	25	530,00
12	- M 10	x	60	S	25	540,00
12	- M 10	x	70	S	10	550,00
12	- M 10	x	80	S	10	700,00
12	- M 10	x	100	S	10	700,00
16	- M 12	x	20	S	25	730,00
16	- M 12	x	25	S	25	770,00
16	- M 12	x	30	S	25	800,00
16	- M 12	x	40	S	25	870,00
16	- M 12	x	50	S	25	2280,00
16	- M 12	x	70	S	25	2460,00
20	- M 16	x	40	S	10	2650,00
20	- M 16	x	50	S	10	2800,00
20	- M 16	x	60	S	10	3000,00
20	- M 16	x	70	S	10	3250,00
20	- M 16	x	80	S	10	3550,00

Dimensions	PU Pieces	€/100/Mat.
ISO	07380.100	3500

7380-1 010.9



Hexagon socket button head screws

sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14 Tightening torque ➔ TI-246
Material properties ➔ TI-232

Stainless ➔ pg. 572

with hexalobular socket ➔ ~ISO 7380 ISR

RoHS ✓ REACh SVHC free

M 3	x	5	S	500	29,50
M 3	x	6	S	500	15,20
M 3	x	8	S	500	16,60
M 3	x	10	S	500	17,10
M 3	x	12	S	500	17,10
M 3	x	16	S	500	19,40
M 3	x	20	S	500	20,60
M 3	x	25	S	500	46,00
M 4	x	6	S	500	18,60
M 4	x	8	S	500	18,10
M 4	x	10	S	500	18,10
M 4	x	12	S	500	19,30
M 4	x	16	S	500	20,60
M 4	x	20	S	500	22,00
M 4	x	25	S	500	24,40
M 4	x	30	S	500	27,50
M 4	x	35	S	500	42,50
M 4	x	40	S	500	52,00
M 5	x	6	S	500	42,50
M 5	x	8	S	500	18,80
M 5	x	10	S	500	19,00
M 5	x	12	S	500	19,80
M 5	x	16	S	500	21,20
M 5	x	20	S	500	22,10
M 5	x	25	S	500	22,40
M 5	x	30	S	500	23,30
M 5	x	35	S	200	44,00
M 5	x	40	S	200	53,00
M 5	x	45	S	200	63,00
M 6	x	6	S	500	36,50
M 6	x	8	S	500	19,20
M 6	x	10	S	500	19,20
M 6	x	12	S	500	20,40
M 6	x	14	S	500	20,40
M 6	x	16	S	500	21,80
M 6	x	18	S	500	24,90
M 6	x	20	S	500	22,40
M 6	x	22	S	500	26,00
M 6	x	25	S	500	23,40
M 6	x	30	S	500	25,50
M 6	x	35	S	200	29,50
M 6	x	40	S	200	33,50
M 6	x	45	S	200	39,50
M 6	x	50	S	200	41,50
M 6	x	55	S	200	85,00
M 6	x	60	S	200	92,00
M 8	x	8	S	200	57,00
M 8	x	10	S	200	31,50
M 8	x	12	S	200	31,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	16	S	200	30,50
M 8	x	20	S	200	26,00
M 8	x	25	S	200	27,00
M 8	x	30	S	200	29,50
M 8	x	35	S	200	34,50
M 8	x	40	S	200	42,50
M 8	x	45	S	200	56,00
M 8	x	50	S	200	53,00
M 8	x	55	S	200	88,00
M 8	x	60	S	200	88,00
M 10	x	12	S	200	111,00
M 10	x	16	S	200	69,00
M 10	x	20	S	200	63,00
M 10	x	25	S	200	68,00
M 10	x	30	S	200	73,00
M 10	x	35	S	100	78,00
M 10	x	40	S	100	83,00
M 10	x	45	S	100	88,00
M 10	x	50	S	100	92,00
M 10	x	55	S	100	136,00
M 10	x	60	S	100	155,00

ISO	07380.110	3500

7380-1 **010.9 zinc plated**



Hexagon socket button head screws

sometimes thread up to head

Caution!
Screws have only a reduced loadability.
Note inforamtion about hydrogen embrittlement.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 572

with hexalobular socket ➔ ~ISO 7380 ISR

RoHS ✓

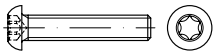
REACh SVHC free

M 3	x	5	S	500	33,00 ZP
M 3	x	6	S	500	18,70 ZP
M 3	x	8	S	500	19,30 ZP
M 3	x	10	S	500	17,40 ZP
M 3	x	12	S	500	17,40 ZP
M 3	x	16	S	500	19,70 ZP
M 3	x	20	S	500	21,10 ZP
M 3	x	25	S	500	47,00 ZP
M 3	x	30	S	500	47,50 ZP
M 4	x	5	S	500	18,60 ZP
M 4	x	6	S	500	18,60 ZP
M 4	x	8	S	500	18,30 ZP
M 4	x	10	S	500	18,40 ZP
M 4	x	12	S	500	19,70 ZP
M 4	x	16	S	500	21,30 ZP
M 4	x	20	S	500	22,70 ZP
M 4	x	25	S	500	25,50 ZP
M 4	x	30	S	500	31,00 ZP
M 4	x	40	S	500	55,00 ZP
M 5	x	6	S	500	43,00 ZP
M 5	x	8	S	500	19,40 ZP
M 5	x	10	S	500	19,30 ZP
M 5	x	12	S	500	20,30 ZP
M 5	x	14	S	500	30,50 ZP
M 5	x	16	S	500	21,60 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	20	S	500	23,40 ZP
M 5	x	25	S	500	24,50 ZP
M 5	x	30	S	500	25,50 ZP
M 5	x	35	S	200	45,00 ZP
M 5	x	40	S	200	54,00 ZP
M 5	x	45	S	200	65,00 ZP
M 6	x	6	S	500	38,00 ZP
M 6	x	8	S	500	20,10 ZP
M 6	x	10	S	500	20,30 ZP
M 6	x	12	S	500	21,60 ZP
M 6	x	14	S	500	22,00 ZP
M 6	x	16	S	500	22,20 ZP
M 6	x	18	S	500	30,50 ZP
M 6	x	20	S	500	23,60 ZP
M 6	x	25	S	500	26,50 ZP
M 6	x	30	S	500	28,50 ZP
M 6	x	35	S	200	33,50 ZP
M 6	x	40	S	200	38,00 ZP
M 6	x	45	S	200	44,00 ZP
M 6	x	50	S	200	45,50 ZP
M 6	x	55	S	200	89,00 ZP
M 6	x	60	S	200	97,00 ZP
M 8	x	8	S	200	60,00 ZP
M 8	x	10	S	200	34,00 ZP
M 8	x	12	S	200	33,50 ZP
M 8	x	14	S	200	34,00 ZP
M 8	x	16	S	200	34,00 ZP
M 8	x	18	S	200	34,00 ZP
M 8	x	20	S	200	30,50 ZP
M 8	x	25	S	200	32,50 ZP
M 8	x	30	S	200	36,50 ZP
M 8	x	35	S	200	42,50 ZP
M 8	x	40	S	200	51,00 ZP
M 8	x	45	S	200	60,00 ZP
M 8	x	50	S	200	63,00 ZP
M 8	x	55	S	200	99,00 ZP
M 8	x	60	S	200	99,00 ZP
M 10	x	12	S	200	121,00 ZP
M 10	x	16	S	200	80,00 ZP
M 10	x	20	S	200	74,00 ZP
M 10	x	25	S	200	79,00 ZP
M 10	x	30	S	200	85,00 ZP
M 10	x	35	S	100	91,00 ZP
M 10	x	40	S	100	99,00 ZP
M 10	x	45	S	100	99,00 ZP
M 10	x	50	S	100	103,00 ZP
M 10	x	55	S	100	148,00 ZP
M 10	x	60	S	100	167,00 ZP
M 12	x	14	S	100	255,00 ZP
M 12	x	16	S	100	230,00 ZP
M 12	x	20	S	100	177,00 ZP
M 12	x	25	S	100	171,00 ZP
M 12	x	30	S	100	190,00 ZP
M 12	x	35	S	100	167,00 ZP
M 12	x	40	S	100	229,00 ZP
M 12	x	45	S	100	249,00 ZP
M 12	x	50	S	100	270,00 ZP
M 12	x	60	S	100	290,00 ZP
M 16	x	30	S	100	425,00 ZP
M 16	x	40	S	100	440,00 ZP
M 16	x	45	S	50	450,00 ZP
M 16	x	50	S	50	460,00 ZP
M 16	x	60	S	50	475,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~ISO	07380.114		1000

7380-1 **010.9 zinc plated** **ISR**



Hexalobular socket button head screws, ISR = hexalobular socket

~DIN 34805-1

Caution!
Screws have only a reduced loadability.
Note information about hydrogen embrittlement.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 572

RoHS ✓

REACh SVHC free

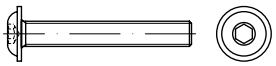
M 4	x	6 -T20	S	500	20,30 ZP
M 4	x	8 -T20	S	500	20,30 ZP
M 4	x	10 -T20	S	500	20,50 ZP
M 4	x	12 -T20	S	500	21,80 ZP
M 4	x	16 -T20	S	500	23,60 ZP
M 4	x	20 -T20	S	500	25,50 ZP
M 5	x	8 -T25	S	500	19,40 ZP
M 5	x	10 -T25	S	500	19,50 ZP
M 5	x	12 -T25	S	500	20,50 ZP
M 5	x	16 -T25	S	500	22,90 ZP
M 5	x	20 -T25	S	500	26,00 ZP
M 5	x	25 -T25	S	500	27,50 ZP
M 5	x	30 -T25	S	500	28,50 ZP
M 5	x	35 -T25	S	500	30,50 ZP
M 6	x	16 -T30	S	500	25,50 ZP
M 6	x	20 -T30	S	500	26,50 ZP
M 6	x	25 -T30	S	500	29,00 ZP
M 8	x	12 -T40	S	200	36,50 ZP
M 8	x	16 -T40	S	200	38,00 ZP
M 8	x	20 -T40	S	200	33,50 ZP
M 8	x	25 -T40	S	200	36,00 ZP
M 8	x	30 -T40	S	200	40,00 ZP
M 8	x	35 -T40	S	200	42,50 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU	Pieces	€/100/Mat.
ISO	07380.102		3500

7380-2 010.9



Hexagon socket button head screws with collar

sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Tightening torque ➔ TI-246

Stainless ➔ pg. 573

RoHS ✓ | REACh SVHC free

M 4	x	6	S	500	22,70
M 4	x	8	S	500	22,00
M 4	x	10	S	500	21,10
M 4	x	12	S	500	22,30
M 4	x	16	S	500	23,40
M 4	x	20	S	500	24,60
M 4	x	25	S	500	29,00
M 4	x	30	S	500	33,50
M 5	x	6	S	500	48,00
M 5	x	8	S	500	23,20
M 5	x	10	S	500	22,30
M 5	x	12	S	500	23,20
M 5	x	16	S	500	27,50
M 5	x	20	S	500	28,00
M 5	x	25	S	500	28,50
M 5	x	30	S	500	33,00
M 5	x	35	S	200	37,00
M 6	x	6	S	500	111,00
M 6	x	8	S	500	27,00
M 6	x	10	S	500	25,50
M 6	x	12	S	500	27,50
M 6	x	16	S	500	28,50
M 6	x	20	S	500	29,00
M 6	x	25	S	500	29,50
M 6	x	30	S	500	31,50
M 6	x	35	S	500	33,00
M 6	x	40	S	500	41,50
M 8	x	12	S	200	39,50
M 8	x	16	S	200	39,50
M 8	x	20	S	200	38,50
M 8	x	25	S	200	41,50
M 8	x	30	S	200	44,00
M 8	x	35	S	200	54,00
M 8	x	40	S	200	70,00
M 8	x	50	S	200	101,00
M 8	x	60	S	200	128,00
M 10	x	20	S	200	77,00
M 10	x	25	S	200	94,00
M 10	x	30	S	200	107,00
M 10	x	35	S	100	119,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	07380.112		3500

7380-2 010.9 zinc plated



Hexagon socket button head screws with collar

sometimes thread up to head

Caution!
Screws have only a reduced loadability.
Note information about hydrogen embrittlement.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 573

RoHS ✓ | REACh SVHC free

M 3	x	6	S	500	20,00 ZP
M 3	x	8	S	500	20,00 ZP
M 3	x	10	S	500	20,00 ZP
M 3	x	12	S	500	22,40 ZP
M 4	x	6	S	500	26,50 ZP
M 4	x	8	S	500	22,70 ZP
M 4	x	10	S	500	22,10 ZP
M 4	x	12	S	500	23,60 ZP
M 4	x	16	S	500	25,00 ZP
M 4	x	20	S	500	34,00 ZP
M 4	x	25	S	500	40,00 ZP
M 4	x	30	S	500	45,50 ZP
M 5	x	6	S	500	44,00 ZP
M 5	x	8	S	500	24,40 ZP
M 5	x	10	S	500	23,60 ZP
M 5	x	12	S	500	24,60 ZP
M 5	x	16	S	500	29,50 ZP
M 5	x	20	S	500	30,00 ZP
M 5	x	25	S	500	35,50 ZP
M 5	x	30	S	500	41,00 ZP
M 5	x	35	S	200	46,00 ZP
M 6	x	8	S	500	28,50 ZP
M 6	x	10	S	500	27,50 ZP
M 6	x	12	S	500	29,50 ZP
M 6	x	14	S	500	27,50 ZP
M 6	x	16	S	500	31,50 ZP
M 6	x	20	S	500	33,00 ZP
M 6	x	25	S	500	34,00 ZP
M 6	x	30	S	500	35,50 ZP
M 6	x	35	S	500	37,00 ZP
M 6	x	40	S	500	41,50 ZP
M 6	x	45	S	200	45,00 ZP
M 6	x	50	S	200	45,50 ZP
M 6	x	60	S	200	50,00 ZP
M 8	x	10	S	200	51,00 ZP
M 8	x	12	S	200	44,50 ZP
M 8	x	14	S	200	44,50 ZP
M 8	x	16	S	200	44,50 ZP
M 8	x	20	S	200	44,00 ZP
M 8	x	25	S	200	47,50 ZP
M 8	x	30	S	200	51,00 ZP
M 8	x	35	S	200	63,00 ZP
M 8	x	40	S	200	66,00 ZP
M 8	x	45	S	200	72,00 ZP
M 8	x	50	S	200	78,00 ZP
M 8	x	60	S	200	84,00 ZP
M 10	x	20	S	200	92,00 ZP
M 10	x	30	S	200	130,00 ZP
M 10	x	35	S	100	136,00 ZP

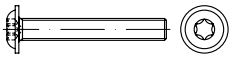
Dimensions			PU	Pieces	€/100/Mat.
M 10	x	40	S	100	142,00 ZP
M 10	x	50	S	100	148,00 ZP
M 12	x	20	S	100	189,00 ZP
M 12	x	25	S	100	204,00 ZP
M 12	x	30	S	100	216,00 ZP
M 12	x	40	S	100	236,00 ZP
M 12	x	50	S	100	255,00 ZP
M 12	x	60	S	100	270,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU	Pieces	€/100/Mat.
~ISO	07380.349		3500

7380-2 010.9 zinc plated ISR



Hexalobular socket button head screws with collar, ISR = hexalobular socket

sometimes thread up to head
~DIN 34805-2

Caution!
Screws have only a reduced loadability.
Note information about hydrogen embrittlement.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 573

RoHS ✓ | REACh SVHC free

M 3	x	6 -T10	S	500	21,80 ZP
M 3	x	8 -T10	S	500	21,80 ZP
M 3	x	10 -T10	S	500	21,80 ZP
M 3	x	12 -T10	S	500	24,20 ZP
M 3	x	20 -T10	S	500	25,50 ZP
M 4	x	6 -T20	S	500	29,50 ZP
M 4	x	8 -T20	S	500	25,50 ZP
M 4	x	10 -T20	S	500	24,20 ZP
M 4	x	12 -T20	S	500	25,50 ZP
M 4	x	16 -T20	S	500	28,00 ZP
M 4	x	20 -T20	S	500	38,00 ZP
M 4	x	30 -T20	S	500	50,00 ZP
M 5	x	6 -T25	S	500	48,50 ZP
M 5	x	8 -T25	S	500	27,00 ZP
M 5	x	10 -T25	S	500	25,50 ZP
M 5	x	12 -T25	S	500	27,00 ZP
M 5	x	16 -T25	S	500	31,50 ZP
M 5	x	20 -T25	S	500	33,00 ZP
M 5	x	25 -T25	S	500	39,00 ZP
M 5	x	30 -T25	S	500	45,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	35 -T25	S	200	51,00 ZP
M 6	x	6 -T30	S	500	25,50 ZP
M 6	x	10 -T30	S	500	30,50 ZP
M 6	x	12 -T30	S	500	33,00 ZP
M 6	x	16 -T30	S	500	35,50 ZP
M 6	x	20 -T30	S	500	36,50 ZP
M 6	x	25 -T30	S	500	38,00 ZP
M 6	x	30 -T30	S	500	39,00 ZP
M 6	x	40 -T30	S	200	45,00 ZP
M 6	x	50 -T30	S	200	50,00 ZP
M 8	x	10 -T40	S	200	56,00 ZP
M 8	x	12 -T40	S	200	48,50 ZP
M 8	x	16 -T40	S	200	48,50 ZP
M 8	x	20 -T40	S	200	48,50 ZP
M 8	x	25 -T40	S	200	53,00 ZP
M 8	x	30 -T40	S	200	56,00 ZP
M 8	x	35 -T40	S	200	69,00 ZP
M 8	x	40 -T40	S	200	72,00 ZP
M 8	x	50 -T40	S	200	85,00 ZP

ISO	07434.000	230

7434

14 H



Slotted grub screws with cone point

Dimensions ➔ TI-19
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 573
Brass ➔ pg. 641

ISO 7434 ➔ replaces DIN 553 (compatible)

RoHS ✓

M 1,6	x	2	K	100	12,10
M 1,6	x	3	K	100	12,10
M 2	x	3	K	200	10,60
M 2	x	4	K	200	10,70
M 2	x	5	K	200	10,80
M 2	x	6	K	200	11,10
M 2	x	12	K	200	12,40
M 2,5	x	3	K	200	11,20
M 2,5	x	4	K	200	10,80
M 2,5	x	5	K	200	11,10
M 2,5	x	6	K	200	11,20
M 2,5	x	8	K	200	11,30
M 2,5	x	10	K	200	11,80
M 2,5	x	12	K	200	12,60
M 3	x	3	K	200	8,40
M 3	x	4	S	1000	4,15
M 3	x	4	K	200	5,00
M 3	x	5	S	1000	3,95
M 3	x	5	K	200	4,85
M 3	x	6	S	1000	4,10
M 3	x	6	K	200	5,30
M 3	x	8	S	1000	4,15
M 3	x	8	K	200	5,40
M 3	x	10	S	1000	4,15
M 3	x	10	K	200	5,70
M 3	x	12	K	200	5,50
M 3	x	16	K	200	9,10
M 3	x	20	K	200	12,90
M 4	x	4	S	1000	4,15
M 4	x	4	K	200	6,90
M 4	x	5	S	1000	4,30
M 4	x	5	K	200	5,30
M 4	x	6	S	1000	4,30

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6	K	200	5,30
M 4	x	8	S	1000	4,30
M 4	x	8	K	200	5,30
M 4	x	10	S	1000	4,60
M 4	x	10	K	200	5,50
M 4	x	12	S	1000	4,85
M 4	x	12	K	200	5,90
M 4	x	16	K	200	6,30
M 4	x	20	K	200	7,20
M 4	x	30	K	200	9,40
M 5	x	5	S	1000	4,85
M 5	x	5	K	200	8,20
M 5	x	6	S	1000	4,85
M 5	x	6	K	200	9,00
M 5	x	8	S	1000	5,30
M 5	x	8	K	200	6,20
M 5	x	10	S	1000	5,90
M 5	x	10	K	200	6,80
M 5	x	12	S	1000	6,20
M 5	x	12	K	200	8,60
M 5	x	16	S	1000	7,90
M 5	x	16	K	200	8,80
M 5	x	20	K	200	9,20
M 5	x	25	K	200	9,70
M 6	x	5	K	200	9,40
M 6	x	6	S	1000	8,20
M 6	x	6	K	200	7,20
M 6	x	8	S	1000	6,30
M 6	x	8	K	200	7,40
M 6	x	10	S	1000	6,70
M 6	x	10	K	200	7,70
M 6	x	12	S	1000	7,20
M 6	x	12	K	200	7,90
M 6	x	16	S	1000	8,20
M 6	x	16	K	200	9,60
M 6	x	20	S	1000	9,10
M 6	x	20	K	200	9,90
M 6	x	25	S	1000	10,50
M 6	x	25	K	100	12,50
M 6	x	30	K	100	13,80
M 6	x	40	K	100	39,00
M 8	x	8	K	100	16,40
M 8	x	10	S	1000	8,40
M 8	x	10	K	100	13,50
M 8	x	12	S	1000	9,70
M 8	x	12	K	100	11,80
M 8	x	16	S	1000	10,30
M 8	x	16	K	100	12,50
M 8	x	18	K	100	14,30
M 8	x	20	S	1000	12,60
M 8	x	20	K	100	14,70
M 8	x	25	S	1000	14,10
M 8	x	25	K	100	18,20
M 8	x	30	K	100	19,70
M 8	x	40	K	100	33,00
M 8	x	50	K	100	68,00
M 10	x	10	K	100	23,20
M 10	x	12	K	100	23,50
M 10	x	16	K	100	25,00
M 10	x	20	K	100	27,50
M 10	x	25	K	100	30,00
M 10	x	30	K	100	32,50
M 10	x	35	K	100	34,50
M 10	x	40	K	100	53,00
M 10	x	60	K	100	78,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	07435.000		140

7435

14 H



Slotted grub screws with full dog point

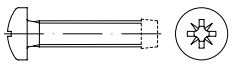
Dimensions ➔ TI-19
Material properties ➔ TI-232
Standard conversion ➔ TI-6
REACH ➔ TI-262

ISO 7435 ➔ replaces DIN 417 (compatible)

RoHS ✓

M 3	x	5	S	100	17,00
M 3	x	6	S	100	11,10
M 3	x	8	S	100	11,40
M 3	x	10	S	100	14,40
M 3	x	12	S	100	15,10
M 4	x	5	S	100	23,50
M 4	x	6	S	100	18,80
M 4	x	8	S	100	11,80
M 4	x	10	S	100	12,10
M 4	x	12	S	100	16,00
M 4	x	16	S	100	13,70
M 5	x	8	S	100	13,50
M 5	x	10	S	100	14,60
M 5	x	12	S	100	15,10
M 5	x	16	S	100	18,10
M 5	x	20	S	100	23,50
M 5	x	25	S	100	24,70
M 6	x	8	S	100	15,40
M 6	x	10	S	100	16,00
M 6	x	12	S	100	16,70
M 6	x	16	S	100	18,60
M 6	x	20	S	100	20,20
M 6	x	25	S	100	22,60
M 6	x	30	S	100	31,50
M 8	x	10	S	100	38,00
M 8	x	12	S	100	21,60
M 8	x	16	S	100	22,40
M 8	x	20	S	100	27,00
M 8	x	25	S	100	29,50
M 8	x	30	S	100	36,00
M 8	x	35	S	100	51,00
M 8	x	40	S	100	69,00
M 10	x	12	S	50	77,00
M 10	x	16	S	50	50,00
M 10	x	20	S	50	69,00
M 10	x	25	S	50	59,00
M 10	x	30	S	50	78,00
M 10	x	35	S	50	85,00
M 10	x	40	S	50	90,00
M 10	x	50	S	50	160,00
M 12	x	20	S	50	109,00
M 12	x	25	S	50	118,00
M 12	x	40	S	50	148,00
M 12	x	50	S	50	165,00

Dimensions	PU	Pieces	€/100/Mat.
DIN 07500.014			637
7500 Steel zinc plated			type C-Z



Thread rolling screws,
with metric thread,
C = pan head acc. to DIN 7985
Z = with Pozidriv cross recess Z

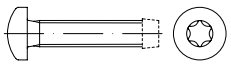
hardened

Dimensions ➔ TI-41 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

CM 2	x	5 -Z	S	1000	5,80 ZP
CM 2	x	6 -Z	S	1000	5,70 ZP
CM 2	x	8 -Z	S	1000	5,90 ZP
CM 2	x	10 -Z	S	1000	9,10 ZP
CM 2	x	12 -Z	S	1000	10,30 ZP
CM 2,5	x	4 -Z	S	1000	5,80 ZP
CM 2,5	x	5 -Z	S	1000	5,90 ZP
CM 2,5	x	6 -Z	S	1000	6,00 ZP
CM 2,5	x	8 -Z	S	1000	6,20 ZP
CM 2,5	x	10 -Z	S	1000	6,50 ZP
CM 2,5	x	12 -Z	S	1000	6,50 ZP
CM 2,5	x	16 -Z	S	1000	6,80 ZP
CM 2,5	x	20 -Z	S	1000	6,90 ZP
CM 3	x	4 -Z	S	1000	11,90 ZP
CM 3	x	5 -Z	S	2000	12,80 ZP
CM 3	x	6 -Z	S	2000	12,80 ZP
CM 3	x	8 -Z	S	2000	13,00 ZP
CM 3	x	10 -Z	S	2000	13,60 ZP
CM 3	x	12 -Z	S	1000	14,00 ZP
CM 3	x	16 -Z	S	1000	14,20 ZP
CM 3	x	20 -Z	S	1000	14,40 ZP
CM 3	x	25 -Z	S	1000	14,70 ZP
CM 3	x	30 -Z	S	1000	15,80 ZP
CM 3,5	x	6 -Z	S	1000	17,00 ZP
CM 3,5	x	8 -Z	S	1000	17,00 ZP
CM 3,5	x	10 -Z	S	1000	21,20 ZP
CM 3,5	x	12 -Z	S	1000	22,10 ZP
CM 3,5	x	16 -Z	S	1000	23,00 ZP
CM 4	x	6 -Z	S	2000	16,90 ZP
CM 4	x	8 -Z	S	2000	16,90 ZP
CM 4	x	10 -Z	S	2000	18,00 ZP
CM 4	x	12 -Z	S	2000	20,00 ZP
CM 4	x	16 -Z	S	2000	21,80 ZP
CM 4	x	20 -Z	S	2000	22,90 ZP
CM 4	x	25 -Z	S	1000	25,50 ZP
CM 4	x	30 -Z	S	1000	26,00 ZP
CM 4	x	35 -Z	S	1000	30,50 ZP
CM 4	x	40 -Z	S	1000	36,50 ZP
CM 5	x	6 -Z	S	1000	22,60 ZP
CM 5	x	8 -Z	S	2000	24,00 ZP
CM 5	x	10 -Z	S	2000	24,00 ZP
CM 5	x	12 -Z	S	1000	26,00 ZP
CM 5	x	16 -Z	S	1000	28,50 ZP
CM 5	x	20 -Z	S	1000	31,00 ZP
CM 5	x	25 -Z	S	1000	34,50 ZP
CM 5	x	30 -Z	S	1000	34,50 ZP
CM 5	x	35 -Z	S	500	42,50 ZP
CM 5	x	40 -Z	S	500	51,00 ZP
CM 6	x	8 -Z	S	500	28,50 ZP
CM 6	x	10 -Z	S	1000	41,00 ZP
CM 6	x	12 -Z	S	1000	51,00 ZP
CM 6	x	16 -Z	S	1000	45,50 ZP
CM 6	x	20 -Z	S	1000	48,50 ZP
CM 6	x	25 -Z	S	500	49,50 ZP
CM 6	x	30 -Z	S	500	50,00 ZP
CM 6	x	35 -Z	S	500	51,00 ZP
CM 6	x	40 -Z	S	500	52,00 ZP
CM 8	x	16 -Z	S	250	66,00 ZP
CM 8	x	20 -Z	S	250	72,00 ZP
CM 8	x	25 -Z	S	250	78,00 ZP
CM 8	x	30 -Z	S	250	85,00 ZP
CM 8	x	35 -Z	S	250	92,00 ZP
CM 8	x	40 -Z	S	100	107,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN 07500.017			637
7500 Steel zinc plated			type CE-ISR/PE



Thread rolling screws,
with metric thread,
CE/PE = pan head acc. to ISO 14583
ISR = hexalobular socket

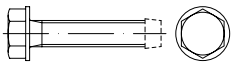
hardened

Dimensions ➔ TI-41 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

CEM 3	x	4-T10	S	1000	15,20 ZP
CEM 3	x	5-T10	S	1000	15,20 ZP
CEM 3	x	6-T10	S	1000	15,30 ZP
CEM 3	x	8-T10	S	1000	15,50 ZP
CEM 3	x	10-T10	S	1000	16,30 ZP
CEM 3	x	12-T10	S	1000	16,70 ZP
CEM 3	x	16-T10	S	1000	17,00 ZP
CEM 3	x	20-T10	S	1000	17,40 ZP
CEM 3	x	25-T10	S	1000	30,50 ZP
CEM 4	x	6-T20	S	1000	20,30 ZP
CEM 4	x	8-T20	S	1000	20,60 ZP
CEM 4	x	10-T20	S	1000	21,60 ZP
CEM 4	x	12-T20	S	1000	24,00 ZP
CEM 4	x	16-T20	S	1000	26,50 ZP
CEM 4	x	20-T20	S	1000	27,50 ZP
CEM 4	x	25-T20	S	1000	30,50 ZP
CEM 4	x	30-T20	S	1000	31,00 ZP
CEM 4	x	35-T20	S	1000	36,50 ZP
CEM 5	x	6-T25	S	1000	27,50 ZP
CEM 5	x	8-T25	S	1000	29,00 ZP
CEM 5	x	10-T25	S	1000	30,00 ZP
CEM 5	x	12-T25	S	1000	31,00 ZP
CEM 5	x	16-T25	S	1000	34,50 ZP
CEM 5	x	20-T25	S	1000	37,00 ZP
CEM 5	x	25-T25	S	1000	42,00 ZP
CEM 5	x	30-T25	S	500	44,00 ZP
CEM 5	x	35-T25	S	1000	47,00 ZP
CEM 5	x	40-T25	S	1000	53,00 ZP
CEM 6	x	8-T30	S	1000	49,50 ZP
CEM 6	x	10-T30	S	1000	49,50 ZP
CEM 6	x	12-T30	S	500	54,00 ZP
CEM 6	x	16-T30	S	500	55,00 ZP
CEM 6	x	20-T30	S	500	59,00 ZP
CEM 6	x	25-T30	S	500	59,00 ZP
CEM 6	x	30-T30	S	500	60,00 ZP
CEM 6	x	35-T30	S	500	61,00 ZP
CEM 6	x	40-T30	S	500	62,00 ZP
CEM 6	x	45-T30	S	500	71,00 ZP
CEM 6	x	50-T30	S	500	83,00 ZP
CEM 8	x	12-T45	S	500	63,00 ZP
CEM 8	x	16-T45	S	500	66,00 ZP
CEM 8	x	20-T45	S	500	72,00 ZP
CEM 8	x	25-T45	S	500	78,00 ZP
CEM 8	x	30-T45	S	100	85,00 ZP
CEM 8	x	35-T45	S	100	92,00 ZP
CEM 8	x	40-T45	S	100	107,00 ZP
CEM 8	x	45-T45	S	100	119,00 ZP
CEM 8	x	50-T45	S	100	135,00 ZP
CEM 8	x	60-T45	S	250	200,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN 07500.015			637
7500 Steel zinc plated			~ type D



Thread rolling screws,
with metric thread,
~D = hexagon head with collar

hardened

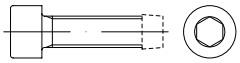
Dimensions ➔ TI-41 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

DM 4	x	6	S	1000	12,10 ZP
DM 4	x	8	S	1000	10,20 ZP
DM 4	x	10	S	1000	10,60 ZP
DM 4	x	12	S	1000	11,30 ZP
DM 4	x	16	S	1000	12,40 ZP
DM 4	x	20	S	1000	13,60 ZP
DM 4	x	25	S	1000	17,00 ZP
DM 4	x	30	S	1000	23,60 ZP
DM 5	x	8	S	1000	14,70 ZP
DM 5	x	10	S	1000	16,10 ZP
DM 5	x	12	S	1000	17,00 ZP
DM 5	x	16	S	1000	18,10 ZP
DM 5	x	20	S	1000	19,20 ZP
DM 5	x	25	S	1000	22,20 ZP
DM 5	x	30	S	1000	26,00 ZP
DM 5	x	35	S	1000	30,50 ZP
DM 5	x	40	S	1000	39,00 ZP
DM 6	x	8	S	1000	29,00 ZP
DM 6	x	10	S	1000	31,00 ZP
DM 6	x	12	S	1000	31,50 ZP
DM 6	x	16	S	1000	33,00 ZP
DM 6	x	20	S	1000	33,00 ZP
DM 6	x	25	S	1000	34,00 ZP
DM 6	x	30	S	1000	37,00 ZP
DM 6	x	35	S	500	42,50 ZP
DM 6	x	40	S	500	51,00 ZP
DM 6	x	45	S	500	67,00 ZP
DM 6	x	50	S	500	84,00 ZP
DM 8	x	12	S	500	59,00 ZP
DM 8	x	16	S	500	55,00 ZP
DM 8	x	20	S	500	59,00 ZP
DM 8	x	25	S	500	67,00 ZP
DM 8	x	30	S	500	74,00 ZP
DM 8	x	35	S	500	85,00 ZP
DM 8	x	40	S	500	88,00 ZP
DM 8	x	45	S	500	109,00 ZP
DM 8	x	50	S	250	112,00 ZP
DM 8	x	60	S	500	167,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
~DIN	07500.018	637
7500	**Steel zinc plated**	**type E**



Thread rolling screws,
with metric thread,
E = hexagon socket head cap*

hardened
*acc. to DIN 912

Dimensions ➔ TI-41 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

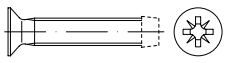
E M 4	x 6	S 2000	18,20 ZP
E M 4	x 8	S 2000	18,90 ZP
E M 4	x 10	S 2000	20,50 ZP
E M 4	x 12	S 2000	22,40 ZP
E M 4	x 16	S 2000	24,40 ZP
E M 4	x 20	S 1000	26,50 ZP
E M 4	x 25	S 1000	30,00 ZP
E M 4	x 30	S 1000	34,00 ZP
E M 4	x 35	S 1000	42,50 ZP
E M 4	x 40	S 500	55,00 ZP
E M 4	x 45	S 500	71,00 ZP
E M 5	x 8	S 2000	22,10 ZP
E M 5	x 10	S 2000	24,20 ZP
E M 5	x 12	S 2000	27,00 ZP
E M 5	x 16	S 2000	30,00 ZP
E M 5	x 20	S 1000	33,00 ZP
E M 5	x 25	S 1000	38,00 ZP
E M 5	x 30	S 1000	43,50 ZP
E M 5	x 35	S 1000	65,00 ZP
E M 5	x 40	S 500	58,00 ZP
E M 6	x 8	S 1000	44,00 ZP
E M 6	x 10	S 1000	48,00 ZP
E M 6	x 12	S 1000	53,00 ZP
E M 6	x 16	S 1000	59,00 ZP
E M 6	x 20	S 1000	135,00 ZP
E M 6	x 25	S 1000	74,00 ZP
E M 6	x 30	S 500	85,00 ZP
E M 6	x 35	S 250	98,00 ZP
E M 6	x 40	S 250	113,00 ZP
E M 6	x 45	S 250	130,00 ZP
E M 6	x 50	S 250	150,00 ZP
E M 8	x 30	S 250	300,00 ZP
E M 8	x 35	S 250	340,00 ZP
E M 8	x 50	S 100	485,00 ZP

RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions	PU Pieces	€/100/Mat.
DIN	07500.016	637
7500	**Steel zinc plated**	**type M-Z**



Thread rolling screws,
with metric thread,
M = counters head acc. to DIN 965
Z = with Pozidriv cross recess Z

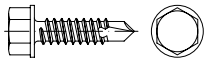
hardened

Dimensions ➔ TI-41 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

MM 2,5	x 5 -Z	S 4000	6,00 ZP
MM 2,5	x 6 -Z	S 1000	5,70 ZP
MM 2,5	x 8 -Z	S 1000	5,90 ZP
MM 2,5	x 10 -Z	S 1000	6,00 ZP
MM 2,5	x 12 -Z	S 1000	6,10 ZP
MM 2,5	x 16 -Z	S 1000	9,70 ZP
MM 2,5	x 20 -Z	S 1000	12,50 ZP
MM 3	x 4 -Z	S 1000	9,70 ZP
MM 3	x 5 -Z	S 1000	9,70 ZP
MM 3	x 6 -Z	S 1000	6,20 ZP
MM 3	x 8 -Z	S 1000	6,30 ZP
MM 3	x 10 -Z	S 1000	6,80 ZP
MM 3	x 12 -Z	S 1000	6,90 ZP
MM 3	x 16 -Z	S 1000	7,70 ZP
MM 3	x 20 -Z	S 1000	8,90 ZP
MM 3	x 25 -Z	S 1000	9,10 ZP
MM 4	x 6 -Z	S 1000	12,10 ZP
MM 4	x 8 -Z	S 1000	8,50 ZP
MM 4	x 10 -Z	S 1000	8,90 ZP
MM 4	x 12 -Z	S 1000	9,50 ZP
MM 4	x 16 -Z	S 1000	10,70 ZP
MM 4	x 20 -Z	S 1000	11,20 ZP
MM 4	x 25 -Z	S 1000	12,90 ZP
MM 4	x 30 -Z	S 1000	14,00 ZP
MM 5	x 8 -Z	S 1000	14,60 ZP
MM 5	x 10 -Z	S 1000	11,80 ZP
MM 5	x 12 -Z	S 1000	12,60 ZP
MM 5	x 16 -Z	S 1000	14,10 ZP
MM 5	x 20 -Z	S 1000	15,70 ZP
MM 5	x 25 -Z	S 1000	19,50 ZP
MM 5	x 30 -Z	S 1000	21,10 ZP
MM 5	x 35 -Z	S 1000	24,00 ZP
MM 5	x 40 -Z	S 1000	27,00 ZP
MM 6	x 8 -Z	S 1000	24,20 ZP
MM 6	x 10 -Z	S 1000	24,20 ZP
MM 6	x 12 -Z	S 500	20,30 ZP
MM 6	x 16 -Z	S 500	22,20 ZP
MM 6	x 20 -Z	S 500	22,90 ZP
MM 6	x 25 -Z	S 500	26,50 ZP
MM 6	x 30 -Z	S 500	28,50 ZP
MM 6	x 35 -Z	S 500	31,00 ZP
MM 6	x 40 -Z	S 500	36,00 ZP
MM 6	x 45 -Z	S 500	48,50 ZP
MM 6	x 50 -Z	S 500	49,50 ZP
MM 8	x 10 -Z	S 500	44,00 ZP
MM 8	x 12 -Z	S 500	39,00 ZP
MM 8	x 16 -Z	S 250	44,00 ZP
MM 8	x 20 -Z	S 250	46,00 ZP
MM 8	x 25 -Z	S 250	47,00 ZP
MM 8	x 30 -Z	S 250	60,00 ZP
MM 8	x 35 -Z	S 250	71,00 ZP
MM 8	x 40 -Z	S 250	85,00 ZP
MM 8	x 45 -Z	S 250	100,00 ZP
MM 8	x 50 -Z	S 250	119,00 ZP
MM 8	x 60 -Z	S 250	163,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	07504.014	637
7504	**Steel zinc plated**	**type K**



Drilling screws,
with tapping screw thread,
K = hexagon head with collar*

hardened
*acc. to DIN 6928 / ~ISO 15480

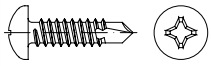
Dimensions ➔ TI-42 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

K 3,5	x 9,5	S 1000	9,50 ZP
K 3,5	x 13	S 1000	9,70 ZP
K 3,5	x 16	S 1000	10,70 ZP
K 3,5	x 19	S 1000	11,20 ZP
K 3,5	x 22	S 1000	17,20 ZP
K 3,5	x 25	S 1000	22,20 ZP
K 3,9	x 13	S 1000	10,30 ZP
K 3,9	x 16	S 1000	11,30 ZP
K 3,9	x 19	S 1000	12,30 ZP
K 3,9	x 22	S 1000	19,40 ZP
K 3,9	x 25	S 1000	25,50 ZP
K 3,9	x 32	S 1000	35,00 ZP
K 4,2	x 13	S 1000	11,70 ZP
K 4,2	x 13	K 100	16,50 ZP
K 4,2	x 16	S 1000	12,30 ZP
K 4,2	x 19	S 1000	12,50 ZP
K 4,2	x 22	S 1000	14,30 ZP
K 4,2	x 25	S 1000	15,20 ZP
K 4,2	x 32	S 500	21,50 ZP
K 4,2	x 38	S 500	28,00 ZP
K 4,8	x 13	S 1000	14,30 ZP
K 4,8	x 16	S 1000	15,00 ZP
K 4,8	x 19	S 1000	15,70 ZP
K 4,8	x 22	S 1000	18,00 ZP
K 4,8	x 25	S 1000	19,20 ZP
K 4,8	x 32	S 500	21,50 ZP
K 4,8	x 38	S 500	24,00 ZP
K 4,8	x 45	S 500	27,00 ZP
K 4,8	x 50	S 500	28,50 ZP
K 4,8	x 60	S 500	33,50 ZP
K 4,8	x 70	S 250	37,00 ZP
K 4,8	x 80	S 250	42,50 ZP
K 5,5	x 16	S 500	21,50 ZP
K 5,5	x 19	S 500	20,30 ZP
K 5,5	x 22	S 500	22,90 ZP
K 5,5	x 25	S 500	23,60 ZP
K 5,5	x 32	S 250	26,50 ZP
K 5,5	x 38	S 250	26,50 ZP
K 5,5	x 45	S 250	27,00 ZP
K 5,5	x 50	S 250	27,00 ZP
K 5,5	x 60	S 250	39,00 ZP
K 5,5	x 70	S 100	46,00 ZP
K 5,5	x 80	S 100	55,00 ZP
K 5,5	x 90	S 100	63,00 ZP
K 5,5	x 100	S 100	78,00 ZP
K 6,3	x 16	S 500	27,00 ZP
K 6,3	x 19	S 500	28,50 ZP
K 6,3	x 22	S 500	30,50 ZP

Dimensions	PU	Pieces	€/100/Mat.
K 6,3 x 25	S	500	31,50 ZP
K 6,3 x 32	S	250	37,00 ZP
K 6,3 x 38	S	250	39,50 ZP
K 6,3 x 45	S	250	44,50 ZP
K 6,3 x 50	S	250	49,50 ZP
K 6,3 x 60	S	250	54,00 ZP
K 6,3 x 70	S	100	60,00 ZP
K 6,3 x 80	S	100	68,00 ZP
K 6,3 x 90	S	100	83,00 ZP
K 6,3 x 100	S	100	100,00 ZP
K 6,3 x 110	S	100	119,00 ZP
K 6,3 x 120	S	100	141,00 ZP
K 6,3 x 130	S	100	165,00 ZP
K 6,3 x 140	S	100	194,00 ZP
K 6,3 x 150	S	100	230,00 ZP
K 6,3 x 160	S	100	295,00 ZP

DIN	07504.015	637
7504	**Steel zinc plated**	**type N-H**



Drilling screws,
with tapping screw thread,
N = pan head acc. to DIN 7981
H = with Phillips cross recess H

hardened

Dimensions ➔ TI-42 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
N 2,9 x 9,5-H	S	1000	8,60 ZP
N 2,9 x 13 -H	S	1000	8,80 ZP
N 2,9 x 16 -H	S	1000	8,90 ZP
N 2,9 x 19 -H	S	1000	9,60 ZP
N 3,5 x 9,5-H	S	1000	9,90 ZP
N 3,5 x 13 -H	S	1000	10,10 ZP
N 3,5 x 16 -H	S	1000	10,30 ZP
N 3,5 x 19 -H	S	1000	10,70 ZP
N 3,5 x 22 -H	S	1000	11,70 ZP
N 3,5 x 25 -H	S	1000	12,00 ZP
N 3,5 x 32 -H	S	1000	13,40 ZP
N 3,9 x 9,5-H	S	1000	10,10 ZP
N 3,9 x 13 -H	S	1000	10,20 ZP
N 3,9 x 16 -H	S	1000	10,80 ZP
N 3,9 x 19 -H	S	1000	11,30 ZP
N 3,9 x 22 -H	S	1000	11,70 ZP
N 3,9 x 25 -H	S	1000	12,10 ZP
N 3,9 x 32 -H	S	1000	12,90 ZP
N 3,9 x 38 -H	S	500	13,70 ZP
N 3,9 x 45 -H	S	500	14,60 ZP
N 3,9 x 50 -H	S	500	16,00 ZP
N 4,2 x 13 -H	S	1000	12,30 ZP
N 4,2 x 16 -H	S	1000	12,60 ZP
N 4,2 x 19 -H	S	1000	12,90 ZP
N 4,2 x 22 -H	S	1000	14,40 ZP
N 4,2 x 25 -H	S	1000	15,30 ZP
N 4,2 x 32 -H	S	500	16,50 ZP
N 4,2 x 38 -H	S	500	17,80 ZP
N 4,2 x 45 -H	S	500	19,30 ZP
N 4,2 x 50 -H	S	500	20,90 ZP
N 4,8 x 13 -H	S	1000	14,90 ZP
N 4,8 x 16 -H	S	1000	15,30 ZP
N 4,8 x 19 -H	S	1000	16,00 ZP
N 4,8 x 22 -H	S	1000	17,00 ZP
N 4,8 x 25 -H	S	1000	18,70 ZP

Dimensions	PU	Pieces	€/100/Mat.
N 4,8 x 32 -H	S	500	18,80 ZP
N 4,8 x 38 -H	S	500	20,60 ZP
N 4,8 x 45 -H	S	500	22,20 ZP
N 4,8 x 50 -H	S	500	23,60 ZP
N 4,8 x 60 -H	S	250	26,50 ZP
N 4,8 x 70 -H	S	250	29,00 ZP
N 4,8 x 80 -H	S	250	32,00 ZP
N 4,8 x 90 -H	S	250	51,00 ZP
N 4,8 x 100 -H	S	250	80,00 ZP
N 4,8 x 110 -H	S	100	119,00 ZP
N 4,8 x 120 -H	S	250	170,00 ZP
N 5,5 x 16 -H	S	500	18,60 ZP
N 5,5 x 19 -H	S	500	19,40 ZP
N 5,5 x 22 -H	S	500	21,50 ZP
N 5,5 x 25 -H	S	500	29,00 ZP
N 5,5 x 32 -H	S	500	31,50 ZP
N 5,5 x 38 -H	S	500	34,00 ZP
N 5,5 x 45 -H	S	500	36,50 ZP
N 5,5 x 50 -H	S	500	39,50 ZP
N 5,5 x 60 -H	S	250	43,50 ZP
N 5,5 x 70 -H	S	250	49,00 ZP
N 5,5 x 80 -H	S	250	54,00 ZP
N 6,3 x 16 -H	S	500	32,50 ZP
N 6,3 x 19 -H	S	500	34,00 ZP
N 6,3 x 22 -H	S	500	37,00 ZP
N 6,3 x 25 -H	S	500	40,00 ZP
N 6,3 x 32 -H	S	500	43,00 ZP
N 6,3 x 38 -H	S	500	46,50 ZP
N 6,3 x 45 -H	S	500	50,00 ZP
N 6,3 x 50 -H	S	500	54,00 ZP
N 6,3 x 60 -H	S	250	60,00 ZP
N 6,3 x 70 -H	S	250	66,00 ZP
N 6,3 x 80 -H	S	250	72,00 ZP
N 6,3 x 90 -H	S	100	81,00 ZP
N 6,3 x 100 -H	S	100	91,00 ZP

~DIN	07504.301	637
7504	**Steel zinc plated**	**type N-ISR**



Drilling screws,
with tapping screw thread,
N = pan head acc. to ISO 14585
ISR = hexalobular socket

hardened

Dimensions ➔ TI-42 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
N 2,9 x 9,5-T10	S	1000	11,70 ZP
N 2,9 x 13 -T10	S	1000	11,80 ZP
N 2,9 x 16 -T10	S	1000	12,00 ZP
N 2,9 x 19 -T10	S	1000	13,00 ZP
N 3,5 x 9,5-T15	S	1000	13,40 ZP
N 3,5 x 13 -T15	S	1000	13,70 ZP
N 3,5 x 16 -T15	S	1000	14,60 ZP
N 3,5 x 19 -T15	S	1000	15,70 ZP
N 3,5 x 22 -T15	S	1000	15,80 ZP
N 3,5 x 25 -T15	S	1000	16,30 ZP
N 3,5 x 32 -T15	S	1000	18,20 ZP
N 3,9 x 9,5-T20	S	1000	13,70 ZP
N 3,9 x 13 -T20	S	1000	13,80 ZP
N 3,9 x 16 -T20	S	1000	14,60 ZP
N 3,9 x 19 -T20	S	1000	15,30 ZP
N 3,9 x 22 -T20	S	1000	15,80 ZP

Dimensions	PU	Pieces	€/100/Mat.
N 3,9 x 25 -T20	S	1000	16,40 ZP
N 3,9 x 32 -T20	S	1000	17,50 ZP
N 3,9 x 38 -T20	S	500	18,60 ZP
N 3,9 x 45 -T20	S	500	19,70 ZP
N 3,9 x 50 -T20	S	500	21,80 ZP
N 4,2 x 13 -T20	S	1000	16,60 ZP
N 4,2 x 16 -T20	S	1000	17,00 ZP
N 4,2 x 19 -T20	S	1000	17,40 ZP
N 4,2 x 22 -T20	S	1000	19,50 ZP
N 4,2 x 25 -T20	S	1000	20,70 ZP
N 4,2 x 32 -T20	S	500	22,40 ZP
N 4,2 x 38 -T20	S	500	24,20 ZP
N 4,2 x 45 -T20	S	500	26,50 ZP
N 4,2 x 50 -T20	S	500	28,50 ZP
N 4,8 x 13 -T25	S	1000	20,20 ZP
N 4,8 x 16 -T25	S	1000	20,70 ZP
N 4,8 x 19 -T25	S	1000	21,60 ZP
N 4,8 x 22 -T25	S	1000	23,00 ZP
N 4,8 x 25 -T25	S	1000	25,50 ZP
N 4,8 x 32 -T25	S	500	25,50 ZP
N 4,8 x 38 -T25	S	500	28,00 ZP
N 4,8 x 45 -T25	S	500	30,50 ZP
N 4,8 x 50 -T25	S	500	32,50 ZP
N 4,8 x 55 -T25	S	500	35,00 ZP
N 4,8 x 60 -T25	S	250	35,50 ZP
N 4,8 x 70 -T25	S	250	39,00 ZP
N 4,8 x 80 -T25	S	250	43,00 ZP
N 5,5 x 16 -T25	S	500	25,50 ZP
N 5,5 x 19 -T25	S	500	26,50 ZP
N 5,5 x 22 -T25	S	500	29,00 ZP
N 5,5 x 25 -T25	S	500	39,00 ZP
N 5,5 x 32 -T25	S	500	42,00 ZP
N 5,5 x 38 -T25	S	500	45,50 ZP
N 5,5 x 45 -T25	S	500	49,50 ZP
N 5,5 x 50 -T25	S	500	54,00 ZP
N 5,5 x 60 -T25	S	250	59,00 ZP
N 5,5 x 70 -T25	S	250	67,00 ZP
N 5,5 x 80 -T25	S	250	73,00 ZP
N 6,3 x 16 -T30	S	500	44,00 ZP
N 6,3 x 19 -T30	S	500	46,00 ZP
N 6,3 x 22 -T30	S	500	50,00 ZP
N 6,3 x 25 -T30	S	500	54,00 ZP
N 6,3 x 32 -T30	S	500	59,00 ZP
N 6,3 x 38 -T30	S	500	63,00 ZP
N 6,3 x 45 -T30	S	500	68,00 ZP
N 6,3 x 50 -T30	S	500	74,00 ZP
N 6,3 x 60 -T30	S	250	81,00 ZP
N 6,3 x 70 -T30	S	250	89,00 ZP
N 6,3 x 80 -T30	S	250	98,00 ZP
N 6,3 x 90 -T30	S	100	109,00 ZP
N 6,3 x 100 -T30	S	100	128,00 ZP

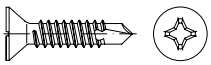
RKP®
REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
DIN	07504.016		637
7504	**Steel zinc plated**		**type P-H**



Drilling screws, with tapping screw thread, P = countersunk head* H = with Phillips cross recess H

hardened
*acc. to DIN 7982 (countersunk ⍼ = 80°)

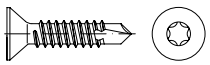
Dimensions ➔ TI-42 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

DIN 7504 type P ➔ replaced by ISO 15482

RoHS ✓ | REACh SVHC free

P	2,9	x 13	-H	S 1000	8,20 ZP
P	2,9	x 16	-H	S 1000	8,40 ZP
P	2,9	x 19	-H	S 1000	8,90 ZP
P	3,5	x 13	-H	S 1000	9,40 ZP
P	3,5	x 16	-H	S 1000	9,60 ZP
P	3,5	x 19	-H	S 1000	9,90 ZP
P	3,5	x 22	-H	S 1000	10,80 ZP
P	3,5	x 25	-H	S 1000	11,20 ZP
P	3,9	x 13	-H	S 1000	9,10 ZP
P	3,9	x 16	-H	S 1000	9,20 ZP
P	3,9	x 19	-H	S 1000	9,20 ZP
P	3,9	x 22	-H	S 1000	10,30 ZP
P	3,9	x 25	-H	S 1000	10,70 ZP
P	3,9	x 32	-H	S 1000	12,00 ZP
P	3,9	x 38	-H	S 500	14,80 ZP
P	3,9	x 45	-H	S 500	15,20 ZP
P	4,2	x 13	-H	S 1000	11,30 ZP
P	4,2	x 16	-H	S 1000	11,70 ZP
P	4,2	x 19	-H	S 1000	11,90 ZP
P	4,2	x 22	-H	S 1000	13,50 ZP
P	4,2	x 25	-H	S 1000	14,20 ZP
P	4,2	x 32	-H	S 500	15,20 ZP
P	4,2	x 38	-H	S 500	17,00 ZP
P	4,2	x 45	-H	S 500	18,90 ZP
P	4,2	x 50	-H	S 500	23,60 ZP
P	4,8	x 16	-H	S 1000	12,10 ZP
P	4,8	x 19	-H	S 1000	14,00 ZP
P	4,8	x 22	-H	S 1000	14,70 ZP
P	4,8	x 25	-H	S 500	14,80 ZP
P	4,8	x 32	-H	S 500	16,10 ZP
P	4,8	x 38	-H	S 500	17,70 ZP
P	4,8	x 45	-H	S 500	21,10 ZP
P	4,8	x 50	-H	S 250	24,10 ZP
P	5,5	x 25	-H	S 250	18,10 ZP
P	5,5	x 32	-H	S 250	19,70 ZP
P	5,5	x 38	-H	S 250	21,20 ZP
P	5,5	x 45	-H	S 250	23,80 ZP
P	5,5	x 50	-H	S 250	26,50 ZP
P	6,3	x 25	-H	S 250	26,00 ZP
P	6,3	x 32	-H	S 250	27,50 ZP
P	6,3	x 38	-H	S 250	29,50 ZP
P	6,3	x 45	-H	S 250	33,50 ZP
P	6,3	x 50	-H	S 250	36,50 ZP
P	6,3	x 60	-H	S 250	38,50 ZP
P	6,3	x 70	-H	S 250	65,00 ZP
P	6,3	x 80	-H	S 250	88,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07504.019		637
7504	**Steel zinc plated**		**type P-T**



Drilling screws, with tapping screw thread, P = countersunk head* T = hexalobular socket

hardened
*acc. to DIN 7982 (countersunk ⍼ = 80°)

Dimensions ➔ TI-42 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

P	2,9	x 13	-T10	S 1000	8,20 ZP
P	3,5	x 13	-T15	S 1000	9,40 ZP
P	3,5	x 16	-T15	S 1000	9,60 ZP
P	3,5	x 19	-T15	S 1000	9,90 ZP
P	3,5	x 22	-T15	S 1000	10,80 ZP
P	3,5	x 25	-T15	S 1000	11,20 ZP
P	3,9	x 13	-T20	S 1000	9,10 ZP
P	3,9	x 16	-T20	S 1000	9,20 ZP
P	3,9	x 19	-T20	S 1000	9,20 ZP
P	3,9	x 22	-T20	S 1000	10,30 ZP
P	3,9	x 25	-T20	S 1000	10,70 ZP
P	3,9	x 32	-T20	S 1000	12,00 ZP
P	3,9	x 38	-T20	S 500	14,80 ZP
P	4,2	x 13	-T20	S 1000	11,30 ZP
P	4,2	x 16	-T20	S 1000	11,70 ZP
P	4,2	x 19	-T20	S 1000	11,90 ZP
P	4,2	x 22	-T20	S 1000	13,50 ZP
P	4,2	x 25	-T20	S 1000	14,20 ZP
P	4,2	x 32	-T20	S 500	15,20 ZP
P	4,2	x 38	-T20	S 500	17,00 ZP
P	4,2	x 45	-T20	S 500	18,90 ZP
P	4,2	x 50	-T20	S 500	23,60 ZP
P	4,8	x 16	-T25	S 1000	12,10 ZP
P	4,8	x 19	-T25	S 1000	14,00 ZP
P	4,8	x 22	-T25	S 1000	14,70 ZP
P	4,8	x 25	-T25	S 500	14,80 ZP
P	4,8	x 32	-T25	S 500	16,10 ZP
P	4,8	x 38	-T25	S 500	17,70 ZP
P	4,8	x 45	-T25	S 500	21,10 ZP
P	4,8	x 50	-T25	S 250	24,10 ZP
P	5,5	x 19	-T25	S 250	18,10 ZP
P	5,5	x 22	-T25	S 250	18,10 ZP
P	5,5	x 25	-T25	S 250	18,10 ZP
P	5,5	x 32	-T25	S 250	19,70 ZP
P	5,5	x 38	-T25	S 250	21,20 ZP
P	5,5	x 45	-T25	S 250	23,80 ZP
P	5,5	x 50	-T25	S 250	26,50 ZP
P	6,3	x 19	-T30	S 250	26,00 ZP
P	6,3	x 22	-T30	S 250	26,00 ZP
P	6,3	x 25	-T30	S 250	26,00 ZP
P	6,3	x 32	-T30	S 250	27,50 ZP
P	6,3	x 38	-T30	S 250	29,50 ZP
P	6,3	x 45	-T30	S 250	33,50 ZP
P	6,3	x 50	-T30	S 250	36,50 ZP
P	6,3	x 60	-T30	S 250	38,50 ZP
P	6,3	x 70	-T30	S 250	65,00 ZP
P	6,3	x 80	-T30	S 100	83,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07513.011		639
7513	**Steel zinc plated**		



Thread cutting screws, A = hexagon head acc. to DIN 933

hardened

Dimensions ➔ TI-44 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

AM	4	x 8		S 1000	21,80 ZP
AM	4	x 10		S 1000	19,40 ZP
AM	4	x 12		S 1000	14,60 ZP
AM	4	x 16		S 1000	22,20 ZP
AM	4	x 20		S 1000	26,50 ZP
AM	4	x 25		S 1000	34,00 ZP
AM	5	x 10		S 1000	17,10 ZP
AM	5	x 12		S 1000	18,00 ZP
AM	5	x 16		S 1000	18,60 ZP
AM	5	x 20		S 500	24,20 ZP
AM	5	x 25		S 500	34,00 ZP
AM	5	x 30		S 500	44,00 ZP
AM	6	x 12		S 1000	34,00 ZP
AM	6	x 16		S 500	36,00 ZP
AM	6	x 20		S 500	37,00 ZP
AM	6	x 25		S 500	38,50 ZP
AM	6	x 30		S 500	47,50 ZP
AM	6	x 35		S 500	63,00 ZP
AM	8	x 16		S 100	52,00 ZP
AM	8	x 20		S 100	55,00 ZP
AM	8	x 25		S 100	57,00 ZP
AM	8	x 30		S 100	72,00 ZP
AM	8	x 35		S 100	83,00 ZP
AM	8	x 40		S 100	97,00 ZP
AM	8	x 45		S 50	112,00 ZP
AM	8	x 50		S 50	128,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07513.012		639
7513	**Steel zinc plated**		**type B**



Thread cutting screws, B = slotted cheese head acc. to DIN 84

hardened

Dimensions ➔ TI-44 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

BM	3	x 6		S 1000	7,40 ZP
BM	3	x 8		S 1000	7,40 ZP
BM	3	x 10		S 1000	7,40 ZP
BM	3	x 12		S 1000	7,70 ZP
BM	3	x 16		S 1000	9,70 ZP
BM	3	x 20		S 1000	12,10 ZP
BM	4	x 8		S 1000	10,00 ZP
BM	4	x 10		S 1000	10,20 ZP

Dimensions			PU	Pieces	€/100/Mat.
BM 4	x	12	S	1000	10,50 ZP
BM 4	x	16	S	1000	11,10 ZP
BM 4	x	20	S	1000	11,90 ZP
BM 4	x	25	S	1000	17,00 ZP
BM 5	x	10	S	1000	12,40 ZP
BM 5	x	12	S	1000	13,10 ZP
BM 5	x	16	S	1000	13,60 ZP
BM 5	x	20	S	1000	14,60 ZP
BM 6	x	12	S	1000	18,20 ZP
BM 6	x	16	S	500	21,50 ZP
BM 6	x	20	S	500	28,00 ZP
BM 6	x	25	S	500	30,50 ZP

DIN 07516.011 639

7516 Steel zinc plated **type A-H**



Thread cutting screws,
A = pan head acc. to DIN 7985
H = with Phillips cross recess H

hardened

Dimensions → TI-45 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

AM 3	x	6 -H	S	2000	10,00 ZP
AM 3	x	8 -H	S	2000	10,00 ZP
AM 3	x	10 -H	S	2000	10,10 ZP
AM 3	x	12 -H	S	2000	10,30 ZP
AM 3	x	16 -H	S	2000	10,60 ZP
AM 4	x	6 -H	S	2000	13,20 ZP
AM 4	x	8 -H	S	2000	13,20 ZP
AM 4	x	10 -H	S	2000	13,40 ZP
AM 4	x	12 -H	S	2000	13,80 ZP
AM 4	x	16 -H	S	2000	14,20 ZP
AM 4	x	20 -H	S	1000	15,20 ZP
AM 4	x	25 -H	S	1000	15,30 ZP
AM 4	x	30 -H	S	1000	16,30 ZP
AM 5	x	10 -H	S	2000	16,50 ZP
AM 5	x	12 -H	S	1000	17,10 ZP
AM 5	x	16 -H	S	1000	17,40 ZP
AM 5	x	20 -H	S	500	18,90 ZP
AM 5	x	25 -H	S	500	20,00 ZP
AM 5	x	30 -H	S	500	21,20 ZP
AM 5	x	35 -H	S	500	25,50 ZP
AM 5	x	40 -H	S	500	31,00 ZP
AM 6	x	12 -H	S	500	35,50 ZP
AM 6	x	16 -H	S	500	31,50 ZP
AM 6	x	20 -H	S	500	33,50 ZP
AM 6	x	25 -H	S	500	35,50 ZP
AM 6	x	30 -H	S	500	36,50 ZP
AM 6	x	35 -H	S	500	40,00 ZP
AM 6	x	40 -H	S	250	46,00 ZP
AM 6	x	50 -H	S	250	52,00 ZP
AM 8	x	16 -H	S	500	46,00 ZP
AM 8	x	20 -H	S	500	51,00 ZP
AM 8	x	25 -H	S	500	57,00 ZP
AM 8	x	30 -H	S	500	63,00 ZP
AM 8	x	35 -H	S	500	79,00 ZP
AM 8	x	40 -H	S	500	95,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07516.014		639

7516 Steel zinc plated **type D-H**



Thread cutting screws,
D = counters. head acc. to DIN 965
H = with Phillips cross recess H

hardened

Dimensions → TI-45 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

DM 3	x	6 -H	S	2000	9,70 ZP
DM 3	x	8 -H	S	2000	9,70 ZP
DM 3	x	10 -H	S	2000	9,90 ZP
DM 3	x	12 -H	S	2000	10,20 ZP
DM 3	x	16 -H	S	2000	10,20 ZP
DM 4	x	8 -H	S	2000	13,40 ZP
DM 4	x	10 -H	S	2000	13,10 ZP
DM 4	x	12 -H	S	2000	13,20 ZP
DM 4	x	16 -H	S	2000	13,50 ZP
DM 4	x	20 -H	S	1000	14,70 ZP
DM 4	x	25 -H	S	1000	17,00 ZP
DM 5	x	10 -H	S	2000	15,70 ZP
DM 5	x	12 -H	S	1000	15,70 ZP
DM 5	x	16 -H	S	1000	16,30 ZP
DM 5	x	20 -H	S	500	17,40 ZP
DM 5	x	25 -H	S	500	18,60 ZP
DM 5	x	30 -H	S	500	24,20 ZP
DM 6	x	12 -H	S	1000	30,00 ZP
DM 6	x	16 -H	S	500	30,00 ZP
DM 6	x	20 -H	S	500	31,50 ZP
DM 6	x	25 -H	S	500	33,50 ZP
DM 6	x	30 -H	S	500	34,50 ZP
DM 6	x	35 -H	S	500	36,50 ZP
DM 6	x	40 -H	S	250	41,50 ZP
DM 6	x	45 -H	S	250	66,00 ZP
DM 6	x	50 -H	S	250	76,00 ZP
DM 6	x	60 -H	S	250	92,00 ZP
DM 8	x	16 -H	S	100	73,00 ZP
DM 8	x	20 -H	S	100	71,00 ZP
DM 8	x	25 -H	S	100	79,00 ZP
DM 8	x	30 -H	S	100	91,00 ZP
DM 8	x	35 -H	S	100	107,00 ZP
DM 8	x	40 -H	S	100	121,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07516.015		639

7516 Steel zinc plated **type E-H**



Thread cutting screws,
E = raised countersunk head acc. to DIN 966
H = with Phillips cross recess H

hardened

Dimensions → TI-45 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

EM 3	x	6 -H	S	2000	18,00 ZP
EM 3	x	8 -H	S	2000	18,00 ZP
EM 3	x	10 -H	S	2000	18,60 ZP
EM 3	x	12 -H	S	2000	18,90 ZP
EM 3	x	16 -H	S	1000	21,50 ZP
EM 3	x	20 -H	S	1000	22,40 ZP
EM 4	x	8 -H	S	2000	21,10 ZP
EM 4	x	10 -H	S	2000	19,20 ZP
EM 4	x	12 -H	S	2000	25,50 ZP
EM 4	x	16 -H	S	2000	19,00 ZP
EM 4	x	20 -H	S	1000	20,90 ZP
EM 4	x	25 -H	S	1000	34,00 ZP
EM 5	x	10 -H	S	1000	29,50 ZP
EM 5	x	12 -H	S	1000	29,50 ZP
EM 5	x	16 -H	S	1000	23,20 ZP
EM 5	x	20 -H	S	500	24,50 ZP
EM 5	x	25 -H	S	500	34,50 ZP
EM 5	x	30 -H	S	500	45,00 ZP
EM 6	x	12 -H	S	1000	56,00 ZP
EM 6	x	16 -H	S	500	42,50 ZP
EM 6	x	20 -H	S	500	59,00 ZP
EM 6	x	25 -H	S	500	62,00 ZP
EM 6	x	30 -H	S	500	65,00 ZP
EM 6	x	35 -H	S	500	68,00 ZP
EM 6	x	40 -H	S	500	77,00 ZP
EM 6	x	50 -H	S	500	55,00 ZP
EM 6	x	60 -H	S	500	40,50 ZP
EM 8	x	16 -H	S	500	140,00 ZP
EM 8	x	20 -H	S	250	134,00 ZP
EM 8	x	25 -H	S	250	152,00 ZP
EM 8	x	30 -H	S	250	170,00 ZP
EM 8	x	35 -H	S	250	212,00 ZP

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU Pieces	€/100/Mat.
~DIN	07516.018	639

7516 Steel zinc plated type AE-ISR



Thread cutting screws,
AE = pan head acc. to ISO 7045
ISR = hexalobular socket

hardened

pin wrench ➔ ~ DIN 911 ISR,
bits ➔ article 88655

Dimensions ➔ TI-45 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

AE M 4	x	16 -T20	S	2000	19,40 ZP
AE M 4	x	20 -T20	S	1000	20,50 ZP
AE M 5	x	10 -T25	S	1000	22,40 ZP
AE M 5	x	12 -T25	S	1000	23,20 ZP
AE M 5	x	16 -T25	S	1000	23,60 ZP
AE M 5	x	20 -T25	S	500	26,00 ZP
AE M 5	x	25 -T25	S	500	27,00 ZP
AE M 6	x	12 -T30	S	1000	48,50 ZP
AE M 6	x	16 -T30	S	500	42,50 ZP
AE M 6	x	20 -T30	S	500	45,50 ZP
AE M 6	x	25 -T30	S	500	47,50 ZP

~DIN	07516.017	639

7516 Steel zinc plated type DE-ISR



Thread cutting screws,
DE = countersunk head acc. to ISO 7046-1
ISR = hexalobular socket

hardened

pin wrench ➔ ~ DIN 911 ISR,
bits ➔ article 88655

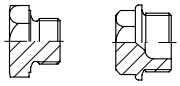
Dimensions ➔ TI-45 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

DE M 3	x	6 -T10	S	2000	13,40 ZP
DE M 3	x	8 -T10	S	2000	13,40 ZP
DE M 3	x	10 -T10	S	2000	13,60 ZP
DE M 3	x	12 -T10	S	2000	14,00 ZP
DE M 3	x	16 -T10	S	1000	14,00 ZP
DE M 3	x	20 -T10	S	1000	17,50 ZP
DE M 4	x	8 -T20	S	2000	18,10 ZP
DE M 4	x	10 -T20	S	2000	19,10 ZP
DE M 4	x	12 -T20	S	2000	19,40 ZP
DE M 4	x	16 -T20	S	2000	20,30 ZP
DE M 4	x	20 -T20	S	1000	21,00 ZP
DE M 4	x	25 -T20	S	1000	22,90 ZP
DE M 5	x	10 -T25	S	1000	21,20 ZP
DE M 5	x	12 -T25	S	1000	21,20 ZP
DE M 5	x	16 -T25	S	1000	22,40 ZP
DE M 5	x	20 -T25	S	500	24,20 ZP
DE M 5	x	25 -T25	S	500	27,00 ZP
DE M 5	x	30 -T25	S	500	33,00 ZP
DE M 6	x	12 -T30	S	1000	40,00 ZP
DE M 6	x	16 -T30	S	500	40,00 ZP
DE M 6	x	20 -T30	S	500	42,50 ZP
DE M 6	x	25 -T30	S	500	45,50 ZP
DE M 6	x	30 -T30	S	500	47,00 ZP
DE M 6	x	35 -T30	S	500	49,50 ZP
DE M 6	x	40 -T30	S	500	56,00 ZP
DE M 6	x	45 -T30	S	500	60,00 ZP
DE M 6	x	50 -T30	S	500	68,00 ZP
DE M 8	x	20 -T45	S	250	102,00 ZP
DE M 8	x	25 -T45	S	250	107,00 ZP
DE M 8	x	30 -T45	S	250	128,00 ZP

DIN	07604.001	640

7604 Steel type A



≤ M 16 ≥ M 18

Hexagon head screw plugs
with collar, light type,
with cylindrical fine pitch thread,
A = short stud end

Dimensions ➔ TI-24 REACH ➔ TI-262

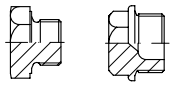
Stainless ➔ pg. 574

RoHS ✓

AM 10	x	1	S	100	95,00
AM 12	x	1,5	S	50	137,00
AM 14	x	1,5	S	50	163,00
AM 16	x	1,5	S	50	205,00
AM 18	x	1,5	S	25	235,00
AM 22	x	1,5	S	25	265,00
AM 26	x	1,5	S	25	480,00
AM 30	x	1,5	S	25	590,00

DIN	07604.011	640

7604 Steel type A



Hexagon head screw plugs
with collar, light type,
with cylindrical fine pitch thread,
A = short stud end

Dimensions ➔ TI-24 REACH ➔ TI-262
Corrosion protection ➔ TI-228

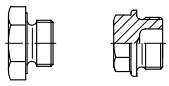
Stainless ➔ pg. 574

RoHS ✓

AM 10	x	1	S	100	101,00 ZP
AM 12	x	1,5	S	50	147,00 ZP
AM 14	x	1,5	S	50	172,00 ZP
AM 16	x	1,5	S	50	221,00 ZP
AM 18	x	1,5	S	25	260,00 ZP
AM 22	x	1,5	S	25	300,00 ZP
AM 26	x	1,5	S	25	530,00 ZP
AM 30	x	1,5	S	25	630,00 ZP

DIN	07604.003	640

7604 Steel type C



≤ M 16 ≥ M 18

Hexagon head screw plugs
with collar, light type,
with cylindrical fine pitch thread,
C = long stud end

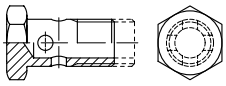
Dimensions ➔ TI-24 REACH ➔ TI-262

RoHS ✓

CM 8	x	1	S	100	83,00
CM 10	x	1	S	100	95,00
CM 22	x	1,5	S	25	370,00
CM 26	x	1,5	S	25	510,00
CM 30	x	1,5	S	25	630,00
CM 38	x	1,5	S	10	960,00
CM 45	x	1,5	S	1	1350,00
CM 52	x	1,5	S	1	2160,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	07643.010		640

7643 Steel, zinc plated



Hollow screws for ring type banjos, short thread length

Dimensions ➔ TI-34 REACH ➔ TI-262
Corrosion protection ➔ TI-228

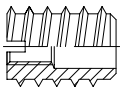
RoHS ✓

pipe outside ∅ = number of holes - thread

4-5-3	M 8	x	1	S	50	227,00 ZP
6-3	M10	x	1	S	50	275,00 ZP
8-3	M12	x	1,5	S	50	345,00 ZP
10-3	M14	x	1,5	S	50	420,00 ZP
12-3	M16	x	1,5	S	25	600,00 ZP
15-3	M18	x	1,5	S	25	840,00 ZP
18-3	M22	x	1,5	S	10	1670,00 ZP
22-4	M26	x	1,5	S	10	2650,00 ZP

DIN	07965.010	640

7965 Steel, zinc plated



Screwed inserts "RAMPA"

Dimensions ➔ TI-79 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Brass ➔ pg. 642

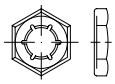
RoHS ✓

internal thread x length

M 3	x	8	S	100	36,00
M 3	x	10	S	100	39,00
M 3	x	12	S	100	43,00
M 4	x	8	S	100	33,50
M 4	x	10	S	100	35,50
M 4	x	12	S	100	40,00
M 4	x	15	S	100	49,50
M 5	x	10	S	100	41,50
M 5	x	12	S	100	44,50
M 5	x	15	S	100	55,00
M 5	x	18	S	100	65,00
M 5	x	20	S	100	78,00
M 6	x	12	S	100	51,00
M 6	x	15	S	100	59,00
M 6	x	18	S	100	72,00
M 6	x	20	S	100	80,00
M 6	x	25	S	100	106,00
M 6	x	30	S	100	166,00
M 8	x	18	S	100	107,00
M 8	x	30	S	100	212,00
M 10	x	20	S	100	174,00
M 10	x	25	S	100	218,00
M 10	x	30	S	100	260,00
M 10	x	40	S	100	340,00
M 12	x	25	S	100	325,00
M 12	x	30	S	50	390,00

~DIN	07967.000	640

7967 Spring steel



Self locking counter nuts

Dimensions ➔ TI-68 Lock of fasteners ➔ TI-256

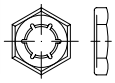
Stainless ➔ pg. 574

RoHS ✓ REACh SVHC free

M 6	S	1000	9,40
M 8	S	1000	10,10
M 10	S	1000	12,50
M 12	S	1000	18,10
M 16	S	500	26,00
M 20	S	250	42,00
M 22	S	200	88,00
M 24	S	200	68,00
M 27	S	100	96,00
M 30	S	100	113,00
M 33	S	50	200,00
M 36	S	25	480,00
M 42	S	1	610,00
M 48	S	1	890,00

~DIN	07967.010	640

7967 Spring steel, zinc plated



Self locking counter nuts

Dimensions ➔ TI-68 Lock of fasteners ➔ TI-256
Corrosion protection ➔ TI-228

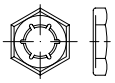
Stainless ➔ pg. 574

RoHS ✓ REACh SVHC free

M 6	S	1000	10,60 ZP
M 6	K	100	14,30 ZP
M 8	S	1000	13,70 ZP
M 8	K	100	17,50 ZP
M 10	S	1000	14,30 ZP
M 10	K	100	18,10 ZP
M 12	S	1000	19,40 ZP
M 12	K	100	23,20 ZP
M 14	S	500	44,00 ZP
M 14	K	100	51,00 ZP
M 16	S	500	27,50 ZP
M 16	K	100	31,50 ZP
M 20	S	250	47,50 ZP
M 20	K	100	52,00 ZP
M 22	S	200	97,00 ZP
M 22	K	100	103,00 ZP
M 24	S	200	88,00 ZP
M 24	K	100	92,00 ZP
M 27	S	100	142,00 ZP
M 30	S	100	152,00 ZP
M 33	S	50	241,00 ZP
M 36	S	25	560,00 ZP
M 42	S	1	730,00 ZP
M 48	S	1	1080,00 ZP

~DIN	07967.020	640

7967 Spring steel, hot dip galvanized



Self locking counter nuts

Dimensions ➔ TI-68 Lock of fasteners ➔ TI-256
Corrosion protection ➔ TI-231

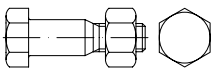
Stainless ➔ pg. 574

RoHS ✓ REACh SVHC free

M 8	S	100	19,40 HDG
M 10	S	100	20,70 HDG
M 12	S	100	26,50 HDG
M 16	S	100	36,00 HDG
M 20	S	100	57,00 HDG
M 22	S	100	126,00 HDG
M 24	S	100	111,00 HDG
M 27	S	100	229,00 HDG
M 30	S	100	265,00 HDG
M 33	S	50	365,00 HDG
M 36	S	25	610,00 HDG
M 42	S	1	970,00 HDG
M 48	S	1	1210,00 HDG

DIN	07968.500	650

7968 Mu 5.6 SB



Hexagon fit bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

Dimensions ➔ TI-57 Tightening torque ➔ TI-248
Material properties ➔ TI-232

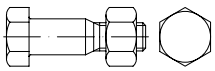
CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 12	x	35	S	100	1340,00
M 12	x	40	S	100	1470,00
M 12	x	45	S	100	1520,00
M 12	x	50	S	100	1570,00
M 12	x	55	S	100	1630,00
M 12	x	60	S	100	1760,00
M 12	x	70	S	50	2060,00
M 16	x	35	S	50	880,00
M 16	x	40	S	50	920,00
M 16	x	45	S	50	940,00

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	50	S	50	960,00
M 16	x	55	S	50	990,00
M 16	x	60	S	50	1010,00
M 16	x	65	S	25	1050,00
M 16	x	70	S	25	1060,00
M 16	x	75	S	25	1080,00
M 16	x	80	S	25	1110,00
M 16	x	90	S	25	1150,00
M 16	x	100	S	25	1610,00
M 16	x	110	S	25	1770,00
M 16	x	120	S	25	1860,00
M 20	x	40	S	25	1080,00
M 20	x	45	S	25	1120,00
M 20	x	50	S	25	1150,00
M 20	x	55	S	25	1210,00
M 20	x	60	S	25	1240,00
M 20	x	65	S	25	1260,00
M 20	x	70	S	25	1300,00
M 20	x	75	S	25	1320,00
M 20	x	80	S	25	1350,00
M 20	x	85	S	25	1470,00
M 20	x	90	S	25	1420,00
M 20	x	100	S	25	1480,00
M 20	x	110	S	25	1920,00
M 20	x	120	S	25	2010,00
M 20	x	130	S	25	2210,00
M 24	x	50	S	25	1240,00
M 24	x	55	S	25	1260,00
M 24	x	60	S	25	1280,00
M 24	x	65	S	25	1320,00
M 24	x	70	S	25	1350,00
M 24	x	75	S	25	1370,00
M 24	x	80	S	25	1410,00
M 24	x	85	S	10	1540,00
M 24	x	90	S	10	1470,00
M 24	x	95	S	10	1640,00
M 24	x	100	S	10	1540,00
M 24	x	105	S	10	1870,00
M 24	x	110	S	10	1950,00
M 24	x	115	S	10	2550,00
M 24	x	120	S	10	2050,00
M 24	x	125	S	10	2700,00
M 24	x	130	S	10	2550,00
M 24	x	140	S	10	2700,00
M 27	x	60	S	10	1630,00
M 27	x	65	S	10	1670,00
M 27	x	70	S	10	1720,00
M 27	x	75	S	10	1750,00
M 27	x	80	S	10	1800,00
M 27	x	85	S	10	1940,00
M 27	x	90	S	10	1870,00
M 27	x	95	S	10	2050,00
M 27	x	100	S	10	1940,00
M 27	x	105	S	10	2210,00
M 27	x	110	S	10	2050,00
M 27	x	115	S	10	2850,00
M 27	x	120	S	10	2210,00
M 27	x	130	S	10	2850,00
M 27	x	140	S	10	3000,00
M 30	x	80	S	10	2850,00
M 30	x	90	S	10	3000,00
M 30	x	100	S	10	5500,00
M 30	x	120	S	10	3600,00
M 30	x	130	S	10	3700,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	07968.510		650
7968	**Mu 5.6 zinc plated**		**SB**



Hexagon fit bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

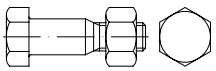
Dimensions ➔ TI-57
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-248

RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 12	x	40	S	100	1480,00 ZP
M 12	x	45	S	100	1540,00 ZP
M 12	x	50	S	100	1600,00 ZP
M 12	x	55	S	100	1650,00 ZP
M 16	x	40	S	50	960,00 ZP
M 16	x	45	S	50	990,00 ZP
M 16	x	50	S	50	1020,00 ZP
M 16	x	55	S	50	1050,00 ZP
M 16	x	60	S	50	1070,00 ZP
M 16	x	70	S	25	1130,00 ZP
M 20	x	45	S	25	1210,00 ZP
M 20	x	50	S	25	1250,00 ZP
M 20	x	55	S	25	1310,00 ZP
M 20	x	60	S	25	1340,00 ZP
M 20	x	65	S	25	1370,00 ZP
M 20	x	70	S	25	1410,00 ZP
M 20	x	75	S	25	1430,00 ZP
M 20	x	80	S	25	1460,00 ZP
M 20	x	90	S	25	1550,00 ZP
M 20	x	100	S	25	1640,00 ZP
M 24	x	60	S	25	1440,00 ZP
M 24	x	65	S	25	1470,00 ZP
M 24	x	70	S	25	1520,00 ZP
M 24	x	75	S	25	1550,00 ZP
M 24	x	80	S	25	1580,00 ZP
M 24	x	90	S	10	1660,00 ZP
M 24	x	100	S	10	1750,00 ZP
M 24	x	105	S	10	2070,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07968.520		650
7968	**Mu 5.6 hot dip galvanized**		**SB**



Hexagon fit bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

Caution! See information box.

Dimensions ➔ TI-57
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-248

RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 12	x	35	S	100	1370,00 HDG
M 12	x	40	S	100	1510,00 HDG
M 12	x	45	S	100	1550,00 HDG
M 12	x	50	S	100	1610,00 HDG
M 12	x	55	S	100	1660,00 HDG
M 12	x	60	S	100	1820,00 HDG
M 12	x	70	S	50	2120,00 HDG
M 12	x	80	S	50	2330,00 HDG
M 12	x	90	S	50	2450,00 HDG
M 12	x	100	S	50	2650,00 HDG
M 16	x	40	S	50	990,00 HDG
M 16	x	45	S	50	1020,00 HDG
M 16	x	50	S	50	1050,00 HDG
M 16	x	55	S	50	1070,00 HDG
M 16	x	60	S	50	1110,00 HDG
M 16	x	65	S	25	1130,00 HDG
M 16	x	70	S	25	1150,00 HDG
M 16	x	75	S	25	1180,00 HDG
M 16	x	80	S	25	1210,00 HDG
M 16	x	90	S	25	1260,00 HDG
M 16	x	100	S	25	1750,00 HDG
M 16	x	110	S	25	1920,00 HDG
M 20	x	40	S	25	1210,00 HDG
M 20	x	45	S	25	1250,00 HDG
M 20	x	50	S	25	1310,00 HDG
M 20	x	55	S	25	1360,00 HDG
M 20	x	60	S	25	1380,00 HDG
M 20	x	65	S	25	1430,00 HDG
M 20	x	70	S	25	1470,00 HDG
M 20	x	75	S	25	1510,00 HDG
M 20	x	80	S	25	1530,00 HDG
M 20	x	85	S	25	1660,00 HDG
M 20	x	90	S	25	1630,00 HDG
M 20	x	100	S	25	1710,00 HDG
M 20	x	110	S	25	2150,00 HDG
M 20	x	120	S	25	2260,00 HDG
M 20	x	130	S	25	2460,00 HDG

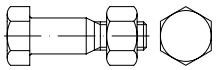
Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	140	S	25	2600,00 HDG
M 24	x	60	S	25	1530,00 HDG
M 24	x	65	S	25	1570,00 HDG
M 24	x	70	S	25	1610,00 HDG
M 24	x	75	S	25	1650,00 HDG
M 24	x	80	S	25	1700,00 HDG
M 24	x	90	S	10	1770,00 HDG
M 24	x	100	S	10	1860,00 HDG

DIN 07968.804 651

7968 Mu 8.8 SB



Hexagon fit bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

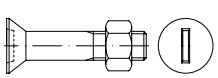
Dimensions → TI-57
Material properties → TI-232
Tightening torque → TI-248

CE RoHS ✓ REACh SVHC free

Declaration of performance → www.reyher.de

M 12	x	35	S	1	445,00
M 12	x	40	S	1	470,00
M 12	x	45	S	1	510,00
M 12	x	50	S	1	520,00
M 12	x	55	S	1	530,00
M 12	x	60	S	1	530,00
M 12	x	70	S	1	730,00
M 16	x	40	S	1	720,00
M 16	x	45	S	1	740,00
M 16	x	50	S	1	770,00
M 16	x	55	S	1	790,00
M 16	x	60	S	1	830,00
M 16	x	65	S	1	840,00
M 16	x	70	S	1	860,00
M 16	x	80	S	1	910,00
M 20	x	50	S	1	960,00
M 20	x	55	S	1	990,00
M 20	x	60	S	1	1020,00
M 20	x	65	S	1	1030,00
M 20	x	70	S	1	1070,00
M 20	x	75	S	1	1140,00
M 20	x	80	S	1	1140,00
M 20	x	90	S	1	1180,00
M 20	x	100	S	1	1260,00
M 24	x	60	S	1	1410,00
M 24	x	70	S	1	1510,00
M 24	x	80	S	1	1570,00
M 24	x	85	S	1	1740,00
M 24	x	90	S	1	1740,00
M 24	x	100	S	1	1830,00

Dimensions			PU	Pieces	€/100/Mat.
DIN	07969.410				650
7969	Mu 4.6 zinc plated				SB



Slotted countersunk head bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

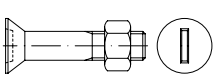
Dimensions → TI-57
Material properties → TI-232
Corrosion protection → TI-228
Tightening torque → TI-248
REACH → TI-262

CE RoHS ✓

Declaration of performance → www.reyher.de

M 12	x	30	S	100	750,00 ZP
M 12	x	35	S	100	750,00 ZP
M 12	x	40	S	100	710,00 ZP
M 12	x	45	S	100	710,00 ZP
M 12	x	50	S	100	650,00 ZP
M 12	x	55	S	100	580,00 ZP
M 12	x	60	S	100	620,00 ZP
M 12	x	65	S	50	650,00 ZP
M 12	x	70	S	50	690,00 ZP
M 12	x	80	S	50	740,00 ZP
M 16	x	30	S	50	850,00 ZP
M 16	x	35	S	50	850,00 ZP
M 16	x	40	S	50	830,00 ZP
M 16	x	45	S	50	830,00 ZP
M 16	x	50	S	50	820,00 ZP
M 16	x	55	S	50	750,00 ZP
M 16	x	60	S	50	890,00 ZP
M 16	x	65	S	25	1070,00 ZP
M 16	x	70	S	25	1150,00 ZP
M 16	x	75	S	25	1190,00 ZP
M 16	x	80	S	25	1230,00 ZP
M 16	x	90	S	25	1300,00 ZP
M 16	x	100	S	25	1360,00 ZP
M 16	x	140	S	25	1520,00 ZP
M 20	x	45	S	25	1320,00 ZP
M 20	x	50	S	25	1320,00 ZP
M 20	x	55	S	25	1330,00 ZP
M 20	x	60	S	25	1360,00 ZP
M 20	x	65	S	25	1400,00 ZP
M 20	x	70	S	25	1440,00 ZP
M 20	x	75	S	25	1450,00 ZP
M 20	x	80	S	25	1480,00 ZP
M 20	x	90	S	25	1540,00 ZP
M 20	x	100	S	25	1580,00 ZP
M 24	x	60	S	25	2360,00 ZP
M 24	x	70	S	25	2450,00 ZP
M 24	x	80	S	25	2600,00 ZP
M 24	x	90	S	10	2700,00 ZP
M 24	x	100	S	10	2800,00 ZP
M 24	x	110	S	10	2900,00 ZP
M 24	x	120	S	10	3050,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
DIN	07969.420				650
7969	Mu 4.6 hot dip galvanized				SB



Slotted countersunk head bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

Caution! See information box.

Dimensions → TI-57
Material properties → TI-232
Corrosion protection → TI-231
Tightening torque → TI-248
REACH → TI-262

CE RoHS ✓

Declaration of performance → www.reyher.de

M 12	x	35	S	100	760,00 HDG
M 12	x	40	S	100	720,00 HDG
M 12	x	45	S	100	720,00 HDG
M 16	x	45	S	50	850,00 HDG
M 16	x	50	S	50	830,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

DIN 07976.013 660

7976 Steel, hard. zinc plated type C



Hexagon head tapping screws, C = with cone end

hardened

Dimensions → TI-46
Corrosion protection → TI-228
Assembly → TI-251
Standard conversion → TI-11

Stainless → pg. 575

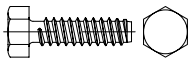
DIN 7976 → replaced by ISO 1479

RoHS ✓ REACh SVHC free

C 2,9	x	6,5	S	2000	5,40 ZP
C 2,9	x	9,5	S	2000	5,00 ZP
C 2,9	x	13	S	2000	5,30 ZP
C 2,9	x	16	S	2000	6,30 ZP

Dimensions			PU	Pieces	€/100/Mat.
C 2,9	x	19	S	2000	6,50 ZP
C 3,5	x	6,5	S	1000	5,80 ZP
C 3,5	x	9,5	S	1000	3,35 ZP
C 3,5	x	13	S	1000	3,95 ZP
C 3,5	x	16	S	1000	4,20 ZP
C 3,5	x	19	S	1000	4,60 ZP
C 3,5	x	22	S	1000	4,95 ZP
C 3,5	x	25	S	1000	5,20 ZP
C 3,9	x	6,5	S	1000	6,50 ZP
C 3,9	x	9,5	S	1000	5,00 ZP
C 3,9	x	13	S	1000	5,30 ZP
C 3,9	x	16	S	1000	6,80 ZP
C 3,9	x	19	S	1000	4,95 ZP
C 3,9	x	22	S	500	5,70 ZP
C 3,9	x	25	S	500	6,20 ZP
C 3,9	x	32	S	500	9,10 ZP
C 4,2	x	9,5	S	1000	5,40 ZP
C 4,2	x	13	S	1000	5,70 ZP
C 4,2	x	16	S	1000	6,90 ZP
C 4,2	x	19	S	500	7,20 ZP
C 4,2	x	22	S	500	7,70 ZP
C 4,2	x	25	S	500	8,90 ZP
C 4,2	x	32	S	500	9,10 ZP
C 4,2	x	38	S	500	10,60 ZP
C 4,2	x	45	S	500	15,50 ZP
C 4,2	x	50	S	500	20,40 ZP
C 4,8	x	9,5	S	500	7,20 ZP
C 4,8	x	13	S	500	5,90 ZP
C 4,8	x	16	S	500	7,20 ZP
C 4,8	x	19	S	500	7,60 ZP
C 4,8	x	22	S	500	10,90 ZP
C 4,8	x	25	S	500	11,30 ZP
C 4,8	x	32	S	250	14,30 ZP
C 4,8	x	38	S	250	16,50 ZP
C 4,8	x	45	S	250	29,50 ZP
C 4,8	x	50	S	250	33,50 ZP
C 5,5	x	13	S	500	9,10 ZP
C 5,5	x	16	S	500	9,90 ZP
C 5,5	x	19	S	500	10,60 ZP
C 5,5	x	22	S	500	12,10 ZP
C 5,5	x	25	S	250	15,00 ZP
C 5,5	x	32	S	250	16,60 ZP
C 5,5	x	38	S	250	18,60 ZP
C 5,5	x	45	S	250	36,50 ZP
C 5,5	x	50	S	250	42,50 ZP
C 5,5	x	60	S	250	53,00 ZP
C 6,3	x	13	S	250	10,60 ZP
C 6,3	x	16	S	250	10,90 ZP
C 6,3	x	19	S	250	12,10 ZP
C 6,3	x	22	S	250	13,00 ZP
C 6,3	x	25	S	250	15,80 ZP
C 6,3	x	32	S	250	18,00 ZP
C 6,3	x	38	S	250	19,70 ZP
C 6,3	x	45	S	250	28,00 ZP
C 6,3	x	50	S	250	32,50 ZP
C 6,3	x	60	S	250	94,00 ZP
C 6,3	x	70	S	250	115,00 ZP
C 6,3	x	80	S	250	143,00 ZP
C 8,0	x	16	S	250	29,00 ZP
C 8,0	x	19	S	250	29,50 ZP
C 8,0	x	22	S	250	41,00 ZP
C 8,0	x	25	S	250	39,50 ZP
C 8,0	x	32	S	250	43,00 ZP
C 8,0	x	38	S	250	44,00 ZP
C 8,0	x	45	S	250	60,00 ZP
C 8,0	x	50	S	250	66,00 ZP
C 8,0	x	60	S	200	84,00 ZP
C 8,0	x	80	S	200	119,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
DIN		07976.015			660
7976		**Steel, hard. zinc plated**			**type F**



Hexagon head tapping screws, F = with flat end

hardened

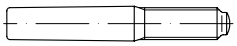
Dimensions ➔ TI-46
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11

DIN 7976 ➔ replaced by ISO 1479

RoHS ✓ REACh SVHC free

4,2	x	9,5 -F	S	500	9,70 ZP
4,2	x	13 -F	S	500	10,00 ZP
4,2	x	16 -F	S	500	10,00 ZP
4,2	x	19 -F	S	500	10,00 ZP
4,2	x	25 -F	S	500	10,30 ZP
4,8	x	9,5 -F	S	500	9,70 ZP
4,8	x	13 -F	S	500	8,50 ZP
4,8	x	16 -F	S	500	9,70 ZP
4,8	x	19 -F	S	250	10,00 ZP
4,8	x	22 -F	S	250	10,20 ZP
4,8	x	25 -F	S	500	10,30 ZP
6,3	x	16 -F	S	250	15,40 ZP
6,3	x	19 -F	S	250	17,00 ZP
6,3	x	22 -F	S	250	20,40 ZP
6,3	x	25 -F	S	250	21,70 ZP

Dimensions			PU	Pieces	€/100/Mat.
DIN		07977.000			670
7977		**Steel**			



Taper pins with external thread and constant threaded part, taper 1 : 50

Dimensions ➔ TI-117
REACH ➔ TI-262
Standard conversion ➔ TI-10

DIN 7977 ➔ replaced by ISO 8737, type with constant taper lengths ➔ DIN 258

RoHS ✓

5	x	40	S	25	138,00
5	x	45	S	25	148,00
5	x	50	S	25	155,00
6	x	40	S	25	165,00
6	x	45	S	25	175,00
6	x	50	S	25	175,00
6	x	55	S	10	224,00
6	x	60	S	10	190,00
8	x	50	S	10	235,00
8	x	55	S	10	235,00
8	x	60	S	10	240,00
8	x	65	S	10	250,00
8	x	75	S	10	270,00
8	x	85	S	10	340,00

Dimensions			PU	Pieces	€/100/Mat.
8	x	100	S	10	430,00
10	x	50	S	10	315,00
10	x	60	S	10	330,00
10	x	65	S	10	330,00
10	x	75	S	10	345,00
10	x	85	S	10	385,00
10	x	100	S	10	420,00
10	x	120	S	1	590,00
12	x	75	S	10	455,00
12	x	80	S	10	590,00
12	x	85	S	10	470,00
12	x	100	S	10	540,00
12	x	120	S	10	740,00
12	x	140	S	5	760,00
13	x	75	S	10	680,00
13	x	85	S	10	660,00
13	x	100	S	10	720,00
13	x	140	S	10	1120,00
14	x	85	S	10	540,00
14	x	100	S	10	620,00
16	x	85	S	5	720,00
16	x	100	S	5	760,00
16	x	120	S	5	960,00
16	x	140	S	1	1210,00
16	x	160	S	5	1280,00
20	x	100	S	1	1260,00
20	x	120	S	1	1310,00
20	x	140	S	1	1410,00
20	x	160	S	1	1540,00
20	x	190	S	1	5900,00

Dimensions			PU	Pieces	€/100/Mat.
DIN		07978.001			670
7978		**Steel**			**type A**



Taper pins with internal thread, A = grounded, taper 1 : 50

Dimensions ➔ TI-118
REACH ➔ TI-262
Standard conversion ➔ TI-10

DIN 7978 ➔ replaced by ISO 8736

RoHS ✓

A 6	x	16	S	25	155,00
A 6	x	20	S	25	158,00
A 6	x	24	S	25	171,00
A 6	x	26	S	25	172,00
A 6	x	28	S	25	177,00
A 6	x	30	S	25	181,00
A 6	x	32	S	25	183,00
A 6	x	36	S	25	190,00
A 6	x	40	S	25	190,00
A 6	x	45	S	25	197,00
A 6	x	50	S	25	204,00
A 6	x	55	S	25	211,00
A 6	x	60	S	25	265,00
A 6	x	70	S	25	300,00
A 6	x	80	S	25	325,00
A 8	x	20	S	10	204,00
A 8	x	24	S	10	217,00
A 8	x	26	S	10	222,00
A 8	x	28	S	10	224,00
A 8	x	30	S	10	229,00
A 8	x	32	S	10	233,00
A 8	x	36	S	10	241,00

Dimensions			PU	Pieces	€/100/Mat.
A 8	x	40	S	10	244,00
A 8	x	45	S	10	260,00
A 8	x	50	S	10	265,00
A 8	x	55	S	10	275,00
A 8	x	60	S	10	280,00
A 8	x	70	S	10	315,00
A 8	x	80	S	10	335,00
A 8	x	90	S	10	365,00
A 8	x	100	S	10	480,00
A 10	x	28	S	10	275,00
A 10	x	30	S	10	280,00
A 10	x	32	S	10	285,00
A 10	x	36	S	10	295,00
A 10	x	40	S	10	300,00
A 10	x	45	S	10	315,00
A 10	x	50	S	10	325,00
A 10	x	55	S	10	335,00
A 10	x	60	S	10	340,00
A 10	x	70	S	10	395,00
A 10	x	80	S	10	430,00
A 10	x	90	S	10	470,00
A 10	x	100	S	10	510,00
A 10	x	120	S	5	1400,00
A 12	x	36	S	10	370,00
A 12	x	40	S	10	385,00
A 12	x	45	S	10	395,00
A 12	x	50	S	10	415,00
A 12	x	55	S	10	425,00
A 12	x	60	S	10	445,00
A 12	x	70	S	10	480,00
A 12	x	80	S	10	540,00
A 12	x	90	S	10	580,00
A 12	x	100	S	10	620,00
A 16	x	40	S	10	560,00
A 16	x	45	S	10	590,00
A 16	x	50	S	10	620,00
A 16	x	55	S	10	650,00
A 16	x	60	S	10	680,00
A 16	x	70	S	5	730,00
A 16	x	80	S	5	780,00
A 16	x	90	S	5	840,00
A 16	x	100	S	5	920,00
A 16	x	120	S	5	3450,00
A 20	x	50	S	1	1240,00
A 20	x	55	S	1	1310,00
A 20	x	60	S	1	1370,00
A 20	x	70	S	1	1440,00
A 20	x	80	S	1	1540,00
A 20	x	90	S	1	1700,00
A 20	x	100	S	1	1840,00
A 20	x	120	S	1	2160,00

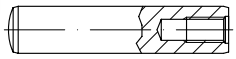
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Dimensions	PU	Pieces	€/100/Mat.
DIN	07979.004		670

7979 Steel type D/m6



Parallel pins with internal thread, D = hardened, tolerance m6

Dimensions ➔ TI-116 REACH ➔ TI-262
Standard conversion ➔ TI-10

DIN 7979 ➔ replaced by ISO 8735,
⌀ 4 and 5 not standardized

RoHS ✓

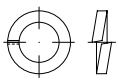
Dimensions			PU	Pieces	€/100/Mat.
D 4	x	10	S	100	385,00
D 4	x	12	S	100	385,00
D 4	x	14	S	100	385,00
D 4	x	16	S	100	280,00
D 4	x	18	S	100	275,00
D 4	x	20	S	100	270,00
D 4	x	24	S	100	440,00
D 5	x	10	S	100	128,00
D 5	x	12	S	100	128,00
D 5	x	14	S	100	128,00
D 5	x	16	S	100	128,00
D 5	x	18	S	100	135,00
D 5	x	20	S	100	135,00
D 5	x	24	S	100	142,00
D 5	x	28	S	100	148,00
D 5	x	30	S	100	155,00
D 5	x	32	S	100	160,00
D 5	x	36	S	100	167,00
D 5	x	40	S	100	176,00
D 5	x	45	S	100	180,00
D 5	x	50	S	100	186,00
D 6	x	10	S	100	244,00
D 6	x	12	S	100	236,00
D 6	x	14	S	100	212,00
D 6	x	16	S	100	135,00
D 6	x	18	S	100	138,00
D 6	x	20	S	100	142,00
D 6	x	22	S	100	146,00
D 6	x	24	S	100	148,00
D 6	x	26	S	100	152,00
D 6	x	28	S	100	155,00
D 6	x	30	S	100	160,00
D 6	x	32	S	100	163,00
D 6	x	36	S	100	171,00
D 6	x	40	S	100	177,00
D 6	x	45	S	100	187,00
D 6	x	50	S	100	195,00
D 6	x	55	S	100	205,00
D 6	x	60	S	100	213,00
D 6	x	70	S	100	355,00
D 6	x	80	S	100	485,00
D 8	x	12	S	100	132,00
D 8	x	16	S	100	187,00
D 8	x	18	S	100	192,00
D 8	x	20	S	100	195,00
D 8	x	24	S	100	205,00
D 8	x	26	S	100	212,00
D 8	x	28	S	100	217,00
D 8	x	30	S	100	224,00
D 8	x	32	S	100	227,00
D 8	x	36	S	100	239,00
D 8	x	40	S	100	249,00
D 8	x	45	S	100	265,00

Dimensions			PU	Pieces	€/100/Mat.
D 8	x	50	S	100	275,00
D 8	x	55	S	100	290,00
D 8	x	60	S	100	325,00
D 8	x	70	S	100	335,00
D 8	x	80	S	100	365,00
D 8	x	90	S	100	480,00
D 8	x	100	S	100	570,00
D 10	x	18	S	100	255,00
D 10	x	20	S	100	235,00
D 10	x	24	S	100	245,00
D 10	x	28	S	100	295,00
D 10	x	30	S	100	295,00
D 10	x	32	S	100	310,00
D 10	x	36	S	100	330,00
D 10	x	40	S	100	340,00
D 10	x	45	S	100	385,00
D 10	x	50	S	100	385,00
D 10	x	55	S	100	410,00
D 10	x	60	S	100	420,00
D 10	x	70	S	100	460,00
D 10	x	80	S	100	510,00
D 10	x	90	S	50	560,00
D 10	x	100	S	50	590,00
D 10	x	120	S	50	680,00
D 12	x	20	S	100	345,00
D 12	x	24	S	100	305,00
D 12	x	28	S	100	325,00
D 12	x	30	S	100	345,00
D 12	x	32	S	100	370,00
D 12	x	36	S	100	395,00
D 12	x	40	S	100	420,00
D 12	x	45	S	100	445,00
D 12	x	50	S	100	470,00
D 12	x	55	S	100	495,00
D 12	x	60	S	100	530,00
D 12	x	70	S	50	570,00
D 12	x	80	S	50	630,00
D 12	x	90	S	50	690,00
D 12	x	100	S	50	730,00
D 12	x	120	S	50	1050,00
D 14	x	32	S	50	295,00
D 14	x	40	S	50	600,00
D 14	x	50	S	50	650,00
D 14	x	60	S	50	680,00
D 14	x	80	S	50	960,00
D 16	x	28	S	50	730,00
D 16	x	30	S	50	730,00
D 16	x	32	S	50	730,00
D 16	x	36	S	50	730,00
D 16	x	40	S	50	730,00
D 16	x	45	S	50	780,00
D 16	x	50	S	50	860,00
D 16	x	55	S	50	950,00
D 16	x	60	S	1	1010,00
D 16	x	70	S	1	1070,00
D 16	x	80	S	1	1170,00
D 16	x	90	S	1	1250,00
D 16	x	100	S	1	1370,00
D 16	x	120	S	1	1540,00
D 20	x	36	S	1	840,00
D 20	x	40	S	1	910,00
D 20	x	45	S	1	950,00
D 20	x	50	S	1	970,00
D 20	x	55	S	1	1070,00
D 20	x	60	S	1	1140,00
D 20	x	70	S	1	1240,00
D 20	x	80	S	1	1300,00
D 20	x	90	S	1	1430,00
D 20	x	100	S	1	1530,00
D 20	x	120	S	1	2000,00
D 20	x	140	S	1	2550,00
D 20	x	150	S	1	2850,00
D 20	x	160	S	1	3150,00
D 20	x	180	S	1	3800,00
D 20	x	200	S	1	4250,00

Dimensions			PU	Pieces	€/100/Mat.
D 25	x	50	S	1	1300,00
D 25	x	60	S	1	5400,00
D 25	x	70	S	1	5900,00
D 25	x	80	S	1	6200,00
D 25	x	100	S	1	6600,00
D 25	x	120	S	1	7600,00
D 25	x	130	S	1	8200,00
D 30	x	55	S	1	2600,00
D 30	x	60	S	1	2700,00
D 30	x	70	S	1	2750,00
D 30	x	80	S	1	3000,00
D 30	x	100	S	1	3400,00
D 30	x	120	S	1	3900,00
D 40	x	60	S	1	4850,00
D 40	x	70	S	1	5000,00
D 40	x	80	S	1	5100,00
D 40	x	90	S	1	5400,00
D 40	x	100	S	1	5700,00

~DIN | 07980.000 | 680

7980 Spring steel



Spring lock washers for cheese head screws

Caution!
Only for screws with property class < 8.8.

Dimensions ➔ TI-100

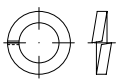
Stainless ➔ pg. 575

RoHS ✓ | REACh SVHC free

3	S	1000	1,05
3	K	100	3,75
4	S	1000	1,30
4	K	100	4,15
5	S	1000	1,70
5	K	100	4,55
6	S	1000	1,95
6	K	100	4,95
8	S	1000	3,95
8	K	100	7,20
10	S	1000	5,80
10	K	100	8,90
12	S	500	6,90
12	K	100	10,30
14	S	500	10,60
14	K	100	13,80
16	S	250	15,40
16	K	100	19,40
18	S	250	17,00
18	K	100	23,60
20	S	100	31,50
22	S	100	34,00
24	S	100	44,50
27	S	100	51,00
30	S	50	103,00
33	S	50	115,00
36	S	50	151,00
42	S	25	270,00
48	S	25	280,00

Dimensions	PU	Pieces	€/100/Mat.
~DIN	07980.010		680

7980 Spring steel zinc plated



Spring lock washers for cheese head screws

Caution!
Only for screws with property class < 8.8.

Dimensions ➔ TI-100 Corrosion protection ➔ TI-228

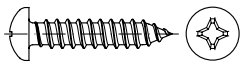
Stainless ➔ pg. 575

RoHS ✓ | REACh SVHC free

3	S	1000	1,05 ZP
3	K	100	3,85 ZP
4	S	1000	1,55 ZP
4	K	100	4,30 ZP
5	S	1000	2,15 ZP
5	K	100	4,95 ZP
6	S	1000	2,30 ZP
6	K	100	5,30 ZP
8	S	1000	5,00 ZP
8	K	100	8,30 ZP
10	S	1000	7,70 ZP
10	K	100	10,80 ZP
12	S	500	9,20 ZP
12	K	100	12,80 ZP
14	S	500	14,30 ZP
14	K	100	18,20 ZP
16	S	250	21,30 ZP
16	K	100	26,00 ZP
18	S	250	23,40 ZP
18	K	100	28,50 ZP
20	S	100	44,50 ZP
22	S	100	48,50 ZP
24	S	100	63,00 ZP
27	S	100	69,00 ZP
30	S	50	141,00 ZP
33	S	50	157,00 ZP
36	S	50	211,00 ZP
42	S	25	330,00 ZP
48	S	25	390,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	07981.014		690

7981 Steel zinc plated type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

hardened
nominal length from 60 mm with partial thread

Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-11

Stainless ➔ pg. 575

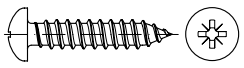
DIN 7981 ➔ replaced by ISO 7049

RoHS ✓ | REACh SVHC free

C2,2	x	4,5-H	S	2000	6,30 ZP
C2,2	x	6,5-H	S	2000	4,55 ZP
C2,2	x	6,5-H	K	100	7,00 ZP
C2,2	x	9,5-H	S	2000	4,25 ZP
C2,2	x	13 -H	S	2000	4,55 ZP
C2,2	x	16 -H	S	2000	5,50 ZP
C2,2	x	19 -H	S	2000	7,20 ZP
C2,2	x	22 -H	S	2000	8,90 ZP
C2,9	x	6,5-H	K	100	5,60 ZP
C2,9	x	6,5-H	S	2000	2,60 ZP
C2,9	x	9,5-H	S	2000	2,30 ZP
C2,9	x	9,5-H	K	100	5,40 ZP
C2,9	x	13 -H	S	2000	2,45 ZP
C2,9	x	13 -H	K	100	5,50 ZP
C2,9	x	16 -H	S	2000	2,60 ZP
C2,9	x	16 -H	K	100	5,60 ZP
C2,9	x	19 -H	S	2000	3,70 ZP
C2,9	x	19 -H	K	100	6,70 ZP
C2,9	x	22 -H	S	2000	4,60 ZP
C2,9	x	22 -H	K	100	7,70 ZP
C2,9	x	25 -H	S	1000	4,95 ZP
C2,9	x	25 -H	K	100	7,90 ZP
C2,9	x	32 -H	S	1000	5,90 ZP
C3,5	x	6,5-H	S	1000	3,60 ZP
C3,5	x	6,5-H	K	100	6,60 ZP
C3,5	x	9,5-H	S	1000	2,75 ZP
C3,5	x	9,5-H	K	100	5,70 ZP
C3,5	x	13 -H	S	1000	2,85 ZP
C3,5	x	13 -H	K	100	5,90 ZP
C3,5	x	16 -H	S	1000	3,00 ZP
C3,5	x	16 -H	K	100	6,00 ZP
C3,5	x	19 -H	S	1000	3,75 ZP
C3,5	x	19 -H	K	100	6,80 ZP
C3,5	x	22 -H	S	1000	5,30 ZP
C3,5	x	22 -H	K	100	8,30 ZP
C3,5	x	25 -H	S	500	5,50 ZP
C3,5	x	25 -H	K	100	8,60 ZP
C3,5	x	32 -H	S	500	6,00 ZP
C3,5	x	32 -H	K	100	9,00 ZP
C3,5	x	38 -H	S	500	6,70 ZP
C3,5	x	38 -H	K	100	9,60 ZP
C3,5	x	45 -H	S	500	10,90 ZP
C3,5	x	50 -H	S	500	13,20 ZP
C3,9	x	6,5-H	S	2000	6,50 ZP
C3,9	x	9,5-H	S	1000	3,25 ZP
C3,9	x	9,5-H	K	100	6,20 ZP
C3,9	x	13 -H	S	1000	3,30 ZP
C3,9	x	13 -H	K	100	6,30 ZP
C3,9	x	16 -H	S	1000	3,60 ZP
C3,9	x	16 -H	K	100	6,70 ZP

Dimensions			PU	Pieces	€/100/Mat.
C3,9	x	19 -H	S	1000	4,10 ZP
C3,9	x	19 -H	K	100	7,10 ZP
C3,9	x	22 -H	S	500	5,40 ZP
C3,9	x	22 -H	K	100	8,40 ZP
C3,9	x	25 -H	S	500	6,00 ZP
C3,9	x	25 -H	K	100	9,00 ZP
C3,9	x	32 -H	S	500	6,20 ZP
C3,9	x	32 -H	K	100	9,10 ZP
C3,9	x	38 -H	S	500	8,80 ZP
C3,9	x	38 -H	K	100	11,70 ZP
C3,9	x	45 -H	S	1000	9,00 ZP
C4,2	x	9,5-H	S	1000	3,40 ZP
C4,2	x	9,5-H	K	100	6,50 ZP
C4,2	x	13 -H	S	1000	3,45 ZP
C4,2	x	13 -H	K	100	6,50 ZP
C4,2	x	16 -H	S	1000	3,90 ZP
C4,2	x	16 -H	K	100	6,90 ZP
C4,2	x	19 -H	S	500	4,15 ZP
C4,2	x	19 -H	K	100	7,20 ZP
C4,2	x	22 -H	S	500	5,70 ZP
C4,2	x	22 -H	K	100	8,80 ZP
C4,2	x	25 -H	S	500	6,30 ZP
C4,2	x	25 -H	K	100	9,40 ZP
C4,2	x	32 -H	S	500	6,30 ZP
C4,2	x	32 -H	K	100	9,40 ZP
C4,2	x	38 -H	S	500	9,10 ZP
C4,2	x	38 -H	K	100	12,10 ZP
C4,2	x	45 -H	S	500	10,60 ZP
C4,2	x	45 -H	K	100	13,50 ZP
C4,2	x	50 -H	S	500	11,90 ZP
C4,2	x	50 -H	K	100	14,90 ZP
C4,2	x	60 -H	S	250	20,30 ZP
C4,2	x	70 -H	S	250	24,00 ZP
C4,2	x	80 -H	S	250	26,50 ZP
C4,8	x	9,5-H	S	500	4,80 ZP
C4,8	x	9,5-H	K	100	7,80 ZP
C4,8	x	13 -H	S	500	4,85 ZP
C4,8	x	13 -H	K	100	7,90 ZP
C4,8	x	16 -H	S	500	5,10 ZP
C4,8	x	16 -H	K	100	8,20 ZP
C4,8	x	19 -H	S	500	5,80 ZP
C4,8	x	19 -H	K	100	8,80 ZP
C4,8	x	22 -H	S	500	6,20 ZP
C4,8	x	22 -H	K	100	9,20 ZP
C4,8	x	25 -H	S	500	7,30 ZP
C4,8	x	25 -H	K	100	10,30 ZP
C4,8	x	32 -H	S	250	8,40 ZP
C4,8	x	32 -H	K	100	11,40 ZP
C4,8	x	38 -H	S	250	9,70 ZP
C4,8	x	38 -H	K	100	12,60 ZP
C4,8	x	45 -H	S	250	13,10 ZP
C4,8	x	45 -H	K	100	16,10 ZP
C4,8	x	50 -H	S	250	14,60 ZP
C4,8	x	50 -H	K	100	17,60 ZP
C4,8	x	60 -H	S	250	23,30 ZP
C4,8	x	70 -H	S	250	31,00 ZP
C4,8	x	80 -H	S	250	37,00 ZP
C4,8	x	90 -H	S	250	45,00 ZP
C4,8	x	100 -H	S	250	54,00 ZP
C4,8	x	110 -H	S	250	62,00 ZP
C4,8	x	120 -H	S	250	76,00 ZP
C5,5	x	13 -H	S	500	6,50 ZP
C5,5	x	13 -H	K	100	9,60 ZP
C5,5	x	16 -H	S	500	7,20 ZP
C5,5	x	16 -H	K	100	10,20 ZP
C5,5	x	19 -H	S	500	7,60 ZP
C5,5	x	19 -H	K	100	10,60 ZP
C5,5	x	22 -H	S	500	10,60 ZP
C5,5	x	22 -H	K	100	13,50 ZP
C5,5	x	25 -H	S	250	11,20 ZP
C5,5	x	25 -H	K	100	14,20 ZP
C5,5	x	32 -H	S	250	12,90 ZP
C5,5	x	32 -H	K	100	15,90 ZP
C5,5	x	38 -H	S	250	16,00 ZP
C5,5	x	38 -H	K	100	18,90 ZP
C5,5	x	45 -H	S	250	18,00 ZP
C5,5	x	45 -H	K	100	21,00 ZP
C5,5	x	50 -H	S	250	21,10 ZP
C5,5	x	50 -H	K	100	24,00 ZP
C5,5	x	60 -H	S	250	40,00 ZP
C5,5	x	70 -H	S	250	49,50 ZP
C5,5	x	80 -H	S	250	59,00 ZP
C6,3	x	13 -H	S	250	9,50 ZP
C6,3	x	13 -H	K	100	12,40 ZP
C6,3	x	16 -H	S	250	9,70 ZP
C6,3	x	16 -H	K	100	12,60 ZP
C6,3	x	19 -H	S	250	9,90 ZP
C6,3	x	19 -H	K	100	12,90 ZP
C6,3	x	22 -H	S	250	11,80 ZP
C6,3	x	22 -H	K	100	14,80 ZP
C6,3	x	25 -H	S	250	14,30 ZP
C6,3	x	25 -H	K	100	17,40 ZP
C6,3	x	32 -H	S	250	15,70 ZP
C6,3	x	32 -H	K	100	18,70 ZP
C6,3	x	38 -H	S	250	19,50 ZP
C6,3	x	38 -H	K	100	22,60 ZP
C6,3	x	45 -H	S	250	24,00 ZP
C6,3	x	45 -H	K	100	27,00 ZP
C6,3	x	50 -H	S	250	26,00 ZP
C6,3	x	50 -H	K	100	28,50 ZP
C6,3	x	60 -H	S	250	45,50 ZP
C6,3	x	70 -H	S	250	65,00 ZP
C6,3	x	80 -H	S	250	83,00 ZP
C6,3	x	90 -H	S	250	101,00 ZP
C6,3	x	100 -H	S	250	119,00 ZP

DIN	07981.016	690
7981	**Steel zinc plated**	**type C-Z**



Pan head tapping screws, with Pozidriv cross recess Z, C = with cone point

hardened

Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-11

DIN 7981 ➔ replaced by ISO 7049

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
2,2	x	4,5 -C-Z	S	2000	6,30 ZP
2,2	x	6,5 -C-Z	S	2000	4,55 ZP
2,2	x	6,5 -C-Z	K	100	7,00 ZP
2,2	x	9,5 -C-Z	S	2000	4,25 ZP
2,2	x	13 -C-Z	S	2000	4,55 ZP
2,2	x	16 -C-Z	S	2000	5,50 ZP
2,2	x	19 -C-Z	S	2000	7,20 ZP
2,2	x	22 -C-Z	S	2000	8,90 ZP
2,9	x	6,5 -C-Z	S	2000	2,60 ZP
2,9	x	6,5 -C-Z	K	100	5,60 ZP
2,9	x	9,5 -C-Z	S	2000	2,30 ZP
2,9	x	9,5 -C-Z	K	100	5,40 ZP
2,9	x	13 -C-Z	K	100	5,50 ZP
2,9	x	16 -C-Z	S	2000	2,60 ZP
2,9	x	16 -C-Z	K	100	5,60 ZP
2,9	x	19 -C-Z	S	2000	3,70 ZP
2,9	x	19 -C-Z	K	100	6,70 ZP
2,9	x	22 -C-Z	S	1000	4,60 ZP
2,9	x	22 -C-Z	K	100	7,70 ZP
2,9	x	25 -C-Z	S	1000	4,95 ZP
2,9	x	25 -C-Z	K	100	7,90 ZP
2,9	x	32 -C-Z	S	1000	5,90 ZP
3,5	x	6,5 -C-Z	S	1000	3,60 ZP
3,5	x	6,5 -C-Z	K	100	6,60 ZP
3,5	x	9,5 -C-Z	S	1000	2,75 ZP
3,5	x	9,5 -C-Z	K	100	5,70 ZP
3,5	x	13 -C-Z	K	100	5,90 ZP
3,5	x	16 -C-Z	S	1000	3,00 ZP
3,5	x	16 -C-Z	K	100	6,00 ZP
3,5	x	19 -C-Z	S	1000	3,75 ZP
3,5	x	19 -C-Z	K	100	6,80 ZP
3,5	x	22 -C-Z	S	1000	5,30 ZP
3,5	x	22 -C-Z	K	100	8,30 ZP
3,5	x	25 -C-Z	S	500	5,50 ZP
3,5	x	25 -C-Z	K	100	8,60 ZP
3,5	x	32 -C-Z	K	100	9,00 ZP
3,5	x	38 -C-Z	S	500	6,70 ZP
3,5	x	38 -C-Z	K	100	9,60 ZP
3,5	x	45 -C-Z	S	500	10,90 ZP
3,5	x	50 -C-Z	S	500	13,20 ZP
3,9	x	6,5 -C-Z	S	2000	6,50 ZP
3,9	x	9,5 -C-Z	S	1000	3,25 ZP
3,9	x	9,5 -C-Z	K	100	6,20 ZP
3,9	x	13 -C-Z	S	1000	3,30 ZP
3,9	x	13 -C-Z	K	100	6,30 ZP
3,9	x	16 -C-Z	S	1000	3,60 ZP
3,9	x	16 -C-Z	K	100	6,70 ZP
3,9	x	19 -C-Z	S	1000	4,10 ZP
3,9	x	19 -C-Z	K	100	7,10 ZP
3,9	x	22 -C-Z	S	500	5,40 ZP
3,9	x	22 -C-Z	K	100	8,40 ZP
3,9	x	25 -C-Z	S	500	6,00 ZP
3,9	x	25 -C-Z	K	100	9,00 ZP
3,9	x	32 -C-Z	K	100	9,10 ZP
3,9	x	38 -C-Z	S	500	8,80 ZP
3,9	x	38 -C-Z	K	100	11,70 ZP
4,2	x	9,5 -C-Z	K	100	6,50 ZP
4,2	x	13 -C-Z	S	1000	3,45 ZP
4,2	x	13 -C-Z	K	100	6,50 ZP
4,2	x	16 -C-Z	S	1000	3,90 ZP
4,2	x	16 -C-Z	K	100	6,90 ZP
4,2	x	19 -C-Z	S	500	4,15 ZP
4,2	x	19 -C-Z	K	100	7,20 ZP
4,2	x	22 -C-Z	S	500	5,70 ZP
4,2	x	22 -C-Z	K	100	8,80 ZP
4,2	x	25 -C-Z	K	100	9,40 ZP
4,2	x	32 -C-Z	S	500	6,30 ZP
4,2	x	32 -C-Z	K	100	9,40 ZP
4,2	x	38 -C-Z	S	500	9,10 ZP
4,2	x	38 -C-Z	K	100	12,10 ZP
4,2	x	45 -C-Z	S	500	10,60 ZP
4,2	x	45 -C-Z	K	100	13,50 ZP
4,2	x	50 -C-Z	S	500	11,90 ZP
4,2	x	50 -C-Z	K	100	14,90 ZP
4,2	x	60 -C-Z	S	250	20,30 ZP
4,2	x	70 -C-Z	S	250	24,00 ZP
4,2	x	80 -C-Z	S	250	26,50 ZP
4,8	x	9,5 -C-Z	S	500	4,80 ZP
4,8	x	9,5 -C-Z	K	100	7,80 ZP
4,8	x	13 -C-Z	S	500	4,85 ZP
4,8	x	13 -C-Z	K	100	7,90 ZP
4,8	x	16 -C-Z	S	500	5,10 ZP
4,8	x	16 -C-Z	K	100	8,20 ZP
4,8	x	19 -C-Z	S	500	5,80 ZP
4,8	x	19 -C-Z	K	100	8,80 ZP
4,8	x	22 -C-Z	S	500	6,20 ZP
4,8	x	22 -C-Z	K	100	9,20 ZP
4,8	x	25 -C-Z	S	500	7,30 ZP
4,8	x	25 -C-Z	K	100	10,30 ZP
4,8	x	32 -C-Z	S	250	8,40 ZP
4,8	x	32 -C-Z	K	100	11,40 ZP
4,8	x	38 -C-Z	S	250	9,70 ZP
4,8	x	38 -C-Z	K	100	12,60 ZP
4,8	x	45 -C-Z	S	250	13,10 ZP
4,8	x	45 -C-Z	K	100	16,10 ZP

Dimensions				PU	Pieces	€/100/Mat.
4,8	x	50	-C-Z	S	250	14,60 ZP
4,8	x	50	-C-Z	K	100	17,60 ZP
4,8	x	60	-C-Z	S	250	23,30 ZP
4,8	x	70	-C-Z	S	250	31,00 ZP
4,8	x	80	-C-Z	S	250	37,00 ZP
4,8	x	90	-C-Z	S	250	45,00 ZP
4,8	x	100	-C-Z	S	250	54,00 ZP
4,8	x	110	-C-Z	S	250	62,00 ZP
4,8	x	120	-C-Z	S	250	76,00 ZP
5,5	x	13	-C-Z	S	500	6,50 ZP
5,5	x	13	-C-Z	K	100	9,60 ZP
5,5	x	16	-C-Z	S	500	7,20 ZP
5,5	x	16	-C-Z	K	100	10,20 ZP
5,5	x	19	-C-Z	S	500	7,20 ZP
5,5	x	19	-C-Z	K	100	10,60 ZP
5,5	x	22	-C-Z	S	500	10,60 ZP
5,5	x	22	-C-Z	K	100	13,50 ZP
5,5	x	25	-C-Z	S	250	11,20 ZP
5,5	x	25	-C-Z	K	100	14,20 ZP
5,5	x	32	-C-Z	S	250	12,90 ZP
5,5	x	32	-C-Z	K	100	15,90 ZP
5,5	x	38	-C-Z	S	250	12,90 ZP
5,5	x	38	-C-Z	K	100	18,90 ZP
5,5	x	45	-C-Z	S	250	18,00 ZP
5,5	x	45	-C-Z	K	100	21,00 ZP
5,5	x	50	-C-Z	S	250	21,10 ZP
5,5	x	50	-C-Z	K	100	24,00 ZP
5,5	x	60	-C-Z	S	250	40,00 ZP
5,5	x	70	-C-Z	S	250	49,50 ZP
5,5	x	80	-C-Z	S	250	59,00 ZP
6,3	x	13	-C-Z	S	250	9,50 ZP
6,3	x	13	-C-Z	K	100	12,40 ZP
6,3	x	16	-C-Z	S	250	9,70 ZP
6,3	x	16	-C-Z	K	100	12,60 ZP
6,3	x	19	-C-Z	S	250	9,90 ZP
6,3	x	19	-C-Z	K	100	12,90 ZP
6,3	x	22	-C-Z	S	250	11,80 ZP
6,3	x	22	-C-Z	K	100	14,80 ZP
6,3	x	25	-C-Z	S	250	14,30 ZP
6,3	x	25	-C-Z	K	100	17,40 ZP
6,3	x	32	-C-Z	S	250	15,70 ZP
6,3	x	32	-C-Z	K	100	18,70 ZP
6,3	x	38	-C-Z	S	250	19,50 ZP
6,3	x	38	-C-Z	K	100	22,60 ZP
6,3	x	45	-C-Z	S	250	24,00 ZP
6,3	x	45	-C-Z	K	100	27,00 ZP
6,3	x	50	-C-Z	S	250	26,00 ZP
6,3	x	50	-C-Z	K	100	28,50 ZP
6,3	x	60	-C-Z	S	250	45,50 ZP
6,3	x	70	-C-Z	S	250	65,00 ZP
6,3	x	80	-C-Z	S	250	83,00 ZP
6,3	x	90	-C-Z	S	250	101,00 ZP
6,3	x	100	-C-Z	S	250	119,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~DIN	07981.308		690
7981	**Steel zinc plated**		**type C-ISR**



Pan head tapping screws, ISR = hexalobular socket C = with cone end

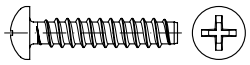
hardened
~ISO 14585

Dimensions ➔ TI-46
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11

RoHS ✓ | REACh SVHC free

2,2	x	4,5	-C-T6	S	2000	10,30 ZP
2,2	x	6,5	-C-T6	S	2000	9,10 ZP
2,2	x	9,5	-C-T6	S	2000	10,90 ZP
2,2	x	13	-C-T6	S	2000	11,80 ZP
2,2	x	16	-C-T6	S	2000	13,30 ZP
2,9	x	6,5	-C-T10	S	2000	3,00 ZP
2,9	x	9,5	-C-T10	S	2000	2,70 ZP
2,9	x	13	-C-T10	S	2000	2,80 ZP
2,9	x	16	-C-T10	S	2000	2,90 ZP
2,9	x	19	-C-T10	S	2000	4,25 ZP
2,9	x	22	-C-T10	S	2000	5,30 ZP
2,9	x	25	-C-T10	S	1000	5,70 ZP
3,5	x	9,5	-C-T15	S	1000	3,15 ZP
3,5	x	13	-C-T15	S	1000	3,30 ZP
3,5	x	16	-C-T15	S	1000	3,40 ZP
3,5	x	19	-C-T15	S	1000	4,30 ZP
3,5	x	22	-C-T15	S	1000	6,00 ZP
3,5	x	25	-C-T15	S	500	6,30 ZP
3,5	x	32	-C-T15	S	500	6,80 ZP
3,5	x	38	-C-T15	S	500	7,70 ZP
3,5	x	45	-C-T15	S	500	11,30 ZP
3,5	x	50	-C-T15	S	500	12,30 ZP
3,9	x	9,5	-C-T20	S	1000	3,60 ZP
3,9	x	13	-C-T20	S	1000	3,75 ZP
3,9	x	16	-C-T20	S	1000	4,15 ZP
3,9	x	19	-C-T20	S	1000	4,70 ZP
3,9	x	22	-C-T20	S	500	6,20 ZP
3,9	x	25	-C-T20	S	500	6,80 ZP
3,9	x	32	-C-T20	S	500	7,20 ZP
3,9	x	38	-C-T20	S	500	10,00 ZP
3,9	x	45	-C-T20	S	500	10,20 ZP
3,9	x	50	-C-T20	S	500	10,50 ZP
4,2	x	9,5	-C-T20	S	1000	3,90 ZP
4,2	x	13	-C-T20	S	1000	3,95 ZP
4,2	x	16	-C-T20	S	1000	4,45 ZP
4,2	x	19	-C-T20	S	500	4,75 ZP
4,2	x	22	-C-T20	S	500	6,60 ZP
4,2	x	25	-C-T20	S	500	7,20 ZP
4,2	x	32	-C-T20	S	500	7,30 ZP
4,2	x	38	-C-T20	S	500	10,50 ZP
4,2	x	45	-C-T20	S	500	11,90 ZP
4,2	x	50	-C-T20	S	500	13,60 ZP
4,2	x	60	-C-T20	S	500	23,20 ZP
4,2	x	70	-C-T20	S	500	27,50 ZP
4,8	x	9,5	-C-T25	S	500	7,90 ZP
4,8	x	13	-C-T25	S	500	5,60 ZP
4,8	x	16	-C-T25	S	500	5,90 ZP
4,8	x	19	-C-T25	S	500	6,70 ZP
4,8	x	22	-C-T25	S	500	7,20 ZP
4,8	x	25	-C-T25	S	500	8,40 ZP
4,8	x	32	-C-T25	S	250	9,60 ZP
4,8	x	38	-C-T25	S	250	11,10 ZP
4,8	x	45	-C-T25	S	250	15,00 ZP
4,8	x	50	-C-T25	S	250	16,60 ZP
4,8	x	60	-C-T25	S	250	26,50 ZP
4,8	x	70	-C-T25	S	250	35,50 ZP
4,8	x	80	-C-T25	S	250	42,50 ZP
4,8	x	90	-C-T25	S	250	54,00 ZP
4,8	x	100	-C-T25	S	250	62,00 ZP
5,5	x	13	-C-T25	S	500	15,20 ZP
5,5	x	16	-C-T25	S	500	12,80 ZP
5,5	x	19	-C-T25	S	500	8,60 ZP
5,5	x	22	-C-T25	S	500	15,40 ZP
5,5	x	25	-C-T25	S	250	12,80 ZP
5,5	x	32	-C-T25	S	250	14,70 ZP
5,5	x	38	-C-T25	S	250	18,90 ZP
5,5	x	45	-C-T25	S	250	20,40 ZP
5,5	x	50	-C-T25	S	250	24,10 ZP
5,5	x	60	-C-T25	S	250	45,50 ZP
5,5	x	70	-C-T25	S	250	57,00 ZP
5,5	x	80	-C-T25	S	250	68,00 ZP
5,5	x	90	-C-T25	S	250	73,00 ZP
5,5	x	100	-C-T25	S	250	83,00 ZP
6,3	x	13	-C-T30	S	250	22,70 ZP
6,3	x	16	-C-T30	S	250	17,00 ZP
6,3	x	19	-C-T30	S	250	14,20 ZP
6,3	x	22	-C-T30	S	250	16,40 ZP
6,3	x	25	-C-T30	S	250	16,40 ZP
6,3	x	32	-C-T30	S	250	18,00 ZP
6,3	x	38	-C-T30	S	250	22,30 ZP
6,3	x	45	-C-T30	S	250	27,50 ZP
6,3	x	50	-C-T30	S	250	29,50 ZP
6,3	x	60	-C-T30	S	250	52,00 ZP
6,3	x	70	-C-T30	S	250	73,00 ZP
6,3	x	80	-C-T30	S	250	82,00 ZP
6,3	x	90	-C-T30	S	250	91,00 ZP
6,3	x	100	-C-T30	S	250	99,00 ZP

DIN	07981.015	690
7981	**Steel zinc plated**	**type F-H**



Pan head tapping screws with Phillips cross recess H, F = with flat end

hardened

Dimensions ➔ TI-46
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
Stainless ➔ pg. 577

DIN 7981 ➔ replaced by ISO 7049

RoHS ✓ | REACh SVHC free

F 2,2	x	4,5	-H	S	2000	7,30 ZP
F 2,2	x	6,5	-H	S	2000	7,30 ZP
F 2,2	x	9,5	-H	S	2000	7,30 ZP
F 2,2	x	13	-H	S	2000	10,30 ZP
F 2,2	x	16	-H	S	2000	12,60 ZP
F 2,9	x	4,5	-H	S	2000	7,30 ZP
F 2,9	x	6,5	-H	S	2000	2,80 ZP
F 2,9	x	6,5	-H	K	100	5,60 ZP
F 2,9	x	9,5	-H	S	2000	2,60 ZP
F 2,9	x	9,5	-H	K	100	5,40 ZP
F 2,9	x	13	-H	S	2000	2,75 ZP
F 2,9	x	13	-H	K	100	5,50 ZP
F 2,9	x	16	-H	S	2000	2,90 ZP
F 2,9	x	16	-H	K	100	5,60 ZP

Dimensions			PU	Pieces	€/100/Mat.
F 2,9	x 19	-H	S	2000	4,25 ZP
F 2,9	x 22	-H	S	2000	5,90 ZP
F 3,5	x 6,5	-H	S	1000	2,90 ZP
F 3,5	x 9,5	-H	S	2000	3,00 ZP
F 3,5	x 9,5	-H	K	100	5,70 ZP
F 3,5	x 13	-H	S	1000	3,10 ZP
F 3,5	x 13	-H	K	100	5,90 ZP
F 3,5	x 16	-H	S	1000	3,15 ZP
F 3,5	x 16	-H	K	100	6,00 ZP
F 3,5	x 19	-H	S	1000	3,40 ZP
F 3,5	x 22	-H	S	1000	4,25 ZP
F 3,5	x 25	-H	S	1000	6,00 ZP
F 3,9	x 6,5	-H	S	1000	4,25 ZP
F 3,9	x 9,5	-H	S	1000	3,60 ZP
F 3,9	x 9,5	-H	K	100	6,20 ZP
F 3,9	x 13	-H	S	1000	3,65 ZP
F 3,9	x 13	-H	K	100	6,30 ZP
F 3,9	x 16	-H	S	1000	3,95 ZP
F 3,9	x 16	-H	K	100	6,70 ZP
F 3,9	x 19	-H	S	1000	4,85 ZP
F 3,9	x 22	-H	S	1000	5,70 ZP
F 3,9	x 25	-H	S	1000	6,30 ZP
F 4,2	x 6,5	-H	S	1000	4,95 ZP
F 4,2	x 9,5	-H	S	1000	4,55 ZP
F 4,2	x 13	-H	S	1000	3,90 ZP
F 4,2	x 13	-H	K	100	6,50 ZP
F 4,2	x 16	-H	S	1000	3,75 ZP
F 4,2	x 19	-H	S	1000	6,10 ZP
F 4,2	x 22	-H	S	1000	6,10 ZP
F 4,2	x 25	-H	S	1000	7,30 ZP
F 4,2	x 32	-H	S	1000	7,30 ZP
F 4,8	x 6,5	-H	S	1000	6,10 ZP
F 4,8	x 9,5	-H	S	500	4,80 ZP
F 4,8	x 9,5	-H	K	100	7,80 ZP
F 4,8	x 13	-H	S	500	5,20 ZP
F 4,8	x 13	-H	K	100	7,90 ZP
F 4,8	x 16	-H	S	500	5,40 ZP
F 4,8	x 16	-H	K	100	8,20 ZP
F 4,8	x 19	-H	S	500	9,60 ZP
F 4,8	x 22	-H	S	500	11,10 ZP
F 4,8	x 25	-H	S	500	11,50 ZP
F 4,8	x 32	-H	S	500	14,90 ZP
F 4,8	x 38	-H	S	500	18,20 ZP
F 5,5	x 13	-H	S	500	6,00 ZP
F 5,5	x 16	-H	S	500	6,70 ZP
F 5,5	x 19	-H	S	500	10,30 ZP
F 5,5	x 22	-H	S	500	12,10 ZP
F 5,5	x 25	-H	S	250	15,20 ZP
F 5,5	x 32	-H	S	250	18,20 ZP
F 5,5	x 38	-H	S	250	23,00 ZP
F 6,3	x 13	-H	S	250	9,10 ZP
F 6,3	x 16	-H	S	250	13,40 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88981.010		998

7981 Steel zinc plated article 88981



Cap-head tapping screws with Phillips cross recess H, C = with cone point

hardened

Matching decorative caps ➔ article 88003

Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

3,9	x 9,5	-H	S	1000	7,30 ZP
3,9	x 13	-H	S	1000	6,70 ZP
3,9	x 16	-H	S	1000	6,80 ZP
3,9	x 19	-H	S	1000	8,50 ZP
3,9	x 22	-H	S	500	8,50 ZP
3,9	x 25	-H	S	500	9,90 ZP
3,9	x 32	-H	S	500	11,50 ZP
3,9	x 38	-H	S	500	20,60 ZP

article	88003.*	800

88003 Plastic



Decorative caps for cap screws article 88981 Ø 3.9

white RAL 9010 (*630),
grey RAL 7001 (*640),
black RAL 9005 (*650)

REACH ➔ TI-262

F. 3,9	S	1000	8,60

Dimensions	PU	Pieces	€/100/Mat.
DIN	07982.014		690

7982 Steel zinc plated type C-H



Countersunk head tapping screws with Phillips cross recess H, C = with cone end

hardened nominal length from 60 mm with partial thread, countersunk ⌖ = 80°

Dimensions ➔ TI-47 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-11

Stainless ➔ pg. 577

DIN 7982 ➔ replaced by ISO 7050

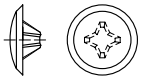
RoHS ✓ REACh SVHC free

C 2,2	x 6,5	-H	S	2000	5,60 ZP
C 2,2	x 9,5	-H	S	2000	5,30 ZP
C 2,2	x 13	-H	S	2000	5,30 ZP
C 2,2	x 16	-H	S	2000	7,90 ZP
C 2,9	x 6,5	-H	S	2000	5,70 ZP
C 2,9	x 9,5	-H	S	2000	2,30 ZP
C 2,9	x 9,5	-H	K	100	5,40 ZP
C 2,9	x 13	-H	S	2000	2,45 ZP
C 2,9	x 13	-H	K	100	5,50 ZP
C 2,9	x 16	-H	S	2000	2,60 ZP
C 2,9	x 16	-H	K	100	5,60 ZP
C 2,9	x 19	-H	S	2000	3,70 ZP
C 2,9	x 19	-H	K	100	6,70 ZP
C 2,9	x 22	-H	S	2000	4,30 ZP
C 2,9	x 22	-H	K	100	7,30 ZP
C 2,9	x 25	-H	S	1000	5,30 ZP
C 2,9	x 25	-H	K	100	8,40 ZP
C 2,9	x 32	-H	S	1000	6,00 ZP
C 2,9	x 32	-H	K	100	6,70 ZP
C 3,5	x 6,5	-H	S	1000	3,65 ZP
C 3,5	x 9,5	-H	S	1000	2,75 ZP
C 3,5	x 9,5	-H	K	100	5,70 ZP
C 3,5	x 13	-H	S	1000	2,85 ZP
C 3,5	x 13	-H	K	100	5,90 ZP
C 3,5	x 16	-H	S	1000	3,00 ZP
C 3,5	x 16	-H	K	100	6,00 ZP
C 3,5	x 19	-H	S	1000	3,90 ZP
C 3,5	x 19	-H	K	100	6,90 ZP
C 3,5	x 22	-H	S	1000	4,70 ZP
C 3,5	x 22	-H	K	100	7,80 ZP
C 3,5	x 25	-H	S	500	5,70 ZP
C 3,5	x 25	-H	K	100	8,80 ZP
C 3,5	x 32	-H	S	500	7,20 ZP
C 3,5	x 32	-H	K	100	10,20 ZP
C 3,5	x 38	-H	S	500	7,90 ZP
C 3,5	x 38	-H	K	100	11,10 ZP
C 3,9	x 9,5	-H	S	1000	3,25 ZP
C 3,9	x 9,5	-H	K	100	6,20 ZP
C 3,9	x 13	-H	S	1000	3,30 ZP
C 3,9	x 13	-H	K	100	6,30 ZP
C 3,9	x 16	-H	S	1000	3,60 ZP
C 3,9	x 16	-H	K	100	6,70 ZP
C 3,9	x 19	-H	S	1000	4,20 ZP
C 3,9	x 19	-H	K	100	7,20 ZP
C 3,9	x 22	-H	S	500	4,80 ZP
C 3,9	x 22	-H	K	100	7,80 ZP
C 3,9	x 25	-H	S	500	5,90 ZP
C 3,9	x 25	-H	K	100	8,90 ZP
C 3,9	x 32	-H	S	500	7,60 ZP

Dimensions	PU	Pieces	€/100/Mat.
C 3,9 x 32 -H	K	100	10,60 ZP
C 3,9 x 38 -H	S	500	8,80 ZP
C 3,9 x 38 -H	K	100	11,80 ZP
C 3,9 x 45 -H	S	500	9,40 ZP
C 3,9 x 50 -H	S	500	17,70 ZP
C 3,9 x 60 -H	S	250	19,50 ZP
C 4,2 x 9,5-H	S	1000	3,40 ZP
C 4,2 x 13 -H	S	1000	3,45 ZP
C 4,2 x 13 -H	K	100	6,50 ZP
C 4,2 x 16 -H	S	1000	3,85 ZP
C 4,2 x 16 -H	K	100	6,80 ZP
C 4,2 x 19 -H	S	500	4,40 ZP
C 4,2 x 19 -H	K	100	7,40 ZP
C 4,2 x 22 -H	S	500	5,00 ZP
C 4,2 x 22 -H	K	100	8,00 ZP
C 4,2 x 25 -H	S	500	6,20 ZP
C 4,2 x 25 -H	K	100	9,20 ZP
C 4,2 x 32 -H	S	500	7,80 ZP
C 4,2 x 32 -H	K	100	10,80 ZP
C 4,2 x 38 -H	S	500	9,40 ZP
C 4,2 x 38 -H	K	100	12,30 ZP
C 4,2 x 45 -H	S	500	10,50 ZP
C 4,2 x 45 -H	K	100	13,50 ZP
C 4,2 x 50 -H	S	500	19,20 ZP
C 4,2 x 50 -H	K	100	22,20 ZP
C 4,2 x 60 -H	S	250	22,00 ZP
C 4,2 x 70 -H	S	250	26,00 ZP
C 4,2 x 80 -H	S	250	28,50 ZP
C 4,8 x 9,5-H	S	500	7,80 ZP
C 4,8 x 13 -H	S	500	4,85 ZP
C 4,8 x 13 -H	K	100	7,90 ZP
C 4,8 x 16 -H	S	500	5,10 ZP
C 4,8 x 16 -H	K	100	8,20 ZP
C 4,8 x 19 -H	S	500	4,70 ZP
C 4,8 x 19 -H	K	100	7,80 ZP
C 4,8 x 22 -H	S	500	6,20 ZP
C 4,8 x 22 -H	K	100	9,20 ZP
C 4,8 x 25 -H	S	500	7,30 ZP
C 4,8 x 25 -H	K	100	10,30 ZP
C 4,8 x 32 -H	S	250	8,40 ZP
C 4,8 x 32 -H	K	100	11,50 ZP
C 4,8 x 38 -H	S	250	9,70 ZP
C 4,8 x 38 -H	K	100	12,60 ZP
C 4,8 x 45 -H	S	250	10,70 ZP
C 4,8 x 45 -H	K	100	13,60 ZP
C 4,8 x 50 -H	S	250	20,30 ZP
C 4,8 x 50 -H	K	100	23,30 ZP
C 4,8 x 60 -H	S	250	24,00 ZP
C 4,8 x 70 -H	S	250	29,50 ZP
C 4,8 x 80 -H	S	250	37,00 ZP
C 4,8 x 90 -H	S	250	44,00 ZP
C 4,8 x 100 -H	S	250	58,00 ZP
C 4,8 x 110 -H	S	100	73,00 ZP
C 4,8 x 120 -H	S	100	91,00 ZP
C 5,5 x 13 -H	S	500	8,00 ZP
C 5,5 x 13 -H	K	100	11,10 ZP
C 5,5 x 16 -H	S	500	7,20 ZP
C 5,5 x 16 -H	K	100	10,10 ZP
C 5,5 x 19 -H	S	500	7,60 ZP
C 5,5 x 19 -H	K	100	10,60 ZP
C 5,5 x 22 -H	S	500	10,50 ZP
C 5,5 x 22 -H	K	100	13,40 ZP
C 5,5 x 25 -H	S	250	11,20 ZP
C 5,5 x 25 -H	K	100	14,10 ZP
C 5,5 x 32 -H	S	250	11,30 ZP
C 5,5 x 32 -H	K	100	14,30 ZP
C 5,5 x 38 -H	S	250	14,70 ZP
C 5,5 x 38 -H	K	100	17,70 ZP
C 5,5 x 45 -H	S	250	18,00 ZP
C 5,5 x 45 -H	K	100	21,00 ZP
C 5,5 x 50 -H	S	250	21,80 ZP
C 5,5 x 50 -H	K	100	24,90 ZP
C 5,5 x 60 -H	S	250	30,50 ZP
C 6,3 x 16 -H	S	250	11,70 ZP
C 6,3 x 16 -H	K	100	14,70 ZP
C 6,3 x 19 -H	S	250	13,20 ZP
C 6,3 x 19 -H	K	100	16,10 ZP
C 6,3 x 22 -H	S	250	14,70 ZP
C 6,3 x 22 -H	K	100	17,70 ZP
C 6,3 x 25 -H	S	250	15,70 ZP
C 6,3 x 25 -H	K	100	18,70 ZP
C 6,3 x 32 -H	S	250	17,20 ZP
C 6,3 x 32 -H	K	100	20,30 ZP
C 6,3 x 38 -H	S	250	20,90 ZP
C 6,3 x 38 -H	K	100	23,90 ZP
C 6,3 x 45 -H	S	250	24,00 ZP
C 6,3 x 45 -H	K	100	27,00 ZP
C 6,3 x 50 -H	S	250	27,50 ZP
C 6,3 x 50 -H	K	100	31,00 ZP
C 6,3 x 60 -H	S	250	49,50 ZP
C 6,3 x 70 -H	S	250	65,00 ZP
C 6,3 x 80 -H	S	250	79,00 ZP

article	88004.630	800

88004 Plastic H



Caps for countersunk head screws with Phillips cross recess H

white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

REACH ➔ TI-262

cross recess no. x caps ∅ / for screws ∅			
2	x 12 / 3,5-5	S 1000	3,10 plastic

~DIN	07982.016	690

7982 Steel zinc plated type C-ISR



Countersunk head tapping screws, ISR = hexalobular socket C = with cone end

hardened
countersunk ⊀ = 80°

Dimensions ➔ TI-47 Assembly ➔ TI-251
Corrosion protection ➔ TI-228 Standard conversion ➔ TI-11

with countersunk ⊀ = 90° ➔ ISO 14586

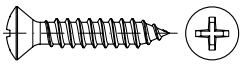
RoHS ✓ REACh SVHC free

2,2	x	4,5-C-T6	S 2000	10,30 ZP
2,2	x	6,5-C-T6	S 2000	9,10 ZP
2,2	x	9,5-C-T6	S 2000	10,90 ZP
2,2	x	13 -C-T6	S 2000	11,80 ZP
2,2	x	16 -C-T6	S 2000	13,30 ZP
2,9	x	6,5-C-T10	S 2000	6,60 ZP
2,9	x	9,5-C-T10	S 2000	2,70 ZP
2,9	x	13 -C-T10	S 2000	2,80 ZP
2,9	x	16 -C-T10	S 2000	3,00 ZP
2,9	x	19 -C-T10	S 2000	4,30 ZP
2,9	x	22 -C-T10	S 2000	5,30 ZP
2,9	x	25 -C-T10	S 1000	5,70 ZP
3,5	x	9,5-C-T15	S 1000	3,15 ZP
3,5	x	13 -C-T15	S 1000	3,30 ZP
3,5	x	16 -C-T15	S 1000	3,40 ZP
3,5	x	19 -C-T15	S 1000	4,45 ZP
3,5	x	22 -C-T15	S 1000	5,40 ZP
3,5	x	25 -C-T15	S 500	6,60 ZP
3,5	x	32 -C-T15	S 500	8,20 ZP
3,5	x	38 -C-T15	S 500	7,70 ZP
3,5	x	45 -C-T15	S 500	11,30 ZP
3,5	x	50 -C-T15	S 500	12,30 ZP
3,9	x	9,5-C-T20	S 1000	3,70 ZP
3,9	x	13 -C-T20	S 1000	3,75 ZP
3,9	x	16 -C-T20	S 1000	4,15 ZP
3,9	x	19 -C-T20	S 1000	4,80 ZP
3,9	x	22 -C-T20	S 500	5,50 ZP
3,9	x	25 -C-T20	S 500	4,85 ZP
3,9	x	32 -C-T20	S 500	8,60 ZP
3,9	x	38 -C-T20	S 500	10,00 ZP
3,9	x	45 -C-T20	S 500	10,20 ZP
3,9	x	50 -C-T20	S 500	10,50 ZP
4,2	x	9,5-C-T20	S 1000	3,90 ZP
4,2	x	13 -C-T20	S 1000	3,95 ZP
4,2	x	16 -C-T20	S 1000	4,40 ZP
4,2	x	19 -C-T20	S 500	5,00 ZP
4,2	x	22 -C-T20	S 500	5,70 ZP
4,2	x	25 -C-T20	S 500	7,20 ZP
4,2	x	32 -C-T20	S 500	8,90 ZP
4,2	x	38 -C-T20	S 500	10,70 ZP
4,2	x	45 -C-T20	S 500	11,90 ZP
4,2	x	50 -C-T20	S 500	13,60 ZP
4,2	x	60 -C-T20	S 500	23,20 ZP
4,2	x	70 -C-T20	S 500	27,50 ZP
4,2	x	80 -C-T20	S 500	39,00 ZP
4,8	x	9,5-C-T25	S 500	7,90 ZP
4,8	x	13 -C-T25	S 500	5,60 ZP
4,8	x	16 -C-T25	S 500	5,90 ZP
4,8	x	19 -C-T25	S 500	6,70 ZP
4,8	x	22 -C-T25	S 500	7,20 ZP
4,8	x	25 -C-T25	S 500	8,40 ZP
4,8	x	32 -C-T25	S 250	9,60 ZP
4,8	x	38 -C-T25	S 250	11,10 ZP
4,8	x	45 -C-T25	S 250	15,00 ZP
4,8	x	50 -C-T25	S 250	16,60 ZP
4,8	x	60 -C-T25	S 250	26,50 ZP
4,8	x	70 -C-T25	S 250	35,50 ZP
4,8	x	80 -C-T25	S 250	42,50 ZP
4,8	x	90 -C-T25	S 250	54,00 ZP
4,8	x	100 -C-T25	S 250	62,00 ZP
5,5	x	13 -C-T25	S 500	15,20 ZP
5,5	x	16 -C-T25	S 500	12,80 ZP
5,5	x	19 -C-T25	S 500	8,60 ZP
5,5	x	22 -C-T25	S 500	15,40 ZP
5,5	x	25 -C-T25	S 250	12,80 ZP
5,5	x	32 -C-T25	S 250	14,70 ZP
5,5	x	38 -C-T25	S 250	18,90 ZP
5,5	x	45 -C-T25	S 250	20,40 ZP
5,5	x	50 -C-T25	S 250	24,10 ZP
5,5	x	60 -C-T25	S 250	45,50 ZP
5,5	x	70 -C-T25	S 250	57,00 ZP
5,5	x	80 -C-T25	S 250	68,00 ZP
5,5	x	90 -C-T25	S 250	73,00 ZP
5,5	x	100 -C-T25	S 250	83,00 ZP
6,3	x	13 -C-T30	S 250	22,70 ZP
6,3	x	16 -C-T30	S 250	17,00 ZP
6,3	x	19 -C-T30	S 250	14,20 ZP
6,3	x	22 -C-T30	S 250	16,40 ZP
6,3	x	25 -C-T30	S 250	16,40 ZP
6,3	x	32 -C-T30	S 250	18,00 ZP
6,3	x	38 -C-T30	S 250	22,30 ZP
6,3	x	45 -C-T30	S 250	27,50 ZP
6,3	x	50 -C-T30	S 250	29,50 ZP
6,3	x	60 -C-T30	S 250	52,00 ZP
6,3	x	70 -C-T30	S 250	73,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
6,3 x 80 -C-T30	S	250	82,00 ZP
6,3 x 90 -C-T30	S	250	91,00 ZP
6,3 x 100 -C-T30	S	250	99,00 ZP

DIN 07983.014 690

7983 Steel zinc plated type C-H



Raised csk. head tapping screws with Phillips cross recess H, C = with cone end

hardened
(countersunk ∢ = 80°)

Dimensions ➔ TI-47
Assembly ➔ TI-251
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11

Stainless ➔ pg. 578

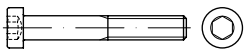
DIN 7983 ➔ replaced by ISO 7051
(countersunk ∢ = 90°)

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
C 2,9 x 6,5-H	S	2000	5,60 ZP
C 2,9 x 9,5-H	S	2000	2,30 ZP
C 2,9 x 9,5-H	K	100	5,40 ZP
C 2,9 x 13 -H	S	2000	2,45 ZP
C 2,9 x 13 -H	K	100	5,50 ZP
C 2,9 x 16 -H	S	2000	2,80 ZP
C 2,9 x 16 -H	K	100	5,90 ZP
C 2,9 x 19 -H	S	2000	3,70 ZP
C 2,9 x 19 -H	K	100	6,70 ZP
C 2,9 x 22 -H	S	2000	4,60 ZP
C 2,9 x 22 -H	K	100	7,70 ZP
C 2,9 x 25 -H	S	1000	4,85 ZP
C 2,9 x 25 -H	K	100	7,90 ZP
C 3,5 x 9,5-H	S	1000	3,35 ZP
C 3,5 x 9,5-H	K	100	6,30 ZP
C 3,5 x 13 -H	S	1000	3,90 ZP
C 3,5 x 13 -H	K	100	5,90 ZP
C 3,5 x 16 -H	S	1000	3,00 ZP
C 3,5 x 16 -H	K	100	6,00 ZP
C 3,5 x 19 -H	S	1000	3,95 ZP
C 3,5 x 19 -H	K	100	6,90 ZP
C 3,5 x 22 -H	S	1000	4,70 ZP
C 3,5 x 22 -H	K	100	7,80 ZP
C 3,5 x 25 -H	S	500	5,30 ZP
C 3,5 x 25 -H	K	100	8,30 ZP
C 3,5 x 32 -H	S	500	6,70 ZP
C 3,5 x 32 -H	K	100	9,60 ZP
C 3,5 x 38 -H	S	500	7,30 ZP
C 3,5 x 38 -H	K	100	10,30 ZP
C 3,9 x 9,5-H	S	1000	3,90 ZP
C 3,9 x 9,5-H	K	100	6,90 ZP
C 3,9 x 13 -H	S	1000	3,30 ZP
C 3,9 x 13 -H	K	100	6,30 ZP
C 3,9 x 16 -H	S	1000	3,60 ZP
C 3,9 x 16 -H	K	100	6,70 ZP
C 3,9 x 19 -H	S	1000	4,20 ZP
C 3,9 x 19 -H	K	100	7,20 ZP
C 3,9 x 22 -H	S	500	4,80 ZP
C 3,9 x 22 -H	K	100	7,80 ZP
C 3,9 x 25 -H	S	500	5,40 ZP
C 3,9 x 25 -H	K	100	8,50 ZP
C 3,9 x 32 -H	S	500	7,10 ZP
C 3,9 x 32 -H	K	100	10,10 ZP
C 3,9 x 38 -H	S	500	8,00 ZP
C 3,9 x 38 -H	K	100	11,10 ZP
C 4,2 x 9,5-H	S	1000	2,85 ZP
C 4,2 x 13 -H	S	1000	3,45 ZP
C 4,2 x 13 -H	K	100	6,50 ZP
C 4,2 x 16 -H	S	1000	3,85 ZP
C 4,2 x 16 -H	K	100	6,80 ZP
C 4,2 x 19 -H	S	500	4,45 ZP
C 4,2 x 19 -H	K	100	7,60 ZP
C 4,2 x 22 -H	S	500	6,20 ZP
C 4,2 x 22 -H	K	100	9,20 ZP
C 4,2 x 25 -H	S	500	6,30 ZP
C 4,2 x 25 -H	K	100	9,40 ZP
C 4,2 x 32 -H	S	500	7,30 ZP
C 4,2 x 32 -H	K	100	10,30 ZP
C 4,2 x 38 -H	S	500	7,40 ZP
C 4,2 x 38 -H	K	100	10,30 ZP
C 4,2 x 45 -H	S	500	10,50 ZP
C 4,2 x 45 -H	K	100	13,50 ZP
C 4,2 x 50 -H	S	500	12,90 ZP
C 4,2 x 50 -H	K	100	15,90 ZP
C 4,8 x 9,5-H	S	500	7,80 ZP
C 4,8 x 13 -H	S	500	4,85 ZP
C 4,8 x 13 -H	K	100	7,90 ZP
C 4,8 x 16 -H	S	500	5,10 ZP
C 4,8 x 16 -H	K	100	8,20 ZP
C 4,8 x 19 -H	S	500	6,20 ZP
C 4,8 x 19 -H	K	100	9,20 ZP
C 4,8 x 22 -H	S	500	7,10 ZP
C 4,8 x 22 -H	K	100	10,10 ZP
C 4,8 x 25 -H	S	500	8,40 ZP
C 4,8 x 25 -H	K	100	11,40 ZP
C 4,8 x 32 -H	S	250	9,00 ZP
C 4,8 x 32 -H	K	100	12,00 ZP
C 4,8 x 38 -H	S	250	9,70 ZP
C 4,8 x 38 -H	K	100	14,90 ZP
C 4,8 x 45 -H	S	250	10,70 ZP
C 4,8 x 45 -H	K	100	13,60 ZP
C 4,8 x 50 -H	S	250	13,60 ZP
C 4,8 x 50 -H	K	100	16,60 ZP
C 5,5 x 13 -H	S	500	8,80 ZP
C 5,5 x 13 -H	K	100	11,70 ZP
C 5,5 x 16 -H	S	500	9,50 ZP
C 5,5 x 16 -H	K	100	12,40 ZP
C 5,5 x 19 -H	S	500	10,20 ZP
C 5,5 x 19 -H	K	100	13,10 ZP
C 5,5 x 22 -H	S	500	11,30 ZP
C 5,5 x 22 -H	K	100	14,30 ZP
C 5,5 x 25 -H	S	250	12,10 ZP
C 5,5 x 25 -H	K	100	15,20 ZP
C 5,5 x 32 -H	S	250	14,00 ZP
C 5,5 x 32 -H	K	100	17,00 ZP
C 5,5 x 38 -H	S	250	14,70 ZP
C 5,5 x 38 -H	K	100	17,70 ZP
C 5,5 x 45 -H	S	250	18,00 ZP
C 5,5 x 45 -H	K	100	21,00 ZP
C 5,5 x 50 -H	S	250	20,70 ZP
C 5,5 x 50 -H	K	100	23,80 ZP
C 6,3 x 16 -H	S	250	11,80 ZP
C 6,3 x 16 -H	K	100	14,80 ZP
C 6,3 x 19 -H	S	250	12,30 ZP
C 6,3 x 19 -H	K	100	15,20 ZP
C 6,3 x 22 -H	S	250	14,20 ZP
C 6,3 x 22 -H	K	100	17,10 ZP
C 6,3 x 25 -H	S	250	14,30 ZP
C 6,3 x 25 -H	K	100	17,40 ZP
C 6,3 x 32 -H	S	250	17,20 ZP
C 6,3 x 32 -H	K	100	20,30 ZP
C 6,3 x 38 -H	S	250	18,00 ZP
C 6,3 x 38 -H	K	100	21,00 ZP
C 6,3 x 45 -H	S	250	19,30 ZP
C 6,3 x 45 -H	K	100	22,20 ZP
C 6,3 x 50 -H	S	250	25,50 ZP
C 6,3 x 50 -H	K	100	28,50 ZP

DIN 07984.800 700

7984 08.8



Hexagon socket head cap screws with low head

Dimensions ➔ TI-13
Tightening torque ➔ TI-246
Material properties ➔ TI-232

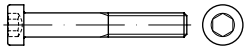
Stainless ➔ pg. 579

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 5	S	500	37,00
M 3 x 5	K	100	41,00
M 3 x 6	S	500	31,00
M 3 x 6	K	100	34,50
M 3 x 8	S	500	24,90
M 3 x 8	K	100	28,50
M 3 x 10	S	500	24,90
M 3 x 10	K	100	28,50
M 3 x 12	S	500	26,50
M 3 x 12	K	100	30,50
M 3 x 16	S	500	32,00
M 3 x 16	K	100	35,50
M 3 x 18	S	500	33,50
M 3 x 20	S	500	33,50
M 3 x 20	K	100	37,50
M 3 x 25	S	500	38,50
M 3 x 25	K	100	42,50
M 3 x 30	S	500	44,50
M 4 x 6	S	500	47,50
M 4 x 6	K	100	51,00
M 4 x 8	S	500	27,50
M 4 x 8	K	100	31,50
M 4 x 10	S	500	22,50
M 4 x 10	K	100	26,50
M 4 x 12	S	500	26,00
M 4 x 12	K	100	29,50
M 4 x 16	S	500	23,20
M 4 x 16	K	100	27,50
M 4 x 20	S	500	25,00
M 4 x 20	K	100	29,00
M 4 x 25	S	500	32,50
M 4 x 25	K	100	36,50
M 4 x 30	S	500	38,00
M 4 x 30	K	100	42,00
M 4 x 35	S	500	49,00
M 4 x 40	S	500	56,00
M 4 x 40	K	100	59,00
M 4 x 45	S	500	71,00
M 4 x 50	S	500	75,00
M 5 x 6	S	500	40,00
M 5 x 6	K	100	43,50
M 5 x 8	S	500	29,50
M 5 x 8	K	100	33,00
M 5 x 10	S	500	14,60
M 5 x 10	K	100	18,30
M 5 x 12	S	500	14,10
M 5 x 12	K	100	17,80
M 5 x 14	S	500	32,50
M 5 x 16	S	500	15,60
M 5 x 16	K	100	19,30
M 5 x 18	S	500	34,50
M 5 x 20	S	500	15,70
M 5 x 20	K	100	19,40
M 5 x 25	S	500	19,00

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25	K	100	22,60
M 5	x	30	S	500	37,00
M 5	x	30	K	100	40,50
M 5	x	35	S	200	46,50
M 5	x	40	S	200	46,50
M 5	x	45	S	200	55,00
M 5	x	50	S	200	55,00
M 5	x	55	S	200	78,00
M 5	x	60	S	200	84,00
M 6	x	8	S	500	15,30
M 6	x	8	K	100	19,00
M 6	x	10	S	500	15,70
M 6	x	10	K	100	19,40
M 6	x	12	S	500	15,70
M 6	x	12	K	100	19,40
M 6	x	14	S	500	35,50
M 6	x	16	S	500	16,00
M 6	x	16	K	100	19,60
M 6	x	18	S	500	42,50
M 6	x	18	K	100	46,00
M 6	x	20	S	500	16,10
M 6	x	20	K	100	19,90
M 6	x	25	S	500	20,00
M 6	x	25	K	100	23,70
M 6	x	30	S	500	20,60
M 6	x	30	K	100	24,30
M 6	x	35	S	200	38,00
M 6	x	40	S	200	40,50
M 6	x	45	S	200	51,00
M 6	x	50	S	200	47,50
M 6	x	55	S	200	61,00
M 6	x	60	S	200	61,00
M 6	x	70	S	200	104,00
M 8	x	10	S	200	58,00
M 8	x	12	S	200	53,00
M 8	x	14	S	200	44,50
M 8	x	16	S	200	23,20
M 8	x	18	S	200	42,50
M 8	x	20	S	200	23,60
M 8	x	25	S	200	23,60
M 8	x	30	S	200	26,50
M 8	x	35	S	200	58,00
M 8	x	40	S	200	59,00
M 8	x	45	S	200	62,00
M 8	x	50	S	200	63,00
M 8	x	55	S	200	78,00
M 8	x	60	S	200	78,00
M 8	x	65	S	200	120,00
M 8	x	70	S	200	120,00
M 8	x	80	S	200	143,00
M 8	x	90	S	100	204,00
M 8	x	100	S	100	239,00
M 10	x	12	S	200	59,00
M 10	x	16	S	200	42,00
M 10	x	20	S	200	41,00
M 10	x	25	S	200	40,00
M 10	x	30	S	200	42,00
M 10	x	35	S	100	59,00
M 10	x	40	S	100	65,00
M 10	x	45	S	100	68,00
M 10	x	50	S	100	95,00
M 10	x	55	S	100	121,00
M 10	x	60	S	100	121,00
M 10	x	65	S	100	184,00
M 10	x	70	S	100	184,00
M 10	x	75	S	100	209,00
M 10	x	80	S	100	209,00
M 10	x	90	S	100	227,00
M 10	x	100	S	100	245,00
M 10	x	120	S	100	330,00
M 12	x	20	S	100	57,00
M 12	x	25	S	100	58,00
M 12	x	30	S	100	61,00
M 12	x	35	S	100	67,00
M 12	x	40	S	100	68,00
M 12	x	45	S	100	82,00
M 12	x	50	S	100	153,00
M 12	x	55	S	100	230,00
M 12	x	60	S	100	230,00
M 12	x	65	S	50	270,00
M 12	x	70	S	50	270,00
M 12	x	80	S	50	305,00
M 12	x	90	S	50	335,00
M 12	x	100	S	50	355,00
M 16	x	25	S	50	255,00
M 16	x	30	S	50	194,00
M 16	x	35	S	50	210,00
M 16	x	40	S	50	221,00
M 16	x	45	S	50	260,00
M 16	x	50	S	50	260,00
M 16	x	55	S	50	300,00
M 16	x	60	S	50	355,00
M 16	x	70	S	25	420,00
M 16	x	80	S	25	500,00
M 16	x	90	S	25	540,00
M 16	x	100	S	25	740,00
M 16	x	110	S	25	870,00
M 16	x	120	S	25	900,00
M 20	x	30	S	25	590,00
M 20	x	35	S	25	590,00
M 20	x	40	S	25	590,00
M 20	x	45	S	25	690,00
M 20	x	50	S	25	690,00
M 20	x	55	S	25	750,00
M 20	x	60	S	25	750,00
M 20	x	70	S	25	980,00
M 20	x	80	S	25	1030,00
M 20	x	90	S	25	1080,00
M 20	x	100	S	25	1140,00
M 20	x	110	S	1	1220,00
M 20	x	120	S	1	1280,00
M 24	x	40	S	1	1410,00
M 24	x	45	S	1	1450,00
M 24	x	50	S	1	1500,00
M 24	x	60	S	1	1500,00
M 24	x	70	S	1	1630,00
M 24	x	80	S	1	1780,00
M 24	x	100	S	1	2340,00
M 24	x	120	S	1	2800,00

DIN	07984.810	700
7984	**08.8 zinc plated**	



Hexagon socket head cap screws with low head

Dimensions ➔ TI-13
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246
Stainless ➔ pg. 579

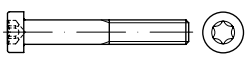
RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	5	S	500	37,50 ZP
M 3	x	6	S	500	31,50 ZP
M 3	x	8	S	500	25,50 ZP
M 3	x	10	S	500	25,50 ZP
M 3	x	12	S	500	27,00 ZP
M 3	x	16	S	500	32,50 ZP
M 3	x	18	S	500	34,00 ZP
M 3	x	20	S	500	34,50 ZP
M 3	x	25	S	500	40,00 ZP
M 4	x	6	S	500	48,00 ZP
M 4	x	8	S	500	28,00 ZP
M 4	x	10	S	500	23,20 ZP
M 4	x	12	S	500	26,50 ZP
M 4	x	16	S	500	23,90 ZP
M 4	x	20	S	500	26,50 ZP
M 4	x	25	S	500	34,00 ZP
M 4	x	30	S	500	39,00 ZP
M 4	x	35	S	500	50,00 ZP
M 4	x	40	S	500	58,00 ZP
M 4	x	50	S	500	79,00 ZP
M 5	x	6	S	500	41,50 ZP
M 5	x	8	S	500	30,50 ZP
M 5	x	10	S	500	15,50 ZP
M 5	x	12	S	500	15,20 ZP
M 5	x	14	S	500	33,50 ZP
M 5	x	16	S	500	16,80 ZP
M 5	x	20	S	500	17,10 ZP
M 5	x	25	S	500	21,00 ZP
M 5	x	30	S	500	40,00 ZP
M 5	x	35	S	200	49,50 ZP
M 5	x	40	S	200	49,50 ZP
M 5	x	45	S	200	59,00 ZP
M 5	x	50	S	200	59,00 ZP
M 5	x	55	S	200	83,00 ZP
M 5	x	60	S	200	90,00 ZP
M 6	x	8	S	500	16,60 ZP
M 6	x	10	S	500	17,10 ZP
M 6	x	12	S	500	17,20 ZP
M 6	x	14	S	500	36,00 ZP
M 6	x	16	S	500	17,70 ZP
M 6	x	18	S	500	44,50 ZP
M 6	x	20	S	500	18,20 ZP
M 6	x	25	S	500	21,00 ZP
M 6	x	30	S	500	23,60 ZP
M 6	x	35	S	200	41,50 ZP
M 6	x	40	S	200	44,50 ZP
M 6	x	45	S	200	56,00 ZP
M 6	x	50	S	200	53,00 ZP
M 6	x	55	S	200	66,00 ZP
M 6	x	60	S	200	66,00 ZP
M 6	x	65	S	200	111,00 ZP
M 6	x	70	S	200	109,00 ZP
M 6	x	80	S	200	115,00 ZP
M 8	x	10	S	200	62,00 ZP
M 8	x	12	S	200	57,00 ZP
M 8	x	14	S	200	48,50 ZP
M 8	x	16	S	200	27,00 ZP
M 8	x	18	S	200	49,50 ZP
M 8	x	20	S	200	28,00 ZP
M 8	x	22	S	200	55,00 ZP
M 8	x	25	S	200	28,50 ZP
M 8	x	30	S	200	32,00 ZP
M 8	x	35	S	200	64,00 ZP
M 8	x	40	S	200	67,00 ZP
M 8	x	45	S	200	69,00 ZP
M 8	x	50	S	200	72,00 ZP
M 8	x	55	S	200	87,00 ZP
M 8	x	60	S	200	88,00 ZP
M 8	x	65	S	200	131,00 ZP
M 8	x	70	S	200	132,00 ZP
M 8	x	80	S	200	149,00 ZP
M 8	x	90	S	100	210,00 ZP
M 8	x	100	S	100	246,00 ZP
M 10	x	12	S	200	66,00 ZP
M 10	x	16	S	200	47,50 ZP
M 10	x	18	S	200	86,00 ZP
M 10	x	20	S	200	47,50 ZP
M 10	x	25	S	200	47,50 ZP
M 10	x	30	S	200	51,00 ZP
M 10	x	35	S	100	69,00 ZP
M 10	x	40	S	100	73,00 ZP
M 10	x	45	S	100	79,00 ZP
M 10	x	50	S	100	108,00 ZP
M 10	x	55	S	100	136,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	60	S	100	137,00 ZP
M 10	x	65	S	100	204,00 ZP
M 10	x	70	S	100	204,00 ZP
M 10	x	80	S	100	229,00 ZP
M 10	x	90	S	100	246,00 ZP
M 10	x	100	S	100	270,00 ZP
M 12	x	16	S	100	61,00 ZP
M 12	x	20	S	100	67,00 ZP
M 12	x	25	S	100	69,00 ZP
M 12	x	30	S	100	74,00 ZP
M 12	x	35	S	100	79,00 ZP
M 12	x	40	S	100	83,00 ZP
M 12	x	45	S	100	99,00 ZP
M 12	x	50	S	100	171,00 ZP
M 12	x	55	S	100	255,00 ZP
M 12	x	60	S	100	255,00 ZP
M 12	x	70	S	50	300,00 ZP
M 12	x	80	S	50	335,00 ZP
M 12	x	90	S	50	370,00 ZP
M 16	x	20	S	50	375,00 ZP
M 16	x	25	S	50	285,00 ZP
M 16	x	30	S	50	226,00 ZP
M 16	x	35	S	50	240,00 ZP
M 16	x	40	S	50	255,00 ZP
M 16	x	45	S	50	295,00 ZP
M 16	x	50	S	50	300,00 ZP
M 16	x	55	S	50	345,00 ZP
M 16	x	60	S	50	400,00 ZP
M 16	x	70	S	25	475,00 ZP
M 16	x	80	S	25	560,00 ZP
M 16	x	90	S	25	600,00 ZP
M 16	x	100	S	25	690,00 ZP
M 16	x	110	S	25	920,00 ZP
M 20	x	30	S	25	650,00 ZP
M 20	x	35	S	25	640,00 ZP
M 20	x	40	S	25	640,00 ZP
M 20	x	45	S	25	750,00 ZP
M 20	x	50	S	25	750,00 ZP
M 20	x	60	S	25	820,00 ZP
M 20	x	70	S	25	1060,00 ZP
M 20	x	80	S	25	1110,00 ZP
M 20	x	90	S	25	1140,00 ZP
M 24	x	40	S	1	1470,00 ZP
M 24	x	50	S	1	1560,00 ZP
M 24	x	60	S	1	1580,00 ZP
M 24	x	70	S	1	1700,00 ZP
M 24	x	80	S	1	1850,00 ZP
M 24	x	100	S	1	2420,00 ZP

~DIN	07984.814	1000

7984 08.8 zinc plated ISR



Hexalobular socket head cap screws with low head, ISR = hexalobular socket

Dimensions ➔ TI-13
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

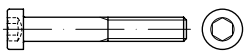
RoHS ✓ | REACh SVHC free

M 3	x	6 -T10	S	500	34,00 ZP
M 3	x	8 -T10	S	500	34,50 ZP
M 3	x	10 -T10	S	500	34,50 ZP
M 3	x	12 -T10	S	500	36,00 ZP
M 3	x	16 -T10	S	500	41,50 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6 -T20	S	500	51,00 ZP
M 4	x	8 -T20	S	500	31,50 ZP
M 4	x	10 -T20	S	500	26,50 ZP
M 4	x	12 -T20	S	500	29,50 ZP
M 4	x	16 -T20	S	500	26,50 ZP
M 4	x	20 -T20	S	500	29,00 ZP
M 5	x	10 -T25	S	500	17,20 ZP
M 5	x	12 -T25	S	500	16,80 ZP
M 5	x	16 -T25	S	500	18,70 ZP
M 5	x	20 -T25	S	500	19,00 ZP
M 5	x	25 -T25	S	500	23,30 ZP
M 6	x	10 -T30	S	500	19,00 ZP
M 6	x	12 -T30	S	500	19,00 ZP
M 6	x	16 -T30	S	500	19,70 ZP
M 6	x	20 -T30	S	500	20,20 ZP
M 6	x	25 -T30	S	500	23,30 ZP
M 8	x	12 -T40	S	200	63,00 ZP
M 8	x	16 -T40	S	200	30,00 ZP
M 8	x	20 -T40	S	100	31,00 ZP
M 8	x	25 -T40	S	200	31,50 ZP
M 8	x	30 -T40	S	200	35,50 ZP

DIN	07984.100	700

7984 010.9



Hexagon socket head cap screws with low head

Dimensions ➔ TI-13
Material properties ➔ TI-232
Tightening torque ➔ TI-246

Stainless ➔ pg. 579

RoHS ✓ | REACh SVHC free

M 4	x	10	S	500	28,00
M 4	x	12	S	500	32,50
M 4	x	16	S	500	33,50
M 4	x	20	S	500	34,00
M 4	x	25	S	500	44,00
M 4	x	30	S	500	48,50
M 5	x	10	S	500	18,60
M 5	x	12	S	500	19,20
M 5	x	16	S	500	20,10
M 5	x	20	S	500	20,60
M 5	x	25	S	500	23,80
M 5	x	30	S	500	40,00
M 6	x	10	S	500	23,60
M 6	x	12	S	500	24,60
M 6	x	16	S	500	25,50
M 6	x	20	S	500	27,00
M 6	x	25	S	500	30,50
M 6	x	30	S	500	34,50
M 8	x	12	S	200	67,00
M 8	x	16	S	200	33,50
M 8	x	20	S	200	38,50
M 8	x	25	S	200	43,00
M 8	x	30	S	200	47,00
M 10	x	16	S	200	59,00
M 10	x	20	S	200	65,00
M 10	x	25	S	200	66,00
M 10	x	30	S	200	71,00
M 10	x	35	S	100	76,00
M 10	x	40	S	100	82,00
M 12	x	20	S	100	80,00
M 12	x	25	S	100	76,00
M 12	x	30	S	100	79,00

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	35	S	100	86,00
M 12	x	40	S	100	91,00

DIN	07985.404	710

7985 4.8 H



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40
Material properties ➔ TI-232
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 580

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓

M 3	x	5 -H	S	2000	6,10
M 3	x	6 -H	S	2000	3,45
M 3	x	8 -H	S	2000	2,30
M 3	x	10 -H	S	2000	2,40
M 3	x	12 -H	S	2000	2,45
M 3	x	16 -H	S	2000	2,75
M 3	x	20 -H	S	2000	3,10
M 4	x	6 -H	S	2000	5,10
M 4	x	8 -H	S	2000	3,30
M 4	x	10 -H	S	2000	3,40
M 4	x	12 -H	S	2000	3,45
M 4	x	16 -H	S	2000	4,10
M 4	x	20 -H	S	2000	4,20
M 4	x	25 -H	S	1000	4,40
M 4	x	30 -H	S	1000	6,00
M 5	x	8 -H	S	2000	4,80
M 5	x	10 -H	S	2000	4,85
M 5	x	12 -H	S	1000	5,10
M 5	x	16 -H	S	1000	5,60
M 5	x	20 -H	S	1000	6,00
M 5	x	25 -H	S	1000	6,90
M 6	x	10 -H	S	1000	7,20
M 6	x	12 -H	S	1000	7,20
M 6	x	16 -H	S	1000	7,90
M 6	x	20 -H	S	1000	8,20
M 6	x	25 -H	S	500	9,10
M 6	x	40 -H	S	500	13,60
M 8	x	16 -H	S	500	16,70
M 8	x	25 -H	S	200	20,60

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU Pieces	€/100/Mat.
DIN	07985.414		710
7985	**4.8** **zinc plated**		**H**



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

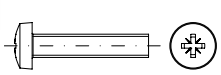
Stainless ➔ pg. 580

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	4 -H	S	2000	8,40 ZP
M 2	x	4 -H	K	200	11,30 ZP
M 2	x	5 -H	S	2000	8,40 ZP
M 2	x	5 -H	K	200	11,30 ZP
M 2	x	6 -H	S	2000	4,60 ZP
M 2	x	6 -H	K	200	6,30 ZP
M 2	x	8 -H	S	2000	4,60 ZP
M 2	x	8 -H	K	200	7,60 ZP
M 2	x	10 -H	S	2000	4,75 ZP
M 2	x	10 -H	K	200	7,70 ZP
M 2	x	12 -H	S	2000	4,85 ZP
M 2	x	12 -H	K	200	7,80 ZP
M 2	x	16 -H	S	2000	5,00 ZP
M 2	x	16 -H	K	200	7,90 ZP
M 2	x	20 -H	S	2000	5,30 ZP
M 2	x	20 -H	K	200	8,20 ZP
M 2,5	x	4 -H	S	2000	9,20 ZP
M 2,5	x	4 -H	K	200	12,10 ZP
M 2,5	x	5 -H	S	2000	9,20 ZP
M 2,5	x	5 -H	K	200	12,10 ZP
M 2,5	x	6 -H	S	2000	4,70 ZP
M 2,5	x	6 -H	K	200	7,70 ZP
M 2,5	x	8 -H	S	2000	4,70 ZP
M 2,5	x	8 -H	K	200	7,70 ZP
M 2,5	x	10 -H	S	2000	4,80 ZP
M 2,5	x	10 -H	K	200	7,80 ZP
M 2,5	x	12 -H	S	2000	4,95 ZP
M 2,5	x	12 -H	K	200	7,90 ZP
M 2,5	x	14 -H	S	2000	9,70 ZP
M 2,5	x	16 -H	S	2000	5,40 ZP
M 2,5	x	16 -H	K	200	8,40 ZP
M 2,5	x	20 -H	S	2000	5,80 ZP
M 2,5	x	20 -H	K	200	8,70 ZP
M 2,5	x	25 -H	S	2000	6,80 ZP
M 2,5	x	25 -H	K	200	9,70 ZP
M 2,5	x	30 -H	S	2000	14,60 ZP
M 2,5	x	30 -H	K	200	17,50 ZP
M 3	x	3 -H	S	2000	12,10 ZP
M 3	x	3 -H	K	200	14,60 ZP
M 3	x	4 -H	S	2000	10,00 ZP
M 3	x	4 -H	K	200	12,90 ZP
M 3	x	5 -H	S	2000	6,70 ZP
M 3	x	5 -H	K	200	9,60 ZP
M 3	x	6 -H	S	2000	3,85 ZP
M 3	x	6 -H	K	200	6,80 ZP
M 3	x	8 -H	S	2000	2,60 ZP
M 3	x	8 -H	K	200	5,50 ZP
M 3	x	10 -H	S	2000	2,60 ZP
M 3	x	10 -H	K	200	5,50 ZP
M 3	x	12 -H	S	2000	2,75 ZP
M 3	x	12 -H	K	200	5,70 ZP
M 3	x	14 -H	S	2000	3,25 ZP
M 3	x	14 -H	K	200	6,20 ZP
M 3	x	16 -H	S	2000	3,00 ZP
M 3	x	16 -H	K	200	5,90 ZP
M 3	x	18 -H	S	2000	3,40 ZP
M 3	x	18 -H	K	200	6,30 ZP
M 3	x	20 -H	S	2000	3,40 ZP
M 3	x	20 -H	K	200	6,30 ZP
M 3	x	22 -H	S	2000	3,85 ZP
M 3	x	22 -H	K	200	6,80 ZP
M 3	x	25 -H	S	2000	4,20 ZP
M 3	x	25 -H	K	200	7,20 ZP
M 3	x	28 -H	S	2000	13,40 ZP
M 3	x	28 -H	K	200	16,30 ZP
M 3	x	30 -H	S	2000	5,30 ZP
M 3	x	30 -H	K	200	8,20 ZP
M 3	x	35 -H	S	2000	8,20 ZP
M 3	x	35 -H	K	200	11,10 ZP
M 3	x	40 -H	S	1000	8,50 ZP
M 3	x	40 -H	K	200	11,40 ZP
M 3	x	45 -H	S	1000	12,80 ZP
M 3	x	45 -H	K	200	15,10 ZP
M 3	x	50 -H	S	1000	14,60 ZP
M 3	x	50 -H	K	200	17,50 ZP
M 3	x	55 -H	S	200	30,50 ZP
M 3,5	x	5 -H	S	2000	10,90 ZP
M 3,5	x	6 -H	S	2000	11,20 ZP
M 4	x	4 -H	S	2000	12,10 ZP
M 4	x	4 -H	K	200	15,10 ZP
M 4	x	5 -H	S	2000	8,60 ZP
M 4	x	5 -H	K	200	11,50 ZP
M 4	x	6 -H	S	2000	5,60 ZP
M 4	x	6 -H	K	200	8,60 ZP
M 4	x	8 -H	S	2000	3,65 ZP
M 4	x	8 -H	K	200	6,70 ZP
M 4	x	10 -H	S	2000	3,75 ZP
M 4	x	10 -H	K	200	6,80 ZP
M 4	x	12 -H	S	2000	3,90 ZP
M 4	x	12 -H	K	200	6,80 ZP
M 4	x	14 -H	S	2000	5,40 ZP
M 4	x	14 -H	K	200	8,40 ZP
M 4	x	16 -H	S	2000	4,40 ZP
M 4	x	16 -H	K	200	7,30 ZP
M 4	x	18 -H	S	2000	5,10 ZP
M 4	x	18 -H	K	200	8,00 ZP
M 4	x	20 -H	S	2000	4,60 ZP
M 4	x	20 -H	K	200	7,70 ZP
M 4	x	22 -H	S	2000	7,30 ZP
M 4	x	25 -H	S	1000	4,85 ZP
M 4	x	25 -H	K	200	7,90 ZP
M 4	x	30 -H	S	1000	6,70 ZP
M 4	x	30 -H	K	200	9,60 ZP
M 4	x	35 -H	S	1000	7,80 ZP
M 4	x	35 -H	K	200	10,70 ZP
M 4	x	40 -H	S	1000	8,80 ZP
M 4	x	40 -H	K	200	11,70 ZP
M 4	x	45 -H	S	1000	13,50 ZP
M 4	x	45 -H	K	200	16,50 ZP
M 4	x	50 -H	S	1000	16,10 ZP
M 4	x	50 -H	K	200	19,20 ZP
M 4	x	55 -H	S	500	23,20 ZP
M 4	x	60 -H	S	500	23,20 ZP
M 4	x	65 -H	S	500	47,50 ZP
M 4	x	70 -H	S	500	30,00 ZP
M 4	x	80 -H	S	500	38,50 ZP
M 4	x	85 -H	S	500	48,50 ZP
M 4	x	90 -H	S	200	67,00 ZP
M 4	x	100 -H	S	200	79,00 ZP
M 5	x	6 -H	S	2000	10,70 ZP
M 5	x	6 -H	K	200	13,60 ZP
M 5	x	8 -H	S	2000	5,30 ZP
M 5	x	8 -H	K	200	8,20 ZP
M 5	x	10 -H	S	2000	5,40 ZP
M 5	x	10 -H	K	200	8,40 ZP
M 5	x	12 -H	S	1000	5,60 ZP
M 5	x	12 -H	K	200	8,60 ZP
M 5	x	14 -H	S	1000	6,10 ZP
M 5	x	14 -H	K	200	9,00 ZP
M 5	x	16 -H	S	1000	6,20 ZP
M 5	x	16 -H	K	200	9,10 ZP
M 5	x	18 -H	S	1000	7,30 ZP
M 5	x	18 -H	K	200	10,20 ZP
M 5	x	20 -H	S	1000	6,70 ZP
M 5	x	20 -H	K	200	9,60 ZP
M 5	x	25 -H	S	1000	7,80 ZP
M 5	x	25 -H	K	200	10,70 ZP
M 5	x	30 -H	S	1000	9,20 ZP
M 5	x	30 -H	K	200	12,10 ZP
M 5	x	35 -H	S	500	10,60 ZP
M 5	x	35 -H	K	200	13,40 ZP
M 5	x	40 -H	S	500	10,60 ZP
M 5	x	40 -H	K	200	13,50 ZP
M 5	x	45 -H	S	500	12,40 ZP
M 5	x	45 -H	K	200	15,40 ZP
M 5	x	50 -H	S	500	18,10 ZP
M 5	x	50 -H	K	200	21,00 ZP
M 5	x	60 -H	S	200	23,90 ZP
M 5	x	70 -H	S	200	33,50 ZP
M 5	x	80 -H	S	200	42,00 ZP
M 5	x	90 -H	S	200	48,50 ZP
M 5	x	100 -H	S	200	57,00 ZP
M 6	x	8 -H	S	1000	14,10 ZP
M 6	x	8 -H	K	200	17,00 ZP
M 6	x	10 -H	S	1000	8,00 ZP
M 6	x	10 -H	K	200	10,90 ZP
M 6	x	12 -H	S	1000	7,80 ZP
M 6	x	12 -H	K	200	10,80 ZP
M 6	x	14 -H	S	1000	9,70 ZP
M 6	x	14 -H	K	200	12,80 ZP
M 6	x	16 -H	S	1000	8,80 ZP
M 6	x	16 -H	K	200	11,80 ZP
M 6	x	18 -H	S	1000	9,70 ZP
M 6	x	20 -H	S	1000	9,10 ZP
M 6	x	20 -H	K	200	12,00 ZP
M 6	x	25 -H	S	500	10,10 ZP
M 6	x	25 -H	K	200	13,00 ZP
M 6	x	30 -H	S	500	11,80 ZP
M 6	x	30 -H	K	200	14,80 ZP
M 6	x	35 -H	S	500	14,20 ZP
M 6	x	35 -H	K	200	17,10 ZP
M 6	x	40 -H	S	500	15,20 ZP
M 6	x	40 -H	K	200	18,10 ZP
M 6	x	45 -H	S	500	15,80 ZP
M 6	x	45 -H	K	200	18,70 ZP
M 6	x	50 -H	S	200	18,00 ZP
M 6	x	55 -H	S	200	47,50 ZP
M 6	x	60 -H	S	200	22,20 ZP
M 6	x	70 -H	S	200	35,50 ZP
M 6	x	75 -H	S	200	41,00 ZP
M 6	x	80 -H	S	200	41,00 ZP
M 6	x	90 -H	S	100	49,50 ZP
M 6	x	100 -H	S	100	58,00 ZP
M 8	x	12 -H	S	500	26,50 ZP
M 8	x	12 -H	K	200	29,50 ZP
M 8	x	16 -H	S	500	18,60 ZP
M 8	x	16 -H	K	200	21,50 ZP
M 8	x	20 -H	S	500	19,70 ZP
M 8	x	20 -H	K	200	22,70 ZP
M 8	x	25 -H	S	200	22,70 ZP
M 8	x	30 -H	S	200	24,90 ZP
M 8	x	35 -H	S	200	28,00 ZP
M 8	x	40 -H	S	100	29,50 ZP
M 8	x	45 -H	S	100	34,50 ZP
M 8	x	50 -H	S	100	36,00 ZP
M 8	x	60 -H	S	100	44,50 ZP
M 8	x	70 -H	S	100	54,00 ZP
M 8	x	80 -H	S	100	68,00 ZP
M 8	x	90 -H	S	100	91,00 ZP
M 10	x	25 -H	S	100	115,00 ZP

Dimensions	PU Pieces	€/100/Mat.
DIN	07985.415	710
7985	**4.8** zinc plated	**Z**



Cheese head screws with Pozidriv cross recess Z

Dimensions ➔ TI-40
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

Stainless ➔ pg. 581

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓

M 2,5	x	4 -Z	S	2000	9,20 ZP
M 2,5	x	5 -Z	S	2000	9,20 ZP
M 2,5	x	6 -Z	S	2000	4,70 ZP
M 2,5	x	8 -Z	S	2000	4,70 ZP
M 2,5	x	10 -Z	S	2000	4,80 ZP
M 2,5	x	12 -Z	S	2000	4,95 ZP
M 2,5	x	16 -Z	S	2000	5,40 ZP
M 3	x	4 -Z	S	2000	10,00 ZP
M 3	x	5 -Z	S	2000	6,70 ZP
M 3	x	6 -Z	S	2000	3,85 ZP
M 3	x	8 -Z	S	2000	2,60 ZP
M 3	x	10 -Z	S	2000	2,60 ZP
M 3	x	12 -Z	S	2000	2,75 ZP
M 3	x	16 -Z	S	2000	3,00 ZP
M 3	x	20 -Z	S	2000	3,40 ZP
M 3	x	25 -Z	S	2000	4,20 ZP
M 3	x	30 -Z	S	2000	5,30 ZP
M 3	x	35 -Z	S	2000	8,20 ZP
M 3	x	40 -Z	S	1000	8,50 ZP
M 4	x	5 -Z	S	2000	8,60 ZP
M 4	x	6 -Z	S	2000	5,60 ZP
M 4	x	8 -Z	S	2000	3,65 ZP
M 4	x	10 -Z	S	2000	3,75 ZP
M 4	x	12 -Z	S	2000	3,90 ZP
M 4	x	16 -Z	S	2000	4,40 ZP
M 4	x	18 -Z	S	2000	5,10 ZP
M 4	x	20 -Z	S	2000	4,60 ZP
M 4	x	25 -Z	S	1000	4,85 ZP
M 4	x	30 -Z	S	1000	6,70 ZP
M 4	x	35 -Z	S	1000	7,80 ZP
M 4	x	40 -Z	S	1000	8,80 ZP
M 4	x	45 -Z	S	1000	13,50 ZP
M 4	x	50 -Z	S	1000	16,10 ZP
M 4	x	60 -Z	S	500	23,20 ZP
M 4	x	70 -Z	S	500	30,00 ZP
M 5	x	6 -Z	S	2000	10,70 ZP
M 5	x	8 -Z	S	2000	5,30 ZP
M 5	x	10 -Z	S	2000	5,40 ZP
M 5	x	12 -Z	S	1000	5,60 ZP
M 5	x	16 -Z	S	1000	6,20 ZP
M 5	x	20 -Z	S	1000	6,70 ZP
M 5	x	25 -Z	S	1000	7,80 ZP
M 5	x	30 -Z	S	1000	9,20 ZP
M 5	x	35 -Z	S	500	10,60 ZP
M 5	x	40 -Z	S	500	10,60 ZP
M 5	x	45 -Z	S	500	12,40 ZP
M 5	x	50 -Z	S	500	18,10 ZP
M 5	x	60 -Z	S	200	23,90 ZP
M 5	x	70 -Z	S	200	33,50 ZP
M 5	x	80 -Z	S	200	42,00 ZP
M 6	x	8 -Z	S	1000	14,10 ZP
M 6	x	10 -Z	S	1000	8,00 ZP
M 6	x	12 -Z	S	1000	7,80 ZP
M 6	x	16 -Z	S	1000	8,80 ZP
M 6	x	20 -Z	S	1000	9,10 ZP
M 6	x	25 -Z	S	500	10,10 ZP
M 6	x	30 -Z	S	500	11,80 ZP
M 6	x	35 -Z	S	500	14,20 ZP
M 6	x	40 -Z	S	500	15,20 ZP
M 6	x	45 -Z	S	500	15,80 ZP
M 6	x	50 -Z	S	200	18,00 ZP
M 6	x	60 -Z	S	200	22,20 ZP

DIN	07985.436	710
7985	**4.8** zinc plated 8 TLP*	**H**



Cheese head screws with Phillips cross recess H

*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-40
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-11
REACH ➔ TI-262

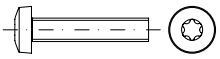
Stainless ➔ pg. 580

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓

M 3	x	6-H	S	2000	5,10 ZP TLP
M 3	x	8-H	S	2000	3,55 ZP TLP
M 3	x	12-H	S	2000	4,00 ZP TLP
M 3	x	16-H	S	2000	4,10 ZP TLP
M 4	x	8-H	S	2000	5,10 ZP TLP
M 4	x	10-H	S	2000	5,30 ZP TLP
M 4	x	12-H	S	2000	5,50 ZP TLP
M 4	x	16-H	S	2000	6,00 ZP TLP
M 4	x	20-H	S	2000	6,20 ZP TLP
M 4	x	25-H	S	1000	7,60 ZP TLP
M 4	x	30-H	S	1000	8,50 ZP TLP
M 5	x	8-H	S	2000	6,70 ZP TLP
M 5	x	10-H	S	2000	7,30 ZP TLP
M 5	x	12-H	S	1000	7,60 ZP TLP
M 5	x	16-H	S	1000	8,40 ZP TLP
M 5	x	20-H	S	1000	8,70 ZP TLP
M 6	x	10-H	S	1000	10,70 ZP TLP
M 6	x	12-H	S	1000	10,90 ZP TLP
M 6	x	25-H	S	500	13,40 ZP TLP

Dimensions	PU Pieces	€/100/Mat.
~DIN	07985.416	710
7985	**4.8** zinc plated	**ISR**



Pan head screws, ISR = hexalobular socket

as per ISO 14583

bits ➔ article 88655

Dimensions ➔ TI-40
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-6
REACH ➔ TI-262

Stainless ➔ pg. 581

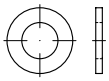
RoHS ✓

M 2	x	4 -T6	S	2000	12,90 ZP
M 2	x	6 -T6	S	2000	9,10 ZP
M 2	x	8 -T6	S	2000	9,10 ZP
M 2	x	10 -T6	S	2000	9,20 ZP
M 2	x	12 -T6	S	2000	9,40 ZP
M 2	x	16 -T6	S	2000	9,50 ZP
M 2,5	x	4 -T8	S	2000	13,70 ZP
M 2,5	x	5 -T8	S	2000	13,70 ZP
M 2,5	x	6 -T8	S	2000	9,20 ZP
M 2,5	x	8 -T8	S	2000	9,20 ZP
M 2,5	x	10 -T8	S	2000	9,30 ZP
M 2,5	x	12 -T8	S	2000	9,40 ZP
M 2,5	x	16 -T8	S	2000	9,90 ZP
M 2,5	x	20 -T8	S	2000	10,30 ZP
M 2,5	x	25 -T8	S	2000	11,30 ZP
M 3	x	4 -T10	S	2000	11,20 ZP
M 3	x	4 -T10	K	200	14,10 ZP
M 3	x	5 -T10	S	2000	11,20 ZP
M 3	x	5 -T10	K	200	14,10 ZP
M 3	x	6 -T10	S	2000	8,60 ZP
M 3	x	6 -T10	K	200	11,50 ZP
M 3	x	8 -T10	S	2000	8,60 ZP
M 3	x	8 -T10	K	200	11,50 ZP
M 3	x	10 -T10	S	2000	8,80 ZP
M 3	x	10 -T10	K	200	11,70 ZP
M 3	x	12 -T10	S	2000	8,80 ZP
M 3	x	12 -T10	K	200	11,70 ZP
M 3	x	16 -T10	S	2000	8,90 ZP
M 3	x	16 -T10	K	200	11,80 ZP
M 3	x	20 -T10	S	2000	9,40 ZP
M 3	x	20 -T10	K	200	12,30 ZP
M 3	x	25 -T10	S	2000	9,70 ZP
M 3	x	25 -T10	K	200	12,60 ZP
M 3	x	30 -T10	S	1000	10,30 ZP
M 3	x	30 -T10	K	200	13,20 ZP
M 3	x	40 -T10	S	1000	11,80 ZP
M 3	x	40 -T10	K	200	14,70 ZP
M 4	x	5 -T20	S	2000	11,90 ZP
M 4	x	5 -T20	K	200	14,80 ZP
M 4	x	6 -T20	S	2000	8,90 ZP
M 4	x	6 -T20	K	200	11,80 ZP
M 4	x	8 -T20	S	2000	9,40 ZP
M 4	x	8 -T20	K	200	12,30 ZP
M 4	x	10 -T20	S	2000	9,60 ZP
M 4	x	10 -T20	K	200	12,50 ZP
M 4	x	12 -T20	S	2000	9,70 ZP
M 4	x	12 -T20	K	200	12,60 ZP
M 4	x	16 -T20	S	2000	10,30 ZP
M 4	x	16 -T20	K	200	13,20 ZP
M 4	x	20 -T20	S	2000	11,10 ZP

Dimensions		PU	Pieces	€/100/Mat.
M 4	x 20 -T20	K	200	14,00 ZP
M 4	x 25 -T20	S	1000	11,70 ZP
M 4	x 25 -T20	K	200	14,60 ZP
M 4	x 30 -T20	S	1000	12,30 ZP
M 4	x 30 -T20	K	200	15,20 ZP
M 4	x 32 -T20	S	1000	10,40 ZP
M 4	x 35 -T20	S	1000	12,80 ZP
M 4	x 35 -T20	K	200	15,70 ZP
M 5	x 6 -T25	S	2000	11,10 ZP
M 5	x 6 -T25	K	200	14,00 ZP
M 5	x 8 -T25	S	2000	11,20 ZP
M 5	x 8 -T25	K	200	14,10 ZP
M 5	x 10 -T25	S	2000	11,40 ZP
M 5	x 10 -T25	K	200	14,30 ZP
M 5	x 12 -T25	S	1000	11,80 ZP
M 5	x 12 -T25	K	200	14,70 ZP
M 5	x 16 -T25	S	1000	12,50 ZP
M 5	x 16 -T25	K	200	15,40 ZP
M 5	x 18 -T25	S	1000	13,60 ZP
M 5	x 20 -T25	S	1000	13,60 ZP
M 5	x 20 -T25	K	200	16,50 ZP
M 5	x 25 -T25	S	1000	14,30 ZP
M 5	x 25 -T25	K	200	17,20 ZP
M 5	x 30 -T25	S	1000	15,00 ZP
M 5	x 30 -T25	K	200	18,00 ZP
M 6	x 10 -T30	S	1000	15,20 ZP
M 6	x 10 -T30	K	200	18,10 ZP
M 6	x 12 -T30	S	1000	15,40 ZP
M 6	x 12 -T30	K	200	18,30 ZP
M 6	x 16 -T30	S	1000	15,80 ZP
M 6	x 16 -T30	K	200	15,80 ZP
M 6	x 20 -T30	S	1000	16,70 ZP
M 6	x 20 -T30	K	200	19,70 ZP
M 6	x 25 -T30	S	500	17,80 ZP
M 6	x 25 -T30	K	200	20,70 ZP
M 6	x 30 -T30	S	500	19,00 ZP
M 6	x 30 -T30	K	200	22,00 ZP

DIN 07989.003 720

7989-1 Steel 100 HV PK C



Washers for steel structures, product grade C

(old: type A)

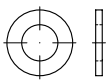
Dimensions ➔ TI-84

Stainless ➔ pg. 582

RoHS ✓ | REACh SVHC free

nominal size / inside ∅		x outside ∅		x thickn.		• ÜH	products
10/11	x	20	x	8	S	100	23,90
12/13,5	x	24	x	8	S	100	28,50
16/17,5	x	30	x	8	S	100	38,00
20/22	x	37	x	8	S	100	47,50
22/24	x	39	x	8	S	100	63,00
24/26	x	44	x	8	S	100	74,00
27/30	x	50	x	8	S	50	126,00
30/33	x	56	x	8	S	50	151,00
33/36	x	60	x	8	S	50	181,00
36/39	x	66	x	8	S	50	206,00

Dimensions		PU	Pieces	€/100/Mat.
DIN	07989.023			720
7989-1	**Steel 100 HV hot dip galvanized**			**PK C**



Washers for steel structures, product grade C

(old: type A)

Dimensions ➔ TI-84 Corrosion protection ➔ TI-231

Stainless ➔ pg. 582

RoHS ✓ | REACh SVHC free

nominal size / inside ∅		x outside ∅		x thickn.		• ÜH	products
10/11	x	20	x	8	S	100	33,50 HDG
12/13,5	x	24	x	8	S	100	39,50 HDG
16/17,5	x	30	x	8	S	100	54,00 HDG
20/22	x	37	x	8	S	100	74,00 HDG
22/24	x	39	x	8	S	100	92,00 HDG
24/26	x	44	x	8	S	100	112,00 HDG
27/30	x	50	x	8	S	50	183,00 HDG
30/33	x	56	x	8	S	50	223,00 HDG
33/36	x	60	x	8	S	50	265,00 HDG
36/39	x	66	x	8	S	50	310,00 HDG

DIN 07989.004 720

7989-2 Steel 100 HV PK A



Washers for steel structures, product grade A

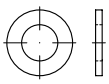
preferably for DIN 7968, (old: type B)

Dimensions ➔ TI-84

RoHS ✓ | REACh SVHC free

nominal size / inside ∅		x outside ∅		x thickn.		• ÜH	products
12/13,5	x	24	x	8	S	100	103,00
16/17,5	x	30	x	8	S	100	131,00
20/22	x	37	x	8	S	100	220,00
22/24	x	39	x	8	S	100	280,00
24/26	x	44	x	8	S	100	380,00
27/30	x	50	x	8	S	50	570,00
30/33	x	56	x	8	S	50	840,00

Dimensions		PU	Pieces	€/100/Mat.
DIN	07989.024			720
7989-2	**Steel 100 HV hot dip galvanized**			**PK A**



Washers for steel structures, product grade A

preferably for DIN 7968, (old: type B)

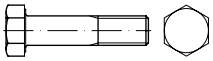
Dimensions ➔ TI-84 Corrosion protection ➔ TI-231

RoHS ✓ | REACh SVHC free

nominal size / inside ∅		x outside ∅		x thickn.		• ÜH	products
12/13,5	x	24	x	8	S	100	255,00 HDG
16/17,5	x	30	x	8	S	100	265,00 HDG
20/22	x	37	x	8	S	100	360,00 HDG
22/24	x	39	x	8	S	100	410,00 HDG
24/26	x	44	x	8	S	100	420,00 HDG
27/30	x	50	x	8	S	50	1110,00 HDG
30/33	x	56	x	8	S	50	1230,00 HDG

DIN 07990.400 730

7990 Mu 4.6 SB



Hexagon head bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

Dimensions ➔ TI-57 Tightening torque ➔ TI-248

Material properties ➔ TI-232 REACH ➔ TI-262

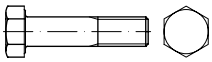
CE | RoHS ✓

Declaration of performance ➔ www.reyher.de

M 12	x	30	S	100	33,00
M 12	x	35	S	100	34,00
M 12	x	40	S	100	35,50
M 12	x	45	S	100	38,50
M 12	x	50	S	100	52,00
M 12	x	55	S	100	68,00
M 16	x	35	S	50	68,00
M 16	x	40	S	50	67,00
M 16	x	45	S	50	68,00
M 16	x	50	S	50	74,00
M 16	x	55	S	50	78,00
M 16	x	60	S	50	81,00
M 16	x	65	S	25	120,00
M 16	x	70	S	25	123,00
M 20	x	40	S	25	143,00
M 20	x	45	S	25	141,00
M 20	x	50	S	25	138,00
M 20	x	55	S	25	143,00
M 20	x	60	S	25	143,00
M 20	x	65	S	25	154,00
M 20	x	70	S	25	154,00
M 20	x	75	S	25	205,00
M 20	x	80	S	25	213,00

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	50	S	25	260,00
M 24	x	55	S	25	249,00
M 24	x	60	S	25	249,00
M 24	x	65	S	25	255,00
M 24	x	70	S	25	255,00
M 24	x	75	S	25	350,00
M 24	x	80	S	25	370,00

DIN	07990.420	730
7990	**Mu 4.6**	**SB**
	hot dip galvanized	



Hexagon head bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

Caution! See information box.

Dimensions → TI-57
Material properties → TI-232
Corrosion protection → TI-231
Tightening torque → TI-248
REACH → TI-262

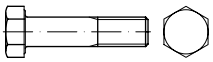
CE RoHS ✓

Declaration of performance → www.reyher.de

M 12	x	30	S	100	53,00 HDG
M 12	x	35	S	100	55,00 HDG
M 12	x	40	S	100	58,00 HDG
M 12	x	45	S	100	63,00 HDG
M 12	x	50	S	100	79,00 HDG
M 12	x	55	S	100	96,00 HDG
M 12	x	60	S	100	135,00 HDG
M 12	x	65	S	50	147,00 HDG
M 12	x	70	S	50	163,00 HDG
M 12	x	75	S	50	182,00 HDG
M 12	x	80	S	50	183,00 HDG
M 12	x	85	S	50	197,00 HDG
M 12	x	90	S	50	192,00 HDG
M 12	x	95	S	50	220,00 HDG
M 12	x	100	S	50	212,00 HDG
M 12	x	105	S	50	249,00 HDG
M 12	x	110	S	50	232,00 HDG
M 12	x	115	S	50	295,00 HDG
M 12	x	120	S	50	275,00 HDG
M 12	x	130	S	50	325,00 HDG
M 16	x	35	S	50	109,00 HDG
M 16	x	40	S	50	110,00 HDG
M 16	x	45	S	50	114,00 HDG
M 16	x	50	S	50	124,00 HDG
M 16	x	55	S	50	130,00 HDG
M 16	x	60	S	50	136,00 HDG
M 16	x	65	S	25	177,00 HDG
M 16	x	70	S	25	182,00 HDG
M 16	x	75	S	25	255,00 HDG
M 16	x	80	S	25	265,00 HDG
M 16	x	85	S	25	285,00 HDG
M 16	x	90	S	25	325,00 HDG
M 16	x	95	S	25	345,00 HDG
M 16	x	100	S	25	345,00 HDG
M 16	x	105	S	25	395,00 HDG
M 16	x	110	S	25	375,00 HDG
M 16	x	115	S	25	430,00 HDG
M 16	x	120	S	25	410,00 HDG
M 16	x	130	S	25	460,00 HDG
M 16	x	140	S	25	540,00 HDG
M 16	x	150	S	25	580,00 HDG
M 20	x	40	S	25	221,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	45	S	25	221,00 HDG
M 20	x	50	S	25	223,00 HDG
M 20	x	55	S	25	233,00 HDG
M 20	x	60	S	25	236,00 HDG
M 20	x	65	S	25	255,00 HDG
M 20	x	70	S	25	260,00 HDG
M 20	x	75	S	25	315,00 HDG
M 20	x	80	S	25	325,00 HDG
M 20	x	85	S	25	340,00 HDG
M 20	x	90	S	25	455,00 HDG
M 20	x	95	S	25	470,00 HDG
M 20	x	100	S	25	475,00 HDG
M 20	x	105	S	25	640,00 HDG
M 20	x	110	S	25	600,00 HDG
M 20	x	115	S	25	680,00 HDG
M 20	x	120	S	25	640,00 HDG
M 20	x	130	S	25	720,00 HDG
M 20	x	140	S	25	760,00 HDG
M 20	x	150	S	25	880,00 HDG
M 20	x	160	S	10	970,00 HDG
M 24	x	50	S	25	390,00 HDG
M 24	x	55	S	25	390,00 HDG
M 24	x	60	S	25	395,00 HDG
M 24	x	65	S	25	405,00 HDG
M 24	x	70	S	25	410,00 HDG
M 24	x	75	S	25	520,00 HDG
M 24	x	80	S	25	540,00 HDG
M 24	x	85	S	10	750,00 HDG
M 24	x	90	S	10	710,00 HDG
M 24	x	95	S	10	950,00 HDG
M 24	x	100	S	10	900,00 HDG
M 24	x	105	S	10	1040,00 HDG
M 24	x	110	S	10	980,00 HDG
M 24	x	115	S	10	1080,00 HDG
M 24	x	120	S	10	1020,00 HDG
M 24	x	130	S	10	1160,00 HDG
M 24	x	140	S	10	1350,00 HDG
M 24	x	150	S	10	1380,00 HDG
M 24	x	160	S	10	1520,00 HDG
M 27	x	60	S	10	1150,00 HDG
M 27	x	65	S	10	1160,00 HDG
M 27	x	70	S	10	1170,00 HDG
M 27	x	75	S	10	1180,00 HDG
M 27	x	80	S	10	1180,00 HDG
M 27	x	85	S	10	1240,00 HDG
M 27	x	90	S	10	1250,00 HDG
M 27	x	95	S	10	1330,00 HDG
M 27	x	100	S	1	1330,00 HDG
M 27	x	105	S	1	1560,00 HDG
M 27	x	110	S	1	1470,00 HDG
M 27	x	120	S	1	1480,00 HDG
M 27	x	130	S	1	1610,00 HDG
M 30	x	80	S	1	1650,00 HDG
M 30	x	90	S	1	1740,00 HDG
M 30	x	100	S	1	1810,00 HDG
M 30	x	120	S	1	1980,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
DIN	07990.520		732
7990	**Mu 5.6**		**SB**
	hot dip galvanized		



Hexagon head bolts for steel structures, Mu = with hexagon nut

for bolted fastenings by steel structures that are not preloaded

Caution! See information box.

Dimensions → TI-57
Material properties → TI-232
Corrosion protection → TI-231
Tightening torque → TI-248

CE RoHS ✓ REACh SVHC free

Declaration of performance → www.reyher.de

M 12	x	35	S	100	102,00 HDG
M 12	x	40	S	100	107,00 HDG
M 12	x	45	S	100	128,00 HDG
M 12	x	50	S	100	134,00 HDG
M 12	x	55	S	100	182,00 HDG
M 12	x	60	S	100	222,00 HDG
M 16	x	35	S	50	270,00 HDG
M 16	x	40	S	50	234,00 HDG
M 16	x	45	S	50	220,00 HDG
M 16	x	50	S	50	230,00 HDG
M 16	x	55	S	50	265,00 HDG
M 16	x	60	S	50	290,00 HDG
M 16	x	65	S	25	365,00 HDG
M 16	x	70	S	25	345,00 HDG
M 16	x	75	S	25	410,00 HDG
M 16	x	80	S	25	430,00 HDG
M 20	x	40	S	25	475,00 HDG
M 20	x	45	S	25	455,00 HDG
M 20	x	50	S	25	460,00 HDG
M 20	x	55	S	25	500,00 HDG
M 20	x	60	S	25	500,00 HDG
M 20	x	65	S	25	530,00 HDG
M 20	x	70	S	25	540,00 HDG
M 20	x	75	S	25	550,00 HDG
M 20	x	80	S	25	570,00 HDG
M 24	x	55	S	25	990,00 HDG
M 24	x	60	S	25	1010,00 HDG
M 24	x	65	S	25	1020,00 HDG
M 24	x	70	S	25	1030,00 HDG
M 24	x	75	S	25	1050,00 HDG
M 24	x	80	S	25	1060,00 HDG
M 24	x	85	S	10	1180,00 HDG

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
DIN	07993.001	745

7993

Spring steel **type A**



Snap rings, A = for shafts

Dimensions ➔ TI-101

DIN 7993 A ➔ gets replaced by DIN 9925

RoHS ✓ | REACh SVHC free

nominal size = for shafts ∅

A 4	S	1000	4,75
A 5	S	1000	4,85
A 6	S	500	4,85
A 7	S	500	5,30
A 8	S	500	5,00
A 10	S	500	5,70
A 12	S	500	6,10
A 16	S	250	7,90
A 18	S	250	9,90
A 20	S	100	11,90
A 22	S	100	12,40
A 25	S	100	15,70
A 26	S	100	15,80
A 28	S	100	18,20
A 30	S	100	19,80
A 32	S	100	21,50
A 35	S	100	23,90
A 38	S	100	28,00
A 40	S	100	33,00
A 45	S	50	38,00
A 48	S	50	42,50
A 50	S	50	47,50
A 55	S	50	53,00
A 60	S	50	57,00
A 65	S	50	62,00
A 70	S	50	80,00

DIN	07993.002	745

7993

Spring steel **type B**



Snap rings, B = for bores

Dimensions ➔ TI-101

DIN 7993 B ➔ gets replaced by DIN 9926

RoHS ✓ | REACh SVHC free

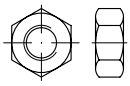
nominal size = for bore ∅

B 7	S	500	3,90
B 8	S	500	4,40
B 10	S	500	5,00
B 12	S	500	5,60
B 16	S	250	8,80
B 18	S	100	11,50

Dimensions	PU Pieces	€/100/Mat.
ISO	08673.300	*

8673

6 AU



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5-M 39 = RAZ 3320 other ∅/M = RAZ 411, marking from ∅ M 12

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 582
Brass ➔ pg. 642

ISO 8673 ➔ replaces DIN 934 fine thread

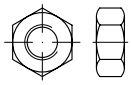
RoHS ✓

M 8	x	1	S	100	101,00
M 10	x	1	S	100	163,00
M 10	x	1,25	S	100	163,00
M 12	x	1	S	100	211,00
M 12	x	1,25	S	100	345,00
M 12	x	1,5	S	100	211,00
M 14	x	1,5	S	100	77,00
M 16	x	1,5	S	100	97,00
M 18	x	1,5	S	50	147,00
M 18	x	2	S	50	147,00
M 20	x	1,5	S	50	184,00
M 20	x	2	S	50	184,00
M 22	x	1,5	S	25	246,00
M 22	x	2	S	25	246,00
M 24	x	1,5	S	25	325,00
M 24	x	2	S	25	325,00
M 26	x	1,5	S	25	520,00
M 27	x	1,5	S	25	520,00
M 27	x	2	S	25	520,00
M 28	x	1,5	S	10	740,00
M 30	x	1,5	S	10	740,00
M 30	x	2	S	10	740,00
M 32	x	1,5	S	10	1050,00
M 33	x	1,5	S	10	1050,00
M 33	x	2	S	10	1050,00
M 35	x	1,5	S	5	1250,00
M 36	x	1,5	S	5	1250,00
M 36	x	3	S	5	1250,00
M 38	x	1,5	S	5	1570,00
M 39	x	1,5	S	5	1570,00
M 39	x	3	S	5	1570,00
M 40	x	1,5	S	1	8400,00
M 42	x	1,5	S	1	8400,00
M 42	x	3	S	1	8400,00
M 45	x	1,5	S	1	10400,00
M 45	x	3	S	1	10400,00
M 48	x	1,5	S	1	12400,00
M 48	x	3	S	1	12400,00
M 50	x	1,5	S	1	3850,00
M 52	x	1,5	S	1	12300,00
M 52	x	3	S	1	15300,00
M 56	x	2	S	1	20600,00
M 56	x	4	S	1	20600,00
M 58	x	2	S	1	22200,00
M 60	x	2	S	1	24700,00
M 60	x	4	S	1	24700,00
M 64	x	2	S	1	40700,00
M 64	x	4	S	1	40700,00
M 68	x	2	S	1	10200,00
M 68	x	4	S	1	10200,00
M 72	x	2	S	1	12000,00
M 72	x	4	S	1	48000,00
M 72	x	6	S	1	45500,00
M 76	x	2	S	1	12600,00
M 76	x	4	S	1	12600,00
M 76	x	6	S	1	48500,00
M 80	x	2	S	1	57200,00
M 80	x	4	S	1	57200,00
M 80	x	6	S	1	54300,00
M 85	x	2	S	1	16400,00
M 85	x	4	S	1	16400,00
M 85	x	6	S	1	15700,00
M 90	x	2	S	1	19400,00
M 90	x	4	S	1	19400,00
M 90	x	6	S	1	74100,00
M 95	x	2	S	1	26500,00
M 95	x	4	S	1	26500,00
M 95	x	6	S	1	25300,00
M 100	x	2	S	1	27900,00
M 100	x	4	S	1	111400,00
M 100	x	6	S	1	106000,00
M 110	x	4	S	1	37800,00
M 120	x	4	S	1	44000,00

ISO	08673.304	3320

8673

6 AU **left**



Hexagon nuts, ISO type 1, with metric left hand fine pitch thread

*M 5-M 39 = RAZ 3320 other ∅/M = RAZ 411, marking from ∅ M 12

Dimensions ➔ TI-62
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

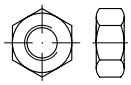
ISO 8673 ➔ replaces DIN 934 fine thread

RoHS ✓

M 8	x	1	S	100	146,00
M 10	x	1	S	100	216,00
M 12	x	1,5	S	100	216,00
M 14	x	1,5	S	50	224,00
M 16	x	1,5	S	50	230,00
M 18	x	1,5	S	50	242,00
M 20	x	1,5	S	50	275,00
M 22	x	1,5	S	25	335,00
M 24	x	1,5	S	25	425,00
M 24	x	2	S	25	425,00
M 30	x	1,5	S	10	850,00
M 30	x	2	S	10	850,00

Dimensions	PU Pieces	€/100/Mat.
ISO	08673.830	*

8673 8 black**



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5–M 39 = RAZ 3330 other ∅M = RAZ 412,
**≥ M 22 = grey-black

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 582
Brass ➔ pg. 642

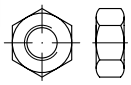
ISO 8673 ➔ replaces DIN 934 fine thread

RoHS ✓ | REACh SVHC free

M 8	x 1	S	100	15,30	black
M 10	x 1	S	100	23,50	black
M 12	x 1,25	S	100	31,50	black
M 12	x 1,5	S	100	30,50	black
M 14	x 1,5	S	100	53,00	black
M 16	x 1,5	S	100	66,00	black
M 18	x 1,5	S	100	92,00	black
M 18	x 2	S	100	101,00	black
M 20	x 1,5	S	50	107,00	black
M 20	x 2	S	50	107,00	black
M 22	x 1,5	S	50	113,00	black
M 22	x 2	S	50	113,00	black
M 24	x 1,5	S	50	136,00	black
M 24	x 2	S	50	136,00	black
M 27	x 2	S	50	233,00	black
M 30	x 1,5	S	10	315,00	black
M 30	x 2	S	10	315,00	black
M 33	x 2	S	10	380,00	black
M 36	x 1,5	S	5	790,00	black
M 36	x 3	S	5	790,00	black
M 39	x 3	S	5	950,00	black
M 42	x 1,5	S	1	1360,00	black
M 42	x 3	S	1	1260,00	black
M 45	x 3	S	1	1320,00	black
M 48	x 1,5	S	1	3000,00	black
M 48	x 3	S	1	1820,00	black
M 52	x 3	S	1	2850,00	black
M 56	x 4	S	1	3900,00	black
M 60	x 4	S	1	5200,00	black
M 64	x 4	S	1	6100,00	black
M 68	x 4	S	1	7900,00	black
M 72	x 4	S	1	9400,00	black
M 72	x 6	S	1	8300,00	black
M 80	x 4	S	1	13800,00	black
M 80	x 6	S	1	11500,00	black
M 100	x 6	S	1	25200,00	black

Dimensions	PU Pieces	€/100/Mat.
ISO	08673.810	*

8673 8 zinc plated



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5–M 39 = RAZ 3330 other ∅M = RAZ 412

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 582
Brass ➔ pg. 642

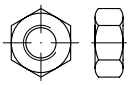
ISO 8673 ➔ replaces DIN 934 fine thread

RoHS ✓ | REACh SVHC free

M 10	x 1	S	100	20,50	ZP
M 10	x 1,25	S	100	25,50	ZP
M 12	x 1	S	500	31,50	ZP
M 12	x 1,25	S	100	29,50	ZP
M 12	x 1,5	S	100	27,00	ZP
M 14	x 1,25	S	100	97,00	ZP
M 14	x 1,5	S	100	45,50	ZP
M 16	x 1,5	S	100	57,00	ZP
M 18	x 1,5	S	100	82,00	ZP
M 18	x 2	S	100	86,00	ZP
M 20	x 1,5	S	50	96,00	ZP
M 20	x 2	S	50	102,00	ZP
M 22	x 1,5	S	50	123,00	ZP
M 22	x 2	S	50	123,00	ZP
M 24	x 1,5	S	50	154,00	ZP
M 24	x 2	S	50	154,00	ZP
M 27	x 1,5	S	50	365,00	ZP
M 27	x 2	S	50	365,00	ZP
M 30	x 1,5	S	25	360,00	ZP
M 30	x 2	S	25	360,00	ZP
M 33	x 2	S	1	550,00	ZP
M 36	x 1,5	S	1	840,00	ZP
M 36	x 2	S	1	840,00	ZP
M 36	x 3	S	1	840,00	ZP
M 39	x 3	S	1	1340,00	ZP
M 42	x 3	S	1	1340,00	ZP
M 45	x 3	S	1	2180,00	ZP
M 48	x 1,5	S	1	3050,00	ZP
M 48	x 2	S	1	3650,00	ZP
M 48	x 3	S	1	1990,00	ZP
M 52	x 3	S	1	4250,00	ZP
M 72	x 6	S	1	7700,00	ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	08673.100	*

8673 10



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5–M 39 = RAZ 3320 other ∅M = RAZ 411

Dimensions ➔ TI-62
Material properties ➔ TI-233
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 582
Brass ➔ pg. 642

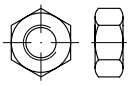
ISO 8673 ➔ replaces DIN 934 fine thread

RoHS ✓ | REACh SVHC free

M 8	x 1	S	100	16,40
M 10	x 1	S	100	26,00
M 12	x 1,5	S	100	41,50
M 14	x 1,5	S	100	56,00
M 16	x 1,5	S	100	79,00
M 18	x 1,5	S	100	103,00
M 18	x 2	S	100	103,00
M 20	x 1,5	S	50	121,00
M 20	x 2	S	50	121,00
M 22	x 1,5	S	25	172,00
M 22	x 2	S	25	172,00
M 24	x 1,5	S	25	192,00
M 24	x 2	S	25	192,00
M 30	x 1,5	S	10	425,00
M 30	x 2	S	10	425,00
M 36	x 2	S	1	590,00
M 42	x 3	S	1	1430,00
M 48	x 3	S	1	2650,00

ISO	08673.110	*

8673 10 zinc plated



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5–M 39 = RAZ 3320 other ∅M = RAZ 411

Dimensions ➔ TI-62
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-7

Stainless ➔ pg. 582
Brass ➔ pg. 642

ISO 8673 ➔ replaces DIN 934 fine thread

RoHS ✓ | REACh SVHC free

M 8	x 1	S	100	25,50	ZP
M 10	x 1	S	100	35,50	ZP
M 12	x 1,5	S	100	51,00	ZP
M 14	x 1,5	S	100	62,00	ZP
M 16	x 1,5	S	100	97,00	ZP

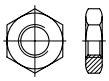
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 18	x	1,5	S	100	121,00 ZP
M 18	x	2	S	100	121,00 ZP
M 20	x	1,5	S	50	148,00 ZP
M 20	x	2	S	25	148,00 ZP
M 24	x	1,5	S	50	230,00 ZP
M 24	x	2	S	25	230,00 ZP
M 30	x	1,5	S	10	485,00 ZP
M 30	x	2	S	10	485,00 ZP
M 36	x	3	S	1	660,00 ZP
M 42	x	3	S	1	1580,00 ZP
M 48	x	3	S	1	2750,00 ZP

ISO	08675.400	*

8675

04



Hexagon thin nuts, chamfered, with metric fine pitch thread

*M 10/12/14 RAZ = 3370 other ∅ RAZ = 170

Dimensions ➔ TI-61
Material properties ➔ TI-233
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 582
Brass ➔ pg. 643

ISO 8675 ➔ replaces DIN 439 fine thread

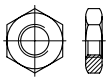
RoHS ✓

M 8	x	1	S	100	13,70
M 10	x	1	S	100	21,10
M 10	x	1,25	S	100	21,10
M 12	x	1	S	100	33,00
M 12	x	1,25	S	100	33,00
M 12	x	1,5	S	100	33,00
M 14	x	1,5	S	100	38,50
M 16	x	1,5	S	50	45,50
M 18	x	1,5	S	50	84,00
M 20	x	1,5	S	50	95,00
M 20	x	2	S	50	95,00
M 24	x	1,5	S	25	190,00
M 24	x	2	S	25	190,00
M 27	x	1,5	S	25	315,00
M 30	x	1,5	S	25	330,00
M 30	x	2	S	25	330,00
M 33	x	1,5	S	10	590,00
M 36	x	1,5	S	10	690,00
M 36	x	3	S	10	690,00
M 39	x	1,5	S	10	1060,00
M 39	x	3	S	10	1060,00
M 42	x	1,5	S	10	1380,00
M 42	x	2	S	10	1380,00
M 42	x	3	S	10	1380,00
M 48	x	1,5	S	10	2440,00
M 48	x	2	S	10	2550,00
M 48	x	3	S	10	2440,00

Dimensions			PU	Pieces	€/100/Mat.
ISO	08675.410				*

8675

04
zinc plated



Hexagon thin nuts, chamfered, with metric fine pitch thread

*M 10/12/14 RAZ = 3370 other ∅ RAZ = 170

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7
REACH ➔ TI-262

Stainless ➔ pg. 582
Brass ➔ pg. 643

ISO 8675 ➔ replaces DIN 439 fine thread

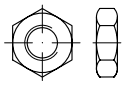
RoHS ✓

M 8	x	1	S	100	16,00 ZP
M 10	x	1	S	100	23,60 ZP
M 10	x	1,25	S	100	23,60 ZP
M 12	x	1	S	100	37,00 ZP
M 12	x	1,25	S	100	37,00 ZP
M 12	x	1,5	S	100	37,00 ZP
M 14	x	1,5	S	100	42,50 ZP
M 16	x	1	S	100	55,00 ZP
M 16	x	1,5	S	50	51,00 ZP
M 18	x	1,5	S	50	91,00 ZP
M 20	x	1,5	S	50	106,00 ZP
M 22	x	1,5	S	50	170,00 ZP
M 24	x	1,5	S	25	207,00 ZP
M 24	x	2	S	25	230,00 ZP
M 27	x	1,5	S	25	425,00 ZP
M 30	x	1,5	S	25	370,00 ZP
M 30	x	2	S	25	370,00 ZP
M 33	x	1,5	S	50	710,00 ZP
M 35	x	1,5	S	50	1520,00 ZP
M 36	x	1,5	S	10	780,00 ZP
M 36	x	2	S	10	780,00 ZP
M 36	x	3	S	10	780,00 ZP
M 39	x	2	S	10	1180,00 ZP
M 42	x	1,5	S	10	1530,00 ZP
M 42	x	2	S	10	1530,00 ZP
M 42	x	3	S	10	1530,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
ISO	08675.500				3370

8675

05



Hexagon thin nuts, chamfered, with metric fine pitch thread

Dimensions ➔ TI-61
Material properties ➔ TI-233
Standard conversion ➔ TI-7

Stainless ➔ pg. 582
Brass ➔ pg. 643

ISO 8675 ➔ replaces DIN 439 fine thread

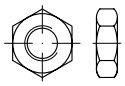
RoHS ✓ REACh SVHC free

M 10	x	1	S	100	67,00
M 10	x	1,25	S	100	67,00
M 12	x	1	S	100	113,00
M 12	x	1,25	S	100	113,00
M 12	x	1,5	S	100	113,00
M 14	x	1,5	S	100	360,00
M 22	x	1,5	S	50	690,00

ISO	08675.510	3370

8675

05
zinc plated



Hexagon thin nuts, chamfered, with metric fine pitch thread

Dimensions ➔ TI-61
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-7

Stainless ➔ pg. 582
Brass ➔ pg. 643

ISO 8675 ➔ replaces DIN 439 fine thread

RoHS ✓ REACh SVHC free

M 10	x	1	S	100	69,00 ZP
M 10	x	1,25	S	100	69,00 ZP
M 12	x	1,25	S	100	117,00 ZP
M 14	x	1,5	S	100	360,00 ZP
M 20	x	1,5	S	100	242,00 ZP

Dimensions	PU Pieces	€/100/Mat.
ISO	08676.800	*

8676

8.8



Hexagon head screws with thread up to head, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Dimensions ➔ TI-15
Material properties ➔ TI-232
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

ISO 8676 ➔ replaces DIN 961

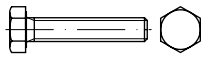
RoHS ✓ | REACh SVHC free

Dimensions							PU	Pieces	€/100/Mat.
M 8	x	1	x	20	S			200	19,40
M 8	x	1	x	25	S			200	22,90
M 8	x	1	x	30	S			200	24,20
M 8	x	1	x	35	S			200	26,50
M 8	x	1	x	40	S			200	28,50
M 8	x	1	x	45	S			200	32,50
M 8	x	1	x	50	S			200	35,00
M 8	x	1	x	60	S			100	62,00
M 8	x	1	x	70	S			100	81,00
M 8	x	1	x	80	S			100	97,00
M 8	x	1	x	90	S			50	130,00
M 8	x	1	x	100	S			50	147,00
M 10	x	1	x	16	S			200	36,00
M 10	x	1,25	x	16	S			200	36,00
M 10	x	1	x	20	S			200	34,00
M 10	x	1,25	x	20	S			200	34,00
M 10	x	1	x	25	S			200	36,00
M 10	x	1,25	x	25	S			200	36,50
M 10	x	1	x	30	S			200	38,50
M 10	x	1,25	x	30	S			200	39,00
M 10	x	1	x	35	S			100	40,50
M 10	x	1,25	x	35	S			100	43,00
M 10	x	1	x	40	S			100	45,00
M 10	x	1,25	x	40	S			100	47,50
M 10	x	1	x	45	S			100	50,00
M 10	x	1,25	x	45	S			100	51,00
M 10	x	1	x	50	S			100	54,00
M 10	x	1,25	x	50	S			100	55,00
M 10	x	1,25	x	55	S			100	59,00
M 10	x	1	x	60	S			100	98,00
M 10	x	1,25	x	60	S			100	61,00
M 10	x	1	x	70	S			100	136,00
M 10	x	1,25	x	70	S			100	65,00
M 10	x	1	x	80	S			100	147,00
M 10	x	1,25	x	80	S			100	68,00
M 10	x	1	x	90	S			50	182,00
M 10	x	1,25	x	90	S			50	71,00
M 10	x	1	x	100	S			50	194,00
M 10	x	1,25	x	100	S			50	74,00
M 12	x	1,25	x	20	S			100	56,00
M 12	x	1,5	x	20	S			100	54,00
M 12	x	1,25	x	25	S			100	56,00
M 12	x	1,5	x	25	S			100	54,00
M 12	x	1,25	x	30	S			100	57,00
M 12	x	1,5	x	30	S			100	55,00
M 12	x	1,25	x	35	S			100	60,00
M 12	x	1,5	x	35	S			100	59,00
M 12	x	1,25	x	40	S			100	66,00
M 12	x	1,5	x	40	S			100	63,00
M 12	x	1,25	x	45	S			100	73,00
M 12	x	1,5	x	45	S			100	69,00
M 12	x	1,25	x	50	S			100	76,00
M 12	x	1,5	x	50	S			100	74,00
M 12	x	1,5	x	55	S			100	113,00
M 12	x	1,25	x	60	S			100	114,00
M 12	x	1,5	x	60	S			100	113,00
M 12	x	1,25	x	65	S			50	215,00
M 12	x	1,5	x	65	S			50	134,00
M 12	x	1,25	x	70	S			50	152,00
M 12	x	1,5	x	70	S			50	154,00
M 12	x	1,5	x	75	S			50	170,00
M 12	x	1,25	x	80	S			50	184,00
M 12	x	1,5	x	80	S			50	184,00
M 12	x	1,25	x	90	S			50	217,00
M 12	x	1,5	x	90	S			50	234,00
M 12	x	1,25	x	100	S			50	285,00
M 12	x	1,5	x	100	S			50	285,00
M 12	x	1,25	x	110	S			50	285,00
M 12	x	1,5	x	110	S			50	340,00
M 12	x	1,25	x	120	S			50	315,00
M 12	x	1,5	x	120	S			50	390,00
M 12	x	1,25	x	130	S			50	355,00
M 12	x	1,5	x	130	S			50	440,00
M 12	x	1,5	x	140	S			50	485,00
M 14	x	1,5	x	20	S			100	101,00
M 14	x	1,5	x	25	S			100	101,00
M 14	x	1,5	x	30	S			100	101,00
M 14	x	1,5	x	35	S			100	111,00
M 14	x	1,5	x	40	S			100	123,00
M 14	x	1,5	x	45	S			50	126,00
M 14	x	1,5	x	50	S			50	134,00
M 14	x	1,5	x	55	S			50	154,00
M 14	x	1,5	x	60	S			50	154,00
M 14	x	1,5	x	65	S			50	175,00
M 14	x	1,5	x	70	S			50	195,00
M 14	x	1,5	x	75	S			50	234,00
M 14	x	1,5	x	80	S			50	275,00
M 14	x	1,5	x	90	S			50	330,00
M 14	x	1,5	x	100	S			50	400,00
M 14	x	1,5	x	110	S			50	470,00
M 14	x	1,5	x	120	S			50	540,00
M 14	x	1,5	x	130	S			50	610,00
M 14	x	1,5	x	140	S			50	680,00
M 16	x	1,5	x	20	S			50	140,00
M 16	x	1,5	x	25	S			100	123,00
M 16	x	1,5	x	30	S			50	123,00
M 16	x	1,5	x	35	S			50	128,00
M 16	x	1,5	x	40	S			50	128,00
M 16	x	1,5	x	45	S			50	144,00
M 16	x	1,5	x	50	S			50	146,00
M 16	x	1,5	x	55	S			50	165,00
M 16	x	1,5	x	60	S			50	165,00
M 16	x	1,5	x	65	S			50	192,00
M 16	x	1,5	x	70	S			50	209,00
M 16	x	1,5	x	75	S			25	255,00
M 16	x	1,5	x	80	S			25	295,00
M 16	x	1,5	x	85	S			25	370,00
M 16	x	1,5	x	90	S			25	450,00
M 16	x	1,5	x	100	S			25	490,00
M 16	x	1,5	x	110	S			25	530,00
M 16	x	1,5	x	120	S			25	570,00
M 16	x	1,5	x	130	S			25	610,00
M 16	x	1,5	x	140	S			25	650,00
M 16	x	1,5	x	150	S			25	690,00
M 18	x	1,5	x	30	S			50	305,00
M 18	x	1,5	x	35	S			50	310,00
M 18	x	1,5	x	40	S			50	310,00
M 18	x	1,5	x	45	S			50	315,00
M 18	x	1,5	x	50	S			50	320,00
M 18	x	1,5	x	55	S			25	345,00
M 18	x	1,5	x	60	S			25	345,00
M 18	x	1,5	x	65	S			25	360,00
M 18	x	1,5	x	70	S			25	375,00
M 18	x	1,5	x	75	S			25	400,00
M 18	x	1,5	x	80	S			25	425,00
M 18	x	1,5	x	90	S			25	580,00
M 18	x	1,5	x	100	S			25	730,00
M 18	x	1,5	x	120	S			25	1030,00
M 18	x	1,5	x	140	S			25	1320,00
M 18	x	1,5	x	150	S			25	1480,00
M 20	x	1,5	x	30	S			25	290,00
M 20	x	1,5	x	35	S			25	290,00
M 20	x	1,5	x	40	S			25	290,00
M 20	x	1,5	x	45	S			25	290,00
M 20	x	1,5	x	50	S			25	300,00
M 20	x	2	x	50	S			25	410,00
M 20	x	1,5	x	55	S			25	325,00
M 20	x	2	x	55	S			25	530,00
M 20	x	1,5	x	60	S			25	325,00
M 20	x	2	x	60	S			25	530,00
M 20	x	1,5	x	65	S			25	360,00
M 20	x	2	x	65	S			25	590,00
M 20	x	1,5	x	70	S			25	350,00
M 20	x	2	x	70	S			25	660,00
M 20	x	1,5	x	75	S			25	385,00
M 20	x	1,5	x	80	S			25	405,00
M 20	x	2	x	80	S			25	770,00
M 20	x	1,5	x	85	S			25	470,00
M 20	x	1,5	x	90	S			25	530,00
M 20	x	1,5	x	100	S			25	650,00
M 20	x	2	x	100	S			25	1010,00
M 20	x	1,5	x	110	S			25	780,00
M 20	x	1,5	x	120	S			25	910,00
M 20	x	2	x	120	S			25	1240,00
M 20	x	1,5	x	130	S			25	1050,00
M 20	x	1,5	x	140	S			25	1180,00
M 20	x	1,5	x	150	S			25	1340,00
M 22	x	1,5	x	50	S			25	660,00
M 22	x	1,5	x	60	S			25	700,00
M 22	x	1,5	x	70	S			25	770,00
M 24	x	1,5	x	50	S			25	690,00
M 24	x	2	x	50	S			25	690,00
M 24	x	1,5	x	55	S			25	910,00
M 24	x	1,5	x	60	S			25	990,00
M 24	x	2	x	60	S			25	990,00
M 24	x	1,5	x	70	S			25	1090,00
M 24	x	2	x	70	S			25	1090,00
M 24	x	1,5	x	80	S			25	1170,00
M 24	x	2	x	80	S			25	1170,00
M 24	x	1,5	x	90	S			10	1220,00
M 24	x	2	x	90	S			10	1220,00
M 24	x	1,5	x	100	S			10	1310,00
M 24	x	2	x	100	S			10	1310,00
M 24	x	1,5	x	110	S			10	1400,00
M 24	x	2	x	110	S			10	1400,00
M 24	x	1,5	x	120	S			10	1470,00
M 24	x	2	x	120	S			10	1470,00
M 24	x	1,5	x	130	S			1	1550,00
M 24	x	2	x	130	S			1	1550,00
M 24	x	1,5	x	140	S			1	1640,00
M 24	x	2	x	150	S			1	1720,00
M 30	x	2	x	60	S			1	1310,00
M 30	x	2	x	70	S			1	1430,00
M 30	x	2	x	80	S			1	1540,00
M 30	x	2	x	90	S			1	1630,00
M 30	x	2	x	100	S			1	1750,00
M 30	x	2	x	110	S			1	1870,00
M 30	x	2	x	120	S			1	1990,00
M 30	x	2	x	130	S			1	2130,00
M 30	x	2	x	140	S			1	2270,00
M 30	x	2	x	150	S			1	2390,00
M 30	x	2	x	160	S			1	2550,00
M 36	x	3	x	80	S			1	2390,00
M 36	x	3	x	90	S			1	2600,00
M 36	x	3	x	100	S			1	2750,00
M 36	x	3	x	110	S			1	2900,00
M 36	x	3	x	120	S			1	3050,00
M 36	x	3	x	130	S			1	4150,00
M 36	x	3	x	140	S			1	3450,00
M 36	x	3	x	150	S			1	3700,00
M 36	x	3	x	160	S			1	3950,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions					PU	Pieces	€/100/Mat.
M 42	x 3	x	140	S		1	5400,00
M 42	x 3	x	160	S		1	5900,00
M 42	x 3	x	180	S		1	6400,00
M 42	x 3	x	200	S		1	6900,00

ISO	08676.810	*
8676	**8.8 zinc plated**	



Hexagon head screws with thread up to head, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Dimensions ➔ TI-15 | Tightening torque ➔ TI-244
Material properties ➔ TI-232 | Standard conversion ➔ TI-6
Corrosion protection ➔ TI-228

ISO 8676 ➔ replaces DIN 961

RoHS ✓ | REACh SVHC free

M 8	x 1	x	20	S		200	29,00 ZP
M 10	x 1	x	16	S		200	42,50 ZP
M 10	x 1	x	20	S		200	42,50 ZP
M 10	x 1,25	x	20	S		200	42,50 ZP
M 10	x 1	x	25	S		200	43,50 ZP
M 10	x 1,25	x	25	S		200	43,00 ZP
M 10	x 1	x	30	S		200	47,00 ZP
M 10	x 1,25	x	30	S		200	46,50 ZP
M 10	x 1,25	x	35	S		100	52,00 ZP
M 10	x 1	x	40	S		100	59,00 ZP
M 10	x 1,25	x	40	S		100	59,00 ZP
M 10	x 1,25	x	45	S		100	63,00 ZP
M 10	x 1	x	50	S		100	67,00 ZP
M 10	x 1,25	x	50	S		100	67,00 ZP
M 12	x 1,25	x	20	S		100	66,00 ZP
M 12	x 1,5	x	20	S		100	65,00 ZP
M 12	x 1,25	x	25	S		100	67,00 ZP
M 12	x 1,5	x	25	S		100	65,00 ZP
M 12	x 1,25	x	30	S		100	67,00 ZP
M 12	x 1,5	x	30	S		100	66,00 ZP
M 12	x 1,25	x	35	S		100	72,00 ZP
M 12	x 1,5	x	35	S		100	72,00 ZP
M 12	x 1,25	x	40	S		100	80,00 ZP
M 12	x 1,5	x	40	S		100	75,00 ZP
M 12	x 1,25	x	45	S		100	88,00 ZP
M 12	x 1,5	x	45	S		100	86,00 ZP
M 12	x 1,5	x	50	S		100	92,00 ZP
M 12	x 1,5	x	55	S		100	131,00 ZP
M 12	x 1,5	x	60	S		100	132,00 ZP
M 12	x 1,25	x	65	S		50	236,00 ZP
M 12	x 1,25	x	70	S		50	174,00 ZP
M 12	x 1,5	x	80	S		50	209,00 ZP
M 14	x 1,5	x	25	S		100	117,00 ZP
M 14	x 1,5	x	30	S		100	123,00 ZP
M 14	x 1,5	x	35	S		100	138,00 ZP
M 14	x 1,5	x	40	S		100	144,00 ZP
M 14	x 1,5	x	45	S		50	148,00 ZP
M 14	x 1,5	x	50	S		50	158,00 ZP
M 14	x 1,5	x	60	S		50	182,00 ZP
M 14	x 1,5	x	70	S		50	227,00 ZP
M 14	x 1,5	x	80	S		50	310,00 ZP
M 14	x 1,5	x	90	S		50	440,00 ZP
M 14	x 1,5	x	100	S		50	445,00 ZP
M 16	x 1,5	x	30	S		50	146,00 ZP
M 16	x 1,5	x	35	S		50	154,00 ZP
M 16	x 1,5	x	40	S		50	153,00 ZP
M 16	x 1,5	x	45	S		50	172,00 ZP
M 16	x 1,5	x	50	S		50	175,00 ZP
M 16	x 1,5	x	60	S		50	194,00 ZP
M 16	x 1,5	x	70	S		50	249,00 ZP
M 16	x 1,5	x	80	S		25	295,00 ZP
M 16	x 1,5	x	90	S		25	500,00 ZP
M 16	x 1,5	x	100	S		25	540,00 ZP
M 18	x 1,5	x	40	S		50	355,00 ZP
M 18	x 1,5	x	50	S		50	365,00 ZP
M 18	x 1,5	x	55	S		25	390,00 ZP
M 18	x 1,5	x	60	S		25	365,00 ZP
M 18	x 1,5	x	70	S		25	425,00 ZP
M 18	x 1,5	x	80	S		25	485,00 ZP
M 20	x 1,5	x	30	S		50	330,00 ZP
M 20	x 1,5	x	35	S		50	335,00 ZP
M 20	x 1,5	x	40	S		50	340,00 ZP
M 20	x 1,5	x	45	S		50	345,00 ZP
M 20	x 1,5	x	50	S		25	375,00 ZP
M 20	x 1,5	x	55	S		25	380,00 ZP
M 20	x 1,5	x	60	S		25	410,00 ZP
M 20	x 1,5	x	70	S		25	440,00 ZP
M 20	x 1,5	x	80	S		25	500,00 ZP
M 20	x 1,5	x	90	S		25	610,00 ZP
M 20	x 1,5	x	100	S		25	740,00 ZP
M 20	x 1,5	x	110	S		10	850,00 ZP
M 24	x 2	x	50	S		25	820,00 ZP
M 24	x 1,5	x	60	S		25	1130,00 ZP
M 24	x 1,5	x	80	S		25	1340,00 ZP
M 24	x 2	x	90	S		25	1400,00 ZP
M 24	x 2	x	100	S		25	1520,00 ZP

ISO	08676.100	*
8676	**10.9**	



Hexagon head screws with thread up to head, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Dimensions ➔ TI-15 | Tightening torque ➔ TI-244
Material properties ➔ TI-232 | Standard conversion ➔ TI-6

ISO 8676 ➔ replaces DIN 961

RoHS ✓ | REACh SVHC free

M 8	x 1	x	20	S		200	29,00
M 8	x 1	x	25	S		200	30,50
M 8	x 1	x	30	S		200	31,50
M 8	x 1	x	35	S		200	37,50
M 8	x 1	x	40	S		200	40,00
M 8	x 1	x	45	S		200	44,50
M 8	x 1	x	50	S		200	48,50
M 8	x 1	x	60	S		200	57,00
M 8	x 1	x	70	S		200	66,00
M 8	x 1	x	80	S		200	62,00
M 8	x 1	x	80	S		200	42,00
M 10	x 1,25	x	16	S		200	97,00
M 10	x 1	x	20	S		200	45,00
M 10	x 1,25	x	20	S		200	102,00
M 10	x 1	x	25	S		200	47,50
M 10	x 1,25	x	25	S		200	107,00
M 10	x 1	x	30	S		200	50,00
M 10	x 1,25	x	30	S		200	110,00
M 10	x 1	x	35	S		100	54,00
M 10	x 1,25	x	35	S		100	115,00
M 10	x 1	x	40	S		100	57,00
M 10	x 1,25	x	40	S		100	123,00
M 10	x 1	x	45	S		100	81,00
M 10	x 1,25	x	45	S		100	140,00
M 10	x 1	x	50	S		100	103,00
M 10	x 1,25	x	50	S		100	158,00
M 10	x 1,25	x	55	S		100	176,00
M 10	x 1	x	60	S		100	137,00
M 10	x 1,25	x	60	S		100	212,00
M 10	x 1	x	70	S		100	171,00
M 10	x 1,25	x	70	S		100	249,00
M 10	x 1	x	80	S		100	205,00
M 10	x 1,25	x	80	S		100	285,00
M 10	x 1	x	90	S		100	239,00
M 10	x 1,25	x	90	S		100	325,00
M 10	x 1	x	100	S		100	275,00
M 10	x 1,25	x	100	S		100	360,00
M 12	x 1,25	x	20	S		100	84,00
M 12	x 1,5	x	20	S		100	82,00
M 12	x 1,25	x	25	S		100	78,00
M 12	x 1,5	x	25	S		100	76,00
M 12	x 1,25	x	30	S		100	81,00
M 12	x 1,5	x	30	S		100	82,00
M 12	x 1,25	x	35	S		100	86,00
M 12	x 1,5	x	35	S		100	85,00
M 12	x 1,25	x	40	S		100	90,00
M 12	x 1,5	x	40	S		100	90,00
M 12	x 1,25	x	45	S		100	103,00
M 12	x 1,5	x	45	S		100	100,00
M 12	x 1,25	x	50	S		100	107,00
M 12	x 1,5	x	50	S		100	107,00
M 12	x 1,5	x	55	S		100	98,00
M 12	x 1,25	x	60	S		100	117,00
M 12	x 1,5	x	60	S		100	116,00
M 12	x 1,25	x	65	S		50	125,00
M 12	x 1,5	x	65	S		50	129,00
M 12	x 1,25	x	70	S		50	131,00
M 12	x 1,5	x	70	S		50	124,00
M 12	x 1,5	x	75	S		50	152,00
M 12	x 1,25	x	80	S		50	146,00
M 12	x 1,5	x	80	S		50	129,00
M 12	x 1,25	x	90	S		50	160,00
M 12	x 1,5	x	90	S		50	175,00
M 12	x 1,25	x	100	S		50	174,00
M 12	x 1,5	x	100	S		50	188,00
M 12	x 1,25	x	110	S		50	188,00
M 12	x 1,5	x	110	S		50	199,00
M 12	x 1,25	x	120	S		50	203,00
M 12	x 1,5	x	120	S		50	210,00
M 12	x 1,25	x	130	S		50	216,00
M 12	x 1,5	x	130	S		50	223,00
M 12	x 1,5	x	140	S		50	236,00
M 14	x 1,5	x	25	S		100	153,00
M 14	x 1,5	x	30	S		100	138,00
M 14	x 1,5	x	35	S		100	144,00
M 14	x 1,5	x	40	S		100	148,00
M 14	x 1,5	x	45	S		50	154,00
M 14	x 1,5	x	50	S		50	160,00
M 14	x 1,5	x	55	S		50	209,00
M 14	x 1,5	x	60	S		50	209,00
M 14	x 1,5	x	65	S		50	335,00
M 14	x 1,5	x	70	S		50	450,00
M 14	x 1,5	x	75	S		50	485,00
M 14	x 1,5	x	80	S		50	520,00
M 14	x 1,5	x	90	S		50	590,00
M 14	x 1,5	x	100	S		50	660,00
M 14	x 1,5	x	110	S		50	730,00
M 14	x 1,5	x	120	S		50	790,00
M 14	x 1,5	x	130	S		50	860,00
M 14	x 1,5	x	140	S		50	940,00
M 16	x 1,5	x	25	S		50	161,00
M 16	x 1,5	x	30	S		50	164,00
M 16	x 1,5	x	35	S		50	165,00
M 16	x 1,5	x	40	S		50	174,00
M 16	x 1,5	x	45	S		50	182,00

Dimensions				PU	Pieces	€/100/Mat.
M 16	x 1,5	x 50		S	50	192,00
M 16	x 1,5	x 55		S	50	212,00
M 16	x 1,5	x 60		S	50	212,00
M 16	x 1,5	x 65		S	50	300,00
M 16	x 1,5	x 70		S	50	300,00
M 16	x 1,5	x 75		S	25	365,00
M 16	x 1,5	x 80		S	25	430,00
M 16	x 1,5	x 85		S	25	455,00
M 16	x 1,5	x 90		S	25	470,00
M 16	x 1,5	x 100		S	25	510,00
M 16	x 1,5	x 110		S	25	540,00
M 16	x 1,5	x 120		S	25	570,00
M 16	x 1,5	x 130		S	25	600,00
M 16	x 1,5	x 140		S	25	650,00
M 16	x 1,5	x 150		S	25	670,00
M 18	x 1,5	x 30		S	50	470,00
M 18	x 1,5	x 35		S	50	480,00
M 18	x 1,5	x 40		S	50	485,00
M 18	x 1,5	x 45		S	50	510,00
M 18	x 1,5	x 50		S	50	530,00
M 18	x 1,5	x 55		S	25	570,00
M 18	x 1,5	x 60		S	25	570,00
M 18	x 1,5	x 65		S	25	330,00
M 18	x 1,5	x 55		S	25	650,00
M 18	x 1,5	x 75		S	25	680,00
M 18	x 1,5	x 80		S	25	750,00
M 18	x 1,5	x 90		S	25	820,00
M 18	x 1,5	x 100		S	25	880,00
M 18	x 1,5	x 120		S	25	960,00
M 18	x 1,5	x 140		S	25	1030,00
M 18	x 1,5	x 150		S	25	1120,00
M 20	x 1,5	x 30		S	50	395,00
M 20	x 1,5	x 35		S	50	400,00
M 20	x 1,5	x 40		S	50	410,00
M 20	x 1,5	x 45		S	25	435,00
M 20	x 1,5	x 50		S	25	445,00
M 20	x 2	x 50		S	50	670,00
M 20	x 1,5	x 55		S	25	460,00
M 20	x 2	x 55		S	25	690,00
M 20	x 1,5	x 60		S	25	485,00
M 20	x 2	x 60		S	25	415,00
M 20	x 1,5	x 65		S	25	610,00
M 20	x 2	x 65		S	25	520,00
M 20	x 1,5	x 70		S	25	640,00
M 20	x 2	x 70		S	25	960,00
M 20	x 1,5	x 75		S	25	690,00
M 20	x 1,5	x 80		S	25	760,00
M 20	x 2	x 80		S	25	1140,00
M 20	x 1,5	x 85		S	25	780,00
M 20	x 1,5	x 90		S	25	810,00
M 20	x 1,5	x 100		S	25	890,00
M 20	x 2	x 100		S	25	1340,00
M 20	x 1,5	x 110		S	25	305,00
M 20	x 1,5	x 120		S	25	960,00
M 20	x 2	x 120		S	25	1440,00
M 20	x 1,5	x 130		S	25	1420,00
M 20	x 1,5	x 140		S	25	1900,00
M 20	x 1,5	x 150		S	25	2650,00
M 24	x 1,5	x 50		S	25	850,00
M 24	x 2	x 50		S	25	1000,00
M 24	x 1,5	x 55		S	25	880,00
M 24	x 1,5	x 60		S	25	910,00
M 24	x 2	x 60		S	25	1150,00
M 24	x 1,5	x 70		S	25	970,00
M 24	x 2	x 70		S	25	1310,00
M 24	x 1,5	x 80		S	25	1060,00
M 24	x 2	x 80		S	25	1460,00
M 24	x 1,5	x 90		S	10	1150,00
M 24	x 2	x 90		S	10	1610,00
M 24	x 1,5	x 100		S	10	1280,00
M 24	x 2	x 100		S	10	1760,00
M 24	x 1,5	x 110		S	10	1460,00
M 24	x 2	x 110		S	10	1920,00
M 24	x 1,5	x 120		S	10	1640,00
M 24	x 2	x 120		S	10	2060,00

Dimensions				PU	Pieces	€/100/Mat.
M 24	x 1,5	x 130		S	10	1880,00
M 24	x 2	x 130		S	10	2220,00
M 24	x 1,5	x 140		S	10	2120,00
M 24	x 2	x 150		S	10	2360,00
M 30	x 2	x 60		S	1	1580,00
M 30	x 2	x 70		S	1	1710,00
M 30	x 2	x 80		S	1	1850,00
M 30	x 2	x 90		S	1	1960,00
M 30	x 2	x 100		S	1	2090,00
M 30	x 2	x 110		S	1	2250,00
M 30	x 2	x 120		S	1	2380,00
M 30	x 2	x 130		S	1	2550,00
M 30	x 2	x 140		S	1	2750,00
M 30	x 2	x 150		S	1	2900,00
M 30	x 2	x 160		S	1	3050,00
M 36	x 3	x 80		S	1	2900,00
M 36	x 3	x 90		S	1	3100,00
M 36	x 3	x 100		S	1	3300,00
M 36	x 3	x 110		S	1	3450,00
M 36	x 3	x 120		S	1	3650,00
M 36	x 3	x 130		S	1	3950,00
M 36	x 3	x 140		S	1	4150,00
M 36	x 3	x 150		S	1	4450,00
M 36	x 3	x 160		S	1	4750,00
M 36	x 3	x 140		S	1	5800,00
M 36	x 3	x 160		S	1	6700,00
M 36	x 3	x 180		S	1	7600,00
M 36	x 3	x 200		S	1	8400,00

ISO 08676.110 *

8676 10.9 zinc plated



Hexagon head screws with thread up to head, with metric fine pitch thread

baked,
*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

ISO 8676 ➔ replaces DIN 961

RoHS ✓ REACh SVHC free

M 8	x 1	x 20		S	200	63,00 ZP
M 8	x 1	x 25		S	200	66,00 ZP
M 8	x 1	x 30		S	200	67,00 ZP
M 8	x 1	x 35		S	200	70,00 ZP
M 10	x 1	x 20		S	200	58,00 ZP
M 10	x 1	x 30		S	200	61,00 ZP
M 10	x 1,25	x 30		S	200	124,00 ZP
M 10	x 1	x 35		S	100	66,00 ZP
M 10	x 1	x 40		S	200	74,00 ZP
M 10	x 1	x 45		S	100	81,00 ZP
M 12	x 1,5	x 30		S	100	100,00 ZP
M 12	x 1,25	x 35		S	100	104,00 ZP
M 12	x 1,5	x 35		S	100	104,00 ZP
M 12	x 1,25	x 40		S	100	110,00 ZP
M 12	x 1,5	x 40		S	100	110,00 ZP
M 12	x 1,5	x 45		S	100	131,00 ZP
M 12	x 1,5	x 50		S	100	142,00 ZP
M 12	x 1,5	x 55		S	100	155,00 ZP

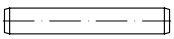
Dimensions				PU	Pieces	€/100/Mat.
M 12	x 1,5	x 60		S	100	170,00 ZP
M 12	x 1,5	x 70		S	100	194,00 ZP
M 12	x 1,5	x 80		S	200	242,00 ZP
M 14	x 1,5	x 25		S	100	176,00 ZP
M 14	x 1,5	x 30		S	100	177,00 ZP
M 14	x 1,5	x 35		S	100	177,00 ZP
M 14	x 1,5	x 40		S	100	184,00 ZP
M 14	x 1,5	x 45		S	50	203,00 ZP
M 14	x 1,5	x 50		S	50	211,00 ZP
M 14	x 1,5	x 55		S	50	275,00 ZP
M 14	x 1,5	x 60		S	50	249,00 ZP
M 14	x 1,5	x 70		S	50	495,00 ZP
M 14	x 1,5	x 80		S	50	570,00 ZP
M 16	x 1,5	x 25		S	50	199,00 ZP
M 16	x 1,5	x 30		S	50	199,00 ZP
M 16	x 1,5	x 35		S	50	201,00 ZP
M 16	x 1,5	x 40		S	50	216,00 ZP
M 16	x 1,5	x 45		S	50	227,00 ZP
M 16	x 1,5	x 50		S	50	239,00 ZP
M 16	x 1,5	x 55		S	50	270,00 ZP
M 16	x 1,5	x 60		S	50	275,00 ZP
M 16	x 1,5	x 70		S	25	370,00 ZP
M 16	x 1,5	x 80		S	25	495,00 ZP
M 16	x 1,5	x 90		S	25	550,00 ZP
M 20	x 1,5	x 40		S	50	485,00 ZP
M 20	x 1,5	x 45		S	25	520,00 ZP
M 20	x 1,5	x 50		S	25	550,00 ZP
M 20	x 1,5	x 55		S	25	570,00 ZP
M 20	x 1,5	x 60		S	25	600,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

ISO 08734.001 3645

8734 Steel, hard. type A



Parallel pins, tolerance m6, A = through-hardened

Dimensions ➔ TI-116
Standard conversion ➔ TI-10
REACH ➔ TI-262

ISO 8734 ➔ replaces DIN 6325

RoHS ✓

1 m6	x	4		S	1000	24,40
1 m6	x	5		S	1000	25,50
1 m6	x	6		S	1000	26,00
1 m6	x	8		S	1000	26,50

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
1 m6 x 10	S	1000	27,00
1 m6 x 12	S	1000	28,00
1,5 m6 x 4	S	1000	21,00
1,5 m6 x 5	S	1000	21,00
1,5 m6 x 6	S	1000	21,50
1,5 m6 x 8	S	1000	22,30
1,5 m6 x 10	S	1000	23,00
1,5 m6 x 12	S	1000	23,90
1,5 m6 x 14	S	1000	24,40
1,5 m6 x 16	S	1000	25,50
1,5 m6 x 20	S	1000	26,50
2 m6 x 4	S	1000	22,10
2 m6 x 5	S	1000	22,10
2 m6 x 6	S	1000	22,30
2 m6 x 8	S	1000	22,60
2 m6 x 10	S	1000	23,30
2 m6 x 12	S	1000	24,10
2 m6 x 14	S	1000	24,60
2 m6 x 16	S	1000	26,00
2 m6 x 18	S	1000	26,50
2 m6 x 20	S	1000	27,00
2 m6 x 24	S	1000	32,50
2 m6 x 30	S	1000	47,00
2 m6 x 32	S	500	48,00
2,5 m6 x 6	S	1000	22,60
2,5 m6 x 8	S	1000	23,00
2,5 m6 x 10	S	1000	23,90
2,5 m6 x 12	S	1000	24,40
2,5 m6 x 14	S	1000	25,50
2,5 m6 x 16	S	1000	26,50
2,5 m6 x 18	S	1000	27,00
2,5 m6 x 20	S	1000	28,00
2,5 m6 x 24	S	1000	38,50
2,5 m6 x 26	S	1000	41,00
2,5 m6 x 28	S	1000	44,00
3 m6 x 6	S	500	23,30
3 m6 x 8	S	500	23,30
3 m6 x 10	S	500	24,10
3 m6 x 12	S	500	24,60
3 m6 x 14	S	500	26,00
3 m6 x 16	S	500	27,00
3 m6 x 18	S	500	27,50
3 m6 x 20	S	500	28,50
3 m6 x 22	S	500	29,50
3 m6 x 24	S	500	31,00
3 m6 x 26	S	500	31,50
3 m6 x 28	S	500	32,50
3 m6 x 30	S	500	33,50
3 m6 x 32	S	500	34,00
3 m6 x 40	S	500	49,50
3 m6 x 45	S	500	57,00
3 m6 x 50	S	500	67,00
4 m6 x 6	S	500	23,30
4 m6 x 8	S	500	25,50
4 m6 x 10	S	500	27,00
4 m6 x 12	S	500	29,00
4 m6 x 14	S	500	31,00
4 m6 x 16	S	500	31,50
4 m6 x 18	S	500	33,50
4 m6 x 20	S	500	34,50
4 m6 x 22	S	500	36,00
4 m6 x 24	S	500	38,00
4 m6 x 26	S	500	39,00
4 m6 x 28	S	500	41,50
4 m6 x 30	S	500	42,50
4 m6 x 32	S	500	44,00
4 m6 x 36	S	500	47,00
4 m6 x 40	S	500	53,00
4 m6 x 45	S	500	63,00
4 m6 x 50	S	500	76,00
4 m6 x 60	S	500	106,00
5 m6 x 8	S	500	33,50
5 m6 x 10	S	500	33,50
5 m6 x 12	S	500	33,50
5 m6 x 14	S	500	34,50
5 m6 x 16	S	500	37,00
5 m6 x 18	S	500	39,50
5 m6 x 20	S	500	41,50
5 m6 x 22	S	500	61,00
5 m6 x 24	S	500	46,00
5 m6 x 26	S	500	47,50
5 m6 x 28	S	500	51,00
5 m6 x 30	S	500	53,00
5 m6 x 32	S	500	54,00
5 m6 x 36	S	500	58,00
5 m6 x 40	S	500	63,00
5 m6 x 45	S	500	68,00
5 m6 x 50	S	500	82,00
5 m6 x 55	S	500	89,00
5 m6 x 60	S	500	96,00
5 m6 x 70	S	500	112,00
6 m6 x 8	S	200	38,00
6 m6 x 10	S	200	38,00
6 m6 x 12	S	200	38,00
6 m6 x 14	S	200	41,00
6 m6 x 16	S	200	43,00
6 m6 x 18	S	200	46,00
6 m6 x 20	S	200	48,50
6 m6 x 22	S	200	51,00
6 m6 x 24	S	200	54,00
6 m6 x 26	S	200	57,00
6 m6 x 28	S	200	60,00
6 m6 x 30	S	200	63,00
6 m6 x 32	S	200	67,00
6 m6 x 36	S	200	73,00
6 m6 x 40	S	200	77,00
6 m6 x 45	S	200	84,00
6 m6 x 50	S	200	92,00
6 m6 x 55	S	200	105,00
6 m6 x 60	S	200	112,00
6 m6 x 70	S	200	125,00
6 m6 x 80	S	200	166,00
6 m6 x 90	S	200	189,00
6 m6 x 100	S	200	211,00
8 m6 x 10	S	100	77,00
8 m6 x 12	S	100	71,00
8 m6 x 14	S	100	71,00
8 m6 x 16	S	100	77,00
8 m6 x 18	S	100	82,00
8 m6 x 20	S	100	85,00
8 m6 x 22	S	100	90,00
8 m6 x 24	S	100	94,00
8 m6 x 26	S	100	96,00
8 m6 x 28	S	100	101,00
8 m6 x 30	S	100	106,00
8 m6 x 32	S	100	111,00
8 m6 x 36	S	100	117,00
8 m6 x 40	S	100	125,00
8 m6 x 45	S	100	136,00
8 m6 x 50	S	100	146,00
8 m6 x 55	S	100	155,00
8 m6 x 60	S	100	166,00
8 m6 x 70	S	100	190,00
8 m6 x 80	S	100	207,00
8 m6 x 90	S	100	229,00
8 m6 x 100	S	100	250,00
8 m6 x 120	S	100	295,00
10 m6 x 16	S	100	124,00
10 m6 x 20	S	100	126,00
10 m6 x 22	S	100	130,00
10 m6 x 24	S	100	131,00
10 m6 x 26	S	100	137,00
10 m6 x 28	S	100	143,00
10 m6 x 30	S	100	148,00
10 m6 x 32	S	100	155,00
10 m6 x 36	S	100	176,00
10 m6 x 40	S	100	186,00
10 m6 x 45	S	100	205,00
10 m6 x 50	S	100	216,00
10 m6 x 55	S	100	234,00
10 m6 x 60	S	100	246,00
10 m6 x 70	S	100	280,00
10 m6 x 80	S	100	310,00
10 m6 x 90	S	100	345,00
10 m6 x 100	S	100	380,00
10 m6 x 110	S	100	425,00
10 m6 x 120	S	100	520,00
12 m6 x 20	S	100	184,00
12 m6 x 24	S	100	200,00
12 m6 x 26	S	100	200,00
12 m6 x 28	S	100	200,00
12 m6 x 30	S	100	205,00
12 m6 x 32	S	100	213,00
12 m6 x 36	S	100	229,00
12 m6 x 40	S	100	244,00
12 m6 x 45	S	100	265,00
12 m6 x 50	S	100	285,00
12 m6 x 55	S	100	305,00
12 m6 x 60	S	100	325,00
12 m6 x 70	S	100	410,00
12 m6 x 80	S	100	445,00
12 m6 x 90	S	100	485,00
12 m6 x 100	S	100	530,00
12 m6 x 110	S	100	590,00
12 m6 x 120	S	100	630,00
14 m6 x 50	S	50	590,00
14 m6 x 60	S	50	680,00
14 m6 x 70	S	50	790,00
14 m6 x 80	S	50	950,00
14 m6 x 100	S	50	1110,00
14 m6 x 120	S	50	1310,00
16 m6 x 30	S	50	540,00
16 m6 x 40	S	50	570,00
16 m6 x 45	S	50	610,00
16 m6 x 50	S	50	650,00
16 m6 x 55	S	50	680,00
16 m6 x 60	S	50	740,00
16 m6 x 70	S	50	850,00
16 m6 x 80	S	50	990,00
16 m6 x 90	S	50	1050,00
16 m6 x 100	S	1	1140,00
16 m6 x 110	S	1	1260,00
16 m6 x 120	S	1	1350,00
20 m6 x 40	S	25	890,00
20 m6 x 50	S	25	910,00
20 m6 x 60	S	25	990,00
20 m6 x 80	S	25	1260,00
20 m6 x 100	S	25	1470,00
20 m6 x 120	S	25	1720,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	08736.001		670

8736

Steel **type A**



Taper pins with internal thread, A = grounded, taper 1 : 50

ISO 8736 = EN 28736

Dimensions ➔ TI-118 REACH ➔ TI-262
Standard conversion ➔ TI-10

ISO 8736 ➔ replaces DIN 7978 (compatible)

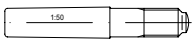
RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
A 6	x	16	S	25	155,00
A 6	x	20	S	25	158,00
A 6	x	24	S	25	171,00
A 6	x	26	S	25	172,00
A 6	x	28	S	25	177,00
A 6	x	30	S	25	181,00
A 6	x	32	S	25	183,00
A 6	x	36	S	25	190,00
A 6	x	40	S	25	190,00
A 6	x	45	S	25	197,00
A 6	x	50	S	25	204,00
A 6	x	55	S	25	211,00
A 6	x	60	S	25	265,00
A 6	x	70	S	25	300,00
A 6	x	80	S	25	325,00
A 8	x	20	S	10	204,00
A 8	x	24	S	10	217,00
A 8	x	26	S	10	222,00
A 8	x	28	S	10	224,00
A 8	x	30	S	10	229,00
A 8	x	32	S	10	233,00
A 8	x	36	S	10	241,00
A 8	x	40	S	10	244,00
A 8	x	45	S	10	260,00
A 8	x	50	S	10	265,00
A 8	x	55	S	10	275,00
A 8	x	60	S	10	280,00
A 8	x	70	S	10	315,00
A 8	x	80	S	10	335,00
A 8	x	90	S	10	365,00
A 8	x	100	S	10	480,00
A 10	x	28	S	10	275,00
A 10	x	30	S	10	280,00
A 10	x	32	S	10	285,00
A 10	x	36	S	10	295,00
A 10	x	40	S	10	300,00
A 10	x	45	S	10	315,00
A 10	x	50	S	10	325,00
A 10	x	55	S	10	335,00
A 10	x	60	S	10	340,00
A 10	x	70	S	10	395,00
A 10	x	80	S	10	430,00
A 10	x	90	S	10	470,00
A 10	x	100	S	10	510,00
A 10	x	120	S	5	1400,00
A 12	x	36	S	10	370,00
A 12	x	40	S	10	385,00
A 12	x	45	S	10	395,00
A 12	x	50	S	10	415,00
A 12	x	55	S	10	425,00
A 12	x	60	S	10	445,00
A 12	x	70	S	10	480,00
A 12	x	80	S	10	540,00
A 12	x	90	S	10	580,00
A 12	x	100	S	10	620,00
A 16	x	40	S	10	560,00
A 16	x	45	S	10	590,00
A 16	x	50	S	10	620,00
A 16	x	55	S	10	650,00
A 16	x	60	S	10	680,00
A 16	x	70	S	5	730,00
A 16	x	80	S	5	780,00
A 16	x	90	S	5	840,00
A 16	x	100	S	5	920,00
A 16	x	120	S	5	3450,00
A 20	x	50	S	1	1240,00
A 20	x	55	S	1	1310,00
A 20	x	60	S	1	1370,00
A 20	x	70	S	1	1440,00
A 20	x	80	S	1	1540,00
A 20	x	90	S	1	1700,00
A 20	x	100	S	1	1840,00
A 20	x	120	S	1	2160,00

ISO	08737.000	670

8737

Steel unhardened



Taper pins with external thread and constant threaded part, taper 1 : 50

ISO 8737 = EN 28373

Dimensions ➔ TI-117 REACH ➔ TI-262
Standard conversion ➔ TI-10

ISO 8737 ➔ replaces DIN 7977 (compatible)
type with constant taper lengths ➔ DIN 258

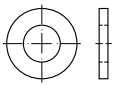
RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
5	x	40	S	25	138,00
5	x	45	S	25	148,00
5	x	50	S	25	155,00
6	x	40	S	25	165,00
6	x	45	S	25	175,00
6	x	50	S	25	175,00
6	x	55	S	10	224,00
6	x	60	S	10	190,00
8	x	50	S	10	235,00
8	x	55	S	10	235,00
8	x	60	S	10	240,00
8	x	65	S	10	250,00
8	x	75	S	10	270,00
8	x	85	S	10	340,00
8	x	100	S	10	430,00
10	x	50	S	10	315,00
10	x	60	S	10	330,00
10	x	65	S	10	330,00
10	x	75	S	10	345,00
10	x	85	S	10	385,00
10	x	100	S	10	420,00
10	x	120	S	1	590,00
12	x	75	S	10	455,00
12	x	80	S	10	590,00
12	x	85	S	10	470,00
12	x	100	S	10	540,00
12	x	120	S	10	740,00
12	x	140	S	5	760,00
13	x	75	S	10	680,00
13	x	85	S	10	660,00
13	x	100	S	10	720,00
13	x	140	S	10	1120,00
14	x	85	S	10	540,00
14	x	100	S	10	620,00
16	x	85	S	5	720,00
16	x	100	S	5	760,00
16	x	120	S	5	960,00
16	x	140	S	1	1210,00
16	x	160	S	5	1280,00
20	x	100	S	1	1260,00
20	x	120	S	1	1310,00
20	x	140	S	1	1410,00
20	x	160	S	1	1540,00
20	x	190	S	1	5900,00

ISO	08738.000	490

8738

Steel 160 HV



Washers for clevis pins, product grade

ISO 8738 = EN 28738,
for pins acc. to ISO 2340 and ISO 2341

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Stainless ➔ pg. 583

ISO 8738 ➔ replaces DIN 1440

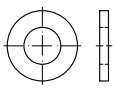
RoHS ✓ REACh SVHC free

nominal diameter			
3	S	1000	13,40
4	S	1000	35,00
5	S	1000	19,30
6	S	1000	29,00
8	S	1000	55,00
10	S	1000	70,00
12	S	500	104,00
14	S	500	126,00
16	S	500	167,00
18	S	200	207,00
20	S	200	247,00
22	S	200	285,00
30	S	100	750,00
33	S	100	910,00
36	S	100	1160,00
40	S	50	1340,00
45	S	50	1620,00
50	S	50	2470,00
55	S	10	3500,00
60	S	10	4050,00
70	S	1	11100,00
80	S	1	20400,00
90	S	1	23300,00
100	S	1	26200,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
ISO	08738.011		490

8738 Steel 160 HV zinc plated



Washers for clevis pins, product grade

ISO 8738 = EN 28738,
for pins acc. to ISO 2340 and ISO 2341

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Corrosion protection ➔ TI-228

Stainless ➔ pg. 583

ISO 8738 ➔ replaces DIN 1440

RoHS ✓ | REACh SVHC free

nominal diameter

3	S	1000	17,10
4	S	1000	18,60
5	S	1000	20,00
6	S	1000	32,00
8	S	1000	59,00
10	S	1000	81,00
12	S	500	126,00
14	S	500	153,00
16	S	500	199,00
18	S	200	244,00
20	S	200	285,00
22	S	200	325,00
30	S	100	850,00
33	S	100	990,00
36	S	100	1240,00
40	S	50	1460,00
45	S	50	1760,00
50	S	50	2650,00
55	S	10	3700,00
60	S	10	4200,00
70	S	1	11400,00
80	S	1	20600,00
100	S	1	26700,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	08740.000		3650

8740 Steel



Grooved pins with chamfer, full length parallel grooved

Dimensions ➔ TI-119 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 583

ISO 8740 ➔ replaces DIN 1473

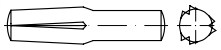
RoHS ✓

1,5	x	6	S	250	8,90
1,5	x	8	S	250	8,90
1,5	x	10	S	250	8,90
1,5	x	12	S	250	9,10
1,5	x	16	S	250	9,10
1,5	x	20	S	250	15,20
2	x	4	S	250	9,60
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	14	S	250	9,90
2	x	16	S	250	9,90
2	x	18	S	250	9,90
2	x	20	S	250	11,10
2	x	24	S	250	11,90
2	x	30	S	250	11,90
2,5	x	6	S	250	11,10
2,5	x	8	S	250	11,10
2,5	x	10	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	14	S	250	11,20
2,5	x	16	S	250	11,20
2,5	x	20	S	250	11,40
2,5	x	24	S	250	11,40
2,5	x	30	S	250	11,80
3	x	6	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	18	S	250	11,50
3	x	20	S	250	12,30
3	x	22	S	250	12,30
3	x	24	S	250	12,30
3	x	26	S	250	12,60
3	x	28	S	250	14,40
3	x	30	S	100	14,40
3	x	32	S	100	14,80
3	x	36	S	100	15,20
3	x	40	S	100	15,30
4	x	6	S	100	14,20
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	45	S	100	18,30
4	x	50	S	100	19,00
4	x	60	S	100	36,00
5	x	8	S	100	16,10
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	18	S	100	17,10
5	x	20	S	100	17,10
5	x	22	S	100	17,20
5	x	24	S	100	17,60
5	x	26	S	100	18,30
5	x	28	S	100	18,30
5	x	30	S	100	18,70
5	x	32	S	100	19,20
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	45	S	100	22,10
5	x	50	S	100	23,00
5	x	55	S	100	42,50
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	12	S	100	21,20
6	x	14	S	100	21,20
6	x	16	S	100	21,50
6	x	18	S	100	21,60
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	45	S	100	29,00
6	x	50	S	100	30,00
6	x	55	S	100	31,50
6	x	60	S	100	34,00
6	x	65	S	100	89,00
6	x	70	S	100	92,00
6	x	80	S	100	96,00
8	x	12	S	100	31,50
8	x	14	S	100	31,50
8	x	16	S	100	32,50
8	x	20	S	100	32,50
8	x	22	S	100	33,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	28	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
8	x	55	S	100	47,00
8	x	60	S	100	53,00
8	x	70	S	100	60,00
8	x	80	S	100	92,00
8	x	90	S	25	146,00
10	x	16	S	25	213,00
10	x	20	S	25	216,00
10	x	24	S	25	222,00
10	x	26	S	25	224,00
10	x	30	S	25	229,00
10	x	32	S	25	230,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	60	S	25	265,00
10	x	65	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
10	x	90	S	25	300,00
10	x	100	S	25	300,00
12	x	20	S	25	239,00
12	x	24	S	25	245,00
12	x	26	S	25	249,00
12	x	28	S	25	255,00
12	x	30	S	25	255,00
12	x	32	S	25	260,00
12	x	36	S	25	265,00
12	x	40	S	25	270,00
12	x	45	S	25	275,00
12	x	50	S	25	285,00
12	x	55	S	25	295,00
12	x	60	S	25	300,00
12	x	70	S	25	315,00
12	x	80	S	25	335,00
12	x	90	S	25	345,00
12	x	100	S	25	365,00

Dimensions			PU	Pieces	€/100/Mat.
ISO	08741.000				3650

8741

Steel



Grooved pins, half-length revers-taper grooved

Dimensions ➔ TI-118 REACH ➔ TI-262
Standard conversion ➔ TI-10

ISO 8741 ➔ replaces DIN 1474

RoHS ✓

1,5	x	5	S	250	8,90
1,5	x	6	S	250	8,90
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	16	S	250	9,90
2	x	20	S	250	11,10
2,5	x	10	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
3	x	8	S	2000	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	16	S	250	11,50
3	x	20	S	250	12,30
3	x	30	S	100	14,40
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	24	S	100	14,80
4	x	30	S	100	15,20
4	x	40	S	100	16,50
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	20	S	100	17,10
5	x	24	S	100	17,60
5	x	28	S	100	18,30
5	x	36	S	100	19,80
5	x	40	S	100	20,70
6	x	12	S	100	21,20
6	x	14	S	100	21,20
6	x	16	S	100	21,50
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	40	S	100	26,50
6	x	60	S	100	34,00
6	x	70	S	100	92,00
8	x	16	S	100	32,50
8	x	20	S	100	32,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
10	x	20	S	25	216,00
10	x	24	S	25	222,00
10	x	25	S	25	224,00
10	x	30	S	25	229,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	60	S	25	265,00
12	x	32	S	25	260,00
12	x	40	S	25	270,00
12	x	50	S	25	285,00
12	x	55	S	25	295,00

ISO	08742.000	3650

8742

Steel



Grooved pins, one-third-length centre grooved pins

Dimensions ➔ TI-119 REACH ➔ TI-262
Standard conversion ➔ TI-10

ISO 8742 ➔ replaces DIN 1475

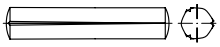
RoHS ✓

1,5	x	8	S	250	8,90
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	24	S	250	11,90
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
3	x	6	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	20	S	250	12,30
3	x	28	S	100	14,40
3	x	30	S	100	14,40
3	x	40	S	100	15,30
4	x	10	S	100	14,20
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	50	S	100	19,00
4	x	60	S	100	36,00
5	x	12	S	100	16,10
5	x	20	S	100	17,10
5	x	22	S	100	17,20
5	x	24	S	100	17,60
5	x	30	S	100	18,70
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	50	S	100	23,00
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	20	S	100	21,60
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	50	S	100	30,00
6	x	60	S	100	34,00
6	x	70	S	100	92,00
8	x	16	S	100	32,50
8	x	24	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	50	S	100	47,00
8	x	55	S	100	49,50
8	x	60	S	100	53,00
8	x	80	S	100	140,00
8	x	100	S	25	160,00
10	x	36	S	25	235,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	55	S	25	255,00
10	x	60	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
12	x	40	S	25	270,00
12	x	45	S	25	275,00
12	x	60	S	25	300,00
12	x	100	S	25	365,00

ISO	08744.000	3650

8744

Steel



Grooved pins, full-length taper grooved

Dimensions ➔ TI-119 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 583

ISO 8744 ➔ replaces DIN 1471

RoHS ✓

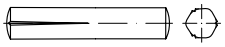
1,5	x	6	S	250	8,90
1,5	x	8	S	250	8,90
1,5	x	16	S	250	9,60
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	16	S	250	9,90
2	x	20	S	250	11,10
2	x	24	S	250	11,90
2	x	30	S	250	11,90
2,5	x	6	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
2,5	x	20	S	250	11,40
2,5	x	30	S	250	11,80
3	x	6	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50

Dimensions			PU	Pieces	€/100/Mat.
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	18	S	250	11,50
3	x	20	S	250	12,30
3	x	24	S	250	12,30
3	x	26	S	250	12,60
3	x	30	S	100	14,40
3	x	40	S	100	15,30
4	x	6	S	100	14,20
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	50	S	100	19,00
4	x	60	S	100	72,00
5	x	8	S	100	16,10
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	18	S	100	17,10
5	x	20	S	100	17,10
5	x	24	S	100	17,60
5	x	26	S	100	18,30
5	x	30	S	100	18,70
5	x	32	S	100	19,20
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	45	S	100	22,10
5	x	50	S	100	23,00
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	12	S	100	21,20
6	x	16	S	100	21,20
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	45	S	100	29,00
6	x	50	S	100	30,00
6	x	55	S	100	31,50
6	x	60	S	100	34,00
6	x	70	S	100	92,00
6	x	80	S	100	96,00
8	x	12	S	100	31,50
8	x	16	S	100	32,50
8	x	20	S	100	32,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	28	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
8	x	55	S	100	49,50
8	x	60	S	100	53,00
8	x	70	S	100	60,00
8	x	80	S	100	125,00
10	x	20	S	25	216,00
10	x	30	S	25	229,00
10	x	32	S	25	230,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	60	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
10	x	90	S	25	300,00
10	x	100	S	25	300,00
12	x	26	S	25	249,00
12	x	60	S	25	300,00
12	x	70	S	25	315,00
12	x	90	S	25	345,00
12	x	100	S	25	365,00

ISO	08745.000	3650

8745

Steel



Grooved pins, half-length taper grooved

Dimensions ➔ TI-118 REACH ➔ TI-262
Standard conversion ➔ TI-10

Stainless ➔ pg. 584

ISO 8745 ➔ replaces DIN 1472

RoHS ✓

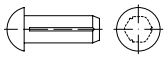
Dimensions			PU	Pieces	€/100/Mat.
1,5	x	6	S	250	8,90
1,5	x	8	S	250	8,90
1,5	x	10	S	250	8,90
1,5	x	12	S	250	9,10
1,5	x	16	S	250	9,10
2	x	6	S	250	9,60
2	x	8	S	250	9,60
2	x	10	S	250	9,60
2	x	12	S	250	9,90
2	x	14	S	250	9,90
2	x	16	S	250	9,90
2	x	20	S	250	11,10
2	x	30	S	250	11,90
2,5	x	6	S	250	11,10
2,5	x	8	S	250	11,10
2,5	x	10	S	250	11,10
2,5	x	12	S	250	11,20
2,5	x	16	S	250	11,20
2,5	x	18	S	250	11,20
2,5	x	20	S	250	11,40
3	x	6	S	250	11,20
3	x	8	S	250	11,20
3	x	10	S	250	11,20
3	x	12	S	250	11,50
3	x	14	S	250	11,50
3	x	16	S	250	11,50
3	x	18	S	250	11,50
3	x	20	S	250	12,30
3	x	22	S	250	12,30
3	x	24	S	250	12,30
3	x	26	S	250	12,60
3	x	28	S	100	14,40
3	x	30	S	100	14,40
3	x	32	S	100	14,80
3	x	40	S	100	15,30
4	x	6	S	100	14,20
4	x	8	S	100	14,20
4	x	10	S	100	14,20
4	x	12	S	100	14,30
4	x	14	S	100	14,30
4	x	16	S	100	14,30
4	x	18	S	100	14,30
4	x	20	S	100	14,40
4	x	22	S	100	14,40
4	x	24	S	100	14,80
4	x	26	S	100	15,20
4	x	28	S	100	15,20
4	x	30	S	100	15,20
4	x	32	S	100	15,30
4	x	36	S	100	16,10
4	x	40	S	100	16,50
4	x	50	S	100	19,00
4	x	60	S	100	72,00
5	x	8	S	100	16,10
5	x	10	S	100	16,10
5	x	12	S	100	16,10
5	x	14	S	100	16,10
5	x	16	S	100	16,10
5	x	18	S	100	17,10
5	x	20	S	100	17,10
5	x	22	S	100	17,20
5	x	24	S	100	17,60
5	x	26	S	100	18,30
5	x	28	S	100	18,30
5	x	30	S	100	18,70
5	x	32	S	100	19,20
5	x	36	S	100	19,80
5	x	40	S	100	20,70
5	x	50	S	100	23,00
5	x	60	S	100	44,50
6	x	10	S	100	21,20
6	x	12	S	100	21,20
6	x	14	S	100	21,20
6	x	16	S	100	21,50
6	x	18	S	100	21,60
6	x	20	S	100	21,60
6	x	22	S	100	22,00
6	x	24	S	100	22,10
6	x	26	S	100	22,70
6	x	28	S	100	22,70
6	x	30	S	100	23,00
6	x	32	S	100	23,60
6	x	36	S	100	26,00
6	x	40	S	100	26,50
6	x	45	S	100	29,00
6	x	50	S	100	30,00
6	x	60	S	100	34,00
6	x	80	S	100	96,00
8	x	12	S	100	31,50
8	x	14	S	100	31,50
8	x	16	S	100	32,50
8	x	18	S	100	32,50
8	x	20	S	100	32,50
8	x	22	S	100	33,50
8	x	24	S	100	33,50
8	x	26	S	100	33,50
8	x	28	S	100	33,50
8	x	30	S	100	34,50
8	x	32	S	100	36,00
8	x	36	S	100	38,50
8	x	40	S	100	39,50
8	x	45	S	100	44,00
8	x	50	S	100	47,00
8	x	55	S	100	47,00
8	x	60	S	100	53,00
8	x	70	S	100	60,00
8	x	80	S	100	92,00
8	x	100	S	25	160,00
10	x	16	S	25	213,00
10	x	20	S	25	216,00

Dimensions			PU	Pieces	€/100/Mat.
10	x	24	S	25	222,00
10	x	26	S	25	224,00
10	x	30	S	25	229,00
10	x	32	S	25	230,00
10	x	36	S	25	235,00
10	x	40	S	25	239,00
10	x	45	S	25	245,00
10	x	50	S	25	250,00
10	x	55	S	25	255,00
10	x	60	S	25	265,00
10	x	70	S	25	275,00
10	x	80	S	25	285,00
10	x	90	S	25	300,00
12	x	20	S	25	239,00
12	x	30	S	25	255,00
12	x	32	S	25	260,00
12	x	36	S	25	265,00
12	x	40	S	25	270,00
12	x	45	S	25	275,00
12	x	50	S	25	285,00
12	x	55	S	25	295,00
12	x	60	S	25	300,00
12	x	70	S	25	315,00
12	x	80	S	25	335,00

ISO 08746.000 500

8746

Steel **type A**



Grooved pins with round head, A = with chamfer

Dimensions → TI-120 REACH → TI-262
Standard conversion → TI-10

Stainless → pg. 584
Brass, Aluminium → pg. 643

ISO 8746 → replaces DIN 1476 (compatible)

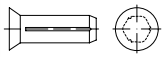
RoHS ✓

1,4	x	3	K	500	4,25
1,4	x	4	K	500	4,25
1,4	x	5	K	500	6,50
1,4	x	6	K	500	4,75
1,6	x	3	K	500	4,40
1,6	x	4	K	500	4,40
1,6	x	6	K	500	4,55
2	x	3	S	5000	3,40
2	x	3	K	500	4,40
2	x	4	S	5000	3,40
2	x	4	K	500	4,40
2	x	5	S	5000	3,40
2	x	5	K	500	4,40
2	x	6	S	5000	4,55
2	x	6	K	500	4,55
2	x	8	S	5000	3,45
2	x	8	K	500	4,55
2	x	10	K	500	4,70
2,3	x	4	K	500	4,55
2,3	x	5	K	500	4,55
2,3	x	6	K	500	4,55
2,3	x	8	K	500	4,70
2,3	x	10	K	500	4,85
2,5	x	3	K	500	4,70
2,5	x	4	K	500	4,70
2,5	x	5	K	500	4,70
2,5	x	6	S	5000	3,65
2,5	x	6	K	500	4,70
2,5	x	7	K	500	4,85
2,5	x	8	K	500	4,85
2,5	x	10	K	500	5,00
3	x	4	S	5000	3,95
3	x	4	K	500	5,00
3	x	5	S	5000	3,95
3	x	5	K	500	5,00
3	x	6	S	5000	3,95
3	x	6	K	500	5,00
3	x	7	K	500	5,20
3	x	8	S	5000	4,20
3	x	8	K	500	5,20
3	x	10	S	5000	4,20
3	x	10	K	500	5,20
3	x	12	S	2000	4,60
3	x	12	K	500	5,50
3	x	15	S	2000	4,60
3	x	15	K	500	5,50
3	x	18	K	500	6,60
4	x	6	S	2000	5,70
4	x	6	K	500	6,60
4	x	8	S	2000	5,70
4	x	8	K	500	6,60
4	x	10	S	2000	5,80
4	x	10	K	500	6,70
4	x	12	K	500	7,20
4	x	15	S	2000	6,60
4	x	15	K	500	7,60
4	x	20	K	500	15,80
5	x	8	K	250	9,20
5	x	10	S	1000	8,30
5	x	10	K	250	9,60
5	x	12	S	1000	9,10
5	x	12	K	250	10,50
5	x	15	S	1000	9,70
5	x	15	K	250	10,80
5	x	18	K	250	11,10
5	x	20	K	250	11,70
5	x	25	K	250	12,30
6	x	8	K	250	11,80
6	x	10	K	250	12,10
6	x	12	K	250	13,20
6	x	15	K	250	14,40
6	x	20	K	250	15,70
6	x	25	K	250	17,00
6	x	30	K	250	19,40

ISO 08747.000 500

8747

Steel **type A**



Grooved pins with countersunk head, A = with chamfer

Dimensions → TI-120 REACH → TI-262
Standard conversion → TI-10

ISO 8747 → replaces DIN 1477 (compatible)

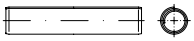
RoHS ✓

2	x	6	K	500	5,00
2	x	8	K	500	5,00
2	x	10	K	500	5,30
3	x	6	K	500	5,60
3	x	8	K	500	5,70
3	x	10	K	500	5,70
3	x	12	K	500	6,20
3	x	18	K	500	7,30
4	x	10	K	500	7,60
4	x	12	K	500	7,80
4	x	15	K	500	8,50
5	x	10	K	250	10,70
5	x	15	K	250	12,10
5	x	20	K	250	12,90
6	x	15	K	250	16,10
6	x	20	K	250	17,50

ISO 08748.000 623

8748

Spring steel



Spring-type straight pins, coiled, heavy duty

Dimensions → TI-121 Standard conversion → TI-10

ISO 8748 → replaces DIN 7344 (compatible)

RoHS ✓ REACh SVHC free

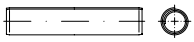
1,5	x	14	S	1000	8,30
2	x	8	S	1000	7,90
2	x	10	S	1000	8,20
2	x	12	S	1000	8,30
2	x	16	S	1000	8,50
2	x	18	S	1000	8,60
2,5	x	12	S	1000	8,50
2,5	x	14	S	1000	8,80
2,5	x	16	S	1000	8,80
2,5	x	20	S	1000	8,90
2,5	x	24	S	1000	9,10
3	x	8	S	1000	9,60
3	x	10	S	1000	9,90
3	x	12	S	1000	9,90
3	x	14	S	1000	10,10
3	x	16	S	1000	10,50
3	x	18	S	1000	10,70
3	x	20	S	1000	10,80
3	x	24	S	1000	11,30
3	x	30	S	1000	12,10
3	x	32	S	1000	11,70
4	x	12	S	1000	11,30
4	x	16	S	1000	11,80
4	x	18	S	500	12,30
4	x	20	S	500	12,90
4	x	24	S	500	13,80
4	x	26	S	500	15,50
4	x	30	S	500	16,00
5	x	12	S	1000	8,80
5	x	14	S	500	10,80
5	x	18	S	500	14,00
5	x	20	S	500	16,00
5	x	22	S	500	17,40
5	x	24	S	500	18,20
5	x	26	S	500	20,40
5	x	28	S	500	20,70
5	x	30	S	500	21,20
5	x	35	S	500	24,60
6	x	16	S	500	22,70
6	x	20	S	500	23,60
6	x	24	S	500	27,50
6	x	30	S	500	32,50
6	x	40	S	250	41,50
6	x	50	S	250	51,00

Dimensions			PU	Pieces	€/100/Mat.
8	x	20	S	500	103,00
8	x	40	S	500	144,00
8	x	50	S	250	146,00

ISO	08750.000	623

8750

Spring steel





Spring-type straight pins, coiled, standard duty

Dimensions ➔ TI-121 Standard conversion ➔ TI-10

Stainless ➔ pg. 584

ISO 8750 ➔ replaces DIN 7343 (compatible)

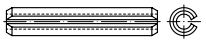
RoHS ✓ REACh SVHC free

1,5	x	5	S	1000	6,50
1,5	x	6	S	1000	6,50
1,5	x	8	S	1000	6,90
1,5	x	10	S	1000	7,20
1,5	x	12	S	1000	7,20
2	x	6	S	1000	7,30
2	x	8	S	1000	7,40
2	x	10	S	1000	7,60
2	x	12	S	1000	7,70
2	x	14	S	1000	7,70
2	x	16	S	1000	7,70
2	x	18	S	1000	7,80
2	x	20	S	1000	8,60
2,5	x	10	S	1000	8,20
2,5	x	12	S	1000	8,40
2,5	x	16	S	1000	8,50
2.5	x	20	S	1000	9,10
3	x	8	S	1000	8,20
3	x	10	S	1000	8,50
3	x	12	S	1000	8,80
3	x	14	S	1000	8,90
3	x	16	S	1000	9,10
3	x	18	S	1000	9,40
3	x	20	S	1000	9,60
3	x	24	S	1000	10,10
3	x	26	S	1000	10,50
3	x	30	S	1000	10,50
3,5	x	20	S	1000	10,50
3,5	x	24	S	1000	11,30
4	x	10	S	500	10,50
4	x	12	S	500	10,50
4	x	14	S	500	10,70
4	x	16	S	500	11,10
4	x	18	S	500	11,30
4	x	20	S	500	11,50
4	x	24	S	500	12,10
4	x	26	S	500	12,50
4	x	30	S	500	13,60
4	x	32	S	500	14,80
4	x	36	S	500	16,00
4	x	40	S	500	17,10
4	x	50	S	500	20,40
5	x	20	S	500	15,50
5	x	22	S	500	16,30
5	x	24	S	500	16,60
5	x	26	S	500	17,50
5	x	30	S	500	18,70
5	x	32	S	500	19,40
5	x	40	S	500	22,00
6	x	14	S	500	19,40
6	x	18	S	500	20,00
6	x	20	S	500	20,60
6	x	24	S	500	23,50
6	x	26	S	500	22,70
6	x	30	S	500	28,00
6	x	35	S	500	31,50
6	x	40	S	250	33,50
6	x	45	S	250	37,00
6	x	50	S	250	41,00
8	x	20	S	500	39,00
8	x	24	S	500	41,00
8	x	30	S	250	51,00
8	x	35	S	250	57,00
8	x	40	S	500	60,00
8	x	45	S	500	67,00
8	x	50	S	250	72,00
10	x	40	S	250	92,00
10	x	50	S	250	113,00
10	x	70	S	100	164,00
12	x	40	S	50	211,00
12	x	50	S	100	226,00
12	x	60	S	50	240,00
12	x	80	S	50	285,00
14	x	50	S	25	270,00
14	x	70	S	25	310,00
16	x	60	S	25	305,00
16	x	90	S	25	690,00

ISO	08752.000	520

8752

Spring steel





Spring-type straight pins, slotted, heavy duty

Dimensions ➔ TI-121 Standard conversion ➔ TI-10

Stainless ➔ pg. 585

ISO 8752 ➔ replaces DIN 1481

RoHS ✓ REACh SVHC free

1	x	4	K	200	10,10
1	x	5	K	200	10,50
1	x	6	K	200	10,50
1	x	8	K	200	10,60
1	x	10	K	200	10,70
1	x	12	K	200	10,70
1	x	14	K	200	11,10
1	x	16	K	200	11,40
1	x	20	K	200	8,50
1,5	x	4	K	200	8,60
1,5	x	5	S	1000	7,80
1,5	x	5	K	200	8,60
1,5	x	6	S	1000	7,90
1,5	x	6	K	200	8,80
1,5	x	8	S	1000	8,30
1,5	x	8	K	200	9,10
1,5	x	10	S	1000	8,40
1,5	x	10	K	200	9,10
1,5	x	12	S	1000	8,40
1,5	x	12	K	200	9,20
1,5	x	14	S	1000	8,50
1,5	x	14	K	200	9,40
1,5	x	16	K	200	9,60
1,5	x	18	K	200	10,50
1,5	x	20	K	200	10,70
2	x	4	S	1000	7,80
2	x	4	K	200	8,60
2	x	5	S	1000	8,40
2	x	5	K	200	9,20
2	x	6	S	1000	8,50
2	x	6	K	200	9,40
2	x	8	S	1000	8,80
2	x	8	K	200	9,50
2	x	10	S	1000	8,80
2	x	10	K	200	9,60
2	x	12	S	1000	8,80
2	x	12	K	200	9,60
2	x	14	S	1000	8,90
2	x	14	K	200	9,70
2	x	16	S	1000	8,90
2	x	16	K	200	9,90
2	x	18	S	1000	8,90
2	x	18	K	200	9,90
2	x	20	S	1000	9,90
2	x	20	K	200	10,60
2	x	22	K	200	10,80
2	x	24	S	1000	10,30
2	x	24	K	200	11,20
2	x	26	S	1000	10,80
2	x	26	K	200	11,70
2	x	28	K	200	12,40
2	x	30	S	1000	11,90
2	x	30	K	200	12,90
2,5	x	4	S	1000	8,80
2,5	x	4	K	200	9,60
2,5	x	5	S	1000	8,90
2,5	x	5	K	200	9,70
2,5	x	6	S	1000	9,00
2,5	x	6	K	200	9,90
2,5	x	8	S	1000	9,20
2,5	x	8	K	200	10,10
2,5	x	10	S	1000	9,50
2,5	x	10	K	200	10,30
2,5	x	12	S	1000	9,50
2,5	x	12	K	200	10,30
2,5	x	14	S	1000	9,60
2,5	x	14	K	200	10,50
2,5	x	16	S	1000	9,90
2,5	x	16	K	200	10,70
2,5	x	18	S	1000	10,00
2,5	x	18	K	200	10,70
2,5	x	20	S	1000	10,10
2,5	x	20	K	200	10,80
2,5	x	22	K	200	11,10
2,5	x	24	K	200	11,70
2,5	x	26	K	200	12,30
2,5	x	28	K	200	12,90
2,5	x	30	S	1000	13,00
2,5	x	30	K	200	13,70
3	x	4	K	200	7,80
3	x	5	S	1000	6,20
3	x	5	K	200	7,80
3	x	6	S	1000	6,50
3	x	6	K	200	8,20
3	x	8	S	1000	6,50
3	x	8	K	200	8,20
3	x	10	S	1000	6,60
3	x	10	K	200	8,30
3	x	12	S	1000	6,60
3	x	12	K	200	8,30
3	x	14	S	1000	6,70
3	x	14	K	200	8,40
3	x	16	S	1000	6,90
3	x	16	K	200	8,60
3	x	18	S	1000	7,20
3	x	18	K	200	8,80
3	x	20	S	1000	7,40
3	x	20	K	200	9,10
3	x	22	S	1000	5,90

Dimensions			PU	Pieces	€/100/Mat.
3	x	22	K	200	7,60
3	x	24	S	1000	7,70
3	x	24	K	200	9,40
3	x	25	S	1000	9,40
3	x	26	S	1000	7,80
3	x	26	K	200	9,50
3	x	28	S	1000	8,40
3	x	28	K	200	10,10
3	x	30	S	1000	8,80
3	x	30	K	200	10,50
3	x	32	S	1000	9,10
3	x	32	K	100	12,50
3	x	36	S	1000	10,30
3	x	36	K	100	13,70
3	x	40	S	1000	11,10
3	x	40	K	100	14,30
3	x	50	S	1000	14,20
3	x	50	K	100	17,50
3,5	x	4	K	200	9,10
3,5	x	5	K	200	9,10
3,5	x	6	K	200	9,20
3,5	x	8	K	200	9,50
3,5	x	10	K	200	9,50
3,5	x	12	K	200	9,70
3,5	x	14	K	200	10,10
3,5	x	16	S	1000	8,60
3,5	x	16	K	200	10,10
3,5	x	18	K	200	10,30
3,5	x	20	S	1000	9,10
3,5	x	20	K	200	10,60
3,5	x	22	K	200	10,60
3,5	x	24	K	200	10,70
3,5	x	26	K	200	11,40
3,5	x	28	K	200	12,10
3,5	x	30	K	200	12,60
3,5	x	32	K	100	14,40
3,5	x	36	K	100	14,80
3,5	x	40	K	100	16,10
4	x	4	S	500	7,60
4	x	4	K	200	8,90
4	x	5	K	200	9,10
4	x	6	S	500	7,80
4	x	6	K	200	9,20
4	x	8	S	500	7,90
4	x	8	K	200	8,80
4	x	10	S	500	8,20
4	x	10	K	200	9,40
4	x	12	S	500	8,30
4	x	12	K	200	9,60
4	x	14	S	500	8,50
4	x	14	K	200	9,90
4	x	16	S	500	8,60
4	x	16	K	200	10,10
4	x	18	S	500	8,80
4	x	18	K	200	10,10
4	x	20	S	500	8,90
4	x	20	K	200	10,20
4	x	22	S	500	9,20
4	x	22	K	200	10,60
4	x	24	S	500	9,40
4	x	24	K	200	10,70
4	x	26	S	500	9,50
4	x	26	K	200	10,80
4	x	28	S	500	10,20
4	x	28	K	200	11,50
4	x	30	S	500	10,80
4	x	30	K	200	11,90
4	x	32	S	500	11,30
4	x	32	K	200	12,50
4	x	36	S	500	11,80
4	x	36	K	200	13,10
4	x	40	S	500	12,90
4	x	40	K	200	14,30
4	x	45	S	500	15,00
4	x	45	K	100	16,40
4	x	50	S	500	15,40
4	x	50	K	100	17,70
4	x	55	S	500	22,30
4	x	55	K	100	24,70
4	x	60	S	500	22,20
4	x	60	K	100	24,50
4,5	x	10	K	100	11,80
4,5	x	12	K	100	12,40
4,5	x	20	S	500	12,10
4,5	x	20	K	100	14,40
4,5	x	22	K	100	14,70
4,5	x	24	K	100	15,30
4,5	x	26	K	100	15,80
4,5	x	28	K	100	16,40
4,5	x	30	S	500	14,40
4,5	x	30	K	100	16,70
4,5	x	32	K	100	17,20
4,5	x	36	K	100	18,30
4,5	x	40	S	500	17,00
4,5	x	40	K	100	19,30
4,5	x	45	K	100	20,70
4,5	x	50	K	100	22,00
5	x	5	K	100	11,70
5	x	6	S	500	9,50
5	x	6	K	100	11,80
5	x	8	S	500	9,50
5	x	8	K	100	11,80
5	x	10	S	500	9,50
5	x	10	K	100	11,80
5	x	12	S	500	10,10
5	x	12	K	100	12,40
5	x	14	S	500	10,50
5	x	14	K	100	12,80
5	x	16	S	500	11,10
5	x	16	K	100	13,40
5	x	18	S	500	11,70
5	x	18	K	100	14,10
5	x	20	S	500	11,90
5	x	20	K	100	14,30
5	x	22	S	500	12,90
5	x	22	K	100	15,30
5	x	24	S	500	12,90
5	x	24	K	100	15,30
5	x	26	S	500	13,50
5	x	26	K	100	15,80
5	x	28	S	500	14,10
5	x	28	K	100	16,40
5	x	30	S	500	14,40
5	x	30	K	100	16,70
5	x	32	S	500	14,80
5	x	32	K	100	18,40
5	x	36	S	500	16,00
5	x	36	K	100	18,30
5	x	40	S	500	17,00
5	x	40	K	100	19,30
5	x	45	S	500	18,40
5	x	45	K	100	20,70
5	x	50	S	250	19,40
5	x	50	K	100	22,00
5	x	55	K	100	24,50
5	x	60	S	250	23,90
5	x	60	K	100	26,50
5	x	65	K	100	28,50
5	x	70	S	250	29,00
5	x	70	K	100	31,50
5	x	75	K	100	34,50
5	x	80	K	100	38,50
6	x	10	S	500	11,20
6	x	10	K	100	13,50
6	x	12	S	500	11,40
6	x	12	K	100	13,70
6	x	14	S	500	11,70
6	x	14	K	100	14,10
6	x	16	S	500	12,50
6	x	16	K	100	14,80
6	x	18	S	500	13,20
6	x	18	K	100	15,70
6	x	20	S	500	14,30
6	x	20	K	100	16,70
6	x	22	S	500	15,30
6	x	22	K	100	17,60
6	x	24	S	500	16,10
6	x	24	K	100	18,60
6	x	26	S	500	17,40
6	x	26	K	100	19,70
6	x	28	S	500	18,40
6	x	28	K	100	20,70
6	x	30	S	500	19,40
6	x	30	K	100	21,70
6	x	32	S	500	20,50
6	x	32	K	100	22,90
6	x	36	S	500	21,60
6	x	36	K	100	24,10
6	x	40	S	250	22,90
6	x	40	K	100	25,50
6	x	45	S	250	26,00
6	x	45	K	100	28,50
6	x	50	S	250	27,50
6	x	50	K	100	30,50
6	x	55	S	250	30,00
6	x	55	K	100	33,00
6	x	60	S	250	33,00
6	x	60	K	100	36,00
6	x	65	K	100	38,50
6	x	70	S	250	39,00
6	x	70	K	100	42,00
6	x	75	K	100	44,50
6	x	80	S	250	45,50
6	x	80	K	100	48,00
6	x	85	K	100	54,00
6	x	90	K	50	63,00
6	x	100	K	50	73,00
7	x	10	K	100	21,00
7	x	14	K	100	21,20
7	x	16	K	100	21,50
7	x	20	K	100	23,90
7	x	24	K	100	27,00
7	x	30	K	100	33,00
7	x	32	K	100	34,50
7	x	36	K	100	37,00
7	x	40	K	100	39,50
7	x	45	K	100	42,50
7	x	50	K	100	46,00
7	x	55	K	100	52,00
7	x	60	K	50	60,00
7	x	65	K	50	66,00
7	x	70	K	50	69,00
7	x	75	K	50	79,00
7	x	80	K	50	88,00
7	x	90	K	50	96,00
7	x	100	K	50	111,00
8	x	10	K	100	21,00
8	x	12	S	500	18,10
8	x	12	K	100	21,10
8	x	14	S	500	18,20
8	x	14	K	100	21,20
8	x	16	S	500	18,40
8	x	16	K	100	21,50
8	x	18	S	500	19,40
8	x	18	K	100	22,40
8	x	20	S	500	21,50
8	x	20	K	100	23,90
8	x	22	S	500	22,30
8	x	22	K	100	25,50
8	x	24	S	500	24,50
8	x	24	K	100	27,00
8	x	26	S	250	26,50
8	x	26	K	100	29,50
8	x	28	S	250	28,50
8	x	28	K	100	31,00

Dimensions			PU	Pieces	€/100/Mat.
8	x	30	S	250	30,50
8	x	30	K	100	33,00
8	x	32	S	250	32,50
8	x	32	K	100	34,50
8	x	36	S	250	34,50
8	x	36	K	100	37,00
8	x	40	S	250	37,00
8	x	40	K	100	39,50
8	x	45	S	250	41,00
8	x	45	K	100	42,50
8	x	50	S	250	44,00
8	x	50	K	100	46,00
8	x	55	S	250	47,50
8	x	55	K	100	49,50
8	x	60	S	250	56,00
8	x	60	K	50	60,00
8	x	65	S	250	61,00
8	x	65	K	50	66,00
8	x	70	S	250	66,00
8	x	70	K	50	69,00
8	x	75	K	50	79,00
8	x	80	S	250	84,00
8	x	80	K	50	88,00
8	x	85	K	50	94,00
8	x	90	S	100	92,00
8	x	90	K	50	96,00
8	x	95	K	50	102,00
8	x	100	S	100	107,00
8	x	100	K	50	111,00
8	x	110	K	50	335,00
8	x	120	S	100	340,00
8	x	120	K	25	340,00
9	x	40	K	100	59,00
9	x	50	K	100	74,00
9	x	60	K	50	88,00
9	x	70	K	50	106,00
9	x	80	K	50	118,00
9	x	90	K	50	134,00
10	x	10	K	100	77,00
10	x	12	K	100	77,00
10	x	14	S	500	27,00
10	x	14	K	100	29,50
10	x	16	S	500	27,00
10	x	16	K	100	29,50
10	x	18	K	100	34,50
10	x	20	S	500	31,50
10	x	20	K	100	34,50
10	x	22	K	100	37,00
10	x	24	S	500	37,00
10	x	24	K	100	39,50
10	x	26	S	500	39,00
10	x	26	K	100	42,00
10	x	28	S	500	41,50
10	x	28	K	100	44,50
10	x	30	S	500	44,50
10	x	30	K	100	47,00
10	x	32	S	500	49,50
10	x	32	K	100	52,00
10	x	36	S	250	53,00
10	x	36	K	100	56,00
10	x	40	S	250	57,00
10	x	40	K	100	59,00
10	x	45	S	250	63,00
10	x	45	K	100	66,00
10	x	50	S	250	69,00
10	x	50	K	100	73,00
10	x	55	S	250	76,00
10	x	55	K	100	77,00
10	x	60	S	200	84,00
10	x	60	K	50	88,00
10	x	65	S	200	94,00
10	x	65	K	50	97,00
10	x	70	S	100	101,00
10	x	70	K	50	106,00
10	x	75	S	100	107,00

Dimensions			PU	Pieces	€/100/Mat.
10	x	75	K	50	112,00
10	x	80	S	100	113,00
10	x	80	K	50	118,00
10	x	85	S	100	119,00
10	x	85	K	50	124,00
10	x	90	S	100	128,00
10	x	90	K	50	134,00
10	x	95	K	50	141,00
10	x	100	S	100	144,00
10	x	100	K	50	151,00
10	x	110	K	50	590,00
10	x	120	S	50	590,00
10	x	120	K	25	590,00
10	x	140	S	50	750,00
10	x	140	K	25	760,00
10	x	160	S	50	810,00
10	x	160	K	25	820,00
12	x	10	S	25	310,00
12	x	12	S	25	300,00
12	x	14	S	25	290,00
12	x	16	S	25	280,00
12	x	18	S	25	270,00
12	x	20	S	25	144,00
12	x	22	S	25	148,00
12	x	24	S	25	153,00
12	x	26	S	25	155,00
12	x	28	S	25	160,00
12	x	30	S	25	153,00
12	x	32	S	25	180,00
12	x	36	S	25	170,00
12	x	40	S	25	176,00
12	x	45	S	25	181,00
12	x	50	S	25	184,00
12	x	55	S	25	193,00
12	x	60	S	25	200,00
12	x	65	S	25	212,00
12	x	70	S	25	220,00
12	x	75	S	25	229,00
12	x	80	S	25	234,00
12	x	85	S	25	330,00
12	x	90	S	25	415,00
12	x	95	S	25	485,00
12	x	100	S	25	570,00
12	x	120	S	10	720,00
12	x	130	S	10	840,00
12	x	140	S	10	840,00
12	x	160	S	10	960,00
12	x	180	S	10	1070,00
13	x	20	S	25	153,00
13	x	24	S	25	160,00
13	x	26	S	25	165,00
13	x	28	S	25	166,00
13	x	30	S	25	174,00
13	x	32	S	25	176,00
13	x	36	S	25	181,00
13	x	40	S	25	184,00
13	x	45	S	25	187,00
13	x	50	S	25	193,00
13	x	55	S	25	200,00
13	x	60	S	25	207,00
13	x	65	S	25	220,00
13	x	70	S	25	229,00
13	x	75	S	25	236,00
13	x	80	S	25	275,00
13	x	85	S	25	360,00
13	x	90	S	25	455,00
13	x	95	S	25	540,00
13	x	100	S	10	620,00
13	x	120	S	10	850,00
13	x	130	S	10	990,00
13	x	140	S	10	990,00
13	x	160	S	10	1140,00
13	x	180	S	10	1320,00
14	x	12	S	25	315,00
14	x	18	S	25	295,00

Dimensions			PU	Pieces	€/100/Mat.
14	x	20	S	25	183,00
14	x	24	S	25	190,00
14	x	28	S	25	201,00
14	x	30	S	25	205,00
14	x	32	S	25	207,00
14	x	36	S	25	212,00
14	x	40	S	25	215,00
14	x	45	S	25	220,00
14	x	50	S	25	226,00
14	x	55	S	25	230,00
14	x	60	S	25	236,00
14	x	65	S	25	255,00
14	x	70	S	25	260,00
14	x	75	S	25	265,00
14	x	80	S	25	285,00
14	x	85	S	25	460,00
14	x	90	S	25	540,00
14	x	100	S	10	720,00
14	x	120	S	10	940,00
14	x	140	S	10	1110,00
14	x	160	S	10	1250,00
14	x	200	S	10	1470,00
16	x	10	S	25	360,00
16	x	16	S	25	315,00
16	x	18	S	25	310,00
16	x	20	S	25	210,00
16	x	22	S	25	213,00
16	x	24	S	25	217,00
16	x	26	S	25	222,00
16	x	28	S	25	224,00
16	x	30	S	25	232,00
16	x	32	S	25	235,00
16	x	36	S	25	240,00
16	x	40	S	25	244,00
16	x	45	S	25	246,00
16	x	50	S	25	255,00
16	x	55	S	25	255,00
16	x	60	S	25	265,00
16	x	65	S	25	275,00
16	x	70	S	25	305,00
16	x	75	S	25	330,00
16	x	80	S	25	345,00
16	x	85	S	25	510,00
16	x	90	S	25	600,00
16	x	100	S	10	760,00
16	x	110	S	10	1020,00
16	x	120	S	10	1020,00
16	x	130	S	10	1180,00
16	x	140	S	10	1180,00
16	x	150	S	10	1360,00
16	x	160	S	10	1360,00
16	x	180	S	10	1530,00
16	x	200	S	10	1700,00
18	x	24	S	25	229,00
18	x	30	S	25	240,00
18	x	36	S	25	246,00
18	x	40	S	25	250,00
18	x	45	S	25	255,00
18	x	50	S	25	260,00
18	x	55	S	25	275,00
18	x	60	S	25	300,00
18	x	65	S	25	335,00
18	x	70	S	25	360,00
18	x	75	S	25	390,00
18	x	80	S	25	415,00
18	x	90	S	10	650,00
18	x	100	S	10	820,00
18	x	120	S	10	1150,00
18	x	140	S	10	1360,00
18	x	160	S	10	1540,00
20	x	20	S	25	246,00
20	x	30	S	25	295,00
20	x	32	S	25	300,00
20	x	36	S	25	310,00
20	x	40	S	25	330,00

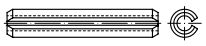
Dimensions			PU	Pieces	€/100/Mat.
20	x	45	S	25	360,00
20	x	50	S	25	380,00
20	x	55	S	25	410,00
20	x	60	S	25	425,00
20	x	65	S	25	455,00
20	x	70	S	25	480,00
20	x	75	S	25	510,00
20	x	80	S	25	540,00
20	x	85	S	10	660,00
20	x	90	S	10	740,00
20	x	100	S	10	910,00
20	x	120	S	10	1320,00
20	x	130	S	10	1540,00
20	x	140	S	10	1540,00
20	x	160	S	10	1760,00
20	x	180	S	10	2290,00
20	x	200	S	10	2850,00
21	x	16	S	25	680,00
21	x	20	S	25	370,00
21	x	24	S	25	410,00
21	x	26	S	25	420,00
21	x	30	S	25	455,00
21	x	32	S	25	460,00
21	x	36	S	25	485,00
21	x	40	S	25	520,00
21	x	45	S	25	530,00
21	x	50	S	25	560,00
21	x	55	S	25	590,00
21	x	60	S	25	610,00
21	x	65	S	10	650,00
21	x	70	S	10	670,00
21	x	75	S	10	690,00
21	x	80	S	10	730,00
21	x	85	S	10	790,00
21	x	90	S	10	880,00
21	x	95	S	10	960,00
21	x	100	S	10	970,00
21	x	120	S	10	1360,00
21	x	130	S	10	2400,00
21	x	140	S	10	1540,00
21	x	200	S	10	3200,00
25	x	32	S	10	1180,00
25	x	36	S	10	1200,00
25	x	40	S	10	1210,00
25	x	50	S	10	1280,00
25	x	55	S	10	1300,00
25	x	60	S	10	1320,00
25	x	65	S	10	1360,00
25	x	70	S	10	1410,00
25	x	80	S	10	1480,00
25	x	85	S	10	1670,00
25	x	90	S	10	1890,00
25	x	100	S	10	2270,00
25	x	120	S	1	2550,00
25	x	140	S	1	2800,00
25	x	160	S	1	3050,00
25	x	200	S	1	4150,00
28	x	20	S	10	2200,00
28	x	22	S	10	1400,00
28	x	26	S	10	1260,00
28	x	28	S	10	1380,00
28	x	30	S	10	1340,00
28	x	32	S	10	1360,00
28	x	36	S	10	1410,00
28	x	40	S	10	1430,00
28	x	45	S	10	1480,00
28	x	50	S	10	1530,00
28	x	55	S	10	1570,00
28	x	60	S	10	1630,00
28	x	65	S	10	1750,00
28	x	70	S	10	1870,00
28	x	75	S	10	1990,00
28	x	80	S	10	2110,00
28	x	90	S	10	2650,00
28	x	100	S	1	3250,00

Dimensions			PU	Pieces	€/100/Mat.
28	x	120	S	1	3600,00
28	x	140	S	1	3950,00
28	x	160	S	1	4300,00
28	x	200	S	1	5700,00
30	x	30	S	10	1510,00
30	x	32	S	10	1520,00
30	x	36	S	10	1580,00
30	x	40	S	10	1640,00
30	x	45	S	10	1720,00
30	x	50	S	10	1770,00
30	x	60	S	10	2040,00
30	x	65	S	10	2060,00
30	x	70	S	10	2220,00
30	x	80	S	10	2550,00
30	x	90	S	1	3100,00
30	x	100	S	1	3700,00
30	x	120	S	1	4300,00
30	x	140	S	1	4950,00
30	x	160	S	1	5600,00
30	x	180	S	1	6300,00
30	x	200	S	1	6900,00
35	x	50	S	1	2070,00
35	x	60	S	1	2270,00
35	x	80	S	1	3900,00
35	x	90	S	1	4400,00
35	x	100	S	1	4850,00
40	x	50	S	1	2400,00
40	x	55	S	1	2650,00
40	x	60	S	1	2650,00
40	x	70	S	1	2950,00
40	x	80	S	1	3250,00
40	x	90	S	1	3600,00
40	x	100	S	1	3950,00

ISO	08752.010	520

8752

Spring steel zinc plated



Spring-type straight pins, slotted, heavy duty

Dimensions ➔ TI-121
Standard conversion ➔ TI-10
Corrosion protection ➔ TI-228

Stainless ➔ pg. 585

ISO 8752 ➔ replaces DIN 1481

RoHS ✓ | REACh SVHC free

3	x	10	S	200	33,50 ZP
3	x	12	S	200	33,50 ZP
3	x	14	S	200	34,00 ZP
3	x	16	S	200	34,50 ZP
3	x	20	S	1000	35,00 ZP
4	x	10	S	200	38,00 ZP
4	x	12	S	200	39,00 ZP
4	x	16	S	200	41,00 ZP
4	x	20	S	200	41,50 ZP
4	x	24	S	200	43,00 ZP
4	x	28	S	500	9,60 ZP
5	x	16	S	100	54,00 ZP
5	x	20	S	500	12,10 ZP
5	x	22	S	100	62,00 ZP
5	x	24	S	100	62,00 ZP
5	x	26	S	100	63,00 ZP
5	x	30	S	500	13,70 ZP
5	x	36	S	500	15,20 ZP

Dimensions			PU	Pieces	€/100/Mat.
6	x	10	S	100	54,00 ZP
6	x	12	S	100	56,00 ZP
6	x	14	S	500	14,60 ZP
6	x	16	S	500	14,30 ZP
6	x	20	S	100	68,00 ZP
6	x	22	S	100	71,00 ZP
6	x	24	S	100	76,00 ZP
6	x	26	S	100	79,00 ZP
6	x	30	S	100	88,00 ZP
6	x	32	S	100	92,00 ZP
6	x	36	S	100	22,30 ZP
6	x	40	S	100	102,00 ZP
8	x	10	S	100	85,00 ZP
8	x	12	S	100	85,00 ZP
8	x	16	S	100	86,00 ZP
8	x	20	S	100	96,00 ZP
8	x	24	S	100	19,80 ZP
8	x	30	S	100	23,80 ZP

ISO	08765.800	*

8765

8.8



Hexagon head bolts with shank, with metric fine pitch thread

short dimensions in part thread up to head,
*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Dimensions ➔ TI-15
Tightening torque ➔ TI-244
Material properties ➔ TI-232
Standard conversion ➔ TI-6

ISO 8765 ➔ replaces DIN 960

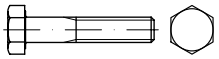
RoHS ✓ | REACh SVHC free

M 8	x	1	x	30	S	200	25,50
M 8	x	1	x	35	S	200	28,50
M 8	x	1	x	40	S	200	32,00
M 8	x	1	x	45	S	200	35,50
M 8	x	1	x	50	S	200	42,00
M 8	x	1	x	60	S	200	48,50
M 8	x	1	x	70	S	200	56,00
M 8	x	1	x	80	S	200	62,00
M 10	x	1	x	35	S	100	45,50
M 10	x	1,25	x	35	S	100	48,50
M 10	x	1	x	40	S	100	50,00
M 10	x	1,25	x	40	S	100	53,00
M 10	x	1	x	45	S	100	54,00
M 10	x	1,25	x	45	S	100	55,00
M 10	x	1	x	50	S	100	59,00
M 10	x	1,25	x	50	S	100	59,00
M 10	x	1,25	x	55	S	100	63,00
M 10	x	1	x	60	S	100	63,00
M 10	x	1,25	x	60	S	100	64,00
M 10	x	1	x	65	S	100	70,00
M 10	x	1	x	70	S	100	70,00
M 10	x	1,25	x	70	S	100	70,00
M 10	x	1	x	80	S	100	79,00
M 10	x	1,25	x	80	S	100	78,00
M 10	x	1	x	90	S	100	88,00
M 10	x	1,25	x	90	S	100	90,00
M 10	x	1	x	100	S	100	97,00
M 10	x	1,25	x	100	S	100	104,00
M 10	x	1,25	x	110	S	50	143,00
M 10	x	1,25	x	120	S	50	158,00
M 10	x	1,25	x	130	S	50	200,00
M 12	x	1,25	x	35	S	100	78,00
M 12	x	1,5	x	35	S	100	69,00

Dimensions					PU	Pieces	€/100/Mat.
M 12	x	1,25	x	40	S	100	80,00
M 12	x	1,5	x	40	S	100	72,00
M 12	x	1,25	x	45	S	100	82,00
M 12	x	1,5	x	45	S	100	74,00
M 12	x	1,25	x	50	S	100	84,00
M 12	x	1,5	x	50	S	100	74,00
M 12	x	1,25	x	60	S	100	93,00
M 12	x	1,5	x	60	S	100	92,00
M 12	x	1,25	x	65	S	50	97,00
M 12	x	1,5	x	65	S	100	97,00
M 12	x	1,25	x	70	S	50	101,00
M 12	x	1,5	x	70	S	50	101,00
M 12	x	1,5	x	75	S	50	112,00
M 12	x	1,25	x	80	S	50	112,00
M 12	x	1,5	x	80	S	50	108,00
M 12	x	1,25	x	90	S	50	130,00
M 12	x	1,5	x	90	S	50	126,00
M 12	x	1,25	x	100	S	50	142,00
M 12	x	1,5	x	100	S	50	137,00
M 12	x	1,25	x	110	S	50	192,00
M 12	x	1,5	x	110	S	50	157,00
M 12	x	1,25	x	120	S	50	210,00
M 12	x	1,5	x	120	S	50	176,00
M 12	x	1,25	x	130	S	50	233,00
M 12	x	1,5	x	130	S	50	226,00
M 12	x	1,5	x	140	S	50	260,00
M 14	x	1,5	x	50	S	50	143,00
M 14	x	1,5	x	55	S	50	153,00
M 14	x	1,5	x	60	S	50	153,00
M 14	x	1,5	x	65	S	50	167,00
M 14	x	1,5	x	70	S	50	167,00
M 14	x	1,5	x	75	S	50	192,00
M 14	x	1,5	x	80	S	50	192,00
M 14	x	1,5	x	90	S	50	215,00
M 14	x	1,5	x	100	S	50	240,00
M 14	x	1,5	x	110	S	50	285,00
M 14	x	1,5	x	120	S	50	325,00
M 14	x	1,5	x	130	S	50	370,00
M 14	x	1,5	x	140	S	25	410,00
M 16	x	1,5	x	50	S	50	152,00
M 16	x	1,5	x	55	S	50	163,00
M 16	x	1,5	x	60	S	50	174,00
M 16	x	1,5	x	65	S	25	204,00
M 16	x	1,5	x	70	S	25	204,00
M 16	x	1,5	x	75	S	25	209,00
M 16	x	1,5	x	80	S	25	209,00
M 16	x	1,5	x	85	S	25	232,00
M 16	x	1,5	x	90	S	25	232,00
M 16	x	1,5	x	100	S	25	255,00
M 16	x	1,5	x	110	S	25	330,00
M 16	x	1,5	x	120	S	25	330,00
M 16	x	1,5	x	130	S	25	410,00
M 16	x	1,5	x	140	S	25	445,00
M 16	x	1,5	x	150	S	25	450,00
M 16	x	1,5	x	160	S	25	670,00
M 18	x	1,5	x	60	S	25	440,00
M 18	x	1,5	x	65	S	25	440,00
M 18	x	1,5	x	70	S	25	395,00
M 18	x	1,5	x	75	S	25	400,00
M 18	x	1,5	x	80	S	25	410,00
M 18	x	1,5	x	90	S	25	450,00
M 18	x	1,5	x	100	S	25	480,00
M 18	x	1,5	x	120	S	25	560,00
M 18	x	1,5	x	140	S	25	630,00
M 18	x	1,5	x	150	S	25	670,00
M 20	x	1,5	x	60	S	25	425,00
M 20	x	2	x	60	S	25	710,00
M 20	x	1,5	x	65	S	25	460,00
M 20	x	2	x	65	S	25	720,00
M 20	x	1,5	x	70	S	25	405,00
M 20	x	2	x	70	S	25	740,00
M 20	x	1,5	x	75	S	25	415,00
M 20	x	1,5	x	80	S	25	415,00
M 20	x	2	x	80	S	25	750,00
M 20	x	1,5	x	85	S	25	430,00

Dimensions					PU	Pieces	€/100/Mat.
M 20	x	1,5	x	90	S	25	450,00
M 20	x	1,5	x	100	S	25	485,00
M 20	x	2	x	100	S	25	830,00
M 20	x	1,5	x	110	S	25	540,00
M 20	x	1,5	x	120	S	25	580,00
M 20	x	2	x	120	S	25	990,00
M 20	x	1,5	x	130	S	25	650,00
M 20	x	1,5	x	140	S	25	710,00
M 20	x	1,5	x	150	S	25	720,00
M 20	x	1,5	x	160	S	10	1400,00
M 20	x	1,5	x	170	S	10	1440,00
M 20	x	1,5	x	180	S	10	1480,00
M 20	x	1,5	x	200	S	10	1690,00
M 24	x	1,5	x	70	S	25	420,00
M 24	x	2	x	70	S	25	600,00
M 24	x	1,5	x	80	S	25	455,00
M 24	x	2	x	80	S	25	650,00
M 24	x	1,5	x	90	S	25	495,00
M 24	x	2	x	90	S	25	495,00
M 24	x	1,5	x	100	S	10	540,00
M 24	x	2	x	100	S	10	750,00
M 24	x	1,5	x	110	S	10	580,00
M 24	x	2	x	110	S	10	800,00
M 24	x	1,5	x	120	S	10	620,00
M 24	x	2	x	120	S	10	860,00
M 24	x	1,5	x	130	S	10	650,00
M 24	x	2	x	130	S	10	1030,00
M 24	x	1,5	x	140	S	10	690,00
M 24	x	2	x	140	S	10	1120,00
M 24	x	1,5	x	150	S	10	730,00
M 24	x	2	x	150	S	10	1140,00
M 30	x	2	x	90	S	1	1460,00
M 30	x	2	x	100	S	1	1550,00
M 30	x	2	x	110	S	1	1650,00
M 30	x	2	x	120	S	1	1750,00
M 30	x	2	x	130	S	1	1840,00
M 30	x	2	x	140	S	1	1950,00
M 30	x	2	x	150	S	1	2050,00
M 30	x	2	x	160	S	1	2190,00
M 36	x	3	x	110	S	1	2550,00
M 36	x	3	x	120	S	1	2700,00
M 36	x	3	x	130	S	1	2800,00
M 36	x	3	x	140	S	1	2950,00
M 36	x	3	x	150	S	1	3100,00
M 36	x	3	x	160	S	1	3300,00
M 42	x	3	x	140	S	1	4450,00
M 42	x	3	x	160	S	1	4850,00
M 42	x	3	x	180	S	1	5300,00
M 42	x	3	x	200	S	1	5800,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	08765.810		*
8765	**8.8 zinc plated**		



Hexagon head bolts with shank, with metric fine pitch thread

short dimensions in part thread up to head,
*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Dimensions ➔ TI-15
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-244
Standard conversion ➔ TI-6

ISO 8765 ➔ replaces DIN 960

RoHS ✓ | REACh SVHC free

Dimensions					PU	Pieces	€/100/Mat.
M 12	x	1,5	x	45	S	100	98,00 ZP
M 12	x	1,25	x	50	S	100	102,00 ZP
M 12	x	1,5	x	50	S	100	102,00 ZP
M 12	x	1,25	x	60	S	100	113,00 ZP
M 12	x	1,5	x	60	S	100	113,00 ZP
M 12	x	1,5	x	65	S	50	123,00 ZP
M 12	x	1,25	x	70	S	50	125,00 ZP
M 12	x	1,5	x	70	S	50	125,00 ZP
M 12	x	1,25	x	80	S	50	140,00 ZP
M 12	x	1,5	x	80	S	50	140,00 ZP
M 12	x	1,25	x	90	S	50	158,00 ZP
M 12	x	1,5	x	90	S	50	158,00 ZP
M 12	x	1,25	x	100	S	50	176,00 ZP
M 12	x	1,5	x	100	S	50	174,00 ZP
M 12	x	1,25	x	110	S	50	226,00 ZP
M 12	x	1,5	x	110	S	50	226,00 ZP
M 12	x	1,25	x	120	S	50	249,00 ZP
M 12	x	1,5	x	120	S	50	249,00 ZP
M 12	x	1,25	x	130	S	50	275,00 ZP
M 12	x	1,5	x	130	S	50	275,00 ZP
M 12	x	1,5	x	140	S	50	305,00 ZP
M 14	x	1,5	x	50	S	50	170,00 ZP
M 14	x	1,5	x	60	S	50	182,00 ZP
M 14	x	1,5	x	65	S	50	198,00 ZP
M 14	x	1,5	x	70	S	50	200,00 ZP
M 14	x	1,5	x	75	S	50	226,00 ZP
M 14	x	1,5	x	80	S	50	227,00 ZP
M 14	x	1,5	x	90	S	50	255,00 ZP
M 14	x	1,5	x	100	S	50	285,00 ZP
M 16	x	1,5	x	55	S	50	200,00 ZP
M 16	x	1,5	x	60	S	50	212,00 ZP
M 16	x	1,5	x	65	S	25	249,00 ZP
M 16	x	1,5	x	70	S	25	255,00 ZP
M 16	x	1,5	x	75	S	25	255,00 ZP
M 16	x	1,5	x	80	S	25	265,00 ZP
M 16	x	1,5	x	85	S	25	285,00 ZP
M 16	x	1,5	x	90	S	25	290,00 ZP
M 16	x	1,5	x	100	S	25	315,00 ZP
M 16	x	1,5	x	110	S	25	395,00 ZP
M 16	x	1,5	x	120	S	25	400,00 ZP
M 16	x	1,5	x	130	S	25	485,00 ZP
M 16	x	1,5	x	140	S	25	530,00 ZP
M 16	x	1,5	x	150	S	25	540,00 ZP
M 16	x	1,5	x	160	S	25	760,00 ZP
M 20	x	1,5	x	65	S	25	475,00 ZP
M 20	x	1,5	x	70	S	25	480,00 ZP
M 20	x	1,5	x	75	S	25	495,00 ZP
M 20	x	1,5	x	80	S	25	495,00 ZP
M 20	x	1,5	x	90	S	25	540,00 ZP
M 20	x	1,5	x	100	S	25	580,00 ZP
M 20	x	1,5	x	110	S	25	650,00 ZP

Dimensions						PU	Pieces	€/100/Mat.
M 20	x	1,5	x	120		S	25	690,00 ZP
M 20	x	1,5	x	140		S	25	830,00 ZP
M 20	x	1,5	x	150		S	25	860,00 ZP
M 20	x	1,5	x	160		S	10	1540,00 ZP
M 20	x	1,5	x	180		S	10	1640,00 ZP
M 20	x	1,5	x	200		S	10	1880,00 ZP
M 24	x	2	x	80		S	25	840,00 ZP
M 24	x	2	x	90		S	25	910,00 ZP
M 24	x	2	x	100		S	10	970,00 ZP
M 24	x	2	x	120		S	10	1110,00 ZP
M 24	x	2	x	130		S	10	1290,00 ZP
M 24	x	2	x	140		S	10	1410,00 ZP
M 24	x	2	x	150		S	10	1530,00 ZP
M 24	x	2	x	160		S	10	1690,00 ZP
M 24	x	2	x	170		S	10	1820,00 ZP

ISO	08765.100	*

8765

10.9



Hexagon head bolts with shank, with metric fine pitch thread

short dimensions in part thread up to head,
*M 10/12/14/22 = RAZ 3600 other ∅ = RAZ 440

Dimensions ➔ TI-15 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

ISO 8765 ➔ replaces DIN 960

RoHS ✓ REACh SVHC free

Dimensions						PU	Pieces	€/100/Mat.
M 8	x	1	x	30		S	200	31,50
M 8	x	1	x	35		S	200	37,50
M 8	x	1	x	40		S	200	40,00
M 8	x	1	x	45		S	200	44,50
M 8	x	1	x	50		S	200	48,50
M 8	x	1	x	60		S	200	57,00
M 8	x	1	x	70		S	200	66,00
M 8	x	1	x	80		S	200	74,00
M 10	x	1	x	35		S	100	67,00
M 10	x	1,25	x	35		S	100	109,00
M 10	x	1	x	40		S	100	69,00
M 10	x	1,25	x	40		S	100	112,00
M 10	x	1	x	45		S	100	116,00
M 10	x	1,25	x	45		S	100	116,00
M 10	x	1	x	50		S	100	74,00
M 10	x	1,25	x	50		S	100	75,00
M 10	x	1	x	55		S	100	76,00
M 10	x	1,25	x	55		S	100	77,00
M 10	x	1	x	60		S	100	79,00
M 10	x	1,25	x	60		S	100	79,00
M 10	x	1	x	70		S	100	124,00
M 10	x	1,25	x	70		S	100	124,00
M 10	x	1	x	80		S	100	144,00
M 10	x	1,25	x	80		S	100	158,00
M 10	x	1	x	90		S	100	163,00
M 10	x	1,25	x	90		S	100	170,00
M 10	x	1	x	100		S	100	200,00
M 10	x	1,25	x	100		S	100	200,00
M 10	x	1,25	x	110		S	100	216,00
M 12	x	1,25	x	35		S	100	78,00
M 12	x	1,5	x	35		S	100	83,00
M 12	x	1,25	x	40		S	100	86,00
M 12	x	1,5	x	40		S	100	89,00
M 12	x	1,25	x	45		S	100	97,00
M 12	x	1,5	x	45		S	100	97,00
M 12	x	1,25	x	50		S	100	105,00

Dimensions						PU	Pieces	€/100/Mat.
M 12	x	1,5	x	50		S	100	104,00
M 12	x	1,5	x	55		S	100	107,00
M 12	x	1,25	x	60		S	100	114,00
M 12	x	1,5	x	60		S	100	114,00
M 12	x	1,25	x	65		S	50	117,00
M 12	x	1,5	x	65		S	50	116,00
M 12	x	1,25	x	70		S	50	123,00
M 12	x	1,5	x	70		S	50	123,00
M 12	x	1,5	x	75		S	50	143,00
M 12	x	1,25	x	80		S	50	144,00
M 12	x	1,5	x	80		S	50	144,00
M 12	x	1,25	x	90		S	50	211,00
M 12	x	1,5	x	90		S	50	211,00
M 12	x	1,25	x	100		S	50	233,00
M 12	x	1,5	x	100		S	50	233,00
M 12	x	1,25	x	110		S	50	265,00
M 12	x	1,5	x	110		S	50	265,00
M 12	x	1,25	x	120		S	50	295,00
M 12	x	1,5	x	120		S	25	295,00
M 12	x	1,25	x	130		S	50	305,00
M 12	x	1,5	x	130		S	50	305,00
M 12	x	1,5	x	140		S	50	325,00
M 14	x	1,5	x	50		S	50	144,00
M 14	x	1,5	x	55		S	50	152,00
M 14	x	1,5	x	60		S	50	157,00
M 14	x	1,5	x	65		S	50	183,00
M 14	x	1,5	x	70		S	50	183,00
M 14	x	1,5	x	75		S	50	201,00
M 14	x	1,5	x	80		S	50	201,00
M 14	x	1,5	x	90		S	50	295,00
M 14	x	1,5	x	100		S	25	305,00
M 14	x	1,5	x	110		S	25	340,00
M 14	x	1,5	x	120		S	25	370,00
M 14	x	1,5	x	130		S	25	410,00
M 14	x	1,5	x	140		S	25	425,00
M 14	x	1,5	x	160		S	25	470,00
M 16	x	1,5	x	50		S	25	204,00
M 16	x	1,5	x	55		S	50	212,00
M 16	x	1,5	x	60		S	50	227,00
M 16	x	1,5	x	65		S	25	246,00
M 16	x	1,5	x	70		S	25	260,00
M 16	x	1,5	x	75		S	25	285,00
M 16	x	1,5	x	80		S	25	285,00
M 16	x	1,5	x	85		S	25	285,00
M 16	x	1,5	x	90		S	25	285,00
M 16	x	1,5	x	100		S	25	305,00
M 16	x	1,5	x	110		S	25	390,00
M 16	x	1,5	x	115		S	25	405,00
M 16	x	1,5	x	120		S	25	405,00
M 16	x	1,5	x	130		S	25	445,00
M 16	x	1,5	x	140		S	25	470,00
M 16	x	1,5	x	150		S	25	495,00
M 16	x	1,5	x	160		S	25	550,00
M 18	x	1,5	x	60		S	25	510,00
M 18	x	1,5	x	65		S	25	510,00
M 18	x	1,5	x	70		S	25	510,00
M 18	x	1,5	x	75		S	25	510,00
M 18	x	1,5	x	80		S	25	510,00
M 18	x	1,5	x	90		S	25	590,00
M 18	x	1,5	x	100		S	25	620,00
M 18	x	1,5	x	120		S	10	720,00
M 18	x	1,5	x	140		S	10	830,00
M 18	x	1,5	x	150		S	10	960,00
M 20	x	1,5	x	60		S	25	510,00
M 20	x	2	x	60		S	25	510,00
M 20	x	1,5	x	65		S	25	510,00
M 20	x	2	x	65		S	25	510,00
M 20	x	1,5	x	70		S	25	510,00
M 20	x	2	x	70		S	25	510,00
M 20	x	1,5	x	75		S	25	570,00
M 20	x	1,5	x	80		S	25	560,00
M 20	x	2	x	80		S	25	560,00
M 20	x	1,5	x	85		S	25	640,00
M 20	x	1,5	x	90		S	25	620,00
M 20	x	1,5	x	100		S	25	650,00

Dimensions						PU	Pieces	€/100/Mat.
M 20	x	1,5	x	110		S	10	670,00
M 20	x	1,5	x	120		S	10	700,00
M 20	x	2	x	120		S	10	700,00
M 20	x	1,5	x	130		S	10	840,00
M 20	x	1,5	x	140		S	10	930,00
M 20	x	1,5	x	150		S	10	1520,00
M 20	x	1,5	x	160		S	10	1660,00
M 20	x	1,5	x	170		S	10	1800,00
M 20	x	1,5	x	180		S	10	1840,00
M 20	x	1,5	x	200		S	10	2340,00
M 22	x	1,5	x	70		S	25	810,00
M 22	x	2	x	70		S	25	1070,00
M 22	x	1,5	x	80		S	25	820,00
M 22	x	1,5	x	90		S	10	900,00
M 22	x	1,5	x	100		S	10	930,00
M 22	x	1,5	x	110		S	10	1010,00
M 22	x	1,5	x	120		S	10	1080,00
M 22	x	1,5	x	130		S	10	1120,00
M 22	x	1,5	x	140		S	10	1130,00
M 24	x	1,5	x	70		S	25	740,00
M 24	x	2	x	70		S	25	1290,00
M 24	x	1,5	x	80		S	25	820,00
M 24	x	2	x	80		S	25	1550,00
M 24	x	1,5	x	90		S	10	900,00
M 24	x	2	x	90		S	25	1800,00
M 24	x	1,5	x	100		S	10	930,00
M 24	x	2	x	100		S	10	1850,00
M 24	x	1,5	x	110		S	10	1010,00
M 24	x	2	x	110		S	10	1970,00
M 24	x	1,5	x	120		S	10	1250,00
M 24	x	2	x	120		S	10	2130,00
M 24	x	1,5	x	130		S	10	2240,00
M 24	x	2	x	130		S	10	2240,00
M 24	x	1,5	x	140		S	10	2750,00
M 24	x	2	x	150		S	10	3250,00
M 30	x	2	x	60		S	1	1740,00
M 30	x	2	x	70		S	1	1890,00
M 30	x	2	x	80		S	1	2030,00
M 30	x	2	x	90		S	1	2160,00
M 30	x	2	x	100		S	1	2300,00
M 30	x	2	x	110		S	1	2490,00
M 30	x	2	x	120		S	1	2700,00
M 30	x	2	x	130		S	1	2850,00
M 30	x	2	x	140		S	1	3050,00
M 30	x	2	x	150		S	1	3250,00
M 30	x	2	x	160		S	1	3450,00
M 36	x	3	x	110		S	1	2950,00
M 36	x	3	x	120		S	1	3250,00
M 36	x	3	x	130		S	1	3500,00
M 36	x	3	x	140		S	1	3800,00
M 36	x	3	x	150		S	1	4100,00
M 36	x	3	x	160		S	1	4350,00
M 42	x	3	x	140		S	1	4450,00
M 42	x	3	x	160		S	1	5100,00
M 42	x	3	x	180		S	1	5800,00
M 42	x	3	x	200		S	1	6400,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
ISO	08765.110	*

8765 10.9 zinc plated



Hexagon head bolts with shank, with metric fine pitch thread

short dimensions in part thread up to head, baked,
*M 10/12/14/22 = RAZ 3600 other Ø = RAZ 440

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-15 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6
Corrosion protection ➔ TI-228

ISO 8765 ➔ replaces DIN 960

RoHS ✓ REACh SVHC free

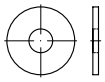
M 10	x 1	x 45	S	100	134,00 ZP
M 12	x 1,5	x 45	S	100	122,00 ZP
M 12	x 1,5	x 50	S	100	136,00 ZP
M 12	x 1,5	x 60	S	100	148,00 ZP
M 12	x 1,5	x 65	S	50	149,00 ZP
M 12	x 1,5	x 70	S	50	167,00 ZP
M 14	x 1,5	x 50	S	50	205,00 ZP
M 14	x 1,5	x 55	S	50	210,00 ZP
M 14	x 1,5	x 60	S	50	216,00 ZP
M 14	x 1,5	x 65	S	50	229,00 ZP
M 14	x 1,5	x 70	S	50	250,00 ZP
M 14	x 1,5	x 75	S	50	255,00 ZP
M 14	x 1,5	x 80	S	50	270,00 ZP
M 14	x 1,5	x 90	S	50	350,00 ZP
M 14	x 1,5	x 100	S	50	370,00 ZP
M 14	x 1,5	x 110	S	25	410,00 ZP
M 16	x 1,5	x 60	S	50	285,00 ZP
M 16	x 1,5	x 70	S	25	155,00 ZP
M 16	x 1,5	x 75	S	25	350,00 ZP
M 16	x 1,5	x 80	S	25	360,00 ZP
M 16	x 1,5	x 90	S	25	375,00 ZP
M 16	x 1,5	x 100	S	25	400,00 ZP
M 16	x 1,5	x 110	S	25	500,00 ZP
M 16	x 1,5	x 120	S	25	510,00 ZP
M 16	x 1,5	x 130	S	25	560,00 ZP
M 20	x 1,5	x 80	S	25	690,00 ZP
M 20	x 1,5	x 90	S	25	770,00 ZP
M 20	x 1,5	x 100	S	25	800,00 ZP
M 20	x 1,5	x 120	S	10	880,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU Pieces	€/100/Mat.
DIN	09021.000	750

9021 Steel 140/100 HV**



Washers, outside Ø ≈ 3 x nom. thread Ø, product grade A/C*

*Ø ≤ 8,4 = A/Ø > 8,4 = C,
**Ø ≤ 17 = 140 HV/Ø > 17 = 100 HV

Dimensions ➔ TI-85 Standard conversion ➔ TI-84

Stainless ➔ pg. 586
Brass, Plastic ➔ pg. 643

DIN 9021 ➔ replaced by ISO 7093

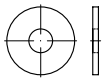
RoHS ✓ REACh SVHC free

inside Ø x outside Ø x thickness

2,7	x 8	x 0,8	S	10000	0,65
3,2	x 9	x 0,8	S	10000	0,70
3,2	x 9	x 0,8	K	500	0,95
4,3	x 12	x 1	S	5000	1,05
4,3	x 12	x 1	K	500	1,50
5,3	x 15	x 1,2	S	2500	1,95
5,3	x 15	x 1,2	K	250	2,25
6,4	x 18	x 1,6	S	2500	2,60
6,4	x 18	x 1,6	K	250	2,90
7,4	x 22	x 2	K	100	6,90
8,4	x 24	x 2	S	500	5,30
8,4	x 24	x 2	K	100	6,20
10,5	x 30	x 2,5	S	250	8,80
10,5	x 30	x 2,5	K	100	10,80
13	x 37	x 3	S	100	20,10
15	x 44	x 3	S	100	27,50
17	x 50	x 3	S	100	29,50
20	x 56	x 4	S	100	61,00
22	x 60	x 4	S	100	62,00
33	x 92	x 7	S	25	270,00

Dimensions	PU Pieces	€/100/Mat.
DIN	09021.010	750

9021 Steel 140/100 HV** zinc plated



Washers, outside Ø ≈ 3 x nom. thread Ø, product grade A/C*

*Ø ≤ 8,4 = A/Ø > 8,4 = C,
**Ø ≤ 17 = 140 HV/Ø > 17 = 100 HV

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-228

Stainless ➔ pg. 586
Brass, Plastic ➔ pg. 643

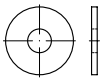
DIN 9021 ➔ replaced by ISO 7093

RoHS ✓ REACh SVHC free

inside Ø x outside Ø x thickness

3,2	x 9	x 0,8	S	10000	0,80 ZP
3,2	x 9	x 0,8	K	500	1,05 ZP
4,3	x 12	x 1	S	5000	1,30 ZP
4,3	x 12	x 1	K	500	1,70 ZP
5,3	x 15	x 1,2	S	2500	2,50 ZP
5,3	x 15	x 1,2	K	250	2,80 ZP
6,4	x 18	x 1,6	S	2500	3,40 ZP
6,4	x 18	x 1,6	K	250	3,75 ZP
7,4	x 22	x 2	K	100	9,40 ZP
8,4	x 24	x 2	S	500	7,40 ZP
8,4	x 24	x 2	K	100	8,40 ZP
10,5	x 30	x 2,5	S	250	12,40 ZP
10,5	x 30	x 2,5	K	100	15,00 ZP
13	x 37	x 3	S	100	29,50 ZP
15	x 44	x 3	S	100	39,00 ZP
17	x 50	x 3	S	100	44,00 ZP
20	x 56	x 4	S	100	84,00 ZP
22	x 60	x 4	S	100	88,00 ZP
26	x 72	x 5	S	50	345,00 ZP
33	x 92	x 6	S	25	455,00 ZP
39	x 110	x 8	S	25	440,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
DIN	09021.020		750
9021	**Steel 140/100 HV** hot dip galvanized**		



Washers, outside Ø ≈ 3 x nom. thread Ø, product grade A/C*

*Ø ≤ 8,4 = A/Ø > 8,4 = C,
**Ø ≤ 17 = 140 HV/Ø > 17 = 100 HV

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Corrosion protection ➔ TI-231

Stainless ➔ pg. 586
Brass, Plastic ➔ pg. 643

DIN 9021 ➔ replaced by ISO 7093

RoHS ✓ REACh SVHC free

inside Ø x outside Ø x thickness

6,4	x	18	x	1,6	S	1000	7,80 HDG
8,4	x	24	x	2	S	500	17,70 HDG
10,5	x	30	x	2,5	S	250	21,30 HDG
13	x	37	x	3	S	100	38,00 HDG
17	x	50	x	3	S	100	73,00 HDG
20	x	56	x	4	S	100	126,00 HDG
22	x	60	x	4	S	100	151,00 HDG
26	x	72	x	5	S	100	260,00 HDG

DIN	09925.000	745
9925	**Spring steel**	



Snap rings for shafts

Dimensions ➔ TI-101

RoHS ✓ REACh SVHC free

nominal size = for shafts Ø

4	S	5000	4,75
5	S	5000	4,85
6	S	5000	4,85
7	S	2500	5,30
8	S	2500	5,00
10	S	2000	5,70
12	S	2000	6,10
16	S	1000	7,90
18	S	1000	9,90
20	S	1000	11,90
22	S	500	12,40
25	S	500	15,70
26	S	500	15,80
28	S	500	18,20
30	S	500	19,80
32	S	250	21,50
35	S	250	23,90
38	S	250	28,00
40	S	250	33,00
45	S	250	38,00
48	S	200	42,50
50	S	200	47,50
55	S	200	53,00
60	S	200	57,00
65	S	200	62,00
70	S	200	80,00

DIN	09926.000	745
9926	**Spring steel**	



Snap rings for bores

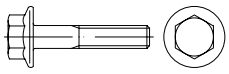
Dimensions ➔ TI-101

RoHS ✓ REACh SVHC free

nominal size = for bore Ø

7	S	5000	3,90
8	S	5000	4,40
10	S	5000	5,00
12	S	2500	5,60
16	S	2000	8,80
18	S	2000	11,50

article	10105.130	980
10105	**10.9 zinc flake coated**	



Hexagon head bolt with flange acc. to MBN 10105

coating acc. to DBL 9440.40

matching flange nuts ➔ article 13023

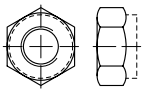
Dimensions ➔ TI-117 Corrosion protection ➔ TI-230
Material properties ➔ TI-232 Tightening torque ➔ TI-245

RoHS ✓ REACh SVHC free

thread M x pitch x length

M 10	x	1,5	x	25	S	100	151,00 flZn
M 10	x	1,5	x	30	S	100	164,00 flZn
M 10	x	1,5	x	40	S	100	167,00 flZn
M 12	x	1,5	x	35	S	100	330,00 flZn
M 12	x	1,5	x	40	S	100	330,00 flZn
M 12	x	1,5	x	45	S	100	340,00 flZn
M 12	x	1,5	x	50	S	100	350,00 flZn
M 12	x	1,5	x	60	S	100	420,00 flZn
M 12	x	1,5	x	70	S	100	425,00 flZn
M 12	x	1,5	x	80	S	100	460,00 flZn
M 12	x	1,5	x	90	S	100	395,00 flZn
M 12	x	1,5	x	100	S	50	540,00 flZn
M 12	x	1,5	x	110	S	50	560,00 flZn
M 12	x	1,5	x	120	S	50	600,00 flZn
M 12	x	1,5	x	130	S	50	630,00 flZn
M 12	x	1,5	x	140	S	50	670,00 flZn
M 12	x	1,5	x	150	S	50	710,00 flZn
M 14	x	1,5	x	30	S	50	410,00 flZn
M 14	x	1,5	x	35	S	50	370,00 flZn
M 14	x	1,5	x	40	S	50	360,00 flZn
M 14	x	1,5	x	45	S	50	380,00 flZn
M 14	x	1,5	x	50	S	50	395,00 flZn
M 14	x	1,5	x	55	S	50	405,00 flZn
M 14	x	1,5	x	60	S	50	420,00 flZn
M 14	x	1,5	x	65	S	50	445,00 flZn
M 14	x	1,5	x	70	S	50	460,00 flZn
M 14	x	1,5	x	80	S	50	510,00 flZn
M 14	x	1,5	x	90	S	50	530,00 flZn
M 14	x	1,5	x	100	S	50	455,00 flZn
M 16	x	1,5	x	40	S	50	550,00 flZn
M 16	x	1,5	x	45	S	50	570,00 flZn
M 16	x	1,5	x	50	S	50	610,00 flZn
M 16	x	1,5	x	55	S	50	620,00 flZn
M 16	x	1,5	x	60	S	50	860,00 flZn
M 16	x	1,5	x	120	S	25	790,00 flZn
M 16	x	1,5	x	130	S	25	830,00 flZn
M 16	x	1,5	x	140	S	25	880,00 flZn
M 16	x	1,5	x	150	S	25	960,00 flZn
M 16	x	1,5	x	160	S	25	1050,00 flZn

ISO	10511.410	3395
10511	**04 zinc plated**	



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from −50 to +120 °C

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-233 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ pg. 587
Brass ➔ pg. 643

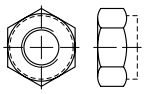
ISO 10511 ➔ replaces DIN 985

M 3	S	1000	7,40 ZP
M 4	S	1000	7,40 ZP
M 5	S	1000	7,40 ZP
M 6	S	1000	8,60 ZP
M 8	S	500	13,40 ZP
M 10	S	500	26,00 ZP
M 12	S	250	36,50 ZP
M 14	S	100	61,00 ZP
M 16	S	100	73,00 ZP
M 18	S	50	117,00 ZP
M 20	S	50	141,00 ZP
M 22	S	25	216,00 ZP
M 24	S	25	260,00 ZP
M 30	S	10	540,00 ZP
M 36	S	10	1010,00 ZP

Dimensions | PU Pieces | €/100/Mat.

ISO | 10511.411 | 3395

10511 04 zinc plated 8 TLP*



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use under temperatures from -50 to +120 °C,
*< M 6 min. coating thickness 5µm,
salt spray test: 72h WR, 120h RR

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9
REACH ➔ TI-262

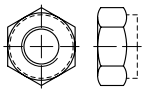
Stainless ➔ pg. 587
Brass ➔ pg. 643

ISO 10511 ➔ replaces DIN 985

M 4	S	1000		10,50 ZP TLP
M 5	S	1000		10,50 ZP TLP
M 6	S	1000		13,80 ZP TLP
M 8	S	1000		20,90 ZP TLP
M 10	S	500		36,50 ZP TLP
M 12	S	250		51,00 ZP TLP
M 14	S	100		88,00 ZP TLP
M 16	S	100		103,00 ZP TLP
M 20	S	50		198,00 ZP TLP
M 24	S	25		365,00 ZP TLP

ISO | 10511.510 | 3395

10511 05 zinc plated



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9
REACH ➔ TI-262

Stainless ➔ pg. 587
Brass ➔ pg. 643

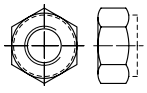
ISO 10511 ➔ replaces DIN 985

M 6	S	1000		670,00 ZP
M 8	S	1000		520,00 ZP
M 10	S	500		51,00 ZP
M 12	S	250		73,00 ZP
M 14	S	100		114,00 ZP
M 16	S	100		1240,00 ZP
M 18	S	50		205,00 ZP
M 20	S	50		234,00 ZP
M 22	S	25		315,00 ZP
M 24	S	25		395,00 ZP
M 30	S	1		990,00 ZP
M 36	S	1		2120,00 ZP

Dimensions | PU Pieces | €/100/Mat.

ISO | 10512.110 | *

10512 10 zinc plated



Prevailing torque type hexagon nuts with non-metallic insert, high type with metric fine pitch thread

for use at temperatures from -50 to +120 °C,
*M 10/12/14 RAZ = 3395, other ∅ RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

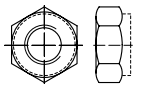
ISO 10512 ➔ replaces DIN 982

REACh SVHC free

M 10	x	1	S	100	84,00 ZP
M 12	x	1,5	S	100	120,00 ZP
M 14	x	1,5	S	100	161,00 ZP
M 16	x	1,5	S	50	216,00 ZP
M 20	x	1,5	S	50	390,00 ZP
M 24	x	2	S	25	570,00 ZP

ISO | 10513.810 | *

10513 8 zinc plated



Prevailing torque type hexagon nuts with metric fine pitch thread, all metal nuts

*M 10/12/14/22 RAZ = 3395, other ∅ RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

ISO 10513 ➔ replaces DIN 980

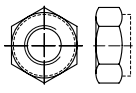
RoHS ✓
REACh SVHC free

M 8	x	1	S	100	30,00 ZP
M 10	x	1	S	100	34,50 ZP
M 12	x	1,5	S	100	42,00 ZP
M 14	x	1,5	S	100	60,00 ZP
M 16	x	1,5	S	100	79,00 ZP
M 18	x	1,5	S	50	136,00 ZP
M 20	x	1,5	S	50	131,00 ZP
M 24	x	1,5	S	25	239,00 ZP
M 24	x	2	S	25	239,00 ZP
M 30	x	2	S	10	620,00 ZP

Dimensions | PU Pieces | €/100/Mat.

ISO | 10513.110 | *

10513 10 zinc plated



Prevailing torque type hexagon nuts with metric fine pitch thread, all metal nuts

*M 10/12/14/22 RAZ = 3395, other ∅ RAZ = 480

Dimensions ➔ TI-9
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
Standard conversion ➔ TI-9

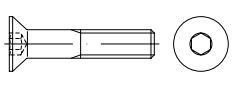
ISO 10513 ➔ replaces DIN 980

RoHS ✓
REACh SVHC free

M 8	x	1	S	100	34,00 ZP
M 10	x	1	S	100	54,00 ZP
M 10	x	1,25	S	100	53,00 ZP
M 12	x	1,25	S	100	65,00 ZP
M 12	x	1,5	S	100	65,00 ZP
M 14	x	1,5	S	100	92,00 ZP
M 16	x	1,5	S	50	112,00 ZP
M 18	x	1,5	S	50	170,00 ZP
M 20	x	1,5	S	50	197,00 ZP
M 24	x	1,5	S	25	315,00 ZP
M 24	x	2	S	25	315,00 ZP

ISO | 10642.800 | 3800

10642 08.8



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. to DIN 7991, sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Tightening torque ➔ TI-246

Stainless ➔ pg. 587

RoHS ✓
REACh SVHC free

M 3	x	6	S	500	62,00
M 3	x	6	K	100	67,00
M 3	x	8	S	500	37,00
M 3	x	8	K	100	42,00
M 3	x	10	S	500	31,50
M 3	x	10	K	100	37,00
M 3	x	12	S	500	31,50
M 3	x	12	K	100	37,00
M 3	x	16	S	500	31,50
M 3	x	16	K	100	37,00
M 3	x	18	S	500	34,00
M 3	x	20	S	500	40,50
M 3	x	20	K	100	45,50

ISO 10642

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 22	S	500	46,50
M 3 x 25	S	500	39,50
M 3 x 25	K	100	44,50
M 3 x 30	S	500	42,50
M 3 x 30	K	100	47,50
M 4 x 6	S	500	43,50
M 4 x 6	K	100	48,00
M 4 x 8	S	500	35,50
M 4 x 8	K	100	40,00
M 4 x 10	S	500	27,50
M 4 x 10	K	100	32,00
M 4 x 12	S	500	27,50
M 4 x 12	K	100	32,50
M 4 x 16	S	500	31,00
M 4 x 16	K	100	36,00
M 4 x 18	S	500	32,00
M 4 x 20	S	500	32,00
M 4 x 20	K	100	36,50
M 4 x 22	S	500	39,00
M 4 x 25	S	500	35,50
M 4 x 25	K	100	40,00
M 4 x 30	S	500	40,00
M 4 x 30	K	100	44,50
M 4 x 35	S	500	46,00
M 4 x 35	K	100	51,00
M 4 x 40	S	500	77,00
M 4 x 40	K	100	82,00
M 4 x 45	S	500	78,00
M 4 x 50	S	500	78,00
M 5 x 6	S	500	35,50
M 5 x 8	S	500	31,50
M 5 x 8	K	100	36,00
M 5 x 10	S	500	16,20
M 5 x 10	K	100	21,00
M 5 x 12	S	500	17,30
M 5 x 12	K	100	22,10
M 5 x 16	S	500	17,80
M 5 x 16	K	100	22,60
M 5 x 18	S	500	18,30
M 5 x 18	K	100	23,00
M 5 x 20	S	500	18,30
M 5 x 20	K	100	23,00
M 5 x 22	S	500	43,50
M 5 x 25	S	500	21,20
M 5 x 25	K	100	26,00
M 5 x 30	S	500	22,50
M 5 x 30	K	100	27,50
M 5 x 35	S	200	47,00
M 5 x 40	S	200	47,00
M 5 x 45	S	200	55,00
M 5 x 50	S	200	56,00
M 5 x 55	S	200	87,00
M 5 x 60	S	200	95,00
M 5 x 70	S	200	123,00
M 6 x 8	S	500	58,00
M 6 x 8	K	100	63,00
M 6 x 10	S	500	17,80
M 6 x 10	K	100	22,60
M 6 x 12	S	500	15,90
M 6 x 12	K	100	20,70
M 6 x 14	S	500	27,00
M 6 x 16	S	500	15,50
M 6 x 16	K	100	20,20
M 6 x 18	S	500	16,50
M 6 x 18	K	100	21,30
M 6 x 20	S	500	16,50
M 6 x 20	K	100	21,30
M 6 x 22	S	500	58,00
M 6 x 22	K	100	63,00
M 6 x 25	S	500	18,30
M 6 x 25	K	100	23,00
M 6 x 30	S	500	20,10
M 6 x 30	K	100	24,90
M 6 x 35	S	200	24,20
M 6 x 40	S	200	48,50

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 45	S	200	49,00
M 6 x 50	S	200	55,00
M 6 x 55	S	200	68,00
M 6 x 60	S	200	68,00
M 6 x 70	S	200	130,00
M 6 x 80	S	200	183,00
M 8 x 10	S	200	130,00
M 8 x 12	S	200	38,00
M 8 x 14	S	200	23,50
M 8 x 16	S	200	23,90
M 8 x 18	S	200	20,70
M 8 x 20	S	200	20,70
M 8 x 22	S	200	48,50
M 8 x 25	S	200	21,90
M 8 x 30	S	200	24,00
M 8 x 35	S	200	27,50
M 8 x 40	S	200	28,50
M 8 x 45	S	200	33,50
M 8 x 50	S	200	58,00
M 8 x 55	S	200	69,00
M 8 x 60	S	200	78,00
M 8 x 70	S	200	143,00
M 8 x 80	S	200	183,00
M 8 x 90	S	100	204,00
M 8 x 100	S	100	244,00
M 8 x 110	S	100	285,00
M 8 x 120	S	100	355,00
M 8 x 130	S	100	510,00
M 8 x 140	S	100	610,00
M 8 x 150	S	100	810,00
M 8 x 160	S	100	1020,00
M 10 x 12	S	200	143,00
M 10 x 16	S	200	55,00
M 10 x 18	S	200	47,50
M 10 x 20	S	200	47,50
M 10 x 25	S	200	48,00
M 10 x 30	S	200	49,50
M 10 x 35	S	100	57,00
M 10 x 40	S	100	57,00
M 10 x 45	S	100	61,00
M 10 x 50	S	100	80,00
M 10 x 55	S	100	90,00
M 10 x 60	S	100	124,00
M 10 x 70	S	100	158,00
M 10 x 80	S	100	170,00
M 10 x 90	S	100	255,00
M 10 x 100	S	100	305,00
M 10 x 110	S	100	460,00
M 10 x 120	S	100	510,00
M 10 x 130	S	50	610,00
M 10 x 140	S	50	710,00
M 10 x 150	S	50	1020,00
M 10 x 160	S	50	1120,00
M 12 x 20	S	100	69,00
M 12 x 25	S	100	59,00
M 12 x 30	S	100	59,00
M 12 x 35	S	100	64,00
M 12 x 40	S	100	68,00
M 12 x 45	S	100	77,00
M 12 x 50	S	100	83,00
M 12 x 55	S	100	93,00
M 12 x 60	S	100	137,00
M 12 x 65	S	100	194,00
M 12 x 70	S	50	223,00
M 12 x 80	S	50	260,00
M 12 x 90	S	50	305,00
M 12 x 100	S	50	355,00
M 12 x 110	S	50	405,00
M 12 x 120	S	50	440,00
M 12 x 130	S	50	570,00
M 12 x 140	S	50	630,00
M 12 x 150	S	50	690,00
M 12 x 160	S	50	1380,00
M 12 x 180	S	50	1440,00
M 12 x 200	S	50	1500,00

Dimensions	PU	Pieces	€/100/Mat.
M 14 x 30	S	50	365,00
M 14 x 35	S	50	365,00
M 14 x 40	S	50	355,00
M 14 x 45	S	50	380,00
M 14 x 50	S	50	380,00
M 14 x 55	S	50	400,00
M 14 x 60	S	50	400,00
M 14 x 70	S	50	400,00
M 14 x 80	S	50	400,00
M 16 x 20	S	50	550,00
M 16 x 25	S	50	550,00
M 16 x 30	S	50	157,00
M 16 x 35	S	50	155,00
M 16 x 40	S	50	152,00
M 16 x 45	S	50	161,00
M 16 x 50	S	50	161,00
M 16 x 55	S	50	280,00
M 16 x 60	S	50	174,00
M 16 x 70	S	25	380,00
M 16 x 80	S	25	400,00
M 16 x 90	S	25	425,00
M 16 x 100	S	25	460,00
M 16 x 110	S	25	660,00
M 16 x 120	S	25	720,00
M 16 x 130	S	25	850,00
M 16 x 140	S	25	1000,00
M 16 x 150	S	25	1070,00
M 16 x 160	S	25	1190,00
M 16 x 180	S	25	1320,00
M 16 x 200	S	25	1560,00
M 20 x 40	S	25	580,00
M 20 x 45	S	25	610,00
M 20 x 50	S	25	610,00
M 20 x 60	S	25	690,00
M 20 x 65	S	25	730,00
M 20 x 70	S	25	730,00
M 20 x 80	S	25	800,00
M 20 x 90	S	25	1010,00
M 20 x 100	S	25	1050,00
M 20 x 110	S	25	1080,00
M 20 x 120	S	25	1220,00
M 20 x 130	S	25	1300,00
M 20 x 140	S	25	1330,00
M 20 x 180	S	10	1980,00
M 24 x 40	S	25	1150,00
M 24 x 50	S	25	1220,00
M 24 x 60	S	25	1300,00
M 24 x 70	S	25	1350,00
M 24 x 80	S	25	1440,00
M 24 x 90	S	1	1480,00
M 24 x 100	S	1	1550,00

ROM®
REYHER ORDER MANAGEMENT

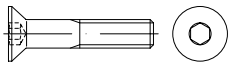
Absolute reliability for Kanban supplies

- Customized Kanban service with combinable modules
- State-of-the-art RFID solutions and barcode-based capture
- Flexible labelling with product images

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
ISO	10642.810	3800

10642 08.8 zinc plated



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. To DIN 7991, sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 587

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 5	S	500	62,00 ZP
M 3 x 6	S	500	62,00 ZP
M 3 x 8	S	500	37,50 ZP
M 3 x 10	S	500	32,00 ZP
M 3 x 12	S	500	32,00 ZP
M 3 x 16	S	500	32,50 ZP
M 3 x 18	S	500	34,50 ZP
M 3 x 20	S	500	41,50 ZP
M 3 x 25	S	500	40,50 ZP
M 3 x 30	S	500	43,50 ZP
M 4 x 6	S	500	44,50 ZP
M 4 x 8	S	500	36,00 ZP
M 4 x 8	K	100	40,50 ZP
M 4 x 10	S	500	28,00 ZP
M 4 x 10	K	100	32,50 ZP
M 4 x 12	S	500	28,00 ZP
M 4 x 12	K	100	33,00 ZP
M 4 x 14	S	500	28,00 ZP
M 4 x 16	S	500	32,00 ZP
M 4 x 16	K	100	36,50 ZP
M 4 x 18	S	500	32,50 ZP
M 4 x 20	S	500	32,50 ZP
M 4 x 22	S	500	40,00 ZP
M 4 x 25	S	500	36,50 ZP
M 4 x 30	S	500	41,50 ZP
M 4 x 35	S	500	48,00 ZP
M 4 x 40	S	500	79,00 ZP
M 4 x 45	S	500	81,00 ZP
M 4 x 50	S	100	83,00 ZP
M 5 x 6	S	500	36,50 ZP
M 5 x 8	S	500	32,00 ZP
M 5 x 8	K	100	37,00 ZP
M 5 x 10	S	500	17,00 ZP
M 5 x 10	K	100	21,70 ZP
M 5 x 12	S	500	18,10 ZP
M 5 x 12	K	100	23,20 ZP
M 5 x 14	S	500	18,60 ZP
M 5 x 16	S	500	18,70 ZP
M 5 x 16	K	100	23,60 ZP
M 5 x 18	S	500	19,50 ZP
M 5 x 20	S	500	19,50 ZP
M 5 x 20	K	100	24,30 ZP
M 5 x 22	S	500	46,00 ZP
M 5 x 25	S	500	22,90 ZP
M 5 x 30	S	500	24,30 ZP
M 5 x 35	S	200	50,00 ZP
M 5 x 40	S	200	51,00 ZP
M 5 x 45	S	200	58,00 ZP
M 5 x 50	S	200	61,00 ZP
M 5 x 55	S	200	93,00 ZP
M 5 x 60	S	200	101,00 ZP
M 5 x 70	S	200	130,00 ZP
M 5 x 80	S	100	146,00 ZP
M 6 x 8	S	500	60,00 ZP
M 6 x 10	S	500	18,70 ZP
M 6 x 10	K	100	23,60 ZP
M 6 x 12	S	500	17,00 ZP
M 6 x 12	K	100	22,10 ZP
M 6 x 14	S	500	28,50 ZP
M 6 x 16	S	500	16,90 ZP
M 6 x 16	K	100	21,70 ZP
M 6 x 18	S	500	18,10 ZP
M 6 x 20	S	500	18,20 ZP
M 6 x 20	K	100	23,20 ZP
M 6 x 22	S	500	60,00 ZP
M 6 x 25	S	500	20,30 ZP
M 6 x 25	K	100	25,00 ZP
M 6 x 30	S	500	22,50 ZP
M 6 x 30	K	100	27,50 ZP
M 6 x 35	S	200	27,00 ZP
M 6 x 40	S	200	53,00 ZP
M 6 x 45	S	200	55,00 ZP
M 6 x 50	S	200	61,00 ZP
M 6 x 55	S	200	75,00 ZP
M 6 x 60	S	200	75,00 ZP
M 6 x 65	S	200	89,00 ZP
M 6 x 70	S	200	141,00 ZP
M 6 x 75	S	100	195,00 ZP
M 6 x 80	S	200	195,00 ZP
M 6 x 90	S	200	250,00 ZP
M 6 x 100	S	100	305,00 ZP
M 6 x 120	S	100	415,00 ZP
M 8 x 10	S	200	134,00 ZP
M 8 x 12	S	200	40,50 ZP
M 8 x 14	S	200	26,50 ZP
M 8 x 16	S	200	27,00 ZP
M 8 x 18	S	200	23,90 ZP
M 8 x 20	S	200	24,30 ZP
M 8 x 22	S	200	26,00 ZP
M 8 x 25	S	200	26,00 ZP
M 8 x 30	S	200	29,00 ZP
M 8 x 35	S	200	33,00 ZP
M 8 x 40	S	200	34,50 ZP
M 8 x 45	S	200	40,50 ZP
M 8 x 50	S	200	69,00 ZP
M 8 x 55	S	200	81,00 ZP
M 8 x 60	S	200	91,00 ZP
M 8 x 65	S	100	105,00 ZP
M 8 x 70	S	200	160,00 ZP
M 8 x 80	S	200	206,00 ZP
M 8 x 90	S	200	229,00 ZP
M 8 x 100	S	200	275,00 ZP
M 8 x 110	S	100	320,00 ZP
M 8 x 120	S	100	390,00 ZP
M 8 x 130	S	100	540,00 ZP
M 8 x 140	S	100	640,00 ZP
M 8 x 150	S	100	850,00 ZP
M 10 x 12	S	200	151,00 ZP
M 10 x 16	S	200	60,00 ZP
M 10 x 18	S	200	53,00 ZP
M 10 x 20	S	200	53,00 ZP
M 10 x 25	S	200	55,00 ZP
M 10 x 30	S	200	57,00 ZP
M 10 x 35	S	100	65,00 ZP
M 10 x 40	S	100	66,00 ZP
M 10 x 45	S	100	72,00 ZP
M 10 x 50	S	100	95,00 ZP
M 10 x 55	S	100	109,00 ZP
M 10 x 60	S	100	144,00 ZP
M 10 x 70	S	100	181,00 ZP
M 10 x 80	S	100	195,00 ZP
M 10 x 90	S	100	285,00 ZP
M 10 x 100	S	100	345,00 ZP
M 10 x 110	S	100	500,00 ZP
M 10 x 120	S	100	560,00 ZP
M 10 x 130	S	50	660,00 ZP
M 10 x 140	S	50	760,00 ZP
M 10 x 150	S	50	1070,00 ZP
M 10 x 160	S	50	1180,00 ZP
M 12 x 20	S	100	78,00 ZP
M 12 x 25	S	100	68,00 ZP
M 12 x 30	S	100	69,00 ZP
M 12 x 35	S	100	77,00 ZP
M 12 x 40	S	100	81,00 ZP
M 12 x 45	S	100	91,00 ZP
M 12 x 50	S	100	99,00 ZP
M 12 x 55	S	100	111,00 ZP
M 12 x 60	S	100	171,00 ZP
M 12 x 65	S	100	229,00 ZP
M 12 x 70	S	50	260,00 ZP
M 12 x 80	S	50	300,00 ZP
M 12 x 90	S	50	350,00 ZP
M 12 x 100	S	50	410,00 ZP
M 12 x 110	S	50	465,00 ZP
M 12 x 120	S	50	500,00 ZP
M 12 x 130	S	50	640,00 ZP
M 12 x 140	S	50	700,00 ZP
M 12 x 150	S	50	770,00 ZP
M 12 x 160	S	50	1460,00 ZP
M 12 x 180	S	50	1530,00 ZP
M 12 x 200	S	50	1600,00 ZP
M 14 x 30	S	50	390,00 ZP
M 14 x 35	S	50	390,00 ZP
M 14 x 40	S	50	385,00 ZP
M 14 x 45	S	50	415,00 ZP
M 14 x 50	S	50	415,00 ZP
M 14 x 55	S	50	420,00 ZP
M 14 x 60	S	50	420,00 ZP
M 16 x 20	S	50	570,00 ZP
M 16 x 25	S	50	580,00 ZP
M 16 x 30	S	50	170,00 ZP
M 16 x 35	S	50	177,00 ZP
M 16 x 40	S	50	176,00 ZP
M 16 x 45	S	50	189,00 ZP
M 16 x 50	S	50	193,00 ZP
M 16 x 55	S	50	325,00 ZP
M 16 x 60	S	50	195,00 ZP
M 16 x 65	S	25	390,00 ZP
M 16 x 70	S	25	445,00 ZP
M 16 x 80	S	25	475,00 ZP
M 16 x 90	S	25	500,00 ZP
M 16 x 100	S	25	550,00 ZP
M 16 x 110	S	25	760,00 ZP
M 16 x 120	S	25	830,00 ZP
M 16 x 130	S	25	970,00 ZP
M 16 x 140	S	25	1140,00 ZP
M 16 x 150	S	25	1210,00 ZP
M 16 x 160	S	25	1340,00 ZP
M 16 x 180	S	25	1480,00 ZP
M 16 x 200	S	25	1750,00 ZP
M 20 x 35	S	25	660,00 ZP
M 20 x 40	S	25	640,00 ZP
M 20 x 45	S	25	670,00 ZP
M 20 x 50	S	25	680,00 ZP
M 20 x 55	S	25	770,00 ZP
M 20 x 60	S	25	770,00 ZP
M 20 x 70	S	25	830,00 ZP
M 20 x 80	S	25	910,00 ZP
M 20 x 90	S	25	1130,00 ZP
M 20 x 100	S	25	1190,00 ZP
M 20 x 110	S	25	1270,00 ZP
M 20 x 120	S	25	1430,00 ZP
M 20 x 130	S	25	1520,00 ZP
M 20 x 140	S	25	1570,00 ZP
M 20 x 150	S	25	1740,00 ZP
M 20 x 160	S	10	2100,00 ZP
M 20 x 180	S	10	2320,00 ZP
M 20 x 200	S	10	2460,00 ZP
M 24 x 40	S	25	1250,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	50	S	25	1340,00 ZP
M 24	x	60	S	25	1450,00 ZP
M 24	x	70	S	25	1510,00 ZP
M 24	x	80	S	25	1620,00 ZP
M 24	x	90	S	1	1690,00 ZP
M 24	x	100	S	1	1800,00 ZP

ISO	10642.316	3800

10642 08.8 zinc plated 8 TLP*



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. to DIN 7991, sometimes thread up to head.
*< M 6 min. coating thickness 5µm, salt spray test: 72h WR, 120h RR

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 587

RoHS ✓ | REACh SVHC free

M 4	x	10	S	500	35,00 ZP TLP
M 4	x	12	S	500	35,50 ZP TLP
M 4	x	16	S	500	40,50 ZP TLP
M 5	x	10	S	500	21,30 ZP TLP
M 5	x	12	S	500	23,00 ZP TLP
M 5	x	16	S	500	24,00 ZP TLP
M 5	x	20	S	500	24,90 ZP TLP
M 6	x	10	S	500	24,00 ZP TLP
M 6	x	12	S	500	21,60 ZP TLP
M 6	x	16	S	500	21,30 ZP TLP
M 6	x	20	S	500	22,80 ZP TLP
M 6	x	25	S	500	26,00 ZP TLP
M 8	x	12	S	200	52,00 ZP TLP
M 8	x	16	S	200	34,00 ZP TLP
M 8	x	20	S	200	30,50 ZP TLP
M 8	x	25	S	200	32,50 ZP TLP
M 8	x	30	S	200	36,00 ZP TLP
M 8	x	35	S	200	41,50 ZP TLP
M 8	x	40	S	200	43,50 ZP TLP
M 10	x	12	S	200	188,00 ZP TLP
M 10	x	20	S	200	67,00 ZP TLP
M 10	x	25	S	200	68,00 ZP TLP
M 10	x	30	S	200	71,00 ZP TLP
M 10	x	35	S	100	81,00 ZP TLP
M 10	x	40	S	100	82,00 ZP TLP
M 12	x	20	S	100	97,00 ZP TLP
M 12	x	25	S	100	85,00 ZP TLP
M 12	x	30	S	100	87,00 ZP TLP
M 12	x	35	S	100	96,00 ZP TLP
M 12	x	40	S	100	101,00 ZP TLP
M 12	x	50	S	100	107,00 ZP TLP

Dimensions	PU	Pieces	€/100/Mat.
~ISO	10642.814		1000

10642 08.8 zinc plated ISR



Hexalobular socket countersunk head screws, ISR = hexalobular socket

~ISO 14581

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

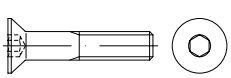
further dimensions with hexalobular socket ➔ ISO 14581

RoHS ✓ | REACh SVHC free

M 4	x	8 -T20	S	500	30,50 ZP
M 4	x	10 -T20	S	500	31,00 ZP
M 4	x	12 -T20	S	500	31,00 ZP
M 4	x	16 -T20	S	500	35,50 ZP
M 4	x	20 -T20	S	500	36,00 ZP
M 4	x	22 -T20	S	500	38,00 ZP
M 4	x	25 -T20	S	500	37,00 ZP
M 5	x	8 -T25	S	500	18,20 ZP
M 5	x	10 -T25	S	500	19,00 ZP
M 5	x	12 -T25	S	500	20,10 ZP
M 5	x	16 -T25	S	500	20,80 ZP
M 5	x	20 -T25	S	500	21,60 ZP
M 5	x	25 -T25	S	500	25,50 ZP
M 6	x	10 -T30	S	500	20,80 ZP
M 6	x	12 -T30	S	500	18,90 ZP
M 6	x	16 -T30	S	500	18,70 ZP
M 6	x	20 -T30	S	500	20,20 ZP
M 6	x	25 -T30	S	500	22,50 ZP
M 6	x	30 -T30	S	200	24,90 ZP
M 6	x	35 -T30	S	200	27,50 ZP
M 8	x	16 -T40	S	200	30,00 ZP
M 8	x	20 -T40	S	200	27,00 ZP
M 8	x	25 -T40	S	200	29,00 ZP
M 8	x	30 -T40	S	200	32,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	10642.100		3800

10642 010.9



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. to DIN 7991, sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

Stainless ➔ pg. 587

RoHS ✓ | REACh SVHC free

M 3	x	6	S	500	62,00
M 3	x	8	S	500	37,00
M 3	x	10	S	500	31,50
M 3	x	12	S	500	31,50
M 3	x	16	S	500	31,50
M 3	x	20	S	500	40,50
M 3	x	25	S	500	39,50
M 3	x	30	S	500	42,50
M 4	x	6	S	500	43,50
M 4	x	8	S	500	35,50
M 4	x	10	S	500	27,50
M 4	x	12	S	500	27,50
M 4	x	14	S	500	31,00
M 4	x	16	S	500	31,00
M 4	x	20	S	500	32,00
M 4	x	25	S	500	35,50
M 4	x	30	S	500	40,00
M 4	x	35	S	500	46,00
M 4	x	40	S	500	77,00
M 5	x	8	S	500	31,50
M 5	x	10	S	500	16,20
M 5	x	12	S	500	17,30
M 5	x	14	S	500	31,00
M 5	x	16	S	500	17,80
M 5	x	18	S	500	18,30
M 5	x	20	S	500	18,30
M 5	x	22	S	500	43,50
M 5	x	25	S	500	21,20
M 5	x	30	S	500	22,50
M 5	x	35	S	200	47,00
M 5	x	40	S	200	47,00
M 5	x	45	S	200	55,00
M 5	x	50	S	200	56,00
M 6	x	8	S	500	58,00
M 6	x	10	S	500	17,80
M 6	x	12	S	500	15,90
M 6	x	14	S	500	27,00
M 6	x	16	S	500	15,50
M 6	x	18	S	500	16,50
M 6	x	20	S	500	16,50
M 6	x	22	S	500	58,00
M 6	x	25	S	500	18,30
M 6	x	30	S	500	20,10
M 6	x	35	S	200	24,20
M 6	x	40	S	200	48,50
M 6	x	45	S	200	49,00
M 6	x	50	S	200	55,00
M 6	x	55	S	200	68,00
M 6	x	60	S	200	68,00

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	70	S	200	130,00
M 6	x	80	S	200	183,00
M 8	x	10	S	200	130,00
M 8	x	12	S	200	38,00
M 8	x	14	S	200	23,90
M 8	x	16	S	200	23,90
M 8	x	18	S	200	20,70
M 8	x	20	S	200	20,70
M 8	x	22	S	200	48,50
M 8	x	25	S	200	21,90
M 8	x	30	S	200	24,00
M 8	x	35	S	200	27,50
M 8	x	40	S	200	28,50
M 8	x	45	S	200	33,50
M 8	x	50	S	200	58,00
M 8	x	55	S	200	69,00
M 8	x	60	S	200	78,00
M 8	x	70	S	200	143,00
M 8	x	80	S	200	183,00
M 8	x	90	S	200	204,00
M 8	x	100	S	200	244,00
M 8	x	120	S	200	355,00
M 8	x	130	S	100	510,00
M 8	x	140	S	100	610,00
M 8	x	160	S	100	1020,00
M 10	x	12	S	200	143,00
M 10	x	16	S	200	55,00
M 10	x	18	S	200	47,50
M 10	x	20	S	200	47,50
M 10	x	25	S	200	48,00
M 10	x	30	S	200	49,50
M 10	x	35	S	100	57,00
M 10	x	40	S	100	57,00
M 10	x	45	S	100	61,00
M 10	x	50	S	100	80,00
M 10	x	55	S	100	90,00
M 10	x	60	S	100	124,00
M 10	x	70	S	100	158,00
M 10	x	80	S	100	170,00
M 10	x	90	S	100	255,00
M 10	x	100	S	100	305,00
M 10	x	110	S	100	460,00
M 10	x	120	S	50	510,00
M 10	x	130	S	50	610,00
M 10	x	140	S	50	710,00
M 10	x	150	S	50	1020,00
M 12	x	20	S	100	69,00
M 12	x	25	S	100	59,00
M 12	x	30	S	100	59,00
M 12	x	35	S	100	64,00
M 12	x	40	S	100	68,00
M 12	x	45	S	100	77,00
M 12	x	50	S	100	83,00
M 12	x	55	S	100	93,00
M 12	x	60	S	100	182,00
M 12	x	70	S	50	223,00
M 12	x	80	S	50	260,00
M 12	x	90	S	50	305,00
M 12	x	100	S	50	355,00
M 12	x	110	S	50	405,00
M 12	x	120	S	50	440,00
M 12	x	130	S	50	570,00
M 12	x	140	S	50	630,00
M 12	x	160	S	50	1380,00
M 12	x	180	S	50	1440,00
M 12	x	200	S	50	1500,00
M 14	x	30	S	50	365,00
M 14	x	35	S	50	365,00
M 14	x	40	S	50	355,00
M 14	x	45	S	50	380,00
M 14	x	50	S	50	380,00
M 14	x	55	S	50	400,00
M 14	x	60	S	50	400,00
M 14	x	80	S	50	400,00
M 16	x	20	S	50	550,00

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	25	S	50	550,00
M 16	x	30	S	50	157,00
M 16	x	35	S	50	155,00
M 16	x	40	S	50	152,00
M 16	x	45	S	50	161,00
M 16	x	50	S	50	161,00
M 16	x	55	S	50	280,00
M 16	x	60	S	50	174,00
M 16	x	70	S	25	380,00
M 16	x	80	S	25	400,00
M 16	x	90	S	25	425,00
M 16	x	100	S	25	460,00
M 16	x	110	S	25	660,00
M 16	x	120	S	25	720,00
M 16	x	130	S	25	850,00
M 16	x	140	S	25	1000,00
M 16	x	180	S	25	1320,00
M 20	x	30	S	25	1220,00
M 20	x	35	S	25	610,00
M 20	x	40	S	25	580,00
M 20	x	45	S	25	610,00
M 20	x	50	S	25	610,00
M 20	x	55	S	25	690,00
M 20	x	60	S	25	690,00
M 20	x	70	S	25	730,00
M 20	x	80	S	25	800,00
M 20	x	90	S	25	1010,00
M 20	x	100	S	25	1050,00
M 20	x	110	S	25	1080,00
M 20	x	120	S	25	1220,00
M 20	x	130	S	25	1300,00
M 20	x	140	S	25	1330,00
M 20	x	150	S	25	1480,00
M 20	x	160	S	10	1790,00
M 20	x	170	S	10	1980,00
M 20	x	180	S	10	1980,00
M 20	x	200	S	1	2100,00
M 20	x	220	S	1	2430,00
M 20	x	240	S	1	2800,00
M 22	x	60	S	25	4250,00
M 22	x	80	S	25	4750,00
M 22	x	100	S	10	5300,00
M 24	x	40	S	25	1150,00
M 24	x	50	S	25	1220,00
M 24	x	60	S	25	1300,00
M 24	x	70	S	25	1350,00
M 24	x	80	S	25	1440,00
M 24	x	90	S	1	1480,00
M 24	x	100	S	1	1550,00
M 24	x	110	S	1	1950,00
M 24	x	120	S	1	2040,00
M 24	x	130	S	1	2260,00
M 24	x	140	S	1	2410,00
M 24	x	150	S	1	2550,00
M 24	x	160	S	1	2750,00
M 24	x	170	S	1	3100,00
M 24	x	180	S	1	3100,00

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	200	S	1	3400,00
M 24	x	240	S	1	4750,00

ISO	10642.110	3800

10642 010.9 zinc plated



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. to DIN 7991, sometimes thread up to head, baked

Caution!
Screws have only a reduced loadability.
Note information about hydrogen embrittlement.

Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246
Stainless ➔ pg. 587

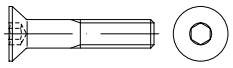
RoHS ✓ | REACh SVHC free

M 3	x	6	S	500	62,00 ZP
M 3	x	8	S	500	37,50 ZP
M 3	x	10	S	500	32,50 ZP
M 3	x	12	S	500	32,50 ZP
M 3	x	16	S	500	32,50 ZP
M 3	x	20	S	500	41,00 ZP
M 3	x	25	S	500	40,50 ZP
M 3	x	30	S	500	44,50 ZP
M 4	x	6	S	500	44,00 ZP
M 4	x	8	S	500	36,00 ZP
M 4	x	10	S	500	28,00 ZP
M 4	x	12	S	500	28,50 ZP
M 4	x	14	S	500	32,00 ZP
M 4	x	16	S	500	32,00 ZP
M 4	x	20	S	500	33,00 ZP
M 4	x	25	S	500	37,50 ZP
M 4	x	30	S	500	42,00 ZP
M 4	x	35	S	500	61,00 ZP
M 4	x	40	S	500	79,00 ZP
M 5	x	8	S	500	32,50 ZP
M 5	x	10	S	500	17,50 ZP
M 5	x	12	S	500	18,50 ZP
M 5	x	14	S	500	32,50 ZP
M 5	x	16	S	500	19,30 ZP
M 5	x	20	S	500	20,10 ZP
M 5	x	25	S	500	23,40 ZP
M 5	x	30	S	500	25,50 ZP
M 5	x	35	S	200	50,00 ZP
M 5	x	40	S	200	51,00 ZP
M 5	x	45	S	200	59,00 ZP
M 6	x	8	S	500	59,00 ZP
M 6	x	10	S	500	19,20 ZP
M 6	x	12	S	500	17,70 ZP
M 6	x	14	S	500	29,00 ZP
M 6	x	16	S	500	18,10 ZP
M 6	x	18	S	500	18,90 ZP
M 6	x	20	S	500	19,00 ZP
M 6	x	22	S	500	60,00 ZP
M 6	x	25	S	500	21,40 ZP
M 6	x	30	S	500	23,60 ZP
M 6	x	35	S	200	28,50 ZP
M 6	x	40	S	200	54,00 ZP
M 6	x	45	S	200	54,00 ZP
M 6	x	50	S	200	60,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	55	S	200	73,00 ZP
M 6	x	60	S	200	91,00 ZP
M 6	x	70	S	200	158,00 ZP
M 6	x	80	S	200	201,00 ZP
M 8	x	10	S	200	135,00 ZP
M 8	x	12	S	200	42,00 ZP
M 8	x	16	S	200	29,00 ZP
M 8	x	18	S	200	27,00 ZP
M 8	x	20	S	200	27,00 ZP
M 8	x	25	S	200	29,00 ZP
M 8	x	30	S	200	32,50 ZP
M 8	x	35	S	200	36,50 ZP
M 8	x	40	S	200	38,50 ZP
M 8	x	45	S	200	45,50 ZP
M 8	x	50	S	200	72,00 ZP
M 8	x	55	S	200	84,00 ZP
M 8	x	60	S	200	95,00 ZP
M 8	x	70	S	200	160,00 ZP
M 8	x	80	S	200	200,00 ZP
M 10	x	16	S	200	63,00 ZP
M 10	x	20	S	200	58,00 ZP
M 10	x	25	S	200	60,00 ZP
M 10	x	30	S	200	63,00 ZP
M 10	x	35	S	100	71,00 ZP
M 10	x	40	S	100	73,00 ZP
M 10	x	45	S	100	79,00 ZP
M 10	x	50	S	100	100,00 ZP
M 10	x	60	S	100	148,00 ZP
M 10	x	70	S	100	182,00 ZP
M 10	x	80	S	100	194,00 ZP
M 10	x	90	S	100	280,00 ZP
M 10	x	100	S	100	345,00 ZP
M 10	x	110	S	100	520,00 ZP
M 12	x	20	S	100	84,00 ZP
M 12	x	25	S	100	76,00 ZP
M 12	x	30	S	100	78,00 ZP
M 12	x	35	S	100	86,00 ZP
M 12	x	40	S	100	92,00 ZP
M 12	x	45	S	100	103,00 ZP
M 12	x	50	S	100	112,00 ZP
M 12	x	60	S	100	218,00 ZP
M 12	x	65	S	50	230,00 ZP
M 12	x	70	S	50	265,00 ZP
M 12	x	80	S	50	310,00 ZP
M 12	x	90	S	50	355,00 ZP
M 16	x	25	S	50	590,00 ZP
M 16	x	30	S	50	194,00 ZP
M 16	x	35	S	50	200,00 ZP
M 16	x	40	S	50	200,00 ZP
M 16	x	45	S	50	212,00 ZP
M 16	x	50	S	50	218,00 ZP
M 16	x	55	S	50	340,00 ZP
M 16	x	60	S	50	242,00 ZP
M 16	x	70	S	25	455,00 ZP
M 16	x	80	S	25	485,00 ZP
M 16	x	90	S	25	530,00 ZP
M 16	x	100	S	25	570,00 ZP
M 16	x	110	S	25	770,00 ZP
M 20	x	30	S	25	1290,00 ZP
M 20	x	35	S	25	680,00 ZP
M 20	x	40	S	25	650,00 ZP
M 20	x	50	S	25	700,00 ZP
M 20	x	60	S	25	790,00 ZP
M 20	x	70	S	25	850,00 ZP
M 20	x	80	S	25	940,00 ZP
M 20	x	90	S	25	560,00 ZP
M 20	x	100	S	25	1230,00 ZP
M 20	x	110	S	25	1260,00 ZP
M 20	x	120	S	25	1390,00 ZP
M 20	x	130	S	25	1480,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	10642.397		3800

10642 010.9 flZnL480h



Hexagon socket countersunk head screws

flZnL = int. lubricant with μ = 0,12 – 0,18, salt spray test: 480h RR, Cr(VI)-free, sometimes thread up to head

Caution! Screws have only a reduced loadability.

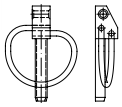
Dimensions ➔ TI-14
Material properties ➔ TI-232
Corrosion protection ➔ TI-230
Tightening torque ➔ TI-246
Stainless ➔ pg. 587

RoHS ✓ REACh SVHC free

M 6	x	10	S	200	103,00 flZn
M 8	x	20	S	200	120,00 flZn
M 8	x	22	S	200	135,00 flZn
M 8	x	25	S	200	141,00 flZn
M 8	x	30	S	200	164,00 flZn
M 8	x	35	S	200	180,00 flZn
M 8	x	40	S	200	199,00 flZn
M 8	x	45	S	200	226,00 flZn
M 8	x	50	S	200	247,00 flZn
M 8	x	60	S	200	300,00 flZn
M 10	x	20	S	200	203,00 flZn
M 10	x	25	S	200	217,00 flZn
M 10	x	30	S	200	260,00 flZn
M 10	x	35	S	100	310,00 flZn
M 10	x	40	S	100	340,00 flZn
M 10	x	45	S	100	365,00 flZn
M 10	x	50	S	100	420,00 flZn
M 10	x	60	S	100	520,00 flZn
M 12	x	20	S	100	330,00 flZn
M 12	x	25	S	100	345,00 flZn
M 12	x	30	S	100	415,00 flZn
M 12	x	35	S	100	420,00 flZn
M 12	x	40	S	100	480,00 flZn
M 12	x	45	S	100	560,00 flZn
M 12	x	50	S	100	570,00 flZn
M 12	x	60	S	100	710,00 flZn
M 12	x	70	S	50	770,00 flZn
M 12	x	80	S	50	970,00 flZn
M 16	x	30	S	50	770,00 flZn
M 16	x	35	S	50	780,00 flZn
M 16	x	40	S	50	780,00 flZn
M 16	x	45	S	50	1000,00 flZn
M 16	x	50	S	50	1010,00 flZn
M 16	x	60	S	50	1020,00 flZn
M 16	x	70	S	25	1420,00 flZn
M 16	x	80	S	25	1520,00 flZn
M 16	x	100	S	25	1700,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
DIN	11023.080		770

11023 Steel zinc plated 8 TLP



Linch pins, with third hole for security chain

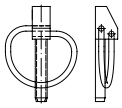
Dimensions ➔ TI-123
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

5	x	32	S	50	96,00 ZP TLP
6	x	42	S	50	99,00 ZP TLP
8	x	42	S	50	105,00 ZP TLP
10	x	45	S	50	112,00 ZP TLP
12	x	45	S	50	140,00 ZP TLP
12	x	55	S	50	146,00 ZP TLP
17	x	60	S	50	255,00 ZP TLP

~DIN	11023.010	770

11023 Steel zinc plated



Linch pins, without third hole

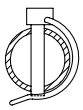
Dimensions ➔ TI-123
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

4,5	x	42	S	50	79,00 ZP
6	x	42	S	50	85,00 ZP
8	x	42	S	50	86,00 ZP
10	x	42	S	50	92,00 ZP

article	88023.010	770

88023 Steel zinc plated



Linch pins for tubes

Dimensions ➔ TI-123
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

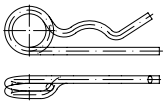
pin ∅ A x pin length B x C						
6	x	40	x	22	S	50	305,00 ZP
6	x	45	x	22	S	50	310,00 ZP
8	x	40	x	22	S	50	315,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions					PU	Pieces	€/100/Mat.
8	x	50	x	25	S	50	325,00 ZP
10	x	50	x	25	S	50	335,00 ZP
10	x	60	x	32	S	25	345,00 ZP

DIN 11024.010 770

11024 Steel zinc plated



Spring cotters for a bolt

Dimensions ➔ TI-123 Corrosion protection ➔ TI-228

Stainless ➔ pg. 589

RoHS ✓ REACh SVHC free

for hole ∅ (tol. H13) / shaft ∅ from - to			
2,5 / 9 -11,2	S	200	31,50 ZP
3,2 / 11,3-14	S	200	42,00 ZP
4 / 14,1-20	S	100	57,00 ZP
5 / 20,1-26	S	100	89,00 ZP
6,3 / 26,1-34	S	50	146,00 ZP
7 / 34,1-45	S	25	221,00 ZP
8 / 45,1-56	S	25	280,00 ZP

~DIN 11024.012 770

11024 Steel zinc plated



Spring cotters for a bolt, single type

~DIN 11024

Dimensions ➔ TI-123 Corrosion protection ➔ TI-228

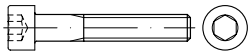
Stainless ➔ pg. 589

RoHS ✓ REACh SVHC free

wire ∅			
2	S	200	34,00 ZP
3	S	200	38,00 ZP
4	S	100	45,00 ZP
5	S	100	65,00 ZP
6	S	50	89,00 ZP
7	S	25	108,00 ZP
8	S	25	128,00 ZP

ISO 12474.800 364

12474 8.8



Hexagon socket head cap screws with metrical fine pitch thread

Dimensions ➔ TI-12 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

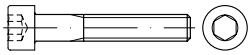
ISO 12474 ➔ replaces DIN 912 fine thread (compatible)

RoHS ✓ REACh SVHC free

M 8	x	1	x	12	S	200	138,00
M 8	x	1	x	16	S	200	143,00
M 8	x	1	x	20	S	200	148,00
M 8	x	1	x	25	S	200	152,00
M 8	x	1	x	30	S	200	158,00
M 10	x	1	x	16	S	200	102,00
M 10	x	1	x	20	S	200	110,00
M 10	x	1,25	x	20	S	200	85,00
M 10	x	1	x	25	S	200	121,00
M 10	x	1,25	x	25	S	200	121,00
M 10	x	1	x	30	S	200	126,00
M 10	x	1,25	x	30	S	200	126,00
M 10	x	1	x	40	S	100	138,00
M 10	x	1,25	x	40	S	100	138,00
M 10	x	1	x	50	S	100	149,00
M 10	x	1	x	60	S	100	160,00
M 10	x	1	x	70	S	100	171,00
M 10	x	1	x	80	S	100	184,00
M 10	x	1	x	90	S	100	199,00
M 10	x	1	x	100	S	100	209,00
M 12	x	1,5	x	20	S	100	140,00
M 12	x	1,5	x	25	S	100	157,00
M 12	x	1,5	x	30	S	100	167,00
M 12	x	1,5	x	35	S	100	182,00
M 12	x	1,25	x	40	S	100	242,00
M 12	x	1,5	x	40	S	100	195,00
M 12	x	1,5	x	50	S	100	212,00
M 14	x	1,5	x	30	S	100	223,00
M 14	x	1,5	x	35	S	100	255,00
M 14	x	1,5	x	40	S	100	270,00
M 14	x	1,5	x	45	S	50	285,00
M 16	x	1,5	x	30	S	50	335,00
M 16	x	1,5	x	35	S	50	355,00
M 16	x	1,5	x	40	S	50	390,00
M 16	x	1,5	x	45	S	50	410,00
M 16	x	1,5	x	50	S	50	450,00
M 16	x	1,5	x	55	S	50	485,00
M 16	x	1,5	x	60	S	50	520,00
M 16	x	1,5	x	70	S	25	580,00

ISO 12474.200 364

12474 12.9



Hexagon socket head cap screws with metric fine pitch thread

Dimensions ➔ TI-12 Tightening torque ➔ TI-244
Material properties ➔ TI-232 Standard conversion ➔ TI-6

ISO 12474 ➔ replaces DIN 912 fine thread (compatible)

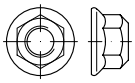
RoHS ✓ REACh SVHC free

M 8	x	1,25	x	20	S	200	165,00
M 8	x	1,25	x	25	S	200	170,00
M 8	x	1	x	30	S	200	204,00
M 8	x	1	x	35	S	200	236,00
M 10	x	1,25	x	20	S	200	128,00
M 10	x	1,25	x	25	S	200	134,00
M 10	x	1	x	30	S	200	163,00
M 10	x	1,25	x	30	S	200	163,00
M 10	x	1	x	35	S	100	213,00
M 10	x	1	x	40	S	100	205,00
M 10	x	1,25	x	40	S	100	205,00
M 10	x	1	x	45	S	100	223,00
M 10	x	1	x	50	S	100	235,00
M 10	x	1,25	x	50	S	100	235,00
M 10	x	1	x	60	S	100	255,00
M 10	x	1,25	x	60	S	100	285,00
M 10	x	1	x	70	S	100	265,00
M 10	x	1	x	80	S	100	275,00
M 10	x	1	x	90	S	100	280,00
M 10	x	1	x	100	S	100	355,00
M 12	x	1,5	x	30	S	100	205,00
M 12	x	1,5	x	35	S	100	223,00
M 12	x	1,5	x	40	S	100	235,00
M 12	x	1,5	x	50	S	100	275,00
M 12	x	1,5	x	60	S	100	320,00
M 10	x	1,5	x	65	S	100	345,00
M 12	x	1,5	x	70	S	50	345,00
M 12	x	1,5	x	80	S	50	370,00
M 14	x	1,5	x	35	S	100	300,00
M 14	x	1,5	x	40	S	100	325,00
M 14	x	1,5	x	45	S	50	355,00
M 14	x	1,5	x	50	S	50	385,00
M 14	x	1,5	x	60	S	50	415,00
M 14	x	1,5	x	80	S	50	445,00
M 14	x	1,5	x	100	S	25	485,00
M 16	x	1,5	x	30	S	50	390,00
M 16	x	1,5	x	35	S	50	410,00
M 16	x	1,5	x	40	S	50	450,00
M 16	x	1,5	x	45	S	50	485,00
M 16	x	1,5	x	50	S	50	520,00
M 16	x	1,5	x	60	S	50	610,00
M 16	x	1,5	x	70	S	25	700,00
M 16	x	1,5	x	80	S	25	760,00
M 16	x	1,5	x	90	S	25	860,00
M 16	x	1,5	x	100	S	25	860,00
M 16	x	1,5	x	110	S	25	910,00
M 16	x	1,5	x	120	S	25	940,00
M 16	x	1,5	x	130	S	25	1010,00
M 16	x	1,5	x	140	S	25	1060,00
M 16	x	1,5	x	150	S	25	1110,00
M 16	x	1,5	x	160	S	25	1150,00
M 20	x	1,5	x	40	S	25	760,00
M 20	x	1,5	x	45	S	25	850,00
M 20	x	1,5	x	50	S	25	850,00

Dimensions						PU	Pieces	€/100/Mat.
M 20	x	1,5	x	55		S	25	940,00
M 20	x	1,5	x	60		S	25	940,00
M 20	x	1,5	x	70		S	25	1050,00
M 20	x	1,5	x	80		S	25	1140,00
M 20	x	1,5	x	90		S	25	1280,00
M 20	x	1,5	x	100		S	25	1410,00
M 24	x	1,5	x	50		S	25	1630,00
M 24	x	2	x	50		S	25	1190,00
M 24	x	2	x	55		S	25	1360,00
M 24	x	1,5	x	60		S	25	1980,00
M 24	x	2	x	60		S	25	1360,00
M 24	x	1,5	x	70		S	25	2230,00
M 24	x	2	x	70		S	25	1510,00
M 24	x	2	x	80		S	25	1670,00
M 24	x	2	x	90		S	10	1840,00
M 24	x	2	x	100		S	10	2040,00

article	13023.130	980

13023 10 zinc flake coated



Prevailing torque type hexagon nuts with flange (all-metal), acc. to MBN 13023

coating acc. to DBL 9440.40

matching hexagon head bolts with flange ➔ article 10105

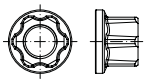
Dimensions ➔ TI-69 Corrosion protection ➔ TI-230
Material properties ➔ TI-232

RoHS ✓ REACh SVHC free

M 12	x	1,5	S	200	141,00 flZn
M 14	x	1,5	S	50	199,00 flZn
M 16	x	1,5	S	50	275,00 flZn

article	13024.130	980

13024 10 zinc flake coated



Lightweight construction nuts with flange

coating acc. to DBL 9440.89

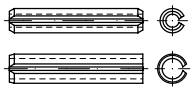
Dimensions ➔ TI-65 Corrosion protection ➔ TI-230
Material properties ➔ TI-232

RoHS ✓ REACh SVHC free

M 16	x	1,5	S	300	345,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
ISO	13337.000		620

13337 Spring steel



Spring-type straight pins, slotted, light duty

Dimensions ➔ TI-122 Standard conversion ➔ TI-10

ISO 13337 ➔ replaces DIN 7346

RoHS ✓ REACh SVHC free

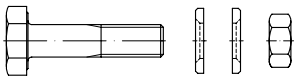
2	x	4	S	200	7,80
2	x	5	S	200	8,30
2	x	6	S	200	8,40
2	x	8	S	200	8,50
2	x	10	S	200	8,60
2	x	12	S	200	8,60
2	x	14	S	200	8,60
2	x	16	S	200	8,80
2	x	18	S	200	8,80
2	x	20	S	200	9,50
2	x	22	S	200	9,70
2	x	24	S	200	9,90
2	x	30	S	200	11,40
2,5	x	5	S	200	8,80
2,5	x	6	S	200	8,80
2,5	x	8	S	200	8,90
2,5	x	10	S	200	9,20
2,5	x	12	S	200	9,20
2,5	x	14	S	200	9,20
2,5	x	16	S	200	9,50
2,5	x	18	S	200	9,60
2,5	x	20	S	200	9,70
2,5	x	24	S	200	10,50
2,5	x	26	S	200	10,80
2,5	x	30	S	200	12,30
3	x	4	S	200	7,40
3	x	5	S	200	7,60
3	x	6	S	200	7,70
3	x	8	S	200	7,70
3	x	10	S	200	7,80
3	x	12	S	200	7,90
3	x	14	S	200	7,90
3	x	16	S	200	8,30
3	x	18	S	200	8,40
3	x	20	S	200	8,60
3	x	22	S	200	8,80
3	x	24	S	200	8,90
3	x	26	S	200	9,20
3	x	28	S	200	9,70
3	x	30	S	200	10,10
3	x	32	S	200	10,50
3	x	36	S	200	11,30
3	x	40	S	200	12,40
4	x	6	S	200	8,50
4	x	8	S	200	8,60
4	x	10	S	200	8,60
4	x	12	S	200	8,80
4	x	14	S	200	9,20
4	x	16	S	200	9,20
4	x	18	S	200	9,20
4	x	20	S	200	9,60
4	x	22	S	200	9,60
4	x	24	S	200	9,90
4	x	26	S	200	10,20
4	x	28	S	200	10,70

Dimensions					PU	Pieces	€/100/Mat.
4	x	30			S	200	11,20
4	x	32			S	100	12,80
4	x	36			S	100	13,20
4	x	40			S	100	14,30
4	x	45			S	100	15,30
4	x	50			S	100	16,50
5	x	5			S	200	9,90
5	x	6			S	200	9,90
5	x	8			S	200	10,10
5	x	10			S	200	10,10
5	x	12			S	200	9,90
5	x	14			S	200	11,10
5	x	16			S	200	11,40
5	x	18			S	200	12,10
5	x	20			S	100	13,40
5	x	22			S	100	14,60
5	x	24			S	100	15,00
5	x	26			S	100	15,50
5	x	28			S	100	15,30
5	x	30			S	100	15,50
5	x	32			S	100	16,10
5	x	36			S	100	17,10
5	x	40			S	100	18,00
5	x	45			S	100	19,40
5	x	50			S	100	20,40
5	x	60			S	100	24,50
5	x	70			S	100	29,50
5	x	80			S	100	36,00
6	x	10			S	100	12,50
6	x	12			S	100	12,80
6	x	14			S	100	13,60
6	x	16			S	100	13,80
6	x	18			S	100	14,60
6	x	20			S	100	15,50
6	x	22			S	100	16,40
6	x	24			S	100	17,20
6	x	26			S	100	18,30
6	x	28			S	100	19,30
6	x	30			S	100	20,30
6	x	32			S	100	21,30
6	x	36			S	100	22,30
6	x	40			S	100	23,50
6	x	45			S	100	26,50
6	x	50			S	100	28,00
6	x	55			S	100	30,50
6	x	60			S	100	33,00
6	x	70			S	100	39,00
6	x	80			S	100	44,50
6	x	100			S	100	72,00
8	x	10			S	100	19,50
8	x	12			S	100	19,50
8	x	14			S	100	19,70
8	x	16			S	100	20,00
8	x	18			S	100	21,00
8	x	20			S	100	22,20
8	x	22			S	100	23,50
8	x	24			S	100	25,50
8	x	26			S	100	27,00
8	x	28			S	100	28,50
8	x	30			S	100	32,50
8	x	32			S	100	32,50
8	x	36			S	100	34,50
8	x	40			S	100	37,00
8	x	45			S	100	39,00
8	x	50			S	100	42,50
8	x	55			S	100	48,00
8	x	60			S	100	54,00
8	x	65			S	100	58,00
8	x	70			S	100	62,00
8	x	80			S	100	79,00
8	x	100			S	50	102,00
10	x	10			S	50	74,00
10	x	12			S	50	74,00
10	x	14			S	100	26,00
10	x	16			S	100	27,50

Dimensions			PU	Pieces	€/100/Mat.
10	x	20	S	100	32,50
10	x	22	S	100	34,00
10	x	24	S	100	37,00
10	x	26	S	100	39,00
10	x	30	S	100	43,00
10	x	36	S	100	51,00
10	x	40	S	100	54,00
10	x	45	S	50	63,00
10	x	50	S	50	69,00
10	x	60	S	50	83,00
10	x	70	S	50	97,00
10	x	80	S	50	111,00
10	x	90	S	50	124,00
10	x	100	S	50	138,00
12	x	10	S	50	310,00
12	x	16	S	50	265,00
12	x	20	S	50	148,00
12	x	24	S	50	157,00
12	x	26	S	50	160,00
12	x	28	S	50	164,00
12	x	30	S	50	157,00
12	x	32	S	50	174,00
12	x	36	S	50	174,00
12	x	40	S	50	181,00
12	x	45	S	50	184,00
12	x	50	S	50	189,00
12	x	55	S	50	197,00
12	x	60	S	50	204,00
12	x	65	S	50	216,00
12	x	70	S	50	223,00
12	x	80	S	50	239,00
12	x	100	S	25	580,00
13	x	10	S	25	300,00
13	x	12	S	25	290,00
13	x	14	S	25	285,00
13	x	16	S	25	275,00
13	x	18	S	25	275,00
13	x	20	S	50	157,00
13	x	22	S	50	160,00
13	x	24	S	50	164,00
13	x	26	S	50	167,00
13	x	28	S	50	171,00
13	x	30	S	50	177,00
13	x	36	S	50	184,00
13	x	40	S	50	200,00
13	x	50	S	50	197,00
13	x	70	S	50	232,00
16	x	10	S	25	335,00
16	x	12	S	25	320,00
16	x	14	S	25	310,00
16	x	16	S	25	300,00
16	x	18	S	25	295,00
16	x	20	S	50	197,00
16	x	22	S	50	200,00
16	x	24	S	50	204,00
16	x	26	S	50	206,00
16	x	28	S	50	210,00
16	x	30	S	50	216,00
16	x	32	S	50	221,00
16	x	36	S	50	223,00
16	x	40	S	50	227,00
16	x	45	S	50	230,00
16	x	50	S	50	233,00
16	x	55	S	50	236,00
16	x	60	S	25	249,00
16	x	70	S	25	285,00
16	x	120	S	25	950,00
21	x	30	S	50	440,00
21	x	36	S	25	445,00
21	x	40	S	25	475,00
21	x	45	S	25	510,00
21	x	50	S	25	510,00
21	x	60	S	25	560,00
21	x	85	S	25	730,00

Dimensions	PU	Pieces	€/100/Mat.
EN	14399 -4/-6		610

14399-4 10.9 assemblies



HV assemblies
for high-strength structural bolting,
with 1 nut EN 14399-4
and 2 washers EN 14399-6

k-Class: K1, brand Peiner

Dimensions ➔ TI-58 Tightening torque ➔ TI-248
Material properties ➔ TI-232

Dimensions M 39-M 64 acc. to DAST directive 021 on request

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

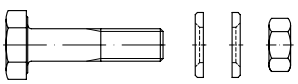
Dimensions			PU	Pieces	€/100/Mat.
M 12	x	30	S	1	161,00
M 12	x	35	S	1	168,00
M 12	x	40	S	1	170,00
M 12	x	45	S	1	175,00
M 12	x	50	S	1	180,00
M 12	x	55	S	1	187,00
M 12	x	60	S	1	192,00
M 12	x	65	S	1	223,00
M 12	x	70	S	1	230,00
M 12	x	75	S	1	420,00
M 12	x	80	S	1	420,00
M 12	x	85	S	1	590,00
M 12	x	90	S	1	590,00
M 12	x	100	S	1	680,00
M 16	x	40	S	1	260,00
M 16	x	45	S	1	270,00
M 16	x	50	S	1	280,00
M 16	x	55	S	1	290,00
M 16	x	60	S	1	295,00
M 16	x	65	S	1	305,00
M 16	x	70	S	1	315,00
M 16	x	75	S	1	330,00
M 16	x	80	S	1	335,00
M 16	x	85	S	1	360,00
M 16	x	90	S	1	360,00
M 16	x	95	S	1	430,00
M 16	x	100	S	1	430,00
M 16	x	105	S	1	680,00
M 16	x	110	S	1	680,00
M 16	x	115	S	1	760,00
M 16	x	125	S	1	1010,00
M 16	x	130	S	1	1010,00
M 16	x	140	S	1	1070,00
M 16	x	150	S	1	1200,00
M 20	x	40	S	1	455,00
M 20	x	45	S	1	455,00
M 20	x	50	S	1	445,00
M 20	x	55	S	1	445,00
M 20	x	60	S	1	455,00
M 20	x	65	S	1	470,00
M 20	x	70	S	1	480,00
M 20	x	75	S	1	490,00
M 20	x	80	S	1	500,00
M 20	x	85	S	1	530,00
M 20	x	90	S	1	530,00
M 20	x	95	S	1	540,00
M 20	x	100	S	1	540,00
M 20	x	105	S	1	580,00
M 20	x	110	S	1	580,00

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	115	S	1	600,00
M 20	x	120	S	1	680,00
M 20	x	125	S	1	710,00
M 20	x	130	S	1	710,00
M 20	x	135	S	1	1040,00
M 20	x	140	S	1	1040,00
M 20	x	150	S	1	1370,00
M 20	x	160	S	1	1480,00
M 20	x	170	S	1	1590,00
M 20	x	180	S	1	1700,00
M 20	x	190	S	1	1820,00
M 20	x	200	S	1	2050,00
M 20	x	240	S	1	2550,00
M 20	x	250	S	1	2650,00
M 22	x	50	S	1	800,00
M 22	x	55	S	1	800,00
M 22	x	60	S	1	800,00
M 22	x	65	S	1	820,00
M 22	x	70	S	1	840,00
M 22	x	75	S	1	860,00
M 22	x	80	S	1	880,00
M 22	x	85	S	1	920,00
M 22	x	90	S	1	920,00
M 22	x	95	S	1	950,00
M 22	x	100	S	1	950,00
M 22	x	105	S	1	990,00
M 22	x	110	S	1	990,00
M 22	x	120	S	1	1040,00
M 24	x	50	S	1	720,00
M 24	x	55	S	1	720,00
M 24	x	60	S	1	710,00
M 24	x	65	S	1	710,00
M 24	x	65	S	1	730,00
M 24	x	75	S	1	740,00
M 24	x	80	S	1	750,00
M 24	x	85	S	1	780,00
M 24	x	90	S	1	780,00
M 24	x	95	S	1	810,00
M 24	x	100	S	1	810,00
M 24	x	105	S	1	830,00
M 24	x	110	S	1	830,00
M 24	x	115	S	1	870,00
M 24	x	120	S	1	870,00
M 24	x	125	S	1	900,00
M 24	x	130	S	1	900,00
M 24	x	135	S	1	940,00
M 24	x	140	S	1	1060,00
M 24	x	145	S	1	1100,00
M 24	x	150	S	1	1100,00
M 24	x	155	S	1	1540,00
M 24	x	160	S	1	1540,00
M 24	x	165	S	1	1650,00
M 24	x	170	S	1	1990,00
M 24	x	180	S	1	2130,00
M 24	x	190	S	1	2260,00
M 24	x	200	S	1	2390,00
M 24	x	210	S	1	2700,00
M 24	x	220	S	1	2850,00
M 27	x	65	S	1	1200,00
M 27	x	70	S	1	1210,00
M 27	x	75	S	1	1220,00
M 27	x	80	S	1	1240,00
M 27	x	85	S	1	1280,00
M 27	x	90	S	1	1280,00
M 27	x	95	S	1	1320,00
M 27	x	100	S	1	1320,00
M 27	x	105	S	1	1360,00
M 27	x	110	S	1	1360,00
M 27	x	115	S	1	1400,00
M 27	x	120	S	1	1400,00
M 27	x	125	S	1	1410,00
M 27	x	130	S	1	1410,00
M 27	x	135	S	1	1460,00
M 27	x	140	S	1	1460,00
M 27	x	145	S	1	1710,00

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	150	S	1	1710,00
M 27	x	160	S	1	1760,00
M 27	x	165	S	1	2340,00
M 27	x	170	S	1	2340,00
M 27	x	180	S	1	3000,00
M 27	x	190	S	1	3200,00
M 27	x	200	S	1	3400,00
M 30	x	80	S	1	1890,00
M 30	x	85	S	1	1930,00
M 30	x	90	S	1	1950,00
M 30	x	95	S	1	1980,00
M 30	x	100	S	1	2010,00
M 30	x	105	S	1	2050,00
M 30	x	110	S	1	2100,00
M 30	x	115	S	1	2140,00
M 30	x	120	S	1	2140,00
M 30	x	125	S	1	2200,00
M 30	x	130	S	1	2200,00
M 30	x	135	S	1	2250,00
M 30	x	140	S	1	2250,00
M 30	x	145	S	1	2600,00
M 30	x	150	S	1	2600,00
M 30	x	155	S	1	2650,00
M 30	x	160	S	1	2650,00
M 30	x	165	S	1	3300,00
M 30	x	170	S	1	3300,00
M 30	x	180	S	1	4050,00
M 30	x	190	S	1	4250,00
M 30	x	200	S	1	4400,00

EN	14399 -4/-6	610

14399-4 10.9 assemblies hot dip galvanized



HV assemblies
for high-strength structural bolting,
with 1 nut EN 14399-4
and 2 washers EN 14399-6

k-Class: K1,
thread tolerance of bolts 6g + HDG,
brand Peiner or Friedberg

Dimensions ➔ TI-58
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-248

Dimensions M 39-M 64 acc. to DAST directive 021
on request

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

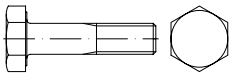
Dimensions			PU	Pieces	€/100/Mat.
M 12	x	30	S	1	186,00 HDG
M 12	x	35	S	1	197,00 HDG
M 12	x	40	S	1	200,00 HDG
M 12	x	45	S	1	206,00 HDG
M 12	x	50	S	1	213,00 HDG
M 12	x	55	S	1	221,00 HDG
M 12	x	60	S	1	228,00 HDG
M 12	x	65	S	1	260,00 HDG
M 12	x	70	S	1	270,00 HDG
M 12	x	75	S	1	460,00 HDG
M 12	x	80	S	1	460,00 HDG
M 12	x	85	S	1	640,00 HDG
M 12	x	90	S	1	640,00 HDG
M 12	x	95	S	1	730,00 HDG
M 12	x	100	S	1	730,00 HDG
M 12	x	110	S	1	880,00 HDG
M 12	x	120	S	1	990,00 HDG
M 16	x	35	S	1	315,00 HDG
M 16	x	40	S	1	315,00 HDG
M 16	x	45	S	1	330,00 HDG
M 16	x	50	S	1	345,00 HDG
M 16	x	55	S	1	355,00 HDG
M 16	x	60	S	1	365,00 HDG
M 16	x	65	S	1	375,00 HDG
M 16	x	70	S	1	385,00 HDG
M 16	x	75	S	1	400,00 HDG
M 16	x	80	S	1	410,00 HDG
M 16	x	85	S	1	440,00 HDG
M 16	x	90	S	1	445,00 HDG
M 16	x	95	S	1	520,00 HDG
M 16	x	100	S	1	520,00 HDG
M 16	x	105	S	1	770,00 HDG
M 16	x	110	S	1	780,00 HDG
M 16	x	115	S	1	850,00 HDG
M 16	x	120	S	1	1020,00 HDG
M 16	x	125	S	1	1110,00 HDG
M 16	x	130	S	1	1110,00 HDG
M 16	x	140	S	1	1170,00 HDG
M 16	x	150	S	1	1310,00 HDG
M 16	x	160	S	1	1410,00 HDG
M 16	x	170	S	1	1510,00 HDG
M 16	x	180	S	1	1610,00 HDG
M 16	x	190	S	1	1710,00 HDG
M 16	x	200	S	1	1920,00 HDG
M 16	x	210	S	1	2030,00 HDG
M 16	x	220	S	1	2360,00 HDG
M 20	x	40	S	1	550,00 HDG
M 20	x	45	S	1	550,00 HDG
M 20	x	50	S	1	540,00 HDG
M 20	x	55	S	1	550,00 HDG
M 20	x	60	S	1	560,00 HDG
M 20	x	65	S	1	580,00 HDG
M 20	x	70	S	1	600,00 HDG
M 20	x	75	S	1	610,00 HDG
M 20	x	80	S	1	630,00 HDG
M 20	x	85	S	1	660,00 HDG
M 20	x	90	S	1	660,00 HDG
M 20	x	95	S	1	670,00 HDG
M 20	x	100	S	1	680,00 HDG
M 20	x	105	S	1	720,00 HDG
M 20	x	110	S	1	730,00 HDG
M 20	x	115	S	1	750,00 HDG
M 20	x	120	S	1	830,00 HDG
M 20	x	125	S	1	860,00 HDG
M 20	x	130	S	1	860,00 HDG
M 20	x	135	S	1	1210,00 HDG
M 20	x	140	S	1	1210,00 HDG
M 20	x	145	S	1	1310,00 HDG
M 20	x	150	S	1	1550,00 HDG
M 20	x	155	S	1	1670,00 HDG
M 20	x	160	S	1	1670,00 HDG
M 20	x	165	S	1	1780,00 HDG
M 20	x	170	S	1	1790,00 HDG
M 20	x	180	S	1	1910,00 HDG
M 20	x	190	S	1	2030,00 HDG
M 20	x	200	S	1	2270,00 HDG
M 20	x	210	S	1	2400,00 HDG
M 20	x	220	S	1	2550,00 HDG
M 20	x	230	S	1	2650,00 HDG
M 20	x	240	S	1	2800,00 HDG
M 20	x	250	S	1	2950,00 HDG
M 20	x	260	S	1	3050,00 HDG
M 22	x	50	S	1	930,00 HDG
M 22	x	55	S	1	940,00 HDG
M 22	x	60	S	1	940,00 HDG
M 22	x	65	S	1	970,00 HDG
M 22	x	70	S	1	990,00 HDG
M 22	x	75	S	1	1020,00 HDG
M 22	x	80	S	1	1040,00 HDG
M 22	x	85	S	1	1080,00 HDG
M 22	x	90	S	1	1090,00 HDG
M 22	x	95	S	1	1130,00 HDG
M 22	x	100	S	1	1130,00 HDG
M 22	x	105	S	1	1180,00 HDG
M 22	x	110	S	1	1180,00 HDG
M 22	x	115	S	1	1240,00 HDG
M 22	x	120	S	1	1240,00 HDG
M 22	x	125	S	1	1290,00 HDG
M 22	x	130	S	1	1290,00 HDG
M 22	x	140	S	1	1850,00 HDG
M 22	x	150	S	1	1990,00 HDG
M 22	x	160	S	1	2140,00 HDG
M 22	x	170	S	1	2330,00 HDG
M 22	x	180	S	1	2480,00 HDG
M 22	x	190	S	1	2650,00 HDG
M 22	x	200	S	1	3000,00 HDG
M 24	x	50	S	1	890,00 HDG
M 24	x	55	S	1	890,00 HDG
M 24	x	60	S	1	890,00 HDG
M 24	x	65	S	1	890,00 HDG
M 24	x	70	S	1	920,00 HDG
M 24	x	75	S	1	940,00 HDG
M 24	x	80	S	1	960,00 HDG
M 24	x	85	S	1	990,00 HDG
M 24	x	90	S	1	990,00 HDG
M 24	x	95	S	1	1020,00 HDG
M 24	x	100	S	1	1030,00 HDG
M 24	x	105	S	1	1060,00 HDG
M 24	x	110	S	1	1070,00 HDG
M 24	x	115	S	1	1100,00 HDG
M 24	x	120	S	1	1110,00 HDG
M 24	x	125	S	1	1150,00 HDG
M 24	x	130	S	1	1160,00 HDG
M 24	x	135	S	1	1200,00 HDG
M 24	x	140	S	1	1330,00 HDG
M 24	x	145	S	1	1370,00 HDG
M 24	x	150	S	1	1380,00 HDG
M 24	x	155	S	1	1830,00 HDG
M 24	x	165	S	1	1950,00 HDG
M 24	x	170	S	1	2300,00 HDG
M 24	x	175	S	1	2440,00 HDG
M 24	x	180	S	1	2450,00 HDG
M 24	x	190	S	1	2600,00 HDG
M 24	x	200	S	1	2750,00 HDG
M 24	x	210	S	1	3050,00 HDG
M 24	x	220	S	1	3200,00 HDG
M 24	x	230	S	1	3400,00 HDG
M 24	x	240	S	1	3550,00 HDG
M 24	x	250	S	1	3700,00 HDG
M 24	x	260	S	1	3850,00 HDG
M 27	x	60	S	1	1450,00 HDG
M 27	x	65	S	1	1460,00 HDG
M 27	x	70	S	1	1470,00 HDG
M 27	x	75	S	1	1490,00 HDG
M 27	x	80	S	1	1520,00 HDG
M 27	x	85	S	1	1560,00 HDG
M 27	x	90	S	1	1570,00 HDG
M 27	x	95	S	1	1620,00 HDG
M 27	x	100	S	1	1620,00 HDG
M 27	x	105	S	1	1670,00 HDG
M 27	x	110	S	1	1680,00 HDG
M 27	x	115	S	1	1730,00 HDG
M 27	x	120	S	1	1740,00 HDG
M 27	x	125	S	1	1760,00 HDG
M 27	x	130	S	1	1760,00 HDG
M 27	x	135	S	1	1810,00 HDG
M 27	x	140	S	1	1820,00 HDG
M 27	x	145	S	1	2080,00 HDG
M 27	x	150	S	1	2080,00 HDG
M 27	x	155	S	1	2140,00 HDG
M 27	x	160	S	1	2150,00 HDG
M 27	x	165	S	1	2750,00 HDG
M 27	x	170	S	1	2800,00 HDG
M 27	x	175	S	1	2950,00 HDG
M 27	x	180	S	1	3450,00 HDG
M 27	x	190	S	1	3650,00 HDG
M 27	x	200	S	1	3850,00 HDG
M 27	x	210	S	1	4250,00 HDG

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	220	S	1	4450,00 HDG
M 27	x	230	S	1	4650,00 HDG
M 27	x	240	S	1	4850,00 HDG
M 27	x	250	S	1	5100,00 HDG
M 27	x	260	S	1	5300,00 HDG
M 30	x	70	S	1	2200,00 HDG
M 30	x	75	S	1	2230,00 HDG
M 30	x	80	S	1	2250,00 HDG
M 30	x	85	S	1	2300,00 HDG
M 30	x	90	S	1	2330,00 HDG
M 30	x	95	S	1	2370,00 HDG
M 30	x	100	S	1	2400,00 HDG
M 30	x	105	S	1	2450,00 HDG
M 30	x	110	S	1	2550,00 HDG
M 30	x	115	S	1	2600,00 HDG
M 30	x	120	S	1	2600,00 HDG
M 30	x	125	S	1	2650,00 HDG
M 30	x	130	S	1	2650,00 HDG
M 30	x	135	S	1	2750,00 HDG
M 30	x	140	S	1	2750,00 HDG
M 30	x	145	S	1	3100,00 HDG
M 30	x	150	S	1	3100,00 HDG
M 30	x	155	S	1	3150,00 HDG
M 30	x	160	S	1	3150,00 HDG
M 30	x	165	S	1	3850,00 HDG
M 30	x	170	S	1	3850,00 HDG
M 30	x	180	S	1	4600,00 HDG
M 30	x	190	S	1	4800,00 HDG
M 30	x	200	S	1	5000,00 HDG
M 30	x	210	S	1	5500,00 HDG
M 30	x	220	S	1	5500,00 HDG
M 30	x	230	S	1	5900,00 HDG
M 30	x	240	S	1	5900,00 HDG
M 30	x	260	S	1	6400,00 HDG
M 36	x	100	S	1	6300,00 HDG
M 36	x	105	S	1	6500,00 HDG
M 36	x	110	S	1	6500,00 HDG
M 36	x	115	S	1	6700,00 HDG
M 36	x	120	S	1	6700,00 HDG
M 36	x	125	S	1	6800,00 HDG
M 36	x	130	S	1	6800,00 HDG
M 36	x	135	S	1	7000,00 HDG
M 36	x	140	S	1	7000,00 HDG
M 36	x	145	S	1	7100,00 HDG
M 36	x	150	S	1	7100,00 HDG
M 36	x	155	S	1	7300,00 HDG
M 36	x	160	S	1	7300,00 HDG
M 36	x	165	S	1	8900,00 HDG
M 36	x	170	S	1	8900,00 HDG
M 36	x	175	S	1	9100,00 HDG
M 36	x	180	S	1	9100,00 HDG
M 36	x	185	S	1	9300,00 HDG
M 36	x	190	S	1	9300,00 HDG
M 36	x	195	S	1	9500,00 HDG
M 36	x	200	S	1	9500,00 HDG
M 36	x	205	S	1	9600,00 HDG
M 36	x	210	S	1	9700,00 HDG
M 36	x	215	S	1	9800,00 HDG
M 36	x	220	S	1	9900,00 HDG
M 36	x	240	S	1	10200,00 HDG
M 36	x	250	S	1	10400,00 HDG
M 36	x	260	S	1	10600,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
EN	14399.104		610

14399-4 10.9



Hexagon bolts with large head for high-strength structural bolting, system HV

brand Peiner

Dimensions ➔ TI-58 Tightening torque ➔ TI-248
Material properties ➔ TI-232

Dimensions M 39-M 64 acc. to DAST directive 021 on request

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

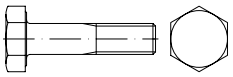
M 12	x	30	S	1	82,00
M 12	x	35	S	1	89,00
M 12	x	40	S	1	91,00
M 12	x	45	S	1	96,00
M 12	x	50	S	1	101,00
M 12	x	55	S	1	108,00
M 12	x	60	S	1	113,00
M 12	x	65	S	1	174,00
M 12	x	70	S	1	250,00
M 12	x	75	S	1	340,00
M 12	x	80	S	1	340,00
M 12	x	85	S	1	520,00
M 12	x	90	S	1	520,00
M 12	x	100	S	1	600,00
M 16	x	40	S	1	142,00
M 16	x	45	S	1	152,00
M 16	x	50	S	1	162,00
M 16	x	55	S	1	169,00
M 16	x	60	S	1	176,00
M 16	x	65	S	1	185,00
M 16	x	70	S	1	197,00
M 16	x	75	S	1	210,00
M 16	x	80	S	1	215,00
M 16	x	85	S	1	243,00
M 16	x	90	S	1	243,00
M 16	x	95	S	1	315,00
M 16	x	100	S	1	315,00
M 16	x	105	S	1	570,00
M 16	x	110	S	1	570,00
M 16	x	115	S	1	640,00
M 16	x	125	S	1	890,00
M 16	x	130	S	1	890,00
M 16	x	140	S	1	950,00
M 16	x	150	S	1	1080,00
M 20	x	40	S	1	285,00
M 20	x	45	S	1	285,00
M 20	x	50	S	1	275,00
M 20	x	55	S	1	275,00
M 20	x	60	S	1	285,00
M 20	x	65	S	1	300,00
M 20	x	70	S	1	310,00
M 20	x	75	S	1	320,00
M 20	x	80	S	1	330,00
M 20	x	85	S	1	355,00
M 20	x	90	S	1	355,00
M 20	x	95	S	1	370,00
M 20	x	100	S	1	370,00
M 20	x	105	S	1	410,00
M 20	x	110	S	1	410,00
M 20	x	115	S	1	430,00
M 20	x	120	S	1	510,00
M 20	x	125	S	1	530,00

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	130	S	1	530,00
M 20	x	135	S	1	870,00
M 20	x	140	S	1	870,00
M 20	x	150	S	1	1200,00
M 20	x	160	S	1	1310,00
M 20	x	170	S	1	1420,00
M 20	x	180	S	1	1530,00
M 20	x	190	S	1	1650,00
M 20	x	200	S	1	1880,00
M 20	x	240	S	1	2350,00
M 20	x	250	S	1	2470,00
M 22	x	50	S	1	590,00
M 22	x	55	S	1	590,00
M 22	x	60	S	1	590,00
M 22	x	65	S	1	610,00
M 22	x	70	S	1	630,00
M 22	x	75	S	1	650,00
M 22	x	80	S	1	670,00
M 22	x	85	S	1	710,00
M 22	x	90	S	1	710,00
M 22	x	95	S	1	740,00
M 22	x	100	S	1	740,00
M 22	x	105	S	1	780,00
M 22	x	110	S	1	780,00
M 22	x	120	S	1	840,00
M 24	x	50	S	1	455,00
M 24	x	55	S	1	455,00
M 24	x	60	S	1	445,00
M 24	x	65	S	1	445,00
M 24	x	70	S	1	465,00
M 24	x	75	S	1	475,00
M 24	x	80	S	1	490,00
M 24	x	85	S	1	520,00
M 24	x	90	S	1	520,00
M 24	x	95	S	1	550,00
M 24	x	100	S	1	550,00
M 24	x	105	S	1	570,00
M 24	x	110	S	1	570,00
M 24	x	115	S	1	610,00
M 24	x	120	S	1	610,00
M 24	x	125	S	1	640,00
M 24	x	130	S	1	640,00
M 24	x	135	S	1	670,00
M 24	x	140	S	1	800,00
M 24	x	145	S	1	840,00
M 24	x	150	S	1	840,00
M 24	x	155	S	1	1280,00
M 24	x	160	S	1	1280,00
M 24	x	165	S	1	1390,00
M 24	x	170	S	1	1730,00
M 24	x	180	S	1	1870,00
M 24	x	190	S	1	2000,00
M 24	x	200	S	1	2130,00
M 24	x	210	S	1	2420,00
M 24	x	220	S	1	2600,00
M 27	x	65	S	1	770,00
M 27	x	70	S	1	770,00
M 27	x	75	S	1	780,00
M 27	x	80	S	1	810,00
M 27	x	85	S	1	840,00
M 27	x	90	S	1	840,00
M 27	x	95	S	1	880,00
M 27	x	100	S	1	880,00
M 27	x	105	S	1	920,00
M 27	x	110	S	1	920,00
M 27	x	115	S	1	970,00
M 27	x	120	S	1	970,00
M 27	x	125	S	1	980,00
M 27	x	130	S	1	980,00
M 27	x	135	S	1	1030,00
M 27	x	140	S	1	1030,00
M 27	x	145	S	1	1280,00
M 27	x	150	S	1	1280,00
M 27	x	160	S	1	1330,00
M 27	x	165	S	1	1910,00

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	170	S	1	1910,00
M 27	x	180	S	1	2600,00
M 27	x	190	S	1	2750,00
M 27	x	200	S	1	2950,00
M 30	x	80	S	1	1070,00
M 30	x	85	S	1	1110,00
M 30	x	90	S	1	1130,00
M 30	x	95	S	1	1160,00
M 30	x	100	S	1	1190,00
M 30	x	105	S	1	1230,00
M 30	x	110	S	1	1280,00
M 30	x	115	S	1	1320,00
M 30	x	120	S	1	1320,00
M 30	x	125	S	1	1380,00
M 30	x	130	S	1	1380,00
M 30	x	135	S	1	1430,00
M 30	x	140	S	1	1430,00
M 30	x	145	S	1	1770,00
M 30	x	150	S	1	1770,00
M 30	x	155	S	1	1830,00
M 30	x	160	S	1	1830,00
M 30	x	165	S	1	2460,00
M 30	x	170	S	1	2460,00
M 30	x	180	S	1	3250,00
M 30	x	190	S	1	3400,00
M 30	x	200	S	1	3600,00

EN	14399.*	610

14399-4 10.9 hot dip galvanized



Hexagon bolts with large head for high-strength structural bolting, system HV

thread tolerance 6g + HDG,
*Brand Peiner = 124, brand Friedberg = 125

Dimensions ➔ TI-58
Material properties ➔ TI-232
Corrosion protection ➔ TI-231
Tightening torque ➔ TI-248

Dimensions M 39-M 64 acc. to DAST directive 021 on request

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Declaration of performance ➔ www.reyher.de

M 12	x	30	S	1	95,00 HDG
M 12	x	35	S	1	106,00 HDG
M 12	x	40	S	1	109,00 HDG
M 12	x	45	S	1	115,00 HDG
M 12	x	50	S	1	122,00 HDG
M 12	x	55	S	1	130,00 HDG
M 12	x	60	S	1	137,00 HDG
M 12	x	65	S	1	168,00 HDG
M 12	x	70	S	1	177,00 HDG
M 12	x	75	S	1	370,00 HDG
M 12	x	80	S	1	370,00 HDG
M 12	x	85	S	1	550,00 HDG
M 12	x	90	S	1	550,00 HDG
M 12	x	95	S	1	640,00 HDG
M 12	x	100	S	1	640,00 HDG
M 12	x	110	S	1	790,00 HDG
M 12	x	120	S	1	900,00 HDG
M 12	x	130	S	1	1010,00 HDG
M 16	x	35	S	1	174,00 HDG
M 16	x	40	S	1	175,00 HDG
M 16	x	45	S	1	188,00 HDG
M 16	x	50	S	1	201,00 HDG
M 16	x	55	S	1	211,00 HDG
M 16	x	60	S	1	221,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	65	S	1	231,00 HDG
M 16	x	70	S	1	245,00 HDG
M 16	x	75	S	1	260,00 HDG
M 16	x	80	S	1	270,00 HDG
M 16	x	85	S	1	300,00 HDG
M 16	x	90	S	1	305,00 HDG
M 16	x	95	S	1	375,00 HDG
M 16	x	100	S	1	380,00 HDG
M 16	x	105	S	1	630,00 HDG
M 16	x	110	S	1	640,00 HDG
M 16	x	115	S	1	710,00 HDG
M 16	x	120	S	1	880,00 HDG
M 16	x	125	S	1	970,00 HDG
M 16	x	130	S	1	970,00 HDG
M 16	x	135	S	1	1020,00 HDG
M 16	x	140	S	1	1030,00 HDG
M 16	x	145	S	1	1120,00 HDG
M 16	x	150	S	1	1170,00 HDG
M 16	x	155	S	1	1210,00 HDG
M 16	x	160	S	1	1270,00 HDG
M 16	x	165	S	1	1310,00 HDG
M 16	x	170	S	1	1370,00 HDG
M 16	x	180	S	1	1470,00 HDG
M 16	x	190	S	1	1570,00 HDG
M 16	x	200	S	1	1780,00 HDG
M 16	x	210	S	1	1890,00 HDG
M 16	x	220	S	1	2220,00 HDG
M 20	x	40	S	1	340,00 HDG
M 20	x	45	S	1	340,00 HDG
M 20	x	50	S	1	335,00 HDG
M 20	x	55	S	1	340,00 HDG
M 20	x	60	S	1	355,00 HDG
M 20	x	65	S	1	370,00 HDG
M 20	x	70	S	1	385,00 HDG
M 20	x	75	S	1	400,00 HDG
M 20	x	80	S	1	420,00 HDG
M 20	x	85	S	1	445,00 HDG
M 20	x	90	S	1	450,00 HDG
M 20	x	95	S	1	465,00 HDG
M 20	x	100	S	1	470,00 HDG
M 20	x	105	S	1	520,00 HDG
M 20	x	110	S	1	520,00 HDG
M 20	x	115	S	1	540,00 HDG
M 20	x	120	S	1	630,00 HDG
M 20	x	125	S	1	650,00 HDG
M 20	x	130	S	1	660,00 HDG
M 20	x	135	S	1	1000,00 HDG
M 20	x	140	S	1	1010,00 HDG
M 20	x	145	S	1	1100,00 HDG
M 20	x	150	S	1	1340,00 HDG
M 20	x	155	S	1	1460,00 HDG
M 20	x	160	S	1	1460,00 HDG
M 20	x	165	S	1	1580,00 HDG
M 20	x	170	S	1	1580,00 HDG
M 20	x	180	S	1	1700,00 HDG
M 20	x	190	S	1	1820,00 HDG
M 20	x	200	S	1	2070,00 HDG
M 20	x	210	S	1	2190,00 HDG
M 20	x	220	S	1	2320,00 HDG
M 20	x	230	S	1	2450,00 HDG
M 20	x	240	S	1	2600,00 HDG
M 20	x	250	S	1	2700,00 HDG
M 20	x	260	S	1	2850,00 HDG
M 22	x	50	S	1	680,00 HDG
M 22	x	55	S	1	680,00 HDG
M 22	x	60	S	1	690,00 HDG
M 22	x	65	S	1	710,00 HDG
M 22	x	70	S	1	730,00 HDG
M 22	x	75	S	1	760,00 HDG
M 22	x	80	S	1	780,00 HDG
M 22	x	85	S	1	830,00 HDG
M 22	x	90	S	1	830,00 HDG
M 22	x	95	S	1	870,00 HDG
M 22	x	100	S	1	870,00 HDG
M 22	x	105	S	1	920,00 HDG

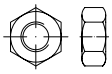
Dimensions			PU	Pieces	€/100/Mat.
M 22	x	110	S	1	920,00 HDG
M 22	x	115	S	1	980,00 HDG
M 22	x	120	S	1	990,00 HDG
M 22	x	125	S	1	1030,00 HDG
M 22	x	130	S	1	1040,00 HDG
M 22	x	135	S	1	1240,00 HDG
M 22	x	140	S	1	1590,00 HDG
M 22	x	145	S	1	1660,00 HDG
M 22	x	150	S	1	1740,00 HDG
M 22	x	155	S	1	1820,00 HDG
M 22	x	160	S	1	1890,00 HDG
M 22	x	165	S	1	1980,00 HDG
M 22	x	170	S	1	2080,00 HDG
M 22	x	175	S	1	2150,00 HDG
M 22	x	180	S	1	2220,00 HDG
M 22	x	190	S	1	2380,00 HDG
M 22	x	200	S	1	2750,00 HDG
M 24	x	50	S	1	560,00 HDG
M 24	x	55	S	1	570,00 HDG
M 24	x	60	S	1	560,00 HDG
M 24	x	65	S	1	570,00 HDG
M 24	x	70	S	1	590,00 HDG
M 24	x	75	S	1	610,00 HDG
M 24	x	80	S	1	630,00 HDG
M 24	x	85	S	1	660,00 HDG
M 24	x	90	S	1	660,00 HDG
M 24	x	95	S	1	690,00 HDG
M 24	x	100	S	1	700,00 HDG
M 24	x	105	S	1	730,00 HDG
M 24	x	110	S	1	740,00 HDG
M 24	x	115	S	1	780,00 HDG
M 24	x	120	S	1	780,00 HDG
M 24	x	125	S	1	820,00 HDG
M 24	x	130	S	1	830,00 HDG
M 24	x	135	S	1	870,00 HDG
M 24	x	140	S	1	1000,00 HDG
M 24	x	145	S	1	1040,00 HDG
M 24	x	150	S	1	1050,00 HDG
M 24	x	155	S	1	1510,00 HDG
M 24	x	160	S	1	1510,00 HDG
M 24	x	165	S	1	1620,00 HDG
M 24	x	170	S	1	1980,00 HDG
M 24	x	175	S	1	2120,00 HDG
M 24	x	180	S	1	2120,00 HDG
M 24	x	190	S	1	2260,00 HDG
M 24	x	200	S	1	2410,00 HDG
M 24	x	210	S	1	2750,00 HDG
M 24	x	220	S	1	2900,00 HDG
M 24	x	230	S	1	3050,00 HDG
M 24	x	240	S	1	3200,00 HDG
M 24	x	250	S	1	3350,00 HDG
M 24	x	260	S	1	3500,00 HDG
M 27	x	60	S	1	910,00 HDG
M 27	x	65	S	1	920,00 HDG
M 27	x	70	S	1	940,00 HDG
M 27	x	75	S	1	950,00 HDG
M 27	x	80	S	1	980,00 HDG
M 27	x	85	S	1	1030,00 HDG
M 27	x	90	S	1	1030,00 HDG
M 27	x	95	S	1	1080,00 HDG
M 27	x	100	S	1	1090,00 HDG
M 27	x	105	S	1	1130,00 HDG
M 27	x	110	S	1	1140,00 HDG
M 27	x	115	S	1	1190,00 HDG
M 27	x	120	S	1	1200,00 HDG
M 27	x	125	S	1	1220,00 HDG
M 27	x	130	S	1	1230,00 HDG
M 27	x	135	S	1	1280,00 HDG
M 27	x	140	S	1	1280,00 HDG
M 27	x	145	S	1	1540,00 HDG
M 27	x	150	S	1	1550,00 HDG
M 27	x	155	S	1	1610,00 HDG
M 27	x	160	S	1	1610,00 HDG
M 27	x	165	S	1	2220,00 HDG
M 27	x	170	S	1	2220,00 HDG

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 27	x	175	S	1	2370,00 HDG
M 27	x	180	S	1	2900,00 HDG
M 27	x	190	S	1	3100,00 HDG
M 27	x	200	S	1	3300,00 HDG
M 27	x	210	S	1	3700,00 HDG
M 27	x	220	S	1	3950,00 HDG
M 27	x	230	S	1	4100,00 HDG
M 27	x	240	S	1	4300,00 HDG
M 27	x	250	S	1	4550,00 HDG
M 27	x	260	S	1	4750,00 HDG
M 27	x	280	S	1	5100,00 HDG
M 27	x	290	S	1	5900,00 HDG
M 30	x	70	S	1	1250,00 HDG
M 30	x	75	S	1	1270,00 HDG
M 30	x	80	S	1	1300,00 HDG
M 30	x	85	S	1	1350,00 HDG
M 30	x	90	S	1	1380,00 HDG
M 30	x	95	S	1	1420,00 HDG
M 30	x	100	S	1	1450,00 HDG
M 30	x	105	S	1	1500,00 HDG
M 30	x	110	S	1	1560,00 HDG
M 30	x	115	S	1	1610,00 HDG
M 30	x	120	S	1	1620,00 HDG
M 30	x	125	S	1	1690,00 HDG
M 30	x	130	S	1	1690,00 HDG
M 30	x	135	S	1	1760,00 HDG
M 30	x	140	S	1	1770,00 HDG
M 30	x	145	S	1	2110,00 HDG
M 30	x	150	S	1	2120,00 HDG
M 30	x	155	S	1	2190,00 HDG
M 30	x	160	S	1	2200,00 HDG
M 30	x	165	S	1	2900,00 HDG
M 30	x	170	S	1	2900,00 HDG
M 30	x	175	S	1	3350,00 HDG
M 30	x	180	S	1	3650,00 HDG
M 30	x	190	S	1	3850,00 HDG
M 30	x	200	S	1	4050,00 HDG
M 30	x	210	S	1	4500,00 HDG
M 30	x	220	S	1	4550,00 HDG
M 30	x	230	S	1	4950,00 HDG
M 30	x	240	S	1	4950,00 HDG
M 30	x	250	S	1	5100,00 HDG
M 30	x	260	S	1	5400,00 HDG
M 36	x	85	S	1	3700,00 HDG
M 36	x	90	S	1	3850,00 HDG
M 36	x	95	S	1	4000,00 HDG
M 36	x	100	S	1	4150,00 HDG
M 36	x	105	S	1	4300,00 HDG
M 36	x	110	S	1	4300,00 HDG
M 36	x	115	S	1	4500,00 HDG
M 36	x	120	S	1	4500,00 HDG
M 36	x	125	S	1	4650,00 HDG
M 36	x	130	S	1	4650,00 HDG
M 36	x	135	S	1	4800,00 HDG
M 36	x	140	S	1	4800,00 HDG
M 36	x	145	S	1	4950,00 HDG
M 36	x	150	S	1	4950,00 HDG
M 36	x	155	S	1	5100,00 HDG
M 36	x	160	S	1	5200,00 HDG
M 36	x	165	S	1	6800,00 HDG
M 36	x	170	S	1	6800,00 HDG
M 36	x	175	S	1	6900,00 HDG
M 36	x	180	S	1	7000,00 HDG
M 36	x	185	S	1	7100,00 HDG
M 36	x	190	S	1	7100,00 HDG
M 36	x	195	S	1	7300,00 HDG
M 36	x	200	S	1	7300,00 HDG
M 36	x	205	S	1	7400,00 HDG
M 36	x	210	S	1	7500,00 HDG
M 36	x	215	S	1	7600,00 HDG
M 36	x	220	S	1	7700,00 HDG
M 36	x	230	S	1	8000,00 HDG
M 36	x	240	S	1	8100,00 HDG
M 36	x	250	S	1	8300,00 HDG
M 36	x	260	S	1	8500,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
EN 14399.106			610

14399-4 10



Hexagon nuts for high-strength structural bolting, system HV

brand Peiner

Dimensions ➔ TI-58 Material properties ➔ TI-233

Dimensions M 39-M 64 acc. to DAST directive 021 on request

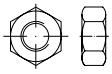
CE RoHS REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 12	S	1	43,00
M 16	S	1	82,00
M 20	S	1	101,00
M 22	S	1	152,00
M 24	S	1	165,00
M 27	S	1	255,00
M 30	S	1	395,00
M 36	S	1	1230,00

EN	14399.*	610

14399-4 10 hot dip galvanized



Hexagon nuts for high-strength structural bolting, system HV

thread tolerance 6AZ,
dimensions M 42 acc. to DAST directive 021,
*brand Peiner = 126, brand Friedberg = 127

Dimensions ➔ TI-58 Corrosion protection ➔ TI-231
Material properties ➔ TI-233

Dimensions M 39-M 64 acc. to DAST directive 021 on request

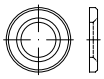
CE RoHS REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 12	S	1	51,00 HDG
M 16	S	1	77,00 HDG
M 20	S	1	124,00 HDG
M 22	S	1	157,00 HDG
M 24	S	1	214,00 HDG
M 27	S	1	330,00 HDG
M 30	S	1	490,00 HDG
M 36	S	1	1400,00 HDG
M 42	S	1	3350,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
EN 14399.004			610

14399-6 Steel 300 HV



Plain chamfered washers for high-strength structural bolting, system HV

brand Peiner, ∅ 33 not CE

Dimensions ➔ TI-59

Dimensions M 39-M 64 acc. to DAST directive 021 on request

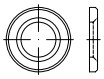
CE RoHS REACh SVHC free

Declaration of performance ➔ www.reyher.de

12 (13	x	24	x	3)	S	1	18,10
16 (17	x	30	x	4)	S	1	27,50
20 (21	x	37	x	4)	S	1	35,50
22 (23	x	39	x	4)	S	1	43,50
24 (25	x	44	x	4)	S	1	59,00
27 (28	x	50	x	5)	S	1	90,00
30 (31	x	56	x	5)	S	1	214,00
33 (34	x	60	x	5)	S	1	345,00
36 (37	x	66	x	6)	S	1	345,00

EN	14399.*	610

14399-6 Steel 300 HV hot dip galvanized



Plain chamfered washers for high-strength structural bolting, system HV

dimensions M 42 acc. to DAST directive 021,
*brand Peiner = 024, brand Friedberg = 025

Dimensions ➔ TI-59 Corrosion protection ➔ TI-231

Dimensions M 39-M 64 acc. to DAST directive 021 on request

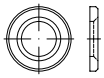
CE RoHS REACh SVHC free

Declaration of performance ➔ www.reyher.de

12 (13	x	24	x	3)	S	1	20,40 HDG
16 (17	x	30	x	4)	S	1	32,50 HDG
20 (21	x	37	x	4)	S	1	41,50 HDG
22 (23	x	39	x	4)	S	1	51,00 HDG
24 (25	x	44	x	4)	S	1	58,00 HDG
27 (28	x	50	x	5)	S	1	106,00 HDG
30 (31	x	56	x	5)	S	1	234,00 HDG
36 (37	x	66	x	6)	S	1	385,00 HDG
42 (43	x	78	x	8)	S	1	1410,00 HDG

Dimensions	PU	Pieces	€/100/Mat.
EN	14399.034		610

14399-6 Steel 300 HV HDG lubricated



Plain chamfered washers for high-strength structural bolting, system HV

for bolting about head, brand Peiner

Dimensions ➔ TI-59

- Dimensions M 39–M 64 acc. to DAST directive 021 on request
- Certificates inside of the boxes

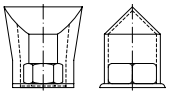
CE | RoHS ✓ | REACh SVHC free

Declaration of performance ➔ www.reyher.de

12 (13	x	24	x	3)	S	20	560,00 HDG
16 (17	x	30	x	4)	S	20	580,00 HDG
20 (21	x	37	x	4)	S	20	590,00 HDG
22 (23	x	39	x	4)	S	20	620,00 HDG
24 (25	x	44	x	4)	S	20	620,00 HDG
27 (28	x	50	x	5)	S	20	700,00 HDG
30 (31	x	56	x	5)	S	20	720,00 HDG
36 (37	x	66	x	6)	S	20	890,00 HDG

article	88916.000	610

88916 Steel



Safety sockets for high-strength structural bolting assemblies, system HV

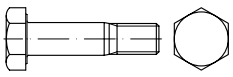
Dimensions ➔ TI-59 REACH ➔ TI-262

RoHS ✓

M 12	S	10	2150,00
M 16	S	10	2150,00
M 20	S	10	2150,00
M 24	S	10	2350,00
M 27	S	5	2550,00
M 30	S	5	2650,00
M 36	S	5	4650,00

Dimensions	PU	Pieces	€/100/Mat.
EN	14399.138		741

14399-8 10.9 hot dip galvanized



Hexagon fit bolts with large head for high-strength structural bolting, system HV

thread tolerance 6g + HDG

- nuts ➔ EN 14399-4
- washers ➔ EN 14399-6

Dimensions ➔ TI-58 Corrosion protection ➔ TI-231
Material properties ➔ TI-232 Tightening torque ➔ TI-248

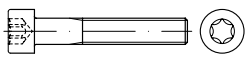
CE | RoHS ✓ | REACh SVHC free

Declaration of performance ➔ www.reyher.de

M 16	x	45	S	1	1190,00 HDG
M 16	x	50	S	1	1190,00 HDG
M 16	x	55	S	1	1250,00 HDG
M 16	x	60	S	1	1290,00 HDG
M 16	x	65	S	1	1340,00 HDG
M 16	x	70	S	1	1380,00 HDG
M 16	x	75	S	1	1430,00 HDG
M 16	x	80	S	1	1480,00 HDG
M 16	x	85	S	1	1530,00 HDG
M 16	x	90	S	1	1560,00 HDG
M 20	x	50	S	1	1220,00 HDG
M 20	x	55	S	1	1280,00 HDG
M 20	x	60	S	1	1320,00 HDG
M 20	x	65	S	1	1380,00 HDG
M 20	x	70	S	1	1420,00 HDG
M 20	x	75	S	1	1470,00 HDG
M 20	x	80	S	1	1520,00 HDG
M 20	x	85	S	1	1560,00 HDG
M 20	x	90	S	1	1610,00 HDG
M 20	x	95	S	1	1650,00 HDG
M 20	x	100	S	1	1700,00 HDG
M 20	x	105	S	1	1740,00 HDG
M 20	x	110	S	1	1740,00 HDG
M 20	x	115	S	1	1750,00 HDG
M 20	x	130	S	1	1930,00 HDG
M 22	x	55	S	1	1790,00 HDG
M 22	x	60	S	1	1860,00 HDG
M 22	x	65	S	1	1930,00 HDG
M 22	x	70	S	1	2000,00 HDG
M 22	x	75	S	1	2040,00 HDG
M 22	x	80	S	1	2110,00 HDG
M 22	x	85	S	1	2190,00 HDG
M 22	x	90	S	1	2260,00 HDG
M 22	x	95	S	1	2340,00 HDG
M 22	x	100	S	1	2420,00 HDG
M 22	x	110	S	1	2600,00 HDG
M 22	x	120	S	1	2700,00 HDG
M 24	x	60	S	1	1890,00 HDG
M 24	x	65	S	1	1960,00 HDG
M 24	x	70	S	1	2040,00 HDG
M 24	x	75	S	1	2080,00 HDG
M 24	x	80	S	1	2150,00 HDG
M 24	x	85	S	1	2230,00 HDG
M 24	x	90	S	1	2300,00 HDG
M 24	x	95	S	1	2380,00 HDG
M 24	x	100	S	1	2450,00 HDG
M 24	x	105	S	1	2550,00 HDG
M 24	x	110	S	1	2550,00 HDG
M 24	x	115	S	1	2700,00 HDG
M 24	x	120	S	1	2700,00 HDG
M 24	x	130	S	1	2850,00 HDG
M 24	x	135	S	1	2950,00 HDG
M 24	x	140	S	1	2950,00 HDG
M 24	x	150	S	1	3100,00 HDG
M 27	x	65	S	1	2330,00 HDG
M 27	x	70	S	1	2750,00 HDG
M 27	x	75	S	1	2850,00 HDG
M 27	x	80	S	1	2900,00 HDG
M 27	x	85	S	1	3050,00 HDG
M 27	x	90	S	1	3100,00 HDG
M 27	x	95	S	1	3200,00 HDG
M 27	x	100	S	1	3300,00 HDG
M 27	x	105	S	1	3450,00 HDG
M 27	x	110	S	1	3450,00 HDG
M 27	x	115	S	1	3600,00 HDG
M 27	x	120	S	1	3650,00 HDG
M 27	x	130	S	1	3850,00 HDG
M 27	x	140	S	1	4100,00 HDG
M 27	x	150	S	1	4250,00 HDG
M 27	x	160	S	1	4350,00 HDG
M 27	x	180	S	1	4850,00 HDG
M 30	x	75	S	1	3250,00 HDG
M 30	x	80	S	1	3450,00 HDG
M 30	x	85	S	1	3650,00 HDG
M 30	x	90	S	1	3750,00 HDG
M 30	x	95	S	1	3850,00 HDG
M 30	x	100	S	1	3950,00 HDG
M 30	x	105	S	1	4150,00 HDG
M 30	x	110	S	1	4150,00 HDG
M 30	x	115	S	1	4250,00 HDG
M 30	x	120	S	1	4300,00 HDG
M 30	x	125	S	1	4450,00 HDG
M 30	x	130	S	1	4500,00 HDG
M 30	x	135	S	1	4600,00 HDG
M 30	x	140	S	1	4650,00 HDG
M 30	x	145	S	1	4750,00 HDG
M 30	x	150	S	1	4800,00 HDG

ISO	14579.810	1000

14579 8.8 zinc plated



Hexalobular socket head cap screws

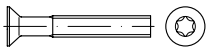
Dimensions ➔ TI-12 Corrosion protection ➔ TI-228
Material properties ➔ TI-232 Tightening torque ➔ TI-244

RoHS ✓ | REACh SVHC free

M 6	x	16	S	200	8,80 ZP
M 6	x	20	S	200	9,60 ZP
M 8	x	20	S	200	15,50 ZP
M 8	x	25	S	200	16,90 ZP
M 8	x	30	S	200	18,10 ZP
M 8	x	35	S	200	19,80 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	14581.410		460

14581 04.8 zinc plated



Hexalobular socket countersunk head screws

Caution!
Screws have only a reduced loadability.

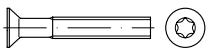
Dimensions ➔ TI-15 Corrosion protection ➔ TI-228
Material properties ➔ TI-232 REACH ➔ TI-262

RoHS ✓

M 3	x	4	S	2000	7,60 ZP
M 3	x	5	S	2000	7,60 ZP
M 3	x	6	S	2000	5,00 ZP
M 3	x	8	S	2000	2,65 ZP
M 3	x	10	S	2000	2,80 ZP
M 3	x	12	S	2000	2,85 ZP
M 3	x	16	S	2000	3,60 ZP
M 3	x	20	S	2000	3,80 ZP
M 3	x	25	S	2000	4,00 ZP
M 4	x	6	S	2000	6,90 ZP
M 4	x	8	S	2000	3,75 ZP
M 4	x	10	S	2000	3,90 ZP
M 4	x	12	S	2000	4,00 ZP
M 4	x	16	S	2000	4,45 ZP
M 4	x	20	S	2000	4,75 ZP
M 4	x	25	S	1000	5,50 ZP
M 4	x	30	S	1000	7,10 ZP
M 4	x	35	S	1000	8,90 ZP
M 4	x	40	S	1000	10,30 ZP
M 5	x	8	S	2000	9,80 ZP
M 5	x	10	S	2000	5,10 ZP
M 5	x	12	S	1000	5,30 ZP
M 5	x	16	S	1000	5,90 ZP
M 5	x	20	S	1000	6,60 ZP
M 5	x	25	S	1000	7,40 ZP
M 5	x	30	S	1000	9,40 ZP
M 5	x	35	S	500	10,40 ZP
M 5	x	40	S	500	11,20 ZP
M 5	x	45	S	500	13,10 ZP
M 5	x	50	S	500	18,20 ZP
M 6	x	10	S	1000	13,00 ZP
M 6	x	12	S	1000	7,60 ZP
M 6	x	16	S	1000	8,60 ZP
M 6	x	20	S	1000	9,50 ZP
M 6	x	25	S	500	10,60 ZP
M 6	x	30	S	500	12,10 ZP
M 6	x	35	S	500	14,10 ZP
M 6	x	40	S	500	15,80 ZP
M 6	x	50	S	200	21,10 ZP
M 6	x	60	S	200	25,50 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	14581.810		460

14581 08.8 zinc plated



Hexalobular socket countersunk head screws

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-15 Corrosion protection ➔ TI-228
Material properties ➔ TI-232

RoHS ✓ REACh SVHC free

M 4	x	8	S	500	30,50 ZP
M 4	x	10	S	500	31,00 ZP
M 4	x	12	S	500	31,00 ZP
M 4	x	16	S	500	35,50 ZP
M 4	x	20	S	500	36,00 ZP
M 4	x	25	S	500	37,00 ZP
M 5	x	8	S	500	18,20 ZP
M 5	x	10	S	500	19,00 ZP
M 5	x	12	S	500	20,10 ZP
M 5	x	16	S	500	20,80 ZP
M 5	x	20	S	500	21,60 ZP
M 5	x	25	S	500	25,50 ZP
M 6	x	10	S	500	20,80 ZP
M 6	x	12	S	500	18,90 ZP
M 6	x	16	S	500	18,70 ZP
M 6	x	20	S	500	20,20 ZP
M 6	x	25	S	500	22,50 ZP
M 6	x	30	S	200	24,90 ZP
M 6	x	35	S	200	27,50 ZP
M 8	x	16	S	200	30,00 ZP
M 8	x	20	S	200	27,00 ZP
M 8	x	25	S	200	29,00 ZP
M 8	x	30	S	200	32,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO	14583.410		710

14583 4.8 zinc plated



Pan head screws, with hexalobular socket

Dimensions ➔ TI-40 Corrosion protection ➔ TI-228
Material properties ➔ TI-232 REACH ➔ TI-262

Stainless ➔ pg. 590

RoHS ✓

M 2	x	4	S	2000	12,90 ZP
M 2	x	6	S	2000	9,10 ZP
M 2	x	8	S	2000	9,10 ZP
M 2	x	10	S	2000	9,20 ZP
M 2	x	12	S	2000	9,40 ZP
M 2	x	16	S	2000	9,50 ZP
M 2,5	x	4	S	2000	13,70 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 2,5	x	5	S	2000	13,70 ZP
M 2,5	x	6	S	2000	9,20 ZP
M 2,5	x	8	S	2000	9,20 ZP
M 2,5	x	10	S	2000	9,30 ZP
M 2,5	x	12	S	2000	9,40 ZP
M 2,5	x	16	S	2000	9,90 ZP
M 3	x	4	S	2000	11,20 ZP
M 3	x	4	K	200	14,10 ZP
M 3	x	5	S	2000	11,20 ZP
M 3	x	5	K	200	14,10 ZP
M 3	x	6	S	2000	8,60 ZP
M 3	x	6	K	200	11,50 ZP
M 3	x	8	S	2000	8,60 ZP
M 3	x	8	K	200	11,50 ZP
M 3	x	10	S	2000	8,80 ZP
M 3	x	10	K	200	11,70 ZP
M 3	x	12	S	2000	8,80 ZP
M 3	x	12	K	200	11,70 ZP
M 3	x	16	S	2000	8,90 ZP
M 3	x	16	K	200	11,80 ZP
M 3	x	20	S	2000	9,40 ZP
M 3	x	20	K	200	12,30 ZP
M 3	x	25	S	2000	9,70 ZP
M 3	x	25	K	200	12,60 ZP
M 3	x	30	S	1000	10,30 ZP
M 3	x	30	K	200	13,20 ZP
M 3	x	40	S	1000	11,80 ZP
M 3	x	40	K	200	14,70 ZP
M 4	x	5	S	2000	11,90 ZP
M 4	x	5	K	200	14,80 ZP
M 4	x	6	S	2000	8,90 ZP
M 4	x	6	K	200	11,80 ZP
M 4	x	8	S	2000	9,40 ZP
M 4	x	8	K	200	12,30 ZP
M 4	x	10	S	2000	9,60 ZP
M 4	x	10	K	200	12,50 ZP
M 4	x	12	S	2000	9,70 ZP
M 4	x	12	K	200	12,60 ZP
M 4	x	16	S	2000	10,30 ZP
M 4	x	16	K	200	13,20 ZP
M 4	x	20	S	2000	11,10 ZP
M 4	x	20	K	200	14,00 ZP
M 4	x	25	S	1000	11,70 ZP
M 4	x	25	K	200	14,60 ZP
M 4	x	30	S	1000	12,30 ZP
M 4	x	30	K	200	15,20 ZP
M 4	x	32	S	1000	10,40 ZP
M 4	x	35	S	1000	12,80 ZP
M 4	x	35	K	200	15,70 ZP
M 5	x	6	S	2000	11,10 ZP
M 5	x	6	K	200	14,00 ZP
M 5	x	8	S	2000	11,20 ZP
M 5	x	8	K	200	14,10 ZP
M 5	x	10	S	2000	11,40 ZP
M 5	x	10	K	200	14,30 ZP
M 5	x	12	S	1000	11,80 ZP
M 5	x	12	K	200	14,70 ZP
M 5	x	16	S	1000	12,50 ZP
M 5	x	16	K	200	15,40 ZP
M 5	x	18	S	1000	13,60 ZP
M 5	x	20	S	1000	13,60 ZP
M 5	x	20	K	200	16,50 ZP
M 5	x	25	S	1000	14,30 ZP
M 5	x	25	K	200	17,20 ZP
M 5	x	30	S	1000	15,00 ZP
M 5	x	30	K	200	18,00 ZP
M 6	x	10	S	1000	15,20 ZP
M 6	x	10	K	200	18,10 ZP
M 6	x	12	S	1000	15,40 ZP
M 6	x	12	K	200	18,30 ZP
M 6	x	16	S	1000	15,80 ZP
M 6	x	16	K	200	15,80 ZP
M 6	x	20	S	1000	16,70 ZP
M 6	x	20	K	200	19,70 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	25	S	500	17,80 ZP
M 6	x	25	K	200	20,70 ZP
M 6	x	30	S	500	19,00 ZP
M 6	x	30	K	200	22,00 ZP

ISO	14585.013	690
14585	**Steel, hard. zinc plated**	**type C**



Pan head tapping screws with hexalobular socket, C = with cone end

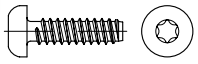
Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

Stainless ➔ pg. 590

RoHS ✓ REACh SVHC free

2,2	x	4,5 -C	S	2000	10,30 ZP
2,2	x	6,5 -C	S	2000	9,10 ZP
2,2	x	9,5 -C	S	2000	10,90 ZP
2,2	x	13 -C	S	2000	11,80 ZP
2,2	x	16 -C	S	2000	13,30 ZP
2,9	x	6,5 -C	S	2000	3,00 ZP
2,9	x	9,5 -C	S	2000	2,70 ZP
2,9	x	13 -C	S	2000	2,80 ZP
2,9	x	16 -C	S	2000	2,90 ZP
2,9	x	19 -C	S	2000	4,25 ZP
2,9	x	22 -C	S	2000	5,30 ZP
2,9	x	25 -C	S	1000	5,70 ZP
3,5	x	9,5 -C	S	1000	3,15 ZP
3,5	x	13 -C	S	1000	3,30 ZP
3,5	x	16 -C	S	1000	3,40 ZP
3,5	x	19 -C	S	1000	4,30 ZP
3,5	x	22 -C	S	1000	6,00 ZP
3,5	x	25 -C	S	500	6,30 ZP
3,5	x	32 -C	S	500	6,80 ZP
3,5	x	38 -C	S	500	7,70 ZP
3,5	x	45 -C	S	500	11,30 ZP
3,5	x	50 -C	S	500	12,30 ZP
3,9	x	9,5 -C	S	1000	3,60 ZP
3,9	x	13 -C	S	1000	3,75 ZP
3,9	x	16 -C	S	1000	4,15 ZP
3,9	x	19 -C	S	1000	4,70 ZP
3,9	x	22 -C	S	500	6,20 ZP
3,9	x	25 -C	S	500	6,80 ZP
3,9	x	32 -C	S	500	7,20 ZP
3,9	x	38 -C	S	500	10,00 ZP
3,9	x	45 -C	S	500	10,20 ZP
3,9	x	50 -C	S	500	10,50 ZP
4,2	x	9,5 -C	S	1000	3,90 ZP
4,2	x	13 -C	S	1000	3,95 ZP
4,2	x	16 -C	S	1000	4,45 ZP
4,2	x	19 -C	S	500	4,75 ZP
4,2	x	22 -C	S	500	6,60 ZP
4,2	x	25 -C	S	500	7,20 ZP
4,2	x	32 -C	S	500	7,30 ZP
4,2	x	38 -C	S	500	10,50 ZP
4,2	x	45 -C	S	500	11,90 ZP
4,2	x	50 -C	S	500	13,60 ZP
4,2	x	60 -C	S	500	23,20 ZP
4,2	x	70 -C	S	500	27,50 ZP
4,8	x	9,5 -C	S	500	7,90 ZP
4,8	x	13 -C	S	500	5,60 ZP
4,8	x	16 -C	S	500	5,90 ZP
4,8	x	19 -C	S	500	6,70 ZP
4,8	x	22 -C	S	500	7,20 ZP
4,8	x	25 -C	S	500	8,40 ZP
4,8	x	32 -C	S	250	9,60 ZP
4,8	x	38 -C	S	250	11,10 ZP
4,8	x	45 -C	S	250	15,00 ZP
4,8	x	50 -C	S	250	16,60 ZP
4,8	x	60 -C	S	250	26,50 ZP
4,8	x	70 -C	S	250	35,50 ZP
4,8	x	80 -C	S	250	42,50 ZP
4,8	x	90 -C	S	250	54,00 ZP
4,8	x	100 -C	S	250	62,00 ZP
5,5	x	13 -C	S	500	15,20 ZP
5,5	x	16 -C	S	500	12,80 ZP
5,5	x	19 -C	S	500	8,60 ZP
5,5	x	22 -C	S	500	15,40 ZP
5,5	x	25 -C	S	250	12,80 ZP
5,5	x	32 -C	S	250	14,70 ZP
5,5	x	38 -C	S	250	18,90 ZP
5,5	x	45 -C	S	250	20,40 ZP
5,5	x	50 -C	S	250	24,10 ZP
5,5	x	60 -C	S	250	45,50 ZP
5,5	x	70 -C	S	250	57,00 ZP
5,5	x	80 -C	S	250	68,00 ZP
5,5	x	90 -C	S	250	73,00 ZP
5,5	x	100 -C	S	250	83,00 ZP
6,3	x	13 -C	S	250	22,70 ZP
6,3	x	16 -C	S	250	17,00 ZP
6,3	x	19 -C	S	250	14,20 ZP
6,3	x	22 -C	S	250	16,40 ZP
6,3	x	25 -C	S	250	16,40 ZP
6,3	x	32 -C	S	250	18,00 ZP
6,3	x	38 -C	S	250	22,30 ZP
6,3	x	45 -C	S	250	27,50 ZP
6,3	x	50 -C	S	250	29,50 ZP
6,3	x	60 -C	S	250	52,00 ZP
6,3	x	70 -C	S	250	73,00 ZP
6,3	x	80 -C	S	250	82,00 ZP
6,3	x	90 -C	S	250	91,00 ZP
6,3	x	100 -C	S	250	99,00 ZP

ISO	14585.014	690
14585	**Steel, hard. zinc plated**	**type F**



Pan head tapping screws with hexalobular socket, F = with flat end

Dimensions ➔ TI-46 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

2,9	x	4,5 -F	S	2000	6,30 ZP
2,9	x	6,5 -F	S	1000	5,60 ZP
2,9	x	9,5 -F	S	1000	5,00 ZP
2,9	x	13 -F	S	1000	5,30 ZP
2,9	x	16 -F	S	1000	6,70 ZP
2,9	x	19 -F	S	1000	7,90 ZP
2,9	x	22 -F	S	1000	9,80 ZP
2,9	x	25 -F	S	1000	10,50 ZP
3,5	x	9,5 -F	S	1000	5,90 ZP
3,5	x	13 -F	S	1000	6,10 ZP
3,5	x	16 -F	S	1000	6,30 ZP
3,5	x	19 -F	S	1000	8,00 ZP
3,5	x	22 -F	S	1000	11,10 ZP
3,5	x	25 -F	S	1000	11,70 ZP
3,5	x	32 -F	S	1000	12,80 ZP
3,5	x	38 -F	S	1000	14,30 ZP
3,5	x	45 -F	S	500	20,90 ZP
3,5	x	50 -F	S	500	22,70 ZP
3,9	x	9,5 -F	S	1000	6,70 ZP
3,9	x	13 -F	S	1000	7,00 ZP
3,9	x	16 -F	S	1000	7,70 ZP
3,9	x	19 -F	S	1000	8,80 ZP
3,9	x	22 -F	S	500	11,50 ZP
3,9	x	25 -F	S	500	12,60 ZP
3,9	x	32 -F	S	500	13,40 ZP
3,9	x	38 -F	S	500	18,40 ZP
3,9	x	45 -F	S	500	18,90 ZP
3,9	x	50 -F	S	500	19,30 ZP
4,2	x	9,5 -F	S	1000	7,30 ZP
4,2	x	13 -F	S	1000	7,40 ZP
4,2	x	16 -F	S	1000	8,20 ZP
4,2	x	19 -F	S	500	8,80 ZP
4,2	x	22 -F	S	500	12,10 ZP
4,2	x	25 -F	S	500	13,40 ZP
4,2	x	32 -F	S	500	14,80 ZP
4,2	x	38 -F	S	500	19,40 ZP
4,2	x	45 -F	S	500	22,10 ZP
4,2	x	50 -F	S	500	25,50 ZP
4,2	x	60 -F	S	500	44,00 ZP
4,2	x	70 -F	S	250	51,00 ZP
4,2	x	80 -F	S	250	67,00 ZP
4,8	x	9,5 -F	S	500	15,20 ZP
4,8	x	13 -F	S	500	10,60 ZP
4,8	x	16 -F	S	500	10,90 ZP
4,8	x	19 -F	S	500	12,80 ZP
4,8	x	22 -F	S	500	13,40 ZP
4,8	x	25 -F	S	500	15,80 ZP
4,8	x	32 -F	S	250	18,00 ZP
4,8	x	38 -F	S	250	20,60 ZP
4,8	x	45 -F	S	250	28,00 ZP
4,8	x	50 -F	S	250	31,00 ZP
4,8	x	55 -F	S	250	50,00 ZP
4,8	x	60 -F	S	250	54,00 ZP
4,8	x	70 -F	S	250	66,00 ZP
4,8	x	80 -F	S	250	79,00 ZP
4,8	x	90 -F	S	100	101,00 ZP
4,8	x	100 -F	S	100	115,00 ZP
5,5	x	13 -F	S	500	28,50 ZP
5,5	x	16 -F	S	500	24,20 ZP
5,5	x	19 -F	S	500	18,20 ZP
5,5	x	22 -F	S	500	28,00 ZP
5,5	x	25 -F	S	500	29,50 ZP
5,5	x	32 -F	S	250	31,00 ZP
5,5	x	38 -F	S	250	35,50 ZP
5,5	x	45 -F	S	250	38,50 ZP
5,5	x	50 -F	S	250	45,00 ZP
5,5	x	60 -F	S	250	85,00 ZP
5,5	x	70 -F	S	250	105,00 ZP
5,5	x	80 -F	S	100	126,00 ZP
5,5	x	90 -F	S	100	135,00 ZP
5,5	x	100 -F	S	100	153,00 ZP
6,3	x	13 -F	S	500	42,50 ZP
6,3	x	16 -F	S	500	31,50 ZP
6,3	x	19 -F	S	500	27,00 ZP
6,3	x	22 -F	S	500	30,50 ZP
6,3	x	25 -F	S	500	31,50 ZP
6,3	x	32 -F	S	250	33,50 ZP
6,3	x	38 -F	S	250	41,50 ZP
6,3	x	45 -F	S	250	51,00 ZP
6,3	x	50 -F	S	250	56,00 ZP
6,3	x	60 -F	S	250	96,00 ZP
6,3	x	70 -F	S	100	135,00 ZP
6,3	x	80 -F	S	100	151,00 ZP
6,3	x	90 -F	S	100	170,00 ZP
6,3	x	100 -F	S	100	188,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ISO 14586.013			690

14586 Steel, hard. zinc plated — type C



Countersunk head tapping screws with hexalobular socket, C = with cone end

countersunk ⊀ = 90°

Dimensions ➔ TI-47 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

Stainless ➔ pg. 591

countersunk ⊀ = 80° ➔ DIN 7982 ISR

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
2,9	x 6,5	-C	S	1000	12,10 ZP
2,9	x 9,5	-C	S	1000	5,10 ZP
2,9	x 13	-C	S	1000	5,50 ZP
2,9	x 16	-C	S	1000	6,10 ZP
2,9	x 19	-C	S	1000	8,00 ZP
2,9	x 22	-C	S	1000	9,90 ZP
2,9	x 25	-C	S	1000	10,50 ZP
3,5	x 9,5	-C	S	1000	5,90 ZP
3,5	x 13	-C	S	1000	6,10 ZP
3,5	x 16	-C	S	1000	6,30 ZP
3,5	x 19	-C	S	1000	8,20 ZP
3,5	x 22	-C	S	1000	9,90 ZP
3,5	x 25	-C	S	1000	12,10 ZP
3,5	x 32	-C	S	1000	15,00 ZP
3,5	x 38	-C	S	1000	14,30 ZP
3,5	x 45	-C	S	1000	20,90 ZP
3,5	x 50	-C	S	1000	22,70 ZP
3,9	x 9,5	-C	S	1000	6,90 ZP
3,9	x 13	-C	S	1000	7,00 ZP
3,9	x 16	-C	S	1000	7,70 ZP
3,9	x 19	-C	S	1000	8,90 ZP
3,9	x 22	-C	S	500	10,20 ZP
3,9	x 25	-C	S	500	12,10 ZP
3,9	x 32	-C	S	500	12,10 ZP
3,9	x 38	-C	S	500	18,40 ZP
3,9	x 45	-C	S	500	21,80 ZP
3,9	x 50	-C	S	500	27,00 ZP
4,2	x 9,5	-C	S	1000	7,30 ZP
4,2	x 13	-C	S	1000	7,40 ZP
4,2	x 16	-C	S	1000	8,20 ZP
4,2	x 19	-C	S	500	9,70 ZP
4,2	x 22	-C	S	500	10,60 ZP
4,2	x 25	-C	S	500	13,40 ZP
4,2	x 32	-C	S	500	17,00 ZP
4,2	x 38	-C	S	500	20,60 ZP
4,2	x 45	-C	S	500	24,90 ZP
4,2	x 50	-C	S	500	29,50 ZP
4,2	x 60	-C	S	500	48,50 ZP
4,2	x 70	-C	S	500	60,00 ZP
4,2	x 80	-C	S	500	76,00 ZP
4,8	x 9,5	-C	S	500	14,70 ZP
4,8	x 13	-C	S	500	10,90 ZP
4,8	x 16	-C	S	500	11,10 ZP
4,8	x 19	-C	S	500	12,40 ZP
4,8	x 22	-C	S	500	13,40 ZP
4,8	x 25	-C	S	500	15,80 ZP
4,8	x 32	-C	S	250	18,20 ZP
4,8	x 38	-C	S	250	20,60 ZP
4,8	x 45	-C	S	250	28,00 ZP
4,8	x 50	-C	S	250	31,50 ZP
4,8	x 55	-C	S	250	47,50 ZP
4,8	x 60	-C	S	250	51,00 ZP
4,8	x 70	-C	S	250	66,00 ZP
4,8	x 80	-C	S	250	79,00 ZP
4,8	x 90	-C	S	100	101,00 ZP
4,8	x 100	-C	S	100	115,00 ZP
5,5	x 13	-C	S	500	28,50 ZP
5,5	x 16	-C	S	500	23,60 ZP
5,5	x 19	-C	S	500	21,80 ZP
5,5	x 22	-C	S	500	28,50 ZP
5,5	x 25	-C	S	500	29,50 ZP
5,5	x 32	-C	S	250	34,00 ZP
5,5	x 38	-C	S	250	38,00 ZP
5,5	x 45	-C	S	250	42,50 ZP
5,5	x 50	-C	S	250	48,50 ZP
5,5	x 60	-C	S	250	85,00 ZP
5,5	x 70	-C	S	250	105,00 ZP
5,5	x 80	-C	S	250	128,00 ZP
5,5	x 90	-C	S	250	140,00 ZP
5,5	x 100	-C	S	250	158,00 ZP
6,3	x 13	-C	S	500	42,50 ZP
6,3	x 16	-C	S	500	31,50 ZP
6,3	x 19	-C	S	500	27,00 ZP
6,3	x 22	-C	S	500	30,50 ZP
6,3	x 25	-C	S	500	31,50 ZP
6,3	x 32	-C	S	250	35,50 ZP
6,3	x 38	-C	S	250	42,50 ZP
6,3	x 45	-C	S	250	51,00 ZP
6,3	x 50	-C	S	250	68,00 ZP
6,3	x 60	-C	S	250	97,00 ZP
6,3	x 70	-C	S	250	140,00 ZP
6,3	x 80	-C	S	250	152,00 ZP
6,3	x 90	-C	S	250	170,00 ZP
6,3	x 100	-C	S	250	188,00 ZP

ISO	14586.014	690

14586 Steel, hard. zinc plated — type F



Countersunk head tapping screws with hexalobular socket, F = with flat end

countersunk ⊀ = 90°

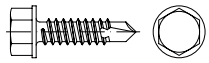
Dimensions ➔ TI-47 Assembly ➔ TI-251
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
2,9	x 6,5	-F	S	1000	12,10 ZP
2,9	x 9,5	-F	S	1000	5,10 ZP
2,9	x 13	-F	S	1000	5,50 ZP
2,9	x 16	-F	S	1000	6,10 ZP
2,9	x 19	-F	S	1000	8,00 ZP
2,9	x 22	-F	S	1000	9,90 ZP
2,9	x 25	-F	S	1000	10,50 ZP
3,5	x 9,5	-F	S	1000	5,90 ZP
3,5	x 13	-F	S	1000	6,10 ZP
3,5	x 16	-F	S	1000	6,30 ZP
3,5	x 19	-F	S	1000	8,20 ZP
3,5	x 22	-F	S	1000	9,90 ZP
3,5	x 25	-F	S	1000	12,10 ZP
3,5	x 32	-F	S	1000	15,00 ZP
3,5	x 38	-F	S	1000	14,30 ZP
3,5	x 45	-F	S	1000	20,90 ZP
3,5	x 50	-F	S	500	22,70 ZP
3,9	x 9,5	-F	S	1000	6,90 ZP
3,9	x 13	-F	S	1000	7,00 ZP
3,9	x 16	-F	S	1000	7,70 ZP
3,9	x 19	-F	S	1000	8,90 ZP
3,9	x 22	-F	S	500	10,20 ZP
3,9	x 25	-F	S	500	12,10 ZP
3,9	x 32	-F	S	500	12,10 ZP
3,9	x 38	-F	S	500	18,40 ZP
3,9	x 45	-F	S	500	21,80 ZP
3,9	x 50	-F	S	500	27,00 ZP
4,2	x 9,5	-F	S	1000	7,30 ZP
4,2	x 13	-F	S	1000	7,40 ZP
4,2	x 16	-F	S	1000	8,20 ZP
4,2	x 19	-F	S	500	9,70 ZP
4,2	x 22	-F	S	500	10,60 ZP
4,2	x 25	-F	S	500	13,40 ZP
4,2	x 32	-F	S	500	17,00 ZP
4,2	x 38	-F	S	500	20,60 ZP
4,2	x 45	-F	S	500	24,90 ZP
4,2	x 50	-F	S	500	29,50 ZP
4,2	x 60	-F	S	500	48,50 ZP
4,2	x 70	-F	S	250	60,00 ZP
4,2	x 80	-F	S	250	76,00 ZP
4,8	x 9,5	-F	S	500	14,70 ZP
4,8	x 13	-F	S	500	10,90 ZP
4,8	x 16	-F	S	500	11,10 ZP
4,8	x 19	-F	S	500	12,40 ZP
4,8	x 22	-F	S	500	13,40 ZP
4,8	x 25	-F	S	500	15,80 ZP
4,8	x 32	-F	S	250	18,20 ZP
4,8	x 38	-F	S	250	20,60 ZP
4,8	x 45	-F	S	250	28,00 ZP
4,8	x 50	-F	S	250	31,50 ZP
4,8	x 55	-F	S	250	47,50 ZP
4,8	x 60	-F	S	250	51,00 ZP
4,8	x 70	-F	S	250	66,00 ZP
4,8	x 80	-F	S	250	79,00 ZP
4,8	x 90	-F	S	100	101,00 ZP
4,8	x 100	-F	S	100	115,00 ZP
5,5	x 13	-F	S	500	28,50 ZP
5,5	x 16	-F	S	500	23,60 ZP
5,5	x 19	-F	S	500	21,80 ZP
5,5	x 22	-F	S	500	28,50 ZP
5,5	x 25	-F	S	500	29,50 ZP
5,5	x 32	-F	S	250	34,00 ZP
5,5	x 38	-F	S	250	38,00 ZP
5,5	x 45	-F	S	250	42,50 ZP
5,5	x 50	-F	S	250	48,50 ZP
5,5	x 60	-F	S	250	85,00 ZP
5,5	x 70	-F	S	250	105,00 ZP
5,5	x 80	-F	S	100	128,00 ZP
5,5	x 90	-F	S	100	140,00 ZP
5,5	x 100	-F	S	100	158,00 ZP
6,3	x 13	-F	S	500	42,50 ZP
6,3	x 16	-F	S	500	31,50 ZP
6,3	x 19	-F	S	500	27,00 ZP
6,3	x 22	-F	S	500	30,50 ZP
6,3	x 25	-F	S	500	31,50 ZP
6,3	x 32	-F	S	250	35,50 ZP
6,3	x 38	-F	S	250	42,50 ZP
6,3	x 45	-F	S	250	51,00 ZP
6,3	x 50	-F	S	250	68,00 ZP
6,3	x 60	-F	S	250	97,00 ZP
6,3	x 70	-F	S	250	140,00 ZP
6,3	x 80	-F	S	100	152,00 ZP
6,3	x 90	-F	S	100	170,00 ZP
6,3	x 100	-F	S	100	188,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
~ISO	15480.010		637

15480 Steel, hard. zinc plated



Hexagon washers head drilling screws with tapping screw thread

Dimensions ➔ TI-42 Corrosion protection ➔ TI-228

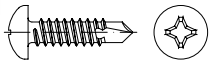
ISO 15480 ➔ replaces DIN 7504 type K

RoHS ✓ REACh SVHC free

ST 3,5	x	9,5	S	1000	9,50 ZP
ST 3,5	x	13	S	1000	9,70 ZP
ST 3,5	x	16	S	1000	10,70 ZP
ST 3,5	x	19	S	1000	11,20 ZP
ST 3,5	x	22	S	1000	17,20 ZP
ST 3,5	x	25	S	1000	22,20 ZP
ST 3,9	x	13	S	1000	10,30 ZP
ST 3,9	x	16	S	1000	11,30 ZP
ST 3,9	x	19	S	1000	12,30 ZP
ST 3,9	x	22	S	1000	19,40 ZP
ST 3,9	x	25	S	1000	25,50 ZP
ST 3,9	x	32	S	1000	35,00 ZP
ST 4,2	x	13	S	1000	11,70 ZP
ST 4,2	x	13	K	100	16,50 ZP
ST 4,2	x	16	S	1000	12,30 ZP
ST 4,2	x	19	S	1000	12,50 ZP
ST 4,2	x	22	S	1000	14,30 ZP
ST 4,2	x	25	S	1000	15,20 ZP
ST 4,2	x	32	S	500	21,50 ZP
ST 4,2	x	38	S	500	28,00 ZP
ST 4,8	x	13	S	1000	14,30 ZP
ST 4,8	x	16	S	1000	15,00 ZP
ST 4,8	x	19	S	1000	15,70 ZP
ST 4,8	x	22	S	1000	18,00 ZP
ST 4,8	x	25	S	1000	19,20 ZP
ST 4,8	x	32	S	500	21,50 ZP
ST 4,8	x	38	S	500	24,00 ZP
ST 4,8	x	45	S	500	27,00 ZP
ST 4,8	x	50	S	500	28,50 ZP
ST 4,8	x	60	S	500	33,50 ZP
ST 4,8	x	70	S	250	37,00 ZP
ST 4,8	x	80	S	250	42,50 ZP
ST 5,5	x	16	S	500	21,50 ZP
ST 5,5	x	19	S	500	20,30 ZP
ST 5,5	x	22	S	500	22,90 ZP
ST 5,5	x	25	S	500	23,60 ZP
ST 5,5	x	32	S	250	26,50 ZP
ST 5,5	x	38	S	250	26,50 ZP
ST 5,5	x	45	S	250	27,00 ZP
ST 5,5	x	50	S	250	27,00 ZP
ST 5,5	x	60	S	250	39,00 ZP
ST 5,5	x	70	S	100	46,00 ZP
ST 5,5	x	80	S	100	55,00 ZP
ST 5,5	x	90	S	100	63,00 ZP
ST 5,5	x	100	S	100	78,00 ZP
ST 6,3	x	16	S	500	27,00 ZP
ST 6,3	x	19	S	500	28,50 ZP
ST 6,3	x	22	S	500	30,50 ZP
ST 6,3	x	25	S	500	31,50 ZP
ST 6,3	x	32	S	250	37,00 ZP
ST 6,3	x	38	S	250	39,50 ZP
ST 6,3	x	45	S	250	44,50 ZP
ST 6,3	x	50	S	250	49,50 ZP
ST 6,3	x	60	S	250	54,00 ZP
ST 6,3	x	70	S	100	60,00 ZP
ST 6,3	x	80	S	100	68,00 ZP
ST 6,3	x	90	S	100	83,00 ZP
ST 6,3	x	100	S	100	100,00 ZP
ST 6,3	x	110	S	100	119,00 ZP
ST 6,3	x	120	S	100	141,00 ZP
ST 6,3	x	130	S	100	165,00 ZP
ST 6,3	x	140	S	100	194,00 ZP
ST 6,3	x	150	S	100	230,00 ZP
ST 6,3	x	160	S	100	295,00 ZP

ISO	15481.014	637

15481 Steel, hard. zinc plated H



Pan head drilling screws with tapping screw thread, H = with Phillips cross recess H

Dimensions ➔ TI-42 Corrosion protection ➔ TI-228

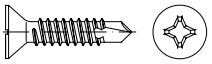
ISO 15481 ➔ replaces DIN 7504 type N (compatible)

RoHS ✓ REACh SVHC free

ST 2,9	x	9,5	-H	S	1000	8,60 ZP
ST 2,9	x	13	-H	S	1000	8,80 ZP
ST 2,9	x	16	-H	S	1000	8,90 ZP
ST 2,9	x	19	-H	S	1000	9,60 ZP
ST 3,5	x	9,5	-H	S	1000	9,90 ZP
ST 3,5	x	13	-H	S	1000	10,10 ZP
ST 3,5	x	16	-H	S	1000	10,30 ZP
ST 3,5	x	19	-H	S	1000	10,70 ZP
ST 3,5	x	22	-H	S	1000	11,70 ZP
ST 3,5	x	25	-H	S	1000	12,00 ZP
ST 3,5	x	32	-H	S	1000	13,40 ZP
ST 3,9	x	9,5	-H	S	1000	10,10 ZP
ST 3,9	x	13	-H	S	1000	10,20 ZP
ST 3,9	x	16	-H	S	1000	10,80 ZP
ST 3,9	x	19	-H	S	1000	11,30 ZP
ST 3,9	x	22	-H	S	1000	11,70 ZP
ST 3,9	x	25	-H	S	1000	12,10 ZP
ST 3,9	x	32	-H	S	1000	12,90 ZP
ST 3,9	x	38	-H	S	500	13,70 ZP
ST 3,9	x	45	-H	S	500	14,60 ZP
ST 3,9	x	50	-H	S	500	16,00 ZP
ST 4,2	x	13	-H	S	1000	12,30 ZP
ST 4,2	x	16	-H	S	1000	12,60 ZP
ST 4,2	x	19	-H	S	1000	12,90 ZP
ST 4,2	x	22	-H	S	1000	14,40 ZP
ST 4,2	x	25	-H	S	1000	15,30 ZP
ST 4,2	x	32	-H	S	500	16,50 ZP
ST 4,2	x	38	-H	S	500	17,80 ZP
ST 4,2	x	45	-H	S	500	19,30 ZP
ST 4,2	x	50	-H	S	500	20,90 ZP
ST 4,8	x	13	-H	S	1000	14,90 ZP
ST 4,8	x	16	-H	S	1000	15,30 ZP
ST 4,8	x	19	-H	S	1000	16,00 ZP
ST 4,8	x	22	-H	S	1000	17,00 ZP
ST 4,8	x	25	-H	S	1000	18,70 ZP
ST 4,8	x	32	-H	S	500	18,80 ZP
ST 4,8	x	38	-H	S	500	20,60 ZP
ST 4,8	x	45	-H	S	500	22,20 ZP
ST 4,8	x	50	-H	S	500	23,60 ZP
ST 4,8	x	60	-H	S	250	26,50 ZP
ST 4,8	x	70	-H	S	250	29,00 ZP
ST 4,8	x	80	-H	S	250	32,00 ZP
ST 4,8	x	90	-H	S	250	51,00 ZP
ST 4,8	x	100	-H	S	250	80,00 ZP
ST 4,8	x	110	-H	S	100	119,00 ZP
ST 4,8	x	120	-H	S	250	170,00 ZP
ST 5,5	x	16	-H	S	500	18,60 ZP
ST 5,5	x	19	-H	S	500	19,40 ZP
ST 5,5	x	22	-H	S	500	21,50 ZP
ST 5,5	x	25	-H	S	500	29,00 ZP
ST 5,5	x	32	-H	S	500	31,50 ZP
ST 5,5	x	38	-H	S	500	34,00 ZP
ST 5,5	x	45	-H	S	500	36,50 ZP
ST 5,5	x	50	-H	S	500	39,50 ZP
ST 5,5	x	60	-H	S	250	43,50 ZP
ST 5,5	x	70	-H	S	250	49,00 ZP
ST 5,5	x	80	-H	S	250	54,00 ZP
ST 6,3	x	16	-H	S	500	32,50 ZP
ST 6,3	x	19	-H	S	500	34,00 ZP
ST 6,3	x	22	-H	S	500	37,00 ZP
ST 6,3	x	25	-H	S	500	40,00 ZP
ST 6,3	x	32	-H	S	500	43,00 ZP
ST 6,3	x	38	-H	S	500	46,50 ZP
ST 6,3	x	45	-H	S	500	50,00 ZP
ST 6,3	x	50	-H	S	500	54,00 ZP
ST 6,3	x	60	-H	S	250	60,00 ZP
ST 6,3	x	70	-H	S	250	66,00 ZP
ST 6,3	x	80	-H	S	250	72,00 ZP
ST 6,3	x	90	-H	S	100	81,00 ZP
ST 6,3	x	100	-H	S	100	91,00 ZP

ISO	15482.014	637

15482 Steel, hard. zinc plated H



Countersunk head drilling screws with tapping screw thread, H = with Phillips cross recess H

countersunk ∢ = 90°

Dimensions ➔ TI-42 Corrosion protection ➔ TI-228

ISO 15482 ➔ replaces DIN 7504 type P

RoHS ✓ REACh SVHC free

ST 2,9	x	13	-H	S	1000	8,20 ZP
ST 2,9	x	16	-H	S	1000	8,40 ZP
ST 2,9	x	19	-H	S	1000	8,90 ZP
ST 3,5	x	13	-H	S	1000	9,40 ZP
ST 3,5	x	16	-H	S	1000	9,60 ZP
ST 3,5	x	19	-H	S	1000	9,90 ZP
ST 3,5	x	22	-H	S	1000	10,80 ZP
ST 3,5	x	25	-H	S	1000	11,20 ZP
ST 4,2	x	13	-H	S	1000	11,30 ZP
ST 4,2	x	16	-H	S	1000	11,70 ZP
ST 4,2	x	19	-H	S	1000	11,90 ZP
ST 4,2	x	22	-H	S	1000	13,50 ZP
ST 4,2	x	25	-H	S	1000	14,20 ZP
ST 4,2	x	32	-H	S	500	15,20 ZP
ST 4,2	x	38	-H	S	500	17,00 ZP
ST 4,2	x	45	-H	S	500	18,90 ZP
ST 4,2	x	50	-H	S	500	23,60 ZP
ST 4,8	x	16	-H	S	1000	12,10 ZP
ST 4,8	x	19	-H	S	1000	14,00 ZP
ST 4,8	x	22	-H	S	1000	14,70 ZP
ST 4,8	x	25	-H	S	500	14,80 ZP
ST 4,8	x	32	-H	S	500	16,10 ZP
ST 4,8	x	38	-H	S	500	17,70 ZP
ST 4,8	x	45	-H	S	500	21,10 ZP
ST 4,8	x	50	-H	S	250	24,10 ZP

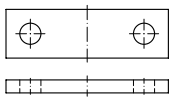
€/100 = price in € plus VAT when ordering full package unit

Dimensions				PU	Pieces	€/100/Mat.
ST 5,5	x	25	-H	S	250	18,10 ZP
ST 5,5	x	32	-H	S	250	19,70 ZP
ST 5,5	x	38	-H	S	250	21,20 ZP
ST 5,5	x	45	-H	S	250	23,80 ZP
ST 5,5	x	50	-H	S	250	26,50 ZP
ST 6,3	x	25	-H	S	250	26,00 ZP
ST 6,3	x	32	-H	S	250	27,50 ZP
ST 6,3	x	38	-H	S	250	29,50 ZP
ST 6,3	x	45	-H	S	250	33,50 ZP
ST 6,3	x	50	-H	S	250	36,50 ZP
ST 6,3	x	60	-H	S	250	38,50 ZP
ST 6,3	x	70	-H	S	250	65,00 ZP
ST 6,3	x	80	-H	S	250	88,00 ZP

DIN	15058.000	770

15058

Steel



Axle holder (for lifting appliances)

Dimensions ➔ TI-137

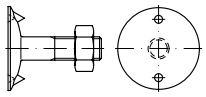
RoHS ✓ REACh SVHC free

width	x	thickness			
20	x	5	S	50	520,00
25	x	6	S	50	590,00
30	x	8	S	25	720,00
40	x	10	S	25	1350,00
50	x	12	S	10	2010,00

DIN	15237.000	770

15237

Mu 3.6



Seating screws with cupped washer, Mu = with hexagon nut

for attachment of components to belts

Dimensions ➔ TI-35

RoHS ✓ REACh SVHC free

M 6	x	20	S	200	99,00
M 8	x	20	S	100	105,00
M 8	x	25	S	100	107,00
M 8	x	30	S	100	114,00
M 8	x	35	S	100	117,00
M 8	x	40	S	100	120,00
M 8	x	50	S	100	126,00
M 10	x	30	S	100	132,00
M 10	x	35	S	100	132,00
M 10	x	40	S	100	134,00
M 10	x	45	S	100	141,00
M 10	x	50	S	100	143,00
M 12	x	35	S	100	265,00
M 12	x	40	S	100	275,00
M 12	x	50	S	100	285,00
M 12	x	60	S	100	305,00

Dimensions	PU	Pieces	€/100/Mat.
EN 16983.000			540

16983

Spring steel



Disc springs

Product information ➔ TI-141

Stainless ➔ pg. 592

EN 16983 ➔ replaces DIN 2093

RoHS ✓ REACh SVHC free

outside Ø	x	inside Ø	x	thickness			
8	x	3,2	x	0,3	S	200	12,90
8	x	3,2	x	0,4	S	200	13,20
8	x	3,2	x	0,5	S	200	13,60
8	x	4,2	x	0,2	S	200	11,10
8	x	4,2	x	0,3	S	200	12,90
8	x	4,2	x	0,4	S	200	13,20
10	x	3,2	x	0,3	S	200	13,70
10	x	3,2	x	0,4	S	200	14,20
10	x	3,2	x	0,5	S	200	14,30
10	x	4,2	x	0,4	S	200	14,20
10	x	4,2	x	0,5	S	200	14,30
10	x	4,2	x	0,6	S	200	14,30
10	x	5,2	x	0,25	S	200	13,60
10	x	5,2	x	0,4	S	200	14,20
10	x	5,2	x	0,5	S	200	14,30
12	x	4,2	x	0,4	S	200	15,40
12	x	4,2	x	0,5	S	200	15,50
12	x	4,2	x	0,6	S	200	15,70
12	x	5,2	x	0,5	S	200	15,50
12	x	5,2	x	0,6	S	200	15,70
12	x	6,2	x	0,5	S	200	15,50
12	x	6,2	x	0,6	S	200	15,70
12,5	x	6,2	x	0,35	S	200	15,30
12,5	x	6,2	x	0,5	S	200	15,50
12,5	x	6,2	x	0,7	S	200	16,30
14	x	7,2	x	0,35	S	200	16,00
14	x	7,2	x	0,5	S	200	16,10
14	x	7,2	x	0,8	S	200	17,50
15	x	5,2	x	0,4	S	200	16,10
15	x	5,2	x	0,5	S	200	16,60
15	x	5,2	x	0,6	S	200	17,00
15	x	5,2	x	0,7	S	200	17,10
15	x	6,2	x	0,5	S	200	16,60
15	x	6,2	x	0,6	S	200	17,00
15	x	6,2	x	0,7	S	200	17,10
15	x	8,2	x	0,7	S	200	17,10
15	x	8,2	x	0,8	S	200	17,70
16	x	8,2	x	0,4	S	200	16,60
16	x	8,2	x	0,6	S	200	17,20
16	x	8,2	x	0,9	S	200	18,70
18	x	6,2	x	0,4	S	200	17,40
18	x	6,2	x	0,5	S	200	17,60
18	x	6,2	x	0,6	S	200	18,00
18	x	6,2	x	0,7	S	200	18,10
18	x	6,2	x	0,8	S	200	18,70
18	x	8,2	x	0,7	S	200	18,10
18	x	8,2	x	0,8	S	200	18,70
18	x	8,2	x	1,0	S	200	20,60
18	x	9,2	x	0,45	S	200	17,40
18	x	9,2	x	0,7	S	200	18,10
18	x	9,2	x	1,0	S	200	20,60
20	x	8,2	x	0,5	S	200	18,60
20	x	8,2	x	0,6	S	200	18,80
20	x	8,2	x	0,7	S	200	19,30
20	x	8,2	x	0,8	S	200	19,70
20	x	8,2	x	0,9	S	200	20,00
20	x	8,2	x	1,0	S	200	22,10
20	x	10,2	x	0,4	S	200	18,20
20	x	10,2	x	0,5	S	200	18,60
20	x	10,2	x	0,8	S	200	19,70
20	x	10,2	x	0,9	S	200	20,00
20	x	10,2	x	1,0	S	200	22,10
20	x	10,2	x	1,1	S	200	23,20
22,5	x	11,2	x	0,6	S	200	19,40
22,5	x	11,2	x	0,8	S	200	21,20
22,5	x	11,2	x	1,25	S	200	52,00
23	x	8,2	x	0,7	S	200	20,00
23	x	8,2	x	0,8	S	200	21,60
23	x	8,2	x	0,9	S	200	22,10
23	x	10,2	x	0,9	S	200	22,10
23	x	10,2	x	1,0	S	200	26,00
23	x	12,2	x	1,0	S	200	26,00
23	x	12,2	x	1,25	S	200	52,00
23	x	12,2	x	1,5	S	200	56,00
25	x	12,2	x	0,7	S	200	22,10
25	x	12,2	x	0,9	S	200	24,00
25	x	12,2	x	1,25	S	200	51,00
25	x	12,2	x	1,5	S	200	59,00
28	x	10,2	x	0,8	S	200	27,50
28	x	10,2	x	1,0	S	200	29,00
28	x	10,2	x	1,25	S	200	60,00
28	x	10,2	x	1,5	S	200	65,00
28	x	12,2	x	1,0	S	200	29,00
28	x	12,2	x	1,25	S	200	60,00
28	x	12,2	x	1,5	S	200	65,00
28	x	14,2	x	0,8	S	200	27,50
28	x	14,2	x	1,0	S	200	29,00
28	x	14,2	x	1,25	S	200	60,00
28	x	14,2	x	1,5	S	200	65,00
31,5	x	16,3	x	0,8	S	100	31,00
31,5	x	16,3	x	1,25	S	100	67,00
31,5	x	16,3	x	1,5	S	100	72,00
31,5	x	16,3	x	1,75	S	100	77,00
31,5	x	16,3	x	2,0	S	100	85,00
31,7	x	20,4	x	0,4	S	100	89,00
34	x	12,3	x	1,0	S	100	34,00
34	x	12,3	x	1,25	S	100	73,00
34	x	12,3	x	1,5	S	100	83,00
34	x	14,3	x	1,25	S	100	73,00
34	x	14,3	x	1,5	S	100	83,00
34	x	16,3	x	1,5	S	100	83,00
34	x	16,3	x	2,0	S	100	91,00
35,5	x	18,3	x	0,9	S	100	36,50
35,5	x	18,3	x	1,25	S	100	72,00
35,5	x	18,3	x	2,0	S	100	99,00
40	x	14,3	x	1,25	S	100	102,00
40	x	14,3	x	1,5	S	100	111,00
40	x	14,3	x	1,75	S	100	115,00
40	x	14,3	x	2,0	S	100	117,00
40	x	16,3	x	1,5	S	100	111,00
40	x	16,3	x	1,75	S	100	115,00
40	x	16,3	x	2,0	S	100	117,00
40	x	18,3	x	2,0	S	100	117,00
40	x	20,4	x	1,0	S	100	53,00
40	x	20,4	x	1,5	S	100	111,00
40	x	20,4	x	2,0	S	100	117,00
40	x	20,4	x	2,25	S	100	130,00
40	x	20,4	x	2,5	S	100	141,00
45	x	22,4	x	1,25	S	200	136,00
45	x	22,4	x	1,75	S	200	152,00
45	x	22,4	x	2,5	S	200	166,00
46,5	x	30,5	x	0,6	S	100	128,00
48	x	16,3	x	1,5	S	100	147,00
50	x	18,4	x	1,25	S	100	144,00
50	x	18,4	x	1,5	S	100	151,00
50	x	18,4	x	2,0	S	100	181,00
50	x	18,4	x	2,5	S	100	210,00
50	x	18,4	x	3,0	S	100	244,00
50	x	20,4	x	2,0	S	100	181,00

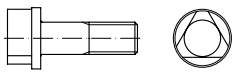
Dimensions					PU	Pieces	€/100/Mat.
50	x	20,4	x	2,5	S	100	210,00
50	x	22,4	x	2,0	S	100	181,00
50	x	22,4	x	2,5	S	100	210,00
50	x	25,4	x	1,25	S	100	144,00
50	x	25,4	x	1,5	S	100	135,00
50	x	25,4	x	2,0	S	100	181,00
50	x	25,4	x	2,25	S	100	194,00
50	x	25,4	x	2,5	S	100	210,00
50	x	25,4	x	3,0	S	100	244,00
56	x	28,5	x	1,5	S	100	183,00
56	x	28,5	x	2,0	S	100	212,00
56	x	28,5	x	2,5	S	100	260,00
56	x	28,5	x	3,0	S	100	300,00
60	x	20,5	x	2,0	S	100	241,00
60	x	20,5	x	2,5	S	100	280,00
60	x	20,5	x	3,0	S	100	330,00
60	x	25,5	x	2,5	S	100	280,00
60	x	25,5	x	3,0	S	100	330,00
60	x	30,5	x	2,5	S	100	280,00
60	x	30,5	x	2,75	S	100	305,00
60	x	30,5	x	3,0	S	100	330,00
60	x	30,5	x	3,5	S	100	370,00
63	x	31,0	x	1,8	S	100	275,00
63	x	31,0	x	2,5	S	100	295,00
63	x	31,0	x	3,0	S	100	365,00
63	x	31,0	x	3,5	S	100	395,00
70	x	24,5	x	3,0	S	100	470,00
70	x	24,5	x	3,5	S	100	540,00
70	x	25,5	x	2,0	S	100	370,00
70	x	30,5	x	2,5	S	100	395,00
70	x	30,5	x	3,0	S	100	460,00
70	x	35,5	x	3,0	S	100	460,00
70	x	35,5	x	3,5	S	100	540,00
70	x	35,5	x	4,0	S	100	670,00
70	x	40,5	x	4,0	S	100	670,00
70	x	40,5	x	5,0	S	100	840,00
71	x	36,0	x	2,0	S	100	380,00
71	x	36,0	x	2,5	S	100	420,00
71	x	36,0	x	4,0	S	100	680,00
80	x	30,5	x	2,5	S	100	510,00
80	x	31,0	x	3,0	S	100	570,00
80	x	31,0	x	4,0	S	100	840,00
80	x	36,0	x	3,0	S	100	570,00
80	x	41,0	x	3,0	S	100	570,00
80	x	41,0	x	4,0	S	50	840,00
80	x	41,0	x	5,0	S	50	1010,00
90	x	46,0	x	2,5	S	10	670,00
90	x	46,0	x	3,5	S	10	790,00
90	x	46,0	x	5,0	S	10	1180,00
100	x	41,0	x	4,0	S	10	1180,00
100	x	41,0	x	5,0	S	10	1480,00
100	x	51,0	x	2,7	S	10	850,00
100	x	51,0	x	3,5	S	10	950,00
100	x	51,0	x	4,0	S	10	1180,00
100	x	51,0	x	5,0	S	10	1480,00
100	x	51,0	x	6,0	S	1	1900,00
100	x	51,0	x	7,0	S	1	2700,00
112	x	57,0	x	3,0	S	1	1320,00
112	x	57,0	x	4,0	S	1	1520,00
112	x	57,0	x	6,0	S	1	2100,00
125	x	51,0	x	4,0	S	1	1800,00
125	x	51,0	x	5,0	S	1	2070,00
125	x	51,0	x	6,0	S	1	2900,00
125	x	61,0	x	5,0	S	1	2070,00
125	x	61,0	x	6,0	S	1	2900,00
125	x	61,0	x	8,0	S	1	4100,00
125	x	64,0	x	3,5	S	1	1540,00
125	x	64,0	x	5,0	S	1	2070,00
125	x	64,0	x	6,0	S	1	2900,00
125	x	64,0	x	7,0	S	1	3800,00
125	x	64,0	x	8,0	S	1	4100,00
125	x	71,0	x	6,0	S	1	2900,00
125	x	71,0	x	8,0	S	1	4100,00
125	x	71,0	x	10,0	S	1	4700,00
140	x	72,0	x	3,8	S	1	2270,00

Dimensions					PU	Pieces	€/100/Mat.
140	x	72,0	x	5,0	S	1	2950,00
140	x	72,0	x	8,0	S	1	5100,00
150	x	61,0	x	5,0	S	1	3250,00
150	x	61,0	x	6,0	S	1	4300,00
150	x	61,0	x	7,0	S	1	5200,00
150	x	71,0	x	6,0	S	1	4300,00
150	x	71,0	x	8,0	S	1	5800,00
150	x	81,0	x	8,0	S	1	5800,00
150	x	81,0	x	10,0	S	1	6500,00
160	x	82,0	x	4,3	S	1	3950,00
160	x	82,0	x	6,0	S	1	4750,00
160	x	82,0	x	10,0	S	5	6800,00
160	x	82,0	x	11,0	S	1	6800,00
180	x	92,0	x	4,8	S	1	5400,00
180	x	92,0	x	6,0	S	1	5700,00
180	x	92,0	x	10,0	S	1	8600,00
180	x	92,0	x	13,0	S	1	10500,00
200	x	82,0	x	8,0	S	1	9400,00
200	x	82,0	x	10,0	S	1	10500,00
200	x	82,0	x	12,0	S	1	11800,00
200	x	92,0	x	10,0	S	1	10500,00
200	x	92,0	x	12,0	S	1	11800,00
200	x	92,0	x	14,0	S	1	12800,00
200	x	102	x	5,5	S	1	7700,00
200	x	102	x	8,0	S	1	9400,00
200	x	102	x	10,0	S	1	10500,00
200	x	102	x	12,0	S	1	11800,00
200	x	102	x	14,0	S	1	12800,00
200	x	112	x	12,0	S	1	11800,00
200	x	112	x	14,0	S	1	12800,00
200	x	112	x	16,0	S	1	13800,00
225	x	112	x	6,5	S	1	11700,00
225	x	112	x	8,0	S	1	12000,00
225	x	112	x	12,0	S	1	15200,00
250	x	127	x	10,0	S	1	16700,00
250	x	127	x	14,0	S	1	20100,00

DIN	22424.801	770

22424

8.8 **type A**



Triangle head bolts, A = with full shank

Dimensions ➔ TI-35 Material properties ➔ TI-232

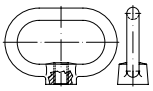
RoHS ✓ REACh SVHC free

AM 8	x	25	S	100	192,00
AM 8	x	30	S	100	203,00
AM 10	x	30	S	100	285,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	28129.014		782

28129

C35E zinc plated **AD W7**



Clamp nuts (lifting nuts)

for pressure vessel const. according to AD regulation, TÜV accepted products

Dimensions ➔ TI-129 Corrosion protection ➔ TI-228

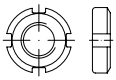
RoHS ✓ REACh SVHC free

M 16	S	1	9800,00 ZP
M 20	S	1	10800,00 ZP
M 24	S	1	11400,00 ZP
M 27	S	1	11800,00 ZP

DIN	70852.800	782

70852

17 H



Locknuts for hook spanners

Dimensions ➔ TI-76 REACH ➔ TI-262
Material properties ➔ TI-233

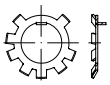
prevailing torque locknuts "GUK" ➔ article 88081

RoHS ✓

M 10	x	1	S	25	590,00
M 12	x	1,5	S	25	630,00
M 14	x	1,5	S	25	650,00
M 16	x	1,5	S	25	720,00
M 18	x	1,5	S	10	760,00
M 20	x	1,5	S	10	780,00
M 22	x	1,5	S	10	860,00
M 24	x	1,5	S	10	890,00
M 26	x	1,5	S	10	950,00
M 28	x	1,5	S	1	1030,00
M 30	x	1,5	S	1	1030,00
M 32	x	1,5	S	1	1200,00
M 35	x	1,5	S	1	1240,00
M 38	x	1,5	S	1	1420,00
M 40	x	1,5	S	1	1430,00
M 42	x	1,5	S	1	1650,00
M 45	x	1,5	S	1	1720,00
M 48	x	1,5	S	1	1860,00
M 50	x	1,5	S	1	1920,00
M 52	x	1,5	S	1	2150,00
M 55	x	1,5	S	1	2270,00
M 60	x	1,5	S	1	2550,00
M 65	x	1,5	S	1	2850,00
M 70	x	1,5	S	1	3250,00
M 75	x	1,5	S	1	3600,00
M 80	x	1,5	S	1	4100,00
M 85	x	1,5	S	1	4450,00
M 90	x	1,5	S	1	4750,00
M 95	x	1,5	S	1	5400,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	70952.001		782

70952 Steel type A



Lockwasher / safety plates

for locknuts acc. to DIN 70852

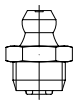
Dimensions ➔ TI-102

RoHS ✓ | REACh SVHC free

A 10	S	100	125,00
A 12	S	50	137,00
A 14	S	50	138,00
A 16	S	50	144,00
A 18	S	50	146,00
A 20	S	50	151,00
A 22	S	50	154,00
A 24	S	50	157,00
A 26	S	50	166,00
A 28	S	50	172,00
A 30	S	50	186,00
A 32	S	50	190,00
A 35	S	50	195,00
A 38	S	25	204,00
A 40	S	25	211,00
A 42	S	25	221,00
A 45	S	25	224,00
A 48	S	25	241,00
A 50	S	25	260,00
A 52	S	25	270,00
A 55	S	25	280,00
A 60	S	25	325,00
A 65	S	25	365,00
A 70	S	25	390,00
A 75	S	10	430,00
A 80	S	10	620,00
A 90	S	10	660,00

DIN	71412.511	782

71412 5.8 zinc plated type A-M



Lubricating nipples, cone type, with hexagon, A = cone head straight/axial M = with taper fine pitch thread

Dimensions ➔ TI-25 REACH ➔ TI-262
Corrosion protection ➔ TI-228
Stainless ➔ pg. 592

lubricating nipples with button head ➔ DIN 3404

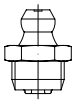
RoHS ✓

thread M x pitch / wrench size SW

AM 6	x	1	s = 7	S	100	83,00 ZP
AM 8	x	1	s = 9	S	100	102,00 ZP
AM 8	x	1,25	s = 9	S	100	119,00 ZP
AM 10	x	1	s = 11	S	100	131,00 ZP

DIN	71412.514	782

71412 5.8 zinc plated type A-R



Lubricating nipples, cone type, with hexagon, A = cone head straight / axial R = with inch pipe thread

Dimensions ➔ TI-25 REACH ➔ TI-262
Corrosion protection ➔ TI-228

lubricating nipples with button head ➔ DIN 3404

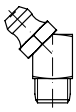
RoHS ✓

thread R / wrench size SW

AR 1/8	s = 11	S	100	105,00 ZP
AR 1/4	s = 14	S	50	207,00 ZP

DIN	71412.512	782

71412 5.8 zinc plated type B-M



Lubricating nipples, cone type, with hexagon or square, B = cone head 45° angled M = with taper fine pitch thread

Dimensions ➔ TI-25 REACH ➔ TI-262
Corrosion protection ➔ TI-228

lubricating nipples with button head ➔ DIN 3404

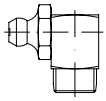
RoHS ✓

thread M x pitch / wrench size SW

BM 6	x 1	s = 9	S	100	229,00 ZP
BM 8	x 1	s = 9	S	100	229,00 ZP
BM 10	x 1	s = 11	S	100	232,00 ZP

DIN	71412.513	782

71412 5.8 zinc plated type C-M



Lubricating nipples, cone type, with hexagon or square, C = cone head 90° angled M = with taper fine pitch thread

Dimensions ➔ TI-25 REACH ➔ TI-262
Corrosion protection ➔ TI-228

lubricating nipples with button head ➔ DIN 3404

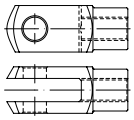
RoHS ✓

thread M x pitch / wrench size SW

CM 6	x 1	s = 9	S	100	229,00 ZP
CM 8	x 1	s = 9	S	100	229,00 ZP
CM 8	x 1,25	s = 9	S	100	182,00 ZP
CM10	x 1	s = 11	S	100	232,00 ZP

DIN	71752.014	782

71752 Steel zinc plated type G



Fork joints, G = yokes, for spring flap bolts (article 88752)

clevis pins ➔ DIN 1444
Dimensions ➔ TI-124 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

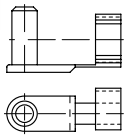
hole ∅ x recess depth g (up to middle of hole)

G 6	x	12	S	10	226,00 ZP
G 6	x	24	S	10	260,00 ZP
G 8	x	16	S	10	285,00 ZP
G 8	x	32	S	10	385,00 ZP
G 10	x	20	S	10	430,00 ZP
G 10	x	40	S	10	620,00 ZP
G 12	x	24	S	10	660,00 ZP
G 12	x	48	S	10	1050,00 ZP
G 16	x	32	S	5	1540,00 ZP
G 16	x	64	S	5	2290,00 ZP
G 20	x	40	S	5	3050,00 ZP

Dimensions | PU Pieces | €/100/Mat.

~DIN | 88752.010 | 782

71752 Steel zinc plated article 88752



Spring flap bolts ("ES bolts") for yokes DIN 71752

clevis pins ➔ DIN 1444

Dimensions ➔ TI-124 REACH ➔ TI-262
Corrosion protection ➔ TI-228

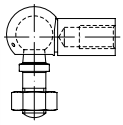
RoHS ✓

nominal size = matching yoke DIN 71752

ES 6	x	12	S	10	107,00 ZP
ES 6	x	24	S	10	143,00 ZP
ES 8	x	16	S	10	125,00 ZP
ES 8	x	32	S	10	134,00 ZP
ES 10	x	20	S	10	158,00 ZP
ES 10	x	40	S	10	174,00 ZP
ES 12	x	24	S	10	221,00 ZP
ES 12	x	48	S	10	265,00 ZP
ES 16	x	32	S	5	395,00 ZP
ES 16	x	64	S	5	770,00 ZP
ES 20	x	40	S	5	690,00 ZP

DIN | 71802.014 | 782

71802 Steel zinc plated type AS



Angle joints (ball joints) with threaded shank, hexagon nuts and circlips

Corrosion protection ➔ TI-228 REACH ➔ TI-262

RoHS ✓

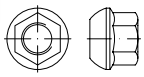
spherical ∅ x thread shank ∅ = internal thread

AS 8-M 5		S	25	380,00 ZP
AS 10-M 6		S	25	415,00 ZP
AS 13-M 8		S	25	590,00 ZP
AS 16-M 10		S	10	960,00 ZP
AS 16-M 12		S	10	1070,00 ZP
AS 19-M 14	x 1,5	S	10	2170,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN | 74361.801 | 790

74361 8 phosphated type A



Nuts with spherical collar

Dimensions ➔ TI-65 Material properties ➔ TI-233

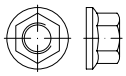
RoHS ✓ REACh SVHC free

thread M x pitch / wrench size SW

AM 14	x 1,5 s = 19	S	100	242,00
AM 18	x 1,5 s = 24	S	100	340,00
AM 20	x 1,5 s = 27	S	100	445,00

DIN | 74361.102 | 790

74361 10 phosphated type B



Flat collar nuts

Dimensions ➔ TI-65 Material properties ➔ TI-233

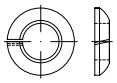
RoHS ✓ REACh SVHC free

thread M x pitch / wrench size SW

M14	x 1,5 s = 19	S	100	236,00
M18	x 1,5 s = 24	S	100	325,00
M20	x 1,5 s = 27	S	100	340,00
M22	x 1,5 s = 30	S	100	395,00

DIN | 74361.013 | 790

74361 Spring steel zinc plated type C



Spherical springwashers

Dimensions ➔ TI-102 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

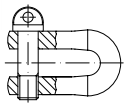
inside ∅

C 12,5	S	100	34,00 ZP
C 14,5	S	100	48,00 ZP
C 16,5	S	100	46,00 ZP
C 18,5	S	100	56,00 ZP
C 20,5	S	100	78,00 ZP
C 22,5	S	100	77,00 ZP

Dimensions | PU Pieces | €/100/Mat.

DIN | 82101.011 | 790

82101 Steel zinc plated type A



D-shackles, forged

Dimensions ➔ TI-134 Corrosion protection ➔ TI-228

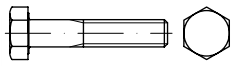
RoHS ✓ REACh SVHC free

nominal size (= lifting capacity - WLL in t)

A 0,16	S	50	385,00 ZP
A 0,25	S	50	420,00 ZP
A 0,4	S	25	620,00 ZP
A 0,6	S	25	830,00 ZP
A 1	S	25	1280,00 ZP

ASME B | 83931.804 | 2200

18.2.1 Grade 5 (~8.8) UNC



Hex cap screws with shank, with UNC thread

Dimensions ➔ TI-16 Tightening torque ➔ TI-246
Material properties ➔ TI-235

RoHS ✓ REACh SVHC free

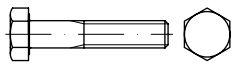
∅ x length in inch

1/4	x 1 1/4	S	100	59,00
1/4	x 1 1/2	S	100	63,00
1/4	x 1 3/4	S	100	80,00
1/4	x 2	S	100	85,00
1/4	x 2 1/4	S	100	102,00
1/4	x 2 1/2	S	100	109,00
1/4	x 3	S	200	117,00
1/4	x 3 1/4	S	200	126,00
1/4	x 3 1/2	S	200	136,00
1/4	x 4	S	100	146,00
1/4	x 4 1/2	S	100	158,00
1/4	x 5	S	100	176,00
1/4	x 5 1/2	S	100	194,00
1/4	x 6	S	100	212,00
5/16	x 1 1/2	S	100	85,00
5/16	x 1 3/4	S	100	92,00
5/16	x 2	S	100	100,00
5/16	x 2 1/4	S	100	107,00
5/16	x 2 1/2	S	100	117,00
5/16	x 3	S	100	126,00
5/16	x 3 1/4	S	100	140,00
5/16	x 3 1/2	S	100	152,00
5/16	x 4	S	100	170,00
3/8	x 1 1/2	S	100	115,00
3/8	x 1 3/4	S	100	124,00
3/8	x 2	S	100	134,00
3/8	x 2 1/4	S	100	146,00
3/8	x 2 1/2	S	100	160,00
3/8	x 3	S	100	186,00

Dimensions			PU	Pieces	€/100/Mat.
3/8	x	3 1/4	S	100	200,00
3/8	x	3 1/2	S	100	213,00
3/8	x	4	S	100	236,00
3/8	x	4 1/2	S	100	265,00
3/8	x	5	S	100	305,00
7/16	x	1 3/4	S	100	180,00
7/16	x	2	S	100	188,00
7/16	x	2 1/4	S	100	209,00
7/16	x	2 1/2	S	50	228,00
7/16	x	3	S	50	290,00
7/16	x	3 1/4	S	50	315,00
7/16	x	3 1/2	S	50	325,00
7/16	x	4	S	50	375,00
1/2	x	2	S	50	223,00
1/2	x	2 1/4	S	50	246,00
1/2	x	2 1/2	S	50	270,00
1/2	x	3	S	50	340,00
1/2	x	3 1/4	S	50	370,00
1/2	x	3 1/2	S	50	395,00
1/2	x	4	S	50	440,00
1/2	x	4 1/2	S	50	480,00
1/2	x	5	S	50	520,00
1/2	x	5 1/2	S	50	560,00
1/2	x	6	S	50	600,00
5/8	x	2 1/4	S	25	425,00
5/8	x	2 1/2	S	25	445,00
5/8	x	3	S	25	520,00
5/8	x	3 1/2	S	25	580,00
5/8	x	4	S	25	670,00
5/8	x	4 1/2	S	25	730,00
5/8	x	5	S	25	790,00
5/8	x	5 1/2	S	25	850,00
5/8	x	6	S	25	910,00
3/4	x	3	S	25	820,00
3/4	x	3 1/2	S	25	910,00
3/4	x	4	S	25	1030,00
7/8	x	3	S	25	940,00
7/8	x	3 1/2	S	25	1060,00
7/8	x	4	S	10	1180,00
1	x	3 1/2	S	10	1150,00
1	x	4	S	10	1280,00
1	x	4 1/2	S	10	1430,00
1	x	5	S	1	1580,00
1 1/4	x	4	S	1	2120,00
1 1/4	x	5	S	1	3050,00
1 1/2	x	5	S	1	3950,00
1 1/2	x	5 1/2	S	1	4550,00
1 1/2	x	6	S	1	5200,00

ASME B	83931.814	2200

18.2.1 **Grade 5 (~8.8) zinc plated** **UNC**



Hex cap screws with shank, with UNC thread

Dimensions ➔ TI-16
Material properties ➔ TI-235
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

RoHS ✓ | REACh SVHC free

∅ x length in inch

1/4	x	1 1/4	S	100	77,00 ZP
1/4	x	1 1/2	S	100	83,00 ZP
1/4	x	1 3/4	S	100	105,00 ZP
1/4	x	2	S	100	112,00 ZP
1/4	x	2 1/2	S	100	143,00 ZP
5/16	x	1 1/2	S	100	112,00 ZP
5/16	x	1 3/4	S	100	120,00 ZP
5/16	x	2	S	100	130,00 ZP
5/16	x	2 1/4	S	100	140,00 ZP
5/16	x	2 1/2	S	100	152,00 ZP
3/8	x	1 1/2	S	100	151,00 ZP
3/8	x	1 3/4	S	100	161,00 ZP
3/8	x	2	S	100	175,00 ZP
3/8	x	2 1/4	S	100	190,00 ZP
3/8	x	2 1/2	S	100	209,00 ZP
3/8	x	3	S	100	241,00 ZP
1/2	x	2	S	50	295,00 ZP
1/2	x	2 1/4	S	50	325,00 ZP
1/2	x	2 1/2	S	50	355,00 ZP
1/2	x	2 3/4	S	50	415,00 ZP
1/2	x	3	S	50	445,00 ZP
1/2	x	3 1/4	S	50	480,00 ZP
1/2	x	3 1/2	S	50	520,00 ZP
1/2	x	4	S	50	570,00 ZP
5/8	x	2 1/4	S	25	560,00 ZP
5/8	x	2 1/2	S	25	580,00 ZP
5/8	x	2 3/4	S	25	660,00 ZP
5/8	x	3	S	25	680,00 ZP
5/8	x	3 1/4	S	25	740,00 ZP
5/8	x	3 1/2	S	25	760,00 ZP
5/8	x	4	S	25	880,00 ZP
5/8	x	4 1/2	S	25	960,00 ZP
3/4	x	2 3/4	S	25	1030,00 ZP
3/4	x	3	S	25	1070,00 ZP
3/4	x	3 1/4	S	25	1130,00 ZP
3/4	x	3 1/2	S	25	1190,00 ZP
3/4	x	4	S	25	1350,00 ZP
3/4	x	4 1/2	S	25	1480,00 ZP
3/4	x	5	S	25	1570,00 ZP
3/4	x	5 1/2	S	25	1800,00 ZP
3/4	x	6	S	25	2010,00 ZP

ASME B	83931.805	2200

18.2.1 **Grade 5 (~8.8)** **UNF**



Hex cap screws with shank, with UNF thread

Dimensions ➔ TI-16
Material properties ➔ TI-235
Tightening torque ➔ TI-246

RoHS ✓ | REACh SVHC free

∅ x length in inch

1/4	x	1 1/4	S	100	88,00
1/4	x	1 1/2	S	100	95,00
1/4	x	1 3/4	S	100	120,00
1/4	x	2	S	100	128,00
1/4	x	2 1/4	S	100	153,00
1/4	x	2 1/2	S	100	164,00
1/4	x	3	S	200	175,00
1/4	x	3 1/4	S	200	189,00
1/4	x	3 1/2	S	200	204,00
1/4	x	4	S	100	218,00
1/4	x	4 1/2	S	100	236,00
1/4	x	5	S	100	265,00
1/4	x	5 1/2	S	100	295,00
1/4	x	6	S	100	320,00
5/16	x	1 1/2	S	100	128,00
5/16	x	1 3/4	S	100	138,00
5/16	x	2	S	100	149,00
5/16	x	2 1/4	S	100	160,00
5/16	x	2 1/2	S	100	175,00
5/16	x	3	S	100	189,00
5/16	x	3 1/4	S	100	209,00
5/16	x	3 1/2	S	100	228,00
3/8	x	1 1/2	S	100	173,00
3/8	x	1 3/4	S	100	186,00
3/8	x	2	S	100	200,00
3/8	x	2 1/4	S	100	218,00
3/8	x	2 1/2	S	100	240,00
3/8	x	3	S	100	280,00
3/8	x	3 1/4	S	100	300,00
3/8	x	3 1/2	S	100	320,00
3/8	x	4	S	100	355,00
7/16	x	1 3/4	S	100	270,00
7/16	x	2	S	100	285,00
7/16	x	2 1/4	S	100	315,00
7/16	x	2 1/2	S	50	345,00
7/16	x	3	S	50	435,00
7/16	x	3 1/4	S	50	470,00
7/16	x	3 1/2	S	50	485,00
7/16	x	4	S	50	560,00
1/2	x	2	S	50	335,00
1/2	x	2 1/4	S	50	370,00
1/2	x	2 1/2	S	50	405,00
1/2	x	3	S	50	510,00
1/2	x	3 1/4	S	50	550,00
1/2	x	3 1/2	S	50	590,00
1/2	x	4	S	50	660,00
1/2	x	4 1/2	S	50	720,00
1/2	x	5	S	50	780,00
1/2	x	5 1/2	S	50	830,00
1/2	x	6	S	50	890,00
5/8	x	2 1/2	S	25	670,00
5/8	x	3	S	25	780,00
5/8	x	3 1/2	S	25	870,00
5/8	x	4	S	25	1000,00
5/8	x	4 1/2	S	25	1090,00
3/4	x	3	S	25	1230,00
3/4	x	3 1/2	S	25	1370,00
1	x	3 1/2	S	10	1610,00
1	x	4	S	10	1790,00
1	x	4 1/2	S	10	2000,00
1 1/4	x	4	S	1	3000,00
1 1/2	x	5	S	1	4550,00

ASME B	83931.104	2200

18.2.1 **Grade 8 (~10.9)** **UNC**



Hex cap screws with shank, with UNC thread

Dimensions ➔ TI-16
Material properties ➔ TI-235
Tightening torque ➔ TI-246

RoHS ✓ | REACh SVHC free

∅ x length in inch

1/4	x	1 1/4	S	100	102,00
1/4	x	1 1/2	S	100	111,00
1/4	x	1 3/4	S	100	141,00
1/4	x	2	S	100	149,00
1/4	x	2 1/4	S	100	178,00
1/4	x	2 1/2	S	100	192,00
1/4	x	3	S	200	204,00
1/4	x	3 1/4	S	200	221,00

Dimensions			PU	Pieces	€/100/Mat.
1/4	x	3 1/2	S	200	238,00
1/4	x	4	S	100	255,00
1/4	x	4 1/2	S	100	280,00
1/4	x	5	S	100	310,00
1/4	x	5 1/2	S	100	340,00
1/4	x	6	S	100	375,00
5/16	x	1 1/2	S	100	148,00
5/16	x	1 3/4	S	100	161,00
5/16	x	2	S	100	174,00
5/16	x	2 1/4	S	100	187,00
5/16	x	2 1/2	S	100	204,00
5/16	x	3	S	100	221,00
5/16	x	3 1/4	S	100	245,00
5/16	x	3 1/2	S	100	270,00
3/8	x	1 1/2	S	100	173,00
3/8	x	1 3/4	S	100	186,00
3/8	x	2	S	100	200,00
3/8	x	2 1/4	S	100	218,00
3/8	x	2 1/2	S	100	240,00
3/8	x	3	S	100	280,00
3/8	x	3 1/4	S	100	300,00
3/8	x	3 1/2	S	100	320,00
3/8	x	4	S	100	355,00
7/16	x	1 3/4	S	100	270,00
7/16	x	2	S	100	285,00
7/16	x	2 1/4	S	100	315,00
7/16	x	2 1/2	S	50	345,00
7/16	x	3	S	50	435,00
7/16	x	3 1/2	S	50	485,00
7/16	x	4	S	50	560,00
1/2	x	2	S	50	335,00
1/2	x	2 1/4	S	50	370,00
1/2	x	2 1/2	S	50	405,00
1/2	x	3	S	50	510,00
1/2	x	3 1/4	S	50	550,00
1/2	x	3 1/2	S	50	590,00
1/2	x	4	S	50	660,00
1/2	x	4 1/2	S	50	720,00
1/2	x	5	S	50	780,00
1/2	x	5 1/2	S	50	830,00
1/2	x	6	S	50	890,00
5/8	x	2 1/2	S	25	670,00
5/8	x	3	S	25	780,00
5/8	x	3 1/2	S	25	870,00
5/8	x	4	S	25	1000,00
5/8	x	4 1/2	S	25	1090,00
3/4	x	3	S	25	1230,00
3/4	x	3 1/2	S	25	1370,00
3/4	x	4	S	25	1550,00
3/4	x	4 1/2	S	25	1730,00
3/4	x	5	S	25	1940,00
7/8	x	3	S	25	1320,00
7/8	x	3 1/2	S	25	1490,00
7/8	x	4	S	10	1660,00
1	x	3 1/2	S	10	1610,00
1	x	4	S	10	1790,00
1	x	4 1/2	S	10	2000,00
1 1/4	x	4	S	1	3000,00
1 1/4	x	4 1/2	S	1	3400,00
1 1/4	x	5	S	1	4250,00
1 1/2	x	5	S	1	4550,00
1 1/2	x	5 1/2	S	1	5200,00
1 1/2	x	6	S	1	5800,00

Dimensions	PU	Pieces	€/100/Mat.
ASME B	83931.105		2200

18.2.1 **Grade 8 (~10.9)** **UNF**



Hex cap screws with shank, with UNF thread

Dimensions → TI-16 Tightening torque → TI-246
Material properties → TI-235

RoHS ✓ REACh SVHC free

∅ x length in inch

1/4	x	1 1/4	S	100	153,00
1/4	x	1 1/2	S	100	165,00
1/4	x	1 3/4	S	100	211,00
1/4	x	2	S	100	223,00
1/4	x	2 1/4	S	100	270,00
1/4	x	2 1/2	S	100	290,00
1/4	x	3	S	200	305,00
1/4	x	3 1/4	S	200	335,00
1/4	x	3 1/2	S	200	360,00
1/4	x	4	S	100	385,00
1/4	x	4 1/2	S	100	415,00
1/4	x	5	S	100	460,00
1/4	x	5 1/2	S	100	510,00
1/4	x	6	S	100	560,00
5/16	x	1 1/2	S	100	224,00
5/16	x	1 3/4	S	100	242,00
5/16	x	2	S	100	265,00
5/16	x	2 1/4	S	100	280,00
5/16	x	2 1/2	S	100	305,00
5/16	x	3	S	100	335,00
5/16	x	3 1/4	S	100	370,00
5/16	x	3 1/2	S	100	395,00
5/16	x	4	S	100	425,00
3/8	x	1 1/2	S	100	260,00
3/8	x	1 3/4	S	100	280,00
3/8	x	2	S	100	300,00
3/8	x	2 1/4	S	100	330,00
3/8	x	2 1/2	S	100	360,00
3/8	x	3	S	100	420,00
3/8	x	3 1/4	S	100	450,00
3/8	x	3 1/2	S	100	480,00
3/8	x	4	S	100	540,00
7/16	x	1 3/4	S	100	405,00
7/16	x	2	S	100	425,00
7/16	x	2 1/4	S	100	470,00
7/16	x	2 1/2	S	50	520,00
7/16	x	3	S	50	650,00
7/16	x	3 1/4	S	50	710,00
7/16	x	3 1/2	S	50	730,00
1/2	x	2	S	50	510,00
1/2	x	2 1/4	S	50	560,00
1/2	x	2 1/2	S	50	610,00
1/2	x	3	S	50	770,00
1/2	x	3 1/4	S	50	830,00
1/2	x	3 1/2	S	50	890,00
1/2	x	4	S	50	990,00
5/8	x	2 1/2	S	25	1000,00
5/8	x	3	S	25	1160,00
5/8	x	3 1/2	S	25	1300,00
5/8	x	4	S	25	1500,00
5/8	x	4 1/2	S	25	1640,00
3/4	x	3 1/2	S	25	2040,00
3/4	x	4	S	25	2320,00
3/4	x	4 1/2	S	25	2600,00

Dimensions			PU	Pieces	€/100/Mat.
3/4	x	5	S	25	2950,00
1	x	3 1/2	S	10	2240,00
1	x	4	S	10	2490,00
1	x	4 1/2	S	10	2800,00
1 1/4	x	4	S	1	3350,00
1 1/4	x	4 1/2	S	1	3950,00
1 1/4	x	5	S	1	4850,00

ASME B	83933.804	2200

18.2.1 **Grade 5 (~8.8)** **UNC**



Hex cap screws with full thread, with UNC thread

Dimensions → TI-16 Tightening torque → TI-246
Material properties → TI-235

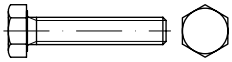
RoHS ✓ REACh SVHC free

∅ x length in inch

1/4	x	1/2	S	100	44,00
1/4	x	5/8	S	100	46,00
1/4	x	3/4	S	100	48,50
1/4	x	7/8	S	100	51,00
1/4	x	1	S	100	54,00
5/16	x	1/2	S	100	48,50
5/16	x	5/8	S	100	51,00
5/16	x	3/4	S	100	56,00
5/16	x	7/8	S	100	61,00
5/16	x	1	S	100	68,00
5/16	x	1 1/4	S	100	78,00
3/8	x	1/2	S	100	85,00
3/8	x	5/8	S	100	79,00
3/8	x	3/4	S	100	83,00
3/8	x	7/8	S	100	88,00
3/8	x	1	S	100	92,00
3/8	x	1 1/4	S	100	100,00
7/16	x	3/4	S	100	121,00
7/16	x	7/8	S	100	128,00
7/16	x	1	S	100	134,00
7/16	x	1 1/4	S	100	146,00
7/16	x	1 1/2	S	100	170,00
1/2	x	3/4	S	50	151,00
1/2	x	7/8	S	50	155,00
1/2	x	1	S	50	158,00
1/2	x	1 1/4	S	50	165,00
1/2	x	1 1/2	S	50	182,00
1/2	x	1 3/4	S	50	212,00
5/8	x	1	S	25	242,00
5/8	x	1 1/4	S	25	275,00
5/8	x	1 1/2	S	25	305,00
5/8	x	1 3/4	S	25	355,00
5/8	x	2	S	25	415,00
3/4	x	1	S	25	365,00
3/4	x	1 1/4	S	25	425,00
3/4	x	1 1/2	S	25	485,00
3/4	x	1 3/4	S	25	580,00
3/4	x	2	S	25	670,00
3/4	x	2 1/2	S	25	760,00
7/8	x	5	S	10	1820,00
1	x	1 1/2	S	25	670,00
1	x	1 3/4	S	25	730,00
1	x	2	S	25	790,00
1	x	2 1/4	S	25	850,00
1	x	2 1/2	S	25	910,00
1	x	3	S	25	1060,00

Dimensions			PU	Pieces	€/100/Mat.
1 1/2	x	2 1/2	S	1	2700,00
1 1/2	x	4	S	1	4250,00

ASME B	83933.814	2200
18.2.1	**Grade 5 (~8.8) zinc plated**	**UNC**



Hex cap screws with full thread, with UNC thread

Dimensions ➔ TI-16
Material properties ➔ TI-235
Corrosion protection ➔ TI-228
Tightening torque ➔ TI-246

RoHS ✓ | REACh SVHC free

∅ x length in inch

1/4	x	1/2	S	100	57,00 ZP
1/4	x	5/8	S	100	60,00 ZP
1/4	x	3/4	S	100	65,00 ZP
1/4	x	7/8	S	100	67,00 ZP
1/4	x	1	S	100	71,00 ZP
5/16	x	1/2	S	100	65,00 ZP
5/16	x	5/8	S	100	67,00 ZP
5/16	x	3/4	S	100	73,00 ZP
5/16	x	7/8	S	100	80,00 ZP
5/16	x	1	S	100	89,00 ZP
5/16	x	1 1/4	S	100	102,00 ZP
3/8	x	1/2	S	100	112,00 ZP
3/8	x	5/8	S	100	103,00 ZP
3/8	x	3/4	S	100	108,00 ZP
3/8	x	7/8	S	100	114,00 ZP
3/8	x	1	S	100	120,00 ZP
3/8	x	1 1/4	S	100	130,00 ZP
1/2	x	3/4	S	50	197,00 ZP
1/2	x	7/8	S	50	203,00 ZP
1/2	x	1	S	50	206,00 ZP
1/2	x	1 1/4	S	50	215,00 ZP
1/2	x	1 1/2	S	50	238,00 ZP
1/2	x	1 3/4	S	50	280,00 ZP
5/8	x	1	S	25	315,00 ZP
5/8	x	1 1/4	S	25	360,00 ZP
5/8	x	1 1/2	S	25	395,00 ZP
5/8	x	1 3/4	S	25	460,00 ZP
5/8	x	2	S	25	540,00 ZP
3/4	x	1 1/2	S	25	650,00 ZP
3/4	x	1 3/4	S	25	760,00 ZP
3/4	x	2	S	25	880,00 ZP
3/4	x	2 1/4	S	25	920,00 ZP
3/4	x	2 1/2	S	25	1000,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
ASME B	83933.805		2200
18.2.1	**Grade 5 (~8.8)**		**UNF**



Hex cap screws with full thread, with UNF thread

Dimensions ➔ TI-16
Material properties ➔ TI-235
Tightening torque ➔ TI-246

RoHS ✓ | REACh SVHC free

∅ x length in inch

1/4	x	1/2	S	100	66,00
1/4	x	5/8	S	100	69,00
1/4	x	3/4	S	100	73,00
1/4	x	7/8	S	100	77,00
1/4	x	1	S	100	80,00
5/16	x	1/2	S	100	73,00
5/16	x	5/8	S	100	77,00
5/16	x	3/4	S	100	84,00
5/16	x	7/8	S	100	91,00
5/16	x	1	S	100	102,00
3/8	x	1/2	S	100	128,00
3/8	x	5/8	S	100	119,00
3/8	x	3/4	S	100	124,00
3/8	x	7/8	S	100	131,00
3/8	x	1	S	100	138,00
3/8	x	1 1/4	S	100	149,00
7/16	x	3/4	S	100	182,00
7/16	x	7/8	S	100	192,00
7/16	x	1	S	100	200,00
7/16	x	1 1/4	S	100	218,00
7/16	x	1 1/2	S	100	255,00
1/2	x	3/4	S	50	226,00
1/2	x	7/8	S	50	233,00
1/2	x	1	S	50	236,00
1/2	x	1 1/4	S	50	247,00
1/2	x	1 1/2	S	50	275,00
1/2	x	1 3/4	S	50	320,00
5/8	x	1	S	25	365,00
5/8	x	2	S	25	620,00
3/4	x	1	S	25	550,00
7/8	x	2	S	25	910,00

Dimensions	PU	Pieces	€/100/Mat.
ASME B	83933.104		2200
18.2.1	**Grade 8 (~10.9)**		**UNC**



Hex cap screws with full thread, with UNC thread

Dimensions ➔ TI-16
Material properties ➔ TI-235
Tightening torque ➔ TI-246

RoHS ✓ | REACh SVHC free

∅ x length in inch

1/4	x	1/2	S	100	77,00
1/4	x	5/8	S	100	81,00
1/4	x	3/4	S	100	85,00
1/4	x	7/8	S	100	89,00
1/4	x	1	S	100	94,00
5/16	x	1/2	S	100	85,00
5/16	x	3/4	S	100	98,00
5/16	x	7/8	S	100	106,00
5/16	x	1	S	100	119,00
3/8	x	1/2	S	100	148,00
3/8	x	5/8	S	100	138,00
3/8	x	3/4	S	100	144,00
3/8	x	7/8	S	100	153,00
3/8	x	1	S	100	161,00
3/8	x	1 1/4	S	100	175,00
7/16	x	3/4	S	100	182,00
7/16	x	7/8	S	100	192,00
7/16	x	1	S	100	200,00
7/16	x	1 1/4	S	100	218,00
7/16	x	1 1/2	S	100	255,00
1/2	x	3/4	S	50	226,00
1/2	x	7/8	S	50	233,00
1/2	x	1	S	50	236,00
1/2	x	1 1/4	S	50	247,00
1/2	x	1 1/2	S	50	275,00
1/2	x	1 3/4	S	50	320,00
5/8	x	1	S	25	365,00
5/8	x	1 1/2	S	25	455,00
5/8	x	2	S	25	620,00
3/4	x	1	S	25	550,00
3/4	x	1 1/4	S	25	640,00
3/4	x	1 1/2	S	25	730,00
3/4	x	1 3/4	S	25	870,00
3/4	x	2	S	25	1000,00
3/4	x	2 1/4	S	25	1050,00
3/4	x	2 1/2	S	25	1140,00
7/8	x	2	S	25	790,00
7/8	x	2 1/2	S	25	1150,00
1	x	1 1/2	S	25	1000,00
1	x	1 3/4	S	25	1090,00
1	x	2	S	25	1180,00
1	x	2 1/4	S	25	1280,00
1	x	2 1/2	S	25	1370,00
1	x	3	S	25	1590,00
1 1/2	x	3	S	1	4250,00
1 1/2	x	4	S	1	6100,00

Dimensions	PU	Pieces	€/100/Mat.
ASME B	83933.105		2200

18.2.1 Grade 8 (~10.9) UNF



Hex cap screws with full thread, with UNF thread

Dimensions → TI-16 Tightening torque → TI-246
Material properties → TI-235

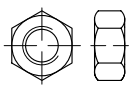
RoHS ✓ REACh SVHC free

∅ x length in inch

1/4	x	1/2	S	100	115,00
1/4	x	5/8	S	100	121,00
1/4	x	3/4	S	100	128,00
1/4	x	7/8	S	100	134,00
1/4	x	1	S	100	140,00
5/16	x	3/4	S	100	147,00
5/16	x	1	S	100	178,00
3/8	x	1/2	S	100	222,00
3/8	x	5/8	S	100	209,00
3/8	x	3/4	S	100	218,00
3/8	x	7/8	S	100	229,00
3/8	x	1	S	100	242,00
3/8	x	1 1/4	S	100	265,00
7/16	x	3/4	S	100	275,00
7/16	x	7/8	S	100	290,00
7/16	x	1	S	100	305,00
7/16	x	1 1/4	S	100	330,00
7/16	x	1 1/2	S	100	385,00
1/2	x	3/4	S	50	340,00
1/2	x	7/8	S	50	350,00
1/2	x	1	S	50	355,00
1/2	x	1 1/4	S	50	375,00
1/2	x	1 1/2	S	50	410,00
1/2	x	1 3/4	S	50	480,00
5/8	x	1	S	25	550,00
5/8	x	1 1/2	S	25	690,00
5/8	x	2	S	25	930,00
3/4	x	1	S	25	820,00
3/4	x	1 1/2	S	25	1090,00
3/4	x	2	S	25	1500,00
3/4	x	2 1/2	S	25	1700,00

ASME B	83934.804	2200

18.2.2 Grade 5 (~8) UNC



Hex nuts with UNC thread

Dimensions → TI-61 Tightening torque → TI-246
Material properties → TI-235

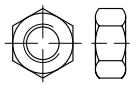
RoHS ✓ REACh SVHC free

∅ x length in inch

1/4	S	100	9,50
5/16	S	100	10,90
3/8	S	100	13,00
7/16	S	100	21,70
1/2	S	100	26,00
9/16	S	50	43,50
5/8	S	50	49,50
3/4	S	50	83,00
7/8	S	25	138,00
1	S	25	170,00
1 1/8	S	10	260,00
1 1/4	S	10	375,00
1 1/2	S	5	1180,00
1 3/4	S	1	990,00

ASME B	83934.814	2200

18.2.2 Grade 5 (~8) zinc plated UNC



Hex nuts with UNC thread

Dimensions → TI-61 Corrosion protection → TI-228
Material properties → TI-235 Tightening torque → TI-246

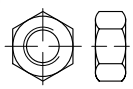
RoHS ✓ REACh SVHC free

∅ in inch

1/4	S	100	12,40 ZP
5/16	S	100	14,20 ZP
3/8	S	100	17,00 ZP
7/16	S	100	28,50 ZP
1/2	S	100	33,50 ZP
5/8	S	50	65,00 ZP
3/4	S	50	108,00 ZP

ASME B	83934.805	2200

18.2.2 Grade 5 (~8) UNF



Hex nuts with UNF thread

Dimensions → TI-61 Tightening torque → TI-246
Material properties → TI-235

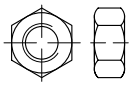
RoHS ✓ REACh SVHC free

∅ in inch

1/4	S	100	9,50
5/16	S	100	10,90
3/8	S	100	13,00
7/16	S	100	21,70
1/2	S	100	26,00
9/16	S	50	43,50
5/8	S	50	49,50
3/4	S	50	83,00
7/8	S	25	138,00
1	S	25	170,00
1 1/8	S	10	260,00
1 1/4	S	10	375,00
1 1/2	S	5	1180,00
1 3/4	S	1	990,00

ASME B	83934.104	2200

18.2.2 Grade 8 (~10) UNC



Hex nuts with UNC thread

Dimensions → TI-61 Tightening torque → TI-246
Material properties → TI-235

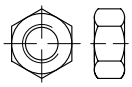
RoHS ✓ REACh SVHC free

∅ in inch

1/4	S	100	14,60
5/16	S	100	16,70
3/8	S	100	20,00
7/16	S	100	33,50
1/2	S	100	39,50
9/16	S	50	67,00
5/8	S	50	76,00
3/4	S	50	128,00
7/8	S	25	212,00
1	S	25	265,00
1 1/8	S	10	395,00
1 1/4	S	10	580,00
1 1/2	S	5	1820,00
1 3/4	S	1	1520,00

ASME B	83934.105	2200

18.2.2 Grade 8 (~10) UNF



Hex nuts with UNF thread

Dimensions → TI-61 Tightening torque → TI-246
Material properties → TI-235

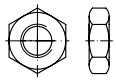
RoHS ✓ REACh SVHC free

∅ in inch

1/4	S	100	14,60
5/16	S	100	16,70
3/8	S	100	20,00
7/16	S	100	33,50
1/2	S	100	39,50
9/16	S	50	67,00
5/8	S	50	76,00
3/4	S	50	128,00
7/8	S	25	212,00
1	S	25	265,00
1 1/8	S	10	395,00
1 1/4	S	10	580,00
1 1/2	S	5	1820,00
1 3/4	S	1	1520,00

Dimensions	PU Pieces	€/100/Mat.
ASME B	83936.804	2200

18.2.2 Grade 5 (~04) UNC



Hex jam nuts with UNC thread

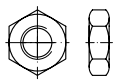
Dimensions ➔ TI-61 Material properties ➔ TI-235

RoHS ✓ REACh SVHC free

∅ in inch			
1/4	S	100	27,50
5/16	S	50	33,00
3/8	S	50	44,00
7/16	S	50	66,00
1/2	S	50	89,00
9/16	S	50	177,00
5/8	S	50	219,00
3/4	S	25	275,00

Dimensions	PU Pieces	€/100/Mat.
ASME B	83936.805	2200

18.2.2 Grade 5 (~04) UNF



Hex jam nuts with UNF thread

Dimensions ➔ TI-61 Material properties ➔ TI-235

RoHS ✓ REACh SVHC free

∅ in inch			
1/4	S	100	27,50
5/16	S	50	33,00
3/8	S	50	44,00
7/16	S	50	66,00
1/2	S	50	89,00
9/16	S	50	177,00
5/8	S	50	219,00
3/4	S	25	275,00

Dimensions	PU Pieces	€/100/Mat.
ANSI B	83125.004	2200

18.22.1 Steel type A-N



Plain washers N = narrow/SAE

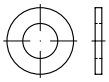
Dimensions ➔ TI-85

RoHS ✓ REACh SVHC free

for screw ∅ x outer ∅ in inch				
1/4	x 0,625	S	500	12,10
5/16	x 0,688	S	500	18,20
3/8	x 0,812	S	500	24,20
7/16	x 0,922	S	200	42,50
1/2	x 1,062	S	200	51,00
9/16	x 1,156	S	200	59,00
5/8	x 1,312	S	100	66,00
3/4	x 1,469	S	100	73,00

ANSI B	83125.005	2200

18.22.1 Steel type A-W



Plain washers W = wide

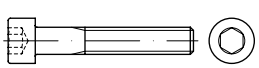
Dimensions ➔ TI-85

RoHS ✓ REACh SVHC free

for screw ∅ x outer ∅ in inch				
1/4	x 0,734	S	500	15,20
5/16	x 0,875	S	500	21,20
3/8	x 1,000	S	500	30,50
7/16	x 1,250	S	200	48,50
1/2	x 1,375	S	200	59,00
9/16	x 1,469	S	200	66,00
5/8	x 1,750	S	100	73,00
3/4	x 2,000	S	100	88,00

Dimensions	PU Pieces	€/100/Mat.
ASME B	83912.204	2200

18.3 ASTM A 574* UNC



Hexagon socket head cap screws with UNC thread

*~ property class 12.9

Dimensions ➔ TI-13 Tightening torque ➔ TI-246
Material properties ➔ TI-235

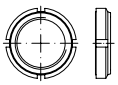
RoHS ✓ REACh SVHC free

∅ in inch / no. x length in inch				
#2	x 1/4	S	200	76,00
#2	x 3/8	S	200	76,00
#2	x 1/2	S	200	77,00
#4	x 3/16	S	200	53,00
#4	x 1/4	S	200	46,00
#4	x 5/16	S	200	41,50
#4	x 3/8	S	200	43,00
#4	x 1/2	S	200	47,50
#4	x 5/8	S	200	53,00
#4	x 3/4	S	200	56,00
#4	x 7/8	S	200	60,00
#4	x 1	S	100	68,00
#4	x 1 1/4	S	100	71,00
#4	x 1 1/2	S	100	86,00
#4	x 2	S	100	193,00
#5	x 1/4	S	200	49,50
#5	x 5/16	S	200	49,50
#5	x 3/8	S	200	49,50
#5	x 1/2	S	200	51,00
#5	x 5/8	S	200	54,00
#5	x 3/4	S	200	56,00
#5	x 7/8	S	200	65,00
#5	x 1	S	100	77,00
#5	x 1 1/4	S	200	80,00
#6	x 1/4	S	200	51,00
#6	x 5/16	S	200	51,00
#6	x 3/8	S	200	51,00
#6	x 1/2	S	200	54,00
#6	x 5/8	S	200	56,00
#6	x 3/4	S	200	57,00
#6	x 7/8	S	200	60,00
#6	x 1	S	200	62,00
#6	x 1 1/4	S	100	67,00
#6	x 1 1/2	S	100	86,00
#6	x 2	S	100	123,00
#8	x 1/4	S	200	54,00
#8	x 3/8	S	200	54,00
#8	x 1/2	S	200	57,00
#8	x 5/8	S	200	60,00
#8	x 3/4	S	200	60,00
#8	x 7/8	S	100	65,00
#8	x 1	S	200	65,00
#8	x 1 1/4	S	200	72,00
#8	x 1 1/2	S	200	99,00
#8	x 1 3/4	S	100	108,00
#8	x 2	S	100	134,00
#8	x 2 1/2	S	100	380,00
#10	x 3/8	S	200	56,00
#10	x 1/2	S	200	51,00
#10	x 5/8	S	200	59,00
#10	x 3/4	S	200	65,00
#10	x 1	S	200	67,00
#10	x 1 1/4	S	200	86,00

Dimensions			PU	Pieces	€/100/Mat.
#10	x	1 1/2	S	200	99,00
#10	x	2	S	200	141,00
1/4	x	1/2	S	100	53,00
1/4	x	5/8	S	100	62,00
1/4	x	3/4	S	100	65,00
1/4	x	7/8	S	100	76,00
1/4	x	1	S	100	77,00
1/4	x	1 1/4	S	100	88,00
1/4	x	1 1/2	S	100	105,00
1/4	x	1 3/4	S	100	115,00
1/4	x	2	S	100	138,00
1/4	x	2 1/4	S	100	161,00
1/4	x	2 1/2	S	100	183,00
1/4	x	2 3/4	S	100	198,00
1/4	x	3	S	100	215,00
5/16	x	3/8	S	100	151,00
5/16	x	1/2	S	100	135,00
5/16	x	5/8	S	100	134,00
5/16	x	3/4	S	100	119,00
5/16	x	7/8	S	100	149,00
5/16	x	1	S	100	155,00
5/16	x	1 1/4	S	100	159,00
5/16	x	1 1/2	S	100	194,00
5/16	x	1 3/4	S	100	244,00
5/16	x	2	S	100	270,00
5/16	x	2 1/2	S	100	335,00
5/16	x	2 3/4	S	100	385,00
5/16	x	3	S	100	415,00
5/16	x	3 1/2	S	100	460,00
5/16	x	4	S	100	530,00
5/16	x	4 1/2	S	100	730,00
5/16	x	5	S	50	800,00
3/8	x	3/4	S	100	190,00
3/8	x	7/8	S	100	199,00
3/8	x	1	S	100	201,00
3/8	x	1 1/4	S	100	226,00
3/8	x	1 1/2	S	100	260,00
3/8	x	1 3/4	S	100	295,00
3/8	x	2	S	100	330,00
3/8	x	2 1/4	S	100	395,00
3/8	x	2 1/2	S	100	395,00
3/8	x	3	S	100	470,00
1/2	x	1	S	50	335,00
1/2	x	1 1/4	S	50	365,00
1/2	x	1 1/2	S	50	395,00
1/2	x	1 3/4	S	50	445,00
1/2	x	2	S	50	475,00
1/2	x	2 1/4	S	50	540,00
1/2	x	2 1/2	S	50	620,00
1/2	x	2 3/4	S	50	670,00
1/2	x	3	S	50	680,00
1/2	x	3 1/4	S	50	830,00
1/2	x	3 1/2	S	50	850,00
1/2	x	4	S	50	880,00
5/8	x	1	S	25	690,00
5/8	x	1 1/4	S	25	710,00
5/8	x	1 1/2	S	25	710,00
5/8	x	1 3/4	S	25	780,00
5/8	x	2	S	25	790,00
5/8	x	2 1/4	S	25	900,00
5/8	x	2 1/2	S	25	990,00
5/8	x	2 3/4	S	25	1200,00
5/8	x	3	S	25	1230,00
5/8	x	3 1/4	S	25	1370,00
5/8	x	3 1/2	S	25	1430,00
5/8	x	4	S	25	1480,00
5/8	x	4 1/2	S	25	1770,00
5/8	x	5	S	25	1980,00
5/8	x	6	S	25	2350,00
5/8	x	7	S	25	3550,00
7/8	x	2	S	10	2090,00
7/8	x	2 1/4	S	10	2750,00
7/8	x	2 1/2	S	10	2950,00
7/8	x	2 3/4	S	10	3100,00
7/8	x	3	S	10	3250,00

Dimensions			PU	Pieces	€/100/Mat.
7/8	x	3 1/4	S	10	3450,00
7/8	x	3 1/2	S	10	3700,00
7/8	x	4	S	10	4200,00
7/8	x	4 1/2	S	10	4500,00
7/8	x	5	S	10	4800,00
7/8	x	6	S	10	5600,00
7/8	x	7	S	10	6800,00
1	x	2	S	10	3300,00
1	x	2 1/4	S	10	3800,00
1	x	2 1/2	S	10	4100,00
1	x	2 3/4	S	10	4200,00
1	x	3	S	10	4400,00
1	x	3 1/4	S	10	4700,00
1	x	3 1/2	S	10	4600,00
1	x	4	S	10	4750,00
1	x	4 1/2	S	10	5300,00
1	x	5	S	10	5700,00
1	x	5 1/2	S	10	6800,00
1	x	6	S	10	7300,00
1	x	7	S	10	8400,00
1	x	8	S	10	10000,00
1 1/4	x	2 1/2	S	10	8500,00
1 1/4	x	3	S	10	9100,00
1 1/4	x	3 1/2	S	10	9600,00
1 1/4	x	4	S	10	10200,00
1 1/4	x	4 1/2	S	10	11300,00
1 1/4	x	5	S	10	11900,00
1 1/4	x	5 1/2	S	10	13200,00
1 1/4	x	6	S	10	14200,00
1 1/4	x	7	S	10	17200,00
1 1/4	x	8	S	10	19200,00
1 1/2	x	2 1/2	S	10	14200,00
1 1/2	x	3	S	10	15900,00
1 1/2	x	3 1/2	S	10	17600,00
1 1/2	x	4	S	10	18900,00
1 1/2	x	4 1/2	S	5	19400,00
1 1/2	x	5	S	5	21300,00
1 1/2	x	5 1/2	S	5	23000,00
1 1/2	x	6	S	5	24500,00
1 1/2	x	7	S	5	26300,00
1 1/2	x	8	S	5	31000,00

article	88081.010	810
88081	**14 H**	**GUK**
	zinc plated	



Locknuts with non-metallic insert

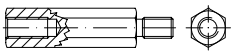
Dimensions ➔ TI-76
Material properties ➔ TI-233
Corrosion protection ➔ TI-228
REACH ➔ TI-262

RoHS ✓

type no. / nominal size

GUK 1/M 12	x	1	S	10	425,00 ZP
GUK 2/M 15	x	1	S	10	460,00 ZP
GUK 3/M 17	x	1	S	10	520,00 ZP
GUK 4/M 20	x	1	S	10	600,00 ZP
GUK 5/M 25	x	1,5	S	10	770,00 ZP
GUK 6/M 30	x	1,5	S	10	950,00 ZP
GUK 7/M 35	x	1,5	S	10	1130,00 ZP
GUK 8/M 40	x	1,5	S	10	1440,00 ZP
GUK 9/M 45	x	1,5	S	1	1750,00 ZP
GUK10/M 50	x	1,5	S	1	2040,00 ZP
GUK11/M 55	x	2	S	1	3350,00 ZP
GUK12/M 60	x	2	S	1	3600,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88086.010		810
88086	**Steel**		
	zinc plated		



Spacers with thread, with hexagon, with inside and outside thread

Dimensions ➔ TI-35
Corrosion protection ➔ TI-228
REACH ➔ TI-262

RoHS ✓

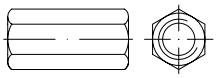
in/out thread M x hex. length / thread length

M 3	x	5/ 6	S	100	57,00 ZP
M 3	x	6/ 6	S	100	57,00 ZP
M 3	x	8/ 6	S	100	59,00 ZP
M 3	x	10/ 6	S	100	60,00 ZP
M 3	x	12/ 6	S	100	65,00 ZP
M 3	x	14/ 6	S	100	66,00 ZP
M 3	x	16/ 6	S	100	68,00 ZP
M 3	x	20/ 6	S	100	74,00 ZP
M 3	x	25/ 6	S	100	74,00 ZP
M 3	x	30/ 6	S	100	82,00 ZP
M 3	x	35/ 6	S	100	84,00 ZP
M 3	x	40/ 6	S	100	89,00 ZP
M 3	x	45/ 6	S	100	101,00 ZP
M 3	x	50/ 6	S	100	112,00 ZP
M 3	x	60/ 6	S	100	134,00 ZP
M 4	x	5/ 8	S	100	67,00 ZP
M 4	x	6/ 8	S	100	69,00 ZP
M 4	x	8/ 8	S	100	73,00 ZP
M 4	x	10/ 8	S	100	76,00 ZP
M 4	x	12/ 8	S	100	78,00 ZP
M 4	x	14/ 8	S	100	82,00 ZP
M 4	x	16/ 8	S	100	86,00 ZP
M 4	x	18/ 8	S	100	92,00 ZP
M 4	x	20/ 8	S	100	95,00 ZP
M 4	x	25/ 8	S	100	101,00 ZP
M 4	x	30/ 8	S	100	106,00 ZP
M 4	x	35/ 8	S	100	112,00 ZP
M 4	x	40/ 8	S	100	118,00 ZP
M 4	x	45/ 8	S	100	132,00 ZP
M 4	x	50/ 8	S	100	136,00 ZP
M 4	x	55/ 8	S	100	153,00 ZP
M 4	x	60/ 8	S	100	160,00 ZP
M 5	x	8/10	S	100	92,00 ZP
M 5	x	10/10	S	100	97,00 ZP
M 5	x	12/10	S	100	103,00 ZP
M 5	x	14/10	S	100	106,00 ZP
M 5	x	16/10	S	100	112,00 ZP
M 5	x	18/10	S	100	114,00 ZP
M 5	x	20/10	S	100	118,00 ZP
M 5	x	25/10	S	100	132,00 ZP
M 5	x	30/10	S	100	144,00 ZP
M 5	x	35/10	S	100	157,00 ZP
M 5	x	40/10	S	100	167,00 ZP
M 5	x	45/10	S	100	176,00 ZP
M 5	x	50/10	S	100	184,00 ZP
M 5	x	55/10	S	100	203,00 ZP
M 5	x	60/10	S	100	213,00 ZP
M 5	x	70/10	S	100	242,00 ZP
M 5	x	80/10	S	100	275,00 ZP
M 6	x	10/12	S	100	182,00 ZP
M 6	x	12/12	S	100	184,00 ZP
M 6	x	14/12	S	100	187,00 ZP
M 6	x	16/12	S	100	193,00 ZP
M 6	x	18/12	S	100	194,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	20/ 12	S	100	201,00 ZP
M 6	x	25/12	S	100	205,00 ZP
M 6	x	30/12	S	100	217,00 ZP
M 6	x	35/12	S	100	236,00 ZP
M 6	x	40/12	S	100	246,00 ZP
M 6	x	45/12	S	100	260,00 ZP
M 6	x	50/12	S	100	275,00 ZP
M 6	x	55/12	S	100	285,00 ZP
M 6	x	60/12	S	100	300,00 ZP
M 6	x	70/12	S	100	340,00 ZP
M 6	x	80/12	S	100	380,00 ZP
M 6	x	100/12	S	100	480,00 ZP

article 88087.010 810

88087 Steel zinc plated



Hexagon couplings with continuous internal thread

product grade C (g),
thread screw-in depth: group N = max. 1.5d

Dimensions ➔ TI-66 REACH ➔ TI-262
Corrosion protection ➔ TI-228

RoHS ✓

internal thread x length / wrench sizes (SW)

M 6	x	20 s = 10	S	100	85,00 ZP
M 6	x	25 s = 10	S	100	77,00 ZP
M 6	x	30 s = 10	S	100	97,00 ZP
M 6	x	40 s = 10	S	100	115,00 ZP
M 8	x	30 s = 13	S	100	138,00 ZP
M 10	x	30 s = 17	S	100	203,00 ZP
M 10	x	40 s = 13	S	100	212,00 ZP
M 10	x	40 s = 17	S	100	203,00 ZP
M 12	x	40 s = 19	S	50	360,00 ZP
M 12	x	50 s = 19	S	50	390,00 ZP
M 16	x	50 s = 24	S	25	630,00 ZP
M 20	x	50 s = 30	S	25	950,00 ZP
M 24	x	50 s = 36	S	10	1240,00 ZP
M 30	x	60 s = 46	S	10	2700,00 ZP
M 30	x	90 s = 46	S	5	4250,00 ZP

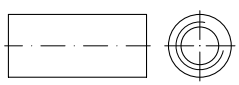
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Dimensions			PU	Pieces	€/100/Mat.
article		88088.010			810

88088 Steel zinc plated



Round couplings with continuous internal thread

product grade C (g),
thread screw-in depth: group N = max. 1.5 d

Dimensions ➔ TI-77 REACH ➔ TI-262
Corrosion protection ➔ TI-228

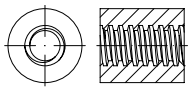
RoHS ✓

internal thread x length x outside ∅

M 6	x	20	x	10	S	100	47,50 ZP
M 6	x	25	x	10	S	100	52,00 ZP
M 6	x	30	x	10	S	100	60,00 ZP
M 6	x	40	x	10	S	100	84,00 ZP
M 8	x	20	x	11	S	100	52,00 ZP
M 8	x	25	x	11	S	100	56,00 ZP
M 8	x	30	x	11	S	100	65,00 ZP
M 8	x	40	x	11	S	100	92,00 ZP
M 8	x	50	x	11	S	100	153,00 ZP
M 10	x	25	x	13	S	100	79,00 ZP
M 10	x	30	x	13	S	100	88,00 ZP
M 10	x	40	x	13	S	50	120,00 ZP
M 10	x	50	x	13	S	50	154,00 ZP
M 12	x	30	x	15	S	50	165,00 ZP
M 12	x	40	x	15	S	50	210,00 ZP
M 12	x	50	x	15	S	50	305,00 ZP
M 16	x	40	x	20	S	25	340,00 ZP
M 20	x	50	x	25	S	25	590,00 ZP

article 88089.004 811

88089 Steel



Round nuts with trapezoidal thread, height = 1,5 d

threaded rods TR ➔ DIN 975 trapezoidal

Dimensions ➔ TI-77 REACH ➔ TI-262

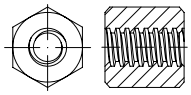
RoHS ✓

thread x pitch x outside ∅

TR 12	x	3 -22	S	1	890,00
TR 14	x	4 -36	S	1	1300,00
TR 16	x	4 -36	S	1	1430,00
TR 18	x	4 -36	S	1	2950,00
TR 20	x	4 -36	S	1	1660,00
TR 22	x	5 -50	S	1	2400,00
TR 24	x	5 -50	S	1	2400,00
TR 26	x	5 -50	S	1	2460,00
TR 28	x	5 -60	S	1	3150,00
TR 30	x	6 -60	S	1	3400,00
TR 32	x	6 -60	S	1	5300,00
TR 36	x	6 -75	S	1	6700,00
TR 40	x	7 -75	S	1	7200,00
TR 44	x	7 -75	S	1	10500,00

Dimensions			PU	Pieces	€/100/Mat.
article		88090.004			811

88090 Steel



Hexagon nuts with trapezoidal thread, height = 1,5 d

threaded rods TR ➔ DIN 975 = trapezoidal

Dimensions ➔ TI-66 REACH ➔ TI-262

RoHS ✓

thread x pitch x wrench size (SW) x height

TR16	x	4-s = 27	x	24	S	1	1210,00
TR20	x	4-s = 30	x	30	S	1	1300,00
TR24	x	5-s = 36	x	36	S	1	1700,00
TR30	x	6-s = 46	x	45	S	1	4550,00

article 88091.010 816

88091 Steel WIROX SPAX CSK-T



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. head T = T-STAR plus

case hardened, slide-coated

bits ➔ article 88663, 88654,
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

ETA CE RoHS ✓ REACh SVHC free

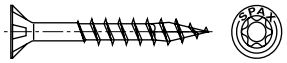
nominal ∅ x nominal length / thread length approx. - bit size

3	x	12/10-T10	S	1000	1,90 ZP
3	x	12/10-T10	K	200	2,25 ZP
3	x	16/13-T10	S	1000	2,15 ZP
3	x	16/13-T10	K	200	2,35 ZP
3	x	20/16-T10	S	1000	2,30 ZP
3	x	20/16-T10	K	200	2,50 ZP
3	x	25/21-T10	S	1000	2,40 ZP
3	x	25/21-T10	K	200	2,70 ZP
3	x	30/26-T10	S	1000	3,15 ZP
3	x	30/26-T10	K	200	3,65 ZP
3,5	x	15/11-T20*	S	1000	2,40 ZP
3,5	x	16/12-T20*	S	1000	2,40 ZP
3,5	x	16/12-T20*	K	200	2,70 ZP
3,5	x	20/15-T20*	S	1000	2,75 ZP
3,5	x	20/15-T20*	K	200	3,05 ZP
3,5	x	25/20-T20*	S	1000	3,00 ZP
3,5	x	25/20-T20*	K	200	3,35 ZP
3,5	x	30/25-T20*	S	1000	3,25 ZP
3,5	x	30/25-T20*	K	200	3,75 ZP
3,5	x	35/30-T20*	S	1000	4,05 ZP
3,5	x	35/30-T20*	K	200	4,50 ZP
3,5	x	40/35-T20*	S	1000	4,65 ZP
3,5	x	40/35-T20*	K	200	5,20 ZP

Dimensions			PU	Pieces	€/100/Mat.
3,5	x	45/40-T20*	S	1000	7,00 ZP
3,5	x	45/40-T20*	K	200	8,00 ZP
4	x	15/11-T20	S	1000	2,95 ZP
4	x	16/12-T20	S	1000	2,90 ZP
4	x	20/15-T20	S	1000	3,15 ZP
4	x	25/20-T20	S	1000	3,75 ZP
4	x	25/20-T20	K	200	4,05 ZP
4	x	30/25-T20	S	1000	3,85 ZP
4	x	30/25-T20	K	200	4,30 ZP
4	x	35/30-T20	S	1000	4,45 ZP
4	x	35/30-T20	K	200	5,10 ZP
4	x	40/35-T20	S	1000	5,40 ZP
4	x	40/35-T20	K	200	6,00 ZP
4	x	45/40-T20	S	500	6,00 ZP
4	x	45/40-T20	K	200	6,80 ZP
4	x	50/45-T20	S	500	6,70 ZP
4	x	50/45-T20	K	200	7,30 ZP
4,5	x	16/13-T20	S	1000	3,85 ZP
4,5	x	20/16-T20	S	1000	4,20 ZP
4,5	x	25/21-T20	S	1000	4,70 ZP
4,5	x	30/25-T20	S	1000	5,50 ZP
4,5	x	35/29-T20	S	500	5,90 ZP
4,5	x	35/29-T20	K	200	6,70 ZP
4,5	x	40/34-T20	S	500	6,40 ZP
4,5	x	40/34-T20	K	200	7,10 ZP
4,5	x	45/39-T20	S	500	8,30 ZP
4,5	x	45/39-T20	K	200	9,30 ZP
4,5	x	50/44-T20	S	500	8,50 ZP
4,5	x	50/44-T20	K	200	9,50 ZP
4,5	x	60/54-T20	S	500	10,90 ZP
4,5	x	60/54-T20	K	100	12,10 ZP
4,5	x	70/59-T20	S	500	17,60 ZP
4,5	x	70/59-T20	K	100	20,00 ZP
5	x	20/16-T20	S	1000	5,70 ZP
5	x	25/21-T20	S	1000	5,70 ZP
5	x	30/20-T20	S	500	6,80 ZP
5	x	35/30-T20	S	500	7,60 ZP
5	x	40/34-T20	S	500	8,30 ZP
5	x	40/34-T20	K	200	9,30 ZP
5	x	45/39-T20	S	500	9,30 ZP
5	x	45/39-T20	K	200	10,40 ZP
5	x	50/44-T20	S	500	9,80 ZP
5	x	50/44-T20	K	200	11,00 ZP
5	x	60/54-T20	S	500	11,80 ZP
5	x	60/54-T20	K	100	13,30 ZP
5	x	70/60-T20	S	200	16,80 ZP
5	x	70/60-T20	K	100	18,50 ZP
5	x	80/60-T20	S	200	20,00 ZP
5	x	80/60-T20	K	100	21,60 ZP
6	x	50/43-T30	S	200	14,30 ZP
6	x	50/43-T30	K	100	15,90 ZP
6	x	60/53-T30	S	200	16,80 ZP
6	x	60/53-T30	K	100	19,10 ZP
6	x	70/60-T30	S	200	20,80 ZP
6	x	70/60-T30	K	100	23,10 ZP
6	x	80/60-T30	S	200	23,10 ZP
6	x	80/60-T30	K	100	25,50 ZP

article 88091.019 816

88091 Steel WIROX SPAX CSK-T-P



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. head T = T-STAR plus P = partially threaded

case hardened, slide-coated
from 6 x 160 with 4CUT cutter

bits ➔ article 88663, 88654,
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3	x	30/18-T10	S	1000	3,15 ZP
3	x	35/23-T10	S	1000	3,75 ZP
3	x	40/23-T10	S	1000	5,00 ZP
3,5	x	30/17-T20*	S	1000	3,25 ZP
3,5	x	30/17-T20*	K	200	3,75 ZP
3,5	x	35/22-T20*	S	1000	4,05 ZP
3,5	x	35/22-T20*	K	200	4,50 ZP
3,5	x	40/22-T20*	S	1000	4,65 ZP
3,5	x	40/22-T20*	K	200	5,20 ZP
3,5	x	45/30-T20*	S	1000	7,00 ZP
3,5	x	45/30-T20*	K	200	8,00 ZP
3,5	x	50/32-T20*	S	500	7,60 ZP
3,5	x	50/32-T20*	K	200	8,60 ZP
4	x	30/17-T20	S	1000	3,85 ZP
4	x	30/17-T20	K	200	4,30 ZP
4	x	35/22-T20	S	1000	4,45 ZP
4	x	35/22-T20	K	200	5,10 ZP
4	x	40/22-T20	S	1000	5,40 ZP
4	x	40/22-T20	K	200	6,00 ZP
4	x	45/30-T20	S	500	6,00 ZP
4	x	45/30-T20	K	200	6,80 ZP
4	x	50/32-T20	S	500	6,70 ZP
4	x	50/32-T20	K	200	7,30 ZP
4	x	60/35-T20	S	500	11,10 ZP
4	x	60/35-T20	K	100	12,40 ZP
4	x	70/42-T20	S	500	17,60 ZP
4	x	70/42-T20	K	100	20,00 ZP
4	x	80/37-T20	S	200	20,00 ZP
4,5	x	30/17-T20	S	1000	5,40 ZP
4,5	x	30/17-T20	K	200	5,90 ZP
4,5	x	35/24-T20	S	500	5,90 ZP
4,5	x	35/24-T20	K	200	6,70 ZP
4,5	x	40/24-T20	S	500	6,40 ZP
4,5	x	40/24-T20	K	200	7,10 ZP
4,5	x	45/29-T20	S	500	8,30 ZP
4,5	x	45/29-T20	K	200	9,30 ZP
4,5	x	50/32-T20	S	500	8,50 ZP
4,5	x	50/32-T20	K	200	9,50 ZP
4,5	x	60/37-T20	S	500	10,90 ZP
4,5	x	60/37-T20	K	100	12,10 ZP
4,5	x	70/42-T20	S	500	17,60 ZP
4,5	x	70/42-T20	K	100	20,00 ZP
4,5	x	80/49-T20	S	200	20,00 ZP
4,5	x	80/49-T20	K	100	22,30 ZP
5	x	30/17-T20	S	500	6,80 ZP
5	x	30/17-T20	K	200	7,40 ZP
5	x	35/24-T20	S	500	7,60 ZP
5	x	40/27-T20	S	500	8,30 ZP
5	x	40/27-T20	K	200	9,30 ZP
5	x	45/29-T20	S	500	9,30 ZP
5	x	50/32-T20	S	500	9,80 ZP
5	x	50/32-T20	K	200	11,00 ZP
5	x	55/36-T20	S	500	11,10 ZP
5	x	60/36-T20	S	500	11,80 ZP
5	x	60/36-T20	K	100	13,30 ZP
5	x	70/41-T20	S	200	16,80 ZP
5	x	70/41-T20	K	100	18,50 ZP
5	x	80/46-T20	S	200	20,00 ZP
5	x	80/46-T20	K	100	21,60 ZP
5	x	90/60-T20	S	200	25,50 ZP
5	x	90/60-T20	K	100	28,50 ZP
5	x	100/60-T20	S	200	28,50 ZP
5	x	100/60-T20	K	100	31,50 ZP
5	x	120/69-T20	S	200	55,00 ZP
6	x	40/23-T30	S	500	12,60 ZP
6	x	50/32-T30	S	200	14,30 ZP
6	x	50/32-T30	K	100	15,90 ZP
6	x	60/36-T30	S	200	16,80 ZP
6	x	60/36-T30	K	100	19,10 ZP
6	x	70/41-T30	S	200	20,80 ZP
6	x	70/41-T30	K	100	23,10 ZP
6	x	80/46-T30	S	200	23,10 ZP
6	x	80/46-T30	K	100	25,50 ZP
6	x	90/60-T30	S	200	26,50 ZP
6	x	90/60-T30	K	100	29,50 ZP
6	x	100/60-T30	S	100	30,00 ZP
6	x	110/68-T30	S	100	40,50 ZP
6	x	120/68-T30	S	100	46,00 ZP
6	x	130/68-T30	S	100	51,00 ZP
6	x	140/68-T30	S	100	59,00 ZP
6	x	150/68-T30	S	100	67,00 ZP
6	x	160/68-T30	S	100	80,00 ZP
6	x	180/68-T30	S	100	107,00 ZP
6	x	200/68-T30	S	100	131,00 ZP
6	x	220/68-T30	S	100	167,00 ZP
6	x	240/68-T30	S	100	176,00 ZP
6	x	260/68-T30	S	100	191,00 ZP
6	x	280/68-T30	S	100	204,00 ZP
6	x	300/68-T30	S	100	229,00 ZP

article 88091.060 816

88091 Steel YELLOX SPAX CSK-T



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. Head T = T-STAR plus

case hardened, slide-coated
from 6 x 160 with 4CUT cutter

bits ➔ article 88663, 88654,
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114
from ∅8 Z-9.1-449, Z-9.1-511, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3	x	12/ 10-T10	S	1000	1,90 YELLOX
3	x	12/ 10-T10	K	200	2,25 YELLOX
3	x	16/ 13-T10	S	1000	2,15 YELLOX
3	x	16/ 13-T10	K	200	2,35 YELLOX
3	x	20/ 16-T10	S	1000	2,30 YELLOX
3	x	20/ 16-T10	K	200	2,50 YELLOX
3	x	25/ 21-T10	S	1000	2,40 YELLOX

€/100 = price in € plus VAT when ordering full package unit

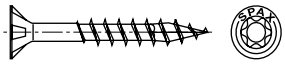
*Dimensions are gradually being switched from T15 to T20

R/2020.10/EN/MTI

Dimensions		PU	Pieces	€/100/Mat.
3	x 25/ 21-T10	K	200	2,70 YELLOX
3,5	x 16/ 12-T20*	S	1000	2,40 YELLOX
3,5	x 20/ 15-T20*	S	1000	2,75 YELLOX
3,5	x 25/ 20-T20*	S	1000	3,00 YELLOX
3,5	x 25/ 20-T20*	K	200	3,35 YELLOX
4	x 20/ 15-T20	S	1000	3,15 YELLOX
4	x 20/ 15-T20	K	200	3,45 YELLOX
4	x 25/ 20-T20	S	1000	3,75 YELLOX
4	x 25/ 20-T20	K	200	4,05 YELLOX

article	88091.069	816

88091 Steel YELLOX — SPAX CSK-T-P



SPAX universal screws
with SPAX 4CUT point,
CSK = SPAX MULTI counters. head
T = T-STAR plus
P = partially threaded

case hardened, slide-coated
from 6x160 with 4CUT cutter

bits ➔ article 88663, 88654,
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114
from ∅8 Z-9.1-449, Z-9.1-511, ETA-12/0114

nominal ∅ x nominal length / thread length approx. - bit size

3	x 30/ 18-T10	S	1000	3,15 YELLOX
3	x 30/ 18-T10	K	200	3,65 YELLOX
3	x 35/ 23-T10	S	1000	3,75 YELLOX
3	x 35/ 23-T10	K	200	4,05 YELLOX
3	x 40/ 23-T10	S	1000	5,00 YELLOX
3	x 40/ 23-T10	K	200	5,60 YELLOX
3,5	x 30/ 18-T20*	S	1000	3,25 YELLOX
3,5	x 30/17-T20*	K	200	3,75 YELLOX
3,5	x 35/ 23-T20*	S	1000	4,05 YELLOX
3,5	x 35/ 22-T20*	K	200	4,50 YELLOX
3,5	x 40/ 23-T20*	S	1000	4,65 YELLOX
3,5	x 40/ 22-T20*	K	200	5,20 YELLOX
3,5	x 45/ 30-T20*	S	1000	7,00 YELLOX
3,5	x 50/ 32-T20*	S	500	7,60 YELLOX
3,5	x 50/ 32-T20*	K	200	8,60 YELLOX
4	x 30/ 18-T20	S	1000	3,85 YELLOX
4	x 30/ 17-T20	K	200	4,30 YELLOX
4	x 35/ 23-T20	S	1000	4,45 YELLOX
4	x 35/ 22-T20	K	200	5,10 YELLOX
4	x 40/ 23-T20	S	1000	5,40 YELLOX
4	x 40/ 22-T20	K	200	6,00 YELLOX
4	x 45/ 30-T20	S	500	6,00 YELLOX
4	x 45/ 30-T20	K	200	6,80 YELLOX
4	x 50/ 32-T20	S	500	6,70 YELLOX
4	x 50/ 32-T20	K	200	7,30 YELLOX
4	x 60/ 35-T20	S	500	11,10 YELLOX
4	x 60/ 35-T20	K	100	12,40 YELLOX
4	x 70/ 37-T20	S	500	17,60 YELLOX
4	x 70/ 42-T20	K	100	20,00 YELLOX
4	x 50/ 37-T20	S	200	20,00 YELLOX
4,5	x 30/ 17-T20	S	1000	5,40 YELLOX
4,5	x 30/ 17-T20	K	200	5,90 YELLOX
4,5	x 35/ 25-T20	S	500	5,90 YELLOX
4,5	x 35/ 24-T20	K	200	6,70 YELLOX
4,5	x 40/ 25-T20	S	500	6,40 YELLOX
4,5	x 40/ 24-T20	K	200	7,10 YELLOX
4,5	x 45 /30-T20	S	500	8,30 YELLOX

Dimensions		PU	Pieces	€/100/Mat.
4,5	x 45/ 29-T20	K	200	9,30 YELLOX
4,5	x 50/ 32-T20	S	500	8,50 YELLOX
4,5	x 50/ 32-T20	K	200	9,50 YELLOX
4,5	x 60/ 37-T20	S	500	10,90 YELLOX
4,5	x 60/ 37-T20	K	100	12,10 YELLOX
4,5	x 70 /42-T20	S	500	17,60 YELLOX
4,5	x 70/ 42-T20	K	100	20,00 YELLOX
4,5	x 80/ 47-T20	S	200	20,00 YELLOX
4,5	x 80/ 49-T20	K	100	22,30 YELLOX
5	x 30/ 17-T20	S	500	6,80 YELLOX
5	x 30/ 17-T20	K	200	7,40 YELLOX
5	x 35/ 25-T20	S	500	7,60 YELLOX
5	x 40/ 27-T20	S	500	8,30 YELLOX
5	x 40/ 27-T20	K	200	9,30 YELLOX
5	x 45/ 30-T20	S	500	9,30 YELLOX
5	x 50/ 32-T20	S	500	9,80 YELLOX
5	x 50/ 32-T20	K	200	11,00 YELLOX
5	x 55/ 37-T20	S	500	11,10 YELLOX
5	x 60/ 37-T20	S	500	11,80 YELLOX
5	x 60/ 36-T20	K	100	13,30 YELLOX
5	x 70/ 41-T20	S	200	16,80 YELLOX
5	x 70/ 41-T20	K	100	18,50 YELLOX
5	x 80/ 46-T20	S	200	20,00 YELLOX
5	x 80/ 46-T20	K	100	21,60 YELLOX
5	x 90/ 61-T20	S	200	25,50 YELLOX
5	x 90/ 60-T20	K	100	28,50 YELLOX
5	x 100/ 61-T20	S	200	28,50 YELLOX
5	x 100/ 60-T20	K	100	31,50 YELLOX
5	x 120/ 69-T20	S	200	55,00 YELLOX
6	x 40/ 24-T30	S	500	12,60 YELLOX
6	x 50/ 32-T30	S	200	14,30 YELLOX
6	x 50/ 32-T30	K	100	15,90 YELLOX
6	x 60/ 37-T30	S	200	16,80 YELLOX
6	x 60/ 36-T30	K	100	19,10 YELLOX
6	x 70/ 41-T30	S	200	20,80 YELLOX
6	x 70/ 41-T30	K	100	23,10 YELLOX
6	x 80/ 46-T30	S	200	23,10 YELLOX
6	x 80/ 46-T30	K	100	25,50 YELLOX
6	x 90/ 61-T30	S	200	26,50 YELLOX
6	x 100/ 61-T30	S	100	30,00 YELLOX
6	x 110/ 68-T30	S	100	40,50 YELLOX
6	x 120/ 68-T30	S	100	46,00 YELLOX
6	x 130/ 68-T30	S	100	51,00 YELLOX
6	x 140/ 68-T30	S	100	59,00 YELLOX
6	x 150/ 68-T30	S	100	67,00 YELLOX
6	x 160/ 68-T30	S	100	80,00 YELLOX
6	x 180/ 68-T30	S	100	107,00 YELLOX
6	x 200/ 68-T30	S	100	131,00 YELLOX
6	x 220/ 68-T30	S	100	167,00 YELLOX
6	x 240/ 68-T30	S	100	176,00 YELLOX
6	x 260/ 68-T30	S	100	191,00 YELLOX
6	x 280/ 68-T30	S	100	204,00 YELLOX
6	x 300/ 68-T30	S	100	229,00 YELLOX

Dimensions	PU	Pieces	€/100/Mat.

article	88091.039	816

88091 Steel WIROX — SPAX CSK-T-P



SPAX wood building screws
with SPAX 4CUT point,
CSK = SPAX MULTI counters. head
T = T-STAR plus
P = partially threaded

case hardened, slide-coated,
from 8x160 with 4CUT cutter

bits ➔ article 88663, 88654

approvals: Z-9.1-449, Z-9.1-551, ETA-12/0114

nominal ∅ x nominal length / thread length approx. - bit size

8	x 80/47-T40	S	50	46,50 ZP
8	x 100/57-T40	S	50	56,00 ZP
8	x 120/70-T40	S	50	72,00 ZP
8	x 140/80-T40	S	50	84,00 ZP
8	x 160/80-T40	S	50	111,00 ZP
8	x 180/80-T40	S	50	126,00 ZP
8	x 200/80-T40	S	50	150,00 ZP
8	x 220/80-T40	S	50	195,00 ZP
8	x 240/80-T40	S	50	208,00 ZP
8	x 260/80-T40	S	50	226,00 ZP
8	x 280/80-T40	S	50	237,00 ZP
8	x 300/80-T40	S	50	268,00 ZP
8	x 320/80-T40	S	50	281,00 ZP
8	x 340/80-T40	S	50	307,00 ZP
8	x 360/80-T40	S	50	332,00 ZP
8	x 380/80-T40	S	50	347,00 ZP
8	x 400/80-T40	S	50	365,00 ZP
8	x 450/80-T40	S	50	559,00 ZP
10	x 80/ 50-T50	S	50	72,00 ZP
10	x 100/ 60-T50	S	50	80,00 ZP
10	x 120/ 70-T50	S	50	90,00 ZP
10	x 140/ 70-T50	S	50	103,00 ZP
10	x 160/ 80-T50	S	50	120,00 ZP
10	x 180/ 80-T50	S	50	133,00 ZP
10	x 200/ 80-T50	S	50	176,00 ZP
10	x 220/ 80-T50	S	50	226,00 ZP
10	x 240/ 80-T50	S	50	246,00 ZP
10	x 260/ 80-T50	S	50	297,00 ZP
10	x 280/ 80-T50	S	50	328,00 ZP
10	x 300/ 80-T50	S	50	349,00 ZP
10	x 320/ 80-T50	S	50	369,00 ZP
10	x 340/ 80-T50	S	50	405,00 ZP
10	x 360/ 80-T50	S	50	430,00 ZP
10	x 400/ 80-T50	S	50	491,00 ZP
10	x 450/ 80-T50	S	50	645,00 ZP
12	x 280/100-T50	S	25	395,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	89021.030		5012

89021 assortment steel hard. WIROX — L-BOXX



SPAX assortment L-BOXX / L-BOXX mini, with countersunk head and hexalobular socket T

RoHS ✓ | REACh SVHC free

Assorter case	S	1	31400,00 ZP
Assorter case	S	1	8300,00 ZP

article	89021.050	5012

89021 assortment steel hard. YELLOX — L-BOXX



SPAX assortment L-BOXX, with countersunk head and cross recess Z

RoHS ✓ | REACh SVHC free

Assorter case	S	1	13500,00 YELLOX

article	88196.030	816

88196 Steel WIROX — SPAX CSK-T



SPAX screws fully threaded, with SPAX CUT point, CSK = SPAX MULTI counters. head T = T-STAR plus / T-STAR

case hardened, slide-coated,
∅ 10/12 = countersunk head with milled ribs and T-STAR

bits ➔ article 88663, 88654

approvals: Z-9.1-519, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length - bit size					
8	x	160 -T40	S	50	262,00 ZP
8	x	180 -T40	S	50	277,00 ZP
8	x	200 -T40	S	50	284,00 ZP
8	x	220 -T40	S	50	315,00 ZP
8	x	240 -T40	S	50	330,00 ZP
8	x	260 -T40	S	50	372,00 ZP
8	x	280 -T40	S	50	378,00 ZP
8	x	300 -T40	S	50	440,00 ZP
8	x	350 -T40	S	50	505,00 ZP
8	x	400 -T40	S	50	536,00 ZP
8	x	450 -T40	S	50	896,00 ZP
8	x	500 -T40	S	25	1006,00 ZP
8	x	550 -T40	S	25	1115,00 ZP
8	x	600 -T40	S	25	1225,00 ZP
10	x	200 -T50	S	50	297,00 ZP
10	x	220 -T50	S	50	361,00 ZP
10	x	240 -T50	S	50	393,00 ZP
10	x	260 -T50	S	50	470,00 ZP
10	x	280 -T50	S	50	529,00 ZP
10	x	300 -T50	S	50	559,00 ZP
10	x	350 -T50	S	50	660,00 ZP
10	x	400 -T50	S	50	786,00 ZP
10	x	450 -T50	S	50	1070,00 ZP
10	x	500 -T50	S	25	1382,00 ZP
10	x	550 -T50	S	25	1539,00 ZP
12	x	200 -T50	S	25	299,00 ZP
12	x	240 -T50	S	25	440,00 ZP
12	x	300 -T50	S	25	613,00 ZP
12	x	350 -T50	S	25	771,00 ZP
12	x	400 -T50	S	25	896,00 ZP
12	x	450 -T50	S	25	1132,00 ZP
12	x	500 -T50	S	25	1413,00 ZP
12	x	550 -T50	S	20	1650,00 ZP
12	x	600 -T50	S	20	2200,00 ZP

article	88006.(*)	800

88006 Plastic — ISR



Caps for countersunk head screws with hexalobular socket

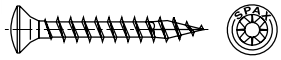
white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650),
fawn brown RAL 8007 (*660)

REACH ➔ TI-262

ISR no. X caps ∅ / for screws					
15	x	12 / 3,5	S	1000	3,45
20	x	12 /4-4,5	S	1000	3,45
25	x	13,5/ 5	S	1000	3,45
30	x	16,5/ 6	S	1000	3,45

Dimensions	PU	Pieces	€/100/Mat.
article	88092.010		816

88092 Steel WIROX — SPAX RCSK-Z



SPAX universal screws with SPAX 4CUT point, RCSK = SPAX MULTI raised countersunk head Z = Pozidriv cross recess

case hardened, slide-coated,
bit size: ∅ 3,5 - 5,0 ➔ Z2

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.				
3,5	x 15/11-Z	S	1000	2,80 ZP
3,5	x 16/12-Z	S	1000	2,80 ZP
3,5	x 20/15-Z	S	1000	3,15 ZP
3,5	x 25/20-Z	S	1000	3,45 ZP
3,5	x 30/25-Z	S	1000	3,80 ZP
4	x 16/12-Z	S	1000	3,45 ZP
4	x 20/15-Z	S	1000	3,75 ZP
4	x 25/20-Z	S	1000	4,25 ZP
4	x 30/25-Z	S	1000	4,45 ZP
4	x 35/30-Z	S	1000	5,20 ZP

article	88092.030	816

88092 Steel nickel plated — SPAX RCSK-Z



SPAX universal screws with SPAX 4CUT point, RCSK = SPAX MULTI raised countersunk head Z = Pozidriv cross recess

case hardened, slide-coated,
bit sizes: ∅ 3 ➔ Z1, ∅ 3,5 - 5,0 ➔ Z2

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.				
3,5	x 16/12-Z	S	1000	3,60 NP
3,5	x 20/15-Z	S	1000	4,25 NP
3,5	x 25/20-Z	S	1000	4,50 NP
3,5	x 30/25-Z	S	1000	5,00 NP
4	x 16/12-Z	S	1000	4,45 NP
4	x 20/15-Z	S	1000	4,85 NP
4	x 25/20-Z	S	1000	5,50 NP
4	x 30/25-Z	S	1000	5,70 NP
4	x 35/30-Z	S	1000	6,80 NP

Dimensions			PU	Pieces	€/100/Mat.
article		88093.010			816
88093	**Steel WIROX**				**SPAX PAN-Z**



SPAX universal screws with SPAX 4CUT point, PAN = pan head Z = Pozidriv cross recess

case hardened, slide-coated,
bit sizes: ∅ 3 ➔ Z1, ∅ 3,5 – 5,0 ➔ Z2, ∅ 6 ➔ 3

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

3	x 10/ 8-Z	S	1000	2,35 ZP
3	x 12/11-Z	S	1000	2,35 ZP
3	x 13/11-Z	S	1000	2,40 ZP
3	x 15/13-Z	S	1000	2,40 ZP
3	x 16/15-Z	S	1000	2,50 ZP
3	x 20/18-Z	S	1000	2,70 ZP
3	x 25/23-Z	S	1000	2,95 ZP
3	x 30/28-Z	S	1000	3,85 ZP
3,5	x 12/11-Z	S	1000	2,95 ZP
3,5	x 15/12-Z	S	1000	2,95 ZP
3,5	x 16/14-Z	S	1000	2,95 ZP
3,5	x 20/17-Z	S	1000	3,35 ZP
3,5	x 25/22-Z	S	1000	3,60 ZP
3,5	x 30/27-Z	S	1000	3,95 ZP
3,5	x 35/32-Z	S	1000	4,95 ZP
3,5	x 40/37-Z	S	1000	5,60 ZP
4	x 12/10-Z	S	1000	3,75 ZP
4	x 15/12-Z	S	1000	3,55 ZP
4	x 16/14-Z	S	1000	3,55 ZP
4	x 20/17-Z	S	1000	3,85 ZP
4	x 25/22-Z	S	1000	4,45 ZP
4	x 30/27-Z	S	1000	4,65 ZP
4	x 35/32-Z	S	1000	5,40 ZP
4	x 40/37-Z	S	500	6,40 ZP
4	x 45/42-Z	S	500	7,20 ZP
4	x 50/47-Z	S	500	7,90 ZP
4	x 60/50-Z	S	500	13,30 ZP
4,5	x 12/10-Z	S	1000	4,95 ZP
4,5	x 15/12-Z	S	1000	4,95 ZP
4,5	x 16/14-Z	S	1000	4,95 ZP
4,5	x 20/17-Z	S	1000	5,40 ZP
4,5	x 25/22-Z	S	1000	5,90 ZP
4,5	x 30/27-Z	S	500	6,40 ZP
4,5	x 35/32-Z	S	500	7,00 ZP
4,5	x 40/37-Z	S	500	7,80 ZP
4,5	x 45/42-Z	S	500	9,90 ZP
4,5	x 50/47-Z	S	500	10,20 ZP
4,5	x 60/57-Z	S	500	12,90 ZP
5	x 15/12-Z	S	1000	7,10 ZP
5	x 16/14-Z	S	1000	7,10 ZP
5	x 20/17-Z	S	1000	7,10 ZP
5	x 25/21-Z	S	500	7,30 ZP
5	x 30/26-Z	S	500	8,00 ZP
5	x 35/31-Z	S	500	9,20 ZP
5	x 40/36-Z	S	500	9,90 ZP
5	x 45/41-Z	S	200	11,10 ZP
5	x 50/46-Z	S	200	11,70 ZP
5	x 60/56-Z	S	200	14,30 ZP
5	x 70/60-Z	S	200	20,00 ZP
5	x 80/60-Z	S	200	23,90 ZP
5	x 90/60-Z	S	200	30,00 ZP
6	x 25/21-Z	S	500	13,80 ZP
6	x 30/26-Z	S	500	15,20 ZP
6	x 35/31-Z	S	500	15,20 ZP
6	x 40/36-Z	S	500	15,20 ZP
6	x 50/46-Z	S	200	16,80 ZP
6	x 60/56-Z	S	200	20,80 ZP
6	x 70/60-Z	S	200	24,80 ZP
6	x 80/60-Z	S	200	27,00 ZP
6	x 90/60-Z	S	200	31,00 ZP

article	88093.014	816
88093	**Steel WIROX**	**SPAX PAN-T**



SPAX universal screws with SPAX 4CUT point, PAN = pan head T = T-STAR plus

case hardened, slide-coated

bits ➔ article 88663, 88654,
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. – bit size

3	x 12/11-T10	K	200	2,70 ZP
3	x 16/15-T10	K	200	2,75 ZP
3	x 20/18-T10	K	200	3,00 ZP
3,5	x 12/11-T15	S	1000	2,95 ZP
3,5	x 15/12-T15	S	1000	2,95 ZP
3,5	x 16/14-T15	S	1000	2,95 ZP
3,5	x 20/17-T15	S	1000	3,35 ZP
3,5	x 25/22-T15	S	1000	3,60 ZP
3,5	x 30/27-T15	S	1000	3,95 ZP
3,5	x 35/32-T15	S	1000	4,95 ZP
4	x 12/10-T20	S	1000	3,75 ZP
4	x 15/12-T20	S	1000	3,55 ZP
4	x 16/14-T20	S	1000	3,55 ZP
4	x 16/15-T20	K	200	4,00 ZP
4	x 20/17-T20	S	1000	3,85 ZP
4	x 20/18-T20	K	200	4,40 ZP
4	x 25/22-T20	S	1000	4,45 ZP
4	x 25/23-T20	K	200	4,95 ZP
4	x 30/27-T20	S	1000	4,65 ZP
4	x 30/27-T20	K	200	5,20 ZP
4	x 35/32-T20	S	1000	5,40 ZP
4	x 35/32-T20	K	200	6,00 ZP
4	x 40/37-T20	S	500	6,40 ZP
4	x 40/37-T20	K	200	7,20 ZP
4	x 45/42-T20	K	200	8,00 ZP
4	x 50/47-T20	S	500	7,90 ZP
4	x 50/47-T20	K	200	8,70 ZP
4	x 60/50-T20	S	500	13,30 ZP
4,5	x 12/10-T20	S	1000	4,95 ZP
4,5	x 15/12-T20	S	1000	4,95 ZP
4,5	x 16/14-T20	S	1000	4,95 ZP
4,5	x 20/17-T20	S	1000	5,40 ZP
4,5	x 20/17-T20	K	200	6,00 ZP
4,5	x 25/22-T20	S	1000	5,90 ZP
4,5	x 25/22-T20	K	200	6,70 ZP
4,5	x 30/27-T20	S	500	6,40 ZP
4,5	x 30/27-T20	K	200	7,10 ZP
4,5	x 35/32-T20	S	500	7,00 ZP
4,5	x 35/32-T20	K	200	7,90 ZP
4,5	x 40/37-T20	S	500	7,80 ZP
4,5	x 40/37-T20	K	200	8,60 ZP
4,5	x 45/42-T20	S	500	9,90 ZP
4,5	x 45/42-T20	K	200	11,10 ZP
4,5	x 50/47-T20	S	500	10,20 ZP
4,5	x 50/47-T20	K	200	11,30 ZP
4,5	x 60/57-T20	S	500	12,90 ZP
5	x 16/14-T20	S	1000	7,10 ZP
5	x 20/17-T20	S	1000	7,10 ZP
5	x 20/17-T20	K	200	8,00 ZP
5	x 25/21-T20	S	500	7,30 ZP
5	x 25/22-T20	K	200	8,10 ZP
5	x 30/26-T20	S	500	8,00 ZP
5	x 30/27-T20	K	200	8,90 ZP
5	x 35/31-T20	S	500	9,20 ZP
5	x 35/32-T20	K	200	10,30 ZP
5	x 40/36-T20	S	500	9,90 ZP
5	x 40/37-T20	K	200	11,10 ZP
5	x 50/46-T20	S	200	11,70 ZP
5	x 50/46-T20	K	100	13,20 ZP
5	x 60/56-T20	S	200	14,30 ZP
5	x 60/56-T20	K	100	15,90 ZP
5	x 70/60-T20	S	200	20,00 ZP
5	x 70/61-T20	K	100	22,30 ZP
5	x 80/60-T20	S	200	23,90 ZP
5	x 80/61-T20	K	100	26,50 ZP
5	x 90/60-T20	S	200	30,00 ZP
6	x 20/16-T30	S	500	13,80 ZP
6	x 25/21-T30	S	500	13,80 ZP
6	x 30/26-T30	S	500	15,20 ZP
6	x 35/31-T30	S	500	15,20 ZP
6	x 40/36-T30	S	500	15,20 ZP
6	x 40/37-T30	K	200	16,80 ZP
6	x 50/46-T30	S	200	16,80 ZP
6	x 50/46-T30	K	100	19,10 ZP
6	x 60/56-T30	S	200	20,80 ZP
6	x 70/60-T30	S	200	24,80 ZP
6	x 80/60-T30	S	200	27,00 ZP
6	x 90/60-T30	S	200	31,00 ZP
6	x 100/60-T30	S	100	37,00 ZP

article	88094.040	816
88094	**Steel browned**	**SPAX CSK-Z**



SPAX universal screws, with SPAX 4CUT point, CSK = SPAX MULTI counters. Head Z = Pozidriv cross recess

case hardened, slide-coated,
bit sizes: ∅ 2,5 – 3 ➔ Z1, ∅ 3,5 – 5,0 ➔ Z2, ∅ 6 ➔ 3

approvals: Z-9.1-235, ETA-12/0114

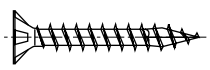
ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

2,5	x 12/10-Z	S	1000	2,55 browned
2,5	x 16/14-Z	S	1000	2,55 browned
2,5	x 20/17-Z	S	1000	2,90 browned
3	x 12/10-Z	S	1000	2,55 browned
3	x 16/13-Z	S	1000	2,70 browned
3	x 20/16-Z	S	1000	2,95 browned
3	x 25/21-Z	S	1000	3,15 browned
3	x 30/26-Z	S	1000	4,30 browned
3	x 35/31-Z	S	1000	4,70 browned
3	x 40/36-Z	S	1000	8,00 browned
3,5	x 12/ 9-Z	S	1000	3,15 browned
3,5	x 16/12-Z	S	1000	3,15 browned

Dimensions			PU	Pieces	€/100/Mat.
3,5	x	20/15-Z	S	1000	3,60 browned
3,5	x	25/20-Z	S	1000	3,95 browned
3,5	x	30/25-Z	S	1000	4,30 browned
3,5	x	35/30-Z	S	1000	5,30 browned
3,5	x	40/35-Z	S	1000	6,00 browned
3,5	x	45/40-Z	S	1000	9,20 browned
3,5	x	50/40-Z	S	500	9,90 browned
4	x	16/12-Z	S	1000	3,85 browned
4	x	20/15-Z	S	1000	4,15 browned
4	x	25/20-Z	S	1000	4,65 browned
4	x	30/25-Z	S	1000	5,10 browned
4	x	35/30-Z	S	1000	5,90 browned
4	x	40/35-Z	S	1000	7,00 browned
4	x	45/40-Z	S	500	7,80 browned
4	x	50/45-Z	S	500	8,50 browned
4	x	60/50-Z	S	500	14,40 browned
4	x	70/50-Z	S	500	23,10 browned
4,5	x	25/19-Z	S	1000	6,30 browned
4,5	x	30/24-Z	S	1000	6,90 browned
4,5	x	35/29-Z	S	500	7,60 browned
4,5	x	40/34-Z	S	500	8,30 browned
4,5	x	45/39-Z	S	500	10,70 browned
4,5	x	50/44-Z	S	500	11,10 browned
4,5	x	60/54-Z	S	500	13,90 browned
4,5	x	70/59-Z	S	500	23,10 browned
4,5	x	80/59-Z	S	200	25,50 browned
5	x	30/24-Z	S	500	8,60 browned
5	x	35/29-Z	S	500	9,90 browned
5	x	40/34-Z	S	500	10,80 browned
5	x	45/39-Z	S	500	12,10 browned
5	x	50/44-Z	S	500	12,60 browned
5	x	60/54-Z	S	500	15,30 browned
5	x	70/60-Z	S	200	22,30 browned
5	x	80/60-Z	S	200	25,50 browned
5	x	90/60-Z	S	200	33,50 browned
6	x	50/43-Z	S	200	18,50 browned
6	x	60/53-Z	S	200	22,30 browned
6	x	70/60-Z	S	200	26,50 browned
6	x	80/60-Z	S	200	29,50 browned
6	x	90/60-Z	S	200	32,50 browned
6	x	100/60-Z	S	100	40,00 browned
6	x	120/68-Z	S	100	59,00 browned

article	88094.010	816
88094	**Steel WIROX**	**SPAX CSK-Z**



SPAX universal screws,
with SPAX 4CUT point,
CSK = SPAX MULTI counters. head
Z = Pozidriv cross recess

case hardened, slide-coated,
bit sizes: ∅ 2,5 – 3 ➔ Z1, ∅ 3,5 – 5,0 ➔ Z2,
∅ 6 ➔ 3

approvals: Z-9.1-235, ETA-12/0114

nominal ∅ x nominal length / thread length approx.

2,5	x	10/ 8-Z	S	1000	1,90 ZP
2,5	x	12/10-Z	S	1000	1,90 ZP
2,5	x	16/14-Z	S	1000	1,95 ZP
2,5	x	20/17-Z	S	1000	2,25 ZP
2,5	x	25/22-Z	S	1000	2,35 ZP
3	x	10/ 7-Z	S	1000	1,90 ZP
3	x	12/10-Z	S	1000	1,90 ZP
3	x	12/10-Z	K	200	2,25 ZP
3	x	13/10-Z	S	1000	1,90 ZP
3	x	15/12-Z	S	1000	1,95 ZP
3	x	16/13-Z	S	1000	2,15 ZP
3	x	16/13-Z	K	200	2,35 ZP
3	x	17/13-Z	S	1000	2,15 ZP
3	x	20/16-Z	S	1000	2,30 ZP
3	x	20/16-Z	K	200	2,50 ZP
3	x	25/21-Z	S	1000	2,40 ZP
3	x	25/21-Z	K	200	2,70 ZP
3	x	30/26-Z	S	1000	3,15 ZP
3	x	30/26-Z	K	200	3,65 ZP
3	x	35/31-Z	S	1000	3,75 ZP
3	x	35/31-Z	K	200	4,05 ZP
3	x	40/36-Z	S	1000	5,00 ZP
3	x	40/36-Z	K	200	5,60 ZP
3	x	45/36-Z	S	1000	6,80 ZP
3,5	x	12/ 9-Z	S	1000	2,40 ZP
3,5	x	12/ 9-Z	K	200	2,70 ZP
3,5	x	13/ 9-Z	S	1000	2,40 ZP
3,5	x	15/11-Z	S	1000	2,40 ZP
3,5	x	16/12-Z	S	1000	2,40 ZP
3,5	x	16/12-Z	K	200	2,70 ZP
3,5	x	17/12-Z	S	1000	2,40 ZP
3,5	x	20/15-Z	S	1000	2,75 ZP
3,5	x	20/15-Z	K	200	3,05 ZP
3,5	x	25/20-Z	S	1000	3,00 ZP
3,5	x	25/20-Z	K	200	3,35 ZP
3,5	x	30/25-Z	S	1000	3,25 ZP
3,5	x	30/25-Z	K	200	3,75 ZP
3,5	x	35/30-Z	S	1000	4,05 ZP
3,5	x	35/30-Z	K	200	4,50 ZP
3,5	x	40/35-Z	S	1000	4,65 ZP
3,5	x	40/35-Z	K	200	5,20 ZP
3,5	x	45/40-Z	S	1000	7,00 ZP
3,5	x	45/40-Z	K	200	8,00 ZP
3,5	x	50/40-Z	S	500	7,60 ZP
3,5	x	50/40-Z	K	200	8,60 ZP
4	x	12/ 9-Z	S	1000	2,95 ZP
4	x	12/ 9-Z	K	200	3,45 ZP
4	x	15/10-Z	S	1000	2,95 ZP
4	x	16/12-Z	S	1000	2,90 ZP
4	x	16/12-Z	K	200	3,25 ZP
4	x	17/12-Z	S	1000	2,90 ZP
4	x	20/15-Z	S	1000	3,15 ZP
4	x	20/15-Z	K	200	3,45 ZP
4	x	25/20-Z	S	1000	3,75 ZP
4	x	25/20-Z	K	200	4,05 ZP
4	x	30/25-Z	S	1000	3,85 ZP
4	x	30/25-Z	K	200	4,30 ZP
4	x	35/30-Z	S	1000	4,45 ZP
4	x	35/30-Z	K	200	5,10 ZP
4	x	40/35-Z	S	1000	5,40 ZP
4	x	40/35-Z	K	200	6,00 ZP
4	x	45/40-Z	S	500	6,00 ZP
4	x	45/40-Z	K	200	6,80 ZP
4	x	50/45-Z	S	500	6,70 ZP
4	x	50/45-Z	K	200	7,30 ZP
4	x	55/50-Z	S	500	11,10 ZP
4	x	60/50-Z	S	500	11,10 ZP
4	x	60/50-Z	K	100	12,40 ZP
4	x	70/50-Z	S	500	17,60 ZP
4	x	70/50-Z	K	100	20,00 ZP
4	x	80/50-Z	S	200	20,00 ZP
4,5	x	16/12-Z	S	1000	3,85 ZP
4,5	x	16/12-Z	K	200	4,50 ZP
4,5	x	20/14-Z	S	1000	4,20 ZP
4,5	x	20/14-Z	K	200	5,00 ZP
4,5	x	25/19-Z	S	1000	4,70 ZP
4,5	x	25/19-Z	K	200	5,50 ZP
4,5	x	30/24-Z	S	1000	5,40 ZP
4,5	x	30/24-Z	K	200	5,90 ZP
4,5	x	35/29-Z	S	500	5,90 ZP
4,5	x	35/29-Z	K	200	6,70 ZP
4,5	x	40/34-Z	S	500	6,40 ZP
4,5	x	40/34-Z	K	200	7,10 ZP
4,5	x	45/39-Z	S	500	8,30 ZP
4,5	x	45/39-Z	K	200	9,30 ZP
4,5	x	50/44-Z	S	500	8,50 ZP
4,5	x	50/44-Z	K	200	9,50 ZP
4,5	x	55/49-Z	S	500	10,30 ZP
4,5	x	60/54-Z	S	500	10,90 ZP
4,5	x	60/54-Z	K	100	12,10 ZP
4,5	x	70/59-Z	S	500	17,60 ZP
4,5	x	70/59-Z	K	100	20,00 ZP
4,5	x	80/59-Z	S	200	20,00 ZP
4,5	x	80/59-Z	K	100	22,30 ZP
5	x	16/12-Z	S	1000	5,60 ZP
5	x	20/14-Z	S	1000	5,70 ZP
5	x	20/14-Z	K	200	6,80 ZP
5	x	25/19-Z	S	1000	5,70 ZP
5	x	25/19-Z	K	200	6,90 ZP
5	x	30/24-Z	S	500	6,80 ZP
5	x	30/24-Z	K	200	7,40 ZP
5	x	35/29-Z	S	500	7,60 ZP
5	x	35/29-Z	K	200	8,60 ZP
5	x	40/34-Z	S	500	8,30 ZP
5	x	40/34-Z	K	200	9,30 ZP
5	x	45/39-Z	S	500	9,30 ZP
5	x	45/39-Z	K	200	10,40 ZP
5	x	50/44-Z	S	500	9,80 ZP
5	x	50/44-Z	K	200	11,00 ZP
5	x	55/49-Z	S	500	11,10 ZP
5	x	60/54-Z	S	500	11,80 ZP
5	x	60/54-Z	K	100	13,30 ZP
5	x	65/59-Z	S	200	16,90 ZP
5	x	70/60-Z	S	200	16,80 ZP
5	x	70/60-Z	K	100	18,50 ZP
5	x	80/60-Z	S	200	20,00 ZP
5	x	80/60-Z	K	100	21,60 ZP
5	x	90/60-Z	S	200	25,50 ZP
5	x	90/60-Z	K	100	29,00 ZP
5	x	100/60-Z	S	200	28,50 ZP
5	x	100/60-Z	K	100	32,00 ZP
5	x	110/69-Z	S	200	51,00 ZP
5	x	120/69-Z	S	200	55,00 ZP
6	x	30/23-Z	S	500	12,60 ZP
6	x	35/28-Z	S	500	12,60 ZP
6	x	40/33-Z	S	500	12,60 ZP
6	x	40/33-Z	K	200	14,10 ZP
6	x	45/38-Z	S	500	13,50 ZP
6	x	50/43-Z	S	200	14,30 ZP
6	x	50/43-Z	K	100	15,90 ZP
6	x	60/53-Z	S	200	16,80 ZP
6	x	60/53-Z	K	100	19,10 ZP
6	x	70/60-Z	S	200	20,80 ZP
6	x	70/60-Z	K	100	23,10 ZP
6	x	80/60-Z	S	200	23,10 ZP
6	x	80/60-Z	K	100	25,50 ZP
6	x	90/60-Z	S	200	26,50 ZP
6	x	90/60-Z	K	100	30,00 ZP
6	x	100/60-Z	S	100	30,00 ZP
6	x	120/68-Z	S	100	46,00 ZP
6	x	140/68-Z	S	100	59,00 ZP
6	x	160/68-Z	S	100	80,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU Pieces	€/100/Mat.
article	88094.060		816

88094 Steel YELLOX — SPAX CSK-Z



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. Head Z = Pozidriv cross recess

case hardened, slide-coated,
bit sizes: ∅ 2 – 3 ➔ Z1, ∅ 3,5 – 5,0 ➔ Z2, ∅ 6 ➔ 3

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

2	x	10/ 8-Z	S	1000	3,95 YELLOX
2	x	12/11-Z	S	1000	4,30 YELLOX
2	x	16/15-Z	S	1000	4,60 YELLOX
2,5	x	10/ 8-Z	S	1000	1,90 YELLOX
2,5	x	12/10-Z	S	1000	1,90 YELLOX
2,5	x	16/14-Z	S	1000	1,95 YELLOX
2,5	x	20/17-Z	S	1000	2,25 YELLOX
2,5	x	25/22-Z	S	1000	2,35 YELLOX
3	x	10/ 7-Z	S	1000	1,90 YELLOX
3	x	12/10-Z	S	1000	1,90 YELLOX
3	x	12/10-Z	K	200	2,25 YELLOX
3	x	16/13-Z	S	1000	2,15 YELLOX
3	x	16/13-Z	K	200	2,35 YELLOX
3	x	20/16-Z	S	1000	2,30 YELLOX
3	x	20/16-Z	K	200	2,50 YELLOX
3	x	25/21-Z	S	1000	2,40 YELLOX
3	x	25/21-Z	K	200	2,70 YELLOX
3	x	30/26-Z	S	1000	3,15 YELLOX
3	x	30/26-Z	K	200	3,65 YELLOX
3	x	35/31-Z	S	1000	3,75 YELLOX
3	x	35/31-Z	K	200	4,05 YELLOX
3	x	40/36-Z	S	1000	5,00 YELLOX
3	x	40/36-Z	K	200	5,60 YELLOX
3	x	45/36-Z	S	1000	6,80 YELLOX
3,5	x	12/ 9-Z	S	1000	2,40 YELLOX
3,5	x	12/ 9-Z	K	200	2,75 YELLOX
3,5	x	15/11-Z	S	1000	2,40 YELLOX
3,5	x	16/12-Z	S	1000	2,40 YELLOX
3,5	x	16/12-Z	K	200	2,70 YELLOX
3,5	x	20/15-Z	S	1000	2,75 YELLOX
3,5	x	20/15-Z	K	200	3,05 YELLOX
3,5	x	25/20-Z	S	1000	3,00 YELLOX
3,5	x	25/20-Z	K	200	3,35 YELLOX
3,5	x	30/25-Z	S	1000	3,25 YELLOX
3,5	x	30/25-Z	K	200	3,75 YELLOX
3,5	x	35/30-Z	S	1000	4,05 YELLOX
3,5	x	35/30-Z	K	200	4,50 YELLOX
3,5	x	40/35-Z	S	1000	4,65 YELLOX
3,5	x	40/35-Z	K	200	5,20 YELLOX
3,5	x	45/40-Z	S	1000	7,00 YELLOX
3,5	x	45/40-Z	K	200	8,00 YELLOX
3,5	x	50/40-Z	S	500	7,60 YELLOX
3,5	x	50/40-Z	K	200	8,60 YELLOX
4	x	12/ 9-Z	S	1000	2,95 YELLOX
4	x	15/11-Z	S	1000	2,95 YELLOX
4	x	16/12-Z	S	1000	2,90 YELLOX
4	x	16/12-Z	K	200	3,25 YELLOX
4	x	20/15-Z	S	1000	3,15 YELLOX
4	x	20/15-Z	K	200	3,45 YELLOX
4	x	25/20-Z	S	1000	3,75 YELLOX
4	x	25/20-Z	K	200	4,05 YELLOX
4	x	30/25-Z	S	1000	3,85 YELLOX
4	x	30/25-Z	K	200	4,30 YELLOX
4	x	35/30-Z	S	1000	4,45 YELLOX
4	x	35/30-Z	K	200	5,10 YELLOX
4	x	40/35-Z	S	1000	5,40 YELLOX
4	x	40/35-Z	K	200	6,00 YELLOX
4	x	45/40-Z	S	500	6,00 YELLOX
4	x	45/40-Z	K	200	6,80 YELLOX
4	x	50/45-Z	S	500	6,70 YELLOX
4	x	50/45-Z	K	200	7,30 YELLOX
4	x	55/50-Z	S	500	11,10 YELLOX
4	x	60/50-Z	S	500	11,10 YELLOX
4	x	60/50-Z	K	100	12,40 YELLOX
4	x	70/50-Z	S	500	17,60 YELLOX
4	x	70/50-Z	K	100	20,00 YELLOX
4	x	80/50-Z	S	200	20,00 YELLOX
4,5	x	16/12-Z	S	1000	3,85 YELLOX
4,5	x	16/12-Z	K	200	4,50 YELLOX
4,5	x	20/14-Z	S	1000	4,20 YELLOX
4,5	x	20/14-Z	K	200	5,00 YELLOX
4,5	x	25/19-Z	S	1000	4,70 YELLOX
4,5	x	25/19-Z	K	200	5,50 YELLOX
4,5	x	30/24-Z	S	1000	5,40 YELLOX
4,5	x	30/24-Z	K	200	5,90 YELLOX
4,5	x	35/29-Z	S	500	5,90 YELLOX
4,5	x	35/29-Z	K	200	6,70 YELLOX
4,5	x	40/34-Z	S	500	6,40 YELLOX
4,5	x	40/34-Z	K	200	7,10 YELLOX
4,5	x	45/39-Z	S	500	8,30 YELLOX
4,5	x	45/39-Z	K	200	9,30 YELLOX
4,5	x	50/44-Z	S	500	8,50 YELLOX
4,5	x	50/44-Z	K	200	9,50 YELLOX
4,5	x	60/54-Z	S	500	10,90 YELLOX
4,5	x	60/54-Z	K	100	12,10 YELLOX
4,5	x	70/59-Z	S	500	17,60 YELLOX
4,5	x	70/59-Z	K	100	20,00 YELLOX
4,5	x	80/59-Z	S	200	20,00 YELLOX
4,5	x	80/59-Z	K	100	22,30 YELLOX
5	x	20/14-Z	S	1000	5,70 YELLOX
5	x	20/14-Z	K	200	6,80 YELLOX
5	x	25/19-Z	S	1000	5,70 YELLOX
5	x	25/19-Z	K	200	6,90 YELLOX
5	x	30/24-Z	S	500	6,80 YELLOX
5	x	30/24-Z	K	200	7,40 YELLOX
5	x	35/29-Z	S	500	7,60 YELLOX
5	x	35/29-Z	K	200	8,60 YELLOX
5	x	40/34-Z	S	500	8,30 YELLOX
5	x	40/34-Z	K	200	9,30 YELLOX
5	x	45/39-Z	S	500	9,30 YELLOX
5	x	45/39-Z	K	200	10,40 YELLOX
5	x	50/44-Z	S	500	9,80 YELLOX
5	x	50/44-Z	K	200	11,00 YELLOX
5	x	60/54-Z	S	500	11,80 YELLOX
5	x	60/54-Z	K	100	13,30 YELLOX
5	x	70/60-Z	S	200	16,80 YELLOX
5	x	70/60-Z	K	100	18,50 YELLOX
5	x	80/60-Z	S	200	20,00 YELLOX
5	x	80/60-Z	K	100	21,60 YELLOX
5	x	90/60-Z	S	200	25,50 YELLOX
5	x	100/60-Z	S	200	28,50 YELLOX
5	x	100/60-Z	K	100	31,50 YELLOX
5	x	110/69-Z	S	200	51,00 YELLOX
5	x	120/69-Z	S	200	55,00 YELLOX
6	x	30/23-Z	S	500	12,60 YELLOX
6	x	35/28-Z	S	500	12,60 YELLOX
6	x	40/33-Z	S	500	12,60 YELLOX
6	x	40/33-Z	K	200	14,10 YELLOX
6	x	50/43-Z	S	200	14,30 YELLOX
6	x	50/43-Z	K	100	15,90 YELLOX
6	x	60/53-Z	S	200	16,80 YELLOX
6	x	60/53-Z	K	100	19,10 YELLOX
6	x	70/60-Z	S	200	20,80 YELLOX
6	x	70/60-Z	K	100	23,10 YELLOX
6	x	80/60-Z	S	200	23,10 YELLOX
6	x	80/60-Z	K	100	25,50 YELLOX
6	x	90/60-Z	S	200	26,50 YELLOX
6	x	100/60-Z	S	100	30,00 YELLOX
6	x	120/68-Z	S	100	46,00 YELLOX
6	x	140/68-Z	S	100	59,00 YELLOX
6	x	160/68-Z	S	100	80,00 YELLOX

Dimensions		PU Pieces	€/100/Mat.
article	88094.019		816

88094 Steel WIROX — SPAX CSK-Z-P



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. head Z = Pozidriv cross recess P = partially threaded

case hardened, slide-coated,
bit sizes: ∅ 3,5 – 5,0 ➔ Z2, ∅ 6 ➔ 3

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

3,5	x	30/17-Z	S	1000	3,25 ZP
3,5	x	35/22-Z	S	1000	4,05 ZP
3,5	x	40/22-Z	S	1000	4,65 ZP
3,5	x	45/30-Z	S	1000	7,00 ZP
3,5	x	50/32-Z	S	1000	7,60 ZP
4	x	30/17-Z	S	1000	3,85 ZP
4	x	35/22-Z	S	1000	4,45 ZP
4	x	40/22-Z	S	1000	5,40 ZP
4	x	45/30-Z	S	500	6,00 ZP
4	x	50/35-Z	S	500	6,70 ZP
4	x	55/32-Z	S	500	11,10 ZP
4	x	60/35-Z	S	500	11,10 ZP
4,5	x	35/24-Z	S	500	5,90 ZP
4,5	x	40/24-Z	S	500	6,40 ZP
4,5	x	45/29-Z	S	500	8,30 ZP
4,5	x	50/32-Z	S	500	8,50 ZP
4,5	x	55/37-Z	S	500	10,30 ZP
4,5	x	60/37-Z	S	500	10,90 ZP
4,5	x	70/42-Z	S	500	17,60 ZP
5	x	40/27-Z	S	500	8,30 ZP
5	x	45/29-Z	S	500	9,30 ZP
5	x	50/32-Z	S	500	9,80 ZP
5	x	55/36-Z	S	500	11,10 ZP
5	x	60/37-Z	S	500	11,80 ZP
5	x	65/41-Z	S	200	16,80 ZP
5	x	70/41-Z	S	200	16,80 ZP
5	x	80/46-Z	S	200	20,00 ZP
6	x	60/36-Z	S	200	16,80 ZP
6	x	70/41-Z	S	200	20,80 ZP
6	x	80/46-Z	S	200	23,10 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88094.069		816

88094 Steel YELLOX SPAX CSK-Z-P



SPAX universal screws
with SPAX 4CUT point,
CSK = SPAX MULTI counters. head
Z = Pozidriv cross recess
P = partially threaded

case hardened, slide-coated,
bit sizes: ∅ 3,5 – 5,0 ➔ Z2, ∅ 6 ➔ 3

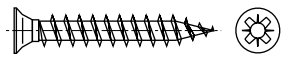
approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.			
3,5	x 35/22-Z	S 1000	4,05 YELLOX
3,5	x 40/22-Z	S 1000	4,65 YELLOX
3,5	x 45/30-Z	S 1000	7,00 YELLOX
3,5	x 50/32-Z	S 500	7,60 YELLOX
4	x 35/22-Z	S 1000	4,45 YELLOX
4	x 40/22-Z	S 1000	5,40 YELLOX
4	x 45/30-Z	S 500	6,00 YELLOX
4	x 50/32-Z	S 500	6,70 YELLOX
4	x 55/35-Z	S 500	11,10 YELLOX
4	x 60/35-Z	S 500	11,10 YELLOX
4,5	x 40/24-Z	S 500	6,40 YELLOX
4,5	x 45/29-Z	S 500	8,30 YELLOX
4,5	x 50/32-Z	S 500	8,50 YELLOX
4,5	x 60/37-Z	S 500	10,90 YELLOX
4,5	x 70/42-Z	S 500	17,60 YELLOX
5	x 45/29-Z	S 500	9,40 YELLOX
5	x 50/32-Z	S 500	9,80 YELLOX
5	x 60/36-Z	S 500	11,80 YELLOX
5	x 70/41-Z	S 200	16,80 YELLOX
5	x 80/46-Z	S 200	20,00 YELLOX
5	x 80/46-Z	K 100	21,60 YELLOX
6	x 60/36-Z	S 200	16,80 YELLOX
6	x 70/41-Z	S 200	20,80 YELLOX
6	x 80/46-Z	S 200	23,10 YELLOX
6	x 90/61-Z	K 100	29,50 YELLOX

Dimensions	PU	Pieces	€/100/Mat.
article	88094.014		816

88094 Steel WIROX SPAX CSK S-Z



SPAX universal screws,
CSK S = small countersunk head
Z = Pozidriv cross recess

case hardened, slide-coated,
countersunk head ∅ = 5mm,
bit size: ∅ 3 ➔ 1

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.			
3	x 10/ 7-Z	S 1000	2,25 ZP
3	x 12/10-Z	S 1000	2,25 ZP
3	x 15/12-Z	S 1000	2,25 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88094.064		816

88094 Steel YELLOX SPAX CSK S-Z



SPAX universal screws,
CSK S = small countersunk head
Z = Pozidriv cross recess

case hardened, slide-coated,
countersunk head ∅ = 5mm,
bit size: ∅ 3 ➔ 1

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.			
3	x 10/ 7-Z	S 1000	2,25 YELLOX
3	x 12/10-Z	S 1000	2,25 YELLOX
3	x 15/12-Z	S 1000	2,25 YELLOX

article	88099.014	816

88099 Steel WIROX SPAX CSK-Z-ch



SPAX universal screw,
CSK = countersunk head
Z = Pozidriv cross recess
ch = centre hole for caps

case hardened, slide-coated,
centre hole ∅ = 2,5mm,
bit sizes: ∅ 4,5 – 5 ➔ 2, ∅ 6 ➔ 3

caps ➔ article 88001, 89013

Corrosion protection ➔ TI-228

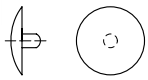
approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.			
4,5	x 20/10-Z	S 1000	12,90 ZP
4,5	x 25/14-Z	S 1000	13,40 ZP
4,5	x 30/19-Z	S 1000	14,10 ZP
4,5	x 35/24-Z	S 500	14,90 ZP
4,5	x 40/29-Z	S 500	15,90 ZP
4,5	x 45/34-Z	S 500	17,40 ZP
4,5	x 50/39-Z	S 500	17,80 ZP
4,5	x 55/44-Z	S 500	19,00 ZP
4,5	x 60/49-Z	S 500	20,80 ZP
4,5	x 70/59-Z	S 500	33,50 ZP
4,5	x 80/59-Z	S 200	36,00 ZP
5	x 60/49-Z	S 500	31,50 ZP
5	x 70/60-Z	S 200	39,00 ZP
5	x 80/60-Z	S 200	43,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88001(*)		800

88001 Plastic IL



Caps with pin

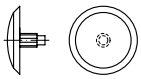
for chipboard screws with inner hole,
white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

REACH ➔ TI-262

pin ∅ x caps ∅				
2,5	x	12	S 1000	2,40 plastic
2,5	x	15	S 1000	2,40 plastic

article	89013.(*)	800

89013 Plastic



SPAX caps with pin

for SPAX screws with inner hole,
white (*630), black (*631), grey (*632),
beige (*633), ochre (*634), fawn brown (*635),
mahogany (*636)

REACH ➔ TI-262

white	S	500	4,85 plastic

article	88193.034	816

88193 Steel WIROX SPAX-T-T



SPAX screws
with SPAX 4CUT point / cutter*,
T = with flange head
T = T-STAR plus

case hardened, slide-coated,
*from lenght 160mm with 4CUT cutter

Bits ➔ article 88663, 88654

approvals: Z-9.1-235, Z-9.1-511, ETA-12/0114

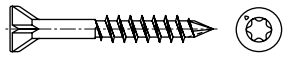
ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. – bit size			
6	x 60/56 -T30	S 200	18,70 ZP
6	x 80/61 -T30	S 100	25,50 ZP
6	x 100/61 -T30	S 100	33,50 ZP
6	x 120/68 -T30	S 100	50,00 ZP
6	x 140/68 -T30	S 100	64,00 ZP
6	x 160/65 -T30	S 100	88,00 ZP
6	x 180/65 -T30	S 100	120,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
8	x	80/70 -T40	S	50	52,00 ZP
8	x	100/80 -T40	S	50	63,00 ZP
8	x	120/80 -T40	S	50	80,00 ZP
8	x	140/80 -T40	S	50	93,00 ZP
8	x	160/80 -T40	S	50	123,00 ZP
8	x	180/80 -T40	S	50	141,00 ZP
8	x	200/80 -T40	S	50	169,00 ZP
8	x	220/80 -T40	S	50	219,00 ZP
8	x	240/80 -T40	S	50	230,00 ZP
8	x	260/80 -T40	S	50	246,00 ZP
8	x	280/80 -T40	S	50	261,00 ZP
8	x	300/80 -T40	S	50	295,00 ZP
8	x	320/80 -T40	S	50	314,00 ZP
8	x	340/80 -T40	S	50	341,00 ZP
8	x	360/80 -T40	S	50	369,00 ZP
8	x	380/80 -T40	S	50	385,00 ZP
8	x	400/80 -T40	S	50	407,00 ZP
8	x	450/80 -T40	S	25	629,00 ZP
10	x	80/70 -T50	S	50	80,00 ZP
10	x	100/80 -T50	S	50	89,00 ZP
10	x	120/80 -T50	S	50	101,00 ZP
10	x	140/80 -T50	S	50	111,00 ZP
10	x	160/80 -T50	S	25	129,00 ZP
10	x	180/80 -T50	S	25	147,00 ZP
10	x	200/80 -T50	S	25	189,00 ZP
10	x	220/80 -T50	S	25	236,00 ZP
10	x	240/80 -T50	S	25	265,00 ZP
10	x	260/80 -T50	S	25	315,00 ZP
10	x	280/80 -T50	S	25	355,00 ZP
10	x	300/80 -T50	S	25	376,00 ZP
10	x	320/80 -T50	S	25	393,00 ZP
10	x	360/80 -T50	S	25	462,00 ZP
10	x	380/80 -T50	S	25	512,00 ZP
10	x	400/80 -T50	S	25	532,00 ZP
10	x	450/80 -T50	S	25	693,00 ZP

article 88195.030 816

88195 Steel WIROX SPAX-MF-T



SPAX screws with SPAX CUT point, with small 60° milling head, MF = for solid timber floors T = T-STAR plus

case hardened, slide-coated

Bits ➔ article 88663, 88654

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3,5	x	45/25-T10	S	500	12,80 ZP
3,5	x	55/36-T10	S	500	18,40 ZP

Dimensions			PU	Pieces	€/100/Mat.

article 88197.014 816

88197 Steel WIROX SPAX R-Z



SPAX screws R with SPAX 4CUT point, R = with flange head Z = Pozidriv cross recess

case hardened, slide-coated, bit sizes: ∅ 3,5 - 5,0 ➔ Z2

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

3,5	x	17/14-Z	S	3000	4,85 ZP
3,5	x	20/17-Z	S	3000	4,95 ZP
3,5	x	25/22-Z	S	2000	5,10 ZP
3,5	x	30/27-Z	S	3000	5,60 ZP
3,5	x	35/32-Z	S	2000	6,80 ZP
4	x	13/10-Z	S	3000	4,95 ZP
4	x	17/14-Z	S	2000	5,00 ZP
4	x	20/17-Z	S	2000	5,20 ZP
4	x	25/22-Z	S	3000	5,70 ZP
4	x	30/27-Z	S	2000	6,60 ZP
4	x	35/32-Z	S	2000	7,40 ZP
4	x	40/37-Z	S	1500	8,00 ZP
4	x	45/42-Z	S	1000	8,80 ZP
4,5	x	20/17-Z	S	3000	6,80 ZP
4,5	x	25/22-Z	S	2000	7,30 ZP
4,5	x	30/27-Z	S	2000	8,10 ZP
4,5	x	35/32-Z	S	1500	9,50 ZP
4,5	x	40/37-Z	S	1000	9,90 ZP
4,5	x	45/42-Z	S	1000	11,20 ZP
4,5	x	50/47-Z	S	1000	13,30 ZP
5	x	20/17-Z	S	2000	7,10 ZP
5	x	25/21-Z	S	1000	8,60 ZP
5	x	30/26-Z	S	1000	9,40 ZP
5	x	35/31-Z	S	1000	11,60 ZP
5	x	40/36-Z	S	1000	12,60 ZP
5	x	45/41-Z	S	1000	14,40 ZP
5	x	50/46-Z	S	1000	15,20 ZP
5	x	60/56-Z	S	500	17,60 ZP

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions			PU	Pieces	€/100/Mat.

article 88198.010 816

88198 Steel WIROX SPAX M-T



SPAX screws M for MDF boards, with SPAX CUT point, with small 75° milling head, T = T-STAR plus

case hardened, slide-coated

Bits ➔ article 88663, 88654

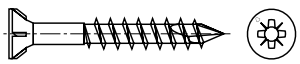
RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3,5	x	40/28-T15	K	200	10,60 ZP
3,5	x	45/30-T15	K	200	12,30 ZP
3,5	x	50/35-T15	K	200	13,40 ZP
4	x	40/28-T20	K	200	9,00 ZP
4	x	45/30-T20	K	200	9,90 ZP
4	x	50/35-T20	K	200	10,90 ZP
4	x	60/40-T20	K	100	17,70 ZP
4,5	x	45/30-T20	K	200	13,70 ZP
4,5	x	50/35-T20	K	200	14,10 ZP

article 88190.064 816

88190 Steel YELLOX SPAX CSK-Z



SPAX glass strip screws with SPAX CUT point and milling ribs, CSK = countersunk head Z = Pozidriv cross recess

slide-coated

RoHS ✓ | REACh SVHC free

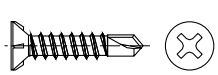
nominal ∅ x nominal length / thread length approx. - bit size

3,5	x	40/23-Z2	S	200	16,50 YELLOX

Dimensions | PU Pieces | €/100/Mat.

article	88187.014	816

88187 Steel special coating silver — SPAX FEX-A



SPAX window lair screws FEX A, countersunk head with milling ribs and drillbit, with Phillips cross recess H2

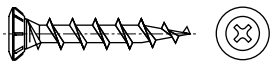
case hardened, slide-coated

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length			
3,9	x 13 -H	S 1000	5,50 ZP
3,9	x 19 -H	S 1000	6,50 ZP
3,9	x 32 -H	S 1000	8,30 ZP
3,9	x 38 -H	S 1000	8,60 ZP

article	88188.014	816

88188 Steel special coating silver — SPAX FEX-KS



SPAX window lair screws FEX-KS, countersunk head with breaking ribs, with Phillips cross recess H2

case hardened, slide-coated

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length			
4	x 25 -H	S 1000	4,15 ZP
4	x 30 -H	S 1000	5,20 ZP

article	88189.015	816

88189 Steel special coating silver — SPAX FEX-H



SPAX window lair screws FEX-H with SPAX 4CUT point, countersunk head with breaking ribs, with Pozidriv cross recess Z2

case hardened, slide-coated

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length			
4	x 30 -Z	S 1000	4,50 ZP
4	x 35 -Z	S 1000	5,30 ZP
4	x 40 -Z	S 1000	6,30 ZP

Dimensions | PU Pieces | €/100/Mat.

article	88189.014	816

88189 Steel special coating silver — SPAX FEX-H



SPAX window lair screws FEX-H with SPAX 4CUT point, countersunk head with breaking ribs, with T-STAR plus

case hardened, slide-coated

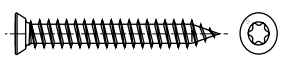
Bits ➔ article 88663, 88654

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length			
4	x 30 -T15	S 1000	4,95 ZP
4	x 35 -T15	S 1000	5,60 ZP
4	x 40 -T15	S 1000	6,10 ZP

article	89010.010	816

89010 St. WIROX — SPAX RA-CSK F-T



SPAX frame anchors RA, CSK F = flat countersunk head T = T-STAR plus

case hardened, slide-coated

Bits ➔ article 88663, 88654,
caps ➔ article 89012

RoHS ✓ | REACh SVHC free

nominal ∅ x length x bit size			
7,5	x 40 -T30	S 100	20,30 ZP
7,5	x 80 -T30	S 100	30,00 ZP
7,5	x 100 -T30	S 100	47,50 ZP
7,5	x 120 -T30	S 100	55,00 ZP
7,5	x 150 -T30	S 100	72,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article	89011.010	816

89011 Steel WIROX — SPAX RA-C-T



SPAX frame anchors RA, C = cylindric head T = T-STAR plus

case hardened, slide-coated

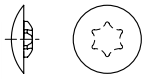
Bits ➔ article 88663, 88654,
caps ➔ article 89012

RoHS ✓ | REACh SVHC free

nominal ∅ x length x bit size			
7,5	x 110 -T30	S 100	51,00 ZP
7,5	x 210 -T30	S 100	137,00 ZP

article	89012.(*)	800

89012 Plastic



Caps for SPAX frame anchors RA with hexalobular socket

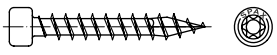
white (*630), black (*631)

REACH ➔ TI-262

white		S 500	4,85 plastic

articel	89014.034	816

89014 Steel WIROX — SPAX C-T



SPAX screws for wood, glass and frames, with SPAX 4CUT point, C = cylindric head T = T-STAR plus

case hardened, slide-coated

Bits ➔ article 88663, 88654

approvals: Z-9.1-519, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x length - bit size			
6	x 80 -T30	S 200	33,50 ZP
6	x 100 -T30	S 100	44,00 ZP
6	x 120 -T30	S 100	64,00 ZP
6	x 140 -T30	S 100	84,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
6	x	160 -T30	S	100	114,00 ZP
6	x	180 -T30	S	100	153,00 ZP
6	x	200 -T30	S	100	205,00 ZP
8	x	200 -T40	S	50	283,00 ZP
8	x	220 -T40	S	50	315,00 ZP
8	x	240 -T40	S	50	330,00 ZP
8	x	260 -T40	S	50	372,00 ZP
8	x	280 -T40	S	50	378,00 ZP
8	x	300 -T40	S	50	440,00 ZP
8	x	350 -T40	S	50	505,00 ZP
8	x	400 -T40	S	50	536,00 ZP
8	x	450 -T40	S	50	895,00 ZP

Chipboard screws

Additional chipboard screws
with CE according to EN 14592

- ➔ Article 89096
- ➔ Article 89097
- ➔ Article 89098

article	89015.034	816

89015 Steel WIROX SPAX CSK-T



SPAX flooring screws with fixing thread and SPAX 4CUT point, CSK = SPAX MULTI counters. head T = T-STAR plus

case hardened, slide-coated

Bits ➔ article 88663, 88654

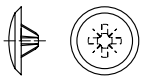
RoHS ✓ | REACh SVHC free

nominal ∅ x length - bit size

4,5	x	50 -T20	S	500	11,00 ZP
4,5	x	60 -T20	S	500	14,20 ZP
4,5	x	70 -T20	S	500	18,80 ZP
4,5	x	80 -T20	S	200	21,30 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		88002.(*)			800

88002 Plastic Z



Caps for countersunk head screws with Pozidriv cross recess Z

white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

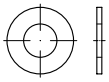
REACH ➔ TI-262

cross recess no. x caps ∅ / for screws ∅

1	x	8 / 3	S	1000	2,10 plastic
2	x	12 / 3,5-5	S	1000	2,10 plastic
3	x	13 / 5,5-6	S	1000	2,25 plastic

article	88100.000	820

88100 Steel



Washers "article 1" (~ DIN 134), product grade C (g)

Dimensions ➔ TI-84

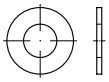
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness (coarse circa. dimensions)

3,2	x	8	x	0,5	S	200	3,20
4,3	x	10	x	0,8	S	200	3,20
5,3	x	12	x	1	S	200	3,20
6,5	x	13	x	1,25	S	200	2,80
8	x	16	x	1,25	S	200	3,70
10	x	20	x	1,5	S	200	15,00
11,5	x	23	x	1,5	S	200	5,80
14,5	x	29	x	1,75	S	200	9,70
16	x	32	x	2	S	200	15,80
17,5	x	35	x	2	S	200	16,40
19,5	x	39	x	2,5	S	100	26,50
21	x	42	x	2,5	S	100	26,00
23	x	46	x	3	S	100	135,00
24,5	x	49	x	3	S	100	39,50
27,5	x	55	x	3,5	S	100	54,00
29	x	58	x	3,5	S	100	77,00
31	x	62	x	3,5	S	100	88,00
34	x	68	x	4	S	100	250,00
36	x	72	x	5	S	50	170,00
40	x	80	x	5	S	50	216,00
43	x	85	x	5	S	50	234,00
46	x	90	x	6	S	50	320,00
50	x	97	x	6	S	50	365,00
54	x	105	x	7	S	25	510,00

Dimensions			PU	Pieces	€/100/Mat.
article		88100.010			820

88100 Steel zinc plated



Washers "article 1" (~ DIN 134) product grade C (g)

Dimensions ➔ TI-84 Corrosion protection ➔ TI-228

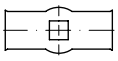
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness (coarse circa. dimensions)

3,2	x	8	x	0,5	S	200	3,40 ZP
4,3	x	10	x	0,8	S	200	3,40 ZP
5,3	x	12	x	1	S	200	3,50 ZP
6,5	x	13	x	1,25	S	200	3,40 ZP
8	x	16	x	1,25	S	200	4,60 ZP
10	x	20	x	1,5	S	200	6,80 ZP
10	x	20	x	1	S	200	5,70 ZP
11,5	x	23	x	1,5	S	200	7,90 ZP
13	x	26	x	1,75	S	200	10,80 ZP
14,5	x	29	x	1,75	S	200	13,60 ZP
16	x	32	x	2	S	200	21,20 ZP
17,5	x	35	x	2	S	200	23,00 ZP
19,5	x	39	x	2,5	S	100	37,00 ZP
21	x	42	x	2,5	S	100	37,50 ZP
23	x	46	x	3	S	100	53,00 ZP
24,5	x	49	x	3	S	100	60,00 ZP
27,5	x	55	x	3,5	S	100	84,00 ZP
29	x	58	x	3,5	S	100	108,00 ZP
31	x	62	x	3,5	S	100	126,00 ZP
34	x	68	x	4	S	100	168,00 ZP
36	x	72	x	5	S	50	240,00 ZP
40	x	80	x	5	S	50	310,00 ZP
43	x	85	x	5	S	50	330,00 ZP
46	x	90	x	6	S	50	455,00 ZP
50	x	97	x	6	S	50	520,00 ZP
54	x	105	x	7	S	25	730,00 ZP

article	88102.010	830

88102 Steel zinc plated



Joint washers

for cup head square neck bolts
acc. to DIN 603

Dimensions ➔ TI-113 Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

square hole size

9	S	100	126,00 ZP
11	S	100	85,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88104.000		840

88104 Steel



Washers with large outside diameter, product grade C (g)

Dimensions → TI-85

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness (coarse circa. dimensions)

5,3	x	20	x	1,5	S	200	3,25
5,3	x	25	x	1,5	S	200	4,60
5,3	x	30	x	1,5	S	200	6,90
6,4	x	20	x	1,5	S	200	3,40
6,4	x	25	x	1,5	S	200	4,60
6,4	x	30	x	1,5	S	200	6,90
6,4	x	35	x	1,5	S	200	8,80
8,4	x	20	x	1,5	S	200	3,40
8,4	x	25	x	1,5	S	200	4,60
8,4	x	30	x	1,5	S	200	6,90
8,4	x	35	x	1,5	S	200	8,80
10,5	x	30	x	1,5	S	200	6,90
10,5	x	35	x	1,5	S	200	8,80
12,5	x	30	x	1,5	S	200	6,90
12,5	x	35	x	1,5	S	200	8,80

article	88104.010	840

88104 Steel zinc plated



Washers with large outside diameter, product grade C (g)

Dimensions → TI-85 Corrosion protection → TI-228

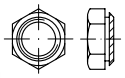
RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness (coarse circa. dimensions)

3,2	x	20	x	1,25	S	200	4,30 ZP
4,3	x	15	x	1,25	S	200	3,45 ZP
4,3	x	20	x	1,25	S	200	4,30 ZP
4,3	x	25	x	1,25	S	200	6,20 ZP
5,3	x	20	x	1,5	S	200	4,20 ZP
5,3	x	25	x	1,5	S	200	6,10 ZP
5,3	x	30	x	1,5	S	200	9,10 ZP
6,4	x	20	x	1,5	S	200	4,45 ZP
6,4	x	25	x	1,5	S	200	6,10 ZP
6,4	x	30	x	1,5	S	200	9,10 ZP
6,4	x	35	x	1,5	S	200	11,40 ZP
8,4	x	20	x	1,5	S	200	4,15 ZP
8,4	x	25	x	1,5	S	200	6,00 ZP
8,4	x	30	x	1,5	S	200	9,10 ZP
8,4	x	35	x	1,5	S	200	11,50 ZP
8,4	x	40	x	1,5	S	200	25,50 ZP
10,5	x	25	x	1,5	S	200	6,30 ZP
10,5	x	30	x	1,5	S	200	8,90 ZP
10,5	x	35	x	1,5	S	200	11,50 ZP
10,5	x	40	x	1,5	S	200	25,50 ZP
12,5	x	30	x	1,5	S	200	8,80 ZP
12,5	x	35	x	1,5	S	200	11,40 ZP
12,5	x	40	x	1,5	S	200	25,50 ZP

article	88106.010	850

88106 Steel, hardened zinc plated



Rivet nuts

Dimensions → TI-78 Corrosion protection → TI-228

other collar heights on request

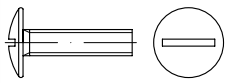
RoHS ✓ | REACh SVHC free

thread M / collar height

M 3 / 0,9	S	1000	21,20 ZP
M 3 / 0,9	K	100	24,60 ZP
M 4 / 0,9	S	1000	24,20 ZP
M 4 / 0,9	K	100	28,00 ZP
M 5 / 0,9	S	1000	33,00 ZP
M 5 / 0,9	K	100	37,00 ZP
M 6 / 0,9	S	1000	39,50 ZP
M 6 / 0,9	K	100	44,50 ZP
M 8 / 1,9	S	500	49,50 ZP
M 8 / 1,9	K	100	54,00 ZP
M 10 / 1,9	S	100	123,00 ZP
M 12 / 2,9	S	100	166,00 ZP
M 16 / 2,4	S	100	325,00 ZP

article	88107.410	851

88107 Steel zinc plated



Slotted mushroom head screws with thread up to head

nuts → DIN 934/ISO 4032

Dimensions → TI-41 REACH → TI-262

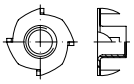
Corrosion protection → TI-228

RoHS ✓

M 6	x	10	S	500	12,90 ZP
M 6	x	16	S	500	13,40 ZP
M 6	x	20	S	500	14,10 ZP
M 6	x	25	S	500	14,80 ZP
M 6	x	30	S	500	17,10 ZP
M 6	x	35	S	200	19,00 ZP
M 6	x	40	S	200	20,50 ZP
M 6	x	45	S	200	22,60 ZP
M 6	x	50	S	200	25,50 ZP
M 8	x	16	S	200	27,50 ZP
M 8	x	20	S	200	29,00 ZP
M 8	x	25	S	200	30,00 ZP
M 8	x	30	S	200	31,50 ZP
M 8	x	35	S	200	33,50 ZP
M 8	x	40	S	200	37,00 ZP
M 8	x	45	S	200	41,00 ZP
M 8	x	50	S	200	42,50 ZP
M 8	x	55	S	200	47,00 ZP
M 8	x	60	S	200	40,00 ZP

article	88108.010	850

88108 Steel zinc plated



Tee nuts with pronge

Dimensions → TI-78 Corrosion protection → TI-228

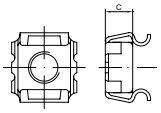
RoHS ✓ | REACh SVHC free

internal thread x overall height x neck (~ drill) ∅

M 4	x	6	x	5	S	200	33,00 ZP
M 5	x	8	x	6,3	S	200	41,00 ZP
M 6	x	9	x	7,3	S	200	51,00 ZP
M 6	x	12	x	7,5	S	200	57,00 ZP
M 8	x	11	x	9,7	S	100	73,00 ZP
M 8	x	15	x	9,9	S	100	83,00 ZP
M 10	x	13	x	11,9	S	100	91,00 ZP

article	88109.010	850

88109 Steel zinc plated



Square caged nuts

Dimensions → TI-78 Corrosion protection → TI-228

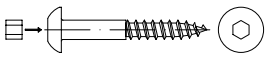
RoHS ✓ | REACh SVHC free

internal thread - index no. / square hole

M 4 - 8 / 9,5	S	1000	57,00 ZP
M 5 - 8 / 9,5	S	1000	56,00 ZP
M 6 - 6 / 9,5	S	1000	57,00 ZP
M 6 - 8 / 9,5	S	1000	57,00 ZP
M 8 - 8 /12,5	S	1000	69,00 ZP
M 10 - 8 /12,5	S	1000	68,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88110.010		855

88110 Steel zinc plated



**Theft resistant screws with pan head,
wood screw thread,
hexagon socket,
rivet pin (unscrewable)**

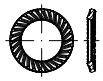
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

8	x	50	S	50	630,00 ZP
8	x	70	S	50	660,00 ZP
8	x	80	S	50	670,00 ZP
8	x	90	S	50	670,00 ZP
10	x	80	S	50	690,00 ZP
10	x	100	S	50	740,00 ZP
10	x	130	S	50	850,00 ZP

article	88120.004	860

88120 Spring steel type S



**SCHNORR safety washers
with serrations on both sides,
S = standard,
for screws with property class ≤ 5.8**

Dimensions ➔ TI-104 Lock of fasteners ➔ TI-256
Tightening torque ➔ TI-247

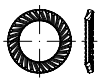
RoHS ✓ | REACh SVHC free

for screw M x outside ∅ x thickness

S 2	x	4	x	0,35	S	2000	0,95
S 2	x	4	x	0,35	K	500	1,45
S 2,5	x	4,8	x	0,45	S	2000	0,80
S 2,5	x	4,8	x	0,45	K	500	1,45
S 3	x	5,5	x	0,45	S	2000	0,80
S 3	x	5,5	x	0,45	K	500	1,45
S 3,5	x	6	x	0,45	K	500	1,45
S 4	x	7	x	0,5	S	1000	0,85
S 4	x	7	x	0,5	K	250	2,10
S 5	x	9	x	0,6	S	1000	1,20
S 5	x	9	x	0,6	K	250	2,45
S 6	x	10	x	0,7	S	1000	1,35
S 6	x	10	x	0,7	K	250	2,55
S 7	x	12	x	0,7	K	250	2,80
S 8	x	13	x	0,8	S	1000	1,85
S 8	x	13	x	0,8	K	250	3,00
S10	x	16	x	1	S	1000	2,70
S10	x	16	x	1	K	250	3,95
S12	x	18	x	1,1	S	500	3,65
S12	x	18	x	1,1	K	100	6,20
S14	x	22	x	1,2	S	500	4,95
S14	x	22	x	1,2	K	100	7,50
S16	x	24	x	1,3	S	500	6,40
S16	x	24	x	1,3	K	100	8,80
S18	x	27	x	1,5	S	250	12,40
S18	x	27	x	1,5	K	100	14,80
S20	x	30	x	1,5	S	250	14,00
S20	x	30	x	1,5	K	100	16,60
S22	x	33	x	1,5	S	100	16,60
S24	x	36	x	1,8	S	100	22,70
S27	x	39	x	2	S	100	26,50
S30	x	45	x	2	S	100	37,00
S36	x	54	x	2,5	S	50	71,00

article	88120.014	860

88120 Spring steel type S mech. zinc plated*



**SCHNORR safety washers
with serrations on both sides,
S = standard,
for screws with property class ≤ 5.8**

*up to nominal size 3,5 ➔ zinc plated

Dimensions ➔ TI-104 Tightening torque ➔ TI-247
Corrosion protection ➔ TI-228 Lock of fasteners ➔ TI-256

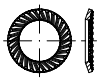
RoHS ✓ | REACh SVHC free

for screw M x outside ∅ x thickness

S 2,5	x	4,8	x	0,45	S	2000	0,85 mech ZP
S 2,5	x	4,8	x	0,45	K	500	1,50 mech ZP
S 3	x	5,5	x	0,45	S	2000	0,85 mech ZP
S 3	x	5,5	x	0,45	K	500	1,50 mech ZP
S 4	x	7	x	0,5	S	1000	1,00 mech ZP
S 4	x	7	x	0,5	K	250	2,20 mech ZP
S 5	x	9	x	0,6	S	1000	1,35 mech ZP
S 5	x	9	x	0,6	K	250	2,55 mech ZP
S 6	x	10	x	0,7	S	1000	1,55 mech ZP
S 6	x	10	x	0,7	K	250	2,80 mech ZP
S 8	x	13	x	0,8	S	1000	2,15 mech ZP
S 8	x	13	x	0,8	K	250	3,35 mech ZP
S10	x	16	x	1	S	1000	3,25 mech ZP
S10	x	16	x	1	K	250	4,45 mech ZP
S12	x	18	x	1,1	S	500	4,30 mech ZP
S12	x	18	x	1,1	K	100	6,80 mech ZP
S14	x	22	x	1,2	S	500	6,20 mech ZP
S14	x	22	x	1,2	K	100	8,60 mech ZP
S16	x	24	x	1,3	S	500	7,60 mech ZP
S16	x	24	x	1,3	K	100	10,10 mech ZP
S18	x	27	x	1,5	S	250	14,10 mech ZP
S18	x	27	x	1,5	K	100	16,70 mech ZP
S20	x	30	x	1,5	S	250	16,70 mech ZP
S20	x	30	x	1,5	K	100	19,20 mech ZP
S22	x	33	x	1,5	S	100	19,50 mech ZP
S24	x	36	x	1,8	S	100	27,00 mech ZP
S27	x	39	x	2	S	100	31,50 mech ZP
S30	x	45	x	2	S	100	44,00 mech ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88121.004		860

88121 Spring steel type VS



**SCHNORR safety washers
with serrations on both sides,
VS = extra strong
f. screws with property class 8.8/10.9**

Dimensions ➔ TI-105 Lock of fasteners ➔ TI-256
Tightening torque ➔ TI-247

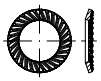
RoHS ✓ | REACh SVHC free

for screw M x outside ∅ x thickness

VS 5	x	9	x	1	S	1000	1,65
VS 5	x	9	x	1	K	250	2,85
VS 6	x	10	x	1	S	1000	1,95
VS 6	x	10	x	1	K	250	3,20
VS 8	x	13	x	1,2	S	1000	2,70
VS 8	x	13	x	1,2	K	250	3,85
VS 10	x	16	x	1,5	S	1000	4,15
VS 10	x	16	x	1,5	K	250	5,40
VS 12	x	18	x	1,5	S	500	5,40
VS 12	x	18	x	1,5	K	100	7,80
VS 14	x	22	x	1,5	S	500	7,10
VS 14	x	22	x	1,5	K	100	9,50
VS 16	x	24	x	2	S	250	10,80
VS 16	x	24	x	2	K	100	13,30
VS 18	x	27	x	2	S	250	18,10
VS 18	x	27	x	2	K	100	20,60
VS 20	x	30	x	2	S	250	21,30
VS 20	x	30	x	2	K	100	23,70
VS 22	x	33	x	2	S	100	25,50
VS 24	x	36	x	2,5	S	100	36,00
VS 27	x	39	x	2,5	S	100	42,50
VS 30	x	45	x	2,5	S	100	52,00

article	88121.014	860

88121 Spring steel type VS mech. zinc plated*



**SCHNORR safety washers
with serrations on both sides,
VS = extra strong
f. screws with property class 8.8/10.9**

*up to nominal size 4 ➔ zinc plated

Dimensions ➔ TI-105 Tightening torque ➔ TI-247
Corrosion protection ➔ TI-228 Lock of fasteners ➔ TI-256

RoHS ✓ | REACh SVHC free

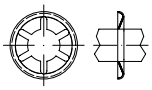
for screw M x outside ∅ x thickness

VS 5	x	9	x	1	S	1000	1,90 mech ZP
VS 5	x	9	x	1	K	250	3,10 mech ZP
VS 6	x	10	x	1	S	1000	2,20 mech ZP
VS 6	x	10	x	1	K	250	3,45 mech ZP
VS 8	x	13	x	1,2	S	1000	3,00 mech ZP
VS 8	x	13	x	1,2	K	250	4,30 mech ZP
VS 10	x	16	x	1,5	S	1000	4,90 mech ZP

Dimensions						PU	Pieces	€/100/Mat.
VS 10	x	16	x	1,5		K	250	6,20 mech ZP
VS 12	x	18	x	1,5		S	500	6,20 mech ZP
VS 12	x	18	x	1,5		K	100	8,60 mech ZP
VS 14	x	22	x	1,5		S	500	8,40 mech ZP
VS 14	x	22	x	1,5		K	100	10,80 mech ZP
VS 16	x	24	x	2		S	250	12,50 mech ZP
VS 16	x	24	x	2		K	100	15,00 mech ZP
VS 18	x	27	x	2		S	250	20,60 mech ZP
VS 18	x	27	x	2		K	100	23,00 mech ZP
VS 20	x	30	x	2		S	250	24,20 mech ZP
VS 20	x	30	x	2		K	100	27,00 mech ZP
VS 22	x	33	x	2		S	100	29,00 mech ZP
VS 24	x	36	x	2,5		S	100	41,50 mech ZP
VS 27	x	39	x	2,5		S	100	47,50 mech ZP
VS 30	x	45	x	2,5		S	100	64,00 mech ZP

article 88122.030 865

88122 Spring steel browned



Axle locking rings (quick fixing elements for shafts)

Dimensions → TI-114 Lock of fasteners → TI-256

other measurements and types on request

RoHS ✓ REACh SVHC free

for shafts ∅ x outside ∅ x height

FF 3	x	11,2	x	1,5	S	1000	8,60
FF 4	x	11,2	x	1,5	S	1000	9,00
FF 5	x	11,2	x	1,5	S	1000	9,60
FC 6	x	15,0	x	1,4	S	1000	10,10
FC 8	x	15,0	x	1,4	S	500	10,70
FD 10	x	18,0	x	1,8	S	500	12,90
FE 12	x	21,0	x	1,8	S	250	20,90

article 88123.030 865

88123 Spring steel zinc flake coated SK-S



TECKENTRUP lock washers, for screws of property class ≤ 5.8, S (narrow) = for normal and small connecting surfaces

Dimensions → TI-105 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

RoHS ✓ REACh SVHC free

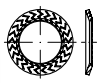
for screw ∅ x outside ∅ x thickness

S 4	x	8,2	x	0,8	S	1000	3,70 flZn
S 4	x	8,2	x	0,8	K	250	4,25 flZn
S 5	x	10,2	x	1	S	1000	4,60 flZn
S 5	x	10,2	x	1	K	250	5,40 flZn
S 6	x	12,2	x	1,2	S	1000	5,20 flZn
S 6	x	12,2	x	1,2	K	250	5,90 flZn
S 8	x	16,2	x	1,4	S	1000	8,20 flZn
S 8	x	16,2	x	1,4	K	250	8,90 flZn
S 10	x	20,25	x	1,6	S	1000	12,90 flZn

Dimensions						PU	Pieces	€/100/Mat.
S 10	x	20,25	x	1,6		K	250	13,50 flZn
S 12	x	24,25	x	1,6		S	500	21,30 flZn
S 12	x	24,25	x	1,6		K	100	22,80 flZn

article 88123.037 865

88123 Spring steel zinc flake coated NSK-S



TECKENTRUP lock washers, for screws of property class ≤ 5.8, S (narrow) = for normal and small connecting surfaces

Dimensions → TI-105 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

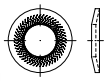
RoHS ✓ REACh SVHC free

for screw M

NSK-S 4	S	1000	3,70 flZn
NSK-S 5	S	1000	4,60 flZn
NSK-S 6	S	1000	5,20 flZn
NSK-S 8	S	1000	8,20 flZn
NSK-S 10	S	1000	12,90 flZn
NSK-S 12	S	500	21,30 flZn

article 88124.030 865

88124 Spring steel zinc flake coated SK-M



TECKENTRUP lock washers, for screws of property class 8.8/10.9, M (medium) = for normal connecting surfaces

Dimensions → TI-105 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

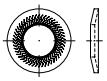
RoHS ✓ REACh SVHC free

for screw ∅ x outside ∅ x thickness

M 4	x	10,2	x	1	S	1000	4,60 flZn
M 4	x	10,2	x	1	K	250	5,20 flZn
M 5	x	12,2	x	1,2	S	1000	5,50 flZn
M 5	x	12,2	x	1,2	K	250	6,30 flZn
M 6	x	14,2	x	1,4	S	1000	6,30 flZn
M 6	x	14,2	x	1,4	K	250	7,40 flZn
M 8	x	18,2	x	1,4	S	1000	9,80 flZn
M 8	x	18,2	x	1,4	K	250	10,40 flZn
M 10	x	22,25	x	1,6	S	1000	17,20 flZn
M 10	x	22,25	x	1,6	K	250	17,70 flZn
M 12	x	27,25	x	1,8	S	500	28,00 flZn
M 12	x	27,25	x	1,8	K	100	29,50 flZn
M 14	x	30,25	x	2,4	S	500	49,50 flZn
M 14	x	30,25	x	2,4	K	100	51,00 flZn
M 16	x	32,5	x	2,5	S	500	57,00 flZn
M 16	x	32,5	x	2,5	K	100	58,00 flZn
M 18	x	35	x	3	S	100	98,00 flZn
M 20	x	40	x	3	S	100	127,00 flZn
M 24	x	50	x	3,5	S	100	209,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
article	88124.037		865

88124 Spring steel zinc flake coated NSK-M



TECKENTRUP lock washers, for screws of property class 8.8/10.9, M (medium) = for normal connecting surfaces

Dimensions → TI-105 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

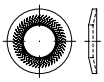
RoHS ✓ REACh SVHC free

for screw M

NSK-M 4	S	1000	4,60 flZn
NSK-M 5	S	1000	5,50 flZn
NSK-M 6	S	1000	6,30 flZn
NSK-M 8	S	1000	9,80 flZn
NSK-M 10	S	1000	17,20 flZn
NSK-M 12	S	500	28,00 flZn
NSK-M 14	S	500	49,50 flZn
NSK-M 16	S	500	57,00 flZn
NSK-M 18	S	100	98,00 flZn
NSK-M 20	S	100	127,00 flZn
NSK-M 24	S	100	209,00 flZn

article 88125.030 865

88125 Spring steel zinc flake coated SK-B



TECKENTRUP lock washers, for screws of property class 10.9/12.9, B (wide) = for large connecting surface

Dimensions → TI-106 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

RoHS ✓ REACh SVHC free

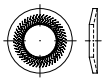
for screw ∅ x outside ∅ x thickness

B 6	x	18,2	x	1,4	S	1000	9,80 flZnnc
B 6	x	18,2	x	1,4	K	250	10,40 flZnnc
B 8	x	22,25	x	1,9	S	1000	17,20 flZnnc
B 8	x	22,25	x	1,9	K	250	17,90 flZnnc
B 10	x	27,25	x	2,4	S	1000	33,00 flZnnc
B 10	x	27,25	x	2,4	K	250	34,00 flZnnc
B 12	x	32,3	x	2,8	S	500	53,00 flZnnc
B 12	x	32,3	x	2,8	K	100	54,00 flZnnc

Dimensions | PU Pieces | €/100/Mat.

article 88125.037 865

88125 Spring steel zinc flake coated NSK-B



TECKENTRUP lock washers, for screws of property class 10.9/12.9, B (wide) = for large connecting surface

Dimensions → TI-106
Corrosion protection → TI-230
Tightening torque → TI-247
Lock of fasteners → TI-256

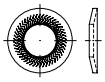
RoHS ✓ | REACh SVHC free

for screw M

NSK-B 6	S 1000	9,80 flZnnc
NSK-B 8	S 1000	17,20 flZnnc
NSK-B 10	S 1000	33,00 flZnnc
NSK-B 12	S 500	53,00 flZnnc

article 88126.030 865

88126 Spring steel zinc flake coated SK-Z



TECKENTRUP lock washers, Z = for cylindrical head screws of property class 8.8/10.9

Dimensions → TI-106
Corrosion protection → TI-230
Tightening torque → TI-247
Lock of fasteners → TI-256

RoHS ✓ | REACh SVHC free

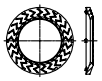
for screw ∅ x outside ∅ x thickness

Z 6	x 9,9	x 1,4	S 1000	5,50 flZn
Z 6	x 9,9	x 1,4	K 250	6,30 flZn
Z 8	x 12,7	x 1,4	S 1000	8,20 flZn
Z 8	x 12,7	x 1,4	K 250	8,90 flZn
Z 10	x 16,1	x 1,6	S 1000	12,50 flZn
Z 10	x 16,1	x 1,6	K 250	13,20 flZn
Z 12	x 18,3	x 1,8	S 500	21,10 flZn
Z 12	x 18,3	x 1,8	K 100	22,40 flZn
Z 16	x 24,6	x 2,5	S 500	47,00 flZn
Z 16	x 24,6	x 2,5	K 100	48,50 flZn

Dimensions | PU Pieces | €/100/Mat.

article 88129.030 865

88129 Spring steel zinc flake coated SK-K



TECKENTRUP lock washers, for screws of property class ≤ 10.9, K = with contact serrations

Dimensions → TI-106
Corrosion protection → TI-230
Tightening torque → TI-247
Lock of fasteners → TI-256

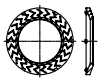
RoHS ✓ | REACh SVHC free

for screw ∅ x outside ∅ x thickness

K 4	x 8,2	x 0,8	S 1000	4,70 flZnnc
K 4	x 8,2	x 0,8	K 250	5,40 flZnnc
K 5	x 10,2	x 1	S 1000	5,40 flZnnc
K 5	x 10,2	x 1	K 250	5,90 flZnnc
K 6	x 12,2	x 1,2	S 1000	5,90 flZnnc
K 6	x 12,2	x 1,2	K 250	6,50 flZnnc
K 8	x 16,2	x 1,4	S 1000	9,20 flZnnc
K 8	x 16,2	x 1,4	K 250	9,80 flZnnc
K 10	x 20,25	x 1,6	S 1000	13,90 flZnnc
K 10	x 20,25	x 1,6	K 250	14,50 flZnnc
K 12	x 24,25	x 1,6	S 500	25,50 flZnnc
K 12	x 24,25	x 1,6	K 100	27,00 flZnnc

article 88129.047 865

88129 Spring steel zinc flake coated NSK-K



TECKENTRUP lock washers, for screws of property class ≤ 10.9, K = with contact serrations

Dimensions → TI-106
Corrosion protection → TI-230
Tightening torque → TI-247
Lock of fasteners → TI-256

RoHS ✓ | REACh SVHC free

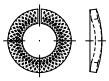
for screw M

NSK-K 4	S 1000	4,70 flZn
NSK-K 5	S 1000	5,40 flZn
NSK-K 6	S 1000	5,90 flZn
NSK-K 8	S 1000	9,20 flZn
NSK-K 10	S 1000	13,90 flZn
NSK-K 12	S 500	25,50 flZn

Dimensions | PU Pieces | €/100/Mat.

article 88130.030 870

88130 Spring steel zinc flake coated VSK



Lock rings, for screws of property class ≤ 8.8, VSK = standard type

Dimensions → TI-107
Corrosion protection → TI-230
Lock of fasteners → TI-256

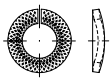
RoHS ✓ | REACh SVHC free

for screw ∅ x outside ∅ x thickness

4	x 7,6	x 0,8	S 10000	2,60 flZnnc
5	x 9,2	x 1	S 5000	3,10 flZnnc
6	x 11,8	x 1,3	S 2000	4,95 flZnnc
8	x 14,8	x 1,6	S 1000	8,50 flZnnc
10	x 18,1	x 1,8	S 500	12,40 flZnnc
12	x 21,1	x 2,1	S 500	18,50 flZnnc
14	x 24,1	x 2,4	S 250	24,80 flZnnc
16	x 27,4	x 2,8	S 200	37,50 flZnnc
18	x 29,4	x 2,8	S 150	54,00 flZnnc
20	x 33,6	x 3,2	S 100	63,00 flZnnc
22	x 35,9	x 3,2	S 100	96,00 flZnnc
24	x 40	x 4	S 50	106,00 flZnnc
27	x 43	x 4	S 50	116,00 flZnnc
30	x 48,2	x 6	S 25	187,00 flZnnc

article 88131.030 870

88131 Spring steel zinc flake coated VSK-Z



Lock rings, for screws of property class ≤ 8.8, VSK-Z = f. screws with cyl. head

Dimensions → TI-107
Corrosion protection → TI-228
Lock of fasteners → TI-256

RoHS ✓ | REACh SVHC free

for screw ∅ x outside ∅ x thickness

4	x 7	x 1,2	S 10000	2,80 flZn
5	x 8,8	x 1,6	S 5000	3,75 flZn
6	x 9,9	x 1,6	S 2000	4,30 flZn
8	x 12,7	x 2	S 1000	8,60 flZn
10	x 16,1	x 2,5	S 500	12,90 flZn
12	x 18,3	x 2,5	S 500	15,70 flZn
16	x 24,6	x 3,5	S 200	34,00 flZn
20	x 30,6	x 4,5	S 100	72,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
article	88119.030		870
88119	**Steel hardened zinc-nickle plated**		



LOCKTIX washers

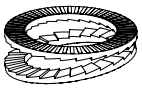
washers to locking fastenings for all property classes

Dimensions → TI-104 Lock of fasteners → TI-256
Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

for screw ∅			
8	S	200	52,00 ZNiP
10	S	200	68,00 ZNiP
12	S	200	95,00 ZNiP
14	S	100	335,00 ZNiP
16	S	100	154,00 ZNiP
18	S	100	400,00 ZNiP
20	S	50	275,00 ZNiP
24	S	50	700,00 ZNiP

article	88132.030	870
88132	**Steel QT zinc flake coated**	



NORD-LOCK washers, standard, preassembled pairs

for screws of property class ≤ 12.9

Caution! When assembling take care to position the washer pairs correctly.

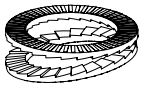
Dimensions → TI-107 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

assembly tip: for usage with screws of property class 12.9 not reusable!

RoHS ✓ REACh SVHC free

for screw ∅			
NL 3	S	200	67,00
NL 4	S	200	72,00
NL 5	S	200	77,00
NL 6	S	200	77,00
NL 8	S	200	98,00
NL 10	S	200	106,00
NL 12	S	200	179,00
NL 14	S	100	260,00
NL 16	S	100	270,00
NL 18	S	100	430,00
NL 20	S	100	395,00
NL 22	S	100	590,00
NL 24	S	100	630,00
NL 27	S	50	1100,00
NL 30	S	50	1170,00
NL 33	S	25	1190,00
NL 36	S	25	1650,00

Dimensions	PU	Pieces	€/100/Mat.
article	88132.034		870
88132	**Steel QT zinc flake coated**		**SP**



NORD-LOCK washers, preassembled pairs, SP = with enlarged outer diameter

for screws of property class ≤ 12.9

Caution! When assembling take care to position the washer pairs correctly.

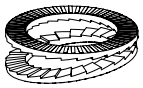
Dimensions → TI-107 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

assembly tip: for usage with screws of property class 12.9 not reusable!

RoHS ✓ REACh SVHC free

for screw ∅			
NL 4 SP	S	200	74,00 flZn
NL 5 SP	S	200	87,00 flZn
NL 6 SP	S	200	109,00 flZn
NL 8 SP	S	200	116,00 flZn
NL 10 SP	S	200	200,00 flZn
NL 12 SP	S	100	300,00 flZn
NL 14 SP	S	100	440,00 flZn
NL 16 SP	S	100	445,00 flZn
NL 18 SP	S	100	630,00 flZn
NL 20 SP	S	100	630,00 flZn
NL 22 SP	S	50	1050,00 flZn
NL 24 SP	S	50	1300,00 flZn
NL 27 SP	S	25	1320,00 flZn
NL 30 SP	S	25	1880,00 flZn
NL 33 SP	S	25	1890,00 flZn
NL 36 SP	S	25	1950,00 flZn

article	88132.035	870
88132	**Steel QT zinc flake coated**	**SC**



NORD-LOCK washers, preassembled pairs, SC = to usage with HV-assemblies acc. to EN 14399-4

Caution! When assembling take care to position the washer pairs correctly.

Dimensions → TI-107 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

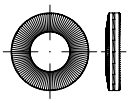
German technical approval Z-14.4-629

RoHS ✓ REACh SVHC free

for screw ∅			
NL 12 SC	S	100	248,00
NL 16 SC	S	100	375,00
NL 20 SC	S	100	650,00
NL 22 SC	S	50	970,00
NL 24 SC	S	50	1150,00

Dimensions	PU	Pieces	€/100/Mat.
NL 27 SC	S	25	1250,00
NL 30 SC	S	25	1580,00
NL 36 SC	S	25	1680,00

article	88132.044	870
88132	**Steel QT zinc flake coated**	**NL X**



NORD-LOCK X-series washers, preassembled pairs, for screws of property class ≤ 12.9

salt spray test: 600h RR,
temperature range -40 to +150 °C,
suitable for screws to property class 12.9

Caution! When assembling take care to position the washer pairs correctly.

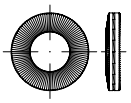
Dimensions → TI-107 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

assembly tip: for usage with screws of property class 12.9 not reusable!

RoHS ✓ REACh SVHC free

for screw ∅			
NLX 6	S	200	137,00 flZn
NLX 8	S	200	148,00 flZn
NLX 10	S	200	158,00 flZn
NLX 12	S	200	265,00 flZn
NLX 14	S	100	350,00 flZn
NLX 16	S	100	380,00 flZn
NLX 20	S	100	580,00 flZn

article	88132.045	870
88132	**Steel QT zinc flake coated**	**NL X-SP**



NORD-LOCK X-series washers, preassembled pairs, SP = with enlarged outer diameter

salt spray test: 600h RR,
temperature range -40 to +150 °C,
for screws to property class ≤ 12.9

Caution! When assembling take care to position the washer pairs correctly.

Dimensions → TI-107 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

assembly tip: for usage with screws of property class 12.9 not reusable!

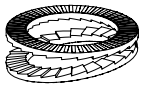
RoHS ✓ REACh SVHC free

for screw ∅			
NLX 6 SP	S	200	148,00 flZn
NLX 8 SP	S	200	148,00 flZn
NLX 10 SP	S	200	275,00 flZn
NLX 12 SP	S	100	380,00 flZn

Dimensions	PU	Pieces	€/100/Mat.
NLX 16 SP	S	100	580,00 flZn
NLX 20 SP	S	50	990,00 flZn

article 88032.030 870

88032 Steel zinc flake coated **HLS**



HEICO-LOCK wedge lock washers, preassembled pairs, HLS = standard

for screws of property class ≤ 12.9

Caution! When assembling take care to position the washer pairs correctly.

Dimensions → TI-103 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

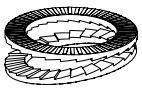
assembly tip: for usage with screws of property class 12.9 reuse is not recommended!!

RoHS ✓ REACh SVHC free

for screw ∅			
HLS- 3	S	200	40,50 flZnnc
HLS- 3,5	S	200	45,00 flZnnc
HLS- 4	S	200	45,50 flZnnc
HLS- 5	S	200	41,00 flZnnc
HLS- 6	S	200	58,00 flZnnc
HLS- 8	S	200	70,00 flZnnc
HLS-10	S	200	78,00 flZnnc
HLS-12	S	200	130,00 flZnnc
HLS-14	S	100	184,00 flZnnc
HLS-16	S	100	184,00 flZnnc
HLS-18	S	100	285,00 flZnnc
HLS-20	S	100	295,00 flZnnc
HLS-22	S	100	395,00 flZnnc
HLS-24	S	100	410,00 flZnnc
HLS-27	S	50	720,00 flZnnc
HLS-30	S	50	810,00 flZnnc
HLS-33	S	25	880,00 flZnnc
HLS-36	S	25	1030,00 flZnnc
HLS-39	S	25	1220,00 flZnnc
HLS-42	S	25	1260,00 flZnnc

article 88032.034 870

88032 Steel zinc flake coated **HLB**



HEICO-LOCK wedge lock washers, preassembled pairs, HLB = with enlarged outer diameter

for screws of property class ≤ 12.9

Caution! When assembling take care to position the washer pairs correctly.

Dimensions → TI-103 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

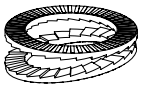
assembly tip: for usage with screws of property class 12.9 reuse is not recommended!

RoHS ✓ REACh SVHC free

for screw ∅			
HLB- 3,5	S	200	65,00 flZnnc
HLB- 4	S	200	65,00 flZnnc
HLB- 5	S	200	65,00 flZnnc
HLB- 6	S	200	78,00 flZnnc
HLB- 8	S	200	84,00 flZnnc
HLB-10	S	200	134,00 flZnnc
HLB-12	S	100	197,00 flZnnc
HLB-14	S	100	255,00 flZnnc
HLB-16	S	100	305,00 flZnnc
HLB-18	S	100	430,00 flZnnc
HLB-20	S	100	430,00 flZnnc
HLB-22	S	50	710,00 flZnnc
HLB-24	S	50	790,00 flZnnc
HLB-27	S	25	870,00 flZnnc

article 88032.036 870

88032 Steel zinc flake coated **HLK**



HEICO-LOCK wedge lock washers, preassembled pairs, HLK = to usage with HV-assemblies acc. to EN 14399-4

for screws of property class ≤ 12.9

Caution! When assembling take care to position the washer pairs correctly.

Dimensions → TI-103 Tightening torque → TI-247
Corrosion protection → TI-230 Lock of fasteners → TI-256

assembly tip: for usage with screws of property class 12.9 reuse is not recommended!

RoHS ✓ REACh SVHC free

for screw ∅			
HLK-12	S	200	189,00 flZnnc
HLK-16	S	100	300,00 flZnnc
HLK-20	S	100	510,00 flZnnc

Dimensions	PU	Pieces	€/100/Mat.
HLK-22	S	50	650,00 flZnnc
HLK-24	S	50	750,00 flZnnc
HLK-27	S	25	860,00 flZnnc
HLK-30	S	25	1100,00 flZnnc
HLK-36	S	25	1240,00 flZnnc

article 88033.030 870

88033 Steel zinc flake coated



HEICO-LOCK ring lock washers, standard, preassembled pairs, with locking ring made of plastic

Dimensions → TI-103 Lock of fasteners → TI-256
Corrosion protection → TI-230

RoHS ✓ REACh SVHC free

For screw ∅			
HLRS- 5	S	200	85,00 flZnnc
HLRS- 6	S	200	90,00 flZnnc
HLRS- 8	S	200	100,00 flZnnc
HLRS-10	S	200	111,00 flZnnc
HLRS-12	S	200	188,00 flZnnc
HLRS-16	S	100	270,00 flZnnc

article 88033.034 870

88033 Steel zinc flake coated **B**



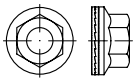
HEICO-LOCK ring lock washers, preassembled pairs, with locking ring made of plastic, B = with enlarged outer diameter

Dimensions → TI-103 Lock of fasteners → TI-256
Corrosion protection → TI-230

RoHS ✓ REACh SVHC free

For screw ∅			
HLRB- 4	S	200	94,00 flZnnc
HLRB- 5	S	200	100,00 flZnnc
HLRB- 6	S	200	112,00 flZnnc
HLRB- 8	S	200	121,00 flZnnc
HLRB-10	S	200	193,00 flZnnc
HLRB-12	S	100	285,00 flZnnc
HLRB-14	S	100	365,00 flZnnc
HLRB-16	S	100	440,00 flZnnc

Dimensions	PU	Pieces	€/100/Mat.
article	88034.130		870
88034	**10**		
	zinc flake coated		



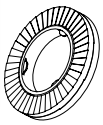
HEICO-LOCK wedge lock nuts with captive wedge lock washer

Dimensions ➔ TI-69
Lock of fasteners ➔ TI-256
Corrosion protection ➔ TI-230

RoHS ✓ REACh SVHC free

HLM- 6	S	100	237,00 flZnnc
HLM- 8	S	100	305,00 flZnnc
HLM-10	S	50	465,00 flZnnc
HLM-12	S	50	590,00 flZnnc
HLM-16	S	25	1160,00 flZnnc

article	88035.030		870
88035	**Steel**		
	zinc flake coated		



HEICO-LOCK combi-washers, standard, preassembled pairs, with locking ring made of plastic

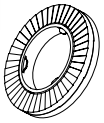
Dimensions ➔ TI-104
Lock of fasteners ➔ TI-256
Corrosion protection ➔ TI-230

RoHS ✓ REACh SVHC free

For screw ∅

HKS- 8	S	200	77,00 flZnnc
HKS-10	S	200	86,00 flZnnc
HKS-12	S	200	144,00 flZnnc
HKS-16	S	100	204,00 flZnnc

Dimensions	PU	Pieces	€/100/Mat.
article	88035.034		870
88035	**Steel**		**B**
	zinc flake coated		



HEICO-LOCK combi-washers, preassembled pairs, with locking ring made of plastic, B = with enlarged outer diameter

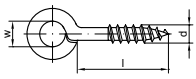
Dimensions ➔ TI-104
Lock of fasteners ➔ TI-256
Corrosion protection ➔ TI-230

RoHS ✓ REACh SVHC free

For screw ∅

HKB- 8	S	200	92,00 flZnnc
HKB-10	S	200	149,00 flZnnc
HKB-12	S	100	216,00 flZnnc
HKB-16	S	100	335,00 flZnnc

article	88133.010		872
88133	**Steel**		**type 1**
	zinc plated		



Screw eyes type 1, with wood screw thread

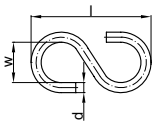
Dimensions ➔ TI-54
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

l x D (d / for plugs)

6	x	3(1,8/4)	S	100	18,60 ZP
8	x	3(1,8/4)	S	100	18,60 ZP
8	x	4(2,3/4)	S	100	19,30 ZP
10	x	3(1,8/4)	S	100	18,60 ZP
10	x	4(2,3/4)	S	100	19,30 ZP
10	x	6(2,9/4)	S	100	22,00 ZP
12	x	3(1,8/4)	S	100	18,60 ZP
12	x	4(2,3/4)	S	100	19,30 ZP
12	x	6(2,9/4)	S	100	22,20 ZP
12	x	8(3,3/5)	S	100	27,00 ZP
12	x	10(3,5/5)	S	100	29,00 ZP
16	x	4(2,3/4)	S	100	19,70 ZP
16	x	6(2,9/4)	S	100	22,20 ZP
16	x	8(3,3/5)	S	100	28,00 ZP
16	x	10(3,3/5)	S	100	29,50 ZP
16	x	12(3,8/6)	S	100	34,00 ZP
20	x	6(2,9/4)	S	100	24,50 ZP
20	x	8(3,3/5)	S	100	28,00 ZP
20	x	10(3,3/5)	S	100	30,50 ZP
20	x	12(3,8/6)	S	100	34,00 ZP
25	x	8(3,3/5)	S	100	13,40 ZP
25	x	10(3,3/5)	S	100	31,50 ZP
25	x	12(3,8/6)	S	100	36,00 ZP
25	x	16(4,3/6)	S	100	47,00 ZP
30	x	8(3,3/5)	S	100	29,50 ZP
30	x	10(3,3/5)	S	100	31,50 ZP
30	x	12(3,8/6)	S	100	36,50 ZP
30	x	14(3,8/6)	S	100	38,50 ZP
30	x	16(4,3/6)	S	100	51,00 ZP
30	x	18(4,7/6)	S	100	57,00 ZP
40	x	12(3,8/6)	S	100	38,50 ZP
40	x	14(3,8/6)	S	100	43,00 ZP
40	x	16(4,3/6)	S	100	54,00 ZP
40	x	18(4,7/6)	S	100	62,00 ZP
40	x	20(5,2/7)	S	100	68,00 ZP
50	x	14(3,9/6)	S	100	47,50 ZP
50	x	16(4,3/6)	S	100	57,00 ZP
50	x	18(4,7/6)	S	100	67,00 ZP
50	x	20(5,2/7)	S	100	84,00 ZP

article	88135.010	872
88135	**Steel**	**type 45**
	zinc plated	



S-hooks type 45

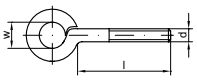
Dimensions ➔ TI-137
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

l x w x d

25	x	8	x	2,3	S	100	29,50 ZP
30	x	9	x	2,8	S	100	30,50 ZP
40	x	11	x	3,8	S	100	41,50 ZP
50	x	16	x	4,7	S	100	64,00 ZP
60	x	18	x	5,8	S	100	99,00 ZP
70	x	20	x	6,8	S	100	160,00 ZP
80	x	22	x	7,6	S	100	255,00 ZP

article	88136.010	872
88136	**Steel**	**type 48**
	zinc plated	



Screw eyes type 48, with metric thread

Dimensions ➔ TI-36
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

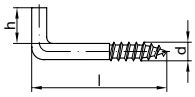
d x l x D

M 3	x	10	D	5	S	100	21,20 ZP
M 3	x	15	D	5	S	100	21,60 ZP
M 4	x	10	D	6	S	100	21,70 ZP
M 4	x	15	D	6	S	100	25,50 ZP
M 4	x	20	D	6	S	100	28,00 ZP
M 4	x	25	D	6	S	100	28,00 ZP
M 4	x	30	D	6	S	100	29,50 ZP
M 4	x	40	D	6	S	100	30,50 ZP
M 5	x	15	D	8	S	100	36,00 ZP
M 5	x	20	D	8	S	100	36,50 ZP
M 5	x	25	D	8	S	100	38,50 ZP
M 5	x	30	D	8	S	100	39,50 ZP
M 5	x	40	D	8	S	100	42,00 ZP
M 5	x	50	D	8	S	100	44,00 ZP
M 5	x	60	D	8	S	100	46,00 ZP
M 6	x	10	D	10	S	100	43,00 ZP
M 6	x	15	D	10	S	100	44,50 ZP

Dimensions					PU	Pieces	€/100/Mat.
M 6	x	20	D	10	S	100	45,50 ZP
M 6	x	25	D	10	S	100	48,00 ZP
M 6	x	30	D	10	S	100	49,50 ZP
M 6	x	40	D	10	S	100	54,00 ZP
M 6	x	50	D	10	S	100	59,00 ZP
M 6	x	60	D	10	S	100	62,00 ZP
M 6	x	70	D	10	S	100	67,00 ZP
M 6	x	80	D	10	S	100	73,00 ZP
M 8	x	20	D	12	S	50	83,00 ZP
M 8	x	25	D	12	S	50	86,00 ZP
M 8	x	30	D	12	S	50	94,00 ZP
M 8	x	40	D	12	S	50	101,00 ZP
M 8	x	50	D	12	S	50	107,00 ZP
M 8	x	60	D	12	S	50	120,00 ZP
M 8	x	80	D	12	S	50	120,00 ZP
M 8	x	100	D	12	S	50	132,00 ZP
M 10	x	30	D	14	S	50	158,00 ZP
M 10	x	40	D	14	S	50	164,00 ZP
M 10	x	50	D	14	S	50	181,00 ZP
M 10	x	60	D	14	S	50	194,00 ZP
M 10	x	80	D	14	S	50	224,00 ZP
M 10	x	100	D	14	S	50	260,00 ZP
M 12	x	100	D	18	S	25	475,00 ZP

article 88137.010 872

88137 Steel zinc plated type 4



Square bend screw hooks type 4, with wood screw thread

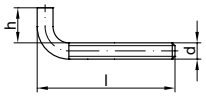
Dimensions → TI-54 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

l	x	d	x	h			
20	x	2,8	x	8	S	200	15,30 ZP
25	x	2,8	x	10	S	100	16,50 ZP
30	x	3,3	x	11	S	100	20,70 ZP
40	x	4,1	x	11	S	100	24,50 ZP
50	x	4,8	x	13	S	100	27,50 ZP
60	x	4,8	x	13	S	100	33,00 ZP
80	x	5,5	x	18	S	100	59,00 ZP
100	x	6,0	x	18	S	100	91,00 ZP

article 88138.010 872

88138 Steel zinc plated type 4E



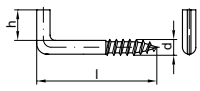
Straight screw hooks type 4E, with metric thread

Dimensions → TI-36 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

d	x	l	x	h			
M 4	x	40	x	10	S	100	54,00 ZP
M 5	x	50	x	12	S	100	78,00 ZP
M 6	x	60	x	14	S	100	109,00 ZP
M 8	x	60	x	18	S	100	197,00 ZP

Dimensions					PU	Pieces	€/100/Mat.
article	88139.010						872
88139	Steel zinc plated						type 7
l	x	d	x	h			
40	x	4,4	x	9	S	100	38,00 ZP
50	x	4,4	x	9	S	100	39,50 ZP
30	x	5,2	x	10	S	100	42,50 ZP
40	x	5,2	x	10	S	100	46,00 ZP
50	x	5,2	x	10	S	100	50,00 ZP
60	x	5,2	x	10	S	100	53,00 ZP
80	x	5,8	x	12	S	100	64,00 ZP
100	x	5,8	x	12	S	100	72,00 ZP



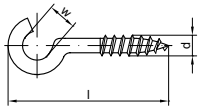
Square bend slotted screw hooks type 7, with wood screw thread

Dimensions → TI-55 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

article 88140.010 872

88140 Steel zinc plated type 11



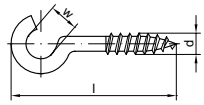
Cup hooks type 11, with wood screw thread

Dimensions → TI-55 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

l	x	d	x	w			
20	x	2,3	x	6	S	100	18,20 ZP
25	x	2,3	x	8	S	100	20,50 ZP
30	x	2,3	x	10	S	100	21,30 ZP
40	x	2,9	x	12	S	100	24,50 ZP
50	x	3,3	x	16	S	100	28,50 ZP
60	x	3,3	x	16	S	100	33,00 ZP
70	x	3,8	x	22	S	100	57,00 ZP
80	x	4,3	x	25	S	100	66,00 ZP
100	x	4,8	x	25	S	100	89,00 ZP

Dimensions					PU	Pieces	€/100/Mat.
article	88141.030						872
88141	Steel coated white						type 11 K
l	x	d	x	w			
25	x	2,3	x	8	S	100	83,00
30	x	2,3	x	10	S	100	83,00
40	x	2,9	x	12	S	100	89,00
50	x	3,3	x	16	S	100	96,00
60	x	3,3	x	16	S	100	105,00
80	x	4,3	x	25	S	100	114,00



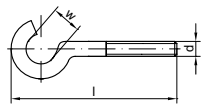
Cup hooks type 11 K, with wood screw thread

Dimensions → TI-55 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

article 88142.010 872

88142 Steel zinc plated type 11 E



Cup hooks type 11 E, with metric thread

Dimensions → TI-36 Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

d	x	l	x	D			
M 4	x	40	D	16	S	100	32,50 ZP
M 4	x	50	D	16	S	100	33,50 ZP
M 5	x	50	D	16	S	100	47,50 ZP
M 5	x	60	D	16	S	100	48,50 ZP
M 6	x	50	D	18	S	100	65,00 ZP
M 6	x	60	D	18	S	100	68,00 ZP
M 8	x	70	D	22	S	100	112,00 ZP
M 8	x	80	D	22	S	100	118,00 ZP

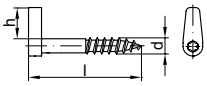
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Dimensions	PU	Pieces	€/100/Mat.
article	88143.010		872

88143 Steel zinc plated type 10



Right angle screw hooks type 10, with wood screw thread, with hexalobular socket

Dimensions ➔ TI-55 Corrosion protection ➔ TI-228

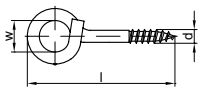
suitable for machine assembly

RoHS ✓ REACh SVHC free

l x d x h							
50	x	5,2	x	9	S	100	82,00 ZP
65	x	5,8	x	10	S	100	95,00 ZP
80	x	5,8	x	10	S	100	104,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88144.010		872

88144 Steel zinc plated type 18



Heavy duty screw eyes type 18, spiral type, with wood screw thread

Caution! Not suitable for swings.

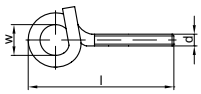
Dimensions ➔ TI-56 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

l x d x w							
100	x	8,2	x	22	S	20	530,00 ZP
120	x	8,9	x	22	S	20	640,00 ZP
140	x	8,9	x	22	S	20	680,00 ZP
140	x	9,9	x	22	S	20	800,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88145.010		872

88145 Steel zinc plated type 18E



Heavy duty screw eyes type 18 E, spiral type, with metric thread

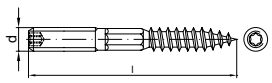
Dimensions ➔ TI-37 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

d x l x w							
M 10	x	120	x	22	S	20	870,00 ZP
M 10	x	140	x	22	S	20	910,00 ZP
M 12	x	160	x	22	S	10	1340,00 ZP
M 12	x	180	x	22	S	10	1460,00 ZP

Dimensions	PU	Pieces	€/100/Mat.
article	88149.010		874

88149 Steel zinc plated type 23 E



Hanger bolts, one side = metric thread other side = wood screw thread

Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

∅ M x overall length

M 5	x	40	S	100	42,50 ZP
M 5	x	50	S	100	48,50 ZP
M 6	x	40	S	100	56,00 ZP
M 6	x	50	S	100	56,00 ZP
M 6	x	60	S	100	62,00 ZP
M 6	x	70	S	100	65,00 ZP
M 6	x	80	S	100	66,00 ZP
M 6	x	100	S	100	69,00 ZP
M 6	x	120	S	100	73,00 ZP
M 8	x	50	S	100	72,00 ZP
M 8	x	60	S	100	77,00 ZP
M 8	x	70	S	100	84,00 ZP
M 8	x	80	S	100	95,00 ZP
M 8	x	100	S	100	107,00 ZP
M 8	x	120	S	100	143,00 ZP
M 8	x	140	S	100	165,00 ZP
M 8	x	150	S	100	186,00 ZP
M 8	x	160	S	100	199,00 ZP
M 8	x	180	S	100	232,00 ZP
M 8	x	200	S	50	255,00 ZP
M 10	x	60	S	100	120,00 ZP
M 10	x	80	S	50	120,00 ZP
M 10	x	100	S	50	137,00 ZP
M 10	x	120	S	50	155,00 ZP
M 10	x	130	S	50	167,00 ZP
M 10	x	140	S	50	175,00 ZP
M 10	x	180	S	50	260,00 ZP
M 12	x	80	S	50	155,00 ZP
M 12	x	100	S	50	171,00 ZP
M 12	x	120	S	50	206,00 ZP
M 12	x	160	S	50	410,00 ZP
M 12	x	200	S	50	520,00 ZP

article	88200.016	637

88200 Steel, hard. zinc plated RST-Z



Pan head screws with screw thread for plastic (thermoplastics), Z = Pozidriv cross recess

Dimensions ➔ TI-48 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

2,2	x	6 -Z	S	1000	8,90 ZP
2,2	x	8 -Z	S	1000	9,10 ZP
2,5	x	8 -Z	S	1000	9,20 ZP
2,5	x	10 -Z	S	1000	8,90 ZP
3	x	6 -Z	S	1000	8,90 ZP
3	x	8 -Z	S	1000	8,00 ZP
3	x	10 -Z	S	1000	9,50 ZP
3	x	12 -Z	S	1000	9,50 ZP
3,5	x	10 -Z	S	500	8,90 ZP
3,5	x	12 -Z	S	500	8,80 ZP
3,5	x	16 -Z	S	500	10,50 ZP
4	x	12 -Z	S	500	10,10 ZP
4	x	16 -Z	S	500	11,10 ZP
4	x	20 -Z	S	500	11,90 ZP
5	x	12 -Z	S	500	11,40 ZP
5	x	16 -Z	S	500	12,80 ZP
5	x	20 -Z	S	500	16,40 ZP
6	x	16 -Z	S	250	20,90 ZP
6	x	20 -Z	S	250	19,30 ZP
6	x	25 -Z	S	250	20,70 ZP

article	88200.014	637

88200 Steel, hard. zinc plated RST-ISR



Pan head screws with screw thread for plastic (thermoplastics), ISR = hexalobular socket

Dimensions ➔ TI-48 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

2,2	x	5 -T6	S	1000	9,50 ZP
2,2	x	6 -T6	S	1000	8,90 ZP
2,2	x	8 -T6	S	1000	9,10 ZP
2,2	x	10 -T6	S	1000	7,80 ZP
2,5	x	5 -T8	S	1000	8,90 ZP
2,5	x	6 -T8	S	1000	9,00 ZP
2,5	x	8 -T8	S	1000	9,20 ZP
2,5	x	10 -T8	S	1000	7,90 ZP
2,5	x	12 -T8	S	1000	9,00 ZP
3	x	6 -T10	S	1000	7,90 ZP
3	x	8 -T10	S	1000	8,00 ZP
3	x	10 -T10	S	1000	8,20 ZP
3	x	12 -T10	S	1000	9,50 ZP
3	x	14 -T10	S	1000	9,40 ZP
3	x	16 -T10	S	1000	9,50 ZP
3,5	x	8 -T10	S	500	9,60 ZP
3,5	x	10 -T10	S	500	8,90 ZP
3,5	x	12 -T10	S	500	10,50 ZP
3,5	x	16 -T10	S	500	10,50 ZP
4	x	8 -T20	S	500	10,50 ZP
4	x	10 -T20	S	500	9,50 ZP
4	x	12 -T20	S	500	10,10 ZP
4	x	14 -T20	S	500	11,10 ZP
4	x	16 -T20	S	500	11,10 ZP
4	x	20 -T20	S	500	11,90 ZP
5	x	10 -T20	S	500	12,00 ZP
5	x	12 -T20	S	500	12,60 ZP
5	x	14 -T20	S	500	13,10 ZP
5	x	16 -T20	S	500	13,80 ZP
5	x	20 -T20	S	500	14,40 ZP
6	x	16 -T25	S	250	18,30 ZP
6	x	20 -T25	S	250	20,70 ZP
6	x	25 -T25	S	250	20,70 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		88202.016			637
88202		**Steel, hard. zinc plated**			**RST-Z**



Pan head screws with collar, with screw thread for plastic (thermoplastics), Z = Pozidriv cross recess

Dimensions → TI-49 Corrosion protection → TI-228

RoHS ✓ | REACh SVHC free

2,2	x	6 -Z	S	1000	9,00 ZP
2,2	x	8 -Z	S	1000	9,20 ZP
2,5	x	8 -Z	S	1000	9,90 ZP
2,5	x	10 -Z	S	1000	9,90 ZP
3	x	8 -Z	S	1000	8,60 ZP
3	x	10 -Z	S	1000	8,80 ZP
3	x	12 -Z	S	1000	9,90 ZP
3,5	x	10 -Z	S	500	9,50 ZP
3,5	x	12 -Z	S	500	9,20 ZP
3,5	x	16 -Z	S	500	10,90 ZP
4	x	12 -Z	S	500	10,70 ZP
4	x	16 -Z	S	500	11,80 ZP
4	x	20 -Z	S	500	12,50 ZP
5	x	12 -Z	S	500	12,00 ZP
5	x	16 -Z	S	500	13,40 ZP
5	x	20 -Z	S	500	15,30 ZP
6	x	16 -Z	S	250	18,40 ZP
6	x	20 -Z	S	250	19,40 ZP
6	x	25 -Z	S	250	20,90 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		88202.014			637
88202		**Steel, hard. zinc plated**			**RST-ISR**



Pan head screws with collar, with screw thread for plastic (thermoplastics), ISR = hexalobular socket

Dimensions → TI-49 Corrosion protection → TI-228

RoHS ✓ | REACh SVHC free

2,2	x	6 -T6	S	1000	8,90 ZP
2,2	x	8 -T6	S	1000	9,10 ZP
2,5	x	8 -T8	S	1000	9,20 ZP
2,5	x	10 -T6	S	1000	12,80 ZP
3	x	8 -T10	S	1000	8,00 ZP
3	x	10 -T10	S	1000	8,20 ZP
3	x	12 -T10	S	1000	9,50 ZP
3,5	x	10 -T10	S	500	8,90 ZP
3,5	x	12 -T10	S	500	8,80 ZP
3,5	x	16 -T10	S	500	10,50 ZP
3,5	x	20 -T10	S	500	16,40 ZP
4	x	12 -T20	S	500	10,10 ZP
4	x	16 -T20	S	500	11,10 ZP
4	x	20 -T20	S	500	16,40 ZP
5	x	12 -T20	S	500	18,40 ZP
5	x	20 -T20	S	500	14,80 ZP
6	x	16 -T25	S	250	18,40 ZP
6	x	20 -T25	S	250	19,40 ZP
6	x	25 -T25	S	250	20,90 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		88203.014			637
88203		**St. Hard. zinc plated**			**RSTplus-ISR**



Pan head screws with screw thread for plastic (thermoplastics), RSTplus = higher preloads ISR = hexalobular socket

Dimensions → TI-49 Corrosion protection → TI-228

RoHS ✓ | REACh SVHC free

2,2	x	6 -T6	S	1000	11,10 ZP
2,2	x	8 -T6	S	1000	11,40 ZP
2,5	x	8 -T8	S	1000	10,80 ZP
2,5	x	10 -T8	S	1000	10,90 ZP
3	x	8 -T10	S	1000	9,20 ZP
3	x	10 -T10	S	1000	9,50 ZP
3	x	12 -T10	S	1000	10,80 ZP
3,5	x	10 -T15	S	500	10,20 ZP
3,5	x	12 -T15	S	500	10,10 ZP
3,5	x	16 -T15	S	500	12,00 ZP
4	x	12 -T20	S	500	11,70 ZP
4	x	16 -T20	S	500	12,90 ZP
4	x	20 -T20	S	500	16,30 ZP
5	x	12 -T25	S	500	13,70 ZP
5	x	16 -T25	S	500	15,70 ZP
5	x	20 -T25	S	500	18,20 ZP
6	x	16 -T30	S	250	19,70 ZP
6	x	20 -T30	S	250	21,30 ZP
6	x	25 -T30	S	250	22,90 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		88204.014			637
88204		**Steel, hard. zinc plated**			**RSTplus-ISR**



Pan head screws with collar, with screw thread for plastic (thermoplastics), RSTplus = higher preloads ISR = hexalobular socket

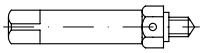
Dimensions → TI-49 Corrosion protection → TI-228

RoHS ✓ | REACh SVHC free

2,2	x	6 -T6	S	1000	11,10 ZP
2,2	x	8 -T6	S	1000	11,40 ZP
2,5	x	8 -T8	S	1000	10,80 ZP
2,5	x	10 -T8	S	1000	10,90 ZP
3	x	8 -T10	S	1000	9,20 ZP

Dimensions			PU	Pieces	€/100/Mat.
3	x	10 -T10	S	1000	9,50 ZP
3	x	12 -T10	S	1000	10,80 ZP
3,5	x	10 -T15	S	500	10,20 ZP
3,5	x	12 -T15	S	500	10,10 ZP
3,5	x	16 -T15	S	500	12,00 ZP
4	x	12 -T20	S	500	11,70 ZP
4	x	16 -T20	S	500	12,90 ZP
4	x	20 -T20	S	500	16,30 ZP
5	x	12 -T25	S	500	13,70 ZP
5	x	16 -T25	S	500	15,70 ZP
5	x	20 -T25	S	500	18,20 ZP
6	x	16 -T30	S	250	20,60 ZP
6	x	20 -T30	S	250	22,00 ZP
6	x	25 -T30	S	250	23,50 ZP

article	88301.000	899
88301	**Steel**	**tool 610**



ENSAT driving tool type 610 for manual assembly, for flush installation

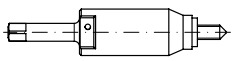
REACH → TI-262

RoHS ✓

for internal thread

M 3	S	1	9800,00
M 4	S	1	10100,00
M 5	S	1	10600,00
M 6	S	1	10900,00
M 8	S	1	11300,00
M 10	S	1	14500,00
M 12	S	1	17400,00
M 14	S	1	21700,00

article	88305.000	899
88305	**Steel**	**tool 620**



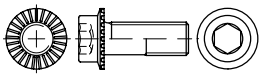
ENSAT driving tool type 620 for machine assembly, for flush installation

REACh SVHC free

for internal thread

M 3	S	1	24600,00
M 4	S	1	24600,00
M 5	S	1	31200,00
M 6	S	1	31200,00
M 8	S	1	31200,00
M 10	S	1	40200,00
M 12	S	1	40200,00
M 14	S	1	72300,00
M 16	S	1	72300,00
M 20	S	1	132300,00

Dimensions	PU Pieces	€/100/Mat.
article	88912.100	980
88912	**100**	**RIPP**



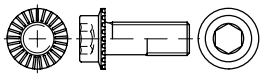
Hexagon socket head cap screws with flange, with lock ribs under the flange, surface hardened

Dimensions ➔ TI-28 Tightening torque ➔ TI-247

RoHS ✓ REACh SVHC free

M 5	x	10	S	500	39,00
M 5	x	12	S	500	39,50
M 5	x	16	S	500	40,00
M 5	x	20	S	500	42,00
M 6	x	10	S	500	37,50
M 6	x	12	S	500	38,50
M 6	x	16	S	500	39,00
M 6	x	20	S	500	40,00
M 6	x	25	S	500	44,00
M 6	x	30	S	500	47,50
M 8	x	12	S	200	55,00
M 8	x	16	S	200	55,00
M 8	x	20	S	200	57,00
M 8	x	25	S	200	60,00
M 8	x	30	S	200	63,00
M 8	x	40	S	200	69,00
M 10	x	20	S	200	90,00
M 10	x	25	S	200	91,00
M 10	x	30	S	200	95,00
M 10	x	35	S	100	101,00
M 10	x	40	S	100	105,00
M 12	x	20	S	100	124,00
M 12	x	25	S	100	129,00
M 12	x	30	S	100	135,00
M 12	x	35	S	100	143,00
M 12	x	40	S	100	152,00
M 12	x	45	S	100	160,00
M 12	x	50	S	100	165,00

Dimensions	PU Pieces	€/100/Mat.
article	88912.110	980
88912	**100 zinc plated**	**RIPP**



Hexagon socket cap screws with flange, with lock ribs under the flange, surface hardened

Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-28 Tightening torque ➔ TI-247
Corrosion protection ➔ TI-228

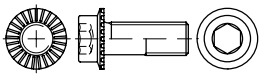
RoHS ✓ REACh SVHC free

M 6	x	10	S	500	43,00 ZP
M 6	x	12	S	500	43,00 ZP
M 6	x	16	S	500	43,50 ZP
M 6	x	20	S	500	45,00 ZP
M 8	x	12	S	200	62,00 ZP
M 8	x	16	S	200	63,00 ZP
M 8	x	20	S	200	65,00 ZP
M 8	x	25	S	200	69,00 ZP
M 10	x	20	S	200	103,00 ZP
M 10	x	25	S	200	105,00 ZP
M 10	x	30	S	200	110,00 ZP
M 12	x	30	S	100	157,00 ZP
M 12	x	40	S	100	175,00 ZP
M 12	x	45	S	100	186,00 ZP
M 12	x	50	S	100	195,00 ZP

Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions	PU Pieces	€/100/Mat.
article	88912.191	980
88912	**100 flZn/TL480h**	**RIPP**



Hexagon socket cap screws with flange, with lock ribs under the flange, surface hardened

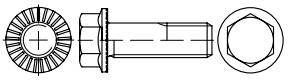
TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-28 Tightening torque ➔ TI-247
Corrosion protection ➔ TI-230

RoHS ✓ REACh SVHC free

M 6	x	12	S	500	41,00 flZn
M 6	x	16	S	500	41,50 flZn
M 6	x	20	S	500	43,00 flZn
M 8	x	12	S	200	59,00 flZn
M 8	x	16	S	200	60,00 flZn
M 8	x	20	S	200	62,00 flZn
M 8	x	25	S	200	66,00 flZn
M 10	x	20	S	200	98,00 flZn
M 10	x	25	S	200	100,00 flZn
M 10	x	30	S	200	105,00 flZn
M 12	x	30	S	100	149,00 flZn
M 12	x	40	S	100	166,00 flZn
M 12	x	45	S	100	176,00 flZn
M 12	x	50	S	100	186,00 flZn

article	88913.100	980
88913	**100**	**RIPP**



Hexagon head screws with flange, with lock ribs under the flange, with thread up to head, surface hardened

Dimensions ➔ TI-28 Tightening torque ➔ TI-247

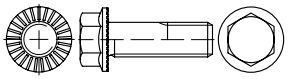
RoHS ✓ REACh SVHC free

M 5	x	10	S	500	26,00
M 5	x	12	S	500	26,50
M 5	x	16	S	500	26,50
M 5	x	20	S	500	30,00
M 6	x	10	S	500	25,50
M 6	x	12	S	500	25,50
M 6	x	14	S	500	26,00
M 6	x	16	S	500	26,00
M 6	x	20	S	500	27,00
M 6	x	25	S	500	29,50
M 8	x	12	S	200	37,00
M 8	x	16	S	200	37,00
M 8	x	20	S	200	37,50
M 8	x	25	S	200	40,00

Dimensions				PU	Pieces	€/100/Mat.
M 8	x	30		S	200	42,00
M 8	x	35		S	200	47,50
M 8	x	40		S	200	47,50
M 10	x	16		S	200	59,00
M 10	x	20		S	200	59,00
M 10	x	25		S	200	59,00
M 10	x	30		S	200	62,00
M 10	x	35		S	100	72,00
M 10	x	40		S	100	72,00
M 10	x	45		S	100	79,00
M 10	x	50		S	100	103,00
M 12	x	20		S	100	81,00
M 12	x	25		S	100	85,00
M 12	x	30		S	100	88,00
M 12	x	35		S	100	95,00
M 12	x	40		S	100	99,00
M 12	x	45		S	100	111,00
M 12	x	50		S	100	114,00
M 12	x	55		S	100	212,00
M 12	x	60		S	100	229,00
M 12	x	75		S	50	425,00
M 16	x	25		S	50	240,00
M 16	x	30		S	50	240,00
M 16	x	35		S	50	245,00
M 16	x	40		S	50	255,00
M 16	x	45		S	50	275,00
M 16	x	50		S	50	285,00
M 16	x	55		S	50	345,00
M 16	x	60		S	50	355,00
M 16	x	65		S	50	820,00
M 16	x	70		S	50	385,00

article 88913.105 980

88913 100 RIPP fine



Hexagon head screws with flange, with lock ribs under the flange, with fine pitch thread up to head, surface hardened

Dimensions → TI-28 Tightening torque → TI-247

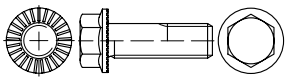
RoHS ✓ REACh SVHC free

M 14	x	1,5	x	30	S	100	239,00
M 14	x	1,5	x	35	S	100	245,00
M 14	x	1,5	x	40	S	100	260,00
M 14	x	1,5	x	45	S	100	270,00
M 14	x	1,5	x	50	S	100	280,00
M 14	x	1,5	x	55	S	50	300,00
M 14	x	1,5	x	60	S	50	330,00

Dimensions				PU	Pieces	€/100/Mat.
M 5	x	10		S	500	28,50 ZP
M 5	x	12		S	500	28,50 ZP
M 5	x	16		S	500	29,00 ZP
M 5	x	20		S	500	32,00 ZP
M 6	x	10		S	500	29,00 ZP
M 6	x	12		S	500	29,50 ZP
M 6	x	14		S	500	30,00 ZP
M 6	x	16		S	500	30,00 ZP
M 6	x	20		S	500	31,50 ZP
M 6	x	25		S	500	34,00 ZP
M 8	x	12		S	200	43,50 ZP
M 8	x	16		S	200	44,50 ZP
M 8	x	20		S	200	46,00 ZP
M 8	x	25		S	200	48,00 ZP
M 8	x	30		S	200	52,00 ZP
M 8	x	40		S	200	58,00 ZP
M 8	x	50		S	200	63,00 ZP
M 10	x	16		S	200	70,00 ZP
M 10	x	20		S	200	72,00 ZP
M 10	x	25		S	200	73,00 ZP
M 10	x	30		S	200	78,00 ZP
M 10	x	35		S	100	89,00 ZP
M 10	x	40		S	100	90,00 ZP
M 10	x	50		S	100	121,00 ZP
M 12	x	20		S	100	100,00 ZP
M 12	x	25		S	100	107,00 ZP
M 12	x	30		S	100	110,00 ZP
M 12	x	35		S	100	118,00 ZP
M 12	x	40		S	100	125,00 ZP
M 12	x	45		S	100	137,00 ZP
M 12	x	50		S	100	142,00 ZP
M 12	x	60		S	100	265,00 ZP
M 12	x	75		S	50	470,00 ZP

article 88913.110 980

88913 100 RIPP zinc plated



Hexagon head screws with flange, with lock ribs under the flange, with thread up to head, surface hardened

Caution!
Note information about hydrogen embrittlement.

Dimensions → TI-28 Tightening torque → TI-247
Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

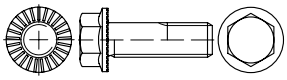
Important Note!

Hydrogen embrittlement might occur on high strength and spring parts with electroplated coatings (≥1000 N/mm² or ≥320 HV) and can not be excluded (ISO 4042).
Through timely initiated baking process the risk of hydrogen embrittlement can usually be reduced. But since a residual risk can not be eliminated, electroplated coatings on such parts are only done by specific demand and the risk is assumend by the customer.

Dimensions				PU	Pieces	€/100/Mat.
M 16	x	25		S	50	290,00 ZP
M 16	x	35		S	50	300,00 ZP
M 16	x	40		S	50	310,00 ZP
M 16	x	45		S	50	340,00 ZP
M 16	x	50		S	50	350,00 ZP
M 16	x	55		S	50	410,00 ZP
M 16	x	60		S	50	430,00 ZP
M 16	x	70		S	50	460,00 ZP

article 88913.115 980

88913 100 RIPP fine zinc plated



Hexagon head screws with flange, with lock ribs under the flange, with fine pitch thread up to head, surface hardened

Caution!
Note information about hydrogen embrittlement.

Dimensions → TI-28 Tightening torque → TI-247
Corrosion protection → TI-228

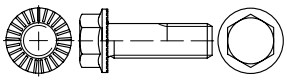
RoHS ✓ REACh SVHC free

M 14	x	1,5	x	30	S	100	265,00 ZP
M 14	x	1,5	x	35	S	100	275,00 ZP
M 14	x	1,5	x	40	S	100	285,00 ZP
M 14	x	1,5	x	45	S	100	300,00 ZP
M 14	x	1,5	x	50	S	100	315,00 ZP
M 14	x	1,5	x	60	S	100	375,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 88913.191 | 980

88913 100 flZn/TL480h **RIPP**



Hexagon head screws with flange, with lock ribs under the flange, with thread up to head, surface hardened

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

Dimensions → TI-28 Tightening torque → TI-247
Corrosion protection → TI-230

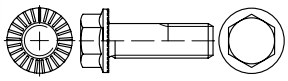
RoHS ✓ REACh SVHC free

M 5	x	10	S	500	27,50 flZn
M 5	x	12	S	500	27,00 flZn
M 5	x	16	S	500	27,50 flZn
M 5	x	20	S	500	30,50 flZn
M 6	x	10	S	500	27,50 flZn
M 6	x	12	S	500	28,00 flZn
M 6	x	14	S	500	28,50 flZn
M 6	x	16	S	500	29,00 flZn
M 6	x	20	S	500	30,00 flZn
M 6	x	25	S	500	32,50 flZn
M 8	x	12	S	200	41,50 flZn
M 8	x	16	S	200	42,00 flZn
M 8	x	20	S	200	43,50 flZn
M 8	x	25	S	200	46,00 flZn
M 8	x	30	S	200	49,50 flZn
M 8	x	40	S	200	55,00 flZn
M 8	x	45	S	200	60,00 flZn
M 10	x	16	S	200	67,00 flZn
M 10	x	20	S	200	68,00 flZn
M 10	x	25	S	200	69,00 flZn
M 10	x	30	S	200	74,00 flZn
M 10	x	35	S	100	84,00 flZn
M 10	x	40	S	100	86,00 flZn
M 10	x	50	S	100	115,00 flZn
M 12	x	20	S	100	95,00 flZn
M 12	x	25	S	100	104,00 flZn
M 12	x	30	S	100	106,00 flZn
M 12	x	35	S	100	114,00 flZn
M 12	x	40	S	100	121,00 flZn
M 12	x	45	S	100	133,00 flZn
M 12	x	50	S	100	138,00 flZn
M 12	x	60	S	100	255,00 flZn
M 12	x	75	S	50	455,00 flZn
M 16	x	25	S	50	285,00 flZn
M 16	x	30	S	50	285,00 flZn
M 16	x	35	S	50	290,00 flZn
M 16	x	40	S	50	300,00 flZn
M 16	x	45	S	50	330,00 flZn
M 16	x	50	S	50	340,00 flZn
M 16	x	55	S	50	395,00 flZn
M 16	x	60	S	50	415,00 flZn
M 16	x	70	S	50	445,00 flZn

Dimensions | PU Pieces | €/100/Mat.

article 88913.192 | 980

88913 100 flZn/TL480h **RIPP fine**



Hexagon head screws with flange, with lock ribs under the flange, with fine pitch thread up to head, surface hardened

TL = lubricant in topcoat with μ = 0,09 – 0,14, salt spray test: 480h RR, Cr(VI)-free

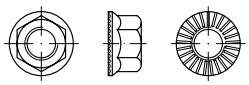
Dimensions → TI-28 Tightening torque → TI-247
Corrosion protection → TI-230

RoHS ✓ REACh SVHC free

M 14	x	1,5	x	30	S	100	255,00 flZn
M 14	x	1,5	x	35	S	100	265,00 flZn
M 14	x	1,5	x	40	S	100	280,00 flZn
M 14	x	1,5	x	45	S	100	290,00 flZn
M 14	x	1,5	x	50	S	100	305,00 flZn
M 14	x	1,5	x	60	S	100	365,00 flZn

article 88914.100 | 980

88914 10 **RIPP**



Hexagon nuts with flange, with lock ribs under the flange, surface hardened

Dimensions → TI-70 Tightening torque → TI-247

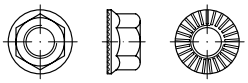
RoHS ✓ REACh SVHC free

M 5	S	500	18,00
M 6	S	500	20,10
M 8	S	200	27,50
M 10	S	200	35,50
M 12	S	100	59,00
M 16	S	50	101,00

Dimensions | PU Pieces | €/100/Mat.

article 88914.110 | 980

88914 10 zinc plated **RIPP**



Hexagon nuts with flange, with lock ribs under the flange, surface hardened

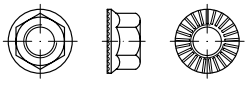
Dimensions → TI-70 Tightening torque → TI-247
Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

M 5	S	500	19,20 ZP
M 6	S	500	22,70 ZP
M 8	S	200	33,00 ZP
M 10	S	200	43,50 ZP
M 12	S	100	71,00 ZP
M 16	S	50	124,00 ZP

article 88914.105 | 980

88914 10 **RIPP fine**



Hexagon nuts with flange, with lock ribs under the flange, with fine pitch thread, surface hardened

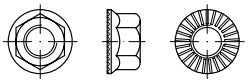
Dimensions → TI-70 Tightening torque → TI-247

RoHS ✓ REACh SVHC free

M 14	x	1,5	S	100	470,00

article 88914.115 | 980

88914 10 zinc plated **RIPP fine**



Hexagon nuts with flange, with lock ribs under the flange, with fine pitch thread, surface hardened

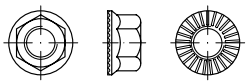
Dimensions → TI-70 Tightening torque → TI-247
Corrosion protection → TI-228

RoHS ✓ REACh SVHC free

M 14	x	1,5	S	100	510,00 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU Pieces	€/100/Mat.
article	88914.170	980
88914	**10**	**RIPP**
	flZn/TL480h	



Hexagon nuts with flange, with lock ribs under the flange, surface hardened

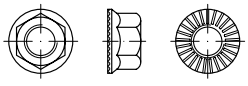
TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-70 Tightening torque ➔ TI-247
Corrosion protection ➔ TI-230

RoHS ✓ REACh SVHC free

M 5	S	500	18,20	flZn
M 6	S	500	21,20	flZn
M 8	S	200	30,00	flZn
M 10	S	200	39,50	flZn
M 12	S	100	67,00	flZn
M 16	S	50	115,00	flZn

Dimensions	PU Pieces	€/100/Mat.
article	88914.145	980
88914	**10**	**RIPP-fine**
	flZn/TL480h	



Hexagon nuts with flange, with metric fine pitch thread, with lock ribs under the flange, surface hardened

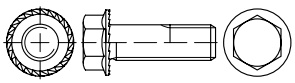
TL = lubricant in topcoat with μ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free

Dimensions ➔ TI-70 Tightening torque ➔ TI-247
Corrosion protection ➔ TI-230

RoHS ✓ REACh SVHC free

M 14	x	1,5	S	100	455,00 flZn

Dimensions	PU Pieces	€/100/Mat.
article	88933.(*)	990
88933	**90/100***	**locking**



Hexagon head locking screws, with flange, with thread up to head, surface hardened

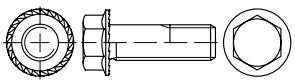
*property class 90 ≤ M 10 (*800),
*property class 100 ≥ M 12 (*100)

Dimensions ➔ TI-28 Tightening torque ➔ TI-245

RoHS ✓ REACh SVHC free

M 5	x	8	S	500	20,40
M 5	x	10	S	500	20,40
M 5	x	12	S	500	21,00
M 5	x	14	S	500	21,30
M 5	x	16	S	500	21,30
M 5	x	20	S	500	24,10
M 6	x	10	S	500	19,30
M 6	x	12	S	500	19,30
M 6	x	14	S	500	20,40
M 6	x	16	S	500	20,40
M 6	x	18	S	500	21,20
M 6	x	20	S	500	21,20
M 6	x	25	S	500	24,80
M 6	x	30	S	500	29,00
M 8	x	12	S	200	29,00
M 8	x	14	S	200	30,50
M 8	x	16	S	200	30,50
M 8	x	18	S	200	32,00
M 8	x	20	S	200	32,00
M 8	x	25	S	200	34,50
M 8	x	30	S	200	39,00
M 8	x	35	S	200	40,50
M 8	x	40	S	200	46,00
M 10	x	16	S	200	48,50
M 10	x	20	S	200	49,50
M 10	x	22	S	200	53,00
M 10	x	25	S	200	53,00
M 10	x	30	S	200	56,00
M 10	x	35	S	100	63,00
M 10	x	40	S	100	66,00
M 12	x	20	S	100	74,00
M 12	x	25	S	100	77,00
M 12	x	30	S	100	79,00
M 12	x	35	S	100	85,00
M 12	x	40	S	100	92,00
M 12	x	45	S	100	101,00
M 12	x	50	S	100	108,00
M 16	x	25	S	50	234,00
M 16	x	30	S	50	234,00
M 16	x	35	S	50	240,00
M 16	x	40	S	50	249,00
M 16	x	45	S	50	270,00
M 16	x	50	S	50	275,00
M 16	x	55	S	50	340,00
M 16	x	60	S	50	350,00
M 16	x	70	S	50	375,00

Dimensions	PU Pieces	€/100/Mat.
article	88933.(*)	990
88933	**90/100**	**locking**
	zinc plated	



Hexagon head locking screws, with flange, with thread up to head, surface hardened

property class 90 ≤ M 10 (*810),
property class 100 ≥ M 12 (*110)

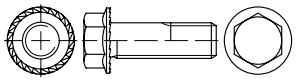
Caution!
Note information about hydrogen embrittlement.

Dimensions ➔ TI-28 Tightening torque ➔ TI-245
Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 5	x	8	S	500	22,50 ZP
M 5	x	10	S	500	22,60 ZP
M 5	x	12	S	500	23,70 ZP
M 5	x	14	S	500	24,10 ZP
M 5	x	16	S	500	24,10 ZP
M 5	x	20	S	500	27,50 ZP
M 6	x	10	S	500	21,60 ZP
M 6	x	12	S	500	21,70 ZP
M 6	x	16	S	500	23,00 ZP
M 6	x	20	S	500	24,10 ZP
M 6	x	25	S	500	28,00 ZP
M 8	x	12	S	200	33,50 ZP
M 8	x	16	S	200	35,50 ZP
M 8	x	20	S	200	37,50 ZP
M 8	x	25	S	200	41,00 ZP
M 8	x	30	S	200	45,50 ZP
M 10	x	16	S	200	56,00 ZP
M 10	x	20	S	200	59,00 ZP
M 10	x	25	S	200	63,00 ZP
M 10	x	30	S	200	68,00 ZP
M 12	x	20	S	100	94,00 ZP
M 12	x	25	S	100	97,00 ZP
M 12	x	30	S	100	100,00 ZP
M 12	x	35	S	100	111,00 ZP
M 12	x	40	S	100	116,00 ZP
M 12	x	45	S	100	128,00 ZP
M 12	x	50	S	100	137,00 ZP
M 16	x	25	S	50	275,00 ZP
M 16	x	30	S	50	280,00 ZP
M 16	x	35	S	50	285,00 ZP
M 16	x	40	S	50	300,00 ZP

Dimensions	PU Pieces	€/100/Mat.
article	88933.(*)	990
88933	**90/100 flZn/TL480h**	**locking**



Hexagon head locking screws, with flange, with thread up to head, surface hardened

TL = lubricant in topcoat with µ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free,
*property class 90 ≤ M 10 (*891),
*property class 100 ≥ M 12 (*191)

Dimensions ➔ TI-28 Tightening torque ➔ TI-245
Corrosion protection ➔ TI-230

RoHS ✓ | REACh SVHC free

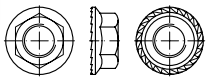
M 5	x	8	S	500	21,80 flZn
M 5	x	10	S	500	22,00 flZn
M 5	x	16	S	500	23,40 flZn
M 5	x	20	S	500	26,50 flZn
M 6	x	10	S	500	21,00 flZn
M 6	x	12	S	500	21,10 flZn
M 6	x	16	S	500	22,30 flZn
M 6	x	20	S	500	23,40 flZn
M 6	x	25	S	500	27,50 flZn
M 8	x	12	S	200	33,00 flZn
M 8	x	16	S	200	34,50 flZn
M 8	x	20	S	200	36,50 flZn
M 8	x	25	S	200	40,00 flZn
M 8	x	30	S	200	44,50 flZn
M 10	x	16	S	200	54,00 flZn
M 10	x	20	S	200	58,00 flZn
M 10	x	25	S	200	61,00 flZn
M 10	x	30	S	200	66,00 flZn
M 12	x	20	S	100	91,00 flZn
M 12	x	25	S	100	94,00 flZn
M 12	x	30	S	100	97,00 flZn
M 12	x	35	S	100	108,00 flZn
M 12	x	40	S	100	113,00 flZn
M 12	x	45	S	100	124,00 flZn
M 12	x	50	S	100	133,00 flZn
M 16	x	25	S	50	265,00 flZn
M 16	x	30	S	50	270,00 flZn
M 16	x	35	S	50	280,00 flZn
M 16	x	40	S	50	290,00 flZn

RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions	PU Pieces	€/100/Mat.
article	88934.(*)	990
88934	**8/10**	**locking**



Hexagon locking nuts with flange surface hardened

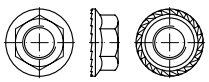
property class 8 = ≤ M 10 (*800),
property class 10 = ≥ M 12 (*100)

Dimensions ➔ TI-70 Tightening torque ➔ TI-245

RoHS ✓ | REACh SVHC free

M 5	S	500	15,10
M 6	S	500	15,50
M 8	S	200	22,10
M 10	S	200	28,50
M 12	S	100	53,00
M 16	S	50	93,00

article	88934.(*)	990
88934	**8/10* zinc plated**	**locking**



Hexagon locking nuts with flange surface hardened

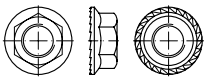
*property class 8 = ≤ M 10 (*810),
*property class 10 = ≥ M 12 (*110)

Dimensions ➔ TI-70 Tightening torque ➔ TI-245
Corrosion protection ➔ TI-228

RoHS ✓ | REACh SVHC free

M 5	S	500	15,70 ZP
M 6	S	500	17,10 ZP
M 8	S	200	25,50 ZP
M 10	S	200	36,00 ZP
M 12	S	100	54,00 ZP
M 16	S	50	113,00 ZP

Dimensions	PU Pieces	€/100/Mat.
article	88934.(*)	980
88934	**8/10* flZn/TL480h**	**locking**



Hexagon locking nuts with flange surface hardened

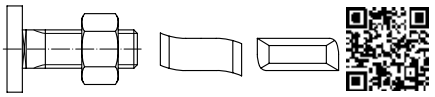
TL = lubricant in topcoat with µ = 0,09 – 0,14,
salt spray test: 480h RR, Cr(VI)-free,
*property class 8 ≤ M 10 (*850),
*property class 10 ≥ M 12 (*130)

Dimensions ➔ TI-70 Tightening torque ➔ TI-245
Corrosion protection ➔ TI-230

RoHS ✓ | REACh SVHC free

M 5	S	500	14,60 flZn
M 6	S	500	16,40 flZn
M 8	S	200	22,40 flZn
M 10	S	200	32,50 flZn
M 12	S	100	51,00 flZn
M 16	S	50	103,00 flZn

article	88928.410	985
88928	**Mu 4.6 zinc plated**	**HS 28/15**



T-head bolts/Halfen bolts, Mu = with hexagon nut

for profiles 28/15, 28/12, 28/28, 26/26,
head types subject to confirmation,
head width ~22,5 mm

Material properties ➔ TI-232 REACH ➔ TI-262
Corrosion protection ➔ TI-228
Stainless ➔ 606

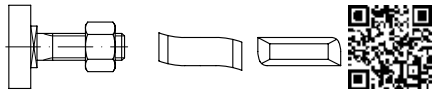
ETA CE | RoHS ✓

M 6	x	15	S	100	124,00 ZP
M 6	x	20	S	100	128,00 ZP
M 6	x	25	S	100	131,00 ZP
M 6	x	30	S	100	132,00 ZP
M 6	x	40	S	100	136,00 ZP
M 8	x	15	S	100	108,00 ZP
M 8	x	20	S	100	113,00 ZP
M 8	x	25	S	100	114,00 ZP
M 8	x	30	S	100	117,00 ZP
M 8	x	40	S	100	124,00 ZP
M 8	x	50	S	100	132,00 ZP
M 8	x	60	S	100	152,00 ZP
M 8	x	80	S	100	265,00 ZP
M 8	x	100	S	100	335,00 ZP
M 10	x	15	S	100	141,00 ZP
M 10	x	20	S	100	144,00 ZP
M 10	x	25	S	100	148,00 ZP
M 10	x	30	S	100	152,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	40	S	100	163,00 ZP
M 10	x	50	S	100	193,00 ZP
M 10	x	60	S	100	207,00 ZP
M 10	x	80	S	100	270,00 ZP
M 10	x	100	S	50	365,00 ZP
M 10	x	125	S	50	540,00 ZP
M 10	x	150	S	50	660,00 ZP
M 12	x	30	S	100	270,00 ZP
M 12	x	50	S	50	290,00 ZP

article 88938.410 985

88938 Mu 4.6 zinc plated HS 38/17



T-head bolts/Halfen bolts, Mu = with hexagon nut

for profiles 38/17, 36/20, 36/36, 35/50, head types subject to confirmation, head width ~30,5 mm

Material properties → TI-232 REACH → TI-262
Corrosion protection → TI-228

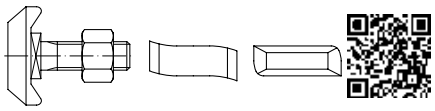
Stainless → 606

ETA CE RoHS ✓

M 10	x	20	S	100	227,00 ZP
M 10	x	30	S	100	232,00 ZP
M 10	x	40	S	100	244,00 ZP
M 10	x	50	S	100	260,00 ZP
M 10	x	60	S	100	270,00 ZP
M 10	x	80	S	50	300,00 ZP
M 10	x	100	S	50	380,00 ZP
M 10	x	150	S	50	650,00 ZP
M 12	x	20	S	100	234,00 ZP
M 12	x	30	S	100	249,00 ZP
M 12	x	40	S	50	265,00 ZP
M 12	x	50	S	50	270,00 ZP
M 12	x	60	S	50	285,00 ZP
M 12	x	80	S	50	315,00 ZP
M 12	x	100	S	50	440,00 ZP
M 16	x	30	S	50	325,00 ZP
M 16	x	40	S	50	340,00 ZP
M 16	x	50	S	50	365,00 ZP
M 16	x	60	S	50	385,00 ZP
M 16	x	80	S	25	425,00 ZP
M 16	x	100	S	25	540,00 ZP
M 16	x	125	S	25	760,00 ZP
M 16	x	150	S	25	890,00 ZP
M 16	x	200	S	25	1320,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
article	88940.410				985

88940 Mu 4.6 zinc plated HS 40/22



Hook bolts/Halfen bolts, Mu = with hexagon nut

for profiles 40/22, 40/25, 422, head types subject to confirmation, head width ~32,5 mm

Material properties → TI-232 REACH → TI-262
Corrosion protection → TI-228

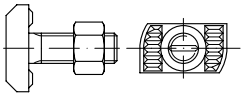
Stainless → 606

ETA CE RoHS ✓

M 10	x	20	S	100	255,00 ZP
M 10	x	30	S	100	270,00 ZP
M 10	x	40	S	100	275,00 ZP
M 10	x	60	S	100	310,00 ZP
M 10	x	80	S	50	590,00 ZP
M 10	x	100	S	50	630,00 ZP
M 12	x	20	S	100	275,00 ZP
M 12	x	30	S	100	285,00 ZP
M 12	x	40	S	50	310,00 ZP
M 12	x	50	S	50	335,00 ZP
M 12	x	60	S	50	365,00 ZP
M 12	x	80	S	50	420,00 ZP
M 12	x	100	S	50	485,00 ZP
M 12	x	125	S	50	630,00 ZP
M 12	x	150	S	50	790,00 ZP
M 12	x	200	S	25	880,00 ZP
M 16	x	30	S	50	380,00 ZP
M 16	x	40	S	50	395,00 ZP
M 16	x	50	S	50	420,00 ZP
M 16	x	60	S	25	440,00 ZP
M 16	x	80	S	25	510,00 ZP
M 16	x	100	S	25	610,00 ZP
M 16	x	125	S	25	790,00 ZP
M 16	x	150	S	25	940,00 ZP
M 16	x	200	S	25	1170,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
article	88941.820				985

88941 Mu 8.8 hot dip galvanized HZS 41/22



T-head bolts/Halfen bolts, T-head with ribs, Mu = with hexagon nut

for profiles HZA/HZM 41/22, head width ~34,5 mm

Material properties → TI-232 Corrosion protection → TI-231

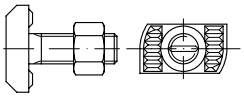
Stainless → 606

RoHS ✓ REACh SVHC free

M 12	x	35	S	100	670,00 HDG
M 12	x	50	S	100	730,00 HDG
M 16	x	50	S	25	1120,00 HDG
M 16	x	100	S	25	1670,00 HDG

article 88943.810 985

88943 Mu 8.8 zinc plated HZS 38/23



T-head bolts/Halfen bolts, T-head with ribs, Mu = with hexagon nut

for profile 38/23 DYNAGRIP, head width ~28,8 mm

Material properties → TI-232 Corrosion protection → TI-228

Stainless → 606

RoHS ✓ REACh SVHC free

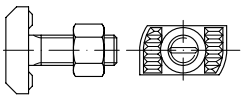
M 16	x	80	S	25	990,00 ZP
M 16	x	100	S	25	1050,00 ZP
M 16	x	125	S	25	1390,00 ZP
M 16	x	150	S	25	2650,00 ZP

RKP® REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions			PU	Pieces	€/100/Mat.
article	88943.820				985
88943	**Mu 8.8**	**HZS 38/23**			
	hot dip galvanized				



T-head bolts/Halfen bolts, T-head with ribs, Mu = with hexagon nut

for profile 38/23 DYNAGRIP, head width ~28,8 mm

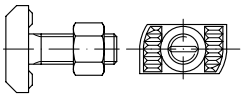
Material properties ➔ TI-232 Corrosion protection ➔ TI-231

Stainless ➔ 606

RoHS ✓ REACh SVHC free

M 16	x	60	S	25	900,00 HDG

article	88944.810				985
88944	**Mu 8.8**	**HZS 53/34**			
	zinc plated				



T-head bolts/Halfen bolts, T-head with ribs, Mu = with hexagon nut

for profile HZA 53/34, head width ~41,6 mm

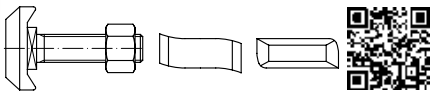
Material properties ➔ TI-232 Corrosion protection ➔ TI-228

Stainless ➔ 606

RoHS ✓ REACh SVHC free

M 16	x	60	S	25	2470,00 ZP
M 16	x	100	S	25	2600,00 ZP
M 20	x	65	S	25	2850,00 ZP
M 20	x	100	S	25	3050,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
article	88950.410				985
88950	**Mu 4.6**	**HS 50/30**			
	zinc plated				



Hook bolts/Halfen bolts, Mu = with hexagon nut

for profiles 50/30, 50/40, 49/30, 52/34, 54/33, 486, head types subject to confirmation, head width ~41 mm

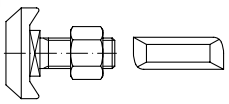
Material properties ➔ TI-232 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Stainless ➔ 607

ETA CE RoHS ✓

M 10	x	30	S	100	430,00 ZP
M 10	x	40	S	100	440,00 ZP
M 10	x	50	S	100	445,00 ZP
M 12	x	30	S	100	385,00 ZP
M 12	x	40	S	50	395,00 ZP
M 12	x	50	S	50	415,00 ZP
M 12	x	60	S	50	430,00 ZP
M 12	x	80	S	50	495,00 ZP
M 12	x	100	S	50	600,00 ZP
M 12	x	125	S	50	860,00 ZP
M 16	x	30	S	50	460,00 ZP
M 16	x	40	S	50	480,00 ZP
M 16	x	50	S	50	510,00 ZP
M 16	x	60	S	25	530,00 ZP
M 16	x	80	S	25	590,00 ZP
M 16	x	100	S	25	720,00 ZP
M 16	x	125	S	25	890,00 ZP
M 16	x	150	S	25	1010,00 ZP
M 16	x	200	S	25	1280,00 ZP
M 16	x	300	S	25	1640,00 ZP
M 20	x	45	S	25	620,00 ZP
M 20	x	55	S	25	670,00 ZP
M 20	x	65	S	25	720,00 ZP
M 20	x	75	S	25	760,00 ZP
M 20	x	100	S	25	860,00 ZP
M 20	x	125	S	25	1060,00 ZP

article	88972.420				985
88972	**Mu 4.6**	**HS 72/48**			
	hot dip galvanized				



Hook bolts/Halfen bolts, Mu = with hexagon nut

for profiles 72/48, 72/49, head width ~58 mm

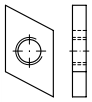
Material properties ➔ TI-232 REACH ➔ TI-262
Corrosion protection ➔ TI-231

ETA CE RoHS ✓

M 20	x	50	S	20	1260,00 HDG
M 20	x	75	S	20	1360,00 HDG

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	100	S	15	1550,00 HDG
M 24	x	75	S	15	1320,00 HDG
M 24	x	100	S	10	1480,00 HDG

article	88951.010				995
88951	**Steel**	**type 28/15**			
	zinc plated				



T-head thread plates (slide nuts)

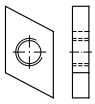
for profiles 28/15, 28/12, 28/28, 26/26, 26/18

Dimensions ➔ TI-79 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 6			S	100	78,00 ZP
M 8			S	100	78,00 ZP
M 10			S	100	157,00 ZP

article	88952.010				995
88952	**Steel**	**type 38/17**			
	zinc plated				



T-head thread plates (slide nuts)

for profiles 38/17, 36/20, 35/50, 36/36

Dimensions ➔ TI-80 Corrosion protection ➔ TI-228

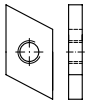
RoHS ✓ REACh SVHC free

M 6			S	100	157,00 ZP
M 8			S	100	157,00 ZP
M 10			S	100	157,00 ZP
M 12			S	100	157,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 88953.010 995

88953 Steel zinc plated type 50/40



T-head thread plates (slide nuts)

for profiles 50/40, 486

Dimensions ➔ TI-80 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 6	S	100	157,00 ZP
M 8	S	100	194,00 ZP
M 10	S	100	194,00 ZP
M 12	S	100	194,00 ZP
M 16	S	100	194,00 ZP

article 88954.010 995

88954 Steel zinc plated type 40/22



T-head thread plates (slide nuts)

for profiles 40/22, 40/25

Dimensions ➔ TI-80 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 5	S	100	340,00 ZP
M 6	S	100	340,00 ZP
M 8	S	100	340,00 ZP
M 10	S	100	340,00 ZP
M 12	S	100	385,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 88955.010 995

88955 Steel zinc plated type 50/30



T-head thread plates (slide nuts)

for profiles 50/30, 50/40, 52/34, 54/33, 49/30

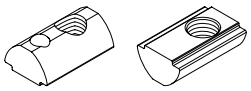
Dimensions ➔ TI-80 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

M 8	S	50	430,00 ZP
M 10	S	50	430,00 ZP
M 12	S	50	430,00 ZP
M 16	S	50	460,00 ZP

article 87010.011 995

87010 Steel zinc plated



T-slot nuts, slot 5 mm, with raised center, fixation aid: ball

Product information ➔ TI-154

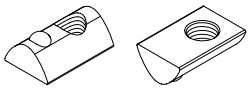
RoHS ✓ REACh SVHC free

for slot, thread M

5 mm, M 4	S	1000	67,00 ZP
5 mm, M 4	K	100	86,00 ZP
5 mm, M 5	S	1000	71,00 ZP
5 mm, M 5	K	100	91,00 ZP

article 87010.012 995

87010 Steel zinc plated



T-slot nuts, slot 5 mm, without raised center, fixation aid: ball

Product information ➔ TI-154

RoHS ✓ REACh SVHC free

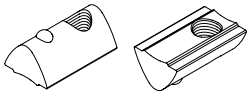
for slot, thread M

5 mm, M 4	S	1000	65,00 ZP
5 mm, M 4	K	100	83,00 ZP
5 mm, M 5	S	1000	68,00 ZP
5 mm, M 5	K	100	88,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 87011.013 995

87011 Steel zinc plated



T-slot nuts, slot 6 mm, with peripheral guiding ridge, fixation aid: ball

Product information ➔ TI-154

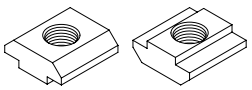
RoHS ✓ REACh SVHC free

for slot, thread M

6 mm, M 5	S	1000	71,00 ZP
6 mm, M 5	K	100	91,00 ZP
6 mm, M 6	S	1000	74,00 ZP
6 mm, M 6	K	100	96,00 ZP

article 87012.011 995

87012 Steel zinc plated



T-slot nuts, slot 8 mm, with raised center

Product information ➔ TI-154

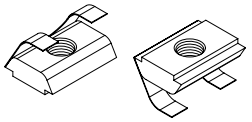
RoHS ✓ REACh SVHC free

for slot, thread M

8 mm, M 6	S	1000	82,00 ZP
8 mm, M 6	K	100	106,00 ZP
8 mm, M 8	S	1000	86,00 ZP
8 mm, M 8	K	100	112,00 ZP

article 87012.015 995

87012 Steel zinc plated



T-slot nuts, slot 8 mm, with raised center, without equipotential bonding, fixation aid: spring

Product information ➔ TI-154

RoHS ✓ REACh SVHC free

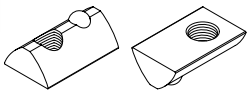
for slot, thread M

8 mm, M 6	S	1000	91,00 ZP
8 mm, M 6	K	100	118,00 ZP
8 mm, M 8	S	1000	99,00 ZP
8 mm, M 8	K	100	128,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 87012.012 | 995

87012 Steel zinc plated



T-slot nuts, slot 8 mm, without raised center, fixation aid: ball

Product information → TI-154

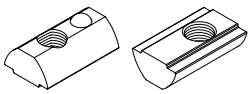
RoHS ✓ | REACh SVHC free

for slot, thread M

8 mm, M 6	S	1000	74,00 ZP
8 mm, M 6	K	100	96,00 ZP
8 mm, M 8	S	1000	79,00 ZP
8 mm, M 8	K	100	102,00 ZP

article 87012.016 | 995

87012 Steel zinc plated



T-slot nuts, slot 8 mm, with raised center, fixation aid: ball

Product information → TI-154

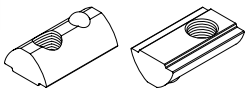
RoHS ✓ | REACh SVHC free

for slot, thread M

8 mm, M 6	S	1000	78,00 ZP
8 mm, M 6	K	100	101,00 ZP
8 mm, M 8	S	1000	83,00 ZP
8 mm, M 8	K	100	107,00 ZP

article 87012.017 | 995

87012 Steel zinc plated



T-slot nuts, slot 8 mm, with raised center, without equipotential bonding, fixation aid: ball

Product information → TI-154

RoHS ✓ | REACh SVHC free

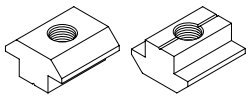
for slot, thread M

8 mm, M 6	S	1000	86,00 ZP
8 mm, M 6	K	100	112,00 ZP
8 mm, M 8	S	1000	91,00 ZP
8 mm, M 8	K	100	118,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 87013.011 | 995

87013 Steel zinc plated



T-slot nuts, slot 10 mm, with raised center

Product information → TI-154

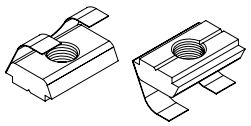
RoHS ✓ | REACh SVHC free

for slot, thread M

10 mm, M 6	S	250	76,00 ZP
10 mm, M 6	K	100	97,00 ZP
10 mm, M 8	S	250	79,00 ZP
10 mm, M 8	K	100	102,00 ZP

article 87013.015 | 995

87013 Steel zinc plated



T-slot nuts, slot 10 mm, with raised center, without equipotential bonding, fixation aid: spring

Product information → TI-154

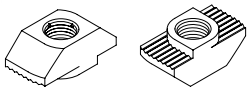
RoHS ✓ | REACh SVHC free

for slot, thread M

10 mm, M 6	S	250	106,00 ZP
10 mm, M 6	K	100	137,00 ZP
10 mm, M 8	S	250	112,00 ZP
10 mm, M 8	K	100	144,00 ZP

article 87014.011 | 995

87014 Steel zinc plated



Hammer head nuts, slot 8 mm, with grip system, low type

Product information → TI-154

RoHS ✓ | REACh SVHC free

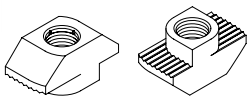
for slot, thread M

8 mm, M 5	S	2500	50,00 ZP
8 mm, M 5	K	100	65,00 ZP
8 mm, M 6	S	2500	55,00 ZP
8 mm, M 6	K	100	71,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 87014.012 | 995

87014 Steel zinc plated



Hammer head nuts, slot 8 mm, with grip system, high type

Product information → TI-154

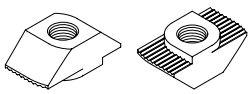
RoHS ✓ | REACh SVHC free

for slot, thread M

8 mm, M 5	S	1000	56,00 ZP
8 mm, M 5	K	100	72,00 ZP
8 mm, M 6	S	1000	62,00 ZP
8 mm, M 6	K	100	80,00 ZP

article 87015.011 | 995

87015 Steel zinc plated



Hammer head nuts, slot 10 mm, without grip system, low type

Product information → TI-154

RoHS ✓ | REACh SVHC free

for slot, thread M

10 mm, M 6	S	1000	59,00 ZP
10 mm, M 6	K	100	76,00 ZP
10 mm, M 8	S	1000	62,00 ZP
10 mm, M 8	K	100	80,00 ZP

article 89091.010 | 818

89091 Steel zinc plated CSK



Wood building screws, countersunk head with milling ribs, mill cutter and scraper groove

CE acc. to ETA-12/0276

Dimensions → TI-52 | Corrosion protection → TI-228

CE | RoHS ✓ | REACh SVHC free

Declaration of performance → www.reyher.de

3,5	x	20 -T15	S	1000	2,55 ZP
3,5	x	25 -T15	S	1000	2,70 ZP
3,5	x	30 -T15	S	1000	2,80 ZP
3,5	x	35 -T15	S	1000	3,15 ZP

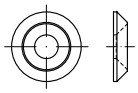
€/100 = price in € plus VAT when ordering full package unit

R/2019.10/EN/MTI

Dimensions			PU	Pieces	€/100/Mat.
3,5	x	40 -T15	S	500	3,45 ZP
3,5	x	50 -T15	S	500	4,05 ZP
4	x	25 -T20	S	1000	3,60 ZP
4	x	30 -T20	S	1000	3,65 ZP
4	x	35 -T20	S	1000	3,75 ZP
4	x	40 -T20	S	1000	4,05 ZP
4	x	45 -T20	S	500	4,65 ZP
4	x	50 -T20	S	500	5,10 ZP
4	x	60 -T20	S	200	6,50 ZP
4	x	70 -T20	S	200	6,90 ZP
4	x	80 -T20	S	200	7,70 ZP
4,5	x	30 -T25	S	500	3,95 ZP
4,5	x	35 -T25	S	500	4,40 ZP
4,5	x	40 -T25	S	500	5,10 ZP
4,5	x	45 -T25	S	500	5,60 ZP
4,5	x	50 -T25	S	500	6,10 ZP
4,5	x	60 -T25	S	200	7,40 ZP
4,5	x	70 -T25	S	200	8,60 ZP
4,5	x	80 -T25	S	200	9,80 ZP
5	x	30 -T25	S	200	5,30 ZP
5	x	35 -T25	S	200	5,70 ZP
5	x	40 -T25	S	200	6,10 ZP
5	x	50 -T25	S	200	7,90 ZP
5	x	60 -T25	S	200	9,20 ZP
5	x	70 -T25	S	200	9,80 ZP
5	x	80 -T25	S	200	12,10 ZP
5	x	90 -T25	S	200	13,60 ZP
5	x	100 -T25	S	200	15,70 ZP
5	x	120 -T25	S	200	20,40 ZP
6	x	60 -T30	S	200	12,10 ZP
6	x	70 -T30	S	200	13,40 ZP
6	x	80 -T30	S	200	15,80 ZP
6	x	90 -T30	S	100	17,00 ZP
6	x	100 -T30	S	100	19,40 ZP
6	x	110 -T30	S	100	23,00 ZP
6	x	120 -T30	S	100	24,20 ZP
6	x	130 -T30	S	100	27,00 ZP
6	x	140 -T30	S	100	30,50 ZP
6	x	160 -T30	S	100	39,00 ZP
6	x	180 -T30	S	100	55,00 ZP
6	x	200 -T30	S	100	65,00 ZP
6	x	220 -T30	S	100	80,00 ZP
6	x	240 -T30	S	100	107,00 ZP
6	x	260 -T30	S	100	125,00 ZP
6	x	280 -T30	S	100	147,00 ZP
6	x	300 -T30	S	100	176,00 ZP
8	x	70 -T40	S	50	24,20 ZP
8	x	80 -T40	S	50	27,00 ZP
8	x	90 -T40	S	50	30,50 ZP
8	x	100 -T40	S	50	34,00 ZP
8	x	120 -T40	S	50	44,00 ZP
8	x	140 -T40	S	50	56,00 ZP
8	x	160 -T40	S	50	68,00 ZP
8	x	180 -T40	S	50	83,00 ZP
8	x	200 -T40	S	50	96,00 ZP
8	x	220 -T40	S	50	111,00 ZP
8	x	240 -T40	S	50	135,00 ZP
8	x	260 -T40	S	50	158,00 ZP
8	x	280 -T40	S	50	181,00 ZP
8	x	300 -T40	S	50	200,00 ZP
8	x	320 -T40	S	50	234,00 ZP
8	x	340 -T40	S	50	255,00 ZP
8	x	360 -T40	S	50	275,00 ZP
8	x	380 -T40	S	50	305,00 ZP
8	x	400 -T40	S	50	330,00 ZP
10	x	100 -T40	S	50	58,00 ZP
10	x	120 -T40	S	50	73,00 ZP
10	x	140 -T40	S	50	85,00 ZP
10	x	160 -T40	S	25	100,00 ZP
10	x	180 -T40	S	25	121,00 ZP
10	x	200 -T40	S	25	140,00 ZP
10	x	220 -T40	S	25	169,00 ZP
10	x	240 -T40	S	25	197,00 ZP
10	x	260 -T40	S	25	233,00 ZP
10	x	280 -T40	S	25	255,00 ZP
10	x	300 -T40	S	25	280,00 ZP
10	x	320 -T40	S	25	330,00 ZP
10	x	340 -T40	S	25	380,00 ZP
10	x	360 -T40	S	25	410,00 ZP
10	x	380 -T40	S	25	450,00 ZP
10	x	400 -T40	S	25	480,00 ZP

article 89184.012 485

89184 Steel zinc plated type B



Countersunk washers for wood building screws

CE acc. ETA-12/0276

suitable for article 89091

Dimensions ➔ TI-115 REACH ➔ TI-262

Corrosion protection ➔ TI-228

CE RoHS ✓

Declaration of performance ➔ www.reyher.de

B 6	S	50	35,50 ZP
B 8	S	50	50,00 ZP
B 10	S	50	88,00 ZP

article 89092.010 818

89092 Steel zinc plated



Wood building screws, flange head, with mill cutter and scraper groove

CE acc. to ETA-12/0276

Dimensions ➔ TI-53 Corrosion protection ➔ TI-228

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

6	x	40 -T30	S	200	12,90 ZP
6	x	50 -T30	S	200	14,30 ZP
6	x	60 -T30	S	200	15,60 ZP
6	x	70 -T30	S	200	16,60 ZP
6	x	80 -T30	S	200	18,30 ZP
6	x	100 -T30	S	100	22,90 ZP
6	x	120 -T30	S	100	29,50 ZP
6	x	140 -T30	S	100	35,50 ZP
6	x	160 -T30	S	100	45,50 ZP
6	x	180 -T30	S	100	61,00 ZP
6	x	200 -T30	S	100	73,00 ZP
8	x	80 -T40	S	100	34,50 ZP
8	x	100 -T40	S	100	44,50 ZP
8	x	120 -T40	S	50	57,00 ZP
8	x	140 -T40	S	50	67,00 ZP
8	x	160 -T40	S	50	82,00 ZP
8	x	180 -T40	S	50	98,00 ZP
8	x	200 -T40	S	50	113,00 ZP
8	x	220 -T40	S	50	133,00 ZP
8	x	240 -T40	S	50	153,00 ZP
8	x	260 -T40	S	50	175,00 ZP
8	x	280 -T40	S	50	196,00 ZP
8	x	300 -T40	S	50	216,00 ZP
8	x	320 -T40	S	50	255,00 ZP
8	x	340 -T40	S	50	275,00 ZP
8	x	360 -T40	S	50	290,00 ZP
8	x	380 -T40	S	50	310,00 ZP
8	x	400 -T40	S	50	330,00 ZP
10	x	80 -T40	S	50	85,00 ZP
10	x	100 -T40	S	50	95,00 ZP
10	x	120 -T40	S	50	107,00 ZP
10	x	140 -T40	S	50	123,00 ZP
10	x	160 -T40	S	25	142,00 ZP
10	x	180 -T40	S	25	158,00 ZP
10	x	200 -T40	S	25	209,00 ZP
10	x	220 -T40	S	25	270,00 ZP
10	x	240 -T40	S	25	295,00 ZP
10	x	260 -T40	S	25	355,00 ZP
10	x	280 -T40	S	25	390,00 ZP
10	x	300 -T40	S	25	415,00 ZP
10	x	320 -T40	S	25	440,00 ZP
10	x	340 -T40	S	25	475,00 ZP
10	x	360 -T40	S	25	510,00 ZP
10	x	380 -T40	S	25	530,00 ZP
10	x	400 -T40	S	25	590,00 ZP
10	x	450 -T40	S	25	770,00 ZP

article 89096.010 815

89096 Steel zinc plated PAN-Z



Chipboard screws, PAN = pan head Z = Pozidriv cross recess

CE acc. EN 14592 starting from a thread length 4 x d

Dimensions ➔ TI-52 Corrosion protection ➔ TI-228

CE RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

3	x	10 -Z	S	1000	1,95 ZP
3	x	12 -Z	S	1000	1,95 ZP
3	x	16 -Z	S	1000	2,00 ZP
3	x	20 -Z	S	1000	2,20 ZP
3	x	25 -Z	S	1000	2,40 ZP
3	x	30 -Z	S	1000	3,25 ZP
3,5	x	12 -Z	S	1000	2,45 ZP
3,5	x	16 -Z	S	1000	2,40 ZP
3,5	x	20 -Z	S	1000	2,75 ZP
3,5	x	25 -Z	S	1000	2,90 ZP
3,5	x	30 -Z	S	1000	3,25 ZP
3,5	x	35 -Z	S	1000	4,10 ZP
3,5	x	40 -Z	S	1000	4,60 ZP
4	x	12 -Z	S	1000	2,90 ZP
4	x	16 -Z	S	1000	2,90 ZP
4	x	17 -Z	S	1000	2,60 ZP
4	x	20 -Z	S	1000	3,15 ZP
4	x	25 -Z	S	1000	3,65 ZP
4	x	30 -Z	S	1000	3,85 ZP
4	x	35 -Z	S	1000	4,45 ZP
4	x	40 -Z	S	1000	5,20 ZP
4	x	45 -Z	S	500	5,90 ZP
4	x	50 -Z	S	500	6,50 ZP
4	x	60 -Z	S	500	6,70 ZP
4,5	x	12 -Z	S	1000	4,40 ZP
4,5	x	16 -Z	S	1000	4,40 ZP
4,5	x	20 -Z	S	1000	4,40 ZP
4,5	x	25 -Z	S	1000	4,80 ZP
4,5	x	30 -Z	S	500	5,30 ZP

Dimensions			PU	Pieces	€/100/Mat.
4,5	x	35 -Z	S	500	5,80 ZP
4,5	x	40 -Z	S	500	6,30 ZP
4,5	x	45 -Z	S	500	8,20 ZP
4,5	x	50 -Z	S	500	9,20 ZP
4,5	x	60 -Z	S	500	10,90 ZP
5	x	16 -Z	S	1000	5,10 ZP
5	x	20 -Z	S	1000	5,70 ZP
5	x	25 -Z	S	500	6,00 ZP
5	x	30 -Z	S	500	6,60 ZP
5	x	35 -Z	S	500	7,70 ZP
5	x	40 -Z	S	500	8,30 ZP
5	x	45 -Z	S	200	9,20 ZP
5	x	50 -Z	S	200	9,70 ZP
5	x	60 -Z	S	200	11,80 ZP
5	x	70 -Z	S	200	14,60 ZP
5	x	80 -Z	S	200	18,20 ZP
5	x	90 -Z	S	200	23,00 ZP
6	x	20 -Z	S	500	7,40 ZP
6	x	25 -Z	S	500	8,40 ZP
6	x	30 -Z	S	500	10,80 ZP
6	x	35 -Z	S	500	11,70 ZP
6	x	40 -Z	S	500	12,00 ZP
6	x	45 -Z	S	200	12,80 ZP
6	x	50 -Z	S	200	13,80 ZP
6	x	60 -Z	S	200	17,00 ZP
6	x	70 -Z	S	200	18,60 ZP
6	x	80 -Z	S	200	19,80 ZP
6	x	90 -Z	S	200	24,20 ZP
6	x	100 -Z	S	100	30,50 ZP

article 89096.014 815

89096 Steel zinc plated PAN-T



Chipboard screws,
PAN = pan head
T = hexalobular socket

CE acc. EN 14592 starting from a thread length 4 x d

Dimensions ➔ TI-52 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

3	x	10 -T10	S	1000	2,70 ZP
3	x	12 -T10	S	1000	2,75 ZP
3	x	16 -T10	S	1000	2,75 ZP
3	x	20 -T10	S	1000	3,05 ZP
3	x	25 -T10	S	1000	3,25 ZP
3	x	30 -T10	S	1000	4,40 ZP
3,5	x	12 -T15	S	1000	3,30 ZP
3,5	x	16 -T15	S	1000	3,30 ZP
3,5	x	20 -T15	S	1000	3,70 ZP
3,5	x	25 -T15	S	1000	3,95 ZP
3,5	x	30 -T15	S	1000	4,40 ZP
3,5	x	35 -T15	S	1000	5,60 ZP
3,5	x	40 -T15	S	1000	6,30 ZP
4	x	12 -T20	S	1000	3,95 ZP
4	x	16 -T20	S	1000	3,95 ZP
4	x	17 -T20	S	1000	4,30 ZP
4	x	20 -T20	S	1000	4,30 ZP
4	x	25 -T20	S	1000	4,95 ZP
4	x	30 -T20	S	1000	5,20 ZP
4	x	35 -T20	S	1000	6,00 ZP
4	x	40 -T20	S	500	7,00 ZP
4	x	45 -T20	S	500	8,00 ZP
4	x	50 -T20	S	500	8,80 ZP
4	x	60 -T20	S	500	9,10 ZP

Dimensions			PU	Pieces	€/100/Mat.
4,5	x	12 -T20	S	1000	6,00 ZP
4,5	x	16 -T20	S	1000	6,00 ZP
4,5	x	20 -T20	S	1000	6,00 ZP
4,5	x	25 -T20	S	1000	6,50 ZP
4,5	x	30 -T20	S	500	7,20 ZP
4,5	x	35 -T20	S	500	7,90 ZP
4,5	x	40 -T20	S	500	8,60 ZP
4,5	x	45 -T20	S	500	11,00 ZP
4,5	x	50 -T20	S	500	12,50 ZP
4,5	x	60 -T20	S	500	14,80 ZP
5	x	16 -T25	S	1000	6,90 ZP
5	x	20 -T25	S	1000	7,70 ZP
5	x	25 -T25	S	500	8,10 ZP
5	x	30 -T25	S	500	8,90 ZP
5	x	35 -T25	S	500	10,40 ZP
5	x	40 -T25	S	500	11,20 ZP
5	x	45 -T25	S	200	12,50 ZP
5	x	50 -T25	S	200	13,10 ZP
5	x	60 -T25	S	200	15,90 ZP
5	x	70 -T25	S	200	19,70 ZP
5	x	80 -T25	S	200	24,60 ZP
5	x	90 -T25	S	200	31,50 ZP
6	x	20 -T30	S	500	10,00 ZP
6	x	25 -T30	S	500	11,40 ZP
6	x	30 -T30	S	500	14,60 ZP
6	x	35 -T30	S	500	15,80 ZP
6	x	40 -T30	S	500	16,30 ZP
6	x	45 -T30	S	200	17,20 ZP
6	x	50 -T30	S	200	18,70 ZP
6	x	60 -T30	S	200	22,90 ZP
6	x	70 -T30	S	200	26,50 ZP
6	x	80 -T30	S	200	27,00 ZP
6	x	90 -T30	S	200	33,00 ZP
6	x	100 -T30	S	100	41,50 ZP

article 89097.010 815

89097 Steel zinc plated CSK-Z



Chipboard screws,
CSK = countersunk head
Z = Pozidriv cross recess

CE acc. EN 14592 starting from a thread length 4 x d

Dimensions ➔ TI-52 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

3	x	10 -Z	S	1000	1,65 ZP
3	x	12 -Z	S	1000	1,65 ZP
3	x	16 -Z	S	1000	1,70 ZP
3	x	20 -Z	S	1000	1,85 ZP
3	x	25 -Z	S	1000	2,00 ZP
3	x	30 -Z	S	1000	2,70 ZP
3	x	35 -Z	S	1000	3,00 ZP
3	x	40 -Z	S	1000	4,10 ZP
3	x	45 -Z	S	1000	5,40 ZP
3,5	x	12 -Z	S	1000	2,00 ZP
3,5	x	16 -Z	S	1000	2,00 ZP
3,5	x	20 -Z	S	1000	2,30 ZP
3,5	x	25 -Z	S	1000	2,45 ZP
3,5	x	30 -Z	S	1000	2,75 ZP
3,5	x	35 -Z	S	1000	3,35 ZP
3,5	x	40 -Z	S	1000	3,85 ZP
3,5	x	45 -Z	S	1000	5,90 ZP
3,5	x	50 -Z	S	500	6,30 ZP
4	x	16 -Z	S	1000	2,45 ZP

Dimensions			PU	Pieces	€/100/Mat.
4	x	20 -Z	S	1000	2,70 ZP
4	x	25 -Z	S	1000	3,00 ZP
4	x	30 -Z	S	1000	3,15 ZP
4	x	35 -Z	S	1000	3,70 ZP
4	x	40 -Z	S	1000	4,40 ZP
4	x	45 -Z	S	500	4,95 ZP
4	x	50 -Z	S	500	5,40 ZP
4	x	55 -Z	S	500	9,20 ZP
4	x	60 -Z	S	500	9,20 ZP
4,5	x	16 -Z	S	1000	3,35 ZP
4,5	x	20 -Z	S	1000	3,70 ZP
4,5	x	25 -Z	S	1000	4,10 ZP
4,5	x	30 -Z	S	1000	4,40 ZP
4,5	x	35 -Z	S	500	4,80 ZP
4,5	x	40 -Z	S	500	5,30 ZP
4,5	x	45 -Z	S	500	6,80 ZP
4,5	x	50 -Z	S	500	7,10 ZP
4,5	x	55 -Z	S	500	8,60 ZP
4,5	x	60 -Z	S	500	8,90 ZP
4,5	x	70 -Z	S	200	14,90 ZP
5	x	20 -Z	S	1000	4,85 ZP
5	x	25 -Z	S	1000	4,95 ZP
5	x	30 -Z	S	500	5,50 ZP
5	x	35 -Z	S	500	6,30 ZP
5	x	40 -Z	S	500	6,80 ZP
5	x	45 -Z	S	500	7,70 ZP
5	x	50 -Z	S	500	8,20 ZP
5	x	55 -Z	S	500	9,10 ZP
5	x	60 -Z	S	500	9,90 ZP
5	x	70 -Z	S	200	13,80 ZP
6	x	30 -Z	S	500	10,50 ZP
6	x	40 -Z	S	500	10,50 ZP
6	x	45 -Z	S	200	10,80 ZP
6	x	50 -Z	S	200	11,80 ZP
6	x	60 -Z	S	200	14,20 ZP
6	x	70 -Z	S	200	17,20 ZP

article 89097.019 815

89097 Steel zinc plated CSK-Z-P



Chipboard screws,
CSK = countersunk head
Z = Pozidriv cross recess
P = partially threaded

CE acc. EN 14592 starting from a thread length 4 x d

Dimensions ➔ TI-52 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

Declaration of performance ➔ www.reyher.de

3	x	30/18 -Z	S	1000	2,70 ZP
3	x	35/21 -Z	S	1000	2,00 ZP
3	x	40/24 -Z	S	1000	4,10 ZP
3	x	45/27 -Z	S	1000	5,40 ZP
3,5	x	30/18 -Z	S	1000	2,75 ZP
3,5	x	35/21 -Z	S	1000	3,35 ZP
3,5	x	40/24 -Z	S	1000	3,90 ZP
3,5	x	45/27 -Z	S	1000	6,20 ZP
3,5	x	50/30 -Z	S	500	6,50 ZP
4	x	30/18 -Z	S	1000	3,15 ZP
4	x	35/21 -Z	S	1000	3,70 ZP
4	x	40/24 -Z	S	1000	4,40 ZP
4	x	45/27 -Z	S	500	5,10 ZP
4	x	50/30 -Z	S	500	5,40 ZP
4	x	55/33 -Z	S	500	9,20 ZP
4	x	60/36 -Z	S	500	9,60 ZP

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
4	x	70/42 -Z	S	200	15,20 ZP
4	x	80/48 -Z	S	200	18,90 ZP
4,5	x	30/18 -Z	S	1000	4,40 ZP
4,5	x	35/21 -Z	S	500	4,80 ZP
4,5	x	40/24 -Z	S	500	5,40 ZP
4,5	x	45/27 -Z	S	500	6,80 ZP
4,5	x	50/30 -Z	S	500	7,10 ZP
4,5	x	60/36 -Z	S	500	8,90 ZP
4,5	x	70/42 -Z	S	200	15,00 ZP
4,5	x	80/48 -Z	S	200	25,50 ZP
5	x	30/18 -Z	S	500	5,50 ZP
5	x	35/21 -Z	S	500	6,30 ZP
5	x	40/24 -Z	S	500	6,90 ZP
5	x	45/27 -Z	S	500	8,20 ZP
5	x	50/30 -Z	S	500	8,20 ZP
5	x	55/33 -Z	S	500	9,90 ZP
5	x	60/36 -Z	S	500	9,90 ZP
5	x	70/42 -Z	S	200	14,10 ZP
5	x	80/48 -Z	S	200	17,10 ZP
5	x	90/54 -Z	S	200	22,10 ZP
5	x	100/60 -Z	S	200	24,60 ZP
5	x	120/70 -Z	S	200	36,50 ZP
6	x	40/24 -Z	S	500	10,50 ZP
6	x	50/30 -Z	S	200	11,50 ZP
6	x	60/36 -Z	S	200	14,10 ZP
6	x	70/42 -Z	S	200	17,50 ZP
6	x	80/48 -Z	S	200	19,50 ZP
6	x	90/54 -Z	S	200	22,60 ZP
6	x	100/60 -Z	S	100	26,50 ZP
6	x	110/70 -Z	S	100	34,50 ZP
6	x	120/70 -Z	S	100	40,00 ZP
6	x	130/70 -Z	S	100	44,50 ZP
6	x	140/70 -Z	S	100	51,00 ZP
6	x	150/70 -Z	S	100	59,00 ZP
6	x	160/70 -Z	S	100	69,00 ZP
6	x	180/70 -Z	S	100	85,00 ZP
6	x	200/70 -Z	S	100	107,00 ZP
6	x	220/70 -Z	S	100	180,00 ZP
6	x	240/70 -Z	S	100	201,00 ZP
6	x	280/70 -Z	S	100	224,00 ZP
6	x	300/70 -Z	S	100	234,00 ZP

article 89098.010 815

89098 Steel zinc plated **CSK-T**



Chipboard screws, CSK = countersunk head T = hexalobular socket

CE acc. EN 14592 starting from a thread length 4 x d

Dimensions ➔ TI-52 Corrosion protection ➔ TI-228

Declaration of performance ➔ www.reyher.de

3	x	12 -T10	S	1000	1,65 ZP
3	x	16 -T10	S	1000	1,70 ZP
3	x	20 -T10	S	1000	1,85 ZP
3	x	25 -T10	S	1000	2,00 ZP
3	x	30 -T10	S	1000	2,70 ZP
3	x	35 -T10	S	1000	3,00 ZP
3	x	40 -T10	S	1000	4,10 ZP
3	x	45 -T10	S	1000	5,40 ZP
3,5	x	12 -T15	S	1000	2,00 ZP
3,5	x	16 -T15	S	1000	2,00 ZP
3,5	x	20 -T15	S	1000	2,30 ZP
3,5	x	25 -T15	S	1000	2,45 ZP
3,5	x	30 -T15	S	1000	2,75 ZP
3,5	x	35 -T15	S	1000	3,35 ZP
3,5	x	40 -T15	S	1000	3,85 ZP
3,5	x	45 -T15	S	1000	5,90 ZP
3,5	x	50 -T15	S	500	6,30 ZP
4	x	16 -T20	S	1000	2,45 ZP
4	x	20 -T20	S	1000	2,70 ZP
4	x	25 -T20	S	1000	3,00 ZP
4	x	30 -T20	S	1000	3,15 ZP
4	x	35 -T20	S	1000	3,70 ZP
4	x	40 -T20	S	1000	4,40 ZP
4	x	45 -T20	S	1000	4,95 ZP
4	x	50 -T20	S	1000	5,40 ZP
4	x	60 -T20	S	500	9,20 ZP
4	x	70 -T20	S	500	14,90 ZP
4,5	x	16 -T20	S	1000	3,35 ZP
4,5	x	20 -T20	S	1000	3,70 ZP
4,5	x	25 -T20	S	1000	4,10 ZP
4,5	x	30 -T20	S	1000	4,40 ZP
4,5	x	35 -T20	S	500	4,80 ZP
4,5	x	40 -T20	S	500	5,30 ZP
4,5	x	45 -T20	S	500	6,80 ZP
4,5	x	50 -T20	S	500	7,10 ZP
4,5	x	60 -T20	S	500	8,90 ZP
4,5	x	70 -T20	S	200	14,90 ZP
5	x	20 -T25	S	1000	4,85 ZP
5	x	25 -T25	S	1000	4,95 ZP
5	x	30 -T25	S	500	5,50 ZP
5	x	35 -T25	S	500	6,30 ZP
5	x	40 -T25	S	500	6,80 ZP
5	x	50 -T25	S	500	8,20 ZP
5	x	60 -T25	S	500	9,90 ZP
5	x	70 -T25	S	500	13,80 ZP
6	x	30 -T30	S	500	10,50 ZP
6	x	40 -T30	S	500	10,50 ZP
6	x	50 -T30	S	200	11,80 ZP
6	x	60 -T30	S	200	14,20 ZP

article 89098.019 815

89098 Steel zinc plated **CSK-T P**



Chipboard screws, CSK = countersunk head T = hexalobular socket P = partially threaded

CE acc. EN 14592 starting from a thread length 4 x d

Dimensions ➔ TI-52 Corrosion protection ➔ TI-228

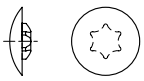
Declaration of performance ➔ www.reyher.de

3	x	30/18 -T10	S	1000	2,70 ZP
3	x	35/21 -T10	S	1000	2,00 ZP
3	x	40/24 -T10	S	1000	4,10 ZP
3	x	45/27 -T10	S	1000	5,40 ZP
3,5	x	30/18 -T15	S	1000	2,75 ZP
3,5	x	35/21 -T15	S	1000	3,35 ZP
3,5	x	40/24 -T15	S	1000	3,90 ZP
3,5	x	45/27 -T15	S	1000	6,20 ZP
3,5	x	50/30 -T15	S	500	6,50 ZP
4	x	30/18 -T20	S	1000	3,15 ZP
4	x	35/21 -T20	S	1000	3,70 ZP
4	x	40/24 -T20	S	1000	4,40 ZP
4	x	45/27 -T20	S	500	5,10 ZP
4	x	50/30 -T20	S	500	5,40 ZP
4	x	55/33 -T20	S	500	9,20 ZP

Dimensions			PU	Pieces	€/100/Mat.
4	x	60/36 -T20	S	500	9,60 ZP
4	x	70/42 -T20	S	200	15,20 ZP
4	x	80/48 -T20	S	500	18,90 ZP
4,5	x	30/18 -T20	S	1000	4,40 ZP
4,5	x	35/21 -T20	S	500	4,80 ZP
4,5	x	40/24 -T20	S	500	5,40 ZP
4,5	x	45/27 -T20	S	500	6,80 ZP
4,5	x	50/30 -T20	S	500	7,10 ZP
4,5	x	60/36 -T20	S	500	8,90 ZP
4,5	x	70/42 -T20	S	200	15,00 ZP
4,5	x	80/48 -T20	S	200	25,50 ZP
5	x	30/18 -T25	S	500	5,50 ZP
5	x	35/21 -T25	S	500	6,30 ZP
5	x	40/24 -T25	S	500	6,90 ZP
5	x	45/27 -T25	S	500	8,20 ZP
5	x	50/30 -T25	S	500	8,20 ZP
5	x	55/33 -T25	S	500	9,90 ZP
5	x	60/36 -T25	S	500	9,90 ZP
5	x	70/42 -T25	S	500	14,10 ZP
5	x	80/48 -T25	S	500	17,10 ZP
5	x	90/54 -T25	S	200	22,10 ZP
5	x	100/60 -T25	S	200	24,60 ZP
5	x	120/70 -T25	S	200	36,50 ZP
6	x	40/24 -T30	S	500	10,50 ZP
6	x	50/30 -T30	S	200	11,50 ZP
6	x	60/36 -T30	S	200	14,10 ZP
6	x	70/42 -T30	S	200	17,50 ZP
6	x	80/48 -T30	S	200	19,50 ZP
6	x	90/54 -T30	S	200	22,60 ZP
6	x	100/60 -T30	S	100	26,50 ZP
6	x	110/70 -T30	S	100	34,50 ZP
6	x	120/70 -T30	S	100	40,00 ZP
6	x	130/70 -T30	S	100	44,50 ZP
6	x	140/70 -T30	S	100	51,00 ZP
6	x	150/70 -T30	S	100	59,00 ZP
6	x	160/70 -T30	S	100	69,00 ZP
6	x	180/70 -T30	S	100	85,00 ZP
6	x	200/70 -T30	S	100	107,00 ZP
6	x	220/70 -T30	S	100	180,00 ZP
6	x	240/70 -T30	S	100	201,00 ZP
6	x	260/70 -T30	S	100	207,00 ZP
6	x	280/70 -T30	S	100	224,00 ZP
6	x	300/70 -T30	S	100	234,00 ZP
8	x	70/60 -T40	S	100	48,50 ZP
8	x	90/60 -T40	S	100	79,00 ZP

article 88006.(*) 800

88006 Plastic **ISR**



Caps for countersunk head screws with hexalobular socket

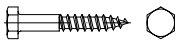
white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650),
fawn brown RAL 8007 (*660)

REACH ➔ TI-262

ISR no.	X	caps ∅ / for screws ∅			
15	x	12 /3,5	S	1000	3,45
20	x	12 /4-4,5	S	1000	3,45
25	x	13,5/5	S	1000	3,45
30	x	16,5/6	S	1000	3,45

Dimensions			PU	Pieces	€/100/Mat.
article		89571.014			818

89571 Steel zinc plated



Hexagon wood screws

CE acc. EN 14592

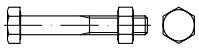
Dimensions ➔ TI-51 Corrosion protection ➔ TI-228

Declaration of performance ➔ www.reyher.de

8	x	80	S	200	41,00 ZP
12	x	80	S	50	106,00 ZP
12	x	100	S	50	130,00 ZP
12	x	120	S	50	160,00 ZP
12	x	140	S	50	178,00 ZP
12	x	160	S	25	236,00 ZP
12	x	180	S	25	265,00 ZP
12	x	200	S	25	305,00 ZP
12	x	220	S	25	425,00 ZP
12	x	240	S	25	455,00 ZP
12	x	260	S	25	510,00 ZP
12	x	280	S	25	550,00 ZP
12	x	300	S	25	610,00 ZP
12	x	340	S	25	1350,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		89601.410			290

89601 Mu 4.8 zinc plated



Bolts, Mu = with hexagon nut

CE acc. EN 14592

Dimensions ➔ TI-15 REACH ➔ TI-262
Corrosion protection ➔ TI-228

Declaration of performance ➔ www.reyher.de

M 12	x	100	S	50	147,00 ZP
M 12	x	120	S	50	197,00 ZP
M 12	x	140	S	50	300,00 ZP
M 12	x	150	S	50	295,00 ZP
M 12	x	160	S	25	295,00 ZP
M 12	x	170	S	25	330,00 ZP
M 12	x	180	S	25	345,00 ZP
M 12	x	200	S	25	380,00 ZP
M 12	x	220	S	25	420,00 ZP
M 12	x	240	S	25	455,00 ZP
M 12	x	260	S	25	480,00 ZP
M 12	x	280	S	25	520,00 ZP
M 12	x	300	S	25	550,00 ZP
M 12	x	320	S	25	570,00 ZP
M 12	x	340	S	25	590,00 ZP
M 12	x	360	S	25	620,00 ZP
M 12	x	380	S	25	650,00 ZP
M 12	x	400	S	25	680,00 ZP
M 12	x	420	S	25	720,00 ZP
M 12	x	440	S	25	770,00 ZP
M 12	x	460	S	25	800,00 ZP
M 12	x	480	S	25	830,00 ZP
M 12	x	500	S	25	860,00 ZP
M 12	x	520	S	25	980,00 ZP
M 12	x	540	S	25	1030,00 ZP
M 12	x	560	S	25	1070,00 ZP
M 12	x	580	S	25	1110,00 ZP
M 12	x	600	S	25	1150,00 ZP
M 12	x	620	S	15	1200,00 ZP
M 12	x	640	S	15	1250,00 ZP
M 12	x	660	S	15	1300,00 ZP
M 12	x	680	S	15	1350,00 ZP
M 12	x	700	S	15	1400,00 ZP
M 12	x	720	S	15	1470,00 ZP
M 12	x	740	S	15	1530,00 ZP
M 12	x	760	S	15	1590,00 ZP
M 16	x	100	S	50	160,00 ZP
M 16	x	110	S	50	170,00 ZP
M 16	x	120	S	50	197,00 ZP
M 16	x	130	S	50	205,00 ZP
M 16	x	140	S	50	217,00 ZP
M 16	x	150	S	50	295,00 ZP
M 16	x	160	S	25	540,00 ZP
M 16	x	170	S	25	560,00 ZP
M 16	x	180	S	25	570,00 ZP
M 16	x	190	S	25	580,00 ZP
M 16	x	200	S	25	590,00 ZP
M 16	x	220	S	25	680,00 ZP
M 16	x	240	S	25	720,00 ZP
M 16	x	260	S	25	770,00 ZP
M 16	x	280	S	25	820,00 ZP
M 16	x	300	S	25	850,00 ZP
M 16	x	320	S	25	910,00 ZP
M 16	x	340	S	25	950,00 ZP
M 16	x	360	S	25	1000,00 ZP
M 16	x	380	S	25	1030,00 ZP
M 16	x	400	S	25	1050,00 ZP
M 16	x	420	S	15	1080,00 ZP
M 16	x	440	S	15	1100,00 ZP
M 16	x	460	S	15	1140,00 ZP
M 16	x	480	S	15	1190,00 ZP
M 16	x	500	S	15	1240,00 ZP
M 16	x	520	S	15	1900,00 ZP
M 16	x	540	S	15	1960,00 ZP
M 16	x	560	S	15	2030,00 ZP
M 16	x	580	S	15	2110,00 ZP
M 16	x	600	S	15	2180,00 ZP
M 16	x	620	S	15	2250,00 ZP
M 16	x	640	S	15	2320,00 ZP
M 16	x	660	S	15	2390,00 ZP
M 16	x	680	S	15	2470,00 ZP
M 16	x	700	S	15	2550,00 ZP
M 20	x	160	S	15	870,00 ZP
M 20	x	180	S	15	940,00 ZP
M 20	x	200	S	15	950,00 ZP
M 20	x	220	S	15	980,00 ZP
M 20	x	240	S	15	1010,00 ZP
M 20	x	260	S	15	1070,00 ZP
M 20	x	280	S	15	1130,00 ZP
M 20	x	300	S	15	1160,00 ZP
M 20	x	320	S	15	1210,00 ZP
M 20	x	340	S	15	1250,00 ZP
M 20	x	360	S	15	1310,00 ZP
M 20	x	380	S	15	1370,00 ZP
M 20	x	400	S	15	1460,00 ZP
M 20	x	420	S	10	1610,00 ZP
M 20	x	440	S	10	1680,00 ZP
M 20	x	460	S	10	1750,00 ZP
M 20	x	480	S	10	1820,00 ZP
M 20	x	500	S	10	1890,00 ZP
M 20	x	520	S	10	2900,00 ZP
M 20	x	540	S	10	3050,00 ZP
M 20	x	560	S	10	3150,00 ZP
M 20	x	580	S	10	3250,00 ZP
M 20	x	600	S	10	3350,00 ZP
M 20	x	620	S	10	3500,00 ZP
M 20	x	640	S	10	3600,00 ZP
M 20	x	660	S	10	3700,00 ZP
M 20	x	680	S	10	3750,00 ZP
M 20	x	700	S	10	3850,00 ZP
M 20	x	720	S	10	3950,00 ZP
M 20	x	740	S	10	4050,00 ZP
M 24	x	220	S	10	1430,00 ZP
M 24	x	240	S	10	1550,00 ZP
M 24	x	260	S	10	1660,00 ZP
M 24	x	280	S	10	1770,00 ZP
M 24	x	300	S	10	1880,00 ZP
M 24	x	320	S	10	2050,00 ZP
M 24	x	340	S	10	2160,00 ZP
M 24	x	360	S	10	2270,00 ZP
M 24	x	380	S	10	2390,00 ZP
M 24	x	400	S	10	2550,00 ZP
M 24	x	420	S	10	2650,00 ZP
M 24	x	440	S	5	2750,00 ZP
M 24	x	460	S	5	2900,00 ZP
M 24	x	480	S	5	3000,00 ZP
M 24	x	500	S	5	3100,00 ZP
M 24	x	520	S	5	3200,00 ZP
M 24	x	540	S	5	3300,00 ZP
M 24	x	560	S	5	3400,00 ZP
M 24	x	580	S	5	3500,00 ZP
M 24	x	600	S	5	3600,00 ZP
M 24	x	620	S	5	3700,00 ZP
M 24	x	640	S	5	3750,00 ZP
M 24	x	660	S	5	3900,00 ZP

Dimensions			PU	Pieces	€/100/Mat.
article		89150.045			774

89150 Steel phosphated



Drywall screws with flat bugle head and coarse thread

CE acc. EN 14566

Dimensions ➔ TI-53

Declaration of performance ➔ www.reyher.de

3,9	x	25 -H	S	1000	6,30
3,9	x	30 -H	S	1000	7,10
3,9	x	35 -H	S	1000	7,40
3,9	x	45 -H	S	1000	9,50

Dimensions	PU Pieces	€/100/Mat.
article	89151.045	774

89151 Steel phosphated



Drywall screws with flat bugle head and fine pitch thread

CE acc. EN 14566

Dimensions ➔ TI-53

Declaration of performance ➔ www.reyher.de

3,9	x 25 -H	S 1000	6,00
3,9	x 35 -H	S 1000	6,90
3,9	x 45 -H	S 1000	8,90

Dimensions	PU Pieces	€/100/Mat.
article	89152.045	774

89152 Steel phosphated



Drywall screws with flat bugle head and drilling point

CE acc. EN 14566

Dimensions ➔ TI-53

Declaration of performance ➔ www.reyher.de

3,5	x 25 -H	S 1000	12,80
3,5	x 35 -H	S 1000	14,60
3,5	x 45 -H	S 1000	18,20

Dimensions	PU Pieces	€/100/Mat.

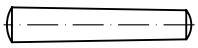
ROM® REYHER ORDER MANAGEMENT

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Dimensions		PU Pieces	€/100/Mat.
DIN	00001.912		10
1	A 1		type B



Taper pins, taper 1 : 50, B = turned

Dimensions ➔ TI-117 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 63

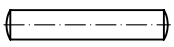
DIN 1 ➔ replaced by ISO 2339 (DIN EN 22339)

RoHS ✓ REACh SVHC free

type - ∅ x length (without cone)

B 3	x	16	S	50	74,00	A1
B 3	x	20	S	50	92,00	A1
B 3	x	24	S	50	112,00	A1
B 3	x	30	S	50	137,00	A1
B 3	x	50	S	50	175,00	A1
B 4	x	20	S	50	124,00	A1
B 4	x	24	S	50	148,00	A1
B 4	x	26	S	25	159,00	A1
B 4	x	30	S	25	182,00	A1
B 4	x	50	S	25	275,00	A1
B 4	x	60	S	25	330,00	A1
B 5	x	20	S	25	167,00	A1
B 5	x	26	S	25	205,00	A1
B 5	x	30	S	25	229,00	A1
B 5	x	32	S	25	241,00	A1
B 5	x	36	S	25	265,00	A1
B 5	x	40	S	25	280,00	A1
B 5	x	50	S	10	335,00	A1
B 5	x	70	S	10	430,00	A1
B 6	x	24	S	10	247,00	A1
B 6	x	26	S	10	260,00	A1
B 6	x	30	S	10	285,00	A1
B 6	x	36	S	10	325,00	A1
B 6	x	40	S	10	355,00	A1
B 6	x	50	S	10	425,00	A1
B 6	x	60	S	10	510,00	A1
B 8	x	30	S	10	485,00	A1
B 8	x	40	S	10	670,00	A1
B 8	x	45	S	10	730,00	A1
B 8	x	50	S	10	800,00	A1
B 8	x	60	S	10	900,00	A1
B 8	x	90	S	1	1200,00	A1
B 8	x	100	S	1	1290,00	A1
B 10	x	36	S	10	780,00	A1
B 10	x	40	S	10	820,00	A1
B 10	x	55	S	1	1010,00	A1
B 10	x	60	S	1	1080,00	A1
B 10	x	70	S	1	1180,00	A1
B 10	x	80	S	1	1370,00	A1
B 10	x	100	S	1	1560,00	A1

Dimensions		PU Pieces	€/100/Mat.
DIN	00007.910		10
7	A 1		m6



Parallel pins, tolerance zone m6

Dimensions ➔ TI-116 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 64

DIN 7 ➔ replaced by ISO 2338

RoHS ✓ REACh SVHC free

∅ - tol. x length (without cone)

0,8 m6	x	4	S	500	18,40	A1
0,8 m6	x	8	S	500	20,30	A1
0,8 m6	x	10	S	500	21,10	A1
1 m6	x	3	S	500	13,30	A1
1 m6	x	4	S	500	13,70	A1
1 m6	x	5	S	500	14,40	A1
1 m6	x	6	S	500	14,80	A1
1 m6	x	8	S	500	15,20	A1
1 m6	x	10	S	500	15,80	A1
1 m6	x	12	S	500	16,50	A1
1,5 m6	x	3	S	500	14,80	A1
1,5 m6	x	4	S	500	15,20	A1
1,5 m6	x	5	S	500	15,60	A1
1,5 m6	x	6	S	500	15,90	A1
1,5 m6	x	8	S	500	16,90	A1
1,5 m6	x	10	S	500	17,60	A1
1,5 m6	x	12	S	500	18,40	A1
1,5 m6	x	14	S	500	19,20	A1
1,5 m6	x	16	S	500	20,30	A1
1,5 m6	x	20	S	500	33,50	A1
2 m6	x	3	S	500	15,60	A1
2 m6	x	4	S	500	16,30	A1
2 m6	x	5	S	500	16,70	A1
2 m6	x	6	S	500	17,10	A1
2 m6	x	8	S	500	18,80	A1
2 m6	x	10	S	500	19,50	A1
2 m6	x	12	S	500	20,30	A1
2 m6	x	14	S	500	21,10	A1
2 m6	x	16	S	500	22,00	A1
2 m6	x	18	S	500	22,90	A1
2 m6	x	20	S	500	24,80	A1
2,5 m6	x	4	S	500	18,40	A1
2,5 m6	x	5	S	500	19,00	A1
2,5 m6	x	6	S	500	19,50	A1
2,5 m6	x	8	S	500	20,30	A1
2,5 m6	x	10	S	500	21,10	A1
2,5 m6	x	12	S	500	22,20	A1
2,5 m6	x	14	S	500	26,00	A1
2,5 m6	x	16	S	500	28,00	A1
2,5 m6	x	18	S	500	30,50	A1
2,5 m6	x	20	S	500	31,50	A1
2,5 m6	x	24	S	500	37,50	A1
3 m6	x	4	S	200	22,90	A1
3 m6	x	5	S	200	23,70	A1
3 m6	x	6	S	200	24,50	A1
3 m6	x	8	S	200	26,00	A1
3 m6	x	10	S	200	27,00	A1
3 m6	x	12	S	200	28,50	A1
3 m6	x	14	S	200	30,00	A1
3 m6	x	16	S	200	30,50	A1
3 m6	x	18	S	200	35,50	A1
3 m6	x	20	S	200	37,50	A1

Dimensions			PU Pieces		€/100/Mat.	
3 m6	x	24	S	200	43,00	A1
3 m6	x	28	S	200	49,50	A1
3 m6	x	30	S	200	55,00	A1
3 m6	x	32	S	200	59,00	A1
3 m6	x	40	S	200	105,00	A1
3 m6	x	45	S	200	125,00	A1
3 m6	x	50	S	200	148,00	A1
3 m6	x	60	S	200	380,00	A1
4 m6	x	5	S	200	33,00	A1
4 m6	x	6	S	200	33,50	A1
4 m6	x	8	S	200	36,00	A1
4 m6	x	10	S	200	41,00	A1
4 m6	x	12	S	200	44,50	A1
4 m6	x	14	S	200	51,00	A1
4 m6	x	16	S	200	53,00	A1
4 m6	x	18	S	200	55,00	A1
4 m6	x	20	S	200	61,00	A1
4 m6	x	24	S	200	64,00	A1
4 m6	x	26	S	200	69,00	A1
4 m6	x	28	S	200	76,00	A1
4 m6	x	32	S	200	87,00	A1
4 m6	x	36	S	200	101,00	A1
4 m6	x	40	S	200	106,00	A1
4 m6	x	50	S	200	171,00	A1
4 m6	x	60	S	200	250,00	A1
5 m6	x	5	S	200	36,50	A1
5 m6	x	6	S	200	38,50	A1
5 m6	x	8	S	200	48,50	A1
5 m6	x	10	S	200	49,50	A1
5 m6	x	12	S	200	53,00	A1
5 m6	x	14	S	200	56,00	A1
5 m6	x	16	S	200	58,00	A1
5 m6	x	18	S	200	69,00	A1
5 m6	x	20	S	200	71,00	A1
5 m6	x	24	S	200	77,00	A1
5 m6	x	28	S	200	83,00	A1
5 m6	x	30	S	200	88,00	A1
5 m6	x	32	S	200	97,00	A1
5 m6	x	36	S	200	106,00	A1
5 m6	x	40	S	200	122,00	A1
5 m6	x	45	S	200	141,00	A1
5 m6	x	50	S	200	158,00	A1
6 m6	x	6	S	200	62,00	A1
6 m6	x	8	S	200	65,00	A1
6 m6	x	10	S	200	69,00	A1
6 m6	x	12	S	200	77,00	A1
6 m6	x	14	S	200	80,00	A1
6 m6	x	16	S	200	83,00	A1
6 m6	x	18	S	200	85,00	A1
6 m6	x	20	S	200	88,00	A1
6 m6	x	24	S	200	112,00	A1
6 m6	x	28	S	200	118,00	A1
6 m6	x	30	S	200	135,00	A1
6 m6	x	32	S	200	138,00	A1
6 m6	x	36	S	200	145,00	A1
6 m6	x	40	S	200	163,00	A1
6 m6	x	45	S	100	175,00	A1
6 m6	x	50	S	100	184,00	A1
6 m6	x	55	S	100	199,00	A1
6 m6	x	60	S	100	211,00	A1
8 m6	x	10	S	100	116,00	A1
8 m6	x	12	S	100	120,00	A1
8 m6	x	14	S	100	125,00	A1
8 m6	x	16	S	100	137,00	A1
8 m6	x	18	S	100	144,00	A1
8 m6	x	20	S	100	150,00	A1
8 m6	x	24	S	100	158,00	A1
8 m6	x	28	S	100	163,00	A1
8 m6	x	30	S	100	178,00	A1
8 m6	x	32	S	100	180,00	A1
8 m6	x	36	S	100	228,00	A1
8 m6	x	40	S	100	243,00	A1
8 m6	x	45	S	100	260,00	A1
8 m6	x	50	S	100	290,00	A1
8 m6	x	55	S	100	320,00	A1

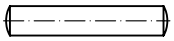
Dimensions	PU	Pieces	€/100/Mat.
8 m6 x 60	S	100	340,00 A1
8 m6 x 70	S	100	400,00 A1
8 m6 x 80	S	100	485,00 A1
10 m6 x 10	S	100	173,00 A1
10 m6 x 12	S	100	178,00 A1
10 m6 x 14	S	100	184,00 A1
10 m6 x 16	S	100	190,00 A1
10 m6 x 18	S	100	199,00 A1
10 m6 x 20	S	100	247,00 A1
10 m6 x 24	S	100	265,00 A1
10 m6 x 28	S	100	300,00 A1
10 m6 x 32	S	100	325,00 A1
10 m6 x 36	S	100	345,00 A1
10 m6 x 40	S	100	370,00 A1
10 m6 x 45	S	50	395,00 A1
10 m6 x 50	S	50	450,00 A1
10 m6 x 55	S	50	495,00 A1
10 m6 x 60	S	50	530,00 A1
10 m6 x 70	S	50	590,00 A1
10 m6 x 80	S	50	670,00 A1
10 m6 x 90	S	50	740,00 A1
10 m6 x 100	S	50	910,00 A1
12 m6 x 16	S	50	375,00 A1
12 m6 x 18	S	50	420,00 A1
12 m6 x 20	S	50	450,00 A1
12 m6 x 24	S	50	460,00 A1
12 m6 x 30	S	50	580,00 A1
12 m6 x 32	S	50	660,00 A1
12 m6 x 40	S	50	790,00 A1
12 m6 x 45	S	50	890,00 A1
12 m6 x 50	S	50	970,00 A1
12 m6 x 55	S	50	1060,00 A1
12 m6 x 60	S	50	1140,00 A1
12 m6 x 70	S	10	1350,00 A1
12 m6 x 80	S	10	1480,00 A1
12 m6 x 90	S	10	1650,00 A1
12 m6 x 100	S	10	1800,00 A1
16 m6 x 20	S	10	1120,00 A1
16 m6 x 24	S	10	1160,00 A1
16 m6 x 28	S	10	1290,00 A1
16 m6 x 32	S	10	1590,00 A1
16 m6 x 36	S	10	2200,00 A1
16 m6 x 40	S	10	2370,00 A1
16 m6 x 45	S	10	2700,00 A1
16 m6 x 50	S	10	2950,00 A1
16 m6 x 55	S	10	3250,00 A1
16 m6 x 60	S	10	3450,00 A1
16 m6 x 70	S	10	3850,00 A1
16 m6 x 80	S	10	4100,00 A1
16 m6 x 90	S	10	4350,00 A1
16 m6 x 100	S	10	4600,00 A1

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Dimensions	PU	Pieces	€/100/Mat.
DIN 00007.940			10
7 A 4			m6



Parallel pins, tolerance zone m6

Dimensions ➔ TI-116 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 64

DIN 7 ➔ replaced by ISO 2338

RoHS ✓ REACh SVHC free

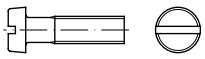
∅ - tol. x length (without cone)

Dimensions	PU	Pieces	€/100/Mat.
1 m6 x 3	S	500	25,00 A4
1 m6 x 4	S	500	25,00 A4
1 m6 x 5	S	500	25,00 A4
1 m6 x 6	S	500	26,00 A4
1 m6 x 8	S	500	26,50 A4
1 m6 x 10	S	500	27,00 A4
1 m6 x 12	S	500	27,00 A4
1,5 m6 x 3	S	500	27,00 A4
1,5 m6 x 4	S	500	27,00 A4
1,5 m6 x 5	S	500	27,00 A4
1,5 m6 x 6	S	500	28,00 A4
1,5 m6 x 8	S	500	28,00 A4
1,5 m6 x 10	S	500	30,00 A4
1,5 m6 x 12	S	500	31,00 A4
1,5 m6 x 14	S	500	32,50 A4
1,5 m6 x 16	S	500	33,50 A4
1,5 m6 x 18	S	500	47,00 A4
1,5 m6 x 20	S	500	51,00 A4
2 m6 x 4	S	500	28,50 A4
2 m6 x 5	S	500	29,50 A4
2 m6 x 6	S	500	30,00 A4
2 m6 x 8	S	500	31,00 A4
2 m6 x 10	S	500	33,00 A4
2 m6 x 12	S	500	35,50 A4
2 m6 x 14	S	500	37,50 A4
2 m6 x 16	S	500	40,00 A4
2 m6 x 18	S	500	47,00 A4
2 m6 x 20	S	500	51,00 A4
2 m6 x 24	S	500	58,00 A4
2,5 m6 x 5	S	500	31,00 A4
2,5 m6 x 6	S	500	33,00 A4
2,5 m6 x 8	S	500	35,50 A4
2,5 m6 x 10	S	500	37,50 A4
2,5 m6 x 12	S	500	40,00 A4
2,5 m6 x 14	S	500	42,00 A4
2,5 m6 x 16	S	500	44,50 A4
2,5 m6 x 20	S	500	51,00 A4
2,5 m6 x 24	S	500	58,00 A4
3 m6 x 4	S	500	34,50 A4
3 m6 x 5	S	500	35,50 A4
3 m6 x 6	S	500	38,50 A4
3 m6 x 8	S	500	42,00 A4
3 m6 x 10	S	500	45,00 A4
3 m6 x 12	S	500	49,00 A4
3 m6 x 14	S	500	55,00 A4
3 m6 x 16	S	500	58,00 A4
3 m6 x 18	S	500	66,00 A4
3 m6 x 20	S	500	71,00 A4
3 m6 x 24	S	500	77,00 A4
3 m6 x 28	S	500	81,00 A4
3 m6 x 30	S	500	86,00 A4
3 m6 x 32	S	500	89,00 A4

Dimensions	PU	Pieces	€/100/Mat.
4 m6 x 5	S	500	52,00 A4
4 m6 x 6	S	500	58,00 A4
4 m6 x 8	S	500	66,00 A4
4 m6 x 10	S	500	73,00 A4
4 m6 x 12	S	500	80,00 A4
4 m6 x 14	S	500	86,00 A4
4 m6 x 16	S	500	93,00 A4
4 m6 x 18	S	500	107,00 A4
4 m6 x 20	S	500	114,00 A4
4 m6 x 24	S	200	128,00 A4
4 m6 x 28	S	200	143,00 A4
4 m6 x 30	S	200	149,00 A4
4 m6 x 32	S	200	156,00 A4
4 m6 x 36	S	200	172,00 A4
4 m6 x 40	S	200	191,00 A4
5 m6 x 6	S	500	64,00 A4
5 m6 x 8	S	500	73,00 A4
5 m6 x 10	S	500	82,00 A4
5 m6 x 12	S	500	86,00 A4
5 m6 x 14	S	200	94,00 A4
5 m6 x 16	S	200	99,00 A4
5 m6 x 18	S	200	107,00 A4
5 m6 x 20	S	200	114,00 A4
5 m6 x 24	S	200	128,00 A4
5 m6 x 28	S	200	143,00 A4
5 m6 x 30	S	200	149,00 A4
5 m6 x 32	S	200	158,00 A4
5 m6 x 36	S	200	170,00 A4
5 m6 x 40	S	200	187,00 A4
5 m6 x 45	S	200	206,00 A4
5 m6 x 50	S	200	223,00 A4
6 m6 x 6	S	100	106,00 A4
6 m6 x 8	S	100	110,00 A4
6 m6 x 10	S	100	114,00 A4
6 m6 x 12	S	100	118,00 A4
6 m6 x 14	S	100	122,00 A4
6 m6 x 16	S	100	128,00 A4
6 m6 x 18	S	100	158,00 A4
6 m6 x 20	S	100	166,00 A4
6 m6 x 24	S	100	183,00 A4
6 m6 x 28	S	100	208,00 A4
6 m6 x 30	S	100	210,00 A4
6 m6 x 32	S	100	221,00 A4
6 m6 x 36	S	100	242,00 A4
6 m6 x 40	S	100	265,00 A4
6 m6 x 45	S	100	285,00 A4
6 m6 x 50	S	100	310,00 A4
6 m6 x 55	S	100	330,00 A4
6 m6 x 60	S	100	355,00 A4
8 m6 x 10	S	100	172,00 A4
8 m6 x 12	S	100	185,00 A4
8 m6 x 14	S	100	202,00 A4
8 m6 x 16	S	100	214,00 A4
8 m6 x 18	S	100	229,00 A4
8 m6 x 20	S	100	244,00 A4
8 m6 x 24	S	100	275,00 A4
8 m6 x 28	S	100	300,00 A4
8 m6 x 30	S	100	310,00 A4
8 m6 x 32	S	100	330,00 A4
8 m6 x 36	S	100	355,00 A4
8 m6 x 40	S	100	390,00 A4
8 m6 x 45	S	100	425,00 A4
8 m6 x 50	S	100	460,00 A4
8 m6 x 55	S	100	500,00 A4
8 m6 x 60	S	100	560,00 A4
8 m6 x 70	S	100	670,00 A4
8 m6 x 80	S	100	740,00 A4
10 m6 x 12	S	50	330,00 A4
10 m6 x 14	S	50	335,00 A4
10 m6 x 16	S	50	340,00 A4
10 m6 x 18	S	50	345,00 A4
10 m6 x 20	S	50	355,00 A4
10 m6 x 24	S	50	395,00 A4
10 m6 x 28	S	50	445,00 A4
10 m6 x 30	S	50	465,00 A4

Dimensions	PU	Pieces	€/100/Mat.
10 m6 x 32	S	50	485,00 A4
10 m6 x 36	S	50	570,00 A4
10 m6 x 40	S	50	610,00 A4
10 m6 x 45	S	50	670,00 A4
10 m6 x 50	S	50	730,00 A4
10 m6 x 55	S	50	780,00 A4
10 m6 x 60	S	50	830,00 A4
10 m6 x 70	S	25	1000,00 A4
10 m6 x 80	S	25	1100,00 A4
10 m6 x 90	S	25	1220,00 A4
10 m6 x 100	S	25	1310,00 A4
12 m6 x 14	S	50	580,00 A4
12 m6 x 16	S	50	590,00 A4
12 m6 x 18	S	50	630,00 A4
12 m6 x 20	S	50	690,00 A4
12 m6 x 24	S	50	740,00 A4
12 m6 x 28	S	50	830,00 A4
12 m6 x 32	S	50	930,00 A4
12 m6 x 36	S	50	1020,00 A4
12 m6 x 40	S	50	1160,00 A4
12 m6 x 45	S	50	1260,00 A4
12 m6 x 50	S	10	1370,00 A4
12 m6 x 55	S	10	1520,00 A4
12 m6 x 60	S	10	1600,00 A4
12 m6 x 70	S	10	1850,00 A4
12 m6 x 80	S	10	2190,00 A4
12 m6 x 100	S	10	2700,00 A4
16 m6 x 20	S	10	1220,00 A4
16 m6 x 24	S	10	1350,00 A4
16 m6 x 28	S	10	1580,00 A4
16 m6 x 32	S	10	1750,00 A4
16 m6 x 36	S	10	1870,00 A4
16 m6 x 40	S	10	2000,00 A4
16 m6 x 45	S	10	2190,00 A4
16 m6 x 50	S	10	2330,00 A4
16 m6 x 55	S	10	2500,00 A4
16 m6 x 60	S	10	2750,00 A4
16 m6 x 70	S	10	3000,00 A4
16 m6 x 80	S	10	3300,00 A4
16 m6 x 90	S	10	3650,00 A4
16 m6 x 100	S	10	3950,00 A4

DIN 84 A 1 turned — 00084.914 — 30



Slotted cheese head screws

Dimensions → TI-37 Standard conversion → TI-11
Material properties → TI-236

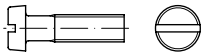
Steel → pg. 65
Brass → pg. 611

DIN 84 → replaced by ISO 1207 (compatible)

RoHS ✓ REACh SVHC free

M 1,4	x	3	S	100	105,00 A1
M 1,4	x	4	S	100	107,00 A1
M 1,4	x	5	S	100	111,00 A1
M 1,4	x	6	S	100	117,00 A1
M 1,4	x	8	S	100	122,00 A1
M 1,4	x	10	S	100	130,00 A1
M 1,6	x	3	S	100	30,00 A1
M 1,6	x	4	S	100	22,60 A1
M 1,6	x	5	S	100	20,90 A1
M 1,6	x	6	S	100	19,70 A1
M 1,6	x	8	S	100	21,80 A1
M 1,6	x	10	S	100	24,10 A1
M 1,6	x	12	S	100	33,00 A1

DIN 84 A 2 — 00084.920 — 30



Slotted cheese head screws

partly from l = 60mm partial thread

Dimensions → TI-37 Standard conversion → TI-11
Material properties → TI-236

Steel → pg. 65
Brass, Plastic → pg. 611

DIN 84 → replaced by ISO 1207 (compatible)

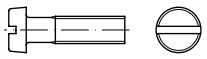
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M 1	x	2	S	2000	285,00 A2
M 1	x	3	S	2000	290,00 A2
M 1	x	4	S	2000	295,00 A2
M 1	x	5	S	2000	300,00 A2
M 1	x	6	S	2000	310,00 A2
M 1	x	8	S	2000	335,00 A2
M 1	x	10	S	2000	370,00 A2
M 1,2	x	2	S	2000	285,00 A2
M 1,2	x	3	S	2000	290,00 A2
M 1,2	x	4	S	2000	295,00 A2
M 1,2	x	5	S	2000	300,00 A2
M 1,2	x	6	S	2000	335,00 A2
M 1,2	x	8	S	2000	370,00 A2
M 1,2	x	10	S	2000	430,00 A2
M 1,2	x	12	S	2000	485,00 A2
M 1,4	x	2	S	2000	285,00 A2
M 1,4	x	3	S	2000	290,00 A2
M 1,4	x	4	S	2000	295,00 A2
M 1,4	x	5	S	2000	300,00 A2
M 1,4	x	6	S	2000	335,00 A2
M 1,4	x	8	S	2000	370,00 A2
M 1,4	x	10	S	2000	430,00 A2
M 1,4	x	12	S	2000	485,00 A2
M 1,6	x	2	S	2000	285,00 A2
M 1,6	x	3	S	2000	290,00 A2
M 1,6	x	4	S	2000	295,00 A2
M 1,6	x	5	S	2000	300,00 A2
M 1,6	x	6	S	2000	335,00 A2
M 1,6	x	8	S	2000	370,00 A2
M 1,6	x	10	S	2000	430,00 A2
M 1,6	x	12	S	2000	485,00 A2
M 1,6	x	16	S	2000	560,00 A2
M 2	x	3	S	1000	7,10 A2
M 2	x	4	S	1000	7,20 A2
M 2	x	5	S	1000	7,30 A2
M 2	x	6	S	1000	7,40 A2
M 2	x	8	S	1000	7,80 A2
M 2	x	10	S	1000	8,50 A2
M 2	x	12	S	1000	9,50 A2
M 2	x	16	S	1000	10,30 A2
M 2	x	20	S	1000	17,10 A2
M 2,5	x	3	S	1000	7,10 A2
M 2,5	x	4	S	1000	7,20 A2
M 2,5	x	5	S	1000	7,30 A2
M 2,5	x	6	S	1000	7,40 A2
M 2,5	x	8	S	1000	7,80 A2
M 2,5	x	10	S	1000	8,50 A2
M 2,5	x	12	S	1000	9,50 A2
M 2,5	x	16	S	1000	10,30 A2
M 2,5	x	20	S	1000	17,10 A2
M 2,5	x	22	S	1000	25,50 A2
M 2,5	x	25	S	1000	26,50 A2
M 2,5	x	30	S	1000	28,50 A2
M 2,5	x	35	S	1000	52,00 A2
M 2,5	x	40	S	1000	97,00 A2
M 3	x	3	S	1000	19,00 A2
M 3	x	4	S	1000	11,60 A2
M 3	x	5	S	1000	7,80 A2
M 3	x	5	K	200	9,70 A2
M 3	x	6	S	1000	5,30 A2
M 3	x	6	K	200	7,10 A2
M 3	x	8	S	1000	4,55 A2
M 3	x	8	K	200	6,50 A2
M 3	x	10	S	1000	4,75 A2
M 3	x	10	K	200	6,70 A2
M 3	x	12	S	1000	5,20 A2
M 3	x	12	K	200	7,10 A2
M 3	x	14	S	1000	7,40 A2
M 3	x	14	K	200	9,30 A2
M 3	x	16	S	1000	7,60 A2
M 3	x	16	K	200	9,60 A2
M 3	x	18	S	1000	8,20 A2
M 3	x	18	K	200	10,10 A2
M 3	x	20	S	1000	9,00 A2
M 3	x	20	K	200	11,20 A2
M 3	x	22	S	1000	11,10 A2
M 3	x	22	K	200	13,00 A2
M 3	x	25	S	1000	11,40 A2
M 3	x	25	K	200	13,50 A2
M 3	x	30	S	1000	12,10 A2
M 3	x	30	K	200	14,00 A2
M 3	x	35	S	1000	17,60 A2
M 3	x	40	K	200	23,80 A2
M 3	x	45	S	500	34,50 A2
M 3	x	50	K	200	69,00 A2
M 3	x	55	K	200	133,00 A2
M 3,5	x	6	K	200	38,00 A2
M 3,5	x	8	K	200	31,00 A2
M 3,5	x	10	K	200	30,50 A2
M 3,5	x	12	K	200	32,00 A2
M 3,5	x	16	K	200	34,00 A2
M 3,5	x	20	K	200	41,00 A2
M 3,5	x	25	K	200	62,00 A2
M 4	x	4	K	200	21,80 A2
M 4	x	5	S	1000	12,50 A2
M 4	x	5	K	200	14,40 A2
M 4	x	6	S	1000	8,20 A2
M 4	x	6	K	200	10,10 A2
M 4	x	8	S	1000	8,20 A2
M 4	x	8	K	200	10,10 A2
M 4	x	10	S	1000	6,70 A2
M 4	x	10	K	200	8,60 A2
M 4	x	12	S	1000	7,20 A2
M 4	x	12	K	200	9,10 A2
M 4	x	14	S	1000	10,60 A2
M 4	x	16	S	1000	10,90 A2
M 4	x	16	K	200	10,10 A2
M 4	x	18	S	1000	11,20 A2
M 4	x	18	K	200	13,60 A2
M 4	x	20	S	1000	11,60 A2
M 4	x	20	K	200	14,80 A2
M 4	x	22	K	200	17,40 A2
M 4	x	25	S	500	12,10 A2
M 4	x	25	K	200	18,80 A2
M 4	x	30	S	500	12,50 A2
M 4	x	30	K	200	19,40 A2
M 4	x	35	S	500	21,80 A2
M 4	x	35	K	100	23,00 A2
M 4	x	40	K	100	28,50 A2
M 4	x	45	K	100	31,50 A2
M 4	x	50	K	100	41,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 4 x 55	K	100	57,00 A2
M 4 x 60	K	100	61,00 A2
M 4 x 70	K	100	66,00 A2
M 4 x 80	K	100	82,00 A2
M 4 x 90	K	100	115,00 A2
M 4 x 100	K	100	165,00 A2
M 5 x 6	S	500	17,10 A2
M 5 x 8	S	500	12,10 A2
M 5 x 8	K	200	14,00 A2
M 5 x 10	S	500	10,00 A2
M 5 x 10	K	200	11,90 A2
M 5 x 12	S	500	10,90 A2
M 5 x 12	K	200	12,80 A2
M 5 x 14	K	200	15,90 A2
M 5 x 16	S	500	12,20 A2
M 5 x 16	K	200	16,20 A2
M 5 x 18	S	500	13,20 A2
M 5 x 18	K	200	16,50 A2
M 5 x 20	S	500	13,80 A2
M 5 x 20	K	200	16,80 A2
M 5 x 22	K	200	17,00 A2
M 5 x 25	S	500	15,40 A2
M 5 x 25	K	200	17,30 A2
M 5 x 30	S	500	18,90 A2
M 5 x 30	K	200	20,80 A2
M 5 x 35	S	200	20,70 A2
M 5 x 35	K	100	24,60 A2
M 5 x 40	S	200	28,50 A2
M 5 x 40	K	100	32,00 A2
M 5 x 45	K	100	36,50 A2
M 5 x 50	K	100	45,00 A2
M 5 x 55	K	100	71,00 A2
M 5 x 60	K	100	73,00 A2
M 5 x 70	K	100	77,00 A2
M 5 x 80	K	100	83,00 A2
M 5 x 90	K	100	118,00 A2
M 5 x 100	S	100	241,00 A2
M 6 x 8	K	100	19,50 A2
M 6 x 10	S	200	15,70 A2
M 6 x 10	K	100	19,50 A2
M 6 x 12	S	200	13,40 A2
M 6 x 12	K	100	17,30 A2
M 6 x 16	S	200	15,10 A2
M 6 x 16	K	100	19,00 A2
M 6 x 18	S	200	16,10 A2
M 6 x 18	K	100	20,00 A2
M 6 x 20	S	200	16,50 A2
M 6 x 20	K	100	20,40 A2
M 6 x 25	S	200	18,90 A2
M 6 x 25	K	100	22,80 A2
M 6 x 30	S	200	21,40 A2
M 6 x 30	K	100	25,50 A2
M 6 x 35	S	100	24,30 A2
M 6 x 35	K	50	32,00 A2
M 6 x 40	S	100	27,50 A2
M 6 x 40	K	50	35,50 A2
M 6 x 45	S	100	34,00 A2
M 6 x 45	K	50	41,50 A2
M 6 x 50	K	50	67,00 A2
M 6 x 60	K	50	82,00 A2
M 6 x 70	K	50	90,00 A2
M 6 x 75	K	50	96,00 A2
M 6 x 80	K	50	99,00 A2
M 6 x 90	K	50	108,00 A2
M 6 x 100	K	50	116,00 A2
M 8 x 10	K	50	67,00 A2
M 8 x 12	S	100	43,50 A2
M 8 x 12	K	50	52,00 A2
M 8 x 16	S	100	40,00 A2
M 8 x 16	K	50	47,50 A2
M 8 x 20	S	100	41,00 A2
M 8 x 20	K	50	48,50 A2
M 8 x 25	S	100	43,50 A2
M 8 x 25	K	50	52,00 A2
M 8 x 30	S	100	48,50 A2

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 30	K	50	57,00 A2
M 8 x 35	S	100	58,00 A2
M 8 x 35	K	50	66,00 A2
M 8 x 40	S	100	67,00 A2
M 8 x 40	K	50	74,00 A2
M 8 x 50	S	100	87,00 A2
M 8 x 50	K	50	95,00 A2
M 8 x 60	K	50	116,00 A2
M 8 x 70	K	50	135,00 A2
M 8 x 80	K	50	147,00 A2
M 8 x 90	K	50	163,00 A2
M 8 x 100	K	50	176,00 A2
M 10 x 12	K	50	95,00 A2
M 10 x 16	K	50	92,00 A2
M 10 x 20	K	50	73,00 A2
M 10 x 25	K	50	81,00 A2
M 10 x 30	K	50	88,00 A2
M 10 x 35	K	50	98,00 A2
M 10 x 40	K	50	106,00 A2
M 10 x 45	K	50	126,00 A2
M 10 x 50	K	50	148,00 A2
M 10 x 60	K	50	194,00 A2
M 10 x 70	K	25	218,00 A2
M 10 x 80	K	25	235,00 A2
M 10 x 90	K	25	260,00 A2
M 10 x 100	K	25	280,00 A2

DIN	00084.940	30
84	**A 4**	



Slotted cheese head screws

partly from l = 60mm partial thread

Dimensions ➔ TI-37
Material properties ➔ TI-236
Standard conversion ➔ TI-11

Steel ➔ pg. 65
Brass, Plastic ➔ pg. 611

DIN 84 ➔ replaced by ISO 1207 (compatible)

RoHS ✓ | REACh SVHC free

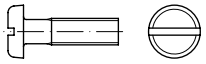
Dimensions	PU	Pieces	€/100/Mat.
M 2 x 3	S	1000	8,20 A4
M 2 x 3	K	200	10,30 A4
M 2 x 4	S	1000	8,00 A4
M 2 x 4	K	200	10,10 A4
M 2 x 5	S	1000	8,10 A4
M 2 x 5	K	200	10,20 A4
M 2 x 6	S	1000	8,20 A4
M 2 x 6	K	200	10,30 A4
M 2 x 8	S	1000	8,70 A4
M 2 x 8	K	200	10,70 A4
M 2 x 10	S	1000	9,40 A4
M 2 x 10	K	200	11,50 A4
M 2 x 12	S	1000	10,50 A4
M 2 x 12	K	200	12,60 A4
M 2 x 16	S	1000	11,50 A4
M 2 x 16	K	200	13,60 A4
M 2 x 20	S	1000	16,40 A4
M 2 x 20	K	200	18,50 A4
M 2 x 25	K	200	31,50 A4
M 2,5 x 3	S	1000	8,20 A4
M 2,5 x 3	K	200	10,30 A4
M 2,5 x 4	S	1000	8,00 A4
M 2,5 x 4	K	200	10,10 A4
M 2,5 x 5	S	1000	8,10 A4

Dimensions	PU	Pieces	€/100/Mat.
M 2,5 x 5	K	200	10,20 A4
M 2,5 x 6	S	1000	8,20 A4
M 2,5 x 6	K	200	10,30 A4
M 2,5 x 8	S	1000	8,70 A4
M 2,5 x 8	K	200	10,70 A4
M 2,5 x 10	S	1000	9,40 A4
M 2,5 x 10	K	200	11,50 A4
M 2,5 x 12	S	1000	10,50 A4
M 2,5 x 12	K	200	12,60 A4
M 2,5 x 14	K	200	13,60 A4
M 2,5 x 16	S	1000	11,50 A4
M 2,5 x 16	K	200	17,10 A4
M 2,5 x 18	K	200	18,40 A4
M 2,5 x 20	S	1000	16,30 A4
M 2,5 x 20	K	200	19,20 A4
M 2,5 x 22	K	200	35,50 A4
M 2,5 x 25	K	200	37,50 A4
M 3 x 3	S	1000	22,50 A4
M 3 x 3	K	200	24,60 A4
M 3 x 4	S	1000	14,40 A4
M 3 x 4	K	200	16,50 A4
M 3 x 5	S	1000	11,50 A4
M 3 x 5	K	200	13,60 A4
M 3 x 6	S	1000	7,30 A4
M 3 x 6	K	200	9,40 A4
M 3 x 8	S	1000	6,70 A4
M 3 x 8	K	200	8,80 A4
M 3 x 10	S	1000	6,10 A4
M 3 x 10	K	200	8,20 A4
M 3 x 12	S	1000	6,80 A4
M 3 x 12	K	200	8,90 A4
M 3 x 14	K	200	9,50 A4
M 3 x 16	S	1000	7,40 A4
M 3 x 16	K	200	10,50 A4
M 3 x 18	K	200	12,50 A4
M 3 x 20	S	1000	8,30 A4
M 3 x 20	K	200	14,40 A4
M 3 x 22	K	200	15,80 A4
M 3 x 25	S	1000	11,20 A4
M 3 x 25	K	200	16,30 A4
M 3 x 30	S	1000	15,60 A4
M 3 x 30	K	200	17,70 A4
M 3 x 35	S	500	28,00 A4
M 3 x 35	K	100	32,00 A4
M 3 x 40	S	500	33,50 A4
M 3 x 40	K	100	38,00 A4
M 3 x 50	S	500	61,00 A4
M 3 x 50	K	100	65,00 A4
M 3 x 55	K	100	98,00 A4
M 3 x 60	K	100	120,00 A4
M 3,5 x 6	K	100	53,00 A4
M 3,5 x 8	K	200	41,50 A4
M 3,5 x 10	K	200	40,50 A4
M 3,5 x 20	S	500	59,00 A4
M 3,5 x 20	K	200	63,00 A4
M 4 x 4	K	200	27,00 A4
M 4 x 5	S	1000	15,90 A4
M 4 x 5	K	200	18,00 A4
M 4 x 6	S	1000	10,60 A4
M 4 x 6	K	200	12,70 A4
M 4 x 8	S	1000	10,30 A4
M 4 x 8	K	200	12,40 A4
M 4 x 10	S	1000	9,10 A4
M 4 x 10	K	200	11,20 A4
M 4 x 12	S	1000	9,70 A4
M 4 x 12	K	200	11,80 A4
M 4 x 16	S	1000	11,20 A4
M 4 x 16	K	200	13,30 A4
M 4 x 18	S	1000	12,10 A4
M 4 x 18	K	200	17,90 A4
M 4 x 20	S	1000	13,60 A4
M 4 x 20	K	200	19,20 A4
M 4 x 22	K	200	21,50 A4
M 4 x 25	S	500	14,80 A4
M 4 x 25	K	200	22,90 A4

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 4 x 30	S	500	16,80 A4
M 4 x 30	K	200	24,90 A4
M 4 x 35	S	500	24,00 A4
M 4 x 35	K	100	28,50 A4
M 4 x 40	S	500	30,00 A4
M 4 x 40	K	100	34,00 A4
M 4 x 45	K	100	40,00 A4
M 4 x 50	S	500	42,00 A4
M 4 x 50	K	100	46,50 A4
M 4 x 55	K	100	72,00 A4
M 4 x 60	K	100	75,00 A4
M 4 x 70	K	100	89,00 A4
M 4 x 80	K	100	95,00 A4
M 5 x 6	S	500	18,30 A4
M 5 x 6	K	200	20,40 A4
M 5 x 8	S	500	17,70 A4
M 5 x 8	K	200	19,80 A4
M 5 x 10	S	500	15,60 A4
M 5 x 10	K	200	17,70 A4
M 5 x 12	S	500	15,30 A4
M 5 x 12	K	200	17,40 A4
M 5 x 16	S	500	17,00 A4
M 5 x 16	K	200	19,10 A4
M 5 x 18	K	200	20,50 A4
M 5 x 20	S	500	19,20 A4
M 5 x 20	K	200	21,30 A4
M 5 x 25	S	500	21,40 A4
M 5 x 25	K	200	23,50 A4
M 5 x 30	S	500	26,50 A4
M 5 x 30	K	200	28,50 A4
M 5 x 35	S	200	29,00 A4
M 5 x 35	K	100	33,50 A4
M 5 x 40	S	200	43,50 A4
M 5 x 40	K	100	48,00 A4
M 5 x 45	K	100	51,00 A4
M 5 x 50	S	200	49,00 A4
M 5 x 50	K	100	54,00 A4
M 5 x 60	K	100	94,00 A4
M 5 x 70	K	100	108,00 A4
M 5 x 80	K	100	122,00 A4
M 5 x 100	K	100	150,00 A4
M 6 x 8	S	200	22,90 A4
M 6 x 8	K	100	27,50 A4
M 6 x 10	S	200	21,90 A4
M 6 x 10	K	100	26,50 A4
M 6 x 12	S	200	19,60 A4
M 6 x 12	K	100	23,90 A4
M 6 x 16	S	200	21,90 A4
M 6 x 16	K	100	26,50 A4
M 6 x 18	K	100	36,00 A4
M 6 x 20	S	200	24,20 A4
M 6 x 20	K	100	37,50 A4
M 6 x 22	K	100	38,50 A4
M 6 x 25	S	200	27,50 A4
M 6 x 25	K	100	41,00 A4
M 6 x 30	S	200	31,50 A4
M 6 x 30	K	100	43,00 A4
M 6 x 35	S	100	36,00 A4
M 6 x 35	K	50	44,50 A4
M 6 x 40	S	100	53,00 A4
M 6 x 40	K	50	62,00 A4
M 6 x 45	K	50	70,00 A4
M 6 x 50	S	100	67,00 A4
M 6 x 50	K	50	76,00 A4
M 6 x 60	K	50	100,00 A4
M 6 x 70	K	50	128,00 A4
M 6 x 75	K	50	149,00 A4
M 6 x 80	K	50	160,00 A4
M 8 x 10	S	100	76,00 A4
M 8 x 10	K	50	84,00 A4
M 8 x 12	S	100	59,00 A4
M 8 x 12	K	50	68,00 A4
M 8 x 16	S	100	52,00 A4
M 8 x 16	K	50	60,00 A4
M 8 x 20	S	100	54,00 A4
M 8 x 20	K	50	63,00 A4
M 8 x 25	S	100	60,00 A4
M 8 x 25	K	50	68,00 A4
M 8 x 30	S	100	66,00 A4
M 8 x 30	K	50	75,00 A4
M 8 x 35	S	100	79,00 A4
M 8 x 35	K	50	88,00 A4
M 8 x 40	S	100	88,00 A4
M 8 x 40	K	50	97,00 A4
M 8 x 45	K	50	116,00 A4
M 8 x 50	S	100	125,00 A4
M 8 x 50	K	50	133,00 A4
M 8 x 55	K	50	160,00 A4
M 8 x 60	K	50	180,00 A4
M 8 x 70	K	50	217,00 A4
M 10 x 16	K	50	148,00 A4
M 10 x 20	K	50	101,00 A4
M 10 x 25	K	50	110,00 A4
M 10 x 30	K	50	125,00 A4
M 10 x 35	K	50	133,00 A4
M 10 x 40	K	50	145,00 A4
M 10 x 50	K	50	206,00 A4
M 10 x 60	K	50	250,00 A4
M 10 x 65	K	50	350,00 A4
M 10 x 70	K	50	400,00 A4

DIN	00085.920	30
85	**A 2**	



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-236
Standard conversion ➔ TI-11

Steel ➔ pg. 67
Brass, Plastic ➔ pg. 612

DIN 85 ➔ replaced by ISO 1580 (compatible)

RoHS ✓

REACh SVHC free

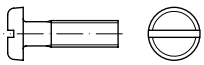
Dimensions	PU	Pieces	€/100/Mat.
M 3 x 4	S	1000	17,10 A2
M 3 x 5	S	1000	11,60 A2
M 3 x 6	S	1000	6,40 A2
M 3 x 6	K	200	8,30 A2
M 3 x 8	S	1000	5,90 A2
M 3 x 8	K	200	7,80 A2
M 3 x 10	S	1000	5,60 A2
M 3 x 10	K	200	7,50 A2
M 3 x 12	S	1000	6,10 A2
M 3 x 12	K	200	8,00 A2
M 3 x 14	S	1000	6,70 A2
M 3 x 16	S	1000	6,90 A2
M 3 x 16	K	200	8,80 A2
M 3 x 20	S	1000	7,60 A2
M 3 x 20	K	200	9,50 A2
M 3 x 25	K	200	10,20 A2
M 3 x 30	S	500	17,10 A2
M 3 x 35	K	200	13,10 A2
M 4 x 5	S	1000	17,10 A2
M 4 x 5	K	200	20,80 A2
M 4 x 6	S	1000	11,40 A2
M 4 x 8	S	1000	9,10 A2
M 4 x 8	K	200	11,00 A2
M 4 x 10	S	1000	8,30 A2
M 4 x 10	K	200	10,20 A2
M 4 x 12	S	1000	8,50 A2
M 4 x 12	K	200	10,40 A2
M 4 x 16	S	1000	9,10 A2
M 4 x 16	K	200	11,00 A2
M 4 x 20	S	1000	9,50 A2
M 4 x 20	K	200	11,40 A2
M 4 x 25	S	500	11,40 A2
M 4 x 25	K	200	13,30 A2
M 4 x 30	S	500	12,70 A2
M 4 x 35	S	500	17,10 A2
M 4 x 40	S	500	20,90 A2
M 4 x 50	S	500	36,00 A2
M 4 x 60	S	500	42,50 A2
M 5 x 6	S	500	22,20 A2
M 5 x 6	K	100	26,50 A2
M 5 x 8	S	500	19,40 A2
M 5 x 8	K	200	21,20 A2
M 5 x 10	S	500	15,20 A2
M 5 x 10	K	200	17,10 A2
M 5 x 12	S	500	11,40 A2
M 5 x 12	K	200	13,30 A2
M 5 x 16	S	500	12,70 A2
M 5 x 16	K	200	14,60 A2
M 5 x 20	S	500	14,10 A2
M 5 x 20	K	200	16,00 A2
M 5 x 25	S	500	16,10 A2
M 5 x 25	K	100	20,00 A2
M 5 x 30	S	500	19,20 A2
M 5 x 30	K	100	23,00 A2
M 5 x 35	S	500	27,00 A2
M 5 x 40	K	100	34,50 A2
M 5 x 45	S	500	37,50 A2
M 5 x 50	S	500	46,00 A2
M 5 x 60	S	500	55,00 A2
M 5 x 70	S	200	67,00 A2
M 5 x 80	S	200	95,00 A2
M 6 x 8	S	500	22,80 A2
M 6 x 10	S	200	17,00 A2
M 6 x 10	K	100	20,90 A2
M 6 x 12	S	200	15,60 A2
M 6 x 12	K	100	19,40 A2
M 6 x 16	S	200	16,70 A2
M 6 x 16	K	100	20,60 A2
M 6 x 20	S	200	18,50 A2
M 6 x 20	K	100	22,40 A2
M 6 x 25	S	200	20,70 A2
M 6 x 25	K	100	24,60 A2
M 6 x 30	S	200	24,10 A2
M 6 x 30	K	100	28,00 A2
M 6 x 35	S	200	33,50 A2
M 6 x 40	K	100	35,00 A2
M 6 x 45	K	100	40,00 A2
M 6 x 50	K	50	81,00 A2
M 6 x 60	S	200	124,00 A2
M 6 x 70	S	200	148,00 A2
M 6 x 80	S	200	180,00 A2

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Dimensions	PU Pieces	€/100/Mat.
DIN	00085.940	30
85	**A 4**	



Slotted pan head screws

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-236

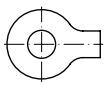
Steel ➔ pg. 67
Brass, Plastic ➔ pg. 612

DIN 85 ➔ replaced by ISO 1580 (compatible)

RoHS ✓ | REACh SVHC free

M 2	x	3	S	1000	74,00 A4
M 2	x	4	S	1000	42,00 A4
M 2	x	5	S	1000	41,50 A4
M 2	x	6	S	1000	36,00 A4
M 2	x	8	S	1000	38,00 A4
M 2	x	10	S	1000	40,00 A4
M 2	x	12	S	1000	42,00 A4
M 2	x	16	S	1000	53,00 A4
M 2	x	20	S	1000	59,00 A4
M 2	x	25	S	1000	76,00 A4
M 2	x	30	S	1000	95,00 A4
M 2,5	x	3	S	1000	84,00 A4
M 2,5	x	4	S	1000	68,00 A4
M 2,5	x	5	S	1000	59,00 A4
M 2,5	x	6	S	1000	61,00 A4
M 2,5	x	8	S	1000	63,00 A4
M 2,5	x	10	S	1000	66,00 A4
M 2,5	x	12	S	1000	68,00 A4
M 2,5	x	16	S	1000	74,00 A4
M 2,5	x	20	S	1000	89,00 A4
M 2,5	x	25	S	1000	105,00 A4
M 2,5	x	30	S	1000	137,00 A4
M 3	x	5	S	1000	14,50 A4
M 3	x	5	K	200	16,60 A4
M 3	x	6	S	1000	9,10 A4
M 3	x	6	K	200	11,20 A4
M 3	x	8	S	1000	8,40 A4
M 3	x	8	K	200	10,50 A4
M 3	x	10	S	1000	8,00 A4
M 3	x	10	K	200	10,10 A4
M 3	x	12	S	1000	8,40 A4
M 3	x	12	K	200	10,50 A4
M 3	x	16	S	1000	9,70 A4
M 3	x	16	K	200	11,80 A4
M 3	x	20	S	1000	10,30 A4
M 3	x	20	K	200	12,40 A4
M 3	x	25	K	100	13,30 A4
M 3	x	30	K	100	17,60 A4
M 4	x	5	S	1000	23,80 A4
M 4	x	5	K	200	26,00 A4
M 4	x	6	S	1000	13,50 A4
M 4	x	6	K	200	15,60 A4
M 4	x	8	S	1000	12,80 A4
M 4	x	8	K	200	14,90 A4
M 4	x	10	S	1000	11,80 A4
M 4	x	10	K	200	13,90 A4
M 4	x	12	S	1000	11,60 A4
M 4	x	12	K	200	13,70 A4
M 4	x	16	S	1000	13,20 A4
M 4	x	16	K	200	15,30 A4
M 4	x	20	S	1000	15,00 A4
M 4	x	20	K	200	17,10 A4
M 4	x	25	K	200	19,30 A4
M 4	x	30	K	100	24,50 A4
M 4	x	35	K	100	37,00 A4
M 4	x	40	K	100	41,50 A4
M 4	x	45	K	100	54,00 A4
M 4	x	50	K	100	50,00 A4
M 5	x	8	S	500	24,20 A4
M 5	x	8	K	200	28,50 A4
M 5	x	10	S	500	19,60 A4
M 5	x	10	K	200	21,70 A4
M 5	x	12	S	500	18,60 A4
M 5	x	12	K	200	20,70 A4
M 5	x	16	S	500	20,60 A4
M 5	x	16	K	200	22,70 A4
M 5	x	20	S	500	23,50 A4
M 5	x	20	K	200	26,00 A4
M 5	x	25	S	500	26,50 A4
M 5	x	25	K	100	31,00 A4
M 5	x	30	S	500	32,00 A4
M 5	x	30	K	100	36,00 A4
M 5	x	40	K	100	49,00 A4
M 5	x	50	K	100	102,00 A4
M 6	x	8	K	100	42,00 A4
M 6	x	10	S	200	26,50 A4
M 6	x	10	K	100	31,00 A4
M 6	x	12	S	200	24,00 A4
M 6	x	12	K	100	28,50 A4
M 6	x	16	S	200	26,50 A4
M 6	x	16	K	100	31,00 A4
M 6	x	20	S	200	30,00 A4
M 6	x	20	K	100	34,00 A4
M 6	x	25	S	200	33,00 A4
M 6	x	25	K	100	37,00 A4
M 6	x	30	S	200	41,50 A4
M 6	x	30	K	100	45,50 A4
M 6	x	35	K	50	48,00 A4
M 6	x	40	K	50	53,00 A4
M 6	x	50	K	50	116,00 A4
M 8	x	10	K	50	98,00 A4
M 8	x	12	K	50	94,00 A4
M 8	x	16	K	50	96,00 A4
M 8	x	20	K	50	98,00 A4
M 8	x	25	K	50	103,00 A4

~DIN	00093.920	40
93	**A 2**	



Tap washers with a long tap

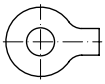
Dimensions ➔ TI-88 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

Steel ➔ pg. 68

RoHS ✓ | REACh SVHC free

4,3	S	50	120,00 A2
5,3	S	50	93,00 A2
6,4	S	50	108,00 A2
8,4	S	25	142,00 A2
10,5	S	25	180,00 A2
13	S	25	224,00 A2
17	S	10	330,00 A2
21	S	10	395,00 A2
25	S	10	510,00 A2
28	S	1	710,00 A2
31	S	1	900,00 A2
37	S	1	1480,00 A2

Dimensions	PU Pieces	€/100/Mat.
~DIN	00093.940	40
93	**A 4**	



Tap washers with a long tap

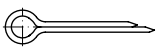
Dimensions ➔ TI-88 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

Steel ➔ pg. 68

RoHS ✓ | REACh SVHC free

5,3	S	50	141,00 A4
6,4	S	50	162,00 A4
8,4	S	25	212,00 A4
10,5	S	25	275,00 A4
13	S	25	345,00 A4
17	S	10	540,00 A4
21	S	10	620,00 A4
25	S	10	780,00 A4
28	S	1	970,00 A4
31	S	1	1390,00 A4
37	S	1	2120,00 A4
43	S	1	2460,00 A4

DIN	00094.300	40
94	**A 2**	



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 69
Brass, Copper ➔ pg. 613

DIN 94 ➔ replaced by ISO 1234

RoHS ✓ | REACh SVHC free

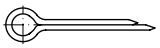
nominal ∅ = drilling ∅ x length

1	x	8	S	1000	6,90 A2
1	x	10	S	1000	7,00 A2
1	x	16	S	1000	7,10 A2
1	x	20	S	1000	7,20 A2
1	x	25	S	1000	8,40 A2
1	x	32	S	1000	11,40 A2
1,6	x	8	S	1000	8,10 A2
1,6	x	10	S	1000	8,20 A2
1,6	x	12	S	1000	8,30 A2
1,6	x	16	S	1000	8,40 A2
1,6	x	20	S	1000	8,50 A2
1,6	x	25	S	1000	9,90 A2
1,6	x	32	S	1000	11,40 A2
2	x	10	S	1000	11,00 A2
2	x	12	S	1000	11,20 A2
2	x	14	S	1000	11,40 A2
2	x	16	S	1000	11,60 A2
2	x	20	S	1000	11,80 A2
2	x	25	S	1000	13,70 A2
2	x	32	S	1000	16,30 A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
2	x	40	S	1000	19,00 A2
2,5	x	12	S	500	18,40 A2
2,5	x	16	S	500	18,90 A2
2,5	x	20	S	500	19,90 A2
2,5	x	25	S	500	23,30 A2
2,5	x	32	S	500	28,50 A2
2,5	x	36	S	500	31,00 A2
2,5	x	40	S	500	34,00 A2
2,5	x	45	S	500	37,50 A2
2,5	x	50	S	500	40,50 A2
3,2	x	16	S	500	26,00 A2
3,2	x	20	S	500	28,00 A2
3,2	x	25	S	500	32,00 A2
3,2	x	32	S	500	38,50 A2
3,2	x	36	S	500	42,50 A2
3,2	x	40	S	500	46,00 A2
3,2	x	45	S	500	52,00 A2
3,2	x	50	S	500	55,00 A2
4	x	20	S	500	44,00 A2
4	x	25	S	500	52,00 A2
4	x	28	S	500	53,00 A2
4	x	32	S	500	62,00 A2
4	x	36	S	500	68,00 A2
4	x	40	S	500	73,00 A2
4	x	45	S	500	80,00 A2
4	x	50	S	500	88,00 A2
4	x	63	S	500	114,00 A2
5	x	25	S	250	75,00 A2
5	x	28	S	250	76,00 A2
5	x	32	S	250	90,00 A2
5	x	36	S	250	99,00 A2
5	x	40	S	250	106,00 A2
5	x	45	S	250	118,00 A2
5	x	50	S	250	127,00 A2
5	x	56	S	250	141,00 A2
5	x	63	S	250	156,00 A2
5	x	71	S	250	173,00 A2
5	x	80	S	250	180,00 A2
6,3	x	32	S	250	129,00 A2
6,3	x	36	S	250	141,00 A2
6,3	x	40	S	250	152,00 A2
6,3	x	45	S	250	180,00 A2
6,3	x	50	S	250	185,00 A2
6,3	x	56	S	250	199,00 A2
6,3	x	63	S	250	220,00 A2
6,3	x	71	S	250	243,00 A2
6,3	x	80	S	250	270,00 A2
8	x	36	S	100	285,00 A2
8	x	45	S	100	310,00 A2
8	x	50	S	100	335,00 A2
8	x	56	S	100	365,00 A2
8	x	63	S	100	400,00 A2
8	x	71	S	100	440,00 A2
8	x	80	S	100	485,00 A2
10	x	63	S	50	590,00 A2
10	x	71	S	50	710,00 A2
10	x	80	S	50	770,00 A2
10	x	100	S	25	930,00 A2

DIN 94 — 00094.940 — 40 — A 4



Split pins

Dimensions ➔ TI-22
Material properties ➔ TI-236
Standard conversion ➔ TI-10

Steel ➔ pg. 69
Brass, Copper ➔ pg. 613

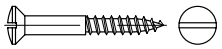
DIN 94 ➔ replaced by ISO 1234

RoHS ✓ | REACh SVHC free

nominal ∅ = drilling ∅ x length

1	x	16	K	100	13,50 A4
1	x	20	K	100	15,60 A4
1,6	x	10	K	100	13,90 A4
1,6	x	12	K	100	14,90 A4
1,6	x	16	K	100	18,90 A4
1,6	x	20	K	100	23,80 A4
1,6	x	25	K	100	27,50 A4
1,6	x	32	K	100	31,00 A4
2	x	10	K	100	19,30 A4
2	x	16	K	100	23,10 A4
2	x	20	K	100	27,50 A4
2	x	25	K	100	32,00 A4
2	x	32	K	100	38,00 A4
2	x	40	K	100	46,50 A4
2,5	x	20	K	100	42,50 A4
2,5	x	25	K	100	54,00 A4
2,5	x	32	K	100	60,00 A4
3,2	x	16	K	100	46,00 A4
3,2	x	20	K	100	55,00 A4
3,2	x	25	K	100	62,00 A4
3,2	x	32	K	100	70,00 A4
3,2	x	36	K	100	78,00 A4
3,2	x	40	K	100	86,00 A4
3,2	x	45	K	100	95,00 A4
3,2	x	50	K	100	107,00 A4
3,2	x	63	K	100	128,00 A4
4	x	20	K	100	86,00 A4
4	x	25	K	100	99,00 A4
4	x	32	K	100	118,00 A4
4	x	40	K	100	143,00 A4
4	x	50	K	100	168,00 A4
4	x	63	K	100	188,00 A4
5	x	32	K	50	185,00 A4
5	x	36	K	50	204,00 A4
5	x	40	K	50	223,00 A4
5	x	50	K	50	265,00 A4
5	x	63	K	50	300,00 A4
6,3	x	36	K	50	290,00 A4
6,3	x	40	K	50	315,00 A4
6,3	x	50	K	50	370,00 A4
6,3	x	63	K	50	425,00 A4
6,3	x	80	K	25	480,00 A4
8	x	40	K	25	640,00 A4
8	x	45	K	25	680,00 A4
8	x	50	K	25	710,00 A4
8	x	56	S	25	740,00 A4
8	x	80	K	25	920,00 A4
8	x	100	K	25	1000,00 A4
8	x	140	K	25	1090,00 A4
10	x	71	K	25	840,00 A4
10	x	80	K	25	870,00 A4
10	x	90	K	25	880,00 A4
10	x	100	K	25	890,00 A4
10	x	112	K	25	910,00 A4
10	x	125	K	25	920,00 A4
13	x	71	K	25	1260,00 A4
13	x	100	K	25	1310,00 A4
13	x	125	K	25	1370,00 A4
13	x	140	K	25	1430,00 A4
13	x	160	K	25	1470,00 A4
13	x	180	K	25	1520,00 A4
13	x	200	K	25	1580,00 A4

DIN 95 — 00095.920 — 50 — A 2



Slotted raised countersunk head wood screws

Dimensions ➔ TI-50
Material properties ➔ TI-236

Steel ➔ pg. 70
Brass ➔ pg. 613

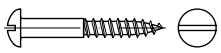
RoHS ✓ | REACh SVHC free

2,5	x	10	S	200	14,80 A2
2,5	x	12	S	200	15,60 A2
2,5	x	16	S	200	16,40 A2
2,5	x	20	S	200	17,40 A2
2,5	x	25	S	200	19,30 A2
3	x	10	S	200	15,30 A2
3	x	12	S	200	15,60 A2
3	x	16	S	200	16,40 A2
3	x	20	S	200	17,40 A2
3	x	25	S	200	19,30 A2
3	x	30	S	200	23,20 A2
3	x	35	S	200	24,50 A2
3	x	40	S	200	28,00 A2
3,5	x	12	S	200	17,30 A2
3,5	x	16	S	200	18,10 A2
3,5	x	20	S	200	19,70 A2
3,5	x	25	S	200	25,00 A2
3,5	x	30	S	200	26,50 A2
3,5	x	35	S	200	29,00 A2
3,5	x	40	S	200	32,50 A2
4	x	10	S	200	19,80 A2
4	x	12	S	200	20,30 A2
4	x	16	S	200	21,30 A2
4	x	20	S	200	22,90 A2
4	x	25	S	200	25,00 A2
4	x	30	S	200	29,00 A2
4	x	35	S	200	32,50 A2
4	x	40	S	200	35,50 A2
4	x	45	S	200	42,00 A2
4	x	50	S	200	47,50 A2
4	x	60	S	200	54,00 A2
4	x	70	S	500	61,00 A2
4,5	x	20	S	200	32,00 A2
4,5	x	25	S	200	33,50 A2
4,5	x	30	S	200	38,50 A2
4,5	x	35	S	200	41,50 A2
4,5	x	40	S	200	45,50 A2
4,5	x	45	S	200	52,00 A2
4,5	x	50	S	200	55,00 A2
4,5	x	60	S	200	60,00 A2
5	x	20	S	200	36,50 A2
5	x	25	S	200	37,50 A2
5	x	30	S	200	40,50 A2
5	x	35	S	200	45,50 A2

Dimensions			PU	Pieces	€/100/Mat.
5	x	40	S	200	49,50 A2
5	x	45	S	200	58,00 A2
5	x	50	S	200	63,00 A2
5	x	60	S	200	77,00 A2
5	x	70	S	200	95,00 A2
5	x	80	S	200	174,00 A2
5	x	90	S	200	192,00 A2
5	x	100	S	200	212,00 A2
6	x	20	S	200	52,00 A2
6	x	25	S	200	53,00 A2
6	x	30	S	200	58,00 A2
6	x	35	S	200	66,00 A2
6	x	40	S	200	72,00 A2
6	x	45	S	200	80,00 A2
6	x	50	S	200	88,00 A2
6	x	60	S	100	106,00 A2
6	x	70	S	100	133,00 A2
6	x	80	S	100	174,00 A2
6	x	90	S	100	192,00 A2
6	x	100	S	100	212,00 A2
6	x	120	S	100	237,00 A2
8	x	50	S	100	163,00 A2
8	x	60	S	100	192,00 A2
8	x	70	S	100	220,00 A2
8	x	80	S	100	255,00 A2
8	x	100	S	100	320,00 A2

DIN 00096.920 50

96 A 2



Slotted round head wood screws

Dimensions → TI-51 Material properties → TI-236

Steel → pg. 70
Brass → pg. 615

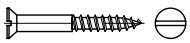
RoHS ✓ REACh SVHC free

2,5	x	10	S	200	14,80 A2
2,5	x	12	S	200	15,60 A2
2,5	x	16	S	200	16,40 A2
2,5	x	20	S	200	17,40 A2
2,5	x	25	S	200	19,30 A2
3	x	10	S	200	15,30 A2
3	x	12	S	200	15,60 A2
3	x	16	S	200	16,40 A2
3	x	20	S	200	17,40 A2
3	x	25	S	200	19,30 A2
3	x	30	S	200	23,20 A2
3	x	35	S	200	24,50 A2
3	x	40	S	200	28,00 A2
3,5	x	16	S	200	18,10 A2
3,5	x	20	S	200	19,70 A2
3,5	x	25	S	200	25,00 A2
3,5	x	30	S	200	26,50 A2
3,5	x	35	S	200	29,00 A2
3,5	x	40	S	200	32,50 A2
4	x	12	S	200	20,30 A2
4	x	16	S	200	21,30 A2
4	x	20	S	200	22,90 A2
4	x	25	S	200	25,00 A2
4	x	30	S	200	29,00 A2
4	x	35	S	200	32,50 A2
4	x	40	S	200	35,50 A2
4	x	45	S	200	42,00 A2
4	x	50	S	200	47,50 A2

Dimensions			PU	Pieces	€/100/Mat.
4	x	60	S	200	65,00 A2
4,5	x	20	S	200	32,00 A2
4,5	x	25	S	200	34,50 A2
4,5	x	30	S	200	38,50 A2
4,5	x	35	S	200	41,50 A2
4,5	x	40	S	200	45,50 A2
4,5	x	45	S	200	52,00 A2
4,5	x	50	S	200	55,00 A2
4,5	x	60	S	200	60,00 A2
5	x	20	S	200	36,50 A2
5	x	25	S	200	37,50 A2
5	x	30	S	200	40,50 A2
5	x	35	S	200	45,50 A2
5	x	40	S	200	49,50 A2
5	x	45	S	200	58,00 A2
5	x	50	S	200	63,00 A2
5	x	60	S	200	77,00 A2
5	x	70	S	200	95,00 A2
5	x	80	S	200	174,00 A2
6	x	20	S	200	52,00 A2
6	x	25	S	200	53,00 A2
6	x	30	S	200	58,00 A2
6	x	35	S	200	66,00 A2
6	x	40	S	200	72,00 A2
6	x	50	S	200	88,00 A2
6	x	60	S	100	106,00 A2
6	x	70	S	100	133,00 A2
6	x	80	S	100	174,00 A2
6	x	90	S	100	192,00 A2
6	x	100	S	100	212,00 A2

DIN 00097.920 50

97 A 2



Slotted countersunk head wood screws

Dimensions → TI-51 Material properties → TI-236

Steel → pg. 70
Brass → pg. 615

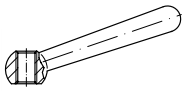
RoHS ✓ REACh SVHC free

2,5	x	10	S	200	14,80 A2
2,5	x	12	S	200	15,60 A2
2,5	x	16	S	200	16,40 A2
2,5	x	20	S	200	17,40 A2
2,5	x	25	S	200	19,30 A2
3	x	10	S	200	15,30 A2
3	x	12	S	200	15,60 A2
3	x	16	S	200	16,40 A2
3	x	20	S	200	17,40 A2
3	x	25	S	200	19,30 A2
3	x	30	S	200	23,20 A2
3	x	35	S	200	24,50 A2
3	x	40	S	200	28,00 A2
3,5	x	12	S	200	17,30 A2
3,5	x	16	S	200	18,10 A2
3,5	x	20	S	200	19,70 A2
3,5	x	25	S	200	25,00 A2
3,5	x	30	S	200	26,50 A2
3,5	x	35	S	200	29,00 A2
3,5	x	40	S	200	32,50 A2
4	x	12	S	200	20,30 A2
4	x	16	S	200	21,30 A2
4	x	20	S	200	22,90 A2
4	x	25	S	200	25,00 A2

Dimensions			PU	Pieces	€/100/Mat.
4	x	30	S	200	29,00 A2
4	x	35	S	200	32,50 A2
4	x	40	S	200	35,50 A2
4	x	45	S	200	42,00 A2
4	x	50	S	200	47,50 A2
4	x	60	S	200	54,00 A2
4	x	70	S	200	90,00 A2
4,5	x	20	S	200	32,00 A2
4,5	x	25	S	200	31,50 A2
4,5	x	30	S	200	38,50 A2
4,5	x	35	S	200	41,50 A2
4,5	x	40	S	200	45,50 A2
4,5	x	45	S	200	52,00 A2
4,5	x	50	S	200	55,00 A2
4,5	x	60	S	200	60,00 A2
5	x	20	S	200	36,50 A2
5	x	25	S	200	37,50 A2
5	x	30	S	200	40,50 A2
5	x	35	S	200	45,50 A2
5	x	40	S	200	49,50 A2
5	x	45	S	200	58,00 A2
5	x	50	S	200	63,00 A2
5	x	60	S	200	77,00 A2
5	x	70	S	200	95,00 A2
5	x	80	S	200	174,00 A2
5	x	100	S	200	212,00 A2
6	x	20	S	200	62,00 A2
6	x	25	S	200	53,00 A2
6	x	30	S	200	58,00 A2
6	x	35	S	200	66,00 A2
6	x	40	S	200	72,00 A2
6	x	45	S	200	80,00 A2
6	x	50	S	200	88,00 A2
6	x	60	S	100	106,00 A2
6	x	70	S	100	133,00 A2
6	x	80	S	100	174,00 A2
6	x	90	S	100	192,00 A2
6	x	100	S	100	212,00 A2
8	x	50	S	100	163,00 A2
8	x	60	S	100	192,00 A2
8	x	70	S	100	220,00 A2
8	x	80	S	100	255,00 A2
8	x	90	S	100	320,00 A2
8	x	100	S	100	320,00 A2

DIN 00099.927 80

99 A 2 type N



Tapered handles with handle bracket via thread, N = tilted griffith

Dimensions → TI-125 Material properties → TI-236

Steel → pg. 70

RoHS ✓ REACh SVHC free

length / internal thread M				
N 80 M 10	S	1	6300,00 A2	
N 100 M 12	S	1	8200,00 A2	
N 125 M 16	S	1	12200,00 A2	
N 160 M 20	S	1	13700,00 A2	

€/100 = price in € plus VAT when ordering full package unit

Dimensions					PU	Pieces	€/100/Mat.
DIN	00125.921						90
125-1	**A 2 140 HV**						**type A**



Plain washers, A = without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

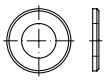
Steel ➔ pg. 70
Brass, Copper, Plastic, Aluminium ➔ pg. 616

DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓ REACh SVHC free

inside ∅		outside ∅		thickness			
1,7	x	4	x	0,3	S	1000	22,80 A2
2,2	x	5	x	0,3	S	1000	4,30 A2
2,2	x	5	x	0,3	K	200	7,60 A2
2,5	x	6	x	0,5	S	1000	4,30 A2
2,5	x	6	x	0,5	K	200	7,60 A2
2,7	x	6	x	0,5	S	1000	4,30 A2
2,7	x	6	x	0,5	K	200	7,60 A2
2,8	x	7	x	0,5	S	1000	4,30 A2
2,8	x	7	x	0,5	K	200	7,60 A2
3,2	x	7	x	0,5	S	1000	1,90 A2
3,2	x	7	x	0,5	K	200	4,30 A2
3,7	x	8	x	0,5	S	1000	2,65 A2
3,7	x	8	x	0,5	K	200	5,30 A2
4,3	x	9	x	0,8	S	1000	2,20 A2
4,3	x	9	x	0,8	K	200	4,45 A2
5,3	x	10	x	1	S	1000	2,65 A2
5,3	x	10	x	1	K	100	6,90 A2
6,4	x	12	x	1,6	S	1000	4,95 A2
6,4	x	12	x	1,6	K	100	9,70 A2
7,4	x	14	x	1,6	S	1000	10,80 A2
8,4	x	16	x	1,6	S	1000	8,20 A2
8,4	x	16	x	1,6	K	100	14,40 A2
10,5	x	20	x	2	S	1000	14,80 A2
10,5	x	20	x	2	K	100	22,60 A2
13	x	24	x	2,5	S	500	25,00 A2
13	x	24	x	2,5	K	100	34,00 A2
15	x	28	x	2,5	S	500	51,00 A2
15	x	28	x	2,5	K	50	67,00 A2
17	x	30	x	3	S	500	51,00 A2
17	x	30	x	3	K	50	67,00 A2
19	x	34	x	3	S	200	69,00 A2
19	x	34	x	3	K	25	101,00 A2
21	x	37	x	3	S	200	69,00 A2
21	x	37	x	3	K	25	101,00 A2
23	x	39	x	3	S	200	152,00 A2
23	x	39	x	3	K	25	184,00 A2
25	x	44	x	4	S	200	152,00 A2
25	x	44	x	4	K	25	184,00 A2
28	x	50	x	4	S	100	310,00 A2
28	x	50	x	4	K	10	390,00 A2
31	x	56	x	4	S	100	420,00 A2
31	x	56	x	4	K	10	510,00 A2
34	x	60	x	5	S	100	440,00 A2
34	x	60	x	5	K	10	580,00 A2
37	x	66	x	5	S	100	550,00 A2
37	x	66	x	5	K	10	600,00 A2
40	x	72	x	6	S	10	650,00 A2
43	x	78	x	7	S	10	1670,00 A2
46	x	85	x	7	S	10	2650,00 A2
50	x	92	x	8	S	1	7400,00 A2
54	x	98	x	8	S	1	9900,00 A2
58	x	105	x	9	S	1	18400,00 A2

Dimensions					PU	Pieces	€/100/Mat.
DIN	00125.922						90
125-1	**A 2 140 HV**						**type B**



Plain washers, B = with chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

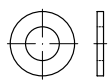
Steel ➔ pg. 72
Brass ➔ pg. 616

DIN 125-1 type B ➔ replaced by ISO 7090

RoHS ✓ REACh SVHC free

inside ∅		outside ∅		thickness			
4,3	x	9	x	0,8	S	1000	52,00 A2
5,3	x	10	x	1	S	1000	15,90 A2
6,4	x	12	x	1,6	S	1000	18,40 A2
8,4	x	16	x	1,6	S	500	24,10 A2
10,5	x	20	x	2	S	250	39,00 A2
13	x	24	x	2,5	S	250	61,00 A2
17	x	30	x	3	S	100	116,00 A2
21	x	37	x	3	S	50	176,00 A2

DIN	00125.941						90
125-1	**A 4 140 HV**						**type A**



Plain washers, A = without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 70
Brass, Copper, Plastic, Aluminium ➔ pg. 616

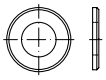
DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓ REACh SVHC free

inside ∅		outside ∅		thickness			
2,2	x	5	x	0,3	S	1000	12,40 A4
2,5	x	6	x	0,5	S	1000	12,40 A4
2,7	x	6	x	0,5	S	1000	10,10 A4
3,2	x	7	x	0,5	S	1000	2,45 A4
3,2	x	7	x	0,5	K	200	4,95 A4
4,3	x	9	x	0,8	S	1000	2,75 A4
4,3	x	9	x	0,8	K	200	5,30 A4
5,3	x	10	x	1	S	1000	3,60 A4
5,3	x	10	x	1	K	100	8,30 A4
6,4	x	12	x	1,6	S	1000	9,60 A4
6,4	x	12	x	1,6	K	100	16,00 A4
8,4	x	16	x	1,6	S	1000	13,70 A4
8,4	x	16	x	1,6	K	100	19,80 A4
10,5	x	20	x	2	S	1000	29,00 A4
10,5	x	20	x	2	K	100	38,00 A4
13	x	24	x	2,5	S	500	39,50 A4
13	x	24	x	2,5	K	100	49,00 A4
15	x	28	x	2,5	S	500	75,00 A4
15	x	28	x	2,5	K	50	93,00 A4
17	x	30	x	3	S	500	75,00 A4

Dimensions					PU	Pieces	€/100/Mat.
17	x	30	x	3	K	50	93,00 A4
19	x	34	x	3	S	200	107,00 A4
19	x	34	x	3	K	25	143,00 A4
21	x	37	x	3	S	200	107,00 A4
21	x	37	x	3	K	25	143,00 A4
23	x	39	x	3	K	25	260,00 A4
25	x	44	x	4	S	200	221,00 A4
25	x	44	x	4	K	25	260,00 A4
28	x	50	x	4	S	100	460,00 A4
28	x	50	x	4	K	10	550,00 A4
31	x	56	x	4	S	100	610,00 A4
31	x	56	x	4	K	10	700,00 A4
34	x	60	x	5	S	10	810,00 A4
37	x	66	x	5	S	10	890,00 A4
40	x	72	x	6	S	10	1730,00 A4
43	x	78	x	7	S	10	1770,00 A4

DIN	00125.942						90
125-1	**A 4 140 HV**						**type B**



Plain washers, B = with chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

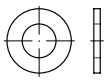
Steel ➔ pg. 72
Brass ➔ pg. 616

DIN 125-1 type B ➔ replaced by ISO 7090

RoHS ✓ REACh SVHC free

inside ∅		outside ∅		thickness			
4,3	x	9	x	0,8	S	1000	59,00 A4
5,3	x	10	x	1	S	1000	23,30 A4
6,4	x	12	x	1,6	S	1000	27,50 A4
8,4	x	16	x	1,6	S	500	39,00 A4
10,5	x	20	x	2	S	250	57,00 A4
13	x	24	x	2,5	S	250	76,00 A4
17	x	30	x	3	S	100	143,00 A4
19	x	34	x	3	S	50	168,00 A4
21	x	37	x	3	S	50	214,00 A4
23	x	39	x	3	S	50	390,00 A4
25	x	44	x	4	S	25	475,00 A4
28	x	50	x	4	S	25	485,00 A4
31	x	56	x	4	S	25	600,00 A4
34	x	60	x	5	S	25	1730,00 A4
37	x	66	x	5	S	10	4650,00 A4
43	x	78	x	7	S	10	6200,00 A4
46	x	85	x	7	S	10	9100,00 A4
50	x	92	x	8	S	10	10300,00 A4
54	x	98	x	8	S	1	10700,00 A4
58	x	105	x	9	S	1	12400,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	00125.951		91
125-1	**1.4571 (A 5)**		**type A**



Plain washer, A = without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 70
Brass, Copper, Plastic, Aluminium ➔ pg. 616

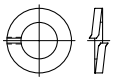
DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓ | REACh SVHC free

inside ∅ x outside ∅ x thickness

6,4	x	12	x	1,6	S	100	95,00 A 5
8,4	x	16	x	1,6	S	100	104,00 A 5
10,5	x	20	x	2	S	100	200,00 A 5
13	x	24	x	2,5	S	50	225,00 A 5
17	x	30	x	3	S	50	330,00 A 5
21	x	37	x	3	S	25	485,00 A 5
25	x	44	x	4	S	25	1850,00 A 5
31	x	56	x	4	S	10	2210,00 A 5

~DIN	00127.961	110
127	**1.4310**	**type A**



Spring lock washers, A = bent end

Caution! Reduced spring load.

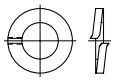
Dimensions ➔ TI-88 Material properties ➔ TI-236

Spring steel ➔ pg. 73

RoHS ✓ | REACh SVHC free

A 3	S	1000	2,85
A 3	K	100	5,30
A 4	S	1000	3,90
A 4	K	100	6,80
A 5	S	1000	4,85
A 5	K	100	8,20
A 6	S	1000	9,70
A 6	K	100	15,40
A 8	S	1000	16,70
A 8	K	100	26,00
A 10	S	1000	25,50
A 10	K	100	39,00
A 12	S	500	37,00
A 12	K	100	56,00
A 16	S	100	84,00
A 20	S	100	142,00

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00127.941		110
127	**A 4**		**type A**



Spring lock washers, A = bent end

Caution! Reduced spring load.

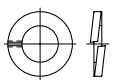
Dimensions ➔ TI-88 Material properties ➔ TI-236

Spring steel ➔ pg. 73

RoHS ✓ | REACh SVHC free

A 3	S	1000	3,50 A 4
A 3	K	100	6,60 A 4
A 4	S	1000	4,55 A 4
A 4	K	100	8,10 A 4
A 5	S	1000	6,60 A 4
A 5	K	100	10,70 A 4
A 6	S	1000	12,40 A 4
A 6	K	100	19,30 A 4
A 8	S	1000	21,40 A 4
A 8	K	100	33,50 A 4
A 10	S	1000	33,00 A 4
A 10	K	100	51,00 A 4
A 12	S	500	46,50 A 4
A 12	K	100	71,00 A 4
A 16	S	100	114,00 A 4
A 20	S	100	181,00 A 4

~DIN	00127.962	110
127	**1.4310**	**type B**



Spring lock washers, B = flat end

Caution! Reduced spring load.

Dimensions ➔ TI-88 Material properties ➔ TI-236

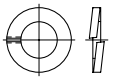
Spring steel ➔ pg. 74
Bronze ➔ pg. 617

RoHS ✓ | REACh SVHC free

B 2	S	1000	3,45
B 2	K	100	6,90
B 2,3	S	1000	3,45
B 2,5	S	1000	3,45
B 2,5	K	100	6,90
B 2,6	S	1000	3,45
B 3	S	1000	1,75
B 3	K	100	4,45
B 3,5	S	1000	2,65
B 4	S	1000	1,90
B 4	K	100	4,85
B 5	S	1000	2,50
B 5	K	100	5,30

Dimensions	PU	Pieces	€/100/Mat.
B 6	S	1000	4,65
B 6	K	100	7,70
B 8	S	1000	7,90
B 8	K	100	12,40
B 10	S	1000	14,00
B 10	K	100	19,40
B 12	S	500	21,60
B 12	K	100	27,50
B 14	K	50	52,00
B 16	S	100	45,00
B 16	K	50	73,00
B 18	K	50	68,00
B 20	S	100	62,00
B 20	K	25	81,00
B 22	K	25	161,00
B 24	K	25	161,00
B 27	K	10	295,00
B 30	K	10	550,00
B 33	K	10	690,00
B 36	K	10	910,00

~DIN	00127.942	110
127	**A 4**	**type B**



Spring lock washers, B = flat end

Caution! Reduced spring load.

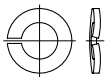
Dimensions ➔ TI-88 Material properties ➔ TI-236

Spring steel ➔ pg. 74
Bronze ➔ pg. 617

RoHS ✓ | REACh SVHC free

B 2	S	1000	4,10 A 4
B 2	K	100	8,00 A 4
B 2,5	S	1000	4,10 A 4
B 2,5	K	100	8,00 A 4
B 3	S	1000	2,25 A 4
B 3	K	100	5,40 A 4
B 3,5	S	1000	3,25 A 4
B 4	S	1000	2,60 A 4
B 4	K	100	5,70 A 4
B 5	S	1000	3,50 A 4
B 5	K	100	6,70 A 4
B 6	S	1000	7,00 A 4
B 6	K	100	10,20 A 4
B 8	S	1000	12,40 A 4
B 8	K	100	17,30 A 4
B 10	S	1000	26,00 A 4
B 10	K	100	33,00 A 4
B 12	S	500	36,50 A 4
B 12	K	100	43,50 A 4
B 14	K	50	77,00 A 4
B 16	S	100	69,00 A 4
B 16	K	50	98,00 A 4
B 18	K	50	112,00 A 4
B 20	K	25	118,00 A 4
B 22	K	25	223,00 A 4
B 24	K	25	223,00 A 4
B 27	K	10	480,00 A 4
B 30	K	10	810,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00128.961		100
128	**1.4310**		**type A**



Spring lock washers, A = curved

Caution! Reduced spring load.

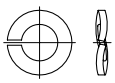
Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 75

RoHS ✓ REACh SVHC free

A 3	S	1000	5,80
A 3	K	100	8,60
A 4	S	1000	6,70
A 4	K	100	9,30
A 5	S	1000	9,30
A 5	K	100	12,90
A 6	S	1000	14,60
A 6	K	100	16,70
A 8	S	1000	23,70
A 8	K	100	26,00
A 10	S	1000	36,50
A 10	K	100	38,50
A 12	S	500	52,00
A 12	K	100	53,00
A 16	S	250	173,00
A 16	K	50	176,00
A 18	K	25	190,00
A 20	K	25	290,00

~DIN	00128.962	100
128	**1.4310**	**type B**



Spring lock washers, B = waved

Caution! Reduced spring load.

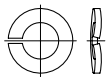
Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 75

RoHS ✓ REACh SVHC free

B 4	S	1000	12,20
B 5	S	1000	12,90
B 6	S	1000	18,20
B 8	S	1000	28,00
B 10	S	1000	44,50
B 12	S	500	61,00
B 14	S	500	40,00
B 16	S	500	114,00

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00128.941		100
128	**A 4**		**type A**



Spring lock washers, A = curved

Caution! Reduced spring load.

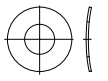
Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 75

RoHS ✓ REACh SVHC free

A 2,2	S	1000	20,00 A4
A 2,5	S	1000	20,00 A4
A 3	S	1000	21,40 A4
A 4	S	1000	24,40 A4
A 5	S	1000	26,50 A4
A 6	S	1000	28,50 A4
A 6	K	100	30,50 A4
A 8	S	1000	41,50 A4
A 8	K	100	44,00 A4
A 10	S	1000	69,00 A4
A 10	K	100	71,00 A4
A 12	S	500	92,00 A4
A 12	K	100	95,00 A4
A 16	S	250	325,00 A4
A 16	K	50	325,00 A4
A 20	S	100	370,00 A4
A 20	K	50	375,00 A4
A 24	S	25	380,00 A4
A 27	S	10	780,00 A4
A 30	S	10	670,00 A4

~DIN	00137.961	100
137	**1.4310**	**type A**



Spring washers, A = curved

Caution! Reduced spring load.

Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 76

RoHS ✓ REACh SVHC free

A 2	S	1000	5,20
A 2	K	100	8,20
A 2,3	S	1000	5,50
A 2,6	S	1000	3,45
A 2,6	K	100	7,10
A 3	S	1000	4,45
A 3	K	100	8,60
A 3,5	S	1000	8,80
A 3,5	K	100	14,00
A 4	S	1000	6,90

Dimensions	PU	Pieces	€/100/Mat.
A 5	S	1000	9,70
A 5	K	100	16,30
A 6	S	1000	10,60
A 6	K	100	17,10
A 8	S	1000	15,00
A 8	K	100	24,50
A 10	S	1000	33,00
A 10	K	100	42,00

~DIN	00137.941	100
137	**A 4**	**type A**



Spring washers, A = curved

Caution! Reduced spring load.

Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 76

RoHS ✓ REACh SVHC free

A 4	S	1000	18,90 A4
A 5	S	1000	27,50 A4
A 6	S	1000	34,00 A4
A 8	S	1000	48,50 A4
A 10	S	1000	107,00 A4

~DIN	00137.962	100
137	**1.4310**	**type B**



Spring washers, B = waved

Caution! Reduced spring load.

Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 76

RoHS ✓ REACh SVHC free

B 3	S	1000	9,70
B 3	K	100	13,30
B 4	S	1000	5,60
B 4	K	100	9,20
B 5	S	1000	7,50
B 5	K	100	11,60
B 6	S	1000	8,80
B 6	K	100	13,30
B 8	S	1000	19,00
B 8	K	100	26,50
B 10	S	1000	42,50
B 10	K	100	56,00
B 12	S	500	68,00
B 12	K	50	71,00
B 16	S	250	144,00
B 16	K	25	146,00

Dimensions	PU	Pieces	€/100/Mat.
B 20	S	25	285,00
B 24	S	100	540,00
B 30	S	100	1220,00

~DIN	00137.942	100
137	**A 4**	**type B**



Spring washers, B = waved

Caution! Reduced spring load.

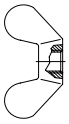
Dimensions ➔ TI-89 Material properties ➔ TI-236

Spring steel ➔ pg. 76

RoHS ✓ REACh SVHC free

B 3	S	1000	16,80 A4
B 4	S	1000	25,50 A4
B 5	S	1000	27,50 A4
B 6	S	1000	34,00 A4
B 8	S	1000	48,50 A4
B 10	S	1000	107,00 A4
B 12	S	500	164,00 A4
B 14	S	250	320,00 A4
B 16	S	250	345,00 A4
B 20	S	25	680,00 A4

DIN	00315.920	130
315	**A 2**	



Wing nuts, rounded wings, product grade C (g)

Dimensions ➔ TI-72 Material properties ➔ TI-236

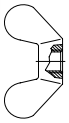
malleable cast iron ➔ pg. 77
Brass ➔ pg. 617

small type ➔ article 88215

RoHS ✓ REACh SVHC free

M 4	S	50	690,00 A2
M 5	S	50	710,00 A2
M 6	S	50	710,00 A2
M 8	S	25	740,00 A2
M 10	S	25	860,00 A2
M 12	S	10	1290,00 A2
M 16	S	10	1730,00 A2
M 20	S	10	2470,00 A2

Dimensions	PU	Pieces	€/100/Mat.
DIN	00315.940		130
315	**A 4**		



Wing nuts, rounded wings, product grade C (g)

Dimensions ➔ TI-72 Material properties ➔ TI-236

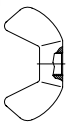
malleable cast iron ➔ pg. 77
Brass ➔ pg. 617

small type ➔ article 88215

RoHS ✓ REACh SVHC free

M 5	S	10	820,00 A4
M 6	S	10	880,00 A4
M 8	S	1	1030,00 A4
M 10	S	1	1280,00 A4
M 12	S	1	1850,00 A4
M 16	S	1	2460,00 A4

~DIN	88215.920	878
315	**A 2**	**article 88215**



Wing nuts, edged wings, small "American" type, product grade C (g)

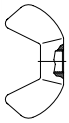
Dimensions ➔ TI-79 Material properties ➔ TI-236

Steel ➔ pg. 78

RoHS ✓ REACh SVHC free

M 4	S	100	72,00 A2
M 5	S	100	85,00 A2
M 6	S	100	120,00 A2
M 8	S	100	142,00 A2
M 10	S	100	220,00 A2
M 12	S	50	520,00 A2

Dimensions	PU	Pieces	€/100/Mat.
~DIN	88215.940		878
315	**A 4**		**article 88215**



Wing nuts, edged wings, small "American" type, product grade C (g)

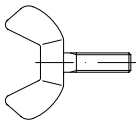
Dimensions ➔ TI-79 Material properties ➔ TI-236

Steel ➔ pg. 78

RoHS ✓ REACh SVHC free

M 4	S	100	105,00 A4
M 5	S	50	107,00 A4
M 6	S	50	145,00 A4
M 8	S	25	193,00 A4
M 10	S	25	315,00 A4
M 12	S	10	740,00 A4

~DIN	00316.920	130
316	**A 2**	



Wing screws, edged wings, small "American" type, product grade C (g)

Dimensions ➔ TI-29 Material properties ➔ TI-236

Steel ➔ pg. 78
Brass ➔ pg. 618

RoHS ✓ REACh SVHC free

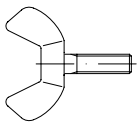
M 4	x	10	S	100	260,00 A2
M 4	x	20	S	50	270,00 A2
M 4	x	30	S	100	280,00 A2
M 5	x	10	S	100	243,00 A2
M 5	x	16	S	50	255,00 A2
M 5	x	20	S	50	265,00 A2
M 5	x	25	S	50	275,00 A2
M 5	x	30	S	50	280,00 A2
M 6	x	10	S	25	360,00 A2
M 6	x	12	S	25	365,00 A2
M 6	x	16	S	25	365,00 A2
M 6	x	20	S	25	370,00 A2
M 6	x	25	S	25	380,00 A2
M 6	x	30	S	25	390,00 A2
M 6	x	40	S	100	410,00 A2
M 6	x	50	S	100	460,00 A2
M 8	x	10	S	100	530,00 A2
M 8	x	16	S	25	540,00 A2
M 8	x	20	S	10	570,00 A2
M 8	x	25	S	10	570,00 A2
M 8	x	30	S	10	600,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	35	S	100	580,00 A 2
M 8	x	40	S	10	640,00 A 2
M 8	x	45	S	50	620,00 A 2
M 8	x	50	S	50	660,00 A 2
M 8	x	60	S	50	750,00 A 2
M 10	x	16	S	50	710,00 A 2
M 10	x	20	S	10	740,00 A 2
M 10	x	25	S	10	750,00 A 2
M 10	x	30	S	10	780,00 A 2
M 10	x	40	S	10	820,00 A 2
M 10	x	50	S	20	900,00 A 2
M 10	x	60	S	20	990,00 A 2

~DIN | 00316.940 | 130

316

A 4



Wing screws, edged wings, small "American" type, product grade C (g)

Dimensions ➔ TI-29 Material properties ➔ TI-236

Steel ➔ pg. 78
Brass ➔ pg. 618

RoHS ✓ | REACh SVHC free

M 6	x	16	S	100	510,00 A 4
M 6	x	20	S	100	520,00 A 4
M 6	x	25	S	100	540,00 A 4
M 6	x	30	S	100	560,00 A 4
M 8	x	16	S	100	760,00 A 4
M 8	x	20	S	100	760,00 A 4
M 8	x	25	S	100	790,00 A 4
M 8	x	30	S	100	820,00 A 4
M 10	x	25	S	50	1070,00 A 4
M 10	x	30	S	50	1120,00 A 4
M 12	x	30	S	25	2310,00 A 4
M 12	x	35	S	25	2380,00 A 4

DIN | 00404.910 | 131

404

A 1



Slotted capstan screws

Dimensions ➔ TI-29 Material properties ➔ TI-236

Steel ➔ pg. 78

RoHS ✓ | REACh SVHC free

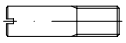
M 3	x	6	S	100	305,00 A 1
M 3	x	8	S	100	315,00 A 1
M 3	x	10	S	100	320,00 A 1
M 4	x	10	S	100	375,00 A 1
M 4	x	16	S	100	385,00 A 1
M 4	x	20	S	100	390,00 A 1

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	25	S	100	395,00 A 1
M 4	x	30	S	100	400,00 A 1
M 5	x	10	S	100	530,00 A 1
M 5	x	12	S	100	540,00 A 1
M 5	x	16	S	100	550,00 A 1
M 5	x	30	S	100	560,00 A 1

DIN | 00427.910 | 140

427

A 1



Slotted headless screws, with chamfered end

Dimensions ➔ TI-19 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 79

DIN 427 ➔ replaced by ISO 2342 (compatible)

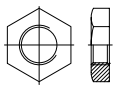
RoHS ✓ | REACh SVHC free

M 3	x	6	S	100	89,00 A 1
M 3	x	8	S	100	99,00 A 1
M 4	x	8	S	100	105,00 A 1
M 4	x	10	S	100	110,00 A 1
M 4	x	12	S	100	118,00 A 1
M 4	x	16	S	100	127,00 A 1
M 4	x	20	S	100	137,00 A 1
M 5	x	10	S	100	118,00 A 1
M 5	x	12	S	100	122,00 A 1
M 5	x	16	S	100	161,00 A 1
M 5	x	20	S	100	201,00 A 1
M 6	x	12	S	100	260,00 A 1
M 6	x	16	S	100	265,00 A 1
M 6	x	20	S	100	270,00 A 1
M 6	x	30	S	100	285,00 A 1
M 8	x	16	S	100	360,00 A 1
M 8	x	20	S	100	375,00 A 1
M 10	x	20	S	100	495,00 A 1
M 10	x	25	S	100	540,00 A 1
M 10	x	30	S	100	570,00 A 1
M 10	x	50	S	100	660,00 A 1

Dimensions		PU	Pieces	€/100/Mat.
DIN	00431.942			140

431

A 4 type B



Pipe nuts with inch pipe thread G, B = thread one-sided countersunk

Dimensions ➔ TI-60 Material properties ➔ TI-236

Steel ➔ pg. 80
Brass ➔ pg. 618

nuts with wrench sizes acc. to ISO on request

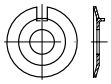
RoHS ✓ | REACh SVHC free

nominal size - wrench size				
BG 1/8 s = 19	S	25	214,00	A 4
BG 1/4 s = 22	S	25	330,00	A 4
BG 3/8	S	25	420,00	A 4
BG 1/2 s = 32	S	10	610,00	A 4
BG 3/4	S	10	910,00	A 4
BG 1	S	1	1700,00	A 4
BG 1 1/4	S	1	4550,00	A 4
BG 1 1/2	S	1	6000,00	A 4

~DIN | 00432.920 | 140

432

A 2



Washers with external tap

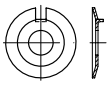
Dimensions ➔ TI-90 Material properties ➔ TI-236

Steel ➔ pg. 80

RoHS ✓ | REACh SVHC free

5,3	S	50	178,00 A 2
6,4	S	50	186,00 A 2
8,4	S	50	224,00 A 2
10,5	S	50	285,00 A 2
13	S	100	360,00 A 2
17	S	50	465,00 A 2
21	S	25	580,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00432.940		140
432	A 4		



Washers with external tap

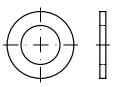
Dimensions → TI-90 Material properties → TI-236

Steel → pg. 80

RoHS ✓ REACh SVHC free

4,3	S	25	214,00 A4
5,3	S	25	223,00 A4
6,4	S	25	345,00 A4
8,4	S	25	265,00 A4
10,5	S	25	340,00 A4
13	S	25	435,00 A4
15	S	25	485,00 A4
17	S	25	610,00 A4
19	S	10	820,00 A4
21	S	10	750,00 A4
25	S	10	980,00 A4
31	S	1	1700,00 A4
37	S	1	2550,00 A4

DIN	00433.920	140
433-1	A 2	



Washers

primarily for cheese head cap screws

Dimensions → TI-84 Standard conversion → TI-84
Material properties → TI-236

Steel → pg. 80
Brass → pg. 618

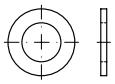
DIN 433 → replaced by ISO 7092

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

2,2	x	4,5	x 0,3	S	2000	6,50 A2
2,2	x	4,5	x 0,3	K	200	10,60 A2
2,5	x	5	x 0,5	S	2000	5,40 A2
2,7	x	5	x 0,5	S	2000	4,30 A2
3,2	x	6	x 0,5	S	2000	2,10 A2
3,2	x	6	x 0,5	K	200	4,45 A2
4,3	x	8	x 0,5	S	2000	2,35 A2
4,3	x	8	x 0,5	K	200	4,45 A2
5,3	x	9	x 1	S	2000	3,35 A2
5,3	x	9	x 1	K	200	6,20 A2
6,4	x	11	x 1,6	S	1000	4,95 A2
6,4	x	11	x 1,6	K	100	8,40 A2
8,4	x	15	x 1,6	S	1000	9,90 A2
8,4	x	15	x 1,6	K	100	15,80 A2
10,5	x	18	x 1,6	S	1000	12,20 A2
10,5	x	18	x 1,6	K	100	18,40 A2
13	x	20	x 2	S	100	20,10 A2
15	x	24	x 2,5	S	100	31,50 A2
17	x	28	x 2,5	S	50	40,50 A2

DIN	00433.940	140
433-1	A 4	



Washers

primarily for cheese head cap screws

Dimensions → TI-84 Standard conversion → TI-84
Material properties → TI-236

Steel → pg. 80
Brass → pg. 618

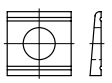
DIN 433 → replaced by ISO 7092

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

3,2	x	6	x 0,5	S	2000	3,25 A4
3,2	x	6	x 0,5	K	200	5,90 A4
4,3	x	8	x 0,5	S	2000	4,35 A4
4,3	x	8	x 0,5	K	200	7,70 A4
5,3	x	9	x 1	S	2000	5,30 A4
5,3	x	9	x 1	K	200	8,80 A4
6,4	x	11	x 1,6	S	1000	8,10 A4
6,4	x	11	x 1,6	K	100	14,50 A4
8,4	x	15	x 1,6	S	1000	14,70 A4
8,4	x	15	x 1,6	K	100	21,70 A4
10,5	x	18	x 1,6	S	1000	20,00 A4
10,5	x	18	x 1,6	K	100	29,00 A4
13	x	20	x 2	S	100	36,50 A4
17	x	28	x 2,5	S	50	64,00 A4
21	x	34	x 3	S	25	94,00 A4
25	x	39	x 4	S	25	375,00 A4

DIN	00434.920	150
434	A 2	



Square taper washers for U beams, taper 8 %

Dimensions → TI-86 Material properties → TI-236

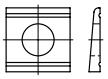
Steel → pg. 81

RoHS ✓ REACh SVHC free

inside ∅

9	S	50	445,00 A2
11	S	50	445,00 A2
13,5	S	50	740,00 A2
17,5	S	25	870,00 A2
22	S	10	1290,00 A2
26	S	10	1940,00 A2

DIN	00434.940	150
434	A 4	



Square taper washers for U beams, taper 8 %

Dimensions → TI-86 Material properties → TI-236

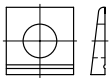
Steel → pg. 81

RoHS ✓ REACh SVHC free

inside ∅

9	S	50	680,00 A4
11	S	50	680,00 A4
13,5	S	50	910,00 A4
17,5	S	25	1070,00 A4
22	S	10	1730,00 A4
26	S	10	2600,00 A4

DIN	00435.920	150
435	A 2	



Square taper washers for double-T beams, taper 14 %

Dimensions → TI-86 Material properties → TI-236

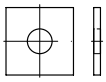
Steel → pg. 81

RoHS ✓ REACh SVHC free

inside ∅

9	S	50	1160,00 A2
11	S	50	1240,00 A2
13,5	S	50	1290,00 A2
17,5	S	25	1410,00 A2
22	S	10	1860,00 A2

Dimensions	PU	Pieces	€/100/Mat.
DIN 00436.920			160
436 A 2			



Square washers

especially for wood constructions

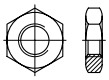
Dimensions ➔ TI-86 Material properties ➔ TI-236

Steel ➔ pg. 82

RoHS ✓ REACh SVHC free

inside ∅ x outside dimension x thickness					PU	Pieces	• ÜH products
11	x	30	x	3	S	100	54,00 A 2
13,5	x	40	x	4	S	100	118,00 A 2
17,5	x	50	x	5	S	50	224,00 A 2
22	x	60	x	5	S	50	375,00 A 2
26	x	80	x	6	S	50	970,00 A 2
30	x	90	x	6	S	25	1160,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
DIN 00439.922			170
439 A 2 type B			



Hexagon thin nuts, B = with chamfers

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-236

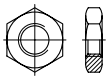
Steel ➔ pg. 82
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

RoHS ✓ REACh SVHC free

BM 2	S	100	38,00 A 2
BM 2,5	S	100	33,00 A 2
BM 3	S	1000	24,30 A 2
BM 3	K	100	28,50 A 2
BM 4	S	1000	23,30 A 2
BM 4	K	100	27,50 A 2
BM 5	S	1000	23,30 A 2
BM 5	K	100	27,50 A 2
BM 6	S	1000	33,50 A 2
BM 6	K	100	37,50 A 2
BM 8	S	1000	62,00 A 2
BM 8	K	100	67,00 A 2
BM 10	S	500	124,00 A 2
BM 10	K	50	131,00 A 2
BM 12	S	250	139,00 A 2
BM 12	K	50	146,00 A 2
BM 14	S	25	395,00 A 2
BM 16	S	100	485,00 A 2
BM 16	K	25	495,00 A 2
BM 18	S	10	700,00 A 2
BM 20	S	10	880,00 A 2
BM 22	S	10	1120,00 A 2
BM 24	S	10	1500,00 A 2
BM 27	S	10	2030,00 A 2
BM 30	S	10	2850,00 A 2
BM 36	S	1	5100,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
DIN 00439.942			170
439 A 4 type B			



Hexagon thin nuts, B = with chamfers

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-236

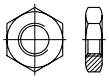
Steel ➔ pg. 82
Brass ➔ pg. 619

DIN 439 ➔ replaced by ISO 4035

RoHS ✓ REACh SVHC free

BM 2	S	100	63,00 A 4
BM 2,5	S	100	63,00 A 4
BM 3	S	100	36,50 A 4
BM 4	S	100	35,50 A 4
BM 5	S	100	41,00 A 4
BM 6	S	100	47,50 A 4
BM 8	S	100	89,00 A 4
BM 10	S	50	166,00 A 4
BM 12	S	50	355,00 A 4
BM 14	S	25	530,00 A 4
BM 16	S	25	680,00 A 4
BM 18	S	10	930,00 A 4
BM 20	S	10	1220,00 A 4
BM 24	S	10	2040,00 A 4
BM 27	S	10	2850,00 A 4
BM 30	S	10	3950,00 A 4
BM 36	S	1	7100,00 A 4
BM 42	S	1	11200,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
DIN 00439.927			170
439 A 2 type B – fine			



Hexagon thin nuts, with metric fine pitch thread B = with chamfers

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-236

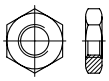
Steel ➔ pg. 83

DIN 439 fine thread ➔ replaced by ISO 8676

RoHS ✓ REACh SVHC free

BM 8	x	1	S	100	129,00 A 2
BM 10	x	1	S	50	231,00 A 2
BM 10	x	1,25	S	50	231,00 A 2
BM 12	x	1,25	S	50	305,00 A 2
BM 12	x	1,5	S	50	305,00 A 2
BM 14	x	1,5	S	25	450,00 A 2
BM 16	x	1,5	S	25	560,00 A 2
BM 18	x	1	S	10	570,00 A 2
BM 18	x	1,5	S	10	790,00 A 2
BM 20	x	1,5	S	10	1010,00 A 2
BM 24	x	1,5	S	10	1710,00 A 2
BM 30	x	1,5	S	10	3200,00 A 2
BM 30	x	2	S	10	3200,00 A 2
BM 36	x	1,5	S	1	5800,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
DIN 00439.947			170
439 A 4 type B – fine			



Hexagon thin nuts, with metric fine pitch thread B = with chamfers

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-236

Steel ➔ pg. 83

DIN 439 fine thread ➔ replaced by ISO 8676

RoHS ✓ REACh SVHC free

BM 10	x	1	S	50	310,00 A 4
BM 10	x	1,25	S	50	310,00 A 4
BM 12	x	1,25	S	50	405,00 A 4
BM 12	x	1,5	S	50	405,00 A 4
BM 16	x	1,5	S	25	770,00 A 4
BM 18	x	1,5	S	10	1040,00 A 4
BM 20	x	1,5	S	10	1370,00 A 4
BM 22	x	1,5	S	10	1980,00 A 4
BM 24	x	1,5	S	10	2310,00 A 4
BM 24	x	2	S	10	2310,00 A 4
BM 30	x	1,5	S	10	4450,00 A 4
BM 30	x	2	S	10	4450,00 A 4
BM 33	x	2	S	1	5800,00 A 4
BM 36	x	3	S	1	7100,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
DIN 00440.928			170
440 A 2 type R			



Washers, R = with round hole

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 84

DIN 440 type R ➔ replaced by ISO 7094

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness						PU	Pieces	
R 5,5	x	18	x	2	S	100	15,20 A 2
R 6,6	x	22	x	2	S	100	20,90 A 2
R 9	x	28	x	3	S	100	49,50 A 2

Dimensions					PU	Pieces	€/100/Mat.
R 11	x	34	x	3	S	50	72,00 A2
R 13,5	x	44	x	4	S	50	159,00 A2
R 17,5	x	56	x	5	S	50	305,00 A2
R 22	x	72	x	6	S	50	640,00 A2

DIN 00440.948 170

440 A 4 type R



Washers, R = with round hole

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 84

DIN 440 type R ➔ replaced by ISO 7094

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

R 5,5	x	18	x	2	S	100	64,00 A4
R 6,6	x	22	x	2	S	100	89,00 A4
R 9	x	28	x	3	S	100	196,00 A4
R 11	x	34	x	3	S	50	305,00 A4
R 13,5	x	44	x	4	S	50	475,00 A4
R 17,5	x	56	x	5	S	50	1520,00 A4
R 22	x	72	x	6	S	50	2230,00 A4

DIN 00444.922 180

444 A 2 type B



Eye bolts, B = product grade B (mg)

Dimensions ➔ TI-30 Tightening torque ➔ TI-249
Material properties ➔ TI-236

Steel ➔ pg. 85
Brass ➔ pg. 619

RoHS ✓ REACh SVHC free

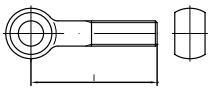
thread M x length l

BM 5	x	40			S	10	570,00 A2
BM 6	x	30			S	10	590,00 A2
BM 6	x	35			S	10	650,00 A2
BM 6	x	40			S	10	650,00 A2
BM 6	x	45			S	10	720,00 A2
BM 6	x	50			S	10	720,00 A2
BM 6	x	55			S	10	780,00 A2
BM 6	x	60			S	10	780,00 A2
BM 8	x	30			S	10	760,00 A2
BM 8	x	35			S	10	820,00 A2
BM 8	x	40			S	10	820,00 A2
BM 8	x	45			S	10	830,00 A2
BM 8	x	50			S	10	830,00 A2
BM 8	x	55			S	10	890,00 A2
BM 8	x	60			S	10	890,00 A2
BM 8	x	70			S	10	970,00 A2

Dimensions					PU	Pieces	€/100/Mat.
BM 8	x	75			S	10	1030,00 A2
BM 8	x	80			S	10	1030,00 A2
BM 8	x	90			S	10	1080,00 A2
BM 8	x	100			S	10	1140,00 A2
BM 10	x	40			S	10	1080,00 A2
BM 10	x	45			S	10	1100,00 A2
BM 10	x	50			S	10	1100,00 A2
BM 10	x	55			S	10	1120,00 A2
BM 10	x	60			S	10	1120,00 A2
BM 10	x	65			S	10	1140,00 A2
BM 10	x	70			S	10	1140,00 A2
BM 10	x	75			S	10	1200,00 A2
BM 10	x	80			S	10	1200,00 A2
BM 10	x	90			S	10	1330,00 A2
BM 10	x	100			S	10	1370,00 A2
BM 10	x	110			S	10	1410,00 A2
BM 10	x	120			S	10	1460,00 A2
BM 12	x	50			S	10	1440,00 A2
BM 12	x	55			S	10	1480,00 A2
BM 12	x	60			S	10	1480,00 A2
BM 12	x	65			S	10	1500,00 A2
BM 12	x	70			S	10	1500,00 A2
BM 12	x	75			S	10	1520,00 A2
BM 12	x	80			S	10	1520,00 A2
BM 12	x	90			S	10	1560,00 A2
BM 12	x	100			S	10	1610,00 A2
BM 12	x	110			S	10	1650,00 A2
BM 12	x	120			S	10	1690,00 A2
BM 12	x	130			S	10	1830,00 A2
BM 12	x	140			S	10	1780,00 A2
BM 12	x	150			S	10	1820,00 A2
BM 16	x	60			S	1	2160,00 A2
BM 16	x	65			S	1	2240,00 A2
BM 16	x	70			S	1	2240,00 A2
BM 16	x	75			S	1	2280,00 A2
BM 16	x	80			S	1	2280,00 A2
BM 16	x	90			S	1	2330,00 A2
BM 16	x	100			S	1	2390,00 A2
BM 16	x	110			S	1	2430,00 A2
BM 16	x	120			S	1	2480,00 A2
BM 16	x	130			S	1	2550,00 A2
BM 16	x	140			S	1	2600,00 A2
BM 16	x	150			S	1	2650,00 A2
BM 16	x	160			S	1	2700,00 A2
BM 20	x	70			S	1	3400,00 A2
BM 20	x	80			S	1	3400,00 A2
BM 20	x	90			S	1	3400,00 A2
BM 20	x	100			S	1	3550,00 A2
BM 20	x	110			S	1	3650,00 A2
BM 20	x	120			S	1	3750,00 A2
BM 20	x	130			S	1	3750,00 A2
BM 20	x	140			S	1	3850,00 A2
BM 20	x	150			S	1	3900,00 A2
BM 20	x	160			S	1	4000,00 A2
BM 24	x	80			S	1	4400,00 A2
BM 24	x	90			S	1	4400,00 A2
BM 24	x	100			S	1	4750,00 A2
BM 24	x	120			S	1	5100,00 A2
BM 24	x	130			S	1	5300,00 A2
BM 24	x	140			S	1	5300,00 A2
BM 24	x	150			S	1	5500,00 A2
BM 24	x	160			S	1	5700,00 A2

Dimensions					PU	Pieces	€/100/Mat.
DIN		00444.942				180	

444 A 4 type B



Eye bolts, B = product grade B (mg)

Dimensions ➔ TI-30 Tightening torque ➔ TI-249
Material properties ➔ TI-236

Steel ➔ pg. 85
Brass ➔ pg. 619

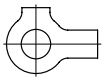
RoHS ✓ REACh SVHC free

thread M x length l

BM 6	x	30			S	10	750,00 A4
BM 6	x	35			S	10	820,00 A4
BM 6	x	40			S	10	820,00 A4
BM 6	x	45			S	10	920,00 A4
BM 6	x	50			S	10	920,00 A4
BM 6	x	60			S	10	990,00 A4
BM 8	x	30			S	10	970,00 A4
BM 8	x	35			S	10	1040,00 A4
BM 8	x	40			S	10	1040,00 A4
BM 8	x	45			S	10	1070,00 A4
BM 8	x	50			S	10	1070,00 A4
BM 8	x	55			S	10	1140,00 A4
BM 8	x	60			S	10	1140,00 A4
BM 8	x	70			S	10	1220,00 A4
BM 8	x	75			S	10	1280,00 A4
BM 8	x	80			S	10	1280,00 A4
BM 8	x	90			S	10	1370,00 A4
BM 8	x	100			S	10	1430,00 A4
BM 10	x	40			S	10	1370,00 A4
BM 10	x	45			S	10	1390,00 A4
BM 10	x	50			S	10	1390,00 A4
BM 10	x	55			S	10	1410,00 A4
BM 10	x	60			S	10	1410,00 A4
BM 10	x	65			S	10	1430,00 A4
BM 10	x	70			S	10	1430,00 A4
BM 10	x	75			S	10	1520,00 A4
BM 10	x	80			S	10	1520,00 A4
BM 10	x	90			S	10	1680,00 A4
BM 10	x	100			S	10	1770,00 A4
BM 10	x	110			S	10	1810,00 A4
BM 10	x	120			S	10	1850,00 A4
BM 12	x	50			S	10	1850,00 A4
BM 12	x	55			S	10	1870,00 A4
BM 12	x	60			S	10	1870,00 A4
BM 12	x	65			S	10	1910,00 A4
BM 12	x	70			S	10	1910,00 A4
BM 12	x	80			S	10	1930,00 A4
BM 12	x	90			S	10	1980,00 A4
BM 12	x	100			S	10	2060,00 A4
BM 12	x	110			S	10	2100,00 A4
BM 12	x	120			S	10	2140,00 A4
BM 12	x	130			S	10	2190,00 A4
BM 12	x	140			S	10	2250,00 A4
BM 12	x	150			S	10	2310,00 A4
BM 16	x	60			S	1	2750,00 A4
BM 16	x	70			S	1	2850,00 A4
BM 16	x	80			S	1	2950,00 A4
BM 16	x	90			S	1	3000,00 A4
BM 16	x	100			S	1	3050,00 A4
BM 16	x	110			S	1	3100,00 A4
BM 16	x	120			S	1	3150,00 A4
BM 16	x	130			S	1	3250,00 A4
BM 16	x	140			S	1	3300,00 A4

Dimensions			PU	Pieces	€/100/Mat.
BM 16	x	150	S	1	3350,00 A4
BM 16	x	160	S	1	3400,00 A4
BM 20	x	70	S	1	4300,00 A4
BM 20	x	80	S	1	4300,00 A4
BM 20	x	90	S	1	4300,00 A4
BM 20	x	100	S	1	4550,00 A4
BM 20	x	110	S	1	4650,00 A4
BM 20	x	120	S	1	4750,00 A4
BM 20	x	130	S	1	4800,00 A4
BM 20	x	140	S	1	4850,00 A4
BM 20	x	150	S	1	5000,00 A4
BM 20	x	160	S	1	5100,00 A4
BM 24	x	80	S	1	5800,00 A4
BM 24	x	90	S	1	5900,00 A4
BM 24	x	100	S	1	6100,00 A4
BM 24	x	110	S	1	6200,00 A4
BM 24	x	120	S	1	6400,00 A4
BM 24	x	130	S	1	6700,00 A4
BM 24	x	150	S	1	7100,00 A4
BM 24	x	160	S	1	7300,00 A4

~DIN	00463.940	180
463	**A 4**	



Washers with 2 taps

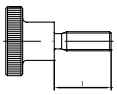
Dimensions ➔ TI-91 Material properties ➔ TI-236

Steel ➔ pg. 87
Brass ➔ pg. 619

RoHS ✓ | REACh SVHC free

4,3	S	25	350,00 A4
5,3	S	25	350,00 A4
6,4	S	25	285,00 A4
8,4	S	25	335,00 A4
10,5	S	25	400,00 A4
13	S	25	520,00 A4
17	S	25	760,00 A4
21	S	10	910,00 A4
23	S	10	1180,00 A4
25	S	10	1490,00 A4
31	S	1	2700,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	00464.910		190
464	**A 1/A 2**		



Knurled thumb screws, high type

Dimensions ➔ TI-30 Material properties ➔ TI-236

Steel ➔ pg. 87
Brass ➔ pg. 619

RoHS ✓ | REACh SVHC free

thread M x length l

M 3	x	6	S	25	475,00 A1/A2
M 3	x	8	S	25	475,00 A1/A2
M 3	x	10	S	25	530,00 A1/A2
M 3	x	12	S	25	550,00 A1/A2
M 3	x	16	S	25	570,00 A1/A2
M 4	x	8	S	25	475,00 A1/A2
M 4	x	10	S	25	530,00 A1/A2
M 4	x	12	S	25	580,00 A1/A2
M 4	x	16	S	25	590,00 A1/A2
M 4	x	20	S	25	640,00 A1/A2
M 5	x	8	S	25	630,00 A1/A2
M 5	x	10	S	25	660,00 A1/A2
M 5	x	12	S	25	690,00 A1/A2
M 5	x	16	S	25	810,00 A1/A2
M 5	x	20	S	25	1050,00 A1/A2
M 5	x	25	S	25	1250,00 A1/A2
M 5	x	30	S	25	1420,00 A1/A2
M 6	x	10	S	10	910,00 A1/A2
M 6	x	12	S	10	950,00 A1/A2
M 6	x	16	S	10	970,00 A1/A2
M 6	x	20	S	10	1100,00 A1/A2
M 6	x	25	S	10	1240,00 A1/A2
M 6	x	30	S	10	1440,00 A1/A2
M 6	x	40	S	10	1820,00 A1/A2
M 8	x	16	S	10	2090,00 A1/A2
M 8	x	20	S	10	2370,00 A1/A2
M 8	x	25	S	10	2650,00 A1/A2
M 8	x	30	S	10	2850,00 A1/A2

DIN	00466.910	190
466	**A 1/A 2**	



Knurled nuts, high type

Dimensions ➔ TI-72 Material properties ➔ TI-236

Steel ➔ pg. 88
Brass ➔ pg. 620

RoHS ✓ | REACh SVHC free

M 3	S	25	152,00	A1/A2
M 4	S	25	275,00	A1/A2
M 5	S	25	460,00	A1/A2
M 6	S	25	760,00	A1/A2
M 8	S	10	1330,00	A1/A2
M 10	S	10	3450,00	A1/A2

Dimensions	PU	Pieces	€/100/Mat.
DIN	00467.910		190
467	**A 1/A 2**		



Knurled nuts, low type

Dimensions ➔ TI-72 Material properties ➔ TI-236

Steel ➔ pg. 88
Brass ➔ pg. 620

RoHS ✓ | REACh SVHC free

M 3	S	25	216,00	A1/A2
M 4	S	25	216,00	A1/A2
M 5	S	25	270,00	A1/A2
M 6	S	25	425,00	A1/A2
M 8	S	10	710,00	A1/A2
M 10	S	10	1420,00	A1/A2

~DIN	00471.300	200
471	**1.4122**	**normal**



Retaining rings for shafts, normal type

Caution!
Reduced spring load and modified mechanical properties compared spring steel.

Dimensions ➔ TI-91

RoHS ✓ | REACh SVHC free

nominal size = for shafts ∅ x thickness

3	x	0,4	S	100	19,90
4	x	0,4	S	100	19,90
5	x	0,6	S	100	22,20
6	x	0,7	S	100	29,00
7	x	0,8	S	100	30,00
8	x	0,8	S	100	32,00
9	x	1	S	100	70,00
10	x	1	S	100	70,00
12	x	1	S	100	78,00
14	x	1	S	100	106,00
15	x	1	S	100	159,00
16	x	1	S	100	154,00
17	x	1	S	100	158,00
18	x	1,2	S	50	175,00
19	x	1,2	S	50	207,00
20	x	1,2	S	50	180,00
22	x	1,2	S	50	222,00
24	x	1,2	S	50	265,00
25	x	1,2	S	50	270,00
26	x	1,2	S	25	520,00
28	x	1,5	S	25	510,00
29	x	1,5	S	25	520,00
30	x	1,5	S	25	520,00
32	x	1,5	S	25	740,00
34	x	1,5	S	25	770,00
35	x	1,5	S	25	590,00

Dimensions			PU	Pieces	€/100/Mat.
36	x	1,75	S	25	800,00
38	x	1,75	S	25	1440,00
40	x	1,75	S	25	1140,00
42	x	1,75	S	25	1410,00
45	x	1,75	S	10	1440,00
47	x	1,75	S	10	1500,00
48	x	1,75	S	10	1500,00
50	x	2	S	1	1480,00
52	x	2	S	1	1560,00
55	x	2	S	1	1690,00
56	x	2	S	1	1710,00
58	x	2	S	1	1730,00
60	x	2	S	1	2070,00
65	x	2,5	S	1	2140,00
68	x	2,5	S	1	2180,00
70	x	2,5	S	1	2330,00
75	x	2,5	S	1	2440,00
80	x	2,5	S	1	6600,00
90	x	3	S	1	6700,00
95	x	3	S	1	6800,00
100	x	3	S	1	7800,00

~DIN | 00472.300 | 200

472 — 1.4122/1.4310 — normal



Retaining rings for bores, normal type

∅ ≤ 100 ➔ 1.4122,
∅ > 100 ➔ 1.4310

Caution!
Reduced spring load and modified mechanical properties compared spring steel.

Dimensions ➔ TI-95

RoHS ✓ | REACh SVHC free

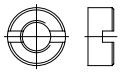
nominal size = for drillings ∅ x thickness

8	x	0,8	S	100	43,00
9	x	0,8	S	100	60,00
10	x	1	S	100	60,00
12	x	1	S	100	76,00
13	x	1	S	100	86,00
14	x	1	S	100	94,00
15	x	1	S	100	114,00
16	x	1	S	100	94,00
17	x	1	S	100	110,00
18	x	1	S	100	133,00
19	x	1	S	50	176,00
20	x	1	S	50	176,00
21	x	1	S	50	190,00
22	x	1	S	50	201,00
24	x	1,2	S	50	197,00
25	x	1,2	S	50	212,00
26	x	1,2	S	50	300,00
28	x	1,2	S	50	285,00
30	x	1,2	S	25	285,00
32	x	1,2	S	25	300,00
35	x	1,5	S	25	440,00
36	x	1,5	S	25	690,00
37	x	1,5	S	25	790,00
38	x	1,5	S	25	710,00
40	x	1,75	S	25	720,00
42	x	1,75	S	25	880,00
45	x	1,75	S	10	940,00
47	x	1,75	S	10	1140,00
48	x	1,75	S	10	1160,00

Dimensions			PU	Pieces	€/100/Mat.
50	x	2	S	1	1200,00
52	x	2	S	1	1220,00
54	x	2	S	1	1310,00
55	x	2	S	1	1310,00
56	x	2	S	1	1610,00
60	x	2	S	1	1710,00
62	x	2	S	1	1760,00
65	x	2,5	S	1	1820,00
68	x	2,5	S	1	3050,00
70	x	2,5	S	1	3300,00
72	x	2,5	S	1	3700,00
75	x	2,5	S	1	3750,00
80	x	2,5	S	1	5900,00
82	x	2,5	S	1	6700,00
85	x	3	S	1	6300,00
90	x	3	S	1	7100,00
95	x	3	S	1	7300,00
100	x	3	S	1	7000,00
120	x	4	S	1	7300,00
130	x	4	S	1	7700,00
140	x	4	S	1	8000,00
165	x	4	S	1	8400,00

DIN | 00546.940 | 230

546 — A 4



Slotted round nuts

Dimensions ➔ TI-72 Material properties ➔ TI-236

Steel ➔ pg. 92
Brass ➔ pg. 620

RoHS ✓ | REACh SVHC free

M 3	S	100	162,00 A4
M 4	S	100	185,00 A4
M 5	S	100	191,00 A4
M 6	S	100	225,00 A4
M 8	S	50	305,00 A4

DIN | 00551.910 | 230

551 — A 1



Slotted grub screws with flat point

Dimensions ➔ TI-19 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 93
Brass, Plastic ➔ pg. 620

DIN 551 ➔ replaced by ISO 4766 (compatible)

RoHS ✓ | REACh SVHC free

M 3	x	3	S	50	28,50 A1
M 3	x	4	S	50	29,00 A1
M 3	x	5	S	50	30,50 A1

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	6	S	50	32,50 A1
M 3	x	8	S	50	34,50 A1
M 3	x	10	S	50	36,00 A1
M 4	x	4	S	50	31,50 A1
M 4	x	5	S	50	31,50 A1
M 4	x	6	S	50	33,00 A1
M 4	x	8	S	50	35,50 A1
M 4	x	10	S	50	37,00 A1
M 4	x	12	S	50	39,00 A1
M 4	x	16	S	50	41,50 A1
M 5	x	5	S	50	34,50 A1
M 5	x	6	S	50	36,00 A1
M 5	x	8	S	50	38,50 A1
M 5	x	10	S	50	40,50 A1
M 5	x	12	S	50	43,00 A1
M 5	x	16	S	50	47,50 A1
M 5	x	20	S	25	62,00 A1
M 5	x	25	S	25	72,00 A1
M 6	x	6	S	25	43,50 A1
M 6	x	8	S	25	45,50 A1
M 6	x	10	S	25	48,50 A1
M 6	x	12	S	25	53,00 A1
M 6	x	16	S	25	55,00 A1
M 6	x	20	S	25	63,00 A1
M 6	x	25	S	25	72,00 A1
M 6	x	30	S	25	85,00 A1
M 6	x	40	S	25	97,00 A1
M 8	x	8	S	50	57,00 A1
M 8	x	10	S	25	70,00 A1
M 8	x	12	S	25	76,00 A1
M 8	x	16	S	25	85,00 A1
M 8	x	20	S	25	101,00 A1
M 8	x	25	S	25	120,00 A1
M 8	x	30	S	25	131,00 A1
M 8	x	35	S	25	139,00 A1
M 8	x	40	S	25	150,00 A1
M 10	x	10	S	10	122,00 A1
M 10	x	12	S	10	122,00 A1
M 10	x	16	S	10	129,00 A1
M 10	x	20	S	10	159,00 A1
M 10	x	25	S	10	180,00 A1
M 10	x	30	S	10	192,00 A1
M 10	x	35	S	10	205,00 A1
M 10	x	40	S	10	216,00 A1

DIN | 00551.940 | 230

551 — A 4



Slotted grub screws with flat point

Dimensions ➔ TI-19 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 93
Brass, Plastic ➔ pg. 620

DIN 551 ➔ replaced by ISO 4766 (compatible)

RoHS ✓ | REACh SVHC free

M 3	x	4	S	50	124,00 A4
M 3	x	6	S	50	141,00 A4
M 3	x	8	S	50	147,00 A4
M 3	x	10	S	50	156,00 A4
M 4	x	5	S	50	88,00 A4
M 4	x	6	S	50	92,00 A4
M 4	x	10	S	50	103,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	16	S	50	116,00 A4
M 4	x	20	S	50	135,00 A4
M 4	x	25	S	50	162,00 A4
M 4	x	30	S	50	185,00 A4
M 5	x	5	S	50	350,00 A4
M 5	x	6	S	50	100,00 A4
M 5	x	8	S	50	107,00 A4
M 5	x	10	S	50	114,00 A4
M 5	x	12	S	25	131,00 A4
M 5	x	16	S	25	141,00 A4
M 5	x	20	S	25	168,00 A4
M 6	x	5	S	25	110,00 A4
M 6	x	6	S	25	118,00 A4
M 6	x	8	S	25	122,00 A4
M 6	x	10	S	25	131,00 A4
M 6	x	12	S	25	141,00 A4
M 6	x	16	S	25	149,00 A4
M 6	x	20	S	25	172,00 A4
M 6	x	25	S	25	200,00 A4
M 6	x	30	S	25	233,00 A4
M 8	x	6	S	25	168,00 A4
M 8	x	8	S	25	168,00 A4
M 8	x	10	S	25	191,00 A4
M 8	x	12	S	25	210,00 A4
M 8	x	16	S	25	233,00 A4
M 8	x	20	S	25	280,00 A4
M 8	x	30	S	25	365,00 A4
M 8	x	40	S	25	420,00 A4

DIN 553 | 00553.910 | 230 | A 1



Slotted grub screws with cone point

Dimensions → TI-19 Standard conversion → TI-6
Material properties → TI-236

Steel → pg. 94
Brass → pg. 621

DIN 553 → replaced by ISO 7434 (compatible)

RoHS ✓ REACh SVHC free

M 2	x	3	S	50	29,00 A1
M 2	x	4	S	50	30,50 A1
M 2,5	x	5	S	50	31,50 A1
M 2,5	x	6	S	50	32,50 A1
M 2,5	x	8	S	50	33,00 A1
M 3	x	4	S	50	30,00 A1
M 3	x	5	S	50	31,50 A1
M 3	x	6	S	50	33,50 A1
M 3	x	8	S	50	35,50 A1
M 4	x	5	S	50	33,00 A1
M 4	x	6	S	50	34,50 A1
M 4	x	8	S	50	36,50 A1
M 4	x	10	S	50	38,50 A1
M 4	x	12	S	50	40,50 A1
M 4	x	16	S	50	42,50 A1
M 5	x	5	S	50	35,50 A1
M 5	x	6	S	50	37,50 A1
M 5	x	8	S	50	40,00 A1
M 5	x	10	S	50	42,00 A1
M 5	x	12	S	50	44,50 A1
M 5	x	16	S	50	49,50 A1
M 6	x	6	S	25	45,00 A1
M 6	x	8	S	25	46,50 A1
M 6	x	10	S	25	51,00 A1

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	S	25	53,00 A1
M 6	x	16	S	25	57,00 A1
M 6	x	20	S	25	65,00 A1
M 6	x	25	S	25	75,00 A1

DIN 553 | 00553.940 | 230 | A 4



Slotted grub screws with cone point

Dimensions → TI-19 Standard conversion → TI-6
Material properties → TI-236

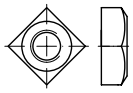
Steel → pg. 94
Brass → pg. 621

DIN 553 → replaced by ISO 7434 (compatible)

RoHS ✓ REACh SVHC free

M 4	x	6	S	50	98,00 A4
M 4	x	8	S	50	104,00 A4
M 4	x	10	S	50	112,00 A4
M 5	x	5	S	50	101,00 A4
M 5	x	6	S	50	107,00 A4
M 5	x	8	S	50	116,00 A4
M 5	x	10	S	50	122,00 A4
M 5	x	16	S	25	152,00 A4
M 6	x	6	S	25	126,00 A4
M 6	x	8	S	25	131,00 A4
M 6	x	10	S	25	141,00 A4
M 6	x	12	S	25	152,00 A4
M 6	x	16	S	25	160,00 A4
M 8	x	12	S	25	227,00 A4
M 8	x	16	S	25	250,00 A4
M 8	x	20	S	25	300,00 A4
M 8	x	25	S	25	355,00 A4

DIN 557 | 00557.920 | 245 | A 2



Square nuts

Dimensions → TI-83 Material properties → TI-236

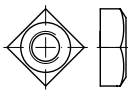
Steel → pg. 95

RoHS ✓ REACh SVHC free

M 5	S	100	76,00 A2
M 6	S	100	105,00 A2
M 8	S	100	133,00 A2
M 10 s = 17	S	100	335,00 A2
M 12 s = 19	S	50	495,00 A2
M 16	S	25	1050,00 A2

Dimensions	PU	Pieces	€/100/Mat.
DIN 00557.940			245

DIN 557 | A 4



Square nuts

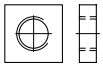
Dimensions → TI-83 Material properties → TI-236

Steel → pg. 95

RoHS ✓ REACh SVHC free

M 5	S	100	105,00 A4
M 6	S	100	131,00 A4
M 8	S	100	175,00 A4
M 10 s = 17	S	100	510,00 A4
M 12 s = 19	S	50	850,00 A4
M 16	S	25	1600,00 A4

DIN 562 | 00562.940 | 260 | A 4



Square thin nuts product grade B

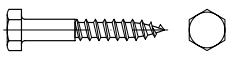
Dimensions → TI-83 Material properties → TI-236

Steel → pg. 97

RoHS ✓ REACh SVHC free

M 3	S	100	100,00 A4
M 4	S	100	104,00 A4
M 5	S	100	154,00 A4
M 6	S	100	244,00 A4
M 8	S	50	310,00 A4

DIN 571 | 00571.920 | 270 | A 2



Hexagon head wood screws

Dimensions → TI-51 Material properties → TI-236

Steel → pg. 98

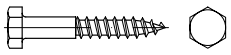
RoHS ✓ REACh SVHC free

5	x	25	S	100	38,00 A2
5	x	30	S	100	45,50 A2
5	x	35	S	100	51,00 A2
5	x	40	S	100	57,00 A2

Dimensions			PU	Pieces	€/100/Mat.
5	x	45	S	100	60,00 A2
5	x	50	S	50	62,00 A2
5	x	60	S	50	125,00 A2
5	x	70	S	50	147,00 A2
6	x	20	S	25	105,00 A2
6	x	25	S	25	56,00 A2
6	x	30	S	200	48,50 A2
6	x	30	K	25	59,00 A2
6	x	35	S	25	62,00 A2
6	x	40	S	200	56,00 A2
6	x	40	K	25	64,00 A2
6	x	45	S	25	70,00 A2
6	x	50	S	200	64,00 A2
6	x	50	K	25	74,00 A2
6	x	60	S	100	74,00 A2
6	x	60	K	25	84,00 A2
6	x	70	S	100	88,00 A2
6	x	70	K	25	97,00 A2
6	x	80	S	100	99,00 A2
6	x	80	K	25	108,00 A2
6	x	90	S	25	124,00 A2
6	x	100	S	25	144,00 A2
6	x	110	S	25	176,00 A2
6	x	120	S	25	207,00 A2
6	x	130	S	25	226,00 A2
8	x	25	S	25	90,00 A2
8	x	30	S	25	108,00 A2
8	x	35	S	25	108,00 A2
8	x	40	S	100	98,00 A2
8	x	40	K	10	122,00 A2
8	x	45	S	10	126,00 A2
8	x	50	S	100	111,00 A2
8	x	50	K	10	134,00 A2
8	x	55	S	100	118,00 A2
8	x	55	K	10	141,00 A2
8	x	60	S	100	128,00 A2
8	x	60	K	10	152,00 A2
8	x	70	S	100	150,00 A2
8	x	70	K	10	174,00 A2
8	x	80	S	100	171,00 A2
8	x	80	K	10	195,00 A2
8	x	90	S	10	218,00 A2
8	x	100	S	100	220,00 A2
8	x	100	K	10	243,00 A2
8	x	110	S	10	280,00 A2
8	x	120	S	10	330,00 A2
8	x	130	S	10	370,00 A2
8	x	140	S	10	400,00 A2
8	x	150	S	10	430,00 A2
8	x	160	S	10	460,00 A2
8	x	180	S	10	520,00 A2
10	x	40	S	10	237,00 A2
10	x	50	S	100	222,00 A2
10	x	50	K	10	248,00 A2
10	x	60	S	100	260,00 A2
10	x	60	K	10	280,00 A2
10	x	70	S	100	290,00 A2
10	x	70	K	10	315,00 A2
10	x	80	S	100	320,00 A2
10	x	80	K	10	345,00 A2
10	x	90	S	10	385,00 A2
10	x	100	S	100	430,00 A2
10	x	100	K	10	455,00 A2
10	x	110	S	10	470,00 A2
10	x	120	S	10	510,00 A2
10	x	130	S	10	540,00 A2
10	x	140	S	10	570,00 A2
10	x	150	S	10	620,00 A2
10	x	160	S	10	650,00 A2
10	x	180	S	10	740,00 A2
10	x	200	S	10	900,00 A2
12	x	50	S	10	820,00 A2
12	x	60	S	10	640,00 A2
12	x	70	S	10	640,00 A2
12	x	80	S	10	690,00 A2
12	x	90	S	10	780,00 A2
12	x	100	S	10	870,00 A2
12	x	110	S	10	950,00 A2
12	x	120	S	10	1040,00 A2
12	x	130	S	10	1130,00 A2
12	x	140	S	10	1220,00 A2
12	x	150	S	10	1300,00 A2
12	x	160	S	10	1380,00 A2
12	x	180	S	10	1550,00 A2
12	x	200	S	10	1730,00 A2
16	x	70	S	10	1080,00 A2
16	x	80	S	10	1240,00 A2
16	x	90	S	10	1390,00 A2
16	x	100	S	10	1540,00 A2
16	x	110	S	10	1700,00 A2
16	x	120	S	10	1850,00 A2
16	x	130	S	10	2010,00 A2
16	x	140	S	10	2150,00 A2
16	x	150	S	10	2310,00 A2
16	x	160	S	10	2470,00 A2
16	x	180	S	10	2850,00 A2
16	x	200	S	10	3100,00 A2

DIN 00571.940 270

571 A 4



Hexagon head wood screws

Dimensions → TI-51 Material properties → TI-236

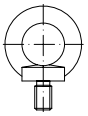
Steel → pg. 98

RoHS ✓ REACh SVHC free

5	x	25	S	200	71,00 A4
5	x	30	S	200	84,00 A4
5	x	35	S	200	99,00 A4
5	x	40	S	200	114,00 A4
5	x	45	S	200	126,00 A4
5	x	50	S	200	141,00 A4
5	x	60	S	200	168,00 A4
5	x	70	S	200	198,00 A4
6	x	25	S	200	84,00 A4
6	x	30	S	200	89,00 A4
6	x	35	S	200	91,00 A4
6	x	40	S	200	91,00 A4
6	x	45	S	200	103,00 A4
6	x	50	S	200	114,00 A4
6	x	60	S	200	135,00 A4
6	x	70	S	200	158,00 A4
6	x	80	S	200	181,00 A4
6	x	90	S	100	204,00 A4
6	x	100	S	100	225,00 A4
6	x	110	S	100	248,00 A4
6	x	120	S	100	270,00 A4
6	x	130	S	100	300,00 A4
8	x	25	S	100	135,00 A4
8	x	30	S	100	162,00 A4
8	x	35	S	100	164,00 A4
8	x	40	S	100	166,00 A4
8	x	45	S	100	181,00 A4
8	x	50	S	100	187,00 A4
8	x	60	S	100	210,00 A4
8	x	70	S	100	244,00 A4
8	x	80	S	100	290,00 A4
8	x	90	S	100	385,00 A4
8	x	100	S	100	475,00 A4
8	x	110	S	100	540,00 A4
8	x	120	S	100	580,00 A4
8	x	130	S	100	620,00 A4
8	x	140	S	100	680,00 A4
8	x	150	S	100	720,00 A4
8	x	160	S	100	770,00 A4
8	x	180	S	100	870,00 A4
10	x	40	S	100	345,00 A4
10	x	50	S	100	435,00 A4
10	x	60	S	100	440,00 A4
10	x	70	S	100	485,00 A4
10	x	80	S	100	520,00 A4
10	x	90	S	100	610,00 A4
10	x	100	S	100	700,00 A4
10	x	120	S	50	920,00 A4
10	x	130	S	50	1000,00 A4
10	x	140	S	50	1100,00 A4
10	x	150	S	50	1180,00 A4
10	x	160	S	50	1240,00 A4
10	x	180	S	50	2080,00 A4
12	x	50	S	50	740,00 A4
12	x	60	S	50	780,00 A4
12	x	70	S	50	900,00 A4
12	x	80	S	50	930,00 A4
12	x	90	S	50	1040,00 A4
12	x	100	S	50	1180,00 A4
12	x	110	S	50	1260,00 A4
12	x	120	S	25	1350,00 A4
12	x	130	S	50	1560,00 A4
12	x	140	S	25	1680,00 A4
12	x	150	S	25	1850,00 A4
12	x	160	S	25	3150,00 A4
12	x	180	S	25	5600,00 A4
12	x	200	S	25	7800,00 A4
16	x	70	S	10	1620,00 A4
16	x	80	S	10	1850,00 A4
16	x	90	S	10	2100,00 A4
16	x	100	S	10	2310,00 A4
16	x	110	S	10	2600,00 A4
16	x	120	S	10	2800,00 A4
16	x	130	S	10	3050,00 A4
16	x	140	S	10	3250,00 A4
16	x	150	S	10	3550,00 A4
16	x	160	S	10	3750,00 A4
16	x	180	S	10	4250,00 A4
16	x	200	S	10	4700,00 A4

DIN 00580.920 280

580 A 2



Lifting eye bolts

Caution! See user information.
→ DIN 580 or Technical Information

Dimensions → TI-32 Product information → TI-142
Material properties → TI-236

Steel → pg. 99

RoHS ✓ REACh SVHC free

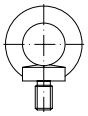
M 6 - small body	S	1	2050,00 A2
M 6	S	1	2050,00 A2
M 8	S	1	1840,00 A2
M 10	S	1	2750,00 A2
M 12	S	1	4600,00 A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 16	S	1	7900,00 A 2
M 20	S	1	10600,00 A 2
M 24	S	1	16100,00 A 2
M 30	S	1	27500,00 A 2

DIN 00580.940 280

580 A 4



Lifting eye bolts

Caution! See user information.
→ DIN 580 or Technical Information

Dimensions → TI-32 Product information → TI-142
Material properties → TI-236

Steel → pg. 99

RoHS ✓ REACh SVHC free

M 6	S	1	2600,00 A 4
M 8	S	1	2600,00 A 4
M 10	S	1	3500,00 A 4
M 12	S	1	5900,00 A 4
M 16	S	1	9700,00 A 4
M 20	S	1	13300,00 A 4
M 24	S	1	20400,00 A 4
M 30	S	1	30500,00 A 4

DIN 00582.920 280

582 A 2



Lifting eye nuts

Caution! See user information.
→ DIN 582 or Technical Information

Dimensions → TI-77 Product information → TI-142
Material properties → TI-236

Steel → pg. 99

RoHS ✓ REACh SVHC free

M 6	S	1	1950,00 A 2
M 8	S	1	1880,00 A 2
M 10	S	1	2700,00 A 2
M 12	S	1	4250,00 A 2
M 16	S	1	6500,00 A 2
M 20	S	1	11600,00 A 2
M 24	S	1	13300,00 A 2
M 30	S	1	25400,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
M 8	S	1	2650,00 A 4
M 10	S	1	3550,00 A 4
M 12	S	1	5700,00 A 4
M 16	S	1	9300,00 A 4
M 20	S	1	14500,00 A 4
M 24	S	1	16200,00 A 4
M 30	S	1	28200,00 A 4

DIN 00582.940 280

582 A 4



Lifting eye nuts

Caution! See user information.
→ DIN 582 or Technical Information

Dimensions → TI-77 Product information → TI-142
Material properties → TI-236

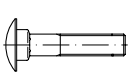
Steel → pg. 99

RoHS ✓ REACh SVHC free

M 5	x	16	S	100	74,00 A 2
M 5	x	20	S	100	77,00 A 2
M 5	x	25	S	100	82,00 A 2
M 5	x	30	S	100	87,00 A 2
M 5	x	35	S	100	90,00 A 2
M 5	x	40	S	100	93,00 A 2
M 5	x	45	S	100	126,00 A 2
M 5	x	50	S	100	132,00 A 2
M 5	x	55	S	100	192,00 A 2
M 5	x	60	S	100	155,00 A 2
M 5	x	65	S	100	255,00 A 2
M 5	x	70	S	100	233,00 A 2
M 5	x	80	S	100	280,00 A 2
M 6	x	12	S	100	79,00 A 2
M 6	x	16	S	100	82,00 A 2
M 6	x	20	S	100	86,00 A 2
M 6	x	25	S	100	90,00 A 2
M 6	x	30	S	100	94,00 A 2
M 6	x	35	S	100	105,00 A 2
M 6	x	40	S	100	116,00 A 2
M 6	x	45	S	100	118,00 A 2
M 6	x	50	S	100	122,00 A 2
M 6	x	55	S	100	139,00 A 2

DIN 00603.924 300

603 A 2



Cup head square neck bolts

full or partial thread depending on manufacturer

Dimensions → TI-32 Material properties → TI-236

Steel → pg. 103
Brass → pg. 621

RoHS ✓ REACh SVHC free

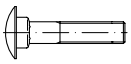
M 6	x	60	S	100	139,00 A 2
M 6	x	65	S	100	161,00 A 2
M 6	x	70	S	100	201,00 A 2
M 6	x	75	S	100	229,00 A 2
M 6	x	80	S	100	243,00 A 2
M 6	x	90	S	100	285,00 A 2
M 6	x	100	S	100	330,00 A 2
M 6	x	110	S	100	355,00 A 2
M 6	x	120	S	100	470,00 A 2
M 8	x	16	S	100	152,00 A 2
M 8	x	20	S	100	159,00 A 2
M 8	x	25	S	100	164,00 A 2
M 8	x	30	S	100	171,00 A 2
M 8	x	35	S	100	176,00 A 2
M 8	x	40	S	100	182,00 A 2
M 8	x	45	S	100	197,00 A 2
M 8	x	50	S	100	209,00 A 2
M 8	x	55	S	100	280,00 A 2
M 8	x	60	S	100	237,00 A 2
M 8	x	65	S	100	320,00 A 2
M 8	x	70	S	100	280,00 A 2
M 8	x	75	S	100	320,00 A 2
M 8	x	80	S	100	370,00 A 2
M 8	x	90	S	100	355,00 A 2
M 8	x	100	S	100	430,00 A 2
M 8	x	110	S	100	460,00 A 2
M 8	x	120	S	100	510,00 A 2
M 8	x	130	S	100	920,00 A 2
M 8	x	140	S	50	1020,00 A 2
M 8	x	150	S	50	1130,00 A 2
M 8	x	160	S	50	1830,00 A 2
M 8	x	180	S	50	2020,00 A 2
M 8	x	200	S	50	2290,00 A 2
M 10	x	20	S	100	420,00 A 2
M 10	x	25	S	100	445,00 A 2
M 10	x	30	S	100	460,00 A 2
M 10	x	35	S	100	485,00 A 2
M 10	x	40	S	100	520,00 A 2
M 10	x	45	S	100	540,00 A 2
M 10	x	50	S	100	560,00 A 2
M 10	x	55	S	100	580,00 A 2
M 10	x	60	S	100	600,00 A 2
M 10	x	65	S	100	780,00 A 2
M 10	x	70	S	100	660,00 A 2
M 10	x	75	S	100	690,00 A 2
M 10	x	80	S	100	710,00 A 2
M 10	x	90	S	100	760,00 A 2
M 10	x	100	S	100	820,00 A 2
M 10	x	110	S	50	1200,00 A 2
M 10	x	120	S	50	1220,00 A 2
M 10	x	130	S	50	1540,00 A 2
M 10	x	140	S	50	1740,00 A 2
M 10	x	150	S	50	1870,00 A 2
M 12	x	25	S	100	850,00 A 2
M 12	x	30	S	100	890,00 A 2
M 12	x	35	S	100	920,00 A 2
M 12	x	40	S	100	970,00 A 2
M 12	x	45	S	100	1030,00 A 2
M 12	x	50	S	100	1070,00 A 2
M 12	x	55	S	100	1130,00 A 2
M 12	x	60	S	100	1160,00 A 2
M 12	x	65	S	50	1190,00 A 2
M 12	x	70	S	50	1240,00 A 2
M 12	x	75	S	50	1300,00 A 2
M 12	x	80	S	50	1340,00 A 2
M 12	x	90	S	50	1440,00 A 2
M 12	x	100	S	50	1520,00 A 2
M 12	x	110	S	50	1610,00 A 2
M 12	x	120	S	50	1710,00 A 2
M 12	x	130	S	50	1800,00 A 2
M 12	x	140	S	50	1900,00 A 2
M 12	x	150	S	25	2100,00 A 2
M 12	x	160	S	25	2320,00 A 2
M 12	x	180	S	25	2850,00 A 2
M 12	x	200	S	25	3050,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	40	S	50	1520,00 A 2
M 16	x	45	S	50	1580,00 A 2
M 16	x	50	S	50	1660,00 A 2
M 16	x	55	S	50	1760,00 A 2
M 16	x	60	S	50	1800,00 A 2
M 16	x	65	S	25	1900,00 A 2
M 16	x	70	S	25	2000,00 A 2
M 16	x	75	S	25	2050,00 A 2
M 16	x	80	S	25	2100,00 A 2
M 16	x	90	S	25	2220,00 A 2
M 16	x	100	S	25	2400,00 A 2
M 16	x	110	S	25	2550,00 A 2
M 16	x	120	S	25	2750,00 A 2
M 16	x	130	S	1	3950,00 A 2
M 16	x	140	S	1	4250,00 A 2
M 16	x	150	S	1	4450,00 A 2

DIN 00603.944 300

603

A 4



Cup head square neck bolts

full or partial thread depending on manufacturer

Dimensions ➔ TI-32

Material properties ➔ TI-236

Steel ➔ pg. 103

Brass ➔ pg. 621

RoHS ✓

REACh SVHC free

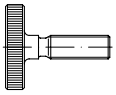
M 6	x	16	S	25	219,00 A 4
M 6	x	20	S	25	240,00 A 4
M 6	x	25	S	25	275,00 A 4
M 6	x	30	S	25	290,00 A 4
M 6	x	35	S	25	295,00 A 4
M 6	x	40	S	25	300,00 A 4
M 6	x	45	S	25	300,00 A 4
M 6	x	50	S	25	305,00 A 4
M 6	x	55	S	25	320,00 A 4
M 6	x	60	S	25	335,00 A 4
M 6	x	65	S	10	420,00 A 4
M 6	x	70	S	10	420,00 A 4
M 6	x	75	S	10	470,00 A 4
M 6	x	80	S	10	490,00 A 4
M 6	x	90	S	10	560,00 A 4
M 6	x	100	S	10	720,00 A 4
M 8	x	16	S	25	380,00 A 4
M 8	x	20	S	25	395,00 A 4
M 8	x	25	S	25	420,00 A 4
M 8	x	30	S	25	445,00 A 4
M 8	x	35	S	25	480,00 A 4
M 8	x	40	S	25	480,00 A 4
M 8	x	45	S	10	500,00 A 4
M 8	x	50	S	10	520,00 A 4
M 8	x	55	S	10	560,00 A 4
M 8	x	60	S	10	570,00 A 4
M 8	x	65	S	10	640,00 A 4
M 8	x	70	S	10	660,00 A 4
M 8	x	75	S	10	870,00 A 4
M 8	x	80	S	10	690,00 A 4
M 8	x	90	S	10	770,00 A 4
M 8	x	100	S	10	850,00 A 4
M 8	x	110	S	10	960,00 A 4
M 8	x	120	S	10	1010,00 A 4
M 8	x	130	S	10	1670,00 A 4
M 8	x	140	S	10	1810,00 A 4

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	150	S	10	1900,00 A 4
M 10	x	20	S	10	630,00 A 4
M 10	x	25	S	10	630,00 A 4
M 10	x	30	S	10	670,00 A 4
M 10	x	35	S	10	720,00 A 4
M 10	x	40	S	10	820,00 A 4
M 10	x	45	S	10	900,00 A 4
M 10	x	50	S	10	940,00 A 4
M 10	x	55	S	10	960,00 A 4
M 10	x	60	S	10	980,00 A 4
M 10	x	65	S	10	1070,00 A 4
M 10	x	70	S	10	1130,00 A 4
M 10	x	75	S	1	1490,00 A 4
M 10	x	80	S	1	1200,00 A 4
M 10	x	90	S	1	1290,00 A 4
M 10	x	100	S	1	1320,00 A 4
M 10	x	110	S	1	1550,00 A 4
M 10	x	120	S	1	1670,00 A 4
M 10	x	130	S	1	1800,00 A 4
M 10	x	140	S	1	1900,00 A 4
M 10	x	150	S	1	2030,00 A 4
M 12	x	25	S	1	1350,00 A 4
M 12	x	30	S	1	1350,00 A 4
M 12	x	35	S	1	1500,00 A 4
M 12	x	40	S	1	1570,00 A 4
M 12	x	45	S	1	1640,00 A 4
M 12	x	50	S	1	1700,00 A 4
M 12	x	55	S	1	1740,00 A 4
M 12	x	60	S	1	1760,00 A 4
M 12	x	65	S	1	1820,00 A 4
M 12	x	70	S	1	1840,00 A 4
M 12	x	75	S	1	1860,00 A 4
M 12	x	80	S	1	1900,00 A 4
M 12	x	90	S	1	2040,00 A 4
M 12	x	100	S	1	2430,00 A 4
M 12	x	110	S	1	2550,00 A 4
M 12	x	120	S	1	2600,00 A 4
M 12	x	130	S	1	2750,00 A 4
M 12	x	140	S	1	2850,00 A 4
M 12	x	150	S	1	3250,00 A 4
M 12	x	160	S	1	3400,00 A 4
M 16	x	50	S	1	2430,00 A 4
M 16	x	55	S	1	2550,00 A 4
M 16	x	60	S	1	2650,00 A 4
M 16	x	65	S	1	2850,00 A 4
M 16	x	70	S	1	2900,00 A 4
M 16	x	75	S	1	3050,00 A 4
M 16	x	80	S	1	3150,00 A 4
M 16	x	90	S	1	3300,00 A 4
M 16	x	100	S	1	3550,00 A 4
M 16	x	110	S	1	4700,00 A 4
M 16	x	120	S	1	4900,00 A 4
M 16	x	130	S	1	5100,00 A 4
M 16	x	140	S	1	5400,00 A 4
M 16	x	150	S	1	5400,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
DIN 00653.910			320

653

A 1



Knurled thumb screws, low type

Dimensions ➔ TI-33

Material properties ➔ TI-236

Steel ➔ pg. 108

RoHS ✓

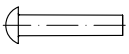
REACh SVHC free

M 3	x	10	S	10	495,00 A 1
M 3	x	12	S	10	530,00 A 1
M 3	x	16	S	10	550,00 A 1
M 4	x	8	S	10	495,00 A 1
M 4	x	10	S	10	550,00 A 1
M 4	x	12	S	10	580,00 A 1
M 4	x	16	S	10	630,00 A 1
M 4	x	20	S	10	690,00 A 1
M 5	x	10	S	10	670,00 A 1
M 5	x	12	S	10	710,00 A 1
M 5	x	16	S	10	810,00 A 1
M 5	x	20	S	10	1050,00 A 1
M 5	x	25	S	10	1240,00 A 1
M 5	x	30	S	10	1420,00 A 1
M 5	x	40	S	10	1900,00 A 1
M 5	x	50	S	10	2280,00 A 1
M 6	x	12	S	10	930,00 A 1
M 6	x	16	S	10	970,00 A 1
M 6	x	20	S	10	1080,00 A 1
M 6	x	25	S	10	1240,00 A 1
M 6	x	30	S	10	1440,00 A 1
M 6	x	35	S	10	1660,00 A 1
M 6	x	40	S	10	1820,00 A 1
M 8	x	10	S	10	1610,00 A 1
M 8	x	16	S	10	1900,00 A 1
M 8	x	20	S	10	2280,00 A 1
M 8	x	25	S	10	2600,00 A 1
M 8	x	30	S	10	2850,00 A 1
M 8	x	35	S	10	3250,00 A 1

DIN 00660.920 330

660

A 2



Round head rivets

Dimensions ➔ TI-134

Material properties ➔ TI-236

Steel ➔ pg. 109

Brass, Copper, Aluminium ➔ pg. 621

RoHS ✓

REACh SVHC free

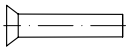
2	x	4	S	200	15,00 A 2
2	x	5	S	200	15,00 A 2
2	x	6	S	200	15,00 A 2
2	x	8	S	200	16,10 A 2
2	x	20	S	200	19,90 A 2
3	x	4	S	200	18,40 A 2

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
3	x	5	S	200	18,40 A 2
3	x	6	S	200	18,40 A 2
3	x	8	S	200	19,40 A 2
3	x	10	S	200	21,40 A 2
3	x	12	S	200	22,80 A 2
3	x	16	S	200	26,00 A 2
3	x	20	S	200	30,00 A 2
3	x	25	S	200	34,00 A 2
4	x	5	S	100	30,50 A 2
4	x	6	S	100	30,50 A 2
4	x	8	S	100	32,50 A 2
4	x	10	S	100	36,00 A 2
4	x	12	S	100	39,50 A 2
4	x	16	S	100	44,50 A 2
4	x	20	S	100	51,00 A 2
4	x	25	S	100	56,00 A 2
5	x	8	S	100	46,00 A 2
5	x	10	S	100	53,00 A 2
5	x	12	S	100	57,00 A 2
5	x	16	S	100	65,00 A 2
5	x	20	S	100	78,00 A 2
5	x	25	S	100	90,00 A 2
6	x	12	S	100	82,00 A 2
6	x	16	S	100	93,00 A 2
6	x	20	S	100	114,00 A 2
6	x	25	S	100	125,00 A 2
6	x	30	S	100	137,00 A 2
8	x	16	S	50	154,00 A 2
8	x	20	S	50	173,00 A 2
8	x	25	S	50	190,00 A 2
8	x	30	S	50	205,00 A 2

DIN 00661.920 330

661 A 2



Countersunk head rivets

Dimensions ➔ TI-134 Material properties ➔ TI-236

Steel ➔ pg. 109
Brass, Copper, Aluminium ➔ pg. 622

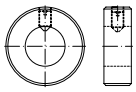
RoHS ✓ REACh SVHC free

2	x	5	S	200	14,40 A 2
2	x	6	S	200	14,40 A 2
3	x	6	S	200	17,50 A 2
3	x	8	S	200	18,60 A 2
3	x	10	S	200	20,50 A 2
3	x	12	S	200	21,60 A 2
3	x	16	S	200	24,30 A 2
3	x	20	S	200	28,50 A 2
4	x	6	S	100	29,00 A 2
4	x	8	S	100	31,00 A 2
4	x	10	S	100	34,00 A 2
4	x	12	S	100	37,50 A 2
4	x	16	S	100	42,50 A 2
4	x	20	S	100	48,50 A 2
5	x	8	S	100	44,00 A 2
5	x	10	S	100	49,50 A 2
5	x	12	S	100	54,00 A 2
5	x	16	S	100	62,00 A 2
5	x	20	S	100	74,00 A 2
5	x	25	S	100	87,00 A 2
6	x	12	S	100	78,00 A 2
6	x	16	S	100	88,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
6	x	30	S	100	131,00 A 2
8	x	20	S	50	163,00 A 2
8	x	25	S	50	180,00 A 2

DIN 00705.911 340

705 A 1 type A



Adjusting rings, light range, A = with grub screw

until ∅ 75 with grub screw DIN 553/ISO 7434,
from ∅ 75 with set screw DIN 914/ISO 4027

Dimensions ➔ TI-111 Material properties ➔ TI-236

Steel ➔ pg. 110

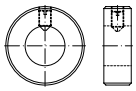
RoHS ✓ REACh SVHC free

inside / nominal ∅ x outside ∅ x width

A 6	x	12	x	8	S	10	305,00 A 1
A 8	x	16	x	8	S	10	325,00 A 1
A 9	x	18	x	10	S	10	400,00 A 1
A 10	x	20	x	10	S	10	435,00 A 1
A 12	x	22	x	12	S	10	540,00 A 1
A 13	x	22	x	12	S	10	540,00 A 1
A 14	x	25	x	12	S	10	620,00 A 1
A 15	x	25	x	12	S	10	620,00 A 1
A 16	x	28	x	12	S	10	760,00 A 1
A 18	x	32	x	14	S	10	990,00 A 1
A 20	x	32	x	14	S	10	990,00 A 1
A 22	x	36	x	14	S	1	1240,00 A 1
A 25	x	40	x	16	S	1	1410,00 A 1
A 26	x	40	x	16	S	1	1410,00 A 1
A 28	x	45	x	16	S	1	1670,00 A 1
A 30	x	45	x	16	S	1	1670,00 A 1
A 32	x	50	x	16	S	1	2290,00 A 1
A 35	x	56	x	16	S	1	2600,00 A 1
A 40	x	63	x	18	S	1	3750,00 A 1
A 45	x	70	x	18	S	1	4950,00 A 1
A 50	x	80	x	18	S	1	6600,00 A 1
A 60	x	90	x	20	S	1	12500,00 A 1
A 65	x	100	x	20	S	1	17100,00 A 1
A 70	x	100	x	20	S	1	18800,00 A 1
A 80	x	110	x	22	S	1	25600,00 A 1
A120	x	160	x	25	S	1	66300,00 A 1

Dimensions			PU	Pieces	€/100/Mat.
DIN	00705.951				340

705 1.4571 (A 5) type A



Adjusting rings, light range, A = with grub screw

grub screw DIN 553/ISO 7434

Dimensions ➔ TI-111 Material properties ➔ TI-236

Steel ➔ pg. 110

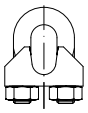
RoHS ✓ REACh SVHC free

inside / nominal ∅ x outside ∅ x width

A 8	x	16	x	8	S	10	700,00 A 5
A 10	x	20	x	10	S	10	940,00 A 5
A 12	x	22	x	12	S	10	1160,00 A 5
A 14	x	25	x	12	S	10	1310,00 A 5
A 15	x	25	x	12	S	10	1310,00 A 5
A 16	x	28	x	12	S	10	1620,00 A 5
A 20	x	32	x	14	S	10	2080,00 A 5
A 25	x	40	x	16	S	5	3000,00 A 5
A 30	x	45	x	16	S	5	3550,00 A 5
A 35	x	56	x	16	S	5	5500,00 A 5
A 40	x	63	x	18	S	1	8000,00 A 5
A 50	x	80	x	18	S	1	14100,00 A 5
A 60	x	90	x	20	S	1	21000,00 A 5

~DIN 00741.920 341

741 A 2



Clips for free ends of wire ropes

thimbles ➔ DIN 6899

Dimensions ➔ TI-133 Material properties ➔ TI-236

safety wire rope grips
➔ DIN 1142/EN 13411-5 on request

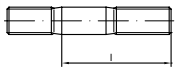
RoHS ✓ REACh SVHC free

for rope ∅ max. / thread ∅ U-bolt				
3 MM / M 4	S	50	485,00 A 2
5 MM / M 5	S	50	700,00 A 2
6 MM / M 5	S	50	840,00 A 2
8 MM / M 6	S	25	970,00 A 2

Dimensions | PU Pieces | €/100/Mat.

DIN 00835.940 340

835 A 4



Studs, metal end ≈ 2 d

Dimensions → TI-18 Tightening torque → TI-249
Material properties → TI-236

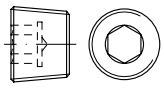
Steel → pg. 112

RoHS ✓ REACh SVHC free

M 6	x	16	S	25	305,00	A4
M 6	x	20	S	25	315,00	A4
M 6	x	25	S	25	325,00	A4
M 8	x	30	S	10	320,00	A4
M 8	x	35	S	10	410,00	A4
M 8	x	40	S	10	420,00	A4
M 10	x	30	S	10	520,00	A4
M 10	x	35	S	10	550,00	A4
M 10	x	40	S	10	570,00	A4
M 12	x	25	S	10	620,00	A4
M 12	x	30	S	10	640,00	A4
M 12	x	35	S	10	690,00	A4
M 12	x	40	S	10	720,00	A4
M 12	x	45	S	10	750,00	A4
M 12	x	50	S	10	780,00	A4
M 12	x	60	S	10	840,00	A4
M 16	x	40	S	10	1070,00	A4
M 16	x	50	S	10	1180,00	A4

DIN 00906.940 350

906 A 4 taper fine



Hexagon socket pipe plugs with taper fine pitch thread

Dimensions → TI-22 Material properties → TI-236

Steel → pg. 112
Brass → pg. 624

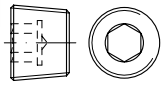
RoHS ✓ REACh SVHC free

M 8	x	1	S	100	395,00	A4
M 10	x	1	S	100	440,00	A4
M 12	x	1,5	S	100	500,00	A4
M 14	x	1,5	S	100	620,00	A4
M 16	x	1,5	S	100	880,00	A4
M 18	x	1,5	S	100	990,00	A4
M 20	x	1,5	S	100	1100,00	A4
M 22	x	1,5	S	50	1220,00	A4

Dimensions | PU Pieces | €/100/Mat.

DIN 00906.944 350

906 A 4 taper pipe R



Hexagon socket pipe plugs, R = with taper pipe thread

Dimensions → TI-22 Material properties → TI-236

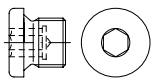
Steel → pg. 112
Brass → pg. 624

RoHS ✓ REACh SVHC free

R 1/8	S	50	325,00	A4
R 1/4	S	50	640,00	A4
R 3/8	S	100	930,00	A4
R 1/2	S	100	1020,00	A4
R 3/4	S	25	7300,00	A4
R 1	S	1	12500,00	A4

DIN 00908.940 350

908 A 4 cyl. fine



Hexagon socket screw plugs with cylindrical fine pitch thread

Dimensions → TI-22 Material properties → TI-236

Steel → pg. 113

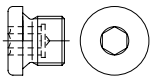
RoHS ✓ REACh SVHC free

M 8	x	1	S	100	1790,00	A4
M 10	x	1	S	100	640,00	A4
M 12	x	1,5	S	100	1070,00	A4
M 14	x	1,5	S	100	1410,00	A4
M 16	x	1,5	S	100	1520,00	A4
M 18	x	1,5	S	100	1810,00	A4
M 20	x	1,5	S	100	2080,00	A4
M 22	x	1,5	S	50	2460,00	A4
M 24	x	1,5	S	50	2850,00	A4
M 30	x	1,5	S	50	3550,00	A4
M 30	x	2	S	50	3800,00	A4

Dimensions | PU Pieces | €/100/Mat.

DIN 00908.944 350

908 A 4 cyl. pipe G



Hexagon socket screw plugs, G = with cylindrical pipe thread

Dimensions → TI-22 Material properties → TI-236

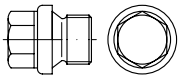
Steel → pg. 113
Brass → pg. 624

RoHS ✓ REACh SVHC free

G 1/8 A	S	1	465,00	A4
G 1/4 A	S	1	890,00	A4
G 3/8 A	S	1	1030,00	A4
G 1/2 A	S	1	1280,00	A4
G 3/4 A	S	1	2460,00	A4
G 1 A	S	1	3350,00	A4
G 1 1/4 A	S	1	9600,00	A4
G 1 1/2 A	S	1	12200,00	A4
G 2 A	S	1	16800,00	A4

DIN 00910.940 350

910 A 4 cyl. fine



Hexagon head screw plugs, heavy type, with cylindrical fine pitch thread

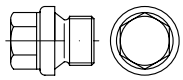
Dimensions → TI-23 Material properties → TI-236

Steel → pg. 114
Brass → pg. 624

RoHS ✓ REACh SVHC free

M 10	x	1	S	10	910,00	A4
M 12	x	1,5	S	10	1310,00	A4
M 14	x	1,5	S	10	1310,00	A4
M 16	x	1,5	S	1	1370,00	A4
M 18	x	1,5	S	1	1910,00	A4
M 20	x	1,5	S	1	2190,00	A4
M 22	x	1,5	S	1	2400,00	A4
M 24	x	1,5	S	1	3400,00	A4
M 30	x	1,5	S	1	14300,00	A4
M 42	x	1,5	S	10	26300,00	A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	00910.944		350
910	**A 4**		**cyl. pipe G**



Hexagon head screw plugs, heavy type, G = cylindrical pipe thread

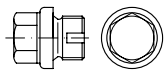
Dimensions ➔ TI-23 Material properties ➔ TI-236

Steel ➔ pg. 114
Brass ➔ pg. 624

RoHS ✓ REACh SVHC free

G 1/8 A	S	10	670,00	A4
G 1/4 A	S	10	710,00	A4
G 3/8 A	S	10	900,00	A4
G 1/2 A	S	1	1770,00	A4
G 5/8 A	S	1	4150,00	A4
G 3/4 A	S	1	2650,00	A4
G 1 A	S	1	4150,00	A4
G 1 1/4 A	S	1	12000,00	A4
G 1 1/2 A	S	1	13300,00	A4
G 2 A	S	1	20600,00	A4

~DIN	00910.954		350
910	**1.4571 (A 5)**		**cyl. pipe EG**



Hexagon head screw plugs, heavy type, E = with ventilation G = cylindrical pipe thread

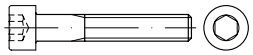
(~ DIN 5586 type A)

Dimensions ➔ TI-23 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

EG 1/4 A	S	10	2850,00	A5
EG 3/8 A	S	10	2800,00	A5
EG 1/2 A	S	1	3550,00	A5
EG 3/4 A	S	1	4600,00	A5
EG 1 A	S	1	6800,00	A5

Dimensions	PU	Pieces	€/100/Mat.
DIN	00912.920		360
912	**A 2 (- 70)***		



Hexagon socket head cap screws

Dimensions ➔ TI-12 Tightening torque ➔ TI-249
Material properties ➔ TI-236 Standard conversion ➔ TI-6

Steel ➔ pg. 115

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ REACh SVHC free

*Prop. class for dimensions different depending on production

M 1,6	x	4*	S	100	163,00 A2
M 1,6	x	5*	S	100	175,00 A2
M 1,6	x	6*	S	100	186,00 A2
M 1,6	x	8*	S	100	201,00 A2
M 2	x	3*	S	100	81,00 A2
M 2	x	4*	S	100	51,00 A2
M 2	x	5*	S	100	51,00 A2
M 2	x	6*	S	100	51,00 A2
M 2	x	8*	S	100	51,00 A2
M 2	x	10*	S	100	53,00 A2
M 2	x	12*	S	100	56,00 A2
M 2	x	16*	S	100	63,00 A2
M 2	x	20*	S	100	76,00 A2
M 2,5	x	4*	S	100	51,00 A2
M 2,5	x	5*	S	100	51,00 A2
M 2,5	x	6*	S	100	51,00 A2
M 2,5	x	8*	S	100	51,00 A2
M 2,5	x	10*	S	100	53,00 A2
M 2,5	x	12*	S	100	56,00 A2
M 2,5	x	14*	S	100	79,00 A2
M 2,5	x	16*	S	100	63,00 A2
M 2,5	x	20*	S	100	76,00 A2
M 2,5	x	25*	S	100	101,00 A2
M 3	x	4*	S	100	38,00 A2
M 3	x	5*	S	100	31,00 A2
M 3	x	6*	S	100	23,10 A2
M 3	x	8*	S	100	20,30 A2
M 3	x	10*	S	100	17,50 A2
M 3	x	12*	S	100	17,50 A2
M 3	x	14*	S	100	14,70 A2
M 3	x	16*	S	100	11,70 A2
M 3	x	18*	S	100	15,90 A2
M 3	x	20*	S	100	12,70 A2
M 3	x	22*	S	100	16,60 A2
M 3	x	25*	S	100	13,40 A2
M 3	x	30*	S	100	17,30 A2
M 3	x	35*	S	100	20,30 A2
M 3	x	40*	S	100	22,20 A2
M 3	x	45*	S	100	40,00 A2
M 3	x	50*	S	100	40,00 A2
M 4	x	5*	S	100	37,00 A2
M 4	x	6*	S	200	25,00 A2
M 4	x	8*	S	500	20,30 A2
M 4	x	8*	K	200	22,70 A2
M 4	x	10*	S	500	18,90 A2
M 4	x	10*	K	200	22,80 A2
M 4	x	12*	S	500	18,90 A2
M 4	x	12*	K	200	22,80 A2
M 4	x	14*	S	500	14,70 A2
M 4	x	14*	K	200	17,10 A2
M 4	x	16*	S	500	11,70 A2
M 4	x	16*	K	200	15,60 A2
M 4	x	18*	S	500	15,90 A2
M 4	x	18*	K	200	18,30 A2
M 4	x	20*	S	500	12,70 A2
M 4	x	20*	K	200	16,70 A2
M 4	x	22*	S	500	16,60 A2
M 4	x	22*	K	200	19,00 A2
M 4	x	25*	S	500	13,40 A2
M 4	x	25*	K	200	15,80 A2
M 4	x	30*	S	500	17,30 A2
M 4	x	30*	K	200	19,60 A2
M 4	x	35*	S	500	17,80 A2
M 4	x	35*	K	200	20,20 A2
M 4	x	40*	S	500	19,90 A2
M 4	x	40*	K	200	22,30 A2
M 4	x	45*	S	200	40,00 A2
M 4	x	50*	S	200	40,00 A2
M 4	x	55*	S	200	235,00 A2
M 4	x	60*	S	200	260,00 A2
M 4	x	70*	S	200	335,00 A2
M 4	x	80*	S	200	860,00 A2
M 5	x	6*	S	100	44,50 A2
M 5	x	8*	S	100	20,30 A2
M 5	x	10	S	500	18,90 A2
M 5	x	10	K	100	22,80 A2
M 5	x	12	S	500	18,90 A2
M 5	x	12	K	100	22,80 A2
M 5	x	14	S	500	16,80 A2
M 5	x	14	K	100	21,50 A2
M 5	x	16	S	500	13,20 A2
M 5	x	16	K	100	17,10 A2
M 5	x	18	S	500	16,50 A2
M 5	x	18	K	100	21,20 A2
M 5	x	20	S	500	13,60 A2
M 5	x	20	K	100	17,50 A2
M 5	x	22	S	500	18,60 A2
M 5	x	22	K	100	23,30 A2
M 5	x	25	S	500	14,70 A2
M 5	x	25	K	100	18,60 A2
M 5	x	30	S	500	17,30 A2
M 5	x	30	K	100	21,20 A2
M 5	x	35	S	500	19,20 A2
M 5	x	35	K	100	23,90 A2
M 5	x	40	S	500	20,90 A2
M 5	x	40	K	100	26,00 A2
M 5	x	45	S	100	28,00 A2
M 5	x	50	S	100	31,00 A2
M 5	x	55	S	100	44,50 A2
M 5	x	60	S	100	58,00 A2
M 5	x	65	S	100	84,00 A2
M 5	x	70	S	100	67,00 A2
M 5	x	75	S	100	179,00 A2
M 5	x	80	S	100	137,00 A2
M 5	x	90	S	100	470,00 A2
M 5	x	100	S	100	690,00 A2
M 6	x	6*	S	100	46,50 A2
M 6	x	8*	S	100	26,50 A2
M 6	x	10	S	500	23,10 A2
M 6	x	10	K	100	27,50 A2
M 6	x	12	S	500	23,10 A2
M 6	x	12	K	100	27,50 A2
M 6	x	14	S	500	23,30 A2
M 6	x	14	K	100	28,50 A2
M 6	x	16	S	500	16,30 A2
M 6	x	16	K	100	20,30 A2
M 6	x	18	S	500	22,20 A2
M 6	x	18	K	100	27,00 A2
M 6	x	20	S	500	18,10 A2
M 6	x	20	K	100	22,00 A2
M 6	x	22	S	100	23,10 A2
M 6	x	25	S	500	19,50 A2
M 6	x	25	K	100	23,50 A2
M 6	x	30	S	500	21,10 A2
M 6	x	30	K	100	25,00 A2
M 6	x	35	S	500	23,90 A2
M 6	x	35	K	100	28,00 A2
M 6	x	40	S	500	26,00 A2
M 6	x	40	K	100	30,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 45	S	500	35,00 A2
M 6 x 45	K	100	40,00 A2
M 6 x 50	S	500	41,50 A2
M 6 x 50	K	100	46,50 A2
M 6 x 55	S	500	50,00 A2
M 6 x 55	K	100	55,00 A2
M 6 x 60	S	500	55,00 A2
M 6 x 60	K	100	59,00 A2
M 6 x 65	S	500	88,00 A2
M 6 x 65	K	100	93,00 A2
M 6 x 70	S	500	71,00 A2
M 6 x 70	K	100	76,00 A2
M 6 x 75	S	100	122,00 A2
M 6 x 80	S	100	97,00 A2
M 6 x 85	S	100	640,00 A2
M 6 x 90	S	100	165,00 A2
M 6 x 95	S	100	700,00 A2
M 6 x 100	S	100	184,00 A2
M 6 x 110	S	100	203,00 A2
M 6 x 120	S	100	241,00 A2
M 6 x 130	S	50	265,00 A2
M 6 x 140	S	50	300,00 A2
M 6 x 150	S	50	340,00 A2
M 8 x 8*	S	100	194,00 A2
M 8 x 10	S	100	45,50 A2
M 8 x 12	S	200	42,50 A2
M 8 x 14	S	200	52,00 A2
M 8 x 16	S	200	37,00 A2
M 8 x 16	K	100	41,00 A2
M 8 x 18	S	200	42,50 A2
M 8 x 20	S	200	31,50 A2
M 8 x 20	K	100	35,50 A2
M 8 x 22	S	200	38,00 A2
M 8 x 25	S	200	29,50 A2
M 8 x 25	K	100	33,50 A2
M 8 x 30	S	200	33,00 A2
M 8 x 30	K	100	37,00 A2
M 8 x 35	S	200	36,00 A2
M 8 x 35	K	100	40,00 A2
M 8 x 40	S	200	39,50 A2
M 8 x 40	K	100	43,50 A2
M 8 x 45	S	200	44,50 A2
M 8 x 50	S	200	48,50 A2
M 8 x 55	S	200	66,00 A2
M 8 x 60	S	200	68,00 A2
M 8 x 65	S	200	137,00 A2
M 8 x 70	S	200	104,00 A2
M 8 x 75	S	200	203,00 A2
M 8 x 80	S	200	135,00 A2
M 8 x 85	S	100	260,00 A2
M 8 x 90	S	200	148,00 A2
M 8 x 100	S	200	166,00 A2
M 8 x 110	S	50	222,00 A2
M 8 x 120	S	50	265,00 A2
M 8 x 130	S	50	290,00 A2
M 8 x 140	S	50	320,00 A2
M 8 x 150	S	50	350,00 A2
M 8 x 160*	S	50	920,00 A2
M 8 x 170*	S	50	1210,00 A2
M 8 x 180*	S	50	1700,00 A2
M 10 x 12	S	100	124,00 A2
M 10 x 16	S	100	70,00 A2
M 10 x 18	S	100	84,00 A2
M 10 x 20	S	100	55,00 A2
M 10 x 25	S	100	50,00 A2
M 10 x 30	S	100	53,00 A2
M 10 x 35	S	100	55,00 A2
M 10 x 40	S	100	59,00 A2
M 10 x 45	S	100	71,00 A2
M 10 x 50	S	100	75,00 A2
M 10 x 55	S	100	98,00 A2
M 10 x 60	S	100	105,00 A2
M 10 x 65	S	100	155,00 A2
M 10 x 70	S	100	124,00 A2
M 10 x 75	S	100	228,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 80	S	100	152,00 A2
M 10 x 90	S	100	173,00 A2
M 10 x 100	S	100	211,00 A2
M 10 x 110	S	50	290,00 A2
M 10 x 120	S	50	320,00 A2
M 10 x 130	S	50	390,00 A2
M 10 x 140	S	50	465,00 A2
M 10 x 150	S	50	530,00 A2
M 10 x 160*	S	50	1550,00 A2
M 10 x 170*	S	50	1750,00 A2
M 10 x 180*	S	50	2230,00 A2
M 12 x 16	S	100	177,00 A2
M 12 x 20	S	100	88,00 A2
M 12 x 25	S	100	83,00 A2
M 12 x 30	S	100	77,00 A2
M 12 x 35	S	100	82,00 A2
M 12 x 40	S	100	88,00 A2
M 12 x 45	S	100	98,00 A2
M 12 x 50	S	100	106,00 A2
M 12 x 55	S	100	139,00 A2
M 12 x 60	S	100	144,00 A2
M 12 x 65	S	100	228,00 A2
M 12 x 70	S	100	182,00 A2
M 12 x 75	S	100	350,00 A2
M 12 x 80	S	100	190,00 A2
M 12 x 85	S	100	600,00 A2
M 12 x 90	S	100	237,00 A2
M 12 x 100	S	100	275,00 A2
M 12 x 110	S	10	405,00 A2
M 12 x 120	S	10	445,00 A2
M 12 x 130	S	10	530,00 A2
M 12 x 140	S	1	630,00 A2
M 12 x 150	S	1	710,00 A2
M 12 x 160	S	1	2040,00 A2
M 12 x 170*	S	1	2230,00 A2
M 12 x 180*	S	1	2750,00 A2
M 14 x 20	S	50	880,00 A2
M 14 x 25	S	50	620,00 A2
M 14 x 30	S	50	460,00 A2
M 14 x 35	S	50	460,00 A2
M 14 x 40	S	50	460,00 A2
M 14 x 45	S	50	485,00 A2
M 14 x 50	S	50	530,00 A2
M 14 x 55	S	50	620,00 A2
M 14 x 60	S	50	640,00 A2
M 14 x 65	S	50	900,00 A2
M 14 x 70	S	50	900,00 A2
M 14 x 80	S	50	920,00 A2
M 14 x 90	S	1	1040,00 A2
M 14 x 100	S	1	1220,00 A2
M 14 x 110	S	1	1930,00 A2
M 14 x 120	S	1	2180,00 A2
M 14 x 130	S	1	2550,00 A2
M 14 x 140	S	1	2900,00 A2
M 14 x 150	S	1	3250,00 A2
M 16 x 20	S	50	560,00 A2
M 16 x 25	S	25	345,00 A2
M 16 x 30	S	25	260,00 A2
M 16 x 35	S	25	260,00 A2
M 16 x 40	S	25	260,00 A2
M 16 x 45	S	25	270,00 A2
M 16 x 50	S	25	295,00 A2
M 16 x 55	S	25	345,00 A2
M 16 x 60	S	25	355,00 A2
M 16 x 65	S	25	500,00 A2
M 16 x 70	S	25	500,00 A2
M 16 x 75	S	25	740,00 A2
M 16 x 80	S	25	510,00 A2
M 16 x 90	S	25	580,00 A2
M 16 x 100	S	25	680,00 A2
M 16 x 110	S	25	1080,00 A2
M 16 x 120	S	25	1210,00 A2
M 16 x 130	S	25	1410,00 A2
M 16 x 140	S	1	1600,00 A2
M 16 x 150	S	1	1790,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 160	S	1	3700,00 A2
M 16 x 170*	S	1	4000,00 A2
M 16 x 180*	S	1	4300,00 A2
M 16 x 190*	S	1	4550,00 A2
M 16 x 200*	S	1	5200,00 A2
M 20 x 30	S	10	910,00 A2
M 20 x 35	S	25	910,00 A2
M 20 x 40	S	25	590,00 A2
M 20 x 45	S	25	590,00 A2
M 20 x 50	S	25	590,00 A2
M 20 x 55	S	25	650,00 A2
M 20 x 60	S	25	670,00 A2
M 20 x 65	S	25	930,00 A2
M 20 x 70	S	25	760,00 A2
M 20 x 75	S	25	1060,00 A2
M 20 x 80	S	1	870,00 A2
M 20 x 90	S	1	1170,00 A2
M 20 x 100	S	1	1350,00 A2
M 20 x 110	S	1	2080,00 A2
M 20 x 120	S	1	2370,00 A2
M 20 x 130	S	1	3000,00 A2
M 20 x 140	S	1	3350,00 A2
M 20 x 150	S	1	3800,00 A2
M 20 x 160*	S	1	5700,00 A2
M 20 x 170*	S	1	6000,00 A2
M 20 x 180*	S	1	6500,00 A2
M 20 x 190*	S	1	7000,00 A2
M 20 x 200*	S	1	7500,00 A2
M 24 x 40	S	1	2700,00 A2
M 24 x 45	S	1	2700,00 A2
M 24 x 50	S	1	2080,00 A2
M 24 x 55	S	1	3000,00 A2
M 24 x 60	S	1	2180,00 A2
M 24 x 65	S	1	3150,00 A2
M 24 x 70	S	1	2220,00 A2
M 24 x 75	S	1	3250,00 A2
M 24 x 80	S	1	2390,00 A2
M 24 x 90	S	1	2700,00 A2
M 24 x 100	S	1	2900,00 A2
M 24 x 110	S	1	3500,00 A2
M 24 x 120	S	1	3800,00 A2
M 24 x 130	S	1	4100,00 A2
M 24 x 140	S	1	4400,00 A2
M 24 x 150	S	1	4650,00 A2
M 24 x 160*	S	1	7300,00 A2
M 24 x 170*	S	1	7900,00 A2
M 24 x 180*	S	1	8400,00 A2
M 24 x 200*	S	1	9300,00 A2
M 30 x 50*	S	1	5700,00 A2
M 30 x 60*	S	1	5800,00 A2
M 30 x 70*	S	1	6100,00 A2
M 30 x 80*	S	1	6400,00 A2
M 30 x 90*	S	1	6800,00 A2
M 30 x 100*	S	1	7100,00 A2
M 30 x 110*	S	1	7500,00 A2
M 30 x 120*	S	1	7800,00 A2
M 30 x 130*	S	1	8200,00 A2
M 30 x 140*	S	1	8500,00 A2
M 30 x 150*	S	1	8900,00 A2

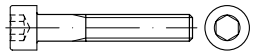
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- Flexible labelling with product images

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU Pieces	€/100/Mat.
DIN	00912.940		360
912	**A 4 (- 70)***		



Hexagon socket head cap screws

Dimensions ➔ TI-12
Tightening torque ➔ TI-249
Material properties ➔ TI-236
Standard conversion ➔ TI-6

Steel ➔ pg. 115

DIN 912 ➔ replaced by ISO 4762

RoHS ✓ REACh SVHC free

*Prop. class for dimensions different depending on production

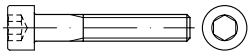
Dimensions			PU	Pieces	€/100/Mat.
M 2	x	3*	S	100	116,00 A4
M 2	x	4*	S	100	65,00 A4
M 2	x	5*	S	100	65,00 A4
M 2	x	6*	S	100	65,00 A4
M 2	x	8*	S	100	65,00 A4
M 2	x	10*	S	100	68,00 A4
M 2	x	12*	S	100	71,00 A4
M 2	x	16*	S	100	81,00 A4
M 2,5	x	4*	S	100	65,00 A4
M 2,5	x	5*	S	100	65,00 A4
M 2,5	x	6*	S	100	65,00 A4
M 2,5	x	8*	S	100	65,00 A4
M 2,5	x	10*	S	100	68,00 A4
M 2,5	x	12*	S	100	71,00 A4
M 2,5	x	14*	S	100	99,00 A4
M 2,5	x	16*	S	100	81,00 A4
M 2,5	x	20*	S	100	100,00 A4
M 3	x	4*	S	100	52,00 A4
M 3	x	5*	S	100	49,50 A4
M 3	x	6*	S	100	37,50 A4
M 3	x	8*	S	100	31,50 A4
M 3	x	10*	S	100	27,00 A4
M 3	x	12*	S	100	27,00 A4
M 3	x	14*	S	100	27,00 A4
M 3	x	16*	S	100	18,30 A4
M 3	x	18*	S	100	23,50 A4
M 3	x	20*	S	100	19,30 A4
M 3	x	22*	S	100	24,80 A4
M 3	x	25*	S	100	20,60 A4
M 3	x	30*	S	100	24,00 A4
M 3	x	35*	S	100	32,50 A4
M 3	x	40*	S	100	35,50 A4
M 3	x	45*	S	100	63,00 A4
M 3	x	50*	S	100	63,00 A4
M 4	x	5*	S	100	66,00 A4
M 4	x	6*	S	200	39,00 A4
M 4	x	8*	S	500	31,50 A4
M 4	x	8*	K	200	34,00 A4
M 4	x	10*	S	500	29,00 A4
M 4	x	10*	K	200	31,50 A4
M 4	x	12*	S	500	29,00 A4
M 4	x	12*	K	200	31,50 A4
M 4	x	14*	S	500	29,00 A4
M 4	x	14*	K	200	31,50 A4
M 4	x	16*	S	500	18,30 A4
M 4	x	16*	K	200	20,90 A4
M 4	x	18*	S	500	23,50 A4
M 4	x	18*	K	200	26,50 A4
M 4	x	20*	S	500	19,30 A4
M 4	x	20*	K	200	22,00 A4
M 4	x	22*	S	500	24,80 A4
M 4	x	25*	S	500	20,60 A4
M 4	x	25*	K	200	23,20 A4
M 4	x	30*	S	500	24,00 A4
M 4	x	30*	K	200	27,00 A4
M 4	x	35*	S	500	32,00 A4
M 4	x	35*	K	200	35,00 A4
M 4	x	40*	S	500	38,50 A4
M 4	x	40*	K	200	41,00 A4
M 4	x	45*	S	200	63,00 A4
M 4	x	50*	S	200	63,00 A4
M 4	x	55*	S	200	233,00 A4
M 4	x	60*	S	200	310,00 A4
M 4	x	70*	S	200	395,00 A4
M 5	x	6*	S	100	65,00 A4
M 5	x	8*	S	100	37,00 A4
M 5	x	10	S	500	29,00 A4
M 5	x	10	K	100	34,00 A4
M 5	x	12	S	500	29,00 A4
M 5	x	12	K	100	34,00 A4
M 5	x	14	S	500	29,00 A4
M 5	x	14	K	100	34,00 A4
M 5	x	16	S	500	20,10 A4
M 5	x	16	K	100	25,50 A4
M 5	x	18	S	500	28,00 A4
M 5	x	18	K	100	33,00 A4
M 5	x	20	S	500	21,90 A4
M 5	x	20	K	100	27,50 A4
M 5	x	22	S	500	29,00 A4
M 5	x	22	K	100	34,00 A4
M 5	x	25	S	500	22,30 A4
M 5	x	25	K	100	27,50 A4
M 5	x	30	S	500	27,00 A4
M 5	x	30	K	100	32,00 A4
M 5	x	35	S	500	33,50 A4
M 5	x	35	K	100	38,50 A4
M 5	x	40	S	500	36,50 A4
M 5	x	40	K	100	42,00 A4
M 5	x	45	S	100	40,00 A4
M 5	x	50	S	100	45,00 A4
M 5	x	55	S	100	63,00 A4
M 5	x	60	S	100	80,00 A4
M 5	x	70	S	100	95,00 A4
M 5	x	80	S	100	212,00 A4
M 5	x	90	S	100	580,00 A4
M 5	x	100	S	100	1020,00 A4
M 6	x	8*	S	100	37,00 A4
M 6	x	10	S	500	33,50 A4
M 6	x	10	K	100	38,50 A4
M 6	x	12	S	500	34,00 A4
M 6	x	12	K	100	39,50 A4
M 6	x	14	S	500	37,00 A4
M 6	x	14	K	100	42,50 A4
M 6	x	16	S	500	25,00 A4
M 6	x	16	K	100	30,50 A4
M 6	x	18	S	500	34,00 A4
M 6	x	18	K	100	39,00 A4
M 6	x	20	S	500	27,00 A4
M 6	x	20	K	100	32,50 A4
M 6	x	22	S	500	36,50 A4
M 6	x	22	K	100	41,50 A4
M 6	x	25	S	500	30,00 A4
M 6	x	25	K	100	35,00 A4
M 6	x	30	S	500	32,00 A4
M 6	x	30	K	100	37,00 A4
M 6	x	35	S	500	33,50 A4
M 6	x	35	K	100	39,00 A4
M 6	x	40	S	500	38,50 A4
M 6	x	40	K	100	44,00 A4
M 6	x	45	S	500	51,00 A4
M 6	x	45	K	100	56,00 A4
M 6	x	50	S	500	58,00 A4
M 6	x	50	K	100	64,00 A4
M 6	x	55	S	500	72,00 A4
M 6	x	60	S	500	75,00 A4
M 6	x	60	K	100	81,00 A4
M 6	x	65	S	500	129,00 A4
M 6	x	65	K	100	134,00 A4
M 6	x	70	S	500	87,00 A4
M 6	x	70	K	100	93,00 A4
M 6	x	75	S	100	157,00 A4
M 6	x	80	S	100	137,00 A4
M 6	x	90	S	100	280,00 A4
M 6	x	100	S	100	315,00 A4
M 6	x	110	S	100	340,00 A4
M 6	x	120	S	100	405,00 A4
M 6	x	130	S	100	460,00 A4
M 6	x	140	S	100	530,00 A4
M 6	x	150	S	100	590,00 A4
M 8	x	10	S	100	62,00 A4
M 8	x	12	S	200	58,00 A4
M 8	x	14	S	200	67,00 A4
M 8	x	16	S	200	50,00 A4
M 8	x	18	S	200	57,00 A4
M 8	x	20	S	200	39,00 A4
M 8	x	22	S	200	53,00 A4
M 8	x	25	S	200	42,00 A4
M 8	x	30	S	200	44,00 A4
M 8	x	35	S	200	48,50 A4
M 8	x	40	S	200	62,00 A4
M 8	x	45	S	200	72,00 A4
M 8	x	50	S	200	82,00 A4
M 8	x	55	S	200	93,00 A4
M 8	x	60	S	200	97,00 A4
M 8	x	65	S	200	189,00 A4
M 8	x	70	S	200	152,00 A4
M 8	x	75	S	200	290,00 A4
M 8	x	80	S	200	189,00 A4
M 8	x	90	S	200	214,00 A4
M 8	x	100	S	200	242,00 A4
M 8	x	110	S	50	390,00 A4
M 8	x	120	S	50	450,00 A4
M 8	x	130	S	50	495,00 A4
M 8	x	140	S	50	560,00 A4
M 8	x	150	S	50	630,00 A4
M 8	x	160*	S	50	1530,00 A4
M 8	x	170*	S	50	1930,00 A4
M 8	x	180*	S	50	2600,00 A4
M 10	x	10*	S	100	475,00 A4
M 10	x	12	S	100	152,00 A4
M 10	x	16	S	100	92,00 A4
M 10	x	18	S	100	120,00 A4
M 10	x	20	S	100	73,00 A4
M 10	x	25	S	100	70,00 A4
M 10	x	30	S	100	73,00 A4
M 10	x	35	S	100	79,00 A4
M 10	x	40	S	100	84,00 A4
M 10	x	45	S	100	100,00 A4
M 10	x	50	S	100	113,00 A4
M 10	x	55	S	100	133,00 A4
M 10	x	60	S	100	144,00 A4
M 10	x	65	S	100	207,00 A4
M 10	x	70	S	100	167,00 A4
M 10	x	75	S	100	295,00 A4
M 10	x	80	S	100	197,00 A4
M 10	x	90	S	100	242,00 A4
M 10	x	100	S	100	300,00 A4
M 10	x	110	S	50	520,00 A4
M 10	x	120	S	50	560,00 A4
M 10	x	130	S	1	670,00 A4
M 10	x	140	S	1	810,00 A4
M 10	x	150	S	1	890,00 A4
M 10	x	160*	S	1	2410,00 A4
M 10	x	170*	S	1	2750,00 A4
M 10	x	180*	S	1	3450,00 A4
M 12	x	16	S	100	219,00 A4
M 12	x	20	S	100	155,00 A4
M 12	x	25	S	100	148,00 A4
M 12	x	30	S	100	112,00 A4
M 12	x	35	S	100	120,00 A4
M 12	x	40	S	100	129,00 A4
M 12	x	45	S	100	146,00 A4
M 12	x	50	S	100	157,00 A4
M 12	x	55	S	100	197,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	60	S	100	210,00 A4
M 12	x	65	S	100	280,00 A4
M 12	x	70	S	100	233,00 A4
M 12	x	75	S	100	420,00 A4
M 12	x	80	S	100	285,00 A4
M 12	x	90	S	100	330,00 A4
M 12	x	100	S	100	390,00 A4
M 12	x	110	S	10	700,00 A4
M 12	x	120	S	10	770,00 A4
M 12	x	130	S	10	920,00 A4
M 12	x	140	S	1	1080,00 A4
M 12	x	150	S	1	1240,00 A4
M 12	x	160	S	1	3050,00 A4
M 12	x	170*	S	1	3250,00 A4
M 12	x	180*	S	1	3500,00 A4
M 14	x	20	S	50	1140,00 A4
M 14	x	25	S	50	850,00 A4
M 14	x	30	S	50	750,00 A4
M 14	x	35	S	50	750,00 A4
M 14	x	40	S	50	750,00 A4
M 14	x	45	S	50	810,00 A4
M 14	x	50	S	50	860,00 A4
M 14	x	55	S	50	980,00 A4
M 14	x	60	S	50	1100,00 A4
M 14	x	65	S	50	1430,00 A4
M 14	x	70	S	1	1200,00 A4
M 14	x	80	S	1	1650,00 A4
M 14	x	90	S	1	1870,00 A4
M 14	x	100	S	1	2120,00 A4
M 14	x	110	S	1	3300,00 A4
M 14	x	120	S	1	3900,00 A4
M 14	x	130	S	1	4450,00 A4
M 14	x	140	S	1	5100,00 A4
M 14	x	150	S	1	5800,00 A4
M 16	x	20	S	50	700,00 A4
M 16	x	25	S	25	470,00 A4
M 16	x	30	S	25	415,00 A4
M 16	x	35	S	25	415,00 A4
M 16	x	40	S	25	415,00 A4
M 16	x	45	S	25	450,00 A4
M 16	x	50	S	25	475,00 A4
M 16	x	55	S	25	550,00 A4
M 16	x	60	S	25	610,00 A4
M 16	x	65	S	25	800,00 A4
M 16	x	70	S	25	670,00 A4
M 16	x	75	S	1	1290,00 A4
M 16	x	80	S	25	920,00 A4
M 16	x	90	S	25	1040,00 A4
M 16	x	100	S	25	1180,00 A4
M 16	x	110	S	1	1830,00 A4
M 16	x	120	S	1	2150,00 A4
M 16	x	130	S	1	2470,00 A4
M 16	x	140	S	1	2800,00 A4
M 16	x	150	S	1	3250,00 A4
M 16	x	160	S	1	4650,00 A4
M 16	x	170*	S	1	4950,00 A4
M 16	x	180*	S	1	5300,00 A4
M 16	x	190*	S	1	5600,00 A4
M 16	x	200*	S	1	6100,00 A4
M 16	x	220*	S	1	9400,00 A4
M 16	x	240*	S	1	11100,00 A4
M 16	x	250*	S	1	12100,00 A4
M 16	x	260*	S	1	13500,00 A4
M 16	x	280*	S	1	16200,00 A4
M 16	x	300*	S	1	19500,00 A4
M 18	x	40*	S	1	1970,00 A4
M 18	x	45*	S	1	1970,00 A4
M 18	x	50*	S	1	2220,00 A4
M 18	x	55*	S	1	2400,00 A4
M 18	x	60*	S	1	2600,00 A4
M 18	x	65*	S	1	3350,00 A4
M 18	x	70*	S	1	2850,00 A4
M 18	x	75*	S	1	4350,00 A4
M 18	x	80*	S	1	3650,00 A4
M 18	x	90*	S	1	4150,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 18	x	100*	S	1	4650,00 A4
M 18	x	110*	S	1	7200,00 A4
M 18	x	120*	S	1	8100,00 A4
M 20	x	30	S	1	1610,00 A4
M 20	x	35	S	1	1610,00 A4
M 20	x	40	S	10	1040,00 A4
M 20	x	45	S	10	1130,00 A4
M 20	x	50	S	10	1200,00 A4
M 20	x	55	S	1	1280,00 A4
M 20	x	60	S	1	1390,00 A4
M 20	x	65	S	1	2260,00 A4
M 20	x	70	S	1	1490,00 A4
M 20	x	75	S	1	2800,00 A4
M 20	x	80	S	1	1930,00 A4
M 20	x	90	S	1	2260,00 A4
M 20	x	100	S	1	2600,00 A4
M 20	x	110	S	1	3800,00 A4
M 20	x	120	S	1	4100,00 A4
M 20	x	130	S	1	5100,00 A4
M 20	x	140	S	1	5700,00 A4
M 20	x	150	S	1	6500,00 A4
M 20	x	160*	S	1	7000,00 A4
M 20	x	170*	S	1	7300,00 A4
M 20	x	180*	S	1	7700,00 A4
M 20	x	190*	S	1	8100,00 A4
M 20	x	200*	S	1	8600,00 A4
M 24	x	40	S	1	4300,00 A4
M 24	x	45	S	1	4300,00 A4
M 24	x	50	S	1	3800,00 A4
M 24	x	55	S	1	4950,00 A4
M 24	x	60	S	1	3800,00 A4
M 24	x	65	S	1	5200,00 A4
M 24	x	70	S	1	4200,00 A4
M 24	x	75	S	1	5500,00 A4
M 24	x	80	S	1	4550,00 A4
M 24	x	90	S	1	4850,00 A4
M 24	x	100	S	1	5400,00 A4
M 24	x	110	S	1	5900,00 A4
M 24	x	120	S	1	6500,00 A4
M 24	x	130	S	1	7000,00 A4
M 24	x	140	S	1	7600,00 A4
M 24	x	150	S	1	8100,00 A4
M 24	x	160*	S	1	8700,00 A4
M 24	x	180*	S	1	9600,00 A4
M 24	x	190*	S	1	10100,00 A4
M 24	x	200*	S	1	10600,00 A4
M 24	x	210*	S	1	16600,00 A4
M 24	x	220*	S	1	18300,00 A4
M 24	x	230*	S	1	20600,00 A4
M 24	x	240*	S	1	23800,00 A4
M 30	x	50*	S	1	7100,00 A4
M 30	x	60*	S	1	7200,00 A4
M 30	x	70*	S	1	7800,00 A4
M 30	x	80*	S	1	8200,00 A4
M 30	x	90*	S	1	8600,00 A4
M 30	x	100*	S	1	9100,00 A4
M 30	x	110*	S	1	9500,00 A4
M 30	x	120*	S	1	9900,00 A4
M 30	x	130*	S	1	10300,00 A4
M 30	x	140*	S	1	10800,00 A4
M 30	x	150*	S	1	11200,00 A4
M 30	x	160*	S	1	14300,00 A4
M 30	x	170*	S	1	17500,00 A4
M 30	x	180*	S	1	21400,00 A4
M 30	x	200*	S	1	27500,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	00912.948		361

912 **A 4 - 80**



Hexagon socket head cap screws

high strength (strongly cold worked)

Dimensions ➔ TI-12
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 115

DIN 912 ➔ replaced by ISO 4762

RoHS ✓

REACh SVHC free

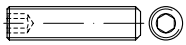
M 6	x	8	S	100	124,00 A4-80
M 6	x	10	S	100	124,00 A4-80
M 6	x	12	S	100	102,00 A4-80
M 6	x	14	S	100	126,00 A4-80
M 6	x	16	S	100	76,00 A4-80
M 6	x	20	S	100	83,00 A4-80
M 6	x	25	S	100	91,00 A4-80
M 6	x	30	S	100	98,00 A4-80
M 6	x	35	S	100	102,00 A4-80
M 6	x	40	S	100	118,00 A4-80
M 6	x	45	S	100	187,00 A4-80
M 6	x	50	S	100	175,00 A4-80
M 6	x	55	S	100	217,00 A4-80
M 6	x	60	S	100	227,00 A4-80
M 6	x	70	S	100	265,00 A4-80
M 8	x	10	S	100	208,00 A4-80
M 8	x	12	S	100	244,00 A4-80
M 8	x	16	S	100	152,00 A4-80
M 8	x	20	S	100	118,00 A4-80
M 8	x	25	S	100	126,00 A4-80
M 8	x	30	S	100	133,00 A4-80
M 8	x	35	S	100	147,00 A4-80
M 8	x	40	S	100	185,00 A4-80
M 8	x	45	S	100	217,00 A4-80
M 8	x	50	S	100	246,00 A4-80
M 8	x	55	S	100	280,00 A4-80
M 8	x	60	S	100	295,00 A4-80
M 8	x	70	S	100	460,00 A4-80
M 8	x	80	S	50	570,00 A4-80
M 8	x	90	S	50	660,00 A4-80
M 8	x	100	S	50	740,00 A4-80
M 10	x	16	S	100	275,00 A4-80
M 10	x	20	S	100	280,00 A4-80
M 10	x	25	S	100	210,00 A4-80
M 10	x	30	S	100	221,00 A4-80
M 10	x	35	S	100	240,00 A4-80
M 10	x	40	S	100	255,00 A4-80
M 10	x	45	S	100	300,00 A4-80
M 10	x	50	S	100	340,00 A4-80
M 10	x	55	S	50	405,00 A4-80
M 10	x	60	S	50	435,00 A4-80
M 10	x	70	S	50	500,00 A4-80
M 10	x	80	S	50	600,00 A4-80
M 10	x	90	S	50	740,00 A4-80
M 10	x	100	S	50	910,00 A4-80
M 12	x	20	S	100	465,00 A4-80
M 12	x	25	S	100	445,00 A4-80
M 12	x	30	S	100	340,00 A4-80
M 12	x	35	S	50	365,00 A4-80
M 12	x	40	S	50	390,00 A4-80
M 12	x	45	S	50	440,00 A4-80
M 12	x	50	S	50	470,00 A4-80

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	55	S	50	600,00 A4-80
M 12	x	60	S	50	640,00 A4-80
M 12	x	70	S	50	710,00 A4-80
M 12	x	80	S	50	870,00 A4-80
M 12	x	90	S	50	1010,00 A4-80
M 12	x	100	S	50	1180,00 A4-80
M 16	x	20	S	50	3050,00 A4-80
M 16	x	25	S	50	1430,00 A4-80
M 16	x	30	S	50	1260,00 A4-80
M 16	x	35	S	50	1260,00 A4-80
M 16	x	40	S	50	1260,00 A4-80
M 16	x	45	S	50	1370,00 A4-80
M 16	x	50	S	50	1450,00 A4-80
M 16	x	55	S	25	1660,00 A4-80
M 16	x	60	S	25	1850,00 A4-80
M 16	x	70	S	25	2020,00 A4-80
M 16	x	80	S	1	2800,00 A4-80
M 16	x	90	S	1	3150,00 A4-80
M 16	x	100	S	1	3550,00 A4-80
M 20	x	30	S	1	4850,00 A4-80
M 20	x	35	S	1	4300,00 A4-80
M 20	x	40	S	1	3150,00 A4-80
M 20	x	45	S	1	3400,00 A4-80
M 20	x	50	S	1	3650,00 A4-80
M 20	x	60	S	1	4200,00 A4-80
M 20	x	70	S	1	4500,00 A4-80
M 20	x	80	S	1	5900,00 A4-80
M 20	x	90	S	1	6900,00 A4-80
M 20	x	100	S	1	7800,00 A4-80
M 20	x	110	S	1	7400,00 A4-80

DIN 00913.910 370

913 A 1/A 2



Hexagon socket set screws with flat point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 134

DIN 913 ➔ replaced by ISO 4026 (compatible)

RoHS ✓ REACh SVHC free

M 2	x	2	S	500	161,00 A1/A2
M 2	x	3	S	500	112,00 A1/A2
M 2	x	4	S	500	114,00 A1/A2
M 2	x	5	S	500	114,00 A1/A2
M 2	x	6	S	500	114,00 A1/A2
M 2	x	8	S	500	116,00 A1/A2
M 2,5	x	3	S	500	88,00 A1/A2
M 2,5	x	4	S	500	86,00 A1/A2
M 2,5	x	5	S	500	86,00 A1/A2
M 2,5	x	6	S	500	86,00 A1/A2
M 3	x	2	S	500	87,00 A1/A2
M 3	x	3	S	500	43,50 A1/A2
M 3	x	4	S	500	47,00 A1/A2
M 3	x	5	S	500	46,50 A1/A2
M 3	x	6	S	500	51,00 A1/A2
M 3	x	8	S	500	53,00 A1/A2
M 3	x	10	S	500	54,00 A1/A2
M 3	x	12	S	500	60,00 A1/A2
M 3	x	16	S	500	44,50 A1/A2
M 3	x	20	S	500	58,00 A1/A2
M 3	x	25	S	500	99,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	4	S	500	33,00 A1/A2
M 4	x	5	S	500	33,00 A1/A2
M 4	x	6	S	500	33,50 A1/A2
M 4	x	8	S	500	34,50 A1/A2
M 4	x	10	S	500	37,00 A1/A2
M 4	x	12	S	500	39,00 A1/A2
M 4	x	16	S	500	42,50 A1/A2
M 4	x	20	S	500	45,50 A1/A2
M 4	x	25	S	500	78,00 A1/A2
M 4	x	30	S	200	86,00 A1/A2
M 5	x	4	S	500	36,00 A1/A2
M 5	x	5	S	500	37,00 A1/A2
M 5	x	6	S	500	37,50 A1/A2
M 5	x	8	S	500	38,50 A1/A2
M 5	x	10	S	500	39,50 A1/A2
M 5	x	12	S	500	41,50 A1/A2
M 5	x	16	S	500	45,50 A1/A2
M 5	x	20	S	500	54,00 A1/A2
M 5	x	25	S	200	60,00 A1/A2
M 5	x	30	S	200	105,00 A1/A2
M 5	x	35	S	200	149,00 A1/A2
M 5	x	40	S	200	152,00 A1/A2
M 5	x	45	S	200	161,00 A1/A2
M 6	x	5	S	500	42,50 A1/A2
M 6	x	6	S	500	42,50 A1/A2
M 6	x	8	S	500	44,50 A1/A2
M 6	x	10	S	500	45,50 A1/A2
M 6	x	12	S	500	47,50 A1/A2
M 6	x	16	S	500	54,00 A1/A2
M 6	x	20	S	500	62,00 A1/A2
M 6	x	25	S	200	71,00 A1/A2
M 6	x	30	S	200	82,00 A1/A2
M 6	x	35	S	200	101,00 A1/A2
M 6	x	40	S	200	110,00 A1/A2
M 6	x	45	S	100	255,00 A1/A2
M 6	x	50	S	100	300,00 A1/A2
M 6	x	60	S	100	340,00 A1/A2
M 8	x	6	S	500	91,00 A1/A2
M 8	x	8	S	500	62,00 A1/A2
M 8	x	10	S	500	62,00 A1/A2
M 8	x	12	S	200	68,00 A1/A2
M 8	x	16	S	200	74,00 A1/A2
M 8	x	20	S	200	88,00 A1/A2
M 8	x	25	S	200	101,00 A1/A2
M 8	x	30	S	100	116,00 A1/A2
M 8	x	35	S	100	141,00 A1/A2
M 8	x	40	S	100	163,00 A1/A2
M 8	x	45	S	100	178,00 A1/A2
M 8	x	50	S	50	224,00 A1/A2
M 8	x	60	S	50	405,00 A1/A2
M 8	x	70	S	50	520,00 A1/A2
M 8	x	80	S	50	630,00 A1/A2
M 8	x	100	S	50	740,00 A1/A2
M 10	x	10	S	200	91,00 A1/A2
M 10	x	12	S	100	93,00 A1/A2
M 10	x	16	S	100	99,00 A1/A2
M 10	x	18	S	100	114,00 A1/A2
M 10	x	20	S	100	120,00 A1/A2
M 10	x	25	S	100	142,00 A1/A2
M 10	x	30	S	100	165,00 A1/A2
M 10	x	35	S	50	201,00 A1/A2
M 10	x	40	S	50	212,00 A1/A2
M 10	x	45	S	50	226,00 A1/A2
M 10	x	50	S	50	247,00 A1/A2
M 10	x	60	S	50	345,00 A1/A2
M 10	x	70	S	50	440,00 A1/A2
M 10	x	80	S	50	540,00 A1/A2
M 10	x	100	S	50	660,00 A1/A2
M 12	x	10	S	50	190,00 A1/A2
M 12	x	12	S	50	192,00 A1/A2
M 12	x	16	S	50	192,00 A1/A2
M 12	x	20	S	50	218,00 A1/A2
M 12	x	25	S	50	239,00 A1/A2
M 12	x	30	S	50	260,00 A1/A2
M 12	x	35	S	25	285,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	40	S	25	315,00 A1/A2
M 12	x	45	S	25	355,00 A1/A2
M 12	x	50	S	25	385,00 A1/A2
M 12	x	60	S	25	560,00 A1/A2
M 12	x	70	S	25	1040,00 A1/A2
M 12	x	80	S	25	1080,00 A1/A2
M 12	x	90	S	10	1210,00 A1/A2
M 16	x	16	S	10	420,00 A1/A2
M 16	x	20	S	10	610,00 A1/A2
M 16	x	25	S	10	1130,00 A1/A2
M 16	x	30	S	10	660,00 A1/A2
M 16	x	40	S	10	1070,00 A1/A2
M 16	x	50	S	10	1830,00 A1/A2
M 16	x	60	S	10	1940,00 A1/A2
M 16	x	70	S	10	2280,00 A1/A2
M 16	x	80	S	10	2750,00 A1/A2
M 16	x	90	S	10	2950,00 A1/A2
M 16	x	100	S	10	3300,00 A1/A2
M 20	x	20	S	10	1860,00 A1/A2
M 20	x	25	S	10	1940,00 A1/A2
M 20	x	30	S	10	2280,00 A1/A2
M 20	x	35	S	10	2900,00 A1/A2
M 20	x	40	S	10	3000,00 A1/A2
M 20	x	50	S	10	3150,00 A1/A2
M 20	x	60	S	10	3900,00 A1/A2
M 20	x	70	S	10	4100,00 A1/A2
M 20	x	80	S	10	4500,00 A1/A2
M 20	x	90	S	10	4950,00 A1/A2
M 20	x	100	S	10	5400,00 A1/A2

DIN 00913.940 370

913 A 4



Hexagon socket set screws with flat point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 134

DIN 913 ➔ replaced by ISO 4026 (compatible)

RoHS ✓ REACh SVHC free

M 3	x	4	S	500	84,00 A4
M 3	x	5	S	500	89,00 A4
M 3	x	6	S	500	98,00 A4
M 3	x	8	S	500	112,00 A4
M 4	x	5	S	500	110,00 A4
M 4	x	6	S	500	114,00 A4
M 4	x	8	S	500	120,00 A4
M 4	x	10	S	500	126,00 A4
M 4	x	12	S	500	135,00 A4
M 4	x	16	S	500	156,00 A4
M 4	x	20	S	500	164,00 A4
M 5	x	5	S	500	128,00 A4
M 5	x	6	S	500	128,00 A4
M 5	x	8	S	500	131,00 A4
M 5	x	10	S	500	141,00 A4
M 5	x	12	S	500	154,00 A4
M 5	x	16	S	500	164,00 A4
M 5	x	20	S	500	185,00 A4
M 5	x	25	S	200	193,00 A4
M 5	x	30	S	200	210,00 A4
M 6	x	6	S	500	143,00 A4
M 6	x	8	S	500	145,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	S	500	154,00 A4
M 6	x	12	S	500	162,00 A4
M 6	x	16	S	500	185,00 A4
M 6	x	20	S	500	208,00 A4
M 6	x	25	S	200	248,00 A4
M 6	x	30	S	200	275,00 A4
M 6	x	35	S	200	290,00 A4
M 6	x	40	S	200	315,00 A4
M 6	x	45	S	100	340,00 A4
M 6	x	50	S	100	385,00 A4
M 8	x	8	S	500	198,00 A4
M 8	x	10	S	500	198,00 A4
M 8	x	12	S	200	221,00 A4
M 8	x	16	S	200	244,00 A4
M 8	x	20	S	200	295,00 A4
M 8	x	25	S	200	360,00 A4
M 8	x	30	S	100	390,00 A4
M 8	x	35	S	100	435,00 A4
M 8	x	40	S	100	470,00 A4
M 8	x	50	S	50	580,00 A4
M 8	x	60	S	50	680,00 A4
M 10	x	10	S	200	315,00 A4
M 10	x	12	S	100	315,00 A4
M 10	x	16	S	100	340,00 A4
M 10	x	20	S	100	435,00 A4
M 10	x	25	S	100	495,00 A4
M 10	x	30	S	100	465,00 A4
M 10	x	35	S	50	495,00 A4
M 10	x	40	S	50	530,00 A4
M 10	x	45	S	50	570,00 A4
M 10	x	50	S	50	640,00 A4
M 10	x	60	S	50	830,00 A4
M 10	x	70	S	50	1020,00 A4
M 12	x	12	S	50	360,00 A4
M 12	x	16	S	50	360,00 A4
M 12	x	20	S	50	445,00 A4
M 12	x	25	S	50	495,00 A4
M 12	x	30	S	50	540,00 A4
M 12	x	35	S	25	600,00 A4
M 12	x	40	S	25	640,00 A4
M 12	x	45	S	25	700,00 A4
M 12	x	50	S	25	750,00 A4
M 12	x	55	S	25	890,00 A4
M 12	x	60	S	25	1000,00 A4
M 16	x	16	S	10	1490,00 A4
M 16	x	20	S	10	2420,00 A4
M 16	x	25	S	10	750,00 A4
M 16	x	30	S	10	880,00 A4
M 16	x	35	S	10	970,00 A4
M 16	x	40	S	10	1010,00 A4
M 16	x	50	S	10	4050,00 A4
M 20	x	20	S	10	3900,00 A4
M 20	x	25	S	10	4200,00 A4
M 20	x	30	S	10	4550,00 A4
M 20	x	35	S	10	5100,00 A4
M 20	x	40	S	10	5800,00 A4
M 20	x	50	S	10	6900,00 A4
M 24	x	25	S	10	6500,00 A4
M 24	x	30	S	10	6900,00 A4
M 24	x	35	S	10	7600,00 A4
M 24	x	40	S	10	7900,00 A4
M 24	x	45	S	10	8200,00 A4
M 24	x	50	S	10	8800,00 A4

Dimensions			PU	Pieces	€/100/Mat.
DIN		00914.910			370
914		**A 1/A 2**			



Hexagon socket set screws with cone point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 137

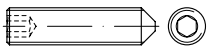
DIN 914 ➔ replaced by ISO 4027 (compatible)

RoHS ✓ REACh SVHC free

M 2	x	2	S	500	142,00 A1/A2
M 2	x	3	S	500	108,00 A1/A2
M 2	x	4	S	500	108,00 A1/A2
M 2	x	5	S	500	110,00 A1/A2
M 2	x	6	S	500	110,00 A1/A2
M 2	x	8	S	500	110,00 A1/A2
M 2,5	x	4	S	500	83,00 A1/A2
M 2,5	x	5	S	500	84,00 A1/A2
M 2,5	x	6	S	500	84,00 A1/A2
M 3	x	3	S	500	55,00 A1/A2
M 3	x	4	S	500	45,50 A1/A2
M 3	x	5	S	500	45,00 A1/A2
M 3	x	6	S	500	48,50 A1/A2
M 3	x	8	S	500	51,00 A1/A2
M 3	x	10	S	500	53,00 A1/A2
M 3	x	12	S	500	59,00 A1/A2
M 3	x	16	S	500	65,00 A1/A2
M 4	x	4	S	500	46,00 A1/A2
M 4	x	5	S	500	42,50 A1/A2
M 4	x	6	S	500	43,50 A1/A2
M 4	x	8	S	500	44,00 A1/A2
M 4	x	10	S	500	47,00 A1/A2
M 4	x	12	S	500	51,00 A1/A2
M 4	x	16	S	500	55,00 A1/A2
M 4	x	20	S	500	66,00 A1/A2
M 4	x	25	S	500	101,00 A1/A2
M 4	x	30	S	200	110,00 A1/A2
M 5	x	4	S	500	67,00 A1/A2
M 5	x	5	S	500	57,00 A1/A2
M 5	x	6	S	500	53,00 A1/A2
M 5	x	8	S	500	54,00 A1/A2
M 5	x	10	S	500	56,00 A1/A2
M 5	x	12	S	500	59,00 A1/A2
M 5	x	16	S	500	65,00 A1/A2
M 5	x	20	S	500	77,00 A1/A2
M 5	x	25	S	200	85,00 A1/A2
M 5	x	30	S	200	148,00 A1/A2
M 6	x	6	S	500	59,00 A1/A2
M 6	x	8	S	500	58,00 A1/A2
M 6	x	10	S	500	59,00 A1/A2
M 6	x	12	S	500	62,00 A1/A2
M 6	x	16	S	500	71,00 A1/A2
M 6	x	20	S	500	80,00 A1/A2
M 6	x	25	S	200	89,00 A1/A2
M 6	x	30	S	200	105,00 A1/A2
M 6	x	35	S	200	127,00 A1/A2
M 6	x	40	S	200	142,00 A1/A2
M 6	x	45	S	100	330,00 A1/A2
M 6	x	50	S	100	385,00 A1/A2
M 8	x	8	S	500	86,00 A1/A2
M 8	x	10	S	500	79,00 A1/A2
M 8	x	12	S	200	87,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	16	S	200	95,00 A1/A2
M 8	x	20	S	200	112,00 A1/A2
M 8	x	25	S	200	129,00 A1/A2
M 8	x	30	S	100	148,00 A1/A2
M 8	x	35	S	100	180,00 A1/A2
M 8	x	40	S	100	209,00 A1/A2
M 8	x	45	S	100	228,00 A1/A2
M 8	x	50	S	50	290,00 A1/A2
M 8	x	60	S	50	530,00 A1/A2
M 10	x	10	S	200	127,00 A1/A2
M 10	x	12	S	100	120,00 A1/A2
M 10	x	16	S	100	127,00 A1/A2
M 10	x	20	S	100	154,00 A1/A2
M 10	x	25	S	100	203,00 A1/A2
M 10	x	30	S	100	212,00 A1/A2
M 10	x	35	S	50	260,00 A1/A2
M 10	x	40	S	50	275,00 A1/A2
M 10	x	50	S	50	320,00 A1/A2
M 10	x	60	S	50	440,00 A1/A2
M 12	x	16	S	50	207,00 A1/A2
M 12	x	20	S	50	235,00 A1/A2
M 12	x	25	S	50	260,00 A1/A2
M 12	x	30	S	50	280,00 A1/A2
M 12	x	35	S	25	305,00 A1/A2
M 12	x	40	S	25	335,00 A1/A2
M 12	x	50	S	25	415,00 A1/A2
M 12	x	60	S	25	540,00 A1/A2

DIN		00914.940			370
914		**A 4**			



Hexagon socket set screws with cone point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 137

DIN 914 ➔ replaced by ISO 4027 (compatible)

RoHS ✓ REACh SVHC free

M 2,5	x	8	S	500	240,00 A4
M 3	x	4	S	500	74,00 A4
M 3	x	5	S	500	93,00 A4
M 3	x	6	S	500	93,00 A4
M 3	x	8	S	500	105,00 A4
M 3	x	10	S	500	118,00 A4
M 4	x	4	S	500	104,00 A4
M 4	x	5	S	500	104,00 A4
M 4	x	6	S	500	107,00 A4
M 4	x	8	S	500	114,00 A4
M 4	x	10	S	500	120,00 A4
M 4	x	12	S	500	128,00 A4
M 4	x	16	S	500	147,00 A4
M 4	x	20	S	500	156,00 A4
M 5	x	5	S	500	122,00 A4
M 5	x	6	S	500	122,00 A4
M 5	x	8	S	500	124,00 A4
M 5	x	10	S	500	133,00 A4
M 5	x	12	S	500	145,00 A4
M 5	x	16	S	500	156,00 A4
M 5	x	20	S	500	177,00 A4
M 5	x	25	S	200	183,00 A4
M 5	x	30	S	200	200,00 A4
M 6	x	6	S	500	135,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	8	S	500	137,00 A4
M 6	x	10	S	500	145,00 A4
M 6	x	12	S	500	154,00 A4
M 6	x	16	S	500	175,00 A4
M 6	x	20	S	500	198,00 A4
M 6	x	25	S	200	235,00 A4
M 6	x	30	S	200	260,00 A4
M 6	x	35	S	200	275,00 A4
M 6	x	45	S	100	320,00 A4
M 6	x	50	S	100	365,00 A4
M 8	x	8	S	500	189,00 A4
M 8	x	10	S	500	189,00 A4
M 8	x	12	S	200	210,00 A4
M 8	x	16	S	200	231,00 A4
M 8	x	20	S	200	280,00 A4
M 8	x	25	S	200	340,00 A4
M 8	x	30	S	100	370,00 A4
M 8	x	35	S	100	415,00 A4
M 8	x	40	S	100	445,00 A4
M 8	x	45	S	100	490,00 A4
M 8	x	50	S	50	560,00 A4
M 8	x	60	S	50	640,00 A4
M 10	x	10	S	200	300,00 A4
M 10	x	12	S	100	300,00 A4
M 10	x	16	S	100	320,00 A4
M 10	x	20	S	100	410,00 A4
M 10	x	25	S	100	470,00 A4
M 10	x	30	S	100	530,00 A4
M 10	x	35	S	50	570,00 A4
M 10	x	40	S	50	600,00 A4
M 10	x	45	S	50	660,00 A4
M 10	x	50	S	50	740,00 A4
M 10	x	60	S	50	950,00 A4
M 12	x	12	S	50	410,00 A4
M 12	x	16	S	50	410,00 A4
M 12	x	20	S	50	510,00 A4
M 12	x	25	S	50	570,00 A4
M 12	x	30	S	50	610,00 A4
M 12	x	35	S	25	690,00 A4
M 12	x	40	S	25	740,00 A4
M 12	x	45	S	25	790,00 A4
M 12	x	50	S	25	850,00 A4
M 12	x	60	S	25	1140,00 A4
M 16	x	20	S	10	830,00 A4
M 16	x	25	S	10	850,00 A4
M 16	x	30	S	10	1000,00 A4
M 16	x	40	S	10	1160,00 A4
M 16	x	50	S	10	1180,00 A4
M 16	x	60	S	10	1220,00 A4

RKP®
REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions			PU	Pieces	€/100/Mat.
DIN		00915.910			370
915		A 1/A 2			
M 2	x	6	S	500	86,00 A1/A2
M 2	x	10	S	500	110,00 A1/A2
M 3	x	4	S	500	59,00 A1/A2
M 3	x	5	S	500	59,00 A1/A2
M 3	x	6	S	500	61,00 A1/A2
M 3	x	8	S	500	71,00 A1/A2
M 3	x	10	S	500	72,00 A1/A2
M 3	x	12	S	500	78,00 A1/A2
M 4	x	5	S	500	45,50 A1/A2
M 4	x	6	S	500	46,00 A1/A2
M 4	x	8	S	500	46,50 A1/A2
M 4	x	10	S	500	51,00 A1/A2
M 4	x	12	S	500	53,00 A1/A2
M 4	x	16	S	500	58,00 A1/A2
M 4	x	20	S	500	70,00 A1/A2
M 4	x	25	S	500	106,00 A1/A2
M 5	x	5	S	500	60,00 A1/A2
M 5	x	6	S	500	57,00 A1/A2
M 5	x	8	S	500	58,00 A1/A2
M 5	x	10	S	500	60,00 A1/A2
M 5	x	12	S	500	63,00 A1/A2
M 5	x	16	S	500	69,00 A1/A2
M 5	x	20	S	500	82,00 A1/A2
M 5	x	25	S	200	89,00 A1/A2
M 5	x	30	S	200	156,00 A1/A2
M 5	x	35	S	200	161,00 A1/A2
M 6	x	6	S	500	63,00 A1/A2
M 6	x	8	S	500	61,00 A1/A2
M 6	x	10	S	500	63,00 A1/A2
M 6	x	12	S	500	66,00 A1/A2
M 6	x	16	S	500	74,00 A1/A2
M 6	x	20	S	500	85,00 A1/A2
M 6	x	25	S	200	95,00 A1/A2
M 6	x	30	S	200	112,00 A1/A2
M 6	x	35	S	200	137,00 A1/A2
M 6	x	40	S	200	152,00 A1/A2
M 6	x	50	S	100	405,00 A1/A2
M 8	x	8	S	500	90,00 A1/A2
M 8	x	10	S	500	85,00 A1/A2
M 8	x	12	S	200	92,00 A1/A2
M 8	x	16	S	200	101,00 A1/A2
M 8	x	20	S	200	120,00 A1/A2
M 8	x	25	S	200	137,00 A1/A2
M 8	x	30	S	100	158,00 A1/A2
M 8	x	35	S	100	192,00 A1/A2
M 8	x	40	S	100	222,00 A1/A2
M 8	x	45	S	100	243,00 A1/A2
M 8	x	60	S	50	550,00 A1/A2
M 10	x	10	S	200	137,00 A1/A2
M 10	x	12	S	100	127,00 A1/A2
M 10	x	16	S	100	135,00 A1/A2
M 10	x	20	S	100	163,00 A1/A2

Hexagon socket set screws with full dog point

Dimensions → TI-20 Standard conversion → TI-6
Material properties → TI-236

Steel → pg. 138

DIN 915 → replaced by ISO 4028 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	25	S	100	195,00 A1/A2
M 10	x	30	S	100	226,00 A1/A2
M 10	x	35	S	50	275,00 A1/A2
M 10	x	40	S	50	290,00 A1/A2
M 10	x	45	S	50	310,00 A1/A2
M 10	x	50	S	50	340,00 A1/A2
M 10	x	60	S	50	470,00 A1/A2
M 12	x	16	S	50	218,00 A1/A2
M 12	x	20	S	50	250,00 A1/A2
M 12	x	25	S	50	275,00 A1/A2
M 12	x	30	S	50	300,00 A1/A2
M 12	x	40	S	25	360,00 A1/A2
M 12	x	50	S	25	440,00 A1/A2
M 12	x	60	S	25	580,00 A1/A2
DIN		00915.940			370
915		A 4			
M 4	x	6	S	500	102,00 A4
M 4	x	8	S	500	107,00 A4
M 4	x	10	S	500	116,00 A4
M 4	x	16	S	500	141,00 A4
M 4	x	20	S	500	149,00 A4
M 5	x	6	S	500	116,00 A4
M 5	x	8	S	500	118,00 A4
M 5	x	10	S	500	128,00 A4
M 5	x	12	S	500	139,00 A4
M 5	x	16	S	500	149,00 A4
M 5	x	20	S	500	168,00 A4
M 5	x	25	S	200	177,00 A4
M 6	x	6	S	500	131,00 A4
M 6	x	8	S	500	133,00 A4
M 6	x	10	S	500	139,00 A4
M 6	x	12	S	500	147,00 A4
M 6	x	16	S	500	168,00 A4
M 6	x	20	S	500	189,00 A4
M 6	x	30	S	200	246,00 A4
M 6	x	35	S	200	265,00 A4
M 6	x	40	S	200	285,00 A4
M 6	x	45	S	100	305,00 A4
M 6	x	50	S	100	350,00 A4
M 8	x	8	S	500	181,00 A4
M 8	x	10	S	500	181,00 A4
M 8	x	12	S	200	200,00 A4
M 8	x	16	S	200	221,00 A4
M 8	x	20	S	200	265,00 A4
M 8	x	25	S	200	325,00 A4
M 8	x	30	S	100	355,00 A4
M 8	x	40	S	100	425,00 A4
M 8	x	50	S	50	530,00 A4
M 10	x	10	S	200	340,00 A4
M 10	x	12	S	100	340,00 A4
M 10	x	16	S	100	305,00 A4
M 10	x	20	S	100	395,00 A4
M 10	x	25	S	100	450,00 A4

Hexagon socket set screws with full dog point

Dimensions → TI-20 Standard conversion → TI-6
Material properties → TI-236

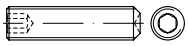
Steel → pg. 138

DIN 915 → replaced by ISO 4028 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	30	S	100	510,00 A4
M 10	x	40	S	50	580,00 A4
M 12	x	12	S	50	475,00 A4
M 12	x	16	S	50	390,00 A4
M 12	x	20	S	50	485,00 A4
M 12	x	25	S	50	550,00 A4
M 12	x	30	S	50	590,00 A4
M 12	x	35	S	25	660,00 A4
M 12	x	40	S	25	710,00 A4
M 12	x	50	S	25	820,00 A4
M 12	x	60	S	25	1260,00 A4
M 16	x	25	S	10	820,00 A4
M 16	x	30	S	10	960,00 A4
M 16	x	35	S	10	1050,00 A4
M 16	x	40	S	10	1120,00 A4

DIN	00916.910	370
916	**A 1/A 2**	



Hexagon socket set screws with cup point

Dimensions ➔ TI-21 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 139

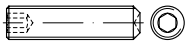
DIN 916 ➔ replaced by ISO 4029 (compatible)

RoHS ✓ | REACh SVHC free

M 2	x	2	S	500	141,00 A1/A2
M 2	x	3	S	500	114,00 A1/A2
M 2	x	4	S	500	116,00 A1/A2
M 2	x	5	S	500	116,00 A1/A2
M 2	x	6	S	500	116,00 A1/A2
M 3	x	4	S	500	48,50 A1/A2
M 3	x	5	S	500	47,50 A1/A2
M 3	x	6	S	500	52,00 A1/A2
M 3	x	8	S	500	53,00 A1/A2
M 3	x	10	S	500	55,00 A1/A2
M 3	x	12	S	500	61,00 A1/A2
M 3	x	16	S	500	120,00 A1/A2
M 3	x	20	S	500	131,00 A1/A2
M 4	x	3	S	500	33,50 A1/A2
M 4	x	4	S	500	33,50 A1/A2
M 4	x	5	S	500	33,50 A1/A2
M 4	x	6	S	500	34,50 A1/A2
M 4	x	8	S	500	35,50 A1/A2
M 4	x	10	S	500	37,50 A1/A2
M 4	x	12	S	500	39,50 A1/A2
M 4	x	16	S	500	43,00 A1/A2
M 4	x	20	S	500	52,00 A1/A2
M 4	x	25	S	500	80,00 A1/A2
M 4	x	30	S	200	88,00 A1/A2
M 5	x	5	S	500	37,50 A1/A2
M 5	x	6	S	500	38,00 A1/A2
M 5	x	8	S	500	39,00 A1/A2
M 5	x	10	S	500	40,00 A1/A2
M 5	x	12	S	500	42,00 A1/A2
M 5	x	16	S	500	46,00 A1/A2
M 5	x	20	S	500	55,00 A1/A2
M 5	x	25	S	200	61,00 A1/A2
M 5	x	30	S	200	106,00 A1/A2
M 6	x	6	S	500	43,50 A1/A2
M 6	x	8	S	500	45,50 A1/A2
M 6	x	10	S	500	46,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	S	500	48,50 A1/A2
M 6	x	16	S	500	55,00 A1/A2
M 6	x	20	S	500	63,00 A1/A2
M 6	x	25	S	200	71,00 A1/A2
M 6	x	30	S	200	83,00 A1/A2
M 6	x	35	S	200	101,00 A1/A2
M 6	x	40	S	200	112,00 A1/A2
M 6	x	45	S	100	260,00 A1/A2
M 6	x	50	S	100	305,00 A1/A2
M 6	x	60	S	100	345,00 A1/A2
M 8	x	6	S	500	63,00 A1/A2
M 8	x	8	S	500	63,00 A1/A2
M 8	x	10	S	500	63,00 A1/A2
M 8	x	12	S	200	69,00 A1/A2
M 8	x	16	S	200	75,00 A1/A2
M 8	x	20	S	200	88,00 A1/A2
M 8	x	25	S	200	103,00 A1/A2
M 8	x	30	S	100	118,00 A1/A2
M 8	x	35	S	100	142,00 A1/A2
M 8	x	40	S	100	165,00 A1/A2
M 8	x	45	S	100	180,00 A1/A2
M 8	x	50	S	50	226,00 A1/A2
M 8	x	60	S	50	410,00 A1/A2
M 8	x	70	S	50	420,00 A1/A2
M 10	x	10	S	200	93,00 A1/A2
M 10	x	12	S	100	94,00 A1/A2
M 10	x	16	S	100	101,00 A1/A2
M 10	x	20	S	100	122,00 A1/A2
M 10	x	25	S	100	144,00 A1/A2
M 10	x	30	S	100	169,00 A1/A2
M 10	x	35	S	50	203,00 A1/A2
M 10	x	40	S	50	214,00 A1/A2
M 10	x	45	S	50	229,00 A1/A2
M 10	x	50	S	50	250,00 A1/A2
M 10	x	60	S	50	350,00 A1/A2
M 12	x	12	S	50	320,00 A1/A2
M 12	x	16	S	50	194,00 A1/A2
M 12	x	20	S	50	222,00 A1/A2
M 12	x	25	S	50	243,00 A1/A2
M 12	x	30	S	50	265,00 A1/A2
M 12	x	35	S	25	285,00 A1/A2
M 12	x	40	S	25	320,00 A1/A2
M 12	x	50	S	25	390,00 A1/A2
M 12	x	60	S	25	520,00 A1/A2
M 16	x	16	S	10	830,00 A1/A2
M 16	x	20	S	10	650,00 A1/A2
M 16	x	25	S	10	780,00 A1/A2
M 16	x	30	S	10	940,00 A1/A2
M 16	x	40	S	10	1200,00 A1/A2
M 16	x	50	S	10	1490,00 A1/A2
M 16	x	60	S	10	1800,00 A1/A2
M 20	x	25	S	10	2850,00 A1/A2
M 20	x	30	S	10	3050,00 A1/A2
M 20	x	35	S	10	3250,00 A1/A2
M 20	x	50	S	10	3450,00 A1/A2

Dimensions		PU	Pieces	€/100/Mat.
DIN	00916.940			370
916	**A 4**			



Hexagon socket set screws with cup point

Dimensions ➔ TI-21 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 139

DIN 916 ➔ replaced by ISO 4029 (compatible)

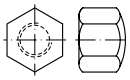
RoHS ✓ | REACh SVHC free

M 2	x	2	S	500	290,00 A4
M 2	x	4	S	500	310,00 A4
M 2	x	5	S	500	330,00 A4
M 2	x	6	S	500	335,00 A4
M 3	x	5	S	500	124,00 A4
M 3	x	6	S	500	143,00 A4
M 3	x	8	S	500	168,00 A4
M 3	x	10	S	500	202,00 A4
M 3	x	12	S	500	221,00 A4
M 3	x	16	S	500	238,00 A4
M 3	x	20	S	500	270,00 A4
M 4	x	5	S	500	103,00 A4
M 4	x	6	S	500	107,00 A4
M 4	x	8	S	500	112,00 A4
M 4	x	10	S	500	120,00 A4
M 4	x	12	S	500	128,00 A4
M 4	x	16	S	500	145,00 A4
M 4	x	20	S	500	156,00 A4
M 5	x	5	S	500	120,00 A4
M 5	x	6	S	500	120,00 A4
M 5	x	8	S	500	124,00 A4
M 5	x	10	S	500	133,00 A4
M 5	x	12	S	500	145,00 A4
M 5	x	16	S	500	156,00 A4
M 5	x	20	S	500	175,00 A4
M 5	x	25	S	200	183,00 A4
M 5	x	30	S	200	198,00 A4
M 6	x	6	S	500	135,00 A4
M 6	x	8	S	500	137,00 A4
M 6	x	10	S	500	145,00 A4
M 6	x	12	S	500	154,00 A4
M 6	x	16	S	500	175,00 A4
M 6	x	20	S	500	196,00 A4
M 6	x	25	S	200	233,00 A4
M 6	x	30	S	200	260,00 A4
M 6	x	35	S	200	275,00 A4
M 6	x	40	S	200	295,00 A4
M 6	x	50	S	100	360,00 A4
M 8	x	8	S	500	187,00 A4
M 8	x	10	S	500	187,00 A4
M 8	x	12	S	200	208,00 A4
M 8	x	16	S	200	229,00 A4
M 8	x	20	S	200	275,00 A4
M 8	x	25	S	200	340,00 A4
M 8	x	30	S	100	365,00 A4
M 8	x	35	S	100	410,00 A4
M 8	x	40	S	100	440,00 A4
M 8	x	50	S	50	550,00 A4
M 8	x	60	S	50	640,00 A4
M 10	x	8	S	200	440,00 A4
M 10	x	10	S	200	295,00 A4
M 10	x	12	S	100	295,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	16	S	100	320,00 A 4
M 10	x	20	S	100	405,00 A 4
M 10	x	25	S	100	465,00 A 4
M 10	x	30	S	100	530,00 A 4
M 10	x	35	S	50	560,00 A 4
M 10	x	40	S	50	600,00 A 4
M 10	x	50	S	50	730,00 A 4
M 10	x	60	S	50	940,00 A 4
M 12	x	12	S	50	350,00 A 4
M 12	x	16	S	50	405,00 A 4
M 12	x	20	S	50	500,00 A 4
M 12	x	25	S	50	560,00 A 4
M 12	x	30	S	50	610,00 A 4
M 12	x	35	S	25	690,00 A 4
M 12	x	40	S	25	730,00 A 4
M 12	x	50	S	25	840,00 A 4
M 12	x	60	S	25	1140,00 A 4
M 16	x	16	S	10	1010,00 A 4
M 16	x	20	S	10	1110,00 A 4
M 16	x	25	S	10	950,00 A 4
M 16	x	30	S	10	990,00 A 4
M 16	x	35	S	10	1100,00 A 4
M 16	x	40	S	10	1140,00 A 4

DIN 00917.910 380

917 A 1/A 2



Hexagon cap nuts, low type

Dimensions → TI-62 Material properties → TI-236

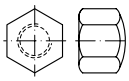
Steel → pg. 141
Brass → pg. 624

RoHS ✓ REACh SVHC free

M 4	S	50	54,00 A 1/A 2
M 5	S	50	59,00 A 1/A 2
M 6	S	500	66,00 A 1/A 2
M 6	K	50	73,00 A 1/A 2
M 8	S	250	110,00 A 1/A 2
M 8	K	50	118,00 A 1/A 2

Dimensions	PU	Pieces	€/100/Mat.
DIN 00917.920			380

917 A 2



Hexagon cap nuts, low type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions → TI-62 Material properties → TI-236

Steel → pg. 141
Brass → pg. 624

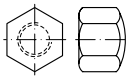
RoHS ✓ REACh SVHC free

SW = wrench size

M 10 s = 17	S	250	176,00 A 2
M 10 s = 17	K	25	192,00 A 2
M 12 s = 19	S	200	315,00 A 2
M 12 s = 19	K	25	330,00 A 2
M 16	S	100	630,00 A 2
M 16	K	10	650,00 A 2
M 20	S	1	1100,00 A 2
M 24	S	1	2310,00 A 2
M 30	S	1	3800,00 A 2

DIN 00917.940 380

917 A 4



Hexagon cap nuts, low type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions → TI-62 Material properties → TI-236

Steel → pg. 141
Brass → pg. 624

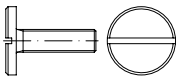
RoHS ✓ REACh SVHC free

SW = wrench size

M 4	S	100	97,00 A 4
M 5	S	100	96,00 A 4
M 6	S	50	112,00 A 4
M 8	S	50	172,00 A 4
M 10 s = 17	S	25	335,00 A 4
M 12 s = 19	S	25	520,00 A 4
M 16	S	10	880,00 A 4
M 20	S	1	1390,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
DIN 00921.910			380

921 A 1



Slotted large cheese head screws

Dimensions → TI-38 Material properties → TI-236

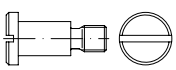
Steel → pg. 142

RoHS ✓ REACh SVHC free

M 3	x	6	S	100	176,00 A 1
M 3	x	8	S	100	182,00 A 1
M 3	x	10	S	100	188,00 A 1
M 4	x	5	S	100	260,00 A 1
M 4	x	6	S	100	265,00 A 1
M 4	x	8	S	100	270,00 A 1
M 4	x	10	S	100	300,00 A 1
M 4	x	16	S	100	385,00 A 1
M 5	x	6	S	100	330,00 A 1
M 5	x	8	S	100	340,00 A 1
M 5	x	10	S	100	370,00 A 1
M 5	x	12	S	100	405,00 A 1
M 5	x	16	S	100	470,00 A 1
M 6	x	8	S	100	375,00 A 1
M 6	x	10	S	100	415,00 A 1
M 6	x	12	S	100	435,00 A 1
M 6	x	16	S	100	530,00 A 1
M 6	x	20	S	100	550,00 A 1
M 8	x	16	S	100	600,00 A 1
M 8	x	20	S	50	640,00 A 1

DIN 00923.910 380

923 A 1



Slotted cheese head shoulder screws

turned finish = with undercut
pressed = without undercut

Dimensions → TI-38 Material properties → TI-236

Steel → pg. 142

RoHS ✓ REACh SVHC free

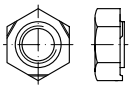
thread ∅ x shank length x thread length

M 3	x	3	x	4,5	S	100	330,00 A 1
M 3	x	4	x	4,5	S	100	335,00 A 1
M 3	x	5	x	4,5	S	100	345,00 A 1
M 3	x	6	x	4,5	S	100	355,00 A 1
M 3	x	10	x	4,5	S	100	360,00 A 1
M 4	x	2	x	6,0	S	100	355,00 A 1
M 4	x	4	x	6,0	S	100	360,00 A 1
M 4	x	5	x	6,0	S	100	370,00 A 1
M 4	x	6	x	6,0	S	100	375,00 A 1
M 4	x	10	x	6,0	S	100	390,00 A 1
M 4	x	12	x	6,0	S	100	400,00 A 1
M 4	x	16	x	6,0	S	100	410,00 A 1

Dimensions					PU	Pieces	€/100/Mat.
M 5	x	2,5	x	7,0	S	100	390,00 A1
M 5	x	3	x	7,0	S	100	400,00 A1
M 5	x	4	x	7,0	S	100	405,00 A1
M 5	x	5	x	7,0	S	100	415,00 A1
M 5	x	6	x	7,0	S	100	430,00 A1
M 5	x	8	x	7,0	S	100	445,00 A1
M 5	x	10	x	7,0	S	100	460,00 A1
M 5	x	12	x	7,0	S	100	475,00 A1
M 5	x	16	x	7,0	S	100	490,00 A1
M 6	x	3	x	9,0	S	100	485,00 A1
M 6	x	4	x	9,0	S	100	490,00 A1
M 6	x	5	x	9,0	S	100	495,00 A1
M 6	x	6	x	9,0	S	100	495,00 A1
M 6	x	8	x	9,0	S	100	520,00 A1
M 6	x	10	x	9,0	S	100	550,00 A1
M 6	x	12	x	9,0	S	100	590,00 A1
M 6	x	16	x	9,0	S	100	630,00 A1
M 6	x	20	x	9,0	S	100	670,00 A1
M 6	x	25	x	9,0	S	100	285,00 A1
M 8	x	6	x	11,0	S	100	520,00 A1
M 8	x	8	x	11,0	S	100	540,00 A1
M 8	x	10	x	11,0	S	100	580,00 A1
M 8	x	12	x	11,0	S	100	640,00 A1
M 8	x	16	x	11,0	S	100	710,00 A1
M 8	x	20	x	11,0	S	100	770,00 A1

DIN 00929.920 390

929 A 2



Hexagon weld nuts

Dimensions ➔ TI-71 Material properties ➔ TI-236

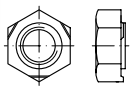
Steel ➔ pg. 143

RoHS ✓ REACh SVHC free

M 3	S	100	34,00 A2
M 4	S	100	37,00 A2
M 5	S	100	55,00 A2
M 6	S	100	101,00 A2
M 8	S	100	122,00 A2
M 10	S	100	201,00 A2
M 12	S	50	430,00 A2
M 16	S	50	650,00 A2

DIN 00929.940 390

929 A 4



Hexagon weld nuts

Dimensions ➔ TI-71 Material properties ➔ TI-236

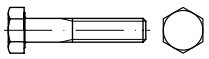
Steel ➔ pg. 143

RoHS ✓ REACh SVHC free

M 3	S	100	63,00 A4
M 4	S	100	72,00 A4
M 5	S	100	84,00 A4
M 6	S	100	126,00 A4
M 8	S	100	168,00 A4
M 10	S	100	275,00 A4
M 12	S	50	530,00 A4
M 16	S	25	800,00 A4

DIN 00931.920 401

931 A 2 (– 70)*



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15 Tightening torque ➔ TI-249
Material properties ➔ TI-236 Standard conversion ➔ TI-6

Steel ➔ pg. 143
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ REACh SVHC free

*Prop. class for dimensions different depending on production

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	30	S	100	15,60 A2
M 5	x	35	S	100	18,80 A2
M 5	x	40	S	100	19,70 A2
M 5	x	45	S	100	23,10 A2
M 5	x	50	S	100	27,00 A2
M 5	x	55	S	100	53,00 A2
M 5	x	60	S	100	53,00 A2
M 5	x	65	S	200	115,00 A2
M 5	x	70	S	100	117,00 A2
M 5	x	80	S	100	395,00 A2
M 5	x	90	S	100	530,00 A2
M 5	x	100	S	100	670,00 A2
M 6	x	30	S	200	15,00 A2
M 6	x	35	S	100	16,80 A2
M 6	x	40	S	100	19,40 A2
M 6	x	45	S	100	22,60 A2
M 6	x	50	S	100	27,00 A2
M 6	x	55	S	100	40,00 A2
M 6	x	60	S	100	45,00 A2
M 6	x	65	S	100	57,00 A2
M 6	x	70	S	100	61,00 A2
M 6	x	75	S	100	88,00 A2
M 6	x	80	S	100	74,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	85	S	100	121,00 A2
M 6	x	90	S	100	97,00 A2
M 6	x	100	S	100	114,00 A2
M 6	x	110	S	50	143,00 A2
M 6	x	120	S	50	168,00 A2
M 6	x	130	S	50	275,00 A2
M 6	x	140	S	50	290,00 A2
M 6	x	150	S	50	345,00 A2
M 6	x	160*	S	50	370,00 A2
M 6	x	170*	S	50	450,00 A2
M 6	x	180*	S	50	455,00 A2
M 8	x	35	S	100	28,50 A2
M 8	x	40	S	100	33,00 A2
M 8	x	45	S	100	35,00 A2
M 8	x	50	S	100	37,50 A2
M 8	x	55	S	100	41,50 A2
M 8	x	60	S	100	42,50 A2
M 8	x	65	S	100	59,00 A2
M 8	x	70	S	100	62,00 A2
M 8	x	75	S	100	120,00 A2
M 8	x	80	S	100	95,00 A2
M 8	x	85	S	100	145,00 A2
M 8	x	90	S	100	116,00 A2
M 8	x	100	S	100	141,00 A2
M 8	x	110	S	50	169,00 A2
M 8	x	120	S	50	192,00 A2
M 8	x	130	S	50	216,00 A2
M 8	x	140	S	50	239,00 A2
M 8	x	150	S	50	265,00 A2
M 8	x	160	S	25	365,00 A2
M 8	x	170	S	25	445,00 A2
M 8	x	180	S	25	445,00 A2
M 8	x	190	S	25	590,00 A2
M 8	x	200	S	25	590,00 A2
M 8	x	220*	S	25	890,00 A2
M 10	x	40	S	100	59,00 A2
M 10	x	45	S	100	61,00 A2
M 10	x	50	S	100	65,00 A2
M 10	x	55	S	100	70,00 A2
M 10	x	60	S	100	75,00 A2
M 10	x	65	S	100	85,00 A2
M 10	x	70	S	100	88,00 A2
M 10	x	75	S	50	156,00 A2
M 10	x	80	S	50	107,00 A2
M 10	x	85	S	50	203,00 A2
M 10	x	90	S	50	164,00 A2
M 10	x	100	S	50	207,00 A2
M 10	x	110	S	50	255,00 A2
M 10	x	120	S	50	315,00 A2
M 10	x	130	S	50	385,00 A2
M 10	x	140	S	50	445,00 A2
M 10	x	150	S	50	500,00 A2
M 10	x	160	S	50	590,00 A2
M 10	x	170	S	1	720,00 A2
M 10	x	180	S	1	730,00 A2
M 10	x	190	S	1	950,00 A2
M 10	x	200	S	1	950,00 A2
M 10	x	210	S	1	1230,00 A2
M 10	x	220	S	1	1380,00 A2
M 12	x	40	S	50	80,00 A2
M 12	x	45	S	50	85,00 A2
M 12	x	50	S	50	92,00 A2
M 12	x	55	S	50	99,00 A2
M 12	x	60	S	50	106,00 A2
M 12	x	65	S	50	118,00 A2
M 12	x	70	S	50	127,00 A2
M 12	x	75	S	50	222,00 A2
M 12	x	80	S	50	153,00 A2
M 12	x	85	S	50	260,00 A2
M 12	x	90	S	50	207,00 A2
M 12	x	100	S	50	229,00 A2
M 12	x	105	S	50	475,00 A2
M 12	x	110	S	50	280,00 A2
M 12	x	120	S	25	330,00 A2
M 12	x	130	S	1	405,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 12 x 140	S	1	480,00 A 2
M 12 x 150	S	1	550,00 A 2
M 12 x 160	S	1	660,00 A 2
M 12 x 170	S	1	830,00 A 2
M 12 x 180	S	1	830,00 A 2
M 12 x 190	S	1	1130,00 A 2
M 12 x 200	S	1	1130,00 A 2
M 12 x 210	S	1	1450,00 A 2
M 12 x 220	S	1	1580,00 A 2
M 12 x 230	S	1	1670,00 A 2
M 12 x 240	S	1	1760,00 A 2
M 12 x 250	S	1	1850,00 A 2
M 12 x 260*	S	1	2050,00 A 2
M 12 x 280*	S	1	2220,00 A 2
M 12 x 300*	S	1	2370,00 A 2
M 12 x 320*	S	1	2850,00 A 2
M 14 x 50	S	50	195,00 A 2
M 14 x 55	S	50	195,00 A 2
M 14 x 60	S	50	199,00 A 2
M 14 x 65	S	50	216,00 A 2
M 14 x 70	S	50	228,00 A 2
M 14 x 80	S	50	255,00 A 2
M 14 x 90	S	50	280,00 A 2
M 14 x 100	S	50	305,00 A 2
M 14 x 110	S	50	440,00 A 2
M 14 x 120	S	1	475,00 A 2
M 14 x 130	S	1	590,00 A 2
M 14 x 140	S	1	640,00 A 2
M 14 x 150	S	1	700,00 A 2
M 14 x 160	S	1	900,00 A 2
M 14 x 170*	S	1	1000,00 A 2
M 14 x 180*	S	1	1060,00 A 2
M 14 x 200*	S	1	1220,00 A 2
M 16 x 55	S	50	195,00 A 2
M 16 x 60	S	50	199,00 A 2
M 16 x 65	S	50	216,00 A 2
M 16 x 70	S	25	228,00 A 2
M 16 x 75	S	25	255,00 A 2
M 16 x 80	S	25	255,00 A 2
M 16 x 85	S	25	345,00 A 2
M 16 x 90	S	25	280,00 A 2
M 16 x 95	S	25	400,00 A 2
M 16 x 100	S	25	305,00 A 2
M 16 x 110	S	25	440,00 A 2
M 16 x 120	S	25	475,00 A 2
M 16 x 130	S	1	590,00 A 2
M 16 x 140	S	1	640,00 A 2
M 16 x 150	S	1	700,00 A 2
M 16 x 160	S	1	900,00 A 2
M 16 x 170	S	1	1000,00 A 2
M 16 x 180	S	1	1060,00 A 2
M 16 x 190	S	1	1220,00 A 2
M 16 x 200	S	1	1220,00 A 2
M 16 x 210	S	1	1450,00 A 2
M 16 x 220	S	1	1450,00 A 2
M 16 x 230	S	1	1680,00 A 2
M 16 x 240	S	1	1680,00 A 2
M 16 x 250	S	1	2000,00 A 2
M 16 x 260*	S	1	2000,00 A 2
M 16 x 270*	S	1	2250,00 A 2
M 16 x 280*	S	1	2250,00 A 2
M 16 x 290*	S	1	2500,00 A 2
M 16 x 300*	S	1	2500,00 A 2
M 18 x 65	S	1	510,00 A 2
M 18 x 70	S	25	540,00 A 2
M 18 x 75	S	1	590,00 A 2
M 18 x 80	S	25	590,00 A 2
M 18 x 90	S	25	650,00 A 2
M 18 x 100	S	25	710,00 A 2
M 18 x 110	S	25	1000,00 A 2
M 18 x 120	S	25	1090,00 A 2
M 18 x 130	S	25	1280,00 A 2
M 18 x 140	S	25	1400,00 A 2
M 18 x 150	S	25	1520,00 A 2
M 18 x 160	S	25	1600,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 65	S	1	340,00 A 2
M 20 x 70	S	1	360,00 A 2
M 20 x 75	S	1	395,00 A 2
M 20 x 80	S	1	395,00 A 2
M 20 x 85	S	1	540,00 A 2
M 20 x 90	S	1	430,00 A 2
M 20 x 100	S	1	470,00 A 2
M 20 x 110	S	1	670,00 A 2
M 20 x 120	S	1	730,00 A 2
M 20 x 130	S	1	850,00 A 2
M 20 x 140	S	1	940,00 A 2
M 20 x 150	S	1	1020,00 A 2
M 20 x 160	S	1	1310,00 A 2
M 20 x 170	S	1	1420,00 A 2
M 20 x 180	S	1	1500,00 A 2
M 20 x 190	S	1	1690,00 A 2
M 20 x 200	S	1	1690,00 A 2
M 20 x 210	S	1	2070,00 A 2
M 20 x 220	S	1	2070,00 A 2
M 20 x 230	S	1	2360,00 A 2
M 20 x 240	S	1	2360,00 A 2
M 20 x 250	S	1	2650,00 A 2
M 20 x 260*	S	1	2650,00 A 2
M 20 x 270*	S	1	2950,00 A 2
M 20 x 280*	S	1	2950,00 A 2
M 20 x 290*	S	1	3250,00 A 2
M 20 x 300*	S	1	3250,00 A 2
M 22 x 80	S	1	1000,00 A 2
M 22 x 90	S	1	1060,00 A 2
M 22 x 100	S	1	1140,00 A 2
M 22 x 110	S	1	1290,00 A 2
M 22 x 120	S	1	1390,00 A 2
M 22 x 130	S	1	1550,00 A 2
M 22 x 140	S	1	1680,00 A 2
M 22 x 150	S	1	1810,00 A 2
M 22 x 160	S	1	2130,00 A 2
M 22 x 180	S	1	2410,00 A 2
M 22 x 200	S	1	2700,00 A 2
M 24 x 75	S	1	790,00 A 2
M 24 x 80	S	1	640,00 A 2
M 24 x 85	S	1	840,00 A 2
M 24 x 90	S	1	670,00 A 2
M 24 x 95	S	1	910,00 A 2
M 24 x 100	S	1	720,00 A 2
M 24 x 110	S	1	810,00 A 2
M 24 x 120	S	1	870,00 A 2
M 24 x 130	S	1	1100,00 A 2
M 24 x 140	S	1	1190,00 A 2
M 24 x 150	S	1	1260,00 A 2
M 24 x 160	S	1	1870,00 A 2
M 24 x 170	S	1	2170,00 A 2
M 24 x 180	S	1	2170,00 A 2
M 24 x 190	S	1	2410,00 A 2
M 24 x 200	S	1	2410,00 A 2
M 24 x 210	S	1	2750,00 A 2
M 24 x 220	S	1	2750,00 A 2
M 24 x 230	S	1	3050,00 A 2
M 24 x 240	S	1	3050,00 A 2
M 24 x 250	S	1	3500,00 A 2
M 24 x 260*	S	1	3500,00 A 2
M 24 x 280*	S	1	3850,00 A 2
M 24 x 290*	S	1	4150,00 A 2
M 24 x 300*	S	1	4150,00 A 2
M 27 x 90	S	1	1790,00 A 2
M 27 x 100	S	1	1930,00 A 2
M 27 x 110	S	1	2080,00 A 2
M 27 x 120	S	1	2230,00 A 2
M 27 x 130	S	1	2300,00 A 2
M 27 x 140	S	1	2440,00 A 2
M 27 x 150	S	1	2600,00 A 2
M 27 x 160*	S	1	2750,00 A 2
M 27 x 170*	S	1	3050,00 A 2
M 27 x 180*	S	1	3050,00 A 2
M 27 x 200*	S	1	3300,00 A 2
M 27 x 210*	S	1	4100,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
M 27 x 220*	S	1	4100,00 A 2
M 27 x 230*	S	1	4550,00 A 2
M 27 x 240*	S	1	4550,00 A 2
M 27 x 250*	S	1	5100,00 A 2
M 30 x 90*	S	1	2330,00 A 2
M 30 x 100*	S	1	2550,00 A 2
M 30 x 110*	S	1	2750,00 A 2
M 30 x 120*	S	1	2900,00 A 2
M 30 x 130*	S	1	3050,00 A 2
M 30 x 140*	S	1	3450,00 A 2
M 30 x 150*	S	1	3650,00 A 2
M 30 x 160*	S	1	4050,00 A 2
M 30 x 170*	S	1	4450,00 A 2
M 30 x 180*	S	1	4450,00 A 2
M 30 x 190*	S	1	4850,00 A 2
M 30 x 200*	S	1	4850,00 A 2
M 30 x 210*	S	1	5300,00 A 2
M 30 x 220*	S	1	5300,00 A 2
M 30 x 240*	S	1	5700,00 A 2
M 30 x 250*	S	1	6000,00 A 2
M 33 x 100*	S	1	3350,00 A 2
M 33 x 110*	S	1	3600,00 A 2
M 33 x 120*	S	1	3800,00 A 2
M 33 x 130*	S	1	4050,00 A 2
M 33 x 140*	S	1	4300,00 A 2
M 33 x 150*	S	1	4500,00 A 2
M 33 x 160*	S	1	4750,00 A 2
M 33 x 170*	S	1	5200,00 A 2
M 33 x 180*	S	1	5200,00 A 2
M 33 x 190*	S	1	5700,00 A 2
M 33 x 200*	S	1	5700,00 A 2
M 33 x 210*	S	1	6100,00 A 2
M 33 x 220*	S	1	6100,00 A 2
M 33 x 230*	S	1	6600,00 A 2
M 33 x 240*	S	1	6600,00 A 2
M 33 x 250*	S	1	7100,00 A 2
M 36 x 100*	S	1	4100,00 A 2
M 36 x 110*	S	1	4400,00 A 2
M 36 x 120*	S	1	4650,00 A 2
M 36 x 130*	S	1	4900,00 A 2
M 36 x 140*	S	1	5200,00 A 2
M 36 x 150*	S	1	5500,00 A 2
M 36 x 160*	S	1	5800,00 A 2
M 36 x 170*	S	1	6700,00 A 2
M 36 x 180*	S	1	6700,00 A 2
M 36 x 190*	S	1	7200,00 A 2
M 36 x 200*	S	1	7200,00 A 2
M 36 x 210*	S	1	7800,00 A 2
M 36 x 220*	S	1	7800,00 A 2
M 36 x 230*	S	1	8400,00 A 2
M 36 x 240*	S	1	8400,00 A 2
M 36 x 250*	S	1	8900,00 A 2

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

DIN 931

Dimensions		PU Pieces	€/100/Mat.
DIN	00931.940		401
931	A 4 (– 70)*		



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6
Steel ➔ pg. 143
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

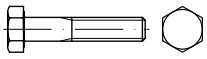
Dimensions			PU	Pieces	€/100/Mat.
M 5	x	30	S	100	24,40 A4
M 5	x	35	S	100	26,50 A4
M 5	x	40	S	100	29,00 A4
M 5	x	45	S	100	33,50 A4
M 5	x	50	S	100	42,00 A4
M 5	x	55	S	100	69,00 A4
M 5	x	60	S	100	72,00 A4
M 5	x	70	S	100	152,00 A4
M 5	x	80	S	100	470,00 A4
M 5	x	90	S	100	600,00 A4
M 5	x	100	S	100	770,00 A4
M 6	x	30	S	200	24,20 A4
M 6	x	35	S	100	26,00 A4
M 6	x	40	S	100	28,00 A4
M 6	x	45	S	100	32,00 A4
M 6	x	50	S	100	36,50 A4
M 6	x	55	S	100	51,00 A4
M 6	x	60	S	100	58,00 A4
M 6	x	65	S	100	70,00 A4
M 6	x	70	S	100	74,00 A4
M 6	x	80	S	100	92,00 A4
M 6	x	90	S	100	120,00 A4
M 6	x	100	S	100	133,00 A4
M 6	x	110	S	50	176,00 A4
M 6	x	120	S	50	214,00 A4
M 6	x	130	S	50	365,00 A4
M 6	x	140	S	1	405,00 A4
M 6	x	150	S	1	445,00 A4
M 6	x	160*	S	1	485,00 A4
M 6	x	170*	S	1	620,00 A4
M 8	x	35	S	100	53,00 A4
M 8	x	40	S	100	53,00 A4
M 8	x	45	S	100	56,00 A4
M 8	x	50	S	100	60,00 A4
M 8	x	55	S	100	71,00 A4
M 8	x	60	S	100	73,00 A4
M 8	x	65	S	100	96,00 A4
M 8	x	70	S	100	101,00 A4
M 8	x	75	S	100	210,00 A4
M 8	x	80	S	100	152,00 A4
M 8	x	85	S	100	221,00 A4
M 8	x	90	S	100	178,00 A4
M 8	x	100	S	100	210,00 A4
M 8	x	110	S	50	260,00 A4
M 8	x	120	S	50	295,00 A4
M 8	x	130	S	50	365,00 A4
M 8	x	140	S	1	430,00 A4
M 8	x	150	S	1	490,00 A4
M 8	x	160	S	1	610,00 A4
M 8	x	170	S	1	750,00 A4
M 8	x	180	S	1	750,00 A4
M 8	x	190	S	1	990,00 A4
M 8	x	200	S	1	990,00 A4
M 8	x	220*	S	1	1460,00 A4
M 10	x	40	S	100	98,00 A4
M 10	x	45	S	100	100,00 A4
M 10	x	50	S	100	104,00 A4
M 10	x	55	S	100	116,00 A4
M 10	x	60	S	100	122,00 A4
M 10	x	65	S	100	142,00 A4
M 10	x	70	S	100	145,00 A4
M 10	x	75	S	50	248,00 A4
M 10	x	80	S	50	175,00 A4
M 10	x	90	S	50	242,00 A4
M 10	x	100	S	50	305,00 A4
M 10	x	110	S	50	385,00 A4
M 10	x	120	S	50	475,00 A4
M 10	x	130	S	1	610,00 A4
M 10	x	140	S	1	700,00 A4
M 10	x	150	S	1	800,00 A4
M 10	x	160	S	1	990,00 A4
M 10	x	170	S	1	1210,00 A4
M 10	x	180	S	1	1210,00 A4
M 10	x	190	S	1	1600,00 A4
M 10	x	200	S	1	1600,00 A4
M 10	x	210	S	1	1970,00 A4
M 10	x	220	S	1	2220,00 A4
M 12	x	45	S	50	146,00 A4
M 12	x	50	S	50	147,00 A4
M 12	x	55	S	50	162,00 A4
M 12	x	60	S	50	166,00 A4
M 12	x	65	S	50	197,00 A4
M 12	x	70	S	50	200,00 A4
M 12	x	75	S	50	335,00 A4
M 12	x	80	S	50	233,00 A4
M 12	x	85	S	50	355,00 A4
M 12	x	90	S	50	285,00 A4
M 12	x	95	S	50	420,00 A4
M 12	x	100	S	50	340,00 A4
M 12	x	110	S	50	415,00 A4
M 12	x	120	S	25	510,00 A4
M 12	x	130	S	1	640,00 A4
M 12	x	140	S	1	760,00 A4
M 12	x	150	S	1	870,00 A4
M 12	x	160	S	1	1130,00 A4
M 12	x	170	S	1	1420,00 A4
M 12	x	180	S	1	1420,00 A4
M 12	x	190	S	1	1750,00 A4
M 12	x	200	S	1	1750,00 A4
M 12	x	210	S	1	2140,00 A4
M 12	x	220	S	1	2260,00 A4
M 12	x	240	S	1	2440,00 A4
M 12	x	250	S	1	2550,00 A4
M 12	x	260*	S	1	2750,00 A4
M 12	x	280*	S	1	2900,00 A4
M 12	x	300*	S	1	3050,00 A4
M 12	x	320*	S	1	3200,00 A4
M 12	x	340*	S	1	3350,00 A4
M 12	x	360*	S	1	3500,00 A4
M 12	x	380*	S	1	3650,00 A4
M 12	x	400*	S	1	3950,00 A4
M 14	x	50	S	50	365,00 A4
M 14	x	55	S	50	355,00 A4
M 14	x	60	S	50	355,00 A4
M 14	x	65	S	50	390,00 A4
M 14	x	70	S	50	395,00 A4
M 14	x	80	S	50	430,00 A4
M 14	x	90	S	50	480,00 A4
M 14	x	100	S	50	520,00 A4
M 14	x	110	S	1	660,00 A4
M 14	x	120	S	1	740,00 A4
M 14	x	130	S	1	880,00 A4
M 14	x	140	S	1	980,00 A4
M 14	x	150	S	1	1070,00 A4
M 14	x	160	S	1	1410,00 A4
M 14	x	170*	S	1	1620,00 A4
M 14	x	180*	S	1	1620,00 A4
M 14	x	190*	S	1	1830,00 A4
M 14	x	200*	S	1	1830,00 A4
M 16	x	55	S	50	355,00 A4
M 16	x	60	S	50	355,00 A4
M 16	x	65	S	50	390,00 A4
M 16	x	70	S	25	395,00 A4
M 16	x	75	S	25	430,00 A4
M 16	x	80	S	25	430,00 A4
M 16	x	85	S	25	600,00 A4
M 16	x	90	S	25	480,00 A4
M 16	x	100	S	25	520,00 A4
M 16	x	110	S	25	660,00 A4
M 16	x	120	S	25	740,00 A4
M 16	x	130	S	1	880,00 A4
M 16	x	140	S	1	980,00 A4
M 16	x	150	S	1	1070,00 A4
M 16	x	160	S	1	1410,00 A4
M 16	x	170	S	1	1620,00 A4
M 16	x	180	S	1	1620,00 A4
M 16	x	190	S	1	1830,00 A4
M 16	x	200	S	1	1830,00 A4
M 16	x	210	S	1	2600,00 A4
M 16	x	220	S	1	2600,00 A4
M 16	x	230	S	1	2950,00 A4
M 16	x	240	S	1	2950,00 A4
M 16	x	250	S	1	3300,00 A4
M 16	x	260*	S	1	3300,00 A4
M 16	x	270*	S	1	3650,00 A4
M 16	x	280*	S	1	3650,00 A4
M 16	x	290*	S	1	4000,00 A4
M 16	x	300*	S	1	4000,00 A4
M 16	x	320*	S	1	6500,00 A4
M 16	x	340*	S	1	7000,00 A4
M 16	x	360*	S	1	7200,00 A4
M 16	x	380*	S	1	7300,00 A4
M 16	x	400*	S	1	7400,00 A4
M 18	x	70	S	1	790,00 A4
M 18	x	80	S	1	870,00 A4
M 18	x	90	S	1	960,00 A4
M 18	x	100	S	1	1040,00 A4
M 18	x	110	S	1	1560,00 A4
M 18	x	120	S	1	1690,00 A4
M 18	x	130	S	1	1970,00 A4
M 18	x	140	S	1	2000,00 A4
M 18	x	150	S	1	2000,00 A4
M 18	x	160	S	1	2030,00 A4
M 18	x	170	S	1	3000,00 A4
M 18	x	180	S	1	3000,00 A4
M 18	x	190	S	1	3400,00 A4
M 18	x	200	S	1	3400,00 A4
M 20	x	65	S	1	610,00 A4
M 20	x	70	S	1	630,00 A4
M 20	x	75	S	1	660,00 A4
M 20	x	80	S	1	660,00 A4
M 20	x	85	S	1	950,00 A4
M 20	x	90	S	1	760,00 A4
M 20	x	100	S	1	840,00 A4
M 20	x	110	S	1	1040,00 A4
M 20	x	120	S	1	1130,00 A4
M 20	x	130	S	1	1320,00 A4
M 20	x	140	S	1	1440,00 A4
M 20	x	150	S	1	1570,00 A4
M 20	x	160	S	1	2030,00 A4
M 20	x	170	S	1	2330,00 A4
M 20	x	180	S	1	2330,00 A4
M 20	x	190	S	1	2650,00 A4
M 20	x	200	S	1	2650,00 A4
M 20	x	210	S	1	3050,00 A4
M 20	x	220	S	1	3050,00 A4
M 20	x	230	S	1	3400,00 A4
M 20	x	240	S	1	3400,00 A4
M 20	x	250	S	1	4500,00 A4
M 20	x	260*	S	1	4500,00 A4
M 20	x	270*	S	1	4950,00 A4

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 20 x 280*	S	1	4950,00 A4
M 20 x 290*	S	1	5400,00 A4
M 20 x 300*	S	1	5400,00 A4
M 22 x 80	S	1	1670,00 A4
M 22 x 90	S	1	1790,00 A4
M 22 x 100	S	1	1960,00 A4
M 22 x 110	S	1	2270,00 A4
M 22 x 120	S	1	2450,00 A4
M 22 x 130	S	1	2650,00 A4
M 22 x 140	S	1	3000,00 A4
M 22 x 150	S	1	3250,00 A4
M 22 x 160	S	1	3500,00 A4
M 22 x 200	S	1	4350,00 A4
M 24 x 75	S	1	1520,00 A4
M 24 x 80	S	1	1280,00 A4
M 24 x 85	S	1	1730,00 A4
M 24 x 90	S	1	1390,00 A4
M 24 x 100	S	1	1540,00 A4
M 24 x 110	S	1	1740,00 A4
M 24 x 120	S	1	1840,00 A4
M 24 x 130	S	1	2000,00 A4
M 24 x 140	S	1	2210,00 A4
M 24 x 150	S	1	2350,00 A4
M 24 x 160	S	1	3150,00 A4
M 24 x 170	S	1	3500,00 A4
M 24 x 180	S	1	3500,00 A4
M 24 x 190	S	1	3900,00 A4
M 24 x 200	S	1	3900,00 A4
M 24 x 210	S	1	5100,00 A4
M 24 x 220	S	1	5100,00 A4
M 24 x 230	S	1	5600,00 A4
M 24 x 240	S	1	5600,00 A4
M 24 x 250	S	1	6100,00 A4
M 24 x 260*	S	1	6100,00 A4
M 24 x 270*	S	1	6600,00 A4
M 24 x 280*	S	1	6600,00 A4
M 24 x 290*	S	1	7100,00 A4
M 24 x 300*	S	1	7100,00 A4
M 27 x 90	S	1	2850,00 A4
M 27 x 100	S	1	3100,00 A4
M 27 x 110	S	1	3350,00 A4
M 27 x 120	S	1	3550,00 A4
M 27 x 130	S	1	3700,00 A4
M 27 x 140	S	1	3900,00 A4
M 27 x 150	S	1	4150,00 A4
M 27 x 160*	S	1	4400,00 A4
M 27 x 170*	S	1	4850,00 A4
M 27 x 180*	S	1	4850,00 A4
M 27 x 190*	S	1	5300,00 A4
M 27 x 200*	S	1	5300,00 A4
M 27 x 210*	S	1	6800,00 A4
M 27 x 220*	S	1	6800,00 A4
M 27 x 230*	S	1	7400,00 A4
M 27 x 240*	S	1	7400,00 A4
M 27 x 250*	S	1	8100,00 A4
M 27 x 260*	S	1	8700,00 A4
M 27 x 280*	S	1	9900,00 A4
M 30 x 90*	S	1	3550,00 A4
M 30 x 100*	S	1	3850,00 A4
M 30 x 110*	S	1	4150,00 A4
M 30 x 120*	S	1	4400,00 A4
M 30 x 130*	S	1	4600,00 A4
M 30 x 140*	S	1	4900,00 A4
M 30 x 150*	S	1	5200,00 A4
M 30 x 160*	S	1	5500,00 A4
M 30 x 170*	S	1	6100,00 A4
M 30 x 180*	S	1	6100,00 A4
M 30 x 190*	S	1	6600,00 A4
M 30 x 200*	S	1	6600,00 A4
M 30 x 210*	S	1	8000,00 A4
M 30 x 220*	S	1	8000,00 A4
M 30 x 240*	S	1	8600,00 A4
M 30 x 250*	S	1	9500,00 A4
M 30 x 260*	S	1	10000,00 A4
M 30 x 280*	S	1	11000,00 A4
M 30 x 300*	S	1	12000,00 A4
M 33 x 90*	S	1	4950,00 A4
M 33 x 100*	S	1	5400,00 A4
M 33 x 110*	S	1	5700,00 A4
M 33 x 120*	S	1	6100,00 A4
M 33 x 130*	S	1	6500,00 A4
M 33 x 140*	S	1	6800,00 A4
M 33 x 150*	S	1	7200,00 A4
M 33 x 160*	S	1	7600,00 A4
M 33 x 170*	S	1	8300,00 A4
M 33 x 180*	S	1	8300,00 A4
M 33 x 190*	S	1	9000,00 A4
M 33 x 200*	S	1	9000,00 A4
M 33 x 210*	S	1	10200,00 A4
M 33 x 220*	S	1	10200,00 A4
M 33 x 230*	S	1	11400,00 A4
M 33 x 240*	S	1	11400,00 A4
M 33 x 250*	S	1	12200,00 A4
M 36 x 100*	S	1	6600,00 A4
M 36 x 110*	S	1	7000,00 A4
M 36 x 120*	S	1	7500,00 A4
M 36 x 130*	S	1	7800,00 A4
M 36 x 140*	S	1	8300,00 A4
M 36 x 150*	S	1	8700,00 A4
M 36 x 160*	S	1	9200,00 A4
M 36 x 170*	S	1	10600,00 A4
M 36 x 180*	S	1	10600,00 A4
M 36 x 190*	S	1	11500,00 A4
M 36 x 200*	S	1	11500,00 A4
M 36 x 220*	S	1	12800,00 A4
M 36 x 230*	S	1	14200,00 A4
M 36 x 240*	S	1	14200,00 A4
M 36 x 250*	S	1	15600,00 A4

DIN 00931.948 403

931 **A 4 - 80**



Hexagon head bolts

short dimensions partly thread nearly to head, high strength (strongly cold worked)

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 143
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 25	S	200	57,00 A4-80
M 5 x 30	S	200	61,00 A4-80
M 5 x 35	S	200	67,00 A4-80
M 5 x 40	S	200	73,00 A4-80
M 5 x 50	S	200	104,00 A4-80
M 5 x 60	S	200	181,00 A4-80
M 5 x 70	S	100	380,00 A4-80
M 5 x 80	S	100	1180,00 A4-80
M 6 x 30	S	100	61,00 A4-80
M 6 x 35	S	100	66,00 A4-80
M 6 x 40	S	100	71,00 A4-80
M 6 x 45	S	100	81,00 A4-80
M 6 x 50	S	100	92,00 A4-80
M 6 x 55	S	100	128,00 A4-80
M 6 x 60	S	100	147,00 A4-80
M 6 x 65	S	100	177,00 A4-80
M 6 x 70	S	100	183,00 A4-80
M 6 x 80	S	100	229,00 A4-80
M 6 x 90	S	100	305,00 A4-80
M 6 x 100	S	100	335,00 A4-80
M 6 x 110	S	50	445,00 A4-80
M 6 x 120	S	50	540,00 A4-80
M 6 x 130	S	50	920,00 A4-80
M 6 x 140	S	50	1010,00 A4-80
M 6 x 150	S	50	1120,00 A4-80
M 8 x 35	S	100	133,00 A4-80
M 8 x 40	S	100	133,00 A4-80
M 8 x 45	S	100	141,00 A4-80
M 8 x 50	S	100	152,00 A4-80
M 8 x 55	S	100	179,00 A4-80
M 8 x 60	S	100	183,00 A4-80
M 8 x 65	S	100	240,00 A4-80
M 8 x 70	S	50	255,00 A4-80
M 8 x 75	S	50	550,00 A4-80
M 8 x 80	S	50	380,00 A4-80
M 8 x 90	S	50	445,00 A4-80
M 8 x 100	S	50	530,00 A4-80
M 8 x 110	S	50	640,00 A4-80
M 8 x 120	S	50	740,00 A4-80
M 8 x 130	S	50	920,00 A4-80
M 8 x 140	S	1	1070,00 A4-80
M 8 x 150	S	1	1220,00 A4-80
M 8 x 160	S	1	1540,00 A4-80
M 10 x 40	S	100	246,00 A4-80
M 10 x 45	S	100	250,00 A4-80
M 10 x 50	S	100	265,00 A4-80
M 10 x 55	S	50	295,00 A4-80
M 10 x 60	S	50	305,00 A4-80
M 10 x 65	S	50	355,00 A4-80
M 10 x 70	S	50	365,00 A4-80
M 10 x 75	S	50	660,00 A4-80
M 10 x 80	S	50	440,00 A4-80
M 10 x 90	S	50	610,00 A4-80
M 10 x 100	S	50	770,00 A4-80
M 10 x 110	S	25	980,00 A4-80
M 10 x 120	S	25	1200,00 A4-80
M 10 x 130	S	1	1540,00 A4-80
M 10 x 140	S	1	3750,00 A4-80
M 10 x 150	S	1	2000,00 A4-80
M 10 x 160	S	1	2480,00 A4-80
M 10 x 170	S	1	3050,00 A4-80
M 10 x 180	S	1	3550,00 A4-80
M 10 x 190	S	1	4000,00 A4-80
M 10 x 200	S	1	4550,00 A4-80
M 10 x 220	S	1	5600,00 A4-80
M 12 x 45	S	50	365,00 A4-80
M 12 x 50	S	50	370,00 A4-80
M 12 x 55	S	50	410,00 A4-80
M 12 x 60	S	50	415,00 A4-80
M 12 x 65	S	50	495,00 A4-80
M 12 x 70	S	25	500,00 A4-80
M 12 x 75	S	25	910,00 A4-80
M 12 x 80	S	25	590,00 A4-80
M 12 x 90	S	25	720,00 A4-80
M 12 x 100	S	25	850,00 A4-80
M 12 x 110	S	25	1040,00 A4-80
M 12 x 120	S	25	1280,00 A4-80
M 12 x 130	S	1	780,00 A4-80
M 12 x 140	S	1	2400,00 A4-80
M 12 x 150	S	1	2190,00 A4-80
M 12 x 160	S	1	2850,00 A4-80
M 12 x 170	S	1	4100,00 A4-80
M 12 x 180	S	1	3550,00 A4-80
M 12 x 190	S	1	4100,00 A4-80
M 12 x 200	S	1	4400,00 A4-80
M 12 x 220	S	1	5700,00 A4-80
M 14 x 50	S	50	910,00 A4-80
M 14 x 55	S	50	910,00 A4-80
M 14 x 60	S	50	910,00 A4-80
M 14 x 70	S	50	1000,00 A4-80
M 14 x 80	S	50	1100,00 A4-80
M 14 x 90	S	50	1220,00 A4-80

Dimensions			PU	Pieces	€/100/Mat.
M 14	x	100	S	50	1310,00 A4-80
M 14	x	110	S	1	1640,00 A4-80
M 14	x	120	S	1	1870,00 A4-80
M 14	x	130	S	1	2210,00 A4-80
M 14	x	140	S	1	2480,00 A4-80
M 14	x	150	S	1	2700,00 A4-80
M 14	x	160	S	1	3550,00 A4-80
M 14	x	180	S	1	4050,00 A4-80
M 14	x	200	S	1	4600,00 A4-80
M 16	x	55	S	25	910,00 A4-80
M 16	x	60	S	25	910,00 A4-80
M 16	x	65	S	25	990,00 A4-80
M 16	x	70	S	25	1000,00 A4-80
M 16	x	75	S	25	1280,00 A4-80
M 16	x	80	S	25	1100,00 A4-80
M 16	x	85	S	25	1490,00 A4-80
M 16	x	90	S	25	1220,00 A4-80
M 16	x	100	S	25	1310,00 A4-80
M 16	x	110	S	25	1640,00 A4-80
M 16	x	120	S	25	1870,00 A4-80
M 16	x	130	S	1	2210,00 A4-80
M 16	x	140	S	1	2460,00 A4-80
M 16	x	150	S	1	2700,00 A4-80
M 16	x	160	S	1	3550,00 A4-80
M 16	x	170	S	1	3850,00 A4-80
M 16	x	180	S	1	4100,00 A4-80
M 16	x	190	S	1	4400,00 A4-80
M 16	x	200	S	1	4600,00 A4-80
M 16	x	220	S	1	5500,00 A4-80
M 20	x	65	S	1	1540,00 A4-80
M 20	x	70	S	1	1600,00 A4-80
M 20	x	75	S	1	1890,00 A4-80
M 20	x	80	S	1	1680,00 A4-80
M 20	x	90	S	1	1910,00 A4-80
M 20	x	100	S	1	2120,00 A4-80
M 20	x	110	S	1	2650,00 A4-80
M 20	x	120	S	1	2850,00 A4-80
M 20	x	130	S	1	3300,00 A4-80
M 20	x	140	S	1	3650,00 A4-80
M 20	x	150	S	1	3950,00 A4-80
M 20	x	160	S	1	5100,00 A4-80
M 20	x	170	S	1	5700,00 A4-80
M 20	x	180	S	1	5900,00 A4-80
M 20	x	190	S	1	6200,00 A4-80
M 20	x	200	S	1	6700,00 A4-80
M 20	x	220	S	1	7600,00 A4-80
M 24	x	80	S	1	3250,00 A4-80
M 24	x	90	S	1	3500,00 A4-80
M 24	x	100	S	1	3900,00 A4-80
M 24	x	110	S	1	4350,00 A4-80
M 24	x	120	S	1	4600,00 A4-80
M 24	x	130	S	1	5100,00 A4-80
M 24	x	150	S	1	5900,00 A4-80
M 24	x	160	S	1	7900,00 A4-80
M 24	x	170	S	1	8800,00 A4-80
M 24	x	180	S	1	9300,00 A4-80
M 24	x	190	S	1	9800,00 A4-80
M 24	x	200	S	1	9800,00 A4-80
M 24	x	220	S	1	12800,00 A4-80

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Dimensions	PU	Pieces	€/100/Mat.
DIN	00931.950		403
931	**1.4571 (A 5)**		



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 143
Brass ➔ pg. 625

DIN 931 ➔ replaced by ISO 4014

RoHS ✓ | REACh SVHC free

M 6	x	30	S	100	80,00 A5
M 6	x	35	S	100	85,00 A5
M 6	x	40	S	100	93,00 A5
M 6	x	50	S	100	120,00 A5
M 8	x	70	S	50	335,00 A5
M 8	x	80	S	50	490,00 A5
M 10	x	60	S	50	400,00 A5
M 10	x	70	S	50	475,00 A5
M 10	x	80	S	50	580,00 A5
M 10	x	90	S	50	800,00 A5
M 10	x	100	S	50	1000,00 A5
M 10	x	110	S	25	1280,00 A5
M 10	x	120	S	25	1580,00 A5
M 12	x	70	S	25	660,00 A5
M 12	x	80	S	25	770,00 A5
M 12	x	90	S	25	940,00 A5
M 12	x	100	S	25	1120,00 A5
M 12	x	110	S	25	1370,00 A5
M 12	x	120	S	25	1680,00 A5
M 16	x	55	S	1	1310,00 A5
M 16	x	60	S	1	1350,00 A5
M 16	x	65	S	1	1390,00 A5
M 16	x	70	S	1	1430,00 A5
M 16	x	80	S	1	1490,00 A5
M 16	x	90	S	1	1580,00 A5
M 16	x	100	S	1	1640,00 A5
M 16	x	110	S	1	1750,00 A5
M 16	x	120	S	1	1830,00 A5
M 16	x	130	S	1	1910,00 A5
M 16	x	140	S	1	2020,00 A5
M 16	x	150	S	1	2120,00 A5
M 16	x	160	S	1	2230,00 A5
M 20	x	65	S	1	1930,00 A5
M 20	x	70	S	1	1980,00 A5
M 20	x	80	S	1	2100,00 A5
M 20	x	85	S	1	2170,00 A5
M 20	x	90	S	1	2380,00 A5
M 20	x	100	S	1	2440,00 A5
M 20	x	110	S	1	2480,00 A5
M 20	x	120	S	1	2600,00 A5
M 20	x	130	S	1	2750,00 A5
M 20	x	140	S	1	2850,00 A5
M 20	x	150	S	1	3050,00 A5
M 20	x	160	S	1	3300,00 A5
M 20	x	170	S	1	3700,00 A5
M 20	x	180	S	1	4250,00 A5

Dimensions	PU	Pieces	€/100/Mat.
DIN	00933.920		401
933	**A 2 (- 70)***		



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 156
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

M 3	x	6*	S	100	15,50 A2
M 3	x	8*	S	100	11,10 A2
M 3	x	10*	S	100	10,60 A2
M 3	x	12*	S	100	9,90 A2
M 3	x	14*	S	100	13,10 A2
M 3	x	16*	S	100	9,90 A2
M 3	x	20*	S	100	11,10 A2
M 3	x	25*	S	100	12,00 A2
M 3	x	30*	S	100	14,40 A2
M 3	x	35*	S	100	20,70 A2
M 3	x	40*	S	100	31,00 A2
M 4	x	6*	S	200	15,50 A2
M 4	x	8*	S	200	11,10 A2
M 4	x	10*	S	200	10,60 A2
M 4	x	12*	S	200	9,90 A2
M 4	x	14*	S	100	13,10 A2
M 4	x	16*	S	200	8,10 A2
M 4	x	18*	S	100	10,60 A2
M 4	x	20*	S	200	8,80 A2
M 4	x	22*	S	100	12,20 A2
M 4	x	25*	S	200	10,10 A2
M 4	x	30*	S	200	11,30 A2
M 4	x	35*	S	200	19,40 A2
M 4	x	40*	S	200	23,10 A2
M 4	x	45*	S	100	29,50 A2
M 4	x	50*	S	100	35,00 A2
M 4	x	60*	S	100	107,00 A2
M 5	x	6*	S	100	33,00 A2
M 5	x	8*	S	100	11,10 A2
M 5	x	10	S	500	10,60 A2
M 5	x	10	K	100	14,60 A2
M 5	x	12	S	500	9,90 A2
M 5	x	12	K	100	13,80 A2
M 5	x	14	S	500	13,10 A2
M 5	x	14	K	100	17,80 A2
M 5	x	16	S	500	8,10 A2
M 5	x	16	K	100	12,00 A2
M 5	x	18	S	500	10,60 A2
M 5	x	18	K	100	15,40 A2
M 5	x	20	S	500	8,80 A2
M 5	x	20	K	100	12,60 A2
M 5	x	22	S	200	12,20 A2
M 5	x	25	S	200	11,60 A2
M 5	x	25	K	100	15,60 A2
M 5	x	30	S	200	13,00 A2
M 5	x	30	K	100	16,90 A2
M 5	x	35	S	200	15,30 A2
M 5	x	40	S	200	22,00 A2
M 5	x	45	S	200	29,50 A2
M 5	x	50	S	200	35,00 A2
M 5	x	55	S	200	41,50 A2
M 5	x	60	S	200	44,50 A2

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 70	S	100	117,00 A2
M 5 x 80	S	100	395,00 A2
M 6 x 6*	S	100	127,00 A2
M 6 x 8*	S	100	15,50 A2
M 6 x 10	S	500	13,10 A2
M 6 x 10	K	100	17,00 A2
M 6 x 12	S	500	13,10 A2
M 6 x 12	K	100	17,00 A2
M 6 x 14	S	500	15,60 A2
M 6 x 14	K	100	20,30 A2
M 6 x 16	S	200	9,30 A2
M 6 x 16	K	100	13,30 A2
M 6 x 18	S	200	13,30 A2
M 6 x 20	S	200	10,60 A2
M 6 x 20	K	100	14,60 A2
M 6 x 22	S	200	14,80 A2
M 6 x 25	S	200	11,90 A2
M 6 x 25	K	100	15,80 A2
M 6 x 30	S	200	13,80 A2
M 6 x 30	K	100	17,60 A2
M 6 x 35	S	200	15,00 A2
M 6 x 35	K	100	19,00 A2
M 6 x 40	S	200	16,80 A2
M 6 x 40	K	100	20,70 A2
M 6 x 45	S	100	26,50 A2
M 6 x 50	S	100	28,50 A2
M 6 x 55	S	100	36,50 A2
M 6 x 60	S	100	41,50 A2
M 6 x 65	S	100	57,00 A2
M 6 x 70	S	100	57,00 A2
M 6 x 75	S	100	85,00 A2
M 6 x 80	S	100	68,00 A2
M 6 x 90	S	100	97,00 A2
M 6 x 100	S	100	112,00 A2
M 6 x 110	S	100	435,00 A2
M 6 x 120	S	100	510,00 A2
M 8 x 8*	S	100	147,00 A2
M 8 x 10	S	200	30,50 A2
M 8 x 10	K	100	34,50 A2
M 8 x 12	S	200	28,50 A2
M 8 x 12	K	100	32,50 A2
M 8 x 14	S	200	34,00 A2
M 8 x 16	S	200	19,40 A2
M 8 x 16	K	100	23,30 A2
M 8 x 18	S	200	24,10 A2
M 8 x 20	S	200	19,40 A2
M 8 x 20	K	100	24,30 A2
M 8 x 22	S	200	29,00 A2
M 8 x 25	S	200	22,90 A2
M 8 x 25	K	100	27,00 A2
M 8 x 30	S	200	24,30 A2
M 8 x 30	K	100	28,50 A2
M 8 x 35	S	200	30,50 A2
M 8 x 35	K	100	40,00 A2
M 8 x 40	S	200	29,00 A2
M 8 x 40	K	100	33,00 A2
M 8 x 45	S	200	32,00 A2
M 8 x 45	K	100	36,00 A2
M 8 x 50	S	200	34,00 A2
M 8 x 50	K	100	38,50 A2
M 8 x 55	S	100	52,00 A2
M 8 x 60	S	200	55,00 A2
M 8 x 60	K	100	59,00 A2
M 8 x 65	S	50	68,00 A2
M 8 x 70	S	50	81,00 A2
M 8 x 75	S	50	127,00 A2
M 8 x 80	S	50	102,00 A2
M 8 x 85	S	50	163,00 A2
M 8 x 90	S	50	130,00 A2
M 8 x 100	S	50	147,00 A2
M 8 x 110	S	50	220,00 A2
M 8 x 120	S	50	260,00 A2
M 8 x 130	S	50	325,00 A2
M 8 x 140	S	50	390,00 A2
M 8 x 150	S	50	455,00 A2
M 8 x 160	S	50	530,00 A2
M 8 x 170	S	50	650,00 A2
M 8 x 180	S	50	650,00 A2
M 8 x 190	S	50	1240,00 A2
M 8 x 200	S	50	1630,00 A2
M 10 x 10*	S	100	211,00 A2
M 10 x 12	S	100	113,00 A2
M 10 x 14	S	100	71,00 A2
M 10 x 16	S	100	57,00 A2
M 10 x 18	S	100	63,00 A2
M 10 x 20	S	100	41,50 A2
M 10 x 22	S	100	49,00 A2
M 10 x 25	S	100	40,00 A2
M 10 x 30	S	100	44,00 A2
M 10 x 35	S	100	48,50 A2
M 10 x 40	S	100	53,00 A2
M 10 x 45	S	100	57,00 A2
M 10 x 50	S	100	60,00 A2
M 10 x 55	S	50	85,00 A2
M 10 x 60	S	50	89,00 A2
M 10 x 65	S	50	100,00 A2
M 10 x 70	S	50	106,00 A2
M 10 x 75	S	50	157,00 A2
M 10 x 80	S	50	126,00 A2
M 10 x 85	S	50	218,00 A2
M 10 x 90	S	50	170,00 A2
M 10 x 100	S	50	195,00 A2
M 10 x 110	S	50	325,00 A2
M 10 x 120	S	50	355,00 A2
M 10 x 130	S	1	445,00 A2
M 10 x 140	S	1	530,00 A2
M 10 x 150	S	1	600,00 A2
M 10 x 160	S	1	680,00 A2
M 10 x 170	S	1	840,00 A2
M 10 x 180	S	1	840,00 A2
M 10 x 190	S	1	1320,00 A2
M 10 x 200	S	1	1450,00 A2
M 12 x 16	S	100	89,00 A2
M 12 x 20	S	100	80,00 A2
M 12 x 22	S	100	95,00 A2
M 12 x 25	S	100	59,00 A2
M 12 x 30	S	100	63,00 A2
M 12 x 35	S	100	69,00 A2
M 12 x 40	S	50	75,00 A2
M 12 x 45	S	50	80,00 A2
M 12 x 50	S	50	85,00 A2
M 12 x 55	S	50	91,00 A2
M 12 x 60	S	50	96,00 A2
M 12 x 65	S	50	138,00 A2
M 12 x 70	S	50	147,00 A2
M 12 x 75	S	50	220,00 A2
M 12 x 80	S	50	177,00 A2
M 12 x 85	S	50	315,00 A2
M 12 x 90	S	50	245,00 A2
M 12 x 95	S	50	340,00 A2
M 12 x 100	S	50	295,00 A2
M 12 x 110	S	25	355,00 A2
M 12 x 120	S	25	430,00 A2
M 12 x 130	S	1	530,00 A2
M 12 x 140	S	1	620,00 A2
M 12 x 150	S	1	710,00 A2
M 12 x 160	S	1	800,00 A2
M 12 x 170	S	1	980,00 A2
M 12 x 180	S	1	980,00 A2
M 12 x 190	S	1	1600,00 A2
M 12 x 200	S	1	1790,00 A2
M 14 x 20	S	50	218,00 A2
M 14 x 25	S	50	181,00 A2
M 14 x 30	S	50	132,00 A2
M 14 x 35	S	50	132,00 A2
M 14 x 40	S	50	141,00 A2
M 14 x 45	S	50	151,00 A2
M 14 x 50	S	50	160,00 A2
M 14 x 55	S	50	171,00 A2
M 14 x 60	S	50	182,00 A2
M 14 x 65	S	50	195,00 A2
M 14 x 70	S	50	203,00 A2
M 14 x 75	S	50	300,00 A2
M 14 x 80	S	50	241,00 A2
M 14 x 90	S	50	405,00 A2
M 14 x 100	S	50	465,00 A2
M 14 x 110	S	25	580,00 A2
M 14 x 120	S	25	650,00 A2
M 14 x 130	S	25	770,00 A2
M 14 x 140	S	25	870,00 A2
M 14 x 150	S	25	950,00 A2
M 16 x 20	S	50	218,00 A2
M 16 x 25	S	50	181,00 A2
M 16 x 30	S	50	132,00 A2
M 16 x 35	S	50	132,00 A2
M 16 x 40	S	50	141,00 A2
M 16 x 45	S	50	151,00 A2
M 16 x 50	S	50	160,00 A2
M 16 x 55	S	25	171,00 A2
M 16 x 60	S	25	182,00 A2
M 16 x 65	S	25	195,00 A2
M 16 x 70	S	25	203,00 A2
M 16 x 75	S	25	241,00 A2
M 16 x 80	S	25	241,00 A2
M 16 x 85	S	25	495,00 A2
M 16 x 90	S	25	405,00 A2
M 16 x 100	S	25	465,00 A2
M 16 x 110	S	25	580,00 A2
M 16 x 120	S	25	650,00 A2
M 16 x 130	S	25	770,00 A2
M 16 x 140	S	25	870,00 A2
M 16 x 150	S	25	950,00 A2
M 16 x 160	S	25	1690,00 A2
M 16 x 170	S	25	1740,00 A2
M 16 x 180	S	25	1740,00 A2
M 16 x 190	S	10	1920,00 A2
M 16 x 200	S	10	1920,00 A2
M 18 x 30	S	25	500,00 A2
M 18 x 35	S	25	405,00 A2
M 18 x 40	S	25	375,00 A2
M 18 x 45	S	25	400,00 A2
M 18 x 50	S	25	425,00 A2
M 18 x 55	S	25	460,00 A2
M 18 x 60	S	25	470,00 A2
M 18 x 65	S	25	520,00 A2
M 18 x 70	S	25	540,00 A2
M 18 x 75	S	25	620,00 A2
M 18 x 80	S	25	620,00 A2
M 18 x 90	S	25	1010,00 A2
M 18 x 100	S	25	1140,00 A2
M 18 x 110	S	1	1300,00 A2
M 18 x 120	S	1	1440,00 A2
M 18 x 130	S	1	1740,00 A2
M 18 x 140	S	1	1890,00 A2
M 18 x 150	S	1	2120,00 A2
M 20 x 30	S	25	330,00 A2
M 20 x 35	S	25	270,00 A2
M 20 x 40	S	25	248,00 A2
M 20 x 45	S	25	265,00 A2
M 20 x 50	S	25	285,00 A2
M 20 x 55	S	25	310,00 A2
M 20 x 60	S	25	315,00 A2
M 20 x 65	S	25	350,00 A2
M 20 x 70	S	25	360,00 A2
M 20 x 75	S	25	410,00 A2
M 20 x 80	S	25	410,00 A2
M 20 x 85	S	25	840,00 A2
M 20 x 90	S	25	670,00 A2
M 20 x 95	S	10	670,00 A2
M 20 x 100	S	10	760,00 A2
M 20 x 110	S	10	870,00 A2
M 20 x 120	S	10	960,00 A2
M 20 x 130	S	10	1160,00 A2
M 20 x 140	S	10	1260,00 A2
M 20 x 150	S	10	1370,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	160	S	10	2130,00 A 2
M 20	x	170	S	10	2210,00 A 2
M 20	x	180	S	10	2210,00 A 2
M 20	x	200	S	10	2410,00 A 2
M 20	x	220*	S	10	2950,00 A 2
M 22	x	30	S	25	1360,00 A 2
M 22	x	35	S	25	1360,00 A 2
M 22	x	40	S	25	1360,00 A 2
M 22	x	50	S	25	840,00 A 2
M 22	x	55	S	1	880,00 A 2
M 22	x	60	S	1	920,00 A 2
M 22	x	65	S	1	990,00 A 2
M 22	x	70	S	1	990,00 A 2
M 22	x	75	S	1	1070,00 A 2
M 22	x	80	S	1	1070,00 A 2
M 22	x	90	S	1	1320,00 A 2
M 22	x	100	S	1	1450,00 A 2
M 22	x	110	S	1	2330,00 A 2
M 22	x	120	S	1	2380,00 A 2
M 22	x	130	S	1	2430,00 A 2
M 22	x	140	S	1	2470,00 A 2
M 24	x	40	S	20	1070,00 A 2
M 24	x	45	S	20	1070,00 A 2
M 24	x	50	S	20	570,00 A 2
M 24	x	55	S	10	590,00 A 2
M 24	x	60	S	10	610,00 A 2
M 24	x	65	S	10	640,00 A 2
M 24	x	70	S	10	670,00 A 2
M 24	x	80	S	10	720,00 A 2
M 24	x	90	S	1	1010,00 A 2
M 24	x	100	S	1	1220,00 A 2
M 24	x	110	S	1	1430,00 A 2
M 24	x	120	S	1	1580,00 A 2
M 24	x	130	S	1	1710,00 A 2
M 24	x	140	S	1	1890,00 A 2
M 24	x	150	S	1	2040,00 A 2
M 24	x	160	S	1	2950,00 A 2
M 24	x	170	S	1	3050,00 A 2
M 24	x	180	S	1	3050,00 A 2
M 24	x	190	S	1	3150,00 A 2
M 24	x	200	S	1	3150,00 A 2
M 27	x	50	S	1	1060,00 A 2
M 27	x	55	S	1	1160,00 A 2
M 27	x	60	S	1	1170,00 A 2
M 27	x	65	S	1	1270,00 A 2
M 27	x	70	S	1	1270,00 A 2
M 27	x	80	S	1	1370,00 A 2
M 27	x	90	S	1	1470,00 A 2
M 27	x	100	S	1	1560,00 A 2
M 27	x	110	S	1	1780,00 A 2
M 27	x	120	S	1	1890,00 A 2
M 27	x	130	S	1	2040,00 A 2
M 27	x	140	S	1	2150,00 A 2
M 27	x	150	S	1	2280,00 A 2
M 30	x	60*	S	1	1560,00 A 2
M 30	x	65*	S	1	1690,00 A 2
M 30	x	70*	S	1	1760,00 A 2
M 30	x	80*	S	1	1870,00 A 2
M 30	x	90*	S	1	2040,00 A 2
M 30	x	100*	S	1	2220,00 A 2
M 30	x	110*	S	1	2440,00 A 2
M 30	x	120*	S	1	2600,00 A 2
M 30	x	130*	S	1	2850,00 A 2
M 30	x	140*	S	1	3050,00 A 2
M 30	x	150*	S	1	3200,00 A 2
M 33	x	70*	S	1	2280,00 A 2
M 33	x	80*	S	1	2470,00 A 2
M 33	x	90*	S	1	2650,00 A 2
M 33	x	100*	S	1	2850,00 A 2
M 33	x	110*	S	1	3150,00 A 2
M 33	x	120*	S	1	3350,00 A 2
M 33	x	130*	S	1	3500,00 A 2
M 33	x	140*	S	1	3700,00 A 2
M 33	x	150*	S	1	3900,00 A 2
M 36	x	80*	S	1	3200,00 A 2
M 36	x	90*	S	1	3400,00 A 2
M 36	x	100*	S	1	3650,00 A 2
M 36	x	110*	S	1	4050,00 A 2
M 36	x	120*	S	1	4250,00 A 2
M 36	x	130*	S	1	4300,00 A 2
M 36	x	140*	S	1	4550,00 A 2
M 36	x	150*	S	1	4750,00 A 2

DIN 933 — 00933.924 — 404 — A 2 — Sz



Hexagon head screws, Sz = slotted head as per DIN 962

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 164

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6	S	100	46,00 A 2
M 4	x	8	S	100	41,00 A 2
M 4	x	10	S	100	40,50 A 2
M 4	x	12	S	100	39,50 A 2
M 5	x	8	S	100	45,50 A 2
M 5	x	10	S	100	43,50 A 2
M 5	x	12	S	100	43,00 A 2
M 5	x	16	S	100	41,00 A 2
M 5	x	20	S	100	43,00 A 2
M 5	x	25	S	100	46,00 A 2
M 5	x	30	S	100	49,50 A 2
M 6	x	10	S	100	48,50 A 2
M 6	x	12	S	100	46,00 A 2
M 6	x	16	S	100	44,50 A 2
M 6	x	20	S	100	47,50 A 2
M 6	x	25	S	100	52,00 A 2
M 6	x	30	S	100	56,00 A 2
M 6	x	35	S	100	60,00 A 2
M 6	x	40	S	100	65,00 A 2
M 8	x	16	S	100	99,00 A 2
M 8	x	20	S	100	99,00 A 2
M 8	x	25	S	100	105,00 A 2
M 8	x	30	S	100	108,00 A 2
M 8	x	35	S	100	112,00 A 2
M 8	x	40	S	100	118,00 A 2

RKP® REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

DIN 933 — 00933.940 — 401 — A 4 (- 70)*



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 156
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	5*	S	100	22,50 A 4
M 3	x	6*	S	100	18,20 A 4
M 3	x	8*	S	100	15,00 A 4
M 3	x	10*	S	100	14,50 A 4
M 3	x	12*	S	100	13,60 A 4
M 3	x	16*	S	100	13,60 A 4
M 3	x	18*	S	100	18,70 A 4
M 3	x	20*	S	100	14,80 A 4
M 3	x	25*	S	100	16,60 A 4
M 3	x	30*	S	100	19,20 A 4
M 3	x	35*	S	100	30,00 A 4
M 3	x	40*	S	100	42,00 A 4
M 4	x	6*	S	200	18,20 A 4
M 4	x	8*	S	200	15,00 A 4
M 4	x	10*	S	200	14,50 A 4
M 4	x	12*	S	200	13,60 A 4
M 4	x	14*	S	200	16,20 A 4
M 4	x	16*	S	200	11,10 A 4
M 4	x	18*	S	200	14,60 A 4
M 4	x	20*	S	200	11,70 A 4
M 4	x	25*	S	200	14,30 A 4
M 4	x	30*	S	200	16,20 A 4
M 4	x	35*	S	200	28,00 A 4
M 4	x	40*	S	200	36,50 A 4
M 4	x	45*	S	200	43,00 A 4
M 4	x	50*	S	200	46,00 A 4
M 4	x	60*	S	100	141,00 A 4
M 5	x	6*	S	100	46,00 A 4
M 5	x	8*	S	100	15,00 A 4
M 5	x	10	S	500	14,50 A 4
M 5	x	10	K	100	19,80 A 4
M 5	x	12	S	500	13,60 A 4
M 5	x	12	K	100	18,80 A 4
M 5	x	14	S	500	16,20 A 4
M 5	x	14	K	100	21,40 A 4
M 5	x	16	S	500	12,10 A 4
M 5	x	16	K	100	17,40 A 4
M 5	x	18	S	500	16,20 A 4
M 5	x	18	K	100	21,40 A 4
M 5	x	20	S	500	13,40 A 4
M 5	x	20	K	100	18,60 A 4
M 5	x	22	S	200	19,10 A 4
M 5	x	25	S	200	15,40 A 4
M 5	x	30	S	200	17,90 A 4
M 5	x	35	S	200	26,00 A 4
M 5	x	40	S	200	32,50 A 4
M 5	x	45	S	200	43,00 A 4
M 5	x	50	S	200	46,00 A 4
M 5	x	55	S	200	63,00 A 4
M 5	x	60	S	200	67,00 A 4
M 5	x	70	S	100	153,00 A 4
M 5	x	80	S	100	470,00 A 4

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 8*	S	100	23,30 A4
M 6 x 10	S	500	21,20 A4
M 6 x 10	K	100	26,50 A4
M 6 x 12	S	500	19,60 A4
M 6 x 12	K	100	24,80 A4
M 6 x 14	S	500	22,70 A4
M 6 x 14	K	100	28,00 A4
M 6 x 16	S	200	15,40 A4
M 6 x 20	S	200	16,60 A4
M 6 x 22	S	200	22,90 A4
M 6 x 25	S	200	18,30 A4
M 6 x 30	S	200	20,90 A4
M 6 x 35	S	200	24,60 A4
M 6 x 40	S	200	28,00 A4
M 6 x 45	S	100	37,50 A4
M 6 x 50	S	100	43,50 A4
M 6 x 55	S	100	58,00 A4
M 6 x 60	S	100	63,00 A4
M 6 x 65	S	50	99,00 A4
M 6 x 70	S	50	99,00 A4
M 6 x 75	S	50	149,00 A4
M 6 x 80	S	50	120,00 A4
M 6 x 90	S	50	168,00 A4
M 6 x 100	S	50	192,00 A4
M 6 x 110	S	50	580,00 A4
M 6 x 120	S	50	700,00 A4
M 8 x 8*	S	100	91,00 A4
M 8 x 10	S	200	46,00 A4
M 8 x 12	S	200	45,00 A4
M 8 x 14	S	200	54,00 A4
M 8 x 16	S	200	35,50 A4
M 8 x 18	S	200	45,50 A4
M 8 x 20	S	200	35,50 A4
M 8 x 22	S	200	45,50 A4
M 8 x 25	S	200	36,00 A4
M 8 x 30	S	200	38,00 A4
M 8 x 35	S	200	42,50 A4
M 8 x 40	S	100	44,50 A4
M 8 x 45	S	100	53,00 A4
M 8 x 50	S	100	57,00 A4
M 8 x 55	S	100	74,00 A4
M 8 x 60	S	100	80,00 A4
M 8 x 65	S	50	108,00 A4
M 8 x 70	S	50	114,00 A4
M 8 x 75	S	50	174,00 A4
M 8 x 80	S	50	140,00 A4
M 8 x 90	S	50	200,00 A4
M 8 x 100	S	50	227,00 A4
M 8 x 110	S	1	300,00 A4
M 8 x 120	S	1	345,00 A4
M 8 x 130	S	1	445,00 A4
M 8 x 140	S	1	540,00 A4
M 8 x 150	S	1	640,00 A4
M 8 x 160	S	1	730,00 A4
M 8 x 170	S	1	920,00 A4
M 8 x 180	S	1	920,00 A4
M 8 x 200	S	1	1380,00 A4
M 10 x 10*	S	100	244,00 A4
M 10 x 12	S	100	144,00 A4
M 10 x 14	S	100	104,00 A4
M 10 x 16	S	100	84,00 A4
M 10 x 20	S	100	65,00 A4
M 10 x 22	S	100	79,00 A4
M 10 x 25	S	100	63,00 A4
M 10 x 30	S	100	67,00 A4
M 10 x 35	S	100	70,00 A4
M 10 x 40	S	100	77,00 A4
M 10 x 45	S	100	84,00 A4
M 10 x 50	S	100	92,00 A4
M 10 x 55	S	50	118,00 A4
M 10 x 60	S	50	123,00 A4
M 10 x 65	S	50	149,00 A4
M 10 x 70	S	50	157,00 A4
M 10 x 75	S	50	242,00 A4
M 10 x 80	S	50	193,00 A4

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 85	S	50	310,00 A4
M 10 x 90	S	50	285,00 A4
M 10 x 95	S	50	475,00 A4
M 10 x 100	S	50	330,00 A4
M 10 x 110	S	50	460,00 A4
M 10 x 120	S	50	570,00 A4
M 10 x 130	S	1	740,00 A4
M 10 x 140	S	1	870,00 A4
M 10 x 150	S	1	1020,00 A4
M 10 x 160	S	1	1150,00 A4
M 10 x 170	S	1	1320,00 A4
M 10 x 180	S	1	1420,00 A4
M 10 x 200	S	1	1830,00 A4
M 12 x 16	S	100	145,00 A4
M 12 x 18	S	100	145,00 A4
M 12 x 20	S	100	117,00 A4
M 12 x 22	S	100	138,00 A4
M 12 x 25	S	100	98,00 A4
M 12 x 30	S	100	98,00 A4
M 12 x 35	S	100	106,00 A4
M 12 x 40	S	50	109,00 A4
M 12 x 45	S	50	117,00 A4
M 12 x 50	S	50	126,00 A4
M 12 x 55	S	50	152,00 A4
M 12 x 60	S	50	154,00 A4
M 12 x 65	S	50	198,00 A4
M 12 x 70	S	50	205,00 A4
M 12 x 75	S	50	295,00 A4
M 12 x 80	S	50	235,00 A4
M 12 x 85	S	50	380,00 A4
M 12 x 90	S	50	295,00 A4
M 12 x 95	S	1	630,00 A4
M 12 x 100	S	1	345,00 A4
M 12 x 110	S	1	500,00 A4
M 12 x 120	S	1	630,00 A4
M 12 x 130	S	1	810,00 A4
M 12 x 140	S	1	980,00 A4
M 12 x 150	S	1	1140,00 A4
M 12 x 160	S	1	1300,00 A4
M 12 x 170	S	1	1570,00 A4
M 12 x 180	S	1	1620,00 A4
M 12 x 190	S	1	2040,00 A4
M 12 x 200	S	1	2360,00 A4
M 14 x 20	S	50	315,00 A4
M 14 x 25	S	50	290,00 A4
M 14 x 30	S	50	248,00 A4
M 14 x 35	S	50	248,00 A4
M 14 x 40	S	50	248,00 A4
M 14 x 45	S	50	255,00 A4
M 14 x 50	S	50	270,00 A4
M 14 x 55	S	50	300,00 A4
M 14 x 60	S	50	305,00 A4
M 14 x 65	S	50	355,00 A4
M 14 x 70	S	50	365,00 A4
M 14 x 75	S	50	500,00 A4
M 14 x 80	S	1	410,00 A4
M 14 x 100	S	1	690,00 A4
M 14 x 110	S	1	890,00 A4
M 14 x 120	S	1	1010,00 A4
M 14 x 130	S	1	1150,00 A4
M 14 x 140	S	1	1270,00 A4
M 14 x 150	S	1	1410,00 A4
M 14 x 160*	S	1	2650,00 A4
M 16 x 20	S	50	315,00 A4
M 16 x 25	S	50	290,00 A4
M 16 x 30	S	50	248,00 A4
M 16 x 35	S	50	248,00 A4
M 16 x 40	S	50	248,00 A4
M 16 x 45	S	50	255,00 A4
M 16 x 50	S	50	270,00 A4
M 16 x 55	S	25	300,00 A4
M 16 x 60	S	25	305,00 A4
M 16 x 65	S	25	355,00 A4
M 16 x 70	S	25	365,00 A4
M 16 x 75	S	25	410,00 A4

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 80	S	25	410,00 A4
M 16 x 90	S	25	590,00 A4
M 16 x 100	S	25	690,00 A4
M 16 x 110	S	1	890,00 A4
M 16 x 120	S	1	1010,00 A4
M 16 x 130	S	1	1150,00 A4
M 16 x 140	S	1	1270,00 A4
M 16 x 150	S	1	1410,00 A4
M 16 x 160	S	1	2600,00 A4
M 16 x 170	S	1	2700,00 A4
M 16 x 180	S	1	2700,00 A4
M 16 x 190	S	1	2850,00 A4
M 16 x 200	S	1	2850,00 A4
M 18 x 30	S	1	790,00 A4
M 18 x 35	S	1	710,00 A4
M 18 x 40	S	1	710,00 A4
M 18 x 45	S	1	710,00 A4
M 18 x 50	S	1	740,00 A4
M 18 x 55	S	1	790,00 A4
M 18 x 60	S	1	800,00 A4
M 18 x 65	S	1	890,00 A4
M 18 x 70	S	1	920,00 A4
M 18 x 75	S	1	1020,00 A4
M 18 x 80	S	1	1020,00 A4
M 18 x 90	S	1	1470,00 A4
M 18 x 100	S	1	1730,00 A4
M 18 x 110	S	1	2100,00 A4
M 18 x 120	S	1	2290,00 A4
M 18 x 130	S	1	2700,00 A4
M 18 x 150	S	1	3200,00 A4
M 20 x 20*	S	25	710,00 A4
M 20 x 30	S	25	530,00 A4
M 20 x 35	S	25	470,00 A4
M 20 x 40	S	25	470,00 A4
M 20 x 45	S	25	470,00 A4
M 20 x 50	S	25	490,00 A4
M 20 x 55	S	25	530,00 A4
M 20 x 60	S	25	540,00 A4
M 20 x 65	S	25	600,00 A4
M 20 x 70	S	25	610,00 A4
M 20 x 75	S	25	680,00 A4
M 20 x 80	S	25	680,00 A4
M 20 x 90	S	1	980,00 A4
M 20 x 100	S	1	1150,00 A4
M 20 x 110	S	1	1400,00 A4
M 20 x 120	S	1	1530,00 A4
M 20 x 130	S	1	1790,00 A4
M 20 x 140	S	1	1920,00 A4
M 20 x 150	S	1	2120,00 A4
M 20 x 160	S	1	3850,00 A4
M 20 x 170	S	1	3900,00 A4
M 20 x 180	S	1	3900,00 A4
M 20 x 190	S	1	4150,00 A4
M 20 x 200	S	1	4150,00 A4
M 22 x 40	S	1	2260,00 A4
M 22 x 45	S	1	2260,00 A4
M 22 x 50	S	1	1840,00 A4
M 22 x 55	S	1	1880,00 A4
M 22 x 60	S	1	1930,00 A4
M 22 x 65	S	1	1990,00 A4
M 22 x 70	S	1	2100,00 A4
M 22 x 75	S	1	2280,00 A4
M 22 x 80	S	1	2280,00 A4
M 22 x 90	S	1	2950,00 A4
M 22 x 100	S	1	3200,00 A4
M 22 x 110	S	1	3950,00 A4
M 22 x 120	S	1	4300,00 A4
M 22 x 130	S	1	4700,00 A4
M 22 x 140	S	1	5100,00 A4
M 24 x 30	S	1	2020,00 A4
M 24 x 35	S	1	2020,00 A4
M 24 x 40	S	1	1690,00 A4
M 24 x 45	S	1	1690,00 A4
M 24 x 50	S	1	1150,00 A4
M 24 x 55	S	1	1170,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	60	S	1	1200,00 A4
M 24	x	65	S	1	1250,00 A4
M 24	x	70	S	1	1310,00 A4
M 24	x	75	S	1	1430,00 A4
M 24	x	80	S	1	1430,00 A4
M 24	x	90	S	1	1950,00 A4
M 24	x	100	S	1	2120,00 A4
M 24	x	110	S	1	2450,00 A4
M 24	x	120	S	1	2700,00 A4
M 24	x	130	S	1	2950,00 A4
M 24	x	140	S	1	3150,00 A4
M 24	x	150	S	1	3450,00 A4
M 24	x	160	S	1	5200,00 A4
M 24	x	170	S	1	5300,00 A4
M 24	x	180	S	1	5300,00 A4
M 24	x	190	S	1	5400,00 A4
M 24	x	200	S	1	5400,00 A4
M 27	x	50	S	1	2100,00 A4
M 27	x	55	S	1	2220,00 A4
M 27	x	60	S	1	2320,00 A4
M 27	x	65	S	1	2420,00 A4
M 27	x	70	S	1	2550,00 A4
M 27	x	80	S	1	2750,00 A4
M 27	x	90	S	1	3000,00 A4
M 27	x	100	S	1	3200,00 A4
M 27	x	110	S	1	3600,00 A4
M 27	x	120	S	1	3800,00 A4
M 27	x	130	S	1	3950,00 A4
M 27	x	140	S	1	4150,00 A4
M 27	x	150	S	1	4300,00 A4
M 30	x	40*	S	1	5100,00 A4
M 30	x	50*	S	1	3700,00 A4
M 30	x	60*	S	1	2900,00 A4
M 30	x	65*	S	1	3000,00 A4
M 30	x	70*	S	1	3100,00 A4
M 30	x	80*	S	1	3350,00 A4
M 30	x	90*	S	1	3600,00 A4
M 30	x	100*	S	1	4000,00 A4
M 30	x	110*	S	1	4550,00 A4
M 30	x	120*	S	1	4850,00 A4
M 30	x	130*	S	1	5100,00 A4
M 30	x	140*	S	1	5200,00 A4
M 30	x	150*	S	1	5300,00 A4
M 33	x	70*	S	1	4200,00 A4
M 33	x	80*	S	1	4550,00 A4
M 33	x	90*	S	1	4850,00 A4
M 33	x	120*	S	1	6100,00 A4
M 33	x	130*	S	1	6300,00 A4
M 33	x	140*	S	1	6400,00 A4
M 33	x	150*	S	1	6500,00 A4
M 36	x	80*	S	1	5600,00 A4
M 36	x	90*	S	1	6000,00 A4
M 36	x	100*	S	1	6800,00 A4
M 36	x	110*	S	1	7100,00 A4
M 36	x	120*	S	1	7400,00 A4
M 36	x	130*	S	1	7600,00 A4
M 36	x	140*	S	1	7800,00 A4
M 36	x	150*	S	1	7900,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	00933.948		403

933 **A 4 - 80**



Hexagon head screws

high strength (strongly cold worked)

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 156
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	10	S	500	36,50 A4-80
M 5	x	16	S	500	30,50 A4-80
M 5	x	20	S	500	40,50 A4-80
M 5	x	25	S	200	33,50 A4-80
M 5	x	30	S	200	38,50 A4-80
M 5	x	35	S	200	45,00 A4-80
M 5	x	40	S	200	66,00 A4-80
M 5	x	50	S	200	81,00 A4-80
M 5	x	60	S	200	116,00 A4-80
M 5	x	70	S	100	168,00 A4-80
M 6	x	10	S	100	54,00 A4-80
M 6	x	12	S	100	49,00 A4-80
M 6	x	16	S	100	38,50 A4-80
M 6	x	20	S	100	42,00 A4-80
M 6	x	25	S	100	46,00 A4-80
M 6	x	30	S	100	53,00 A4-80
M 6	x	35	S	100	62,00 A4-80
M 6	x	40	S	100	71,00 A4-80
M 6	x	45	S	100	95,00 A4-80
M 6	x	50	S	100	110,00 A4-80
M 6	x	55	S	100	143,00 A4-80
M 6	x	60	S	100	154,00 A4-80
M 6	x	70	S	50	248,00 A4-80
M 6	x	80	S	50	305,00 A4-80
M 6	x	90	S	50	420,00 A4-80
M 6	x	100	S	50	485,00 A4-80
M 6	x	110	S	50	560,00 A4-80
M 6	x	120	S	50	630,00 A4-80
M 8	x	10	S	100	116,00 A4-80
M 8	x	12	S	100	114,00 A4-80
M 8	x	16	S	100	91,00 A4-80
M 8	x	20	S	100	91,00 A4-80
M 8	x	25	S	100	91,00 A4-80
M 8	x	30	S	100	96,00 A4-80
M 8	x	35	S	100	107,00 A4-80
M 8	x	40	S	100	114,00 A4-80
M 8	x	45	S	100	133,00 A4-80
M 8	x	50	S	100	143,00 A4-80
M 8	x	55	S	100	187,00 A4-80
M 8	x	60	S	100	198,00 A4-80
M 8	x	65	S	100	242,00 A4-80
M 8	x	70	S	50	265,00 A4-80
M 8	x	80	S	50	310,00 A4-80
M 8	x	90	S	50	320,00 A4-80
M 8	x	100	S	50	385,00 A4-80
M 8	x	110	S	1	460,00 A4-80
M 8	x	120	S	1	560,00 A4-80
M 8	x	130	S	1	670,00 A4-80
M 8	x	140	S	1	800,00 A4-80
M 8	x	150	S	1	960,00 A4-80

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	160	S	1	1160,00 A4-80
M 10	x	16	S	100	208,00 A4-80
M 10	x	20	S	100	162,00 A4-80
M 10	x	25	S	100	158,00 A4-80
M 10	x	30	S	100	168,00 A4-80
M 10	x	35	S	100	177,00 A4-80
M 10	x	40	S	100	191,00 A4-80
M 10	x	45	S	100	210,00 A4-80
M 10	x	50	S	100	229,00 A4-80
M 10	x	55	S	100	295,00 A4-80
M 10	x	60	S	100	310,00 A4-80
M 10	x	65	S	100	375,00 A4-80
M 10	x	70	S	100	395,00 A4-80
M 10	x	75	S	50	620,00 A4-80
M 10	x	80	S	50	485,00 A4-80
M 10	x	90	S	50	630,00 A4-80
M 10	x	100	S	50	1000,00 A4-80
M 10	x	110	S	50	1160,00 A4-80
M 10	x	120	S	50	1430,00 A4-80
M 10	x	130	S	1	1850,00 A4-80
M 10	x	140	S	1	2190,00 A4-80
M 10	x	150	S	1	2550,00 A4-80
M 10	x	160	S	1	2900,00 A4-80
M 10	x	170	S	1	3350,00 A4-80
M 10	x	180	S	1	3550,00 A4-80
M 10	x	190	S	1	4100,00 A4-80
M 10	x	200	S	1	4600,00 A4-80
M 12	x	20	S	100	295,00 A4-80
M 12	x	25	S	100	246,00 A4-80
M 12	x	30	S	100	246,00 A4-80
M 12	x	35	S	100	265,00 A4-80
M 12	x	40	S	100	275,00 A4-80
M 12	x	45	S	50	295,00 A4-80
M 12	x	50	S	50	315,00 A4-80
M 12	x	55	S	50	380,00 A4-80
M 12	x	60	S	50	385,00 A4-80
M 12	x	65	S	50	495,00 A4-80
M 12	x	70	S	50	510,00 A4-80
M 12	x	75	S	50	750,00 A4-80
M 12	x	80	S	50	600,00 A4-80
M 12	x	90	S	50	810,00 A4-80
M 12	x	100	S	1	870,00 A4-80
M 12	x	110	S	1	1520,00 A4-80
M 12	x	120	S	1	1560,00 A4-80
M 12	x	130	S	1	1520,00 A4-80
M 12	x	140	S	1	2440,00 A4-80
M 12	x	150	S	1	2850,00 A4-80
M 12	x	160	S	1	3300,00 A4-80
M 12	x	170	S	1	3950,00 A4-80
M 12	x	180	S	1	4100,00 A4-80
M 12	x	190	S	1	5100,00 A4-80
M 12	x	200	S	1	6000,00 A4-80
M 14	x	25	S	50	740,00 A4-80
M 14	x	30	S	50	630,00 A4-80
M 14	x	35	S	50	630,00 A4-80
M 14	x	40	S	50	630,00 A4-80
M 14	x	45	S	50	640,00 A4-80
M 14	x	50	S	50	680,00 A4-80
M 14	x	55	S	50	760,00 A4-80
M 14	x	60	S	50	770,00 A4-80
M 14	x	65	S	50	900,00 A4-80
M 14	x	70	S	50	920,00 A4-80
M 14	x	80	S	1	1040,00 A4-80
M 14	x	90	S	1	1520,00 A4-80
M 14	x	100	S	1	1680,00 A4-80
M 14	x	110	S	1	2060,00 A4-80
M 14	x	120	S	1	2350,00 A4-80
M 14	x	130	S	1	2700,00 A4-80
M 14	x	140	S	1	3000,00 A4-80
M 14	x	150	S	1	3350,00 A4-80
M 14	x	160	S	1	3900,00 A4-80
M 14	x	170	S	1	4300,00 A4-80
M 14	x	180	S	1	4700,00 A4-80
M 14	x	190	S	1	5200,00 A4-80
M 14	x	200	S	1	6200,00 A4-80

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	25	S	50	740,00 A4-80
M 16	x	30	S	50	630,00 A4-80
M 16	x	35	S	50	630,00 A4-80
M 16	x	40	S	50	630,00 A4-80
M 16	x	45	S	50	640,00 A4-80
M 16	x	50	S	25	680,00 A4-80
M 16	x	55	S	25	760,00 A4-80
M 16	x	60	S	25	770,00 A4-80
M 16	x	65	S	25	900,00 A4-80
M 16	x	70	S	25	920,00 A4-80
M 16	x	75	S	25	1200,00 A4-80
M 16	x	80	S	25	1040,00 A4-80
M 16	x	90	S	25	1490,00 A4-80
M 16	x	100	S	25	1730,00 A4-80
M 16	x	110	S	1	1970,00 A4-80
M 16	x	120	S	1	2550,00 A4-80
M 16	x	130	S	1	2900,00 A4-80
M 16	x	140	S	1	3200,00 A4-80
M 16	x	150	S	1	3550,00 A4-80
M 16	x	160	S	1	4350,00 A4-80
M 16	x	170	S	1	4750,00 A4-80
M 16	x	180	S	1	5200,00 A4-80
M 16	x	190	S	1	6300,00 A4-80
M 16	x	200	S	1	7100,00 A4-80
M 20	x	30	S	25	1330,00 A4-80
M 20	x	35	S	25	1430,00 A4-80
M 20	x	40	S	25	1200,00 A4-80
M 20	x	45	S	25	1200,00 A4-80
M 20	x	50	S	25	1240,00 A4-80
M 20	x	55	S	25	1350,00 A4-80
M 20	x	60	S	25	1350,00 A4-80
M 20	x	65	S	25	1520,00 A4-80
M 20	x	70	S	25	1540,00 A4-80
M 20	x	75	S	25	1640,00 A4-80
M 20	x	80	S	25	1700,00 A4-80
M 20	x	90	S	1	2460,00 A4-80
M 20	x	100	S	1	2900,00 A4-80
M 20	x	110	S	1	3550,00 A4-80
M 20	x	120	S	1	3850,00 A4-80
M 20	x	130	S	1	4500,00 A4-80
M 20	x	140	S	1	4850,00 A4-80
M 20	x	150	S	1	5400,00 A4-80
M 20	x	160	S	1	6000,00 A4-80
M 20	x	170	S	1	6800,00 A4-80
M 20	x	180	S	1	7500,00 A4-80
M 20	x	190	S	1	8300,00 A4-80
M 20	x	200	S	1	9400,00 A4-80
M 24	x	50	S	1	2900,00 A4-80
M 24	x	55	S	1	2180,00 A4-80
M 24	x	60	S	1	3050,00 A4-80
M 24	x	70	S	1	3300,00 A4-80
M 24	x	80	S	1	2750,00 A4-80
M 24	x	90	S	1	2950,00 A4-80
M 24	x	100	S	1	3200,00 A4-80
M 24	x	110	S	1	3400,00 A4-80
M 24	x	120	S	1	3650,00 A4-80
M 24	x	130	S	1	7400,00 A4-80
M 24	x	140	S	1	8000,00 A4-80
M 24	x	150	S	1	8700,00 A4-80
M 24	x	160	S	1	13100,00 A4-80
M 24	x	170	S	1	13300,00 A4-80
M 24	x	180	S	1	13900,00 A4-80
M 24	x	190	S	1	14500,00 A4-80
M 24	x	200	S	1	15600,00 A4-80

Dimensions			PU	Pieces	€/100/Mat.
DIN		00933.950			403
933		1.4571 (A 5)			



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-245
Standard conversion ➔ TI-7

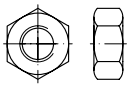
Steel ➔ pg. 156
Brass, Plastic ➔ pg. 625

DIN 933 ➔ replaced by ISO 4017

RoHS ✓ | REACh SVHC free

M 6	x	10	S	100	126,00 A5
M 6	x	20	S	100	133,00 A5
M 6	x	25	S	100	154,00 A5
M 6	x	30	S	100	156,00 A5
M 6	x	40	S	100	164,00 A5
M 6	x	50	S	100	175,00 A5
M 8	x	25	S	100	200,00 A5
M 8	x	30	S	100	223,00 A5
M 8	x	35	S	100	242,00 A5
M 8	x	40	S	100	335,00 A5
M 8	x	50	S	100	370,00 A5
M 8	x	60	S	100	465,00 A5
M 10	x	20	S	1	850,00 A5
M 10	x	25	S	1	870,00 A5
M 10	x	30	S	1	880,00 A5
M 10	x	35	S	1	900,00 A5
M 10	x	40	S	1	920,00 A5
M 10	x	45	S	1	940,00 A5
M 10	x	50	S	1	1120,00 A5
M 12	x	20	S	1	870,00 A5
M 12	x	25	S	1	880,00 A5
M 12	x	30	S	1	900,00 A5
M 12	x	35	S	1	920,00 A5
M 12	x	40	S	1	940,00 A5
M 12	x	45	S	1	960,00 A5
M 12	x	50	S	1	1140,00 A5
M 12	x	60	S	1	1370,00 A5
M 16	x	25	S	1	1240,00 A5
M 16	x	30	S	1	1260,00 A5
M 16	x	35	S	1	1310,00 A5
M 16	x	40	S	1	1350,00 A5
M 16	x	45	S	1	1370,00 A5
M 16	x	50	S	1	1410,00 A5
M 16	x	55	S	1	2000,00 A5
M 16	x	60	S	1	2100,00 A5
M 16	x	65	S	1	2310,00 A5
M 20	x	35	S	1	2480,00 A5
M 20	x	40	S	1	2500,00 A5
M 20	x	45	S	1	2600,00 A5
M 20	x	50	S	1	2650,00 A5
M 20	x	60	S	1	2950,00 A5
M 20	x	70	S	1	3400,00 A5

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.910			410
934	A 1/A 2			



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

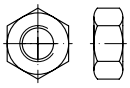
Steel ➔ pg. 168
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

RoHS ✓ | REACh SVHC free

M 1,6	S	500	41,00 A1/A2
M 2	S	500	29,00 A1/A2
M 2	K	100	37,50 A1/A2
M 2,3	S	500	48,00 A1/A2
M 2,3	K	100	52,00 A1/A2
M 2,5	S	500	26,50 A1/A2
M 2,5	K	100	32,00 A1/A2
M 2,6	S	500	52,00 A1/A2
M 2,6	K	100	60,00 A1/A2

Dimensions		PU	Pieces	€/100/Mat.
DIN	00934.920			410
934	A 2 (- 70)*			



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

Steel ➔ pg. 168
Brass, Copper, Aluminium, Titanium ➔ pg. 626

DIN 934 ➔ replaced by ISO 4032

RoHS ✓ | REACh SVHC free

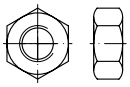
*Prop. class for dimensions different depending on production

M 3*	S	1000	10,60 A2
M 3*	K	100	16,80 A2
M 3,5*	K	100	45,00 A2
M 4*	S	1000	12,00 A2
M 4*	K	100	17,50 A2
M 5	S	1000	14,00 A2
M 5	K	100	19,70 A2
M 6	S	1000	21,20 A2
M 6	K	100	27,00 A2
M 7	S	100	35,00 A2
M 8	S	500	39,50 A2
M 8	K	100	46,00 A2
M 10	S	250	84,00 A2
M 10	K	100	90,00 A2
M 12	S	250	120,00 A2
M 12	K	100	126,00 A2
M 14	S	25	209,00 A2
M 16	S	50	209,00 A2
M 18	S	10	540,00 A2
M 20	S	25	540,00 A2
M 22	S	10	1220,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 24	S	25	1220,00 A 2
M 27	S	1	2310,00 A 2
M 30*	S	1	3250,00 A 2
M 33*	S	1	4250,00 A 2
M 36*	S	1	4650,00 A 2
M 42*	S	1	6800,00 A 2
M 48*	S	1	11300,00 A 2

DIN 00934.931 410

934 A 2 - 70 lubricated



Hexagon nuts, lubricated

coefficient of friction per batch on request

Dimensions → TI-62 Tightening torque → TI-249
Material properties → TI-236 Standard conversion → TI-7

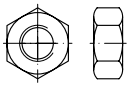
DIN 934 → replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 10	S	250	84,00 A 2
M 12	S	250	120,00 A 2

DIN 00934.925 410

934 A 2 fine



Hexagon nuts with metric fine pitch thread

Dimensions → TI-62 Tightening torque → TI-249
Material properties → TI-236 Standard conversion → TI-7

DIN 934 fine thread → replaced by ISO 8673

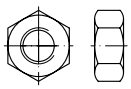
RoHS ✓ REACh SVHC free

M 6	x	0,75	S	100	152,00 A 2
M 8	x	1	S	100	92,00 A 2
M 10	x	1	S	50	126,00 A 2
M 10	x	1,25	S	50	126,00 A 2
M 12	x	1,25	S	50	222,00 A 2
M 12	x	1,5	S	50	182,00 A 2
M 14	x	1,5	S	25	248,00 A 2
M 16	x	1,5	S	25	335,00 A 2
M 18	x	1,5	S	10	610,00 A 2
M 20	x	1,5	S	10	620,00 A 2
M 24	x	1,5	S	10	1420,00 A 2
M 24	x	2	S	10	1420,00 A 2
M 30	x	1,5	S	1	3500,00 A 2
M 30	x	2	S	1	3500,00 A 2
M 36	x	1,5	S	1	5800,00 A 2

Dimensions	PU	Pieces	€/100/Mat.

DIN 00934.924 410

934 A 2 left



Hexagon nuts with metric left hand thread

Dimensions → TI-62 Tightening torque → TI-249
Material properties → TI-236 Standard conversion → TI-7

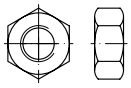
DIN 934 → replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 5 -LH	S	100	39,00 A 2
M 6 -LH	S	100	59,00 A 2
M 8 -LH	S	100	94,00 A 2
M 10 -LH	S	50	180,00 A 2
M 12 -LH	S	25	245,00 A 2
M 14 -LH	S	25	460,00 A 2
M 16 -LH	S	25	460,00 A 2
M 18 -LH	S	25	570,00 A 2
M 20 -LH	S	1	710,00 A 2
M 22 -LH	S	10	990,00 A 2
M 24 -LH	S	1	1950,00 A 2
M 27 -LH	S	1	2050,00 A 2
M 30 -LH	S	1	2370,00 A 2

DIN 00934.940 410

934 A 4 (- 70)*



Hexagon nuts

Dimensions → TI-62 Tightening torque → TI-249
Material properties → TI-236 Standard conversion → TI-7

Steel → pg. 168
Brass, Copper, Aluminium, Titanium → pg. 626

DIN 934 → replaced by ISO 4032

RoHS ✓ REACh SVHC free

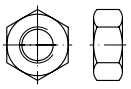
*Prop. class for dimensions different depending on production

M 2*	S	1000	38,00 A 4	
M 2*	K	100	43,50 A 4	
M 2,5*	S	500	36,50 A 4	
M 2,5*	K	100	42,00 A 4	
M 3*	S	1000	15,20 A 4	
M 3*	K	100	21,90 A 4	
M 4*	S	1000	17,10 A 4	
M 4*	K	100	25,50 A 4	
M 5	S	1000	18,40 A 4	
M 5	K	100	26,50 A 4	
M 6	S	1000	28,50 A 4	
M 6	K	100	36,50 A 4	
M 7	S	100	52,00 A 4	
M 8	S	500	55,00 A 4	
M 8	K	100	62,00 A 4	
M 10	S	250	117,00 A 4	
M 10	K	50	129,00 A 4	
M 12	S	250	161,00 A 4	

Dimensions	PU	Pieces	€/100/Mat.
M 12	K	50	173,00 A 4
M 14	S	25	335,00 A 4
M 16	S	50	335,00 A 4
M 18	S	10	820,00 A 4
M 20	S	25	820,00 A 4
M 22	S	10	1650,00 A 4
M 24	S	10	1650,00 A 4
M 27*	S	1	3150,00 A 4
M 30*	S	1	4200,00 A 4
M 33*	S	1	5400,00 A 4
M 36*	S	1	6500,00 A 4
M 39*	S	1	13100,00 A 4
M 42*	S	1	9200,00 A 4
M 48*	S	1	17500,00 A 4

DIN 00934.951 410

934 A 4 - 70 lubricated



Hexagon nuts, lubricated

coefficient of friction per batch on request

Dimensions → TI-62 Tightening torque → TI-249
Material properties → TI-236 Standard conversion → TI-7

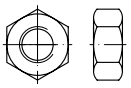
DIN 934 → replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 10	S	250	106,00 A 4
M 12	S	250	146,00 A 4

DIN 00934.948 409

934 A 4 - 80



Hexagon nuts

high strength (strongly cold worked)

Dimensions → TI-62 Tightening torque → TI-249
Material properties → TI-236 Standard conversion → TI-7

Steel → pg. 168
Brass, Copper, Aluminium, Titanium → pg. 626

DIN 934 → replaced by ISO 4032

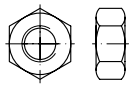
RoHS ✓ REACh SVHC free

M 5	S	1000	16,20 A 4-80
M 6	S	200	21,60 A 4-80
M 8	S	200	27,00 A 4-80
M 10	S	100	54,00 A 4-80
M 12	S	100	70,00 A 4-80
M 14	S	100	118,00 A 4-80
M 16	S	50	151,00 A 4-80
M 18	S	50	217,00 A 4-80
M 20	S	50	244,00 A 4-80
M 24	S	25	740,00 A 4-80

Dimensions | PU Pieces | €/100/Mat.

DIN 00934.950 409

934 1.4571 (A 5)



Hexagon nuts

Dimensions ➔ TI-62 Tightening torque ➔ TI-249
Material properties ➔ TI-236 Standard conversion ➔ TI-7

Steel ➔ pg. 168
Brass, Copper, Aluminium, Titanium ➔ pg. 626

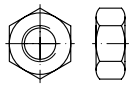
DIN 934 ➔ replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 6	S	100	214,00	A 5
M 8	S	100	233,00	A 5
M 10	S	100	248,00	A 5
M 12	S	50	320,00	A 5
M 16	S	25	540,00	A 5
M 20	S	25	1070,00	A 5
M 24	S	10	1880,00	A 5
M 27	S	10	3050,00	A 5
M 30	S	10	4150,00	A 5

DIN 00934.944 410

934 A 4 left



Hexagon nuts with metric left hand thread

Dimensions ➔ TI-62 Tightening torque ➔ TI-249
Material properties ➔ TI-236 Standard conversion ➔ TI-7

DIN 934 ➔ replaced by ISO 4032

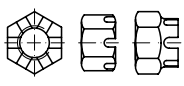
RoHS ✓ REACh SVHC free

M 5 -LH	S	100	55,00	A 4
M 6 -LH	S	100	76,00	A 4
M 8 -LH	S	100	116,00	A 4
M 10 -LH	S	50	217,00	A 4
M 12 -LH	S	25	295,00	A 4
M 14 -LH	S	25	550,00	A 4
M 16 -LH	S	25	570,00	A 4
M 18 -LH	S	25	780,00	A 4
M 20 -LH	S	10	950,00	A 4
M 22 -LH	S	10	1520,00	A 4
M 24 -LH	S	10	2380,00	A 4
M 27 -LH	S	1	2950,00	A 4
M 30 -LH	S	1	3450,00	A 4

Dimensions | PU Pieces | €/100/Mat.

DIN 00935.920 420

935-1 A 2



Hexagon slotted and castle nuts

Dimensions ➔ TI-67 Material properties ➔ TI-236

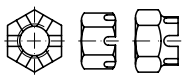
Steel ➔ pg. 173

RoHS ✓ REACh SVHC free

M 6	S	50	150,00	A 2
M 8	S	25	203,00	A 2
M 10 s = 17	S	25	300,00	A 2
M 12 s = 19	S	25	375,00	A 2
M 16	S	1	700,00	A 2
M 20	S	1	1180,00	A 2
M 24	S	1	1650,00	A 2

DIN 00935.940 420

935-1 A 4



Hexagon slotted and castle nuts

Dimensions ➔ TI-67 Material properties ➔ TI-236

Steel ➔ pg. 173

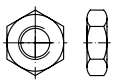
RoHS ✓ REACh SVHC free

M 8	S	25	400,00	A 4
M 10 s = 17	S	25	430,00	A 4
M 12 s = 19	S	25	600,00	A 4
M 16	S	1	1000,00	A 4
M 20	S	1	1770,00	A 4
M 24	S	1	3400,00	A 4
M 30	S	1	17900,00	A 4

Dimensions | PU Pieces | €/100/Mat.

DIN 00936.920 420

936 A 2



Hexagon thin nuts

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-236

Steel ➔ pg. 174
Brass ➔ pg. 627

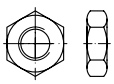
nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓ REACh SVHC free

M 8	S	100	64,00	A 2
M 10	S	50	114,00	A 2
M 12	S	50	159,00	A 2
M 16	S	25	260,00	A 2
M 20	S	10	415,00	A 2
M 24	S	1	640,00	A 2
M 27	S	1	950,00	A 2
M 30	S	1	1330,00	A 2
M 36	S	1	2700,00	A 2

DIN 00936.940 420

936 A 4



Hexagon thin nuts

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-236

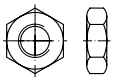
Steel ➔ pg. 174
Brass ➔ pg. 627

nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓ REACh SVHC free

M 8	S	100	83,00	A 4
M 10	S	50	158,00	A 4
M 12	S	50	227,00	A 4
M 14	S	25	440,00	A 4
M 16	S	25	365,00	A 4
M 20	S	10	610,00	A 4
M 22	S	10	880,00	A 4
M 24	S	1	920,00	A 4
M 30	S	1	1850,00	A 4
M 36	S	1	4400,00	A 4

Dimensions	PU Pieces	€/100/Mat.
DIN	00936.925	420
936	**A 2**	**fine**



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-236

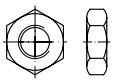
Steel ➔ pg. 175
Brass ➔ pg. 627

nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓ REACh SVHC free

M 8	x	1	S	100	88,00	A 2
M 10	x	1	S	50	161,00	A 2
M 12	x	1,5	S	50	211,00	A 2
M 14	x	1,5	S	25	315,00	A 2
M 16	x	1,5	S	25	335,00	A 2
M 18	x	1,5	S	10	460,00	A 2
M 20	x	1,5	S	10	560,00	A 2
M 22	x	1,5	S	10	740,00	A 2
M 24	x	1,5	S	1	840,00	A 2
M 27	x	1,5	S	1	1540,00	A 2
M 30	x	1,5	S	1	1590,00	A 2
M 36	x	1,5	S	1	3600,00	A 2

DIN	00936.945	420
936	**A 4**	**fine**



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63 Standard conversion ➔ TI-7
Material properties ➔ TI-236

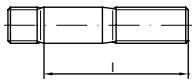
Steel ➔ pg. 175
Brass ➔ pg. 627

nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓ REACh SVHC free

M 10	x	1	S	50	227,00	A 4
M 12	x	1,5	S	50	350,00	A 4
M 14	x	1,5	S	25	520,00	A 4
M 16	x	1,5	S	25	530,00	A 4
M 18	x	1,5	S	10	920,00	A 4
M 20	x	1,5	S	10	980,00	A 4
M 24	x	1,5	S	1	1280,00	A 4
M 30	x	1,5	S	1	2350,00	A 4
M 36	x	1,5	S	1	4800,00	A 4

Dimensions	PU Pieces	€/100/Mat.
DIN	00938.920	430
938	**A 2**	



Studs, metal end ≈ 1 d

Dimensions ➔ TI-18 Tightening torque ➔ TI-249
Material properties ➔ TI-236

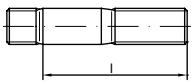
Steel ➔ pg. 177

RoHS ✓ REACh SVHC free

M 6	x	16	S	25	131,00	A 2
M 6	x	20	S	25	133,00	A 2
M 6	x	25	S	25	139,00	A 2
M 6	x	30	S	25	142,00	A 2
M 6	x	35	S	25	146,00	A 2
M 6	x	40	S	25	150,00	A 2
M 8	x	16	S	25	159,00	A 2
M 8	x	20	S	25	165,00	A 2
M 8	x	25	S	25	171,00	A 2
M 8	x	30	S	25	176,00	A 2
M 8	x	35	S	25	182,00	A 2
M 8	x	40	S	25	184,00	A 2
M 8	x	45	S	25	192,00	A 2
M 8	x	50	S	25	197,00	A 2
M 8	x	55	S	25	201,00	A 2
M 8	x	60	S	25	248,00	A 2
M 10	x	20	S	25	207,00	A 2
M 10	x	25	S	25	214,00	A 2
M 10	x	30	S	25	224,00	A 2
M 10	x	35	S	25	233,00	A 2
M 10	x	40	S	25	239,00	A 2
M 10	x	45	S	25	248,00	A 2
M 10	x	50	S	25	260,00	A 2
M 10	x	55	S	25	265,00	A 2
M 10	x	60	S	25	275,00	A 2
M 10	x	65	S	25	285,00	A 2
M 10	x	70	S	25	300,00	A 2
M 12	x	25	S	25	265,00	A 2
M 12	x	30	S	25	270,00	A 2
M 12	x	35	S	25	285,00	A 2
M 12	x	40	S	25	295,00	A 2
M 12	x	45	S	25	305,00	A 2
M 12	x	50	S	25	320,00	A 2
M 12	x	55	S	10	340,00	A 2
M 12	x	60	S	10	355,00	A 2
M 12	x	65	S	10	395,00	A 2
M 12	x	70	S	10	420,00	A 2
M 12	x	75	S	10	435,00	A 2
M 12	x	80	S	10	445,00	A 2
M 12	x	90	S	10	530,00	A 2
M 12	x	100	S	10	600,00	A 2
M 16	x	30	S	10	475,00	A 2
M 16	x	35	S	10	510,00	A 2
M 16	x	40	S	10	530,00	A 2
M 16	x	45	S	10	550,00	A 2
M 16	x	50	S	10	570,00	A 2
M 16	x	55	S	10	610,00	A 2
M 16	x	60	S	10	710,00	A 2
M 16	x	65	S	10	720,00	A 2
M 16	x	70	S	10	740,00	A 2
M 16	x	75	S	10	780,00	A 2
M 16	x	80	S	10	810,00	A 2
M 16	x	90	S	10	840,00	A 2
M 16	x	100	S	1	860,00	A 2

Dimensions			PU	Pieces	€/100/Mat.	
M 20	x	35	S	1	760,00	A 2
M 20	x	40	S	1	820,00	A 2
M 20	x	45	S	1	850,00	A 2
M 20	x	50	S	1	990,00	A 2
M 20	x	55	S	1	1010,00	A 2
M 20	x	60	S	1	1030,00	A 2
M 20	x	65	S	1	1050,00	A 2
M 20	x	70	S	1	1060,00	A 2
M 20	x	75	S	1	1120,00	A 2
M 20	x	80	S	1	1160,00	A 2
M 20	x	90	S	1	1270,00	A 2
M 20	x	100	S	1	1390,00	A 2
M 24	x	50	S	1	1290,00	A 2
M 24	x	55	S	1	1350,00	A 2
M 24	x	60	S	1	1410,00	A 2
M 24	x	65	S	1	1460,00	A 2
M 24	x	70	S	1	1520,00	A 2

DIN	00938.940	430
938	**A 4**	



Studs, metal end ≈ 1 d

Dimensions ➔ TI-18 Tightening torque ➔ TI-249
Material properties ➔ TI-236

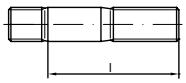
Steel ➔ pg. 177

RoHS ✓ REACh SVHC free

M 6	x	20	S	25	193,00	A 4
M 6	x	25	S	25	200,00	A 4
M 6	x	30	S	25	208,00	A 4
M 6	x	35	S	25	214,00	A 4
M 6	x	40	S	25	219,00	A 4
M 6	x	45	S	25	225,00	A 4
M 8	x	16	S	25	206,00	A 4
M 8	x	20	S	25	210,00	A 4
M 8	x	25	S	25	214,00	A 4
M 8	x	30	S	25	221,00	A 4
M 8	x	35	S	25	250,00	A 4
M 8	x	40	S	25	260,00	A 4
M 8	x	45	S	25	275,00	A 4
M 8	x	50	S	25	275,00	A 4
M 8	x	55	S	25	290,00	A 4
M 8	x	60	S	25	290,00	A 4
M 8	x	65	S	25	305,00	A 4
M 8	x	70	S	25	320,00	A 4
M 8	x	75	S	25	330,00	A 4
M 8	x	80	S	25	340,00	A 4
M 8	x	90	S	25	355,00	A 4
M 10	x	20	S	25	290,00	A 4
M 10	x	25	S	25	290,00	A 4
M 10	x	30	S	25	305,00	A 4
M 10	x	35	S	25	340,00	A 4
M 10	x	40	S	25	350,00	A 4
M 10	x	45	S	25	365,00	A 4
M 10	x	50	S	25	375,00	A 4
M 10	x	55	S	25	395,00	A 4
M 10	x	60	S	25	415,00	A 4
M 10	x	65	S	25	450,00	A 4
M 10	x	70	S	25	465,00	A 4
M 10	x	75	S	25	470,00	A 4
M 10	x	80	S	25	485,00	A 4
M 12	x	20	S	25	380,00	A 4
M 12	x	25	S	25	380,00	A 4

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	30	S	25	400,00 A4
M 12	x	35	S	25	420,00 A4
M 12	x	40	S	25	445,00 A4
M 12	x	45	S	25	465,00 A4
M 12	x	50	S	25	485,00 A4
M 12	x	55	S	10	510,00 A4
M 12	x	60	S	10	530,00 A4
M 12	x	65	S	10	560,00 A4
M 12	x	70	S	10	600,00 A4
M 12	x	75	S	10	610,00 A4
M 12	x	80	S	10	630,00 A4
M 12	x	85	S	10	670,00 A4
M 12	x	90	S	10	680,00 A4
M 12	x	95	S	10	720,00 A4
M 12	x	100	S	10	750,00 A4
M 16	x	30	S	10	680,00 A4
M 16	x	35	S	10	720,00 A4
M 16	x	40	S	10	770,00 A4
M 16	x	45	S	10	790,00 A4
M 16	x	50	S	10	830,00 A4
M 16	x	55	S	10	870,00 A4
M 16	x	60	S	10	930,00 A4
M 16	x	65	S	1	980,00 A4
M 16	x	70	S	1	1020,00 A4
M 16	x	75	S	1	1040,00 A4
M 16	x	80	S	1	1100,00 A4
M 16	x	85	S	1	1280,00 A4
M 16	x	90	S	1	1330,00 A4
M 16	x	95	S	1	1350,00 A4
M 16	x	100	S	1	1430,00 A4
M 20	x	40	S	1	1240,00 A4
M 20	x	45	S	1	1280,00 A4
M 20	x	50	S	1	1330,00 A4
M 20	x	55	S	1	1410,00 A4
M 20	x	60	S	1	1470,00 A4
M 20	x	65	S	1	1560,00 A4
M 20	x	70	S	1	1640,00 A4
M 20	x	75	S	1	1730,00 A4
M 20	x	80	S	1	1830,00 A4
M 20	x	85	S	1	1910,00 A4
M 20	x	90	S	1	2000,00 A4
M 20	x	95	S	1	2100,00 A4
M 20	x	100	S	1	2210,00 A4
M 24	x	45	S	1	1680,00 A4
M 24	x	50	S	1	1770,00 A4
M 24	x	55	S	1	1850,00 A4
M 24	x	60	S	1	1960,00 A4
M 24	x	65	S	1	2040,00 A4
M 24	x	70	S	1	2120,00 A4
M 24	x	75	S	1	2250,00 A4
M 24	x	80	S	1	2350,00 A4
M 24	x	85	S	1	2480,00 A4
M 24	x	90	S	1	2650,00 A4
M 24	x	95	S	1	2750,00 A4
M 24	x	100	S	1	2850,00 A4

Dimensions			PU	Pieces	€/100/Mat.
DIN		00939.920			430
939		A 2			



Studs, metal end ≈ 1,25 d

Dimensions → TI-18 Tightening torque → TI-249
Material properties → TI-236

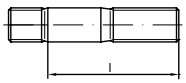
Steel → pg. 179

RoHS ✓ REACh SVHC free

M 6	x	16	S	25	135,00 A2
M 6	x	20	S	25	137,00 A2
M 6	x	25	S	25	142,00 A2
M 6	x	30	S	25	146,00 A2
M 6	x	35	S	25	150,00 A2
M 6	x	40	S	25	154,00 A2
M 8	x	16	S	25	163,00 A2
M 8	x	20	S	25	169,00 A2
M 8	x	25	S	25	175,00 A2
M 8	x	30	S	25	180,00 A2
M 8	x	35	S	25	188,00 A2
M 8	x	40	S	25	190,00 A2
M 8	x	45	S	25	195,00 A2
M 8	x	50	S	25	201,00 A2
M 8	x	55	S	25	207,00 A2
M 8	x	60	S	25	260,00 A2
M 10	x	20	S	25	212,00 A2
M 10	x	25	S	25	220,00 A2
M 10	x	30	S	25	229,00 A2
M 10	x	35	S	25	239,00 A2
M 10	x	40	S	25	245,00 A2
M 10	x	45	S	25	260,00 A2
M 10	x	50	S	25	265,00 A2
M 10	x	55	S	25	275,00 A2
M 10	x	60	S	25	285,00 A2
M 10	x	70	S	25	310,00 A2
M 12	x	25	S	25	275,00 A2
M 12	x	30	S	25	280,00 A2
M 12	x	35	S	25	290,00 A2
M 12	x	40	S	25	300,00 A2
M 12	x	45	S	25	315,00 A2
M 12	x	50	S	25	330,00 A2
M 12	x	55	S	10	350,00 A2
M 12	x	60	S	10	365,00 A2
M 12	x	65	S	10	395,00 A2
M 12	x	70	S	10	420,00 A2
M 12	x	75	S	10	435,00 A2
M 12	x	80	S	10	445,00 A2
M 12	x	90	S	10	530,00 A2
M 12	x	100	S	10	600,00 A2
M 16	x	30	S	10	475,00 A2
M 16	x	35	S	10	510,00 A2
M 16	x	40	S	10	530,00 A2
M 16	x	45	S	10	550,00 A2
M 16	x	50	S	10	570,00 A2
M 16	x	55	S	10	610,00 A2
M 16	x	60	S	10	710,00 A2
M 16	x	65	S	10	720,00 A2
M 16	x	70	S	10	740,00 A2
M 16	x	75	S	10	780,00 A2
M 16	x	80	S	10	810,00 A2
M 16	x	90	S	10	840,00 A2
M 16	x	100	S	1	860,00 A2
M 20	x	45	S	1	850,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	50	S	1	990,00 A2
M 20	x	55	S	1	1010,00 A2
M 20	x	60	S	1	1030,00 A2
M 20	x	65	S	1	1050,00 A2
M 20	x	70	S	1	1060,00 A2
M 20	x	75	S	1	1120,00 A2
M 20	x	80	S	1	1160,00 A2
M 20	x	90	S	1	1270,00 A2
M 20	x	100	S	1	1390,00 A2

DIN	00939.940	430
939	A 4	



Studs, metal end ≈ 1,25 d

Dimensions → TI-18 Tightening torque → TI-249
Material properties → TI-236

Steel → pg. 179

RoHS ✓ REACh SVHC free

M 6	x	20	S	25	193,00 A4
M 6	x	25	S	25	200,00 A4
M 6	x	30	S	25	208,00 A4
M 6	x	35	S	25	214,00 A4
M 6	x	40	S	25	219,00 A4
M 6	x	45	S	25	225,00 A4
M 6	x	50	S	25	233,00 A4
M 8	x	20	S	25	210,00 A4
M 8	x	25	S	25	214,00 A4
M 8	x	30	S	25	221,00 A4
M 8	x	35	S	25	250,00 A4
M 8	x	40	S	25	260,00 A4
M 8	x	45	S	25	275,00 A4
M 8	x	50	S	25	275,00 A4
M 8	x	55	S	25	290,00 A4
M 8	x	60	S	25	290,00 A4
M 8	x	65	S	25	305,00 A4
M 8	x	70	S	25	320,00 A4
M 8	x	75	S	25	330,00 A4
M 8	x	80	S	25	340,00 A4
M 10	x	20	S	25	290,00 A4
M 10	x	25	S	25	290,00 A4
M 10	x	30	S	25	305,00 A4
M 10	x	35	S	25	340,00 A4
M 10	x	40	S	25	350,00 A4
M 10	x	45	S	25	365,00 A4
M 10	x	50	S	25	375,00 A4
M 10	x	55	S	25	395,00 A4
M 10	x	60	S	25	415,00 A4
M 10	x	65	S	25	450,00 A4
M 10	x	70	S	25	465,00 A4
M 10	x	75	S	25	470,00 A4
M 10	x	80	S	25	485,00 A4
M 12	x	25	S	25	380,00 A4
M 12	x	30	S	25	400,00 A4
M 12	x	35	S	25	420,00 A4
M 12	x	40	S	25	445,00 A4
M 12	x	45	S	25	465,00 A4
M 12	x	50	S	25	485,00 A4
M 12	x	55	S	10	510,00 A4
M 12	x	60	S	10	530,00 A4
M 12	x	65	S	10	560,00 A4
M 12	x	70	S	10	600,00 A4
M 12	x	75	S	10	610,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	80	S	10	630,00 A4
M 12	x	85	S	10	670,00 A4
M 12	x	90	S	10	680,00 A4
M 12	x	95	S	10	720,00 A4
M 12	x	100	S	10	750,00 A4
M 16	x	30	S	10	680,00 A4
M 16	x	35	S	10	720,00 A4
M 16	x	40	S	10	770,00 A4
M 16	x	45	S	10	790,00 A4
M 16	x	50	S	10	830,00 A4
M 16	x	55	S	10	870,00 A4
M 16	x	60	S	10	930,00 A4
M 16	x	65	S	1	980,00 A4
M 16	x	70	S	1	1020,00 A4
M 16	x	75	S	1	1040,00 A4
M 16	x	80	S	1	1100,00 A4
M 16	x	85	S	1	1280,00 A4
M 16	x	90	S	1	1330,00 A4
M 16	x	95	S	1	1350,00 A4
M 16	x	100	S	1	1430,00 A4
M 16	x	120	S	1	1470,00 A4
M 16	x	140	S	1	1520,00 A4
M 20	x	40	S	1	1240,00 A4
M 20	x	45	S	1	1280,00 A4
M 20	x	50	S	1	1330,00 A4
M 20	x	55	S	1	1410,00 A4
M 20	x	60	S	1	1470,00 A4
M 20	x	65	S	1	1560,00 A4
M 20	x	70	S	1	1640,00 A4
M 20	x	75	S	1	1730,00 A4
M 20	x	80	S	1	1830,00 A4
M 20	x	85	S	1	1910,00 A4
M 20	x	90	S	1	2000,00 A4
M 20	x	95	S	1	2100,00 A4
M 20	x	100	S	1	2210,00 A4
M 24	x	50	S	1	1770,00 A4
M 24	x	55	S	1	1850,00 A4
M 24	x	60	S	1	1960,00 A4
M 24	x	65	S	1	2040,00 A4
M 24	x	70	S	1	2120,00 A4
M 24	x	75	S	1	2250,00 A4
M 24	x	80	S	1	2350,00 A4
M 24	x	85	S	1	2480,00 A4
M 24	x	90	S	1	2650,00 A4
M 24	x	95	S	1	2750,00 A4
M 24	x	100	S	1	2850,00 A4

DIN 00963.920 450

963 A 2



Slotted countersunk head screws

Dimensions ➔ TI-27 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 187
Brass, Plastic ➔ pg. 627

DIN 963 ➔ replaced by ISO 2009

RoHS ✓ REACh SVHC free

M 1	x	2	S	1000	285,00 A2
M 1	x	3	S	1000	285,00 A2
M 1	x	4	S	1000	285,00 A2
M 1	x	5	S	1000	285,00 A2
M 1,2	x	2	S	1000	285,00 A2
M 1,2	x	3	S	1000	285,00 A2
M 1,2	x	4	S	1000	285,00 A2
M 1,2	x	5	S	1000	305,00 A2
M 1,2	x	6	S	1000	335,00 A2
M 1,4	x	2	S	1000	285,00 A2
M 1,4	x	3	S	1000	285,00 A2
M 1,4	x	4	S	1000	285,00 A2
M 1,4	x	5	S	1000	305,00 A2
M 1,4	x	6	S	1000	335,00 A2
M 1,4	x	8	S	1000	370,00 A2
M 1,4	x	10	S	1000	430,00 A2
M 1,6	x	3	S	1000	105,00 A2
M 1,6	x	4	S	1000	105,00 A2
M 1,6	x	5	S	1000	124,00 A2
M 1,6	x	6	S	1000	133,00 A2
M 1,6	x	8	S	1000	142,00 A2
M 1,6	x	10	S	1000	152,00 A2
M 2	x	3	S	1000	124,00 A2
M 2	x	4	S	1000	8,80 A2
M 2	x	5	S	1000	6,30 A2
M 2	x	6	S	1000	6,60 A2
M 2	x	8	S	1000	7,00 A2
M 2	x	10	S	1000	7,60 A2
M 2	x	12	S	1000	8,20 A2
M 2	x	16	S	1000	8,80 A2
M 2	x	18	S	1000	11,40 A2
M 2,5	x	4	S	1000	8,80 A2
M 2,5	x	5	S	1000	6,30 A2
M 2,5	x	6	S	1000	6,60 A2
M 2,5	x	8	S	1000	7,00 A2
M 2,5	x	10	S	1000	7,60 A2
M 2,5	x	12	S	1000	8,20 A2
M 2,5	x	14	S	1000	8,80 A2
M 2,5	x	16	S	1000	8,80 A2
M 2,5	x	20	S	1000	24,20 A2
M 2,5	x	25	S	1000	31,00 A2
M 3	x	4	S	1000	48,00 A2
M 3	x	5	S	1000	9,60 A2
M 3	x	5	K	200	11,50 A2
M 3	x	6	S	1000	5,50 A2
M 3	x	6	K	200	7,40 A2
M 3	x	8	S	1000	5,10 A2
M 3	x	8	K	200	7,00 A2
M 3	x	10	S	1000	4,65 A2
M 3	x	10	K	200	6,60 A2
M 3	x	12	S	1000	4,75 A2
M 3	x	12	K	200	6,70 A2
M 3	x	14	K	200	10,90 A2
M 3	x	16	S	1000	5,40 A2
M 3	x	16	K	200	7,30 A2
M 3	x	20	S	1000	6,30 A2
M 3	x	20	K	200	8,20 A2
M 3	x	22	S	1000	21,00 A2
M 3	x	25	S	1000	7,90 A2
M 3	x	25	K	200	9,80 A2
M 3	x	30	S	1000	46,50 A2
M 3	x	30	K	200	15,60 A2
M 3	x	35	S	1000	48,00 A2
M 3	x	40	S	1000	61,00 A2
M 3	x	45	S	1000	55,00 A2
M 3	x	50	S	500	74,00 A2
M 3	x	60	S	500	110,00 A2
M 3,5	x	8	K	200	30,00 A2
M 3,5	x	10	K	200	30,00 A2
M 3,5	x	12	K	200	32,50 A2
M 3,5	x	16	K	200	35,00 A2
M 4	x	5	S	1000	45,50 A2
M 4	x	5	K	200	20,20 A2
M 4	x	6	S	1000	8,50 A2
M 4	x	6	K	200	10,40 A2
M 4	x	8	S	1000	8,20 A2
M 4	x	8	K	200	10,10 A2
M 4	x	10	S	1000	7,10 A2
M 4	x	10	K	200	9,00 A2
M 4	x	12	S	1000	6,60 A2
M 4	x	12	K	200	8,50 A2
M 4	x	14	S	1000	36,50 A2
M 4	x	16	S	1000	6,90 A2
M 4	x	16	K	200	8,80 A2
M 4	x	18	S	1000	39,50 A2
M 4	x	20	S	1000	7,80 A2
M 4	x	20	K	200	9,70 A2
M 4	x	22	K	200	15,30 A2
M 4	x	25	S	500	8,80 A2
M 4	x	25	K	200	10,60 A2
M 4	x	30	S	500	11,80 A2
M 4	x	30	K	200	13,70 A2
M 4	x	35	S	500	16,00 A2
M 4	x	35	K	200	17,90 A2
M 4	x	40	K	100	24,00 A2
M 4	x	50	K	100	37,00 A2
M 5	x	6	S	500	12,90 A2
M 5	x	6	K	200	14,80 A2
M 5	x	8	S	500	11,30 A2
M 5	x	8	K	200	13,20 A2
M 5	x	10	S	500	11,30 A2
M 5	x	10	K	200	13,20 A2
M 5	x	12	S	500	8,40 A2
M 5	x	12	K	200	10,30 A2
M 5	x	14	K	200	16,40 A2
M 5	x	16	S	500	9,70 A2
M 5	x	16	K	200	11,60 A2
M 5	x	18	S	500	12,40 A2
M 5	x	20	S	500	11,20 A2
M 5	x	20	K	200	13,10 A2
M 5	x	25	S	500	13,20 A2
M 5	x	25	K	200	15,10 A2
M 5	x	30	S	500	14,90 A2
M 5	x	30	K	200	16,80 A2
M 5	x	35	S	200	18,10 A2
M 5	x	35	K	100	22,00 A2
M 5	x	40	S	200	23,30 A2
M 5	x	40	K	100	27,50 A2
M 5	x	45	K	100	33,50 A2
M 5	x	50	K	100	42,50 A2
M 5	x	60	K	100	64,00 A2
M 5	x	65	K	100	88,00 A2
M 5	x	70	K	100	88,00 A2
M 5	x	80	S	500	99,00 A2
M 5	x	90	K	100	125,00 A2
M 5	x	100	K	100	142,00 A2
M 6	x	8	S	200	20,30 A2
M 6	x	8	K	100	24,20 A2
M 6	x	10	S	200	13,60 A2
M 6	x	10	K	100	17,50 A2
M 6	x	12	S	200	13,10 A2
M 6	x	12	K	100	17,00 A2
M 6	x	16	S	200	12,30 A2
M 6	x	16	K	100	16,10 A2
M 6	x	18	K	100	26,50 A2
M 6	x	20	S	200	13,60 A2
M 6	x	20	K	100	17,50 A2
M 6	x	25	S	200	15,60 A2
M 6	x	25	K	100	19,40 A2
M 6	x	30	S	200	18,90 A2
M 6	x	30	K	100	22,80 A2
M 6	x	35	S	100	22,60 A2
M 6	x	35	K	50	30,50 A2
M 6	x	40	S	100	29,50 A2
M 6	x	40	K	50	37,00 A2
M 6	x	45	K	100	43,00 A2
M 6	x	50	K	50	53,00 A2
M 6	x	55	K	50	78,00 A2
M 6	x	60	K	50	78,00 A2
M 6	x	65	K	50	87,00 A2
M 6	x	70	K	50	87,00 A2
M 6	x	80	K	50	95,00 A2
M 6	x	90	K	50	125,00 A2
M 6	x	100	K	50	190,00 A2
M 6	x	110	K	50	345,00 A2
M 6	x	120	K	25	380,00 A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	130	K	25	485,00 A2
M 6	x	140	K	25	570,00 A2
M 6	x	160	K	25	670,00 A2
M 8	x	12	S	100	30,50 A2
M 8	x	16	S	100	31,50 A2
M 8	x	16	K	50	39,00 A2
M 8	x	18	S	200	80,00 A2
M 8	x	20	S	100	32,50 A2
M 8	x	20	K	50	40,00 A2
M 8	x	25	S	100	39,00 A2
M 8	x	25	K	50	46,50 A2
M 8	x	30	S	100	41,50 A2
M 8	x	30	K	50	49,00 A2
M 8	x	35	S	100	46,00 A2
M 8	x	35	K	50	54,00 A2
M 8	x	40	S	100	51,00 A2
M 8	x	40	K	50	59,00 A2
M 8	x	45	K	50	70,00 A2
M 8	x	50	S	100	67,00 A2
M 8	x	50	K	50	75,00 A2
M 8	x	55	K	50	105,00 A2
M 8	x	60	K	50	105,00 A2
M 8	x	70	K	50	113,00 A2
M 8	x	80	K	50	124,00 A2
M 8	x	90	K	50	137,00 A2
M 8	x	100	K	50	218,00 A2
M 8	x	110	K	50	380,00 A2
M 10	x	16	K	50	124,00 A2
M 10	x	20	S	100	63,00 A2
M 10	x	20	K	50	71,00 A2
M 10	x	25	S	100	72,00 A2
M 10	x	25	K	50	79,00 A2
M 10	x	30	S	100	80,00 A2
M 10	x	30	K	50	88,00 A2
M 10	x	35	S	100	89,00 A2
M 10	x	35	K	50	96,00 A2
M 10	x	40	S	100	97,00 A2
M 10	x	40	K	50	105,00 A2
M 10	x	50	S	100	114,00 A2
M 10	x	50	K	50	121,00 A2
M 10	x	60	S	100	148,00 A2
M 10	x	60	K	50	155,00 A2
M 10	x	70	S	50	190,00 A2
M 10	x	80	S	50	219,00 A2
M 10	x	90	K	50	237,00 A2
M 10	x	100	K	50	335,00 A2
M 10	x	120	K	25	760,00 A2
M 10	x	130	K	25	800,00 A2
M 10	x	140	K	25	800,00 A2

DIN	00963.940	450
963	**A 4**	



Slotted countersunk head screws

Dimensions ➔ TI-27
Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 187
Brass, Plastic ➔ pg. 627

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	3	S	1000	179,00 A4
M 2	x	4	S	1000	9,70 A4
M 2	x	4	K	200	11,80 A4
M 2	x	5	S	1000	7,00 A4
M 2	x	5	K	200	9,10 A4
M 2	x	6	S	1000	7,30 A4
M 2	x	6	K	200	9,40 A4
M 2	x	8	S	1000	7,70 A4
M 2	x	8	K	200	9,80 A4
M 2	x	10	S	1000	8,40 A4
M 2	x	10	K	200	10,50 A4
M 2	x	12	S	1000	9,10 A4
M 2	x	12	K	200	11,20 A4
M 2	x	16	S	1000	9,70 A4
M 2	x	16	K	200	11,80 A4
M 2	x	20	S	1000	12,80 A4
M 2	x	20	K	200	14,90 A4
M 2,5	x	4	S	1000	9,70 A4
M 2,5	x	4	K	200	11,80 A4
M 2,5	x	5	S	1000	7,00 A4
M 2,5	x	5	K	200	9,10 A4
M 2,5	x	6	S	1000	7,30 A4
M 2,5	x	6	K	200	9,40 A4
M 2,5	x	8	S	1000	7,70 A4
M 2,5	x	8	K	200	9,80 A4
M 2,5	x	10	S	1000	8,40 A4
M 2,5	x	10	K	200	10,50 A4
M 2,5	x	12	S	1000	9,10 A4
M 2,5	x	12	K	200	11,20 A4
M 2,5	x	16	S	1000	9,70 A4
M 2,5	x	16	K	200	11,80 A4
M 2,5	x	20	K	200	14,90 A4
M 2,5	x	25	S	1000	42,00 A4
M 3	x	4	S	1000	16,10 A4
M 3	x	4	K	200	18,20 A4
M 3	x	5	S	1000	13,90 A4
M 3	x	5	K	200	16,00 A4
M 3	x	6	S	1000	8,30 A4
M 3	x	6	K	200	10,40 A4
M 3	x	8	S	1000	7,10 A4
M 3	x	8	K	200	9,20 A4
M 3	x	10	S	1000	6,00 A4
M 3	x	10	K	200	8,10 A4
M 3	x	12	S	1000	6,30 A4
M 3	x	12	K	200	8,40 A4
M 3	x	16	S	1000	7,30 A4
M 3	x	16	K	200	9,40 A4
M 3	x	20	S	1000	8,00 A4
M 3	x	20	K	200	10,10 A4
M 3	x	25	S	1000	11,60 A4
M 3	x	25	K	200	13,70 A4
M 3	x	30	S	1000	13,00 A4
M 3	x	30	K	200	15,00 A4
M 3	x	35	S	1000	63,00 A4
M 3	x	40	S	1000	80,00 A4
M 3	x	40	K	200	33,50 A4
M 3	x	45	S	1000	99,00 A4
M 3	x	50	S	1000	124,00 A4
M 4	x	5	K	200	27,00 A4
M 4	x	6	S	1000	12,20 A4
M 4	x	6	K	200	14,30 A4
M 4	x	8	S	1000	11,60 A4
M 4	x	8	K	200	13,70 A4
M 4	x	10	S	1000	9,80 A4
M 4	x	10	K	200	11,90 A4
M 4	x	12	S	1000	9,40 A4
M 4	x	12	K	200	11,50 A4
M 4	x	16	S	1000	9,90 A4
M 4	x	16	K	200	12,00 A4
M 4	x	18	S	200	16,80 A4
M 4	x	20	S	1000	10,90 A4
M 4	x	20	K	200	13,00 A4
M 4	x	25	S	500	13,50 A4
M 4	x	25	K	200	15,60 A4
M 4	x	30	S	500	17,80 A4
M 4	x	30	K	200	19,90 A4
M 4	x	35	S	500	21,40 A4
M 4	x	35	K	200	23,50 A4
M 4	x	40	K	100	27,50 A4
M 4	x	45	K	100	46,00 A4
M 4	x	50	K	100	46,00 A4
M 4	x	60	K	100	70,00 A4
M 5	x	6	S	500	53,00 A4
M 5	x	8	S	500	15,00 A4
M 5	x	8	K	200	17,10 A4
M 5	x	10	S	500	15,00 A4
M 5	x	10	K	200	17,10 A4
M 5	x	12	S	500	11,70 A4
M 5	x	12	K	200	13,80 A4
M 5	x	16	S	500	13,60 A4
M 5	x	16	K	200	15,70 A4
M 5	x	18	K	200	25,50 A4
M 5	x	20	S	500	15,90 A4
M 5	x	20	K	200	18,00 A4
M 5	x	25	S	500	18,30 A4
M 5	x	25	K	200	20,40 A4
M 5	x	30	S	500	20,90 A4
M 5	x	30	K	200	23,00 A4
M 5	x	35	S	200	29,00 A4
M 5	x	35	K	100	33,50 A4
M 5	x	40	S	200	32,50 A4
M 5	x	40	K	100	36,50 A4
M 5	x	45	K	100	44,50 A4
M 5	x	50	K	100	48,50 A4
M 5	x	60	K	100	66,00 A4
M 5	x	70	K	100	104,00 A4
M 5	x	80	K	100	115,00 A4
M 5	x	90	K	100	152,00 A4
M 5	x	100	K	100	154,00 A4
M 6	x	8	S	200	59,00 A4
M 6	x	8	K	100	33,50 A4
M 6	x	10	S	200	21,40 A4
M 6	x	10	K	100	26,00 A4
M 6	x	12	S	200	20,70 A4
M 6	x	12	K	100	25,00 A4
M 6	x	14	S	200	25,50 A4
M 6	x	16	S	200	19,90 A4
M 6	x	16	K	100	24,20 A4
M 6	x	18	K	100	34,50 A4
M 6	x	20	S	200	22,90 A4
M 6	x	20	K	100	27,50 A4
M 6	x	25	S	200	27,00 A4
M 6	x	25	K	100	31,00 A4
M 6	x	30	S	200	31,00 A4
M 6	x	30	K	100	35,50 A4
M 6	x	35	S	100	39,50 A4
M 6	x	35	K	50	48,00 A4
M 6	x	40	S	100	48,50 A4
M 6	x	40	K	50	57,00 A4
M 6	x	45	S	100	54,00 A4
M 6	x	45	K	50	62,00 A4
M 6	x	50	S	100	57,00 A4
M 6	x	50	K	50	65,00 A4
M 6	x	55	K	100	80,00 A4
M 6	x	60	S	100	71,00 A4
M 6	x	60	K	50	80,00 A4
M 6	x	65	K	50	126,00 A4
M 6	x	70	K	50	127,00 A4
M 6	x	80	K	50	150,00 A4
M 6	x	90	K	50	187,00 A4
M 6	x	100	K	50	450,00 A4
M 6	x	110	K	50	580,00 A4
M 6	x	120	K	50	600,00 A4
M 8	x	10	K	50	85,00 A4
M 8	x	12	S	100	84,00 A4
M 8	x	12	K	50	59,00 A4
M 8	x	16	S	100	48,50 A4
M 8	x	16	K	50	57,00 A4
M 8	x	20	S	100	50,00 A4
M 8	x	20	K	50	59,00 A4
M 8	x	25	S	100	57,00 A4
M 8	x	25	K	50	65,00 A4
M 8	x	30	S	100	62,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	30	K	50	71,00 A4
M 8	x	35	S	100	70,00 A4
M 8	x	40	S	100	78,00 A4
M 8	x	40	K	50	87,00 A4
M 8	x	45	S	100	93,00 A4
M 8	x	45	K	50	102,00 A4
M 8	x	50	S	100	104,00 A4
M 8	x	50	K	50	112,00 A4
M 8	x	55	K	50	133,00 A4
M 8	x	60	K	50	133,00 A4
M 8	x	70	K	50	209,00 A4
M 8	x	80	K	50	255,00 A4
M 8	x	90	K	50	315,00 A4
M 8	x	100	K	50	335,00 A4
M 10	x	16	K	50	174,00 A4
M 10	x	20	S	100	97,00 A4
M 10	x	20	K	50	106,00 A4
M 10	x	25	S	100	111,00 A4
M 10	x	25	K	50	119,00 A4
M 10	x	30	S	100	124,00 A4
M 10	x	30	K	50	132,00 A4
M 10	x	35	S	100	137,00 A4
M 10	x	35	K	50	145,00 A4
M 10	x	40	S	100	150,00 A4
M 10	x	40	K	50	159,00 A4
M 10	x	45	S	100	163,00 A4
M 10	x	45	K	50	172,00 A4
M 10	x	50	S	100	176,00 A4
M 10	x	50	K	50	185,00 A4
M 10	x	60	S	100	227,00 A4
M 10	x	60	K	50	238,00 A4
M 10	x	70	S	50	350,00 A4
M 10	x	70	K	25	370,00 A4
M 10	x	80	S	50	420,00 A4
M 10	x	90	K	25	520,00 A4
M 10	x	100	K	25	620,00 A4
M 10	x	110	K	25	830,00 A4
M 10	x	120	K	25	920,00 A4
M 10	x	130	K	25	1050,00 A4
M 10	x	140	K	25	1210,00 A4
M 12	x	16	K	25	244,00 A4
M 12	x	20	K	25	450,00 A4
M 12	x	25	K	25	450,00 A4
M 12	x	30	K	25	480,00 A4
M 12	x	35	K	25	510,00 A4
M 12	x	40	K	25	530,00 A4
M 12	x	45	K	25	590,00 A4
M 12	x	50	K	25	590,00 A4
M 12	x	60	K	25	680,00 A4
M 12	x	70	K	25	920,00 A4
M 12	x	80	K	25	1070,00 A4
M 12	x	90	K	25	1450,00 A4
M 12	x	100	K	25	1970,00 A4
M 16	x	25	K	1	1590,00 A4
M 16	x	30	K	1	1630,00 A4
M 16	x	35	K	1	1670,00 A4
M 16	x	40	K	1	1730,00 A4
M 16	x	45	K	1	1820,00 A4
M 16	x	50	K	1	1820,00 A4
M 16	x	60	K	1	1910,00 A4
M 16	x	70	K	25	2310,00 A4

Dimensions			PU	Pieces	€/100/Mat.
DIN		00964.920			450
964		**A 2**			



Slotted raised countersunk head screws

Dimensions → TI-39 Standard conversion → TI-11
Material properties → TI-236

Steel → pg. 189
Brass → pg. 628

DIN 964 → replaced by ISO 2010

RoHS ✓ REACh SVHC free

M 3	x	5	K	200	9,70 A2
M 3	x	6	S	1000	6,30 A2
M 3	x	6	K	200	8,20 A2
M 3	x	8	S	1000	5,70 A2
M 3	x	8	K	200	7,60 A2
M 3	x	10	S	1000	5,20 A2
M 3	x	10	K	200	7,10 A2
M 3	x	12	S	1000	5,30 A2
M 3	x	12	K	200	7,10 A2
M 3	x	16	K	200	7,80 A2
M 3	x	20	S	1000	7,10 A2
M 3	x	20	K	200	8,90 A2
M 3	x	25	K	200	10,80 A2
M 4	x	6	S	1000	13,50 A2
M 4	x	6	K	200	15,40 A2
M 4	x	8	S	1000	9,10 A2
M 4	x	8	K	200	11,00 A2
M 4	x	10	S	1000	7,80 A2
M 4	x	10	K	200	9,70 A2
M 4	x	12	S	1000	7,30 A2
M 4	x	12	K	200	9,20 A2
M 4	x	16	S	1000	8,00 A2
M 4	x	16	K	200	9,90 A2
M 4	x	20	S	1000	8,20 A2
M 4	x	20	K	200	10,10 A2
M 4	x	25	K	200	11,70 A2
M 4	x	30	K	200	14,50 A2
M 4	x	35	K	100	23,20 A2
M 5	x	8	K	100	20,10 A2
M 5	x	10	S	500	12,50 A2
M 5	x	10	K	200	14,40 A2
M 5	x	12	S	500	9,50 A2
M 5	x	12	K	200	11,40 A2
M 5	x	16	S	500	10,90 A2
M 5	x	16	K	200	12,80 A2
M 5	x	18	K	200	19,80 A2
M 5	x	20	S	500	12,20 A2
M 5	x	20	K	200	14,00 A2
M 5	x	25	S	500	14,30 A2
M 5	x	25	K	200	16,20 A2
M 5	x	30	S	500	16,90 A2
M 5	x	30	K	200	18,80 A2
M 5	x	35	S	200	20,70 A2
M 5	x	35	K	100	24,60 A2
M 5	x	40	K	100	31,00 A2
M 5	x	45	K	100	34,50 A2
M 5	x	50	K	100	43,50 A2
M 5	x	60	K	100	64,00 A2
M 5	x	70	K	100	92,00 A2
M 5	x	80	K	100	102,00 A2
M 6	x	10	S	200	15,60 A2
M 6	x	10	K	100	19,40 A2
M 6	x	12	S	200	15,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	12	K	100	18,90 A2
M 6	x	16	S	200	13,60 A2
M 6	x	16	K	100	17,50 A2
M 6	x	20	S	200	15,60 A2
M 6	x	20	K	100	19,40 A2
M 6	x	25	S	200	18,10 A2
M 6	x	25	K	100	22,00 A2
M 6	x	30	S	200	20,10 A2
M 6	x	30	K	100	24,00 A2
M 6	x	35	S	100	26,00 A2
M 6	x	35	K	50	34,00 A2
M 6	x	40	S	100	33,50 A2
M 6	x	40	K	50	41,50 A2
M 6	x	45	K	50	44,00 A2
M 6	x	50	K	50	59,00 A2
M 6	x	55	S	100	77,00 A2
M 6	x	60	K	50	77,00 A2
M 6	x	70	K	50	114,00 A2
M 6	x	80	S	50	355,00 A2
M 6	x	90	S	50	465,00 A2
M 6	x	100	S	50	590,00 A2
M 6	x	105	S	50	670,00 A2
M 6	x	110	S	50	670,00 A2
M 8	x	12	K	50	72,00 A2
M 8	x	16	S	100	36,00 A2
M 8	x	16	K	50	43,50 A2
M 8	x	20	S	100	37,50 A2
M 8	x	20	K	50	45,50 A2
M 8	x	25	S	100	44,00 A2
M 8	x	25	K	50	52,00 A2
M 8	x	30	S	100	47,50 A2
M 8	x	30	K	50	55,00 A2
M 8	x	35	S	100	53,00 A2
M 8	x	40	S	100	58,00 A2
M 8	x	40	K	50	66,00 A2
M 8	x	45	S	100	70,00 A2
M 8	x	50	S	100	73,00 A2
M 8	x	55	S	100	105,00 A2
M 8	x	60	S	100	102,00 A2
M 8	x	70	S	100	156,00 A2
M 8	x	80	K	50	192,00 A2
M 10	x	20	S	100	84,00 A2
M 10	x	25	S	100	90,00 A2
M 10	x	25	K	50	98,00 A2
M 10	x	30	K	50	106,00 A2
M 10	x	35	S	100	105,00 A2
M 10	x	40	K	50	127,00 A2

DIN		00964.940			450
964		**A 4**			



Slotted raised countersunk head screws

Dimensions → TI-39 Standard conversion → TI-11
Material properties → TI-236

Steel → pg. 189
Brass → pg. 628

DIN 964 → replaced by ISO 2010

RoHS ✓ REACh SVHC free

M 2	x	4	K	200	19,60 A4
M 2	x	5	K	200	10,70 A4
M 2	x	6	K	200	11,20 A4
M 2	x	8	K	200	11,80 A4
M 2	x	10	K	200	12,70 A4

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	12	K	200	13,50 A4
M 2	x	20	K	200	46,50 A4
M 2,5	x	6	K	200	11,20 A4
M 2,5	x	8	K	200	11,80 A4
M 2,5	x	10	K	200	12,70 A4
M 2,5	x	16	K	200	18,60 A4
M 2,5	x	20	K	200	24,20 A4
M 3	x	6	S	1000	9,10 A4
M 3	x	6	K	200	11,20 A4
M 3	x	8	K	200	9,90 A4
M 3	x	10	K	200	8,90 A4
M 3	x	12	K	200	9,30 A4
M 3	x	16	K	200	10,00 A4
M 3	x	20	K	200	11,10 A4
M 3	x	25	K	200	14,10 A4
M 3	x	30	K	200	21,20 A4
M 4	x	6	K	200	21,00 A4
M 4	x	8	S	1000	13,30 A4
M 4	x	8	K	200	15,40 A4
M 4	x	10	S	1000	10,90 A4
M 4	x	10	K	200	13,00 A4
M 4	x	12	K	200	12,60 A4
M 4	x	16	S	1000	11,20 A4
M 4	x	16	K	200	13,30 A4
M 4	x	18	K	200	20,00 A4
M 4	x	20	S	1000	12,10 A4
M 4	x	20	K	200	14,20 A4
M 4	x	25	K	200	17,10 A4
M 4	x	30	K	200	21,90 A4
M 4	x	35	K	100	32,50 A4
M 4	x	40	K	100	43,00 A4
M 4	x	45	K	100	56,00 A4
M 5	x	10	S	500	16,70 A4
M 5	x	10	K	200	18,80 A4
M 5	x	12	K	200	15,90 A4
M 5	x	16	S	500	15,40 A4
M 5	x	16	K	200	17,50 A4
M 5	x	20	S	500	16,20 A4
M 5	x	20	K	200	18,30 A4
M 5	x	25	K	200	21,40 A4
M 5	x	30	K	200	27,00 A4
M 5	x	35	K	100	36,50 A4
M 5	x	40	S	200	40,00 A4
M 5	x	40	K	100	44,00 A4
M 5	x	50	S	200	86,00 A4
M 5	x	50	K	100	90,00 A4
M 5	x	60	K	100	112,00 A4
M 5	x	70	K	100	137,00 A4
M 5	x	80	K	100	152,00 A4
M 6	x	10	S	200	24,80 A4
M 6	x	10	K	100	29,50 A4
M 6	x	12	K	100	28,00 A4
M 6	x	16	S	200	22,70 A4
M 6	x	16	K	100	27,00 A4
M 6	x	20	S	200	26,50 A4
M 6	x	20	K	100	31,00 A4
M 6	x	25	S	200	31,00 A4
M 6	x	25	K	100	35,50 A4
M 6	x	30	S	200	35,50 A4
M 6	x	30	K	100	40,00 A4
M 6	x	35	S	100	44,50 A4
M 6	x	40	S	100	59,00 A4
M 6	x	40	K	50	68,00 A4
M 6	x	50	S	100	90,00 A4
M 6	x	50	K	50	99,00 A4
M 6	x	60	K	50	105,00 A4
M 6	x	70	K	50	153,00 A4
M 6	x	80	K	50	182,00 A4
M 8	x	16	K	50	65,00 A4
M 8	x	20	S	100	59,00 A4
M 8	x	20	K	50	68,00 A4
M 8	x	25	S	100	65,00 A4
M 8	x	25	K	50	73,00 A4
M 8	x	30	S	100	73,00 A4
M 8	x	40	K	50	99,00 A4
M 8	x	50	K	50	140,00 A4
M 10	x	20	K	50	125,00 A4
M 10	x	25	K	50	130,00 A4
M 10	x	50	K	50	217,00 A4

DIN	00965.924	460
965	**A 2**	**H**



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 190

DIN 965 ➔ replaced by ISO 7046

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 1,6	x	3 -H	S	2000	114,00 A2
M 1,6	x	3 -H	K	1000	124,00 A2
M 1,6	x	4 -H	S	2000	114,00 A2
M 1,6	x	4 -H	K	1000	124,00 A2
M 1,6	x	5 -H	S	2000	124,00 A2
M 1,6	x	5 -H	K	1000	133,00 A2
M 1,6	x	6 -H	S	2000	127,00 A2
M 1,6	x	6 -H	K	1000	137,00 A2
M 1,6	x	8 -H	S	2000	131,00 A2
M 1,6	x	8 -H	K	1000	141,00 A2
M 1,6	x	10 -H	S	2000	135,00 A2
M 1,6	x	10 -H	K	1000	144,00 A2
M 1,6	x	12 -H	S	2000	139,00 A2
M 1,6	x	12 -H	K	1000	148,00 A2
M 1,6	x	16 -H	S	2000	142,00 A2
M 1,6	x	16 -H	K	1000	152,00 A2
M 2	x	3 -H	S	1000	11,00 A2
M 2	x	4 -H	S	1000	11,00 A2
M 2	x	5 -H	S	1000	11,00 A2
M 2	x	6 -H	S	1000	11,00 A2
M 2	x	8 -H	S	1000	11,00 A2
M 2	x	10 -H	S	1000	11,00 A2
M 2	x	12 -H	S	1000	12,00 A2
M 2	x	14 -H	S	1000	22,80 A2
M 2	x	16 -H	S	1000	38,00 A2
M 2	x	20 -H	S	1000	42,00 A2
M 2,5	x	3 -H	S	1000	22,80 A2
M 2,5	x	4 -H	S	1000	22,80 A2
M 2,5	x	5 -H	S	1000	11,00 A2
M 2,5	x	6 -H	S	1000	11,00 A2
M 2,5	x	8 -H	S	1000	11,00 A2
M 2,5	x	10 -H	S	1000	11,00 A2
M 2,5	x	12 -H	S	1000	11,40 A2
M 2,5	x	16 -H	S	1000	12,40 A2
M 2,5	x	20 -H	S	1000	13,30 A2
M 2,5	x	25 -H	S	1000	28,50 A2
M 3	x	4 -H	S	1000	12,50 A2
M 3	x	5 -H	S	1000	10,60 A2
M 3	x	5 -H	K	200	12,50 A2
M 3	x	6 -H	S	1000	7,10 A2
M 3	x	6 -H	K	200	8,90 A2
M 3	x	8 -H	S	1000	7,50 A2
M 3	x	8 -H	K	200	9,40 A2
M 3	x	10 -H	S	1000	8,00 A2
M 3	x	10 -H	K	200	9,90 A2
M 3	x	12 -H	S	1000	8,50 A2
M 3	x	12 -H	K	200	10,40 A2

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	16 -H	S	1000	9,20 A2
M 3	x	16 -H	K	200	11,10 A2
M 3	x	20 -H	S	1000	10,60 A2
M 3	x	20 -H	K	200	12,40 A2
M 3	x	22 -H	S	1000	17,10 A2
M 3	x	25 -H	S	1000	11,50 A2
M 3	x	30 -H	S	1000	16,90 A2
M 3	x	35 -H	S	500	28,50 A2
M 3	x	40 -H	S	500	35,50 A2
M 3	x	45 -H	S	500	65,00 A2
M 3	x	50 -H	S	500	65,00 A2
M 4	x	5 -H	S	1000	14,30 A2
M 4	x	6 -H	S	1000	11,30 A2
M 4	x	6 -H	K	200	13,20 A2
M 4	x	8 -H	S	1000	11,30 A2
M 4	x	8 -H	K	200	13,20 A2
M 4	x	10 -H	S	1000	11,80 A2
M 4	x	10 -H	K	200	13,70 A2
M 4	x	12 -H	S	1000	12,40 A2
M 4	x	12 -H	K	200	14,30 A2
M 4	x	14 -H	S	1000	14,00 A2
M 4	x	16 -H	S	1000	14,00 A2
M 4	x	16 -H	K	200	15,90 A2
M 4	x	18 -H	S	1000	15,70 A2
M 4	x	20 -H	S	1000	15,50 A2
M 4	x	20 -H	K	200	17,40 A2
M 4	x	25 -H	S	1000	18,00 A2
M 4	x	25 -H	K	200	19,90 A2
M 4	x	30 -H	S	1000	21,10 A2
M 4	x	30 -H	K	200	22,90 A2
M 4	x	35 -H	S	500	26,50 A2
M 4	x	35 -H	K	200	28,50 A2
M 4	x	40 -H	S	500	28,50 A2
M 4	x	40 -H	K	200	30,50 A2
M 4	x	45 -H	S	500	65,00 A2
M 4	x	50 -H	S	500	65,00 A2
M 4	x	60 -H	S	500	86,00 A2
M 5	x	6 -H	S	500	28,50 A2
M 5	x	8 -H	S	500	20,10 A2
M 5	x	8 -H	K	200	22,00 A2
M 5	x	10 -H	S	500	19,90 A2
M 5	x	10 -H	K	200	21,80 A2
M 5	x	12 -H	S	500	20,10 A2
M 5	x	12 -H	K	200	22,00 A2
M 5	x	14 -H	S	500	22,50 A2
M 5	x	16 -H	S	500	22,40 A2
M 5	x	16 -H	K	200	24,30 A2
M 5	x	18 -H	S	500	33,00 A2
M 5	x	20 -H	S	500	25,00 A2
M 5	x	20 -H	K	200	27,00 A2
M 5	x	25 -H	S	500	29,00 A2
M 5	x	25 -H	K	200	30,50 A2
M 5	x	30 -H	S	500	33,50 A2
M 5	x	30 -H	K	200	35,50 A2
M 5	x	35 -H	S	500	38,00 A2
M 5	x	35 -H	K	200	40,00 A2
M 5	x	40 -H	S	200	44,00 A2
M 5	x	45 -H	S	200	54,00 A2
M 5	x	50 -H	S	200	57,00 A2
M 5	x	55 -H	S	200	71,00 A2
M 5	x	60 -H	S	200	71,00 A2
M 5	x	70 -H	S	200	96,00 A2
M 5	x	80 -H	S	200	113,00 A2
M 5	x	90 -H	S	200	133,00 A2
M 5	x	100 -H	S	200	161,00 A2
M 6	x	8 -H	S	200	33,50 A2
M 6	x	10 -H	S	200	25,00 A2
M 6	x	12 -H	S	200	26,50 A2
M 6	x	16 -H	S	200	30,00 A2
M 6	x	20 -H	S	200	32,50 A2
M 6	x	25 -H	S	200	36,50 A2
M 6	x	30 -H	S	200	42,50 A2
M 6	x	35 -H	S	200	47,00 A2
M 6	x	40 -H	S	200	54,00 A2
M 6	x	45 -H	S	200	60,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 50 -H	S	200	68,00 A2
M 6 x 55 -H	S	200	77,00 A2
M 6 x 60 -H	S	200	77,00 A2
M 6 x 70 -H	S	100	115,00 A2
M 6 x 80 -H	S	100	132,00 A2
M 6 x 90 -H	S	100	150,00 A2
M 6 x 100 -H	S	100	168,00 A2
M 6 x 110 -H	S	100	355,00 A2
M 6 x 120 -H	S	100	430,00 A2
M 8 x 10 -H	S	100	143,00 A2
M 8 x 12 -H	S	100	55,00 A2
M 8 x 16 -H	S	100	59,00 A2
M 8 x 20 -H	S	100	66,00 A2
M 8 x 25 -H	S	100	77,00 A2
M 8 x 30 -H	S	100	80,00 A2
M 8 x 35 -H	S	100	84,00 A2
M 8 x 40 -H	S	100	91,00 A2
M 8 x 45 -H	S	100	97,00 A2
M 8 x 50 -H	S	100	110,00 A2
M 8 x 55 -H	S	100	122,00 A2
M 8 x 60 -H	S	100	122,00 A2
M 8 x 70 -H	S	100	144,00 A2
M 8 x 80 -H	S	100	167,00 A2
M 8 x 105 -H	S	100	265,00 A2
M 8 x 130 -H	S	100	205,00 A2
M 10 x 12 -H	S	100	237,00 A2
M 10 x 16 -H	S	100	275,00 A2
M 10 x 20 -H	S	100	305,00 A2
M 10 x 25 -H	S	100	360,00 A2
M 10 x 30 -H	S	100	420,00 A2
M 10 x 35 -H	S	100	455,00 A2
M 10 x 40 -H	S	100	495,00 A2
M 10 x 45 -H	S	100	550,00 A2
M 10 x 50 -H	S	100	600,00 A2
M 10 x 55 -H	S	100	660,00 A2
M 10 x 60 -H	S	100	700,00 A2

DIN	00965.944	460
965	**A 4**	**H**



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 190

DIN 965 ➔ replaced by ISO 7046

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 1,6 x 3 -H	S	1000	126,00 A4
M 1,6 x 4 -H	S	1000	126,00 A4
M 1,6 x 5 -H	S	1000	137,00 A4
M 1,6 x 10 -H	S	1000	149,00 A4
M 1,6 x 16 -H	S	1000	158,00 A4
M 2 x 3 -H	S	1000	34,00 A4
M 2 x 4 -H	S	1000	34,00 A4
M 2 x 5 -H	S	1000	36,50 A4
M 2 x 6 -H	S	1000	39,50 A4
M 2 x 8 -H	S	1000	42,00 A4
M 2 x 10 -H	S	1000	44,50 A4
M 2 x 12 -H	S	1000	47,50 A4
M 2 x 16 -H	S	1000	51,00 A4
M 2 x 20 -H	S	1000	57,00 A4
M 2,5 x 3 -H	S	1000	34,00 A4
M 2,5 x 4 -H	S	1000	34,00 A4
M 2,5 x 5 -H	S	1000	38,00 A4
M 2,5 x 6 -H	S	1000	40,00 A4
M 2,5 x 8 -H	S	1000	46,50 A4
M 2,5 x 10 -H	S	1000	51,00 A4
M 2,5 x 12 -H	S	1000	55,00 A4
M 2,5 x 14 -H	S	1000	62,00 A4
M 2,5 x 16 -H	S	1000	62,00 A4
M 2,5 x 20 -H	S	1000	74,00 A4
M 2,5 x 25 -H	S	1000	89,00 A4
M 3 x 4 -H	S	1000	42,00 A4
M 3 x 5 -H	S	1000	42,00 A4
M 3 x 6 -H	S	1000	12,40 A4
M 3 x 8 -H	S	1000	12,10 A4
M 3 x 10 -H	S	1000	13,40 A4
M 3 x 12 -H	S	1000	14,40 A4
M 3 x 14 -H	S	1000	15,60 A4
M 3 x 16 -H	S	1000	15,60 A4
M 3 x 20 -H	S	1000	17,40 A4
M 3 x 25 -H	S	1000	20,40 A4
M 3 x 30 -H	S	1000	30,00 A4
M 3 x 35 -H	S	1000	55,00 A4
M 3 x 40 -H	S	500	70,00 A4
M 4 x 5 -H	S	1000	28,50 A4
M 4 x 6 -H	S	1000	20,10 A4
M 4 x 8 -H	S	1000	18,10 A4
M 4 x 10 -H	S	1000	19,30 A4
M 4 x 12 -H	S	1000	20,80 A4
M 4 x 16 -H	S	1000	22,30 A4
M 4 x 18 -H	S	1000	25,50 A4
M 4 x 20 -H	S	1000	25,00 A4
M 4 x 25 -H	S	1000	30,00 A4
M 4 x 30 -H	S	1000	37,50 A4
M 4 x 35 -H	S	500	47,00 A4
M 4 x 40 -H	S	500	51,00 A4
M 4 x 45 -H	S	500	115,00 A4
M 4 x 50 -H	S	200	115,00 A4
M 4 x 55 -H	S	200	139,00 A4
M 4 x 60 -H	S	200	179,00 A4
M 5 x 6 -H	S	500	42,00 A4
M 5 x 8 -H	S	500	38,00 A4
M 5 x 10 -H	S	500	28,50 A4
M 5 x 12 -H	S	500	30,50 A4
M 5 x 16 -H	S	500	32,50 A4
M 5 x 20 -H	S	500	35,50 A4
M 5 x 25 -H	S	500	42,50 A4
M 5 x 30 -H	S	500	50,00 A4
M 5 x 35 -H	S	200	62,00 A4
M 5 x 40 -H	S	200	80,00 A4
M 5 x 45 -H	S	200	134,00 A4
M 5 x 50 -H	S	200	147,00 A4
M 5 x 55 -H	S	200	172,00 A4
M 5 x 60 -H	S	200	200,00 A4
M 6 x 8 -H	S	200	52,00 A4
M 6 x 10 -H	S	200	42,50 A4
M 6 x 12 -H	S	200	44,50 A4
M 6 x 16 -H	S	200	48,00 A4
M 6 x 20 -H	S	200	52,00 A4
M 6 x 25 -H	S	200	60,00 A4
M 6 x 30 -H	S	200	64,00 A4
M 6 x 35 -H	S	200	84,00 A4
M 6 x 40 -H	S	200	84,00 A4
M 6 x 45 -H	S	200	114,00 A4
M 6 x 50 -H	S	200	114,00 A4
M 6 x 55 -H	S	200	137,00 A4
M 6 x 60 -H	S	200	137,00 A4
M 6 x 70 -H	S	200	200,00 A4
M 6 x 80 -H	S	200	255,00 A4
M 6 x 90 -H	S	200	305,00 A4
M 8 x 10 -H	S	200	137,00 A4
M 8 x 12 -H	S	100	137,00 A4
M 8 x 16 -H	S	100	112,00 A4
M 8 x 20 -H	S	100	120,00 A4
M 8 x 25 -H	S	100	129,00 A4
M 8 x 30 -H	S	100	149,00 A4
M 8 x 35 -H	S	100	174,00 A4
M 8 x 40 -H	S	100	192,00 A4
M 8 x 45 -H	S	100	370,00 A4
M 8 x 50 -H	S	100	435,00 A4
M 8 x 55 -H	S	100	550,00 A4
M 8 x 60 -H	S	100	610,00 A4
M 8 x 70 -H	S	100	700,00 A4
M 8 x 80 -H	S	100	790,00 A4
M 8 x 90 -H	S	100	900,00 A4
M 10 x 16 -H	S	100	530,00 A4
M 10 x 20 -H	S	100	295,00 A4
M 10 x 25 -H	S	100	320,00 A4
M 10 x 30 -H	S	100	340,00 A4
M 10 x 35 -H	S	100	380,00 A4
M 10 x 40 -H	S	100	415,00 A4
M 10 x 45 -H	S	100	425,00 A4
M 10 x 50 -H	S	100	425,00 A4
M 10 x 55 -H	S	100	475,00 A4
M 10 x 60 -H	S	100	475,00 A4
M 10 x 70 -H	S	100	890,00 A4
M 10 x 80 -H	S	100	1050,00 A4

DIN	00965.925	460
965	**A 2**	**Z**



Countersunk head screws with Pozidriv cross recess Z

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 191

DIN 965 ➔ replaced by ISO 7046

RoHS ✓ REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 1,6 x 3 -Z	S	2000	114,00 A2
M 1,6 x 4 -Z	S	2000	114,00 A2
M 1,6 x 5 -Z	S	2000	124,00 A2
M 1,6 x 6 -Z	S	2000	127,00 A2
M 1,6 x 8 -Z	S	2000	131,00 A2
M 1,6 x 10 -Z	S	2000	135,00 A2
M 1,6 x 12 -Z	S	2000	139,00 A2
M 1,6 x 16 -Z	S	2000	142,00 A2
M 2 x 3 -Z	S	1000	22,80 A2
M 2 x 4 -Z	S	1000	24,70 A2
M 2 x 5 -Z	S	1000	27,00 A2
M 2 x 6 -Z	S	1000	30,00 A2
M 2 x 10 -Z	S	1000	30,00 A2
M 2 x 12 -Z	S	1000	31,00 A2
M 2 x 14 -Z	S	1000	38,00 A2
M 2 x 16 -Z	S	1000	38,00 A2
M 2 x 20 -Z	S	1000	42,00 A2
M 2,5 x 3 -Z	S	1000	22,80 A2
M 2,5 x 4 -Z	S	1000	22,80 A2
M 2,5 x 5 -Z	S	1000	11,00 A2
M 2,5 x 6 -Z	S	1000	11,00 A2
M 2,5 x 8 -Z	S	1000	11,00 A2
M 2,5 x 10 -Z	S	1000	11,00 A2
M 2,5 x 12 -Z	S	1000	11,40 A2
M 2,5 x 16 -Z	S	1000	12,40 A2
M 2,5 x 20 -Z	S	1000	13,30 A2
M 2,5 x 25 -Z	S	1000	28,50 A2
M 3 x 4 -Z	S	1000	12,50 A2
M 3 x 5 -Z	S	1000	10,60 A2
M 3 x 6 -Z	S	1000	7,10 A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 8 -Z	S	1000	7,50 A2
M 3 x 10 -Z	S	1000	8,00 A2
M 3 x 12 -Z	S	1000	8,50 A2
M 3 x 14 -Z	S	1000	8,40 A2
M 3 x 16 -Z	S	1000	9,20 A2
M 3 x 22 -Z	S	1000	11,50 A2
M 3 x 25 -Z	S	1000	11,50 A2
M 3 x 30 -Z	S	1000	16,90 A2
M 3 x 35 -Z	S	500	28,50 A2
M 3 x 40 -Z	S	500	35,50 A2
M 3 x 45 -Z	S	500	65,00 A2
M 3 x 50 -Z	S	500	65,00 A2
M 4 x 5 -Z	S	1000	14,30 A2
M 4 x 6 -Z	S	1000	11,30 A2
M 4 x 8 -Z	S	1000	11,30 A2
M 4 x 10 -Z	S	1000	11,80 A2
M 4 x 12 -Z	S	1000	12,40 A2
M 4 x 14 -Z	S	1000	14,00 A2
M 4 x 16 -Z	S	1000	14,00 A2
M 4 x 20 -Z	S	1000	15,50 A2
M 4 x 22 -Z	S	1000	18,00 A2
M 4 x 25 -Z	S	1000	18,00 A2
M 4 x 30 -Z	S	1000	21,10 A2
M 4 x 35 -Z	S	1000	26,50 A2
M 4 x 40 -Z	S	500	28,50 A2
M 4 x 45 -Z	S	500	65,00 A2
M 4 x 60 -Z	S	500	76,00 A2
M 5 x 8 -Z	S	500	20,10 A2
M 5 x 10 -Z	S	500	19,90 A2
M 5 x 12 -Z	S	500	20,10 A2
M 5 x 16 -Z	S	500	22,40 A2
M 5 x 18 -Z	S	500	27,00 A2
M 5 x 20 -Z	S	500	25,00 A2
M 5 x 25 -Z	S	500	29,00 A2
M 5 x 30 -Z	S	500	33,50 A2
M 5 x 35 -Z	S	500	38,00 A2
M 5 x 40 -Z	S	200	44,00 A2
M 5 x 45 -Z	S	200	57,00 A2
M 5 x 50 -Z	S	200	57,00 A2
M 5 x 55 -Z	S	200	71,00 A2
M 5 x 60 -Z	S	200	71,00 A2
M 5 x 70 -Z	S	200	96,00 A2
M 5 x 80 -Z	S	200	113,00 A2
M 5 x 90 -Z	S	200	133,00 A2
M 5 x 100 -Z	S	200	161,00 A2
M 6 x 8 -Z	S	200	33,50 A2
M 6 x 10 -Z	S	200	25,00 A2
M 6 x 12 -Z	S	200	26,50 A2
M 6 x 16 -Z	S	200	30,00 A2
M 6 x 20 -Z	S	200	32,50 A2
M 6 x 25 -Z	S	200	36,50 A2
M 6 x 30 -Z	S	200	42,50 A2
M 6 x 35 -Z	S	200	47,00 A2
M 6 x 40 -Z	S	200	54,00 A2
M 6 x 45 -Z	S	200	86,00 A2
M 6 x 50 -Z	S	200	68,00 A2
M 6 x 55 -Z	S	200	77,00 A2
M 6 x 60 -Z	S	200	77,00 A2
M 6 x 70 -Z	S	100	171,00 A2
M 6 x 80 -Z	S	100	199,00 A2
M 6 x 90 -Z	S	100	237,00 A2
M 6 x 100 -Z	S	100	285,00 A2
M 6 x 110 -Z	S	100	355,00 A2
M 6 x 120 -Z	S	100	430,00 A2
M 8 x 10 -Z	S	100	143,00 A2
M 8 x 12 -Z	S	100	161,00 A2
M 8 x 16 -Z	S	100	190,00 A2
M 8 x 20 -Z	S	100	209,00 A2
M 8 x 25 -Z	S	100	247,00 A2
M 8 x 30 -Z	S	100	285,00 A2
M 8 x 40 -Z	S	100	345,00 A2
M 8 x 45 -Z	S	100	380,00 A2
M 8 x 50 -Z	S	100	410,00 A2
M 8 x 55 -Z	S	100	445,00 A2
M 8 x 60 -Z	S	100	475,00 A2
M 8 x 70 -Z	S	100	560,00 A2
M 8 x 80 -Z	S	100	670,00 A2
M 10 x 12 -Z	S	100	237,00 A2
M 10 x 16 -Z	S	100	275,00 A2
M 10 x 25 -Z	S	100	360,00 A2
M 10 x 35 -Z	S	100	455,00 A2
M 10 x 40 -Z	S	100	495,00 A2

~DIN	00965.926	460
965	**A 2**	**ISR**



Countersunk head screws, ISR = hexalobular socket

Dimensions ➔ TI-39

Material properties ➔ TI-236

Steel ➔ pg. 191

~ ISO 14581

RoHS ✓

REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 1,6 x 3 -T5	K	1000	124,00 A2
M 1,6 x 4 -T5	K	1000	124,00 A2
M 1,6 x 5 -T5	K	1000	133,00 A2
M 1,6 x 6 -T5	K	1000	137,00 A2
M 1,6 x 8 -T5	K	1000	141,00 A2
M 1,6 x 10 -T5	K	1000	144,00 A2
M 2 x 3 -T6	S	2000	22,80 A2
M 2 x 4 -T6	S	2000	24,70 A2
M 2 x 5 -T6	S	2000	27,00 A2
M 2 x 6 -T6	S	2000	30,00 A2
M 2 x 8 -T6	S	2000	32,00 A2
M 2 x 10 -T6	S	2000	34,00 A2
M 2 x 12 -T6	S	2000	35,50 A2
M 2 x 16 -T6	S	2000	38,00 A2
M 2 x 20 -T6	S	2000	42,00 A2
M 2,5 x 3 -T8	S	2000	22,80 A2
M 2,5 x 4 -T8	S	2000	22,80 A2
M 2,5 x 5 -T8	S	1000	15,60 A2
M 2,5 x 6 -T8	S	1000	15,90 A2
M 2,5 x 8 -T8	S	1000	16,30 A2
M 2,5 x 10 -T8	S	1000	16,90 A2
M 2,5 x 12 -T8	S	1000	17,80 A2
M 2,5 x 16 -T8	S	1000	19,50 A2
M 2,5 x 18 -T8	S	1000	23,20 A2
M 2,5 x 20 -T8	S	1000	20,50 A2
M 2,5 x 25 -T8	S	1000	28,50 A2
M 3 x 4 -T10	S	1000	19,00 A2
M 3 x 5 -T10	S	1000	15,90 A2
M 3 x 6 -T10	S	1000	10,60 A2
M 3 x 8 -T10	S	1000	11,20 A2
M 3 x 10 -T10	S	1000	12,00 A2
M 3 x 12 -T10	S	1000	12,50 A2
M 3 x 16 -T10	S	1000	13,70 A2
M 3 x 20 -T10	S	1000	15,80 A2
M 3 x 22 -T10	S	1000	11,50 A2
M 3 x 25 -T10	S	1000	17,10 A2
M 3 x 30 -T10	S	1000	25,50 A2
M 4 x 5 -T20	S	1000	21,40 A2
M 4 x 6 -T20	S	1000	16,90 A2
M 4 x 8 -T20	S	1000	17,10 A2
M 4 x 10 -T20	S	1000	17,60 A2
M 4 x 12 -T20	S	1000	18,60 A2
M 4 x 16 -T20	S	1000	21,10 A2
M 4 x 20 -T20	S	1000	23,10 A2
M 4 x 25 -T20	S	1000	27,00 A2
M 4 x 30 -T20	S	1000	32,00 A2
M 4 x 35 -T20	S	500	40,00 A2
M 4 x 40 -T20	S	500	43,00 A2
M 5 x 6 -T25	S	1000	33,50 A2
M 5 x 8 -T25	S	500	29,50 A2
M 5 x 10 -T25	S	500	30,00 A2
M 5 x 12 -T25	S	500	30,00 A2
M 5 x 14 -T25	S	500	42,00 A2
M 5 x 16 -T25	S	500	33,50 A2
M 5 x 20 -T25	S	500	24,30 A2
M 5 x 25 -T25	S	500	43,00 A2
M 5 x 30 -T25	S	500	50,00 A2
M 5 x 35 -T25	S	500	56,00 A2
M 5 x 40 -T25	S	200	66,00 A2
M 5 x 45 -T25	S	200	80,00 A2
M 5 x 50 -T25	S	200	105,00 A2
M 6 x 8 -T30	S	1000	28,50 A2
M 6 x 10 -T30	S	200	20,50 A2
M 6 x 12 -T30	S	200	39,00 A2
M 6 x 16 -T30	S	200	44,50 A2
M 6 x 20 -T30	S	200	48,50 A2
M 6 x 25 -T30	S	200	54,00 A2
M 6 x 30 -T30	S	200	64,00 A2
M 6 x 35 -T30	S	200	84,00 A2
M 6 x 40 -T30	S	200	87,00 A2
M 6 x 45 -T30	S	200	87,00 A2
M 6 x 50 -T30	S	200	156,00 A2
M 6 x 60 -T30	S	200	158,00 A2
M 8 x 10 -T40	S	100	143,00 A2
M 8 x 12 -T40	S	100	161,00 A2
M 8 x 16 -T40	S	100	190,00 A2
M 8 x 20 -T40	S	100	209,00 A2
M 8 x 25 -T40	S	100	247,00 A2
M 8 x 30 -T40	S	100	285,00 A2
M 8 x 35 -T40	S	100	315,00 A2
M 8 x 40 -T40	S	100	345,00 A2
M 8 x 45 -T40	S	100	380,00 A2
M 8 x 50 -T40	S	100	410,00 A2
M 8 x 55 -T40	S	100	445,00 A2
M 8 x 60 -T40	S	50	475,00 A2
M10 x 12 -T50	S	100	325,00 A2
M10 x 16 -T50	S	100	380,00 A2
M10 x 20 -T50	S	100	410,00 A2
M10 x 25 -T50	S	100	485,00 A2
M10 x 30 -T50	S	100	570,00 A2
M10 x 35 -T50	S	100	620,00 A2
M10 x 40 -T50	S	100	710,00 A2
M10 x 45 -T50	S	100	760,00 A2
M10 x 50 -T50	S	100	800,00 A2
M10 x 55 -T50	S	100	880,00 A2
M10 x 60 -T50	S	100	950,00 A2

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Dimensions	PU	Pieces	€/100/Mat.
~DIN	00965.948		460
965	**A 4**		**ISR**



Countersunk head screws, ISR = hexalobular socket

Dimensions ➔ TI-39 Material properties ➔ TI-236

Steel ➔ pg. 191

~ ISO 14581

RoHS ✓ REACh SVHC free

M 2	x	3	-T6	S	2000	40,00 A4
M 2	x	4	-T6	S	2000	44,00 A4
M 2	x	5	-T6	S	2000	47,50 A4
M 2	x	6	-T6	S	2000	52,00 A4
M 2	x	8	-T6	S	2000	57,00 A4
M 2	x	10	-T6	S	2000	41,00 A4
M 2	x	12	-T6	S	2000	62,00 A4
M 2	x	16	-T6	S	2000	67,00 A4
M 2	x	20	-T6	S	2000	73,00 A4
M 2,5	x	3	-T8	S	2000	40,00 A4
M 2,5	x	4	-T8	S	2000	40,00 A4
M 2,5	x	5	-T8	S	1000	28,50 A4
M 2,5	x	6	-T8	S	1000	28,50 A4
M 2,5	x	8	-T8	S	1000	29,50 A4
M 2,5	x	10	-T8	S	1000	30,50 A4
M 2,5	x	12	-T8	S	1000	32,50 A4
M 2,5	x	16	-T8	S	1000	36,00 A4
M 2,5	x	18	-T8	S	1000	42,00 A4
M 2,5	x	20	-T8	S	1000	47,50 A4
M 2,5	x	25	-T8	S	1000	52,00 A4
M 3	x	4	-T10	S	1000	34,50 A4
M 3	x	5	-T10	S	1000	28,50 A4
M 3	x	6	-T10	S	1000	19,00 A4
M 3	x	8	-T10	S	1000	20,90 A4
M 3	x	10	-T10	S	1000	21,80 A4
M 3	x	12	-T10	S	1000	22,80 A4
M 3	x	16	-T10	S	1000	24,70 A4
M 3	x	20	-T10	S	1000	28,50 A4
M 3	x	25	-T10	S	1000	30,50 A4
M 3	x	30	-T10	S	1000	45,50 A4
M 4	x	5	-T20	S	1000	38,00 A4
M 4	x	6	-T20	S	1000	30,50 A4
M 4	x	8	-T20	S	1000	30,50 A4
M 4	x	10	-T20	S	1000	32,50 A4
M 4	x	12	-T20	S	1000	33,50 A4
M 4	x	16	-T20	S	1000	38,00 A4
M 4	x	20	-T20	S	1000	42,00 A4
M 4	x	25	-T20	S	1000	47,50 A4
M 4	x	30	-T20	S	1000	57,00 A4
M 4	x	35	-T20	S	500	71,00 A4
M 4	x	40	-T20	S	500	76,00 A4
M 5	x	6	-T25	S	1000	59,00 A4
M 5	x	8	-T25	S	500	61,00 A4
M 5	x	10	-T25	S	500	67,00 A4
M 5	x	12	-T25	S	500	72,00 A4
M 5	x	14	-T25	S	500	76,00 A4
M 5	x	16	-T25	S	500	80,00 A4
M 5	x	20	-T25	S	500	84,00 A4
M 5	x	25	-T25	S	500	86,00 A4
M 5	x	30	-T25	S	500	89,00 A4
M 5	x	35	-T25	S	500	99,00 A4
M 5	x	40	-T25	S	500	85,00 A4
M 5	x	45	-T25	S	200	142,00 A4
M 5	x	50	-T25	S	200	190,00 A4
M 6	x	8	-T30	S	1000	52,00 A4
M 6	x	10	-T30	S	200	61,00 A4
M 6	x	12	-T30	S	200	69,00 A4
M 6	x	16	-T30	S	200	80,00 A4
M 6	x	20	-T30	S	200	86,00 A4
M 6	x	25	-T30	S	200	95,00 A4
M 6	x	30	-T30	S	200	112,00 A4
M 6	x	35	-T30	S	200	146,00 A4
M 6	x	40	-T30	S	200	152,00 A4
M 6	x	45	-T30	S	200	190,00 A4
M 6	x	50	-T30	S	200	275,00 A4
M 6	x	60	-T30	S	200	315,00 A4
M 8	x	10	-T40	S	100	260,00 A4
M 8	x	12	-T40	S	100	285,00 A4
M 8	x	16	-T40	S	200	75,00 A4
M 8	x	20	-T40	S	200	85,00 A4
M 8	x	25	-T40	S	100	440,00 A4
M 8	x	30	-T40	S	100	510,00 A4
M 8	x	35	-T40	S	100	550,00 A4
M 8	x	40	-T40	S	100	600,00 A4
M 8	x	45	-T40	S	100	670,00 A4
M 8	x	50	-T40	S	100	720,00 A4
M 8	x	60	-T40	S	50	840,00 A4

DIN	00966.924	460
966	**A 2**	**H**



Raised countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 192

DIN 966 ➔ replaced by ISO 7047

RoHS ✓ REACh SVHC free

M 2,5	x	4	-H	S	1000	28,50 A2
M 2,5	x	5	-H	S	1000	26,00 A2
M 2,5	x	6	-H	S	1000	21,80 A2
M 2,5	x	8	-H	S	1000	13,20 A2
M 2,5	x	10	-H	S	1000	13,20 A2
M 2,5	x	12	-H	S	1000	16,10 A2
M 2,5	x	16	-H	S	1000	20,90 A2
M 2,5	x	20	-H	S	1000	30,50 A2
M 2,5	x	25	-H	S	1000	45,50 A2
M 3	x	4	-H	S	1000	19,00 A2
M 3	x	5	-H	S	1000	10,60 A2
M 3	x	6	-H	S	1000	7,10 A2
M 3	x	8	-H	S	1000	7,50 A2
M 3	x	10	-H	S	1000	8,00 A2
M 3	x	12	-H	S	1000	9,20 A2
M 3	x	16	-H	S	1000	9,20 A2
M 3	x	18	-H	S	1000	10,50 A2
M 3	x	20	-H	S	1000	10,60 A2
M 3	x	25	-H	S	1000	18,50 A2
M 3	x	30	-H	S	500	24,70 A2
M 3	x	35	-H	S	500	26,50 A2
M 3	x	45	-H	S	500	61,00 A2
M 3	x	50	-H	S	500	95,00 A2
M 4	x	5	-H	S	1000	22,80 A2
M 4	x	6	-H	S	1000	11,00 A2
M 4	x	8	-H	S	1000	11,30 A2
M 4	x	10	-H	S	1000	11,80 A2
M 4	x	12	-H	S	1000	12,40 A2
M 4	x	14	-H	S	1000	14,00 A2
M 4	x	16	-H	S	1000	14,00 A2
M 4	x	20	-H	S	1000	15,50 A2
M 4	x	25	-H	S	1000	18,00 A2
M 4	x	30	-H	S	500	21,10 A2
M 4	x	35	-H	S	500	26,50 A2
M 4	x	40	-H	S	500	28,50 A2
M 4	x	45	-H	S	500	67,00 A2
M 4	x	50	-H	S	500	110,00 A2
M 5	x	6	-H	S	500	30,50 A2
M 5	x	8	-H	S	500	20,10 A2
M 5	x	10	-H	S	500	19,90 A2
M 5	x	12	-H	S	500	20,10 A2
M 5	x	16	-H	S	500	22,40 A2
M 5	x	20	-H	S	500	25,00 A2
M 5	x	25	-H	S	500	29,00 A2
M 5	x	30	-H	S	500	33,50 A2
M 5	x	35	-H	S	500	38,00 A2
M 5	x	40	-H	S	200	44,00 A2
M 5	x	45	-H	S	200	59,00 A2
M 5	x	50	-H	S	200	62,00 A2
M 5	x	55	-H	S	200	86,00 A2
M 5	x	60	-H	S	200	81,00 A2
M 5	x	70	-H	S	200	114,00 A2
M 5	x	80	-H	S	200	161,00 A2
M 6	x	8	-H	S	200	38,00 A2
M 6	x	10	-H	S	200	38,00 A2
M 6	x	12	-H	S	200	26,50 A2
M 6	x	16	-H	S	200	30,00 A2
M 6	x	20	-H	S	200	32,50 A2
M 6	x	22	-H	S	200	126,00 A2
M 6	x	25	-H	S	200	36,50 A2
M 6	x	30	-H	S	200	42,50 A2
M 6	x	35	-H	S	200	47,00 A2
M 6	x	40	-H	S	200	54,00 A2
M 6	x	45	-H	S	200	63,00 A2
M 6	x	50	-H	S	200	64,00 A2
M 6	x	55	-H	S	200	77,00 A2
M 6	x	60	-H	S	200	77,00 A2
M 6	x	65	-H	S	200	142,00 A2
M 6	x	70	-H	S	200	167,00 A2
M 6	x	80	-H	S	200	209,00 A2
M 8	x	10	-H	S	200	57,00 A2
M 8	x	12	-H	S	200	57,00 A2
M 8	x	16	-H	S	200	45,00 A2
M 8	x	20	-H	S	200	47,50 A2
M 8	x	25	-H	S	200	59,00 A2
M 8	x	30	-H	S	200	64,00 A2
M 8	x	35	-H	S	100	71,00 A2
M 8	x	40	-H	S	100	75,00 A2
M 8	x	45	-H	S	100	151,00 A2
M 8	x	50	-H	S	100	151,00 A2
M 8	x	55	-H	S	100	163,00 A2
M 8	x	60	-H	S	100	175,00 A2

Dimensions	PU Pieces	€/100/Mat.
DIN	00966.944	460
966	**A 4**	**H**



Raised countersunk head screws with Phillips cross recess H

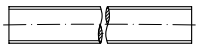
Dimensions ➔ TI-39
Standard conversion ➔ TI-11
Material properties ➔ TI-236
Steel ➔ pg. 192

DIN 966 ➔ replaced by ISO 7047

RoHS ✓ | REACh SVHC free

M 2,5	x 6 -H	S	1000	36,50	A4
M 2,5	x 8 -H	S	1000	22,10	A4
M 2,5	x 10 -H	S	1000	31,00	A4
M 2,5	x 12 -H	S	1000	27,00	A4
M 2,5	x 16 -H	S	1000	35,00	A4
M 2,5	x 20 -H	S	1000	51,00	A4
M 2,5	x 25 -H	S	1000	76,00	A4
M 3	x 4 -H	S	1000	31,50	A4
M 3	x 5 -H	S	1000	17,70	A4
M 3	x 6 -H	S	1000	12,10	A4
M 3	x 8 -H	S	1000	12,60	A4
M 3	x 10 -H	S	1000	13,40	A4
M 3	x 12 -H	S	1000	14,40	A4
M 3	x 16 -H	S	1000	15,60	A4
M 3	x 20 -H	S	1000	17,40	A4
M 3	x 25 -H	S	1000	20,40	A4
M 3	x 30 -H	S	1000	41,00	A4
M 4	x 6 -H	S	1000	18,30	A4
M 4	x 8 -H	S	1000	18,10	A4
M 4	x 10 -H	S	1000	19,30	A4
M 4	x 12 -H	S	1000	20,80	A4
M 4	x 16 -H	S	1000	22,30	A4
M 4	x 20 -H	S	1000	25,00	A4
M 4	x 25 -H	S	1000	30,00	A4
M 4	x 30 -H	S	1000	35,00	A4
M 4	x 35 -H	S	1000	44,50	A4
M 4	x 40 -H	S	1000	47,50	A4
M 5	x 6 -H	S	500	51,00	A4
M 5	x 8 -H	S	500	33,50	A4
M 5	x 10 -H	S	500	28,50	A4
M 5	x 12 -H	S	500	30,50	A4
M 5	x 16 -H	S	500	32,50	A4
M 5	x 20 -H	S	500	35,50	A4
M 5	x 25 -H	S	500	42,50	A4
M 5	x 30 -H	S	500	50,00	A4
M 5	x 35 -H	S	500	63,00	A4
M 5	x 40 -H	S	200	73,00	A4
M 5	x 45 -H	S	200	98,00	A4
M 5	x 50 -H	S	200	103,00	A4
M 6	x 8 -H	S	200	63,00	A4
M 6	x 10 -H	S	200	42,50	A4
M 6	x 12 -H	S	200	44,50	A4
M 6	x 16 -H	S	200	48,00	A4
M 6	x 20 -H	S	200	50,00	A4
M 6	x 25 -H	S	200	57,00	A4
M 6	x 30 -H	S	200	64,00	A4
M 6	x 35 -H	S	200	71,00	A4
M 6	x 40 -H	S	200	84,00	A4
M 6	x 45 -H	S	200	105,00	A4
M 6	x 50 -H	S	200	107,00	A4
M 6	x 55 -H	S	200	128,00	A4
M 6	x 60 -H	S	200	152,00	A4
M 8	x 10 -H	S	200	95,00	A4
M 8	x 16 -H	S	200	75,00	A4
M 8	x 20 -H	S	200	79,00	A4
M 8	x 25 -H	S	200	97,00	A4
M 8	x 30 -H	S	200	106,00	A4
M 8	x 35 -H	S	100	118,00	A4
M 8	x 40 -H	S	100	124,00	A4
M 8	x 45 -H	S	100	255,00	A4
M 8	x 50 -H	S	100	255,00	A4
M 8	x 55 -H	S	100	275,00	A4
M 8	x 60 -H	S	100	290,00	A4

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.920	470
975*	**A 2**	



Threaded rods, length 1000 mm

(as per DIN 976-1, type A)

Material properties ➔ TI-236
Steel ➔ pg. 192
Brass, Plastic ➔ pg. 630

colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 3	S	1	680,00	A2
M 4	S	1	650,00	A2
M 5	S	1	710,00	A2
M 6	S	1	720,00	A2
M 8	S	1	1140,00	A2
M 10	S	1	1610,00	A2
M 12	S	1	2350,00	A2
M 14	S	1	3350,00	A2
M 16	S	1	3800,00	A2
M 20	S	1	6300,00	A2
M 24	S	1	8800,00	A2
M 27	S	1	10500,00	A2
M 30	S	1	14400,00	A2
M 36	S	1	19200,00	A2

Colour marking for threaded rods

Property class/Mat.	Colour	~ Ral No.
A2	green	6024
A4	red	3000
others	as agreed	

Colour instead of stamping according to DIN 976-1

Dimensions	PU Pieces	€/100/Mat.
~DIN	00975.926	470
975*	**A 2**	**2000**



Threaded rods, length 2.000 mm

(as per DIN 976-1, type A)

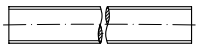
Material properties ➔ TI-236
Steel ➔ pg. 193

colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 8	x 2000	S	1	2280,00 A2
M 10	x 2000	S	1	3200,00 A2
M 12	x 2000	S	1	4650,00 A2
M 16	x 2000	S	1	7600,00 A2
M 20	x 2000	S	1	12500,00 A2
M 24	x 2000	S	1	17500,00 A2

~DIN	00975.940	470
975*	**A 4**	



Threaded rods, length 1000 mm

(as per DIN 976-1, type A)

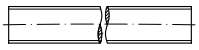
Material properties ➔ TI-236
Steel ➔ pg. 192
Brass, Plastic ➔ pg. 630

colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 2	S	1	1220,00	A4
M 3	S	1	880,00	A4
M 4	S	1	820,00	A4
M 5	S	1	1180,00	A4
M 6	S	1	1240,00	A4
M 8	S	1	1620,00	A4
M 10	S	1	2480,00	A4
M 12	S	1	3400,00	A4
M 14	S	1	4600,00	A4
M 16	S	1	6000,00	A4
M 18	S	1	7400,00	A4
M 20	S	1	8700,00	A4
M 22	S	1	11800,00	A4
M 24	S	1	13900,00	A4
M 27	S	1	16000,00	A4
M 30	S	1	19600,00	A4
M 33	S	1	29200,00	A4
M 36	S	1	29800,00	A4

Dimensions			PU	Pieces	€/100/Mat.
~DIN	00975.924				470
975*	**A 2**				**left**



Threaded rods, length 1000 mm with metric left hand thread

(as per DIN 976-1, type A)

Material properties ➔ TI-236

Steel ➔ pg. 194

colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 6 -LH	S	1		3000,00 A2
M 8 -LH	S	1		3000,00 A2
M 10 -LH	S	1		4100,00 A2
M 12 -LH	S	1		7100,00 A2
M 16 -LH	S	1		11400,00 A2
M 20 -LH	S	1		18600,00 A2

~DIN	00975.944	472
975	**A 4**	**trapezoid**



Threaded rods, length 1000 mm, with normal trapezoidal thread

thread acc. to DIN 103,
thread ends acc. to DIN 78-Ko/ISO 4753-RL

round nuts with trap. thread ➔ article 88089

Material properties ➔ TI-236

Steel ➔ pg. 197

RoHS ✓ | REACh SVHC free

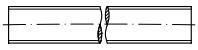
TR 16	x	4	S	1		33200,00 A4
TR 20	x	4	S	1		44900,00 A4
TR 24	x	5	S	1		74300,00 A4
TR 30	x	6	S	1		86700,00 A4

Colour marking for threaded rods

Property class/Mat.	Colour	~ Ral No.
A2	green	6024
A4	red	3000
others	as agreed	

Colour instead of stamping according to DIN 976-1

Dimensions			PU	Pieces	€/100/Mat.
~DIN	00975.950				470
975*	**A 5**				



Threaded rods, length 1000 mm

(as per DIN 976-1, type A)

Material properties ➔ TI-236

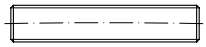
Steel ➔ pg. 192
Brass, Plastic ➔ pg. 630

colour codes (as substitute for marking) ➔ information box

RoHS ✓ | REACh SVHC free

M 6	S	1		1670,00 A5
M 8	S	1		2190,00 A5
M 10	S	1		3350,00 A5
M 12	S	1		4600,00 A5
M 16	S	1		8100,00 A5
M 20	S	1		11700,00 A5
M 24	S	1		18700,00 A5

DIN	00976.922	470
976-1	**A 2**	**type B**



Stud bolts, B = with flat point

Material properties ➔ TI-236

RoHS ✓ | REACh SVHC free

BM 8	x	16	S	100		146,00 A2
BM 8	x	20	S	100		182,00 A2
BM 8	x	25	S	100		228,00 A2
BM 8	x	30	S	100		275,00 A2
BM 8	x	35	S	100		320,00 A2
BM 8	x	40	S	100		365,00 A2
BM 8	x	45	S	100		410,00 A2
BM 8	x	50	S	100		460,00 A2
BM 8	x	55	S	100		510,00 A2
BM 8	x	60	S	100		550,00 A2
BM 8	x	65	S	100		600,00 A2
BM 8	x	70	S	100		650,00 A2
BM 8	x	80	S	100		730,00 A2
BM 8	x	90	S	100		830,00 A2
BM 8	x	100	S	100		910,00 A2
BM 8	x	110	S	100		1010,00 A2
BM 8	x	120	S	100		1100,00 A2
BM 8	x	130	S	100		1200,00 A2
BM 8	x	140	S	50		1290,00 A2
BM 8	x	150	S	50		1390,00 A2
BM 8	x	160	S	50		1460,00 A2
BM 8	x	170	S	50		1560,00 A2
BM 8	x	180	S	50		1650,00 A2
BM 8	x	190	S	50		1750,00 A2

Dimensions			PU	Pieces	€/100/Mat.
BM 8	x	200	S	50	1840,00 A2
BM 8	x	250	S	25	2290,00 A2
BM 8	x	300	S	25	2750,00 A2
BM 8	x	500	S	10	4600,00 A2
BM 10	x	20	S	100	194,00 A2
BM 10	x	25	S	100	243,00 A2
BM 10	x	30	S	100	290,00 A2
BM 10	x	35	S	100	340,00 A2
BM 10	x	40	S	100	390,00 A2
BM 10	x	45	S	100	440,00 A2
BM 10	x	50	S	100	485,00 A2
BM 10	x	55	S	100	540,00 A2
BM 10	x	60	S	100	590,00 A2
BM 10	x	65	S	100	640,00 A2
BM 10	x	70	S	100	690,00 A2
BM 10	x	80	S	100	780,00 A2
BM 10	x	90	S	100	880,00 A2
BM 10	x	100	S	100	990,00 A2
BM 10	x	110	S	100	1080,00 A2
BM 10	x	120	S	50	1180,00 A2
BM 10	x	130	S	50	1270,00 A2
BM 10	x	140	S	50	1370,00 A2
BM 10	x	150	S	50	1460,00 A2
BM 10	x	160	S	50	1560,00 A2
BM 10	x	170	S	50	1650,00 A2
BM 10	x	180	S	25	1750,00 A2
BM 10	x	190	S	25	1840,00 A2
BM 10	x	200	S	25	1950,00 A2
BM 10	x	250	S	25	2430,00 A2
BM 10	x	300	S	10	2950,00 A2
BM 10	x	500	S	10	4850,00 A2
BM 12	x	30	S	100	285,00 A2
BM 12	x	35	S	100	330,00 A2
BM 12	x	40	S	100	380,00 A2
BM 12	x	45	S	100	425,00 A2
BM 12	x	50	S	100	470,00 A2
BM 12	x	55	S	100	530,00 A2
BM 12	x	60	S	100	570,00 A2
BM 12	x	65	S	50	620,00 A2
BM 12	x	70	S	50	670,00 A2
BM 12	x	80	S	50	760,00 A2
BM 12	x	90	S	50	860,00 A2
BM 12	x	100	S	50	950,00 A2
BM 12	x	110	S	50	1050,00 A2
BM 12	x	120	S	50	1140,00 A2
BM 12	x	130	S	50	1240,00 A2
BM 12	x	140	S	25	1330,00 A2
BM 12	x	150	S	25	1420,00 A2
BM 12	x	160	S	25	1520,00 A2
BM 12	x	170	S	25	1610,00 A2
BM 12	x	180	S	25	1710,00 A2
BM 12	x	190	S	25	1800,00 A2
BM 12	x	200	S	25	1900,00 A2
BM 12	x	250	S	10	2370,00 A2
BM 12	x	300	S	10	2850,00 A2
BM 12	x	500	S	10	4750,00 A2
BM 16	x	40	S	50	610,00 A2
BM 16	x	50	S	50	760,00 A2
BM 16	x	60	S	50	910,00 A2
BM 16	x	70	S	25	1080,00 A2
BM 16	x	80	S	25	1240,00 A2
BM 16	x	90	S	25	1390,00 A2
BM 16	x	100	S	25	1540,00 A2
BM 16	x	110	S	25	1690,00 A2
BM 16	x	120	S	25	1840,00 A2
BM 16	x	130	S	10	1990,00 A2
BM 16	x	140	S	10	2140,00 A2
BM 16	x	150	S	10	2290,00 A2
BM 16	x	160	S	10	2450,00 A2
BM 16	x	170	S	10	2600,00 A2
BM 16	x	180	S	10	2750,00 A2
BM 16	x	190	S	10	2900,00 A2
BM 16	x	200	S	10	3050,00 A2
BM 16	x	250	S	10	3850,00 A2
BM 16	x	300	S	10	4600,00 A2

Dimensions			PU	Pieces	€/100/Mat.
BM 16	x	500	S	5	7600,00 A2
BM 20	x	40	S	25	1010,00 A2
BM 20	x	50	S	25	1270,00 A2
BM 20	x	60	S	25	1520,00 A2
BM 20	x	70	S	25	1760,00 A2
BM 20	x	80	S	10	2010,00 A2
BM 20	x	90	S	10	2260,00 A2
BM 20	x	100	S	10	2550,00 A2
BM 20	x	110	S	10	2800,00 A2
BM 20	x	120	S	10	3050,00 A2
BM 20	x	130	S	10	3300,00 A2
BM 20	x	140	S	10	3550,00 A2
BM 20	x	150	S	10	3800,00 A2
BM 20	x	160	S	10	4050,00 A2
BM 20	x	170	S	10	4300,00 A2
BM 20	x	180	S	10	4550,00 A2
BM 20	x	190	S	10	4850,00 A2
BM 20	x	200	S	10	5100,00 A2
BM 20	x	250	S	5	6300,00 A2
BM 20	x	300	S	5	7600,00 A2
BM 20	x	500	S	1	12700,00 A2

DIN 00976.942 470

976-1 A 4 type B



Stud bolts, B = with flat point

Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

BM 8	x	16	S	100	208,00 A4
BM 8	x	20	S	100	265,00 A4
BM 8	x	25	S	100	325,00 A4
BM 8	x	30	S	100	390,00 A4
BM 8	x	35	S	100	455,00 A4
BM 8	x	40	S	100	520,00 A4
BM 8	x	45	S	100	590,00 A4
BM 8	x	50	S	100	660,00 A4
BM 8	x	55	S	100	720,00 A4
BM 8	x	60	S	100	780,00 A4
BM 8	x	65	S	100	850,00 A4
BM 8	x	70	S	100	920,00 A4
BM 8	x	80	S	100	1040,00 A4
BM 8	x	90	S	100	1180,00 A4
BM 8	x	100	S	100	1310,00 A4
BM 8	x	110	S	100	1430,00 A4
BM 8	x	120	S	100	1560,00 A4
BM 8	x	130	S	100	1700,00 A4
BM 8	x	140	S	50	1830,00 A4
BM 8	x	150	S	50	1960,00 A4
BM 8	x	160	S	50	2080,00 A4
BM 8	x	170	S	50	2210,00 A4
BM 8	x	180	S	50	2330,00 A4
BM 8	x	190	S	50	2480,00 A4
BM 8	x	200	S	50	2650,00 A4
BM 8	x	250	S	25	3300,00 A4
BM 8	x	300	S	25	3900,00 A4
BM 8	x	500	S	10	6600,00 A4
BM 10	x	20	S	100	300,00 A4
BM 10	x	25	S	100	375,00 A4
BM 10	x	30	S	100	450,00 A4
BM 10	x	35	S	100	530,00 A4
BM 10	x	40	S	100	600,00 A4
BM 10	x	45	S	100	680,00 A4

Dimensions			PU	Pieces	€/100/Mat.
BM 10	x	50	S	100	750,00 A4
BM 10	x	55	S	100	820,00 A4
BM 10	x	60	S	100	900,00 A4
BM 10	x	65	S	100	980,00 A4
BM 10	x	70	S	100	1050,00 A4
BM 10	x	80	S	100	1200,00 A4
BM 10	x	90	S	100	1350,00 A4
BM 10	x	100	S	100	1490,00 A4
BM 10	x	110	S	100	1640,00 A4
BM 10	x	120	S	50	1790,00 A4
BM 10	x	130	S	50	1960,00 A4
BM 10	x	140	S	50	2100,00 A4
BM 10	x	150	S	50	2250,00 A4
BM 10	x	160	S	50	2400,00 A4
BM 10	x	170	S	50	2550,00 A4
BM 10	x	180	S	25	2700,00 A4
BM 10	x	190	S	25	2850,00 A4
BM 10	x	200	S	25	3000,00 A4
BM 10	x	250	S	25	3750,00 A4
BM 10	x	300	S	10	4500,00 A4
BM 10	x	500	S	10	7500,00 A4
BM 12	x	30	S	100	410,00 A4
BM 12	x	35	S	100	475,00 A4
BM 12	x	40	S	100	550,00 A4
BM 12	x	45	S	100	610,00 A4
BM 12	x	50	S	100	690,00 A4
BM 12	x	55	S	100	750,00 A4
BM 12	x	60	S	100	820,00 A4
BM 12	x	65	S	50	890,00 A4
BM 12	x	70	S	50	960,00 A4
BM 12	x	80	S	50	1100,00 A4
BM 12	x	90	S	50	1220,00 A4
BM 12	x	100	S	50	1370,00 A4
BM 12	x	110	S	50	1490,00 A4
BM 12	x	120	S	50	1640,00 A4
BM 12	x	130	S	50	1770,00 A4
BM 12	x	140	S	25	1910,00 A4
BM 12	x	150	S	25	2040,00 A4
BM 12	x	160	S	25	2190,00 A4
BM 12	x	170	S	25	2310,00 A4
BM 12	x	180	S	25	2440,00 A4
BM 12	x	190	S	25	2600,00 A4
BM 12	x	200	S	25	2750,00 A4
BM 12	x	250	S	10	3400,00 A4
BM 12	x	300	S	10	4100,00 A4
BM 12	x	500	S	10	6900,00 A4
BM 16	x	40	S	50	970,00 A4
BM 16	x	50	S	50	1220,00 A4
BM 16	x	60	S	50	1450,00 A4
BM 16	x	70	S	25	1680,00 A4
BM 16	x	80	S	25	1930,00 A4
BM 16	x	90	S	25	2170,00 A4
BM 16	x	100	S	25	2420,00 A4
BM 16	x	110	S	25	2650,00 A4
BM 16	x	120	S	25	2900,00 A4
BM 16	x	130	S	10	3150,00 A4
BM 16	x	140	S	10	3400,00 A4
BM 16	x	150	S	10	3650,00 A4
BM 16	x	160	S	10	3850,00 A4
BM 16	x	170	S	10	4100,00 A4
BM 16	x	180	S	10	4350,00 A4
BM 16	x	190	S	10	4600,00 A4
BM 16	x	200	S	10	4800,00 A4
BM 16	x	250	S	10	6000,00 A4
BM 16	x	300	S	10	7300,00 A4
BM 16	x	500	S	5	12000,00 A4
BM 20	x	40	S	25	1390,00 A4
BM 20	x	50	S	25	1750,00 A4
BM 20	x	60	S	25	2080,00 A4
BM 20	x	70	S	25	2420,00 A4
BM 20	x	80	S	10	2800,00 A4
BM 20	x	90	S	10	3150,00 A4
BM 20	x	100	S	10	3500,00 A4
BM 20	x	110	S	10	3800,00 A4
BM 20	x	120	S	10	4150,00 A4

Dimensions			PU	Pieces	€/100/Mat.
BM 20	x	130	S	10	4500,00 A4
BM 20	x	140	S	10	4850,00 A4
BM 20	x	150	S	10	5200,00 A4
BM 20	x	160	S	10	5600,00 A4
BM 20	x	170	S	10	5900,00 A4
BM 20	x	180	S	10	6300,00 A4
BM 20	x	190	S	10	6700,00 A4
BM 20	x	200	S	10	7000,00 A4
BM 20	x	250	S	5	8700,00 A4
BM 20	x	300	S	5	10400,00 A4
BM 20	x	500	S	1	17300,00 A4

DIN 00976.956 470

976-1 A 5 type A



Stud bolts, A = without flat point, threaded rod, length 1000 mm

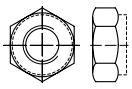
Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

AM 6	x	1000	S	1	1670,00 A5
AM 8	x	1000	S	1	2190,00 A5
AM 10	x	1000	S	1	3350,00 A5
AM 12	x	1000	S	1	4600,00 A5
AM 16	x	1000	S	1	8100,00 A5
AM 20	x	1000	S	1	11700,00 A5
AM 24	x	1000	S	1	18700,00 A5

~DIN 00980.924 480

980 A 2 type V



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

type and dimensions ~ DIN 934 with squeezing

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 198

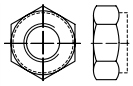
DIN 980 ➔ replaced by ISO 7042

RoHS ✓ REACh SVHC free

VM 3	S	1000	23,30 A2
VM 4	S	1000	47,00 A2
VM 5	S	1000	53,00 A2
VM 6	S	1000	59,00 A2
VM 8	S	500	82,00 A2
VM 10	S	500	112,00 A2
VM 12	S	250	135,00 A2
VM 14	S	100	295,00 A2

Dimensions	PU	Pieces	€/100/Mat.
VM 16	S	100	310,00 A2
VM 18	S	50	340,00 A2
VM 20	S	25	355,00 A2
VM 22	S	25	365,00 A2
VM 24	S	25	410,00 A2

~DIN	00980.944	480
980	**A 4**	**type V**



Prevailing torque type hexagon nuts, V = all-metal nuts, single component

type and dimensions ~ DIN 934 with squeezing

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

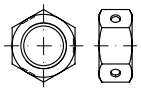
Steel ➔ pg. 198

DIN 980 ➔ replaced by ISO 7042

RoHS ✓ REACh SVHC free

VM 3	S	1000	168,00 A4
VM 4	S	100	208,00 A4
VM 5	S	1000	229,00 A4
VM 5	K	100	233,00 A4
VM 6	S	1000	235,00 A4
VM 6	K	100	240,00 A4
VM 8	S	500	248,00 A4
VM 8	K	100	255,00 A4
VM 10	S	500	370,00 A4
VM 10	K	100	375,00 A4
VM 12	S	250	570,00 A4
VM 12	K	50	580,00 A4
VM 14	S	100	690,00 A4
VM 16	S	100	930,00 A4
VM 16	K	25	940,00 A4
VM 18	S	50	980,00 A4
VM 20	S	25	1240,00 A4
VM 24	S	25	2330,00 A4
VM 30	S	10	3400,00 A4

Dimensions	PU	Pieces	€/100/Mat.
article	84032.927		480
84032	**A 2 - 70**		**Biloc**



Prevailing torque type hexagon nuts, all metal nuts

- three squeezing points on the center key area
- both sides screwable
- suitable for automatic feeders
- dimensions acc. ISO 4032

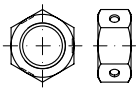
Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-62 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 6	S	1000	74,00
M 8	S	500	99,00
M 10	S	250	148,00
M 12	S	250	182,00
M 16	S	50	345,00
M 20	S	50	650,00

Dimensions	PU	Pieces	€/100/Mat.
article	84032.948		480
84032	**A 4 - 80**		**Biloc**



Prevailing torque type hexagon nuts, all metal nuts

- three squeezing points on the center key area
- both sides screwable
- suitable for automatic feeders
- dimensions acc. ISO 4032

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-62 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

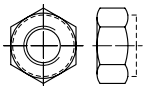
M 6	S	1000	86,00
M 8	S	1000	91,00
M 10	S	500	124,00
M 12	S	500	186,00
M 16	S	100	430,00
M 20	S	50	660,00

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions	PU Pieces	€/100/Mat.
~DIN	00982.920	480

982 A 2



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

with heat-stabilised ring ➔ ISO 7040 pg. 560
Steel ➔ pg. 200

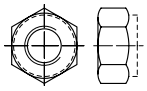
DIN 982 ➔ replaced by ISO 7040

REACh SVHC free

M 4	S	1000	68,00	A 2
M 5	S	1000	76,00	A 2
M 5	K	100	80,00	A 2
M 6	S	1000	88,00	A 2
M 6	K	100	92,00	A 2
M 8	S	500	112,00	A 2
M 8	K	100	116,00	A 2
M 10	S	500	194,00	A 2
M 10	K	100	197,00	A 2
M 12	S	250	241,00	A 2
M 12	K	50	248,00	A 2
M 16	S	100	415,00	A 2
M 16	K	25	430,00	A 2
M 20	S	25	790,00	A 2

Dimensions	PU Pieces	€/100/Mat.
~DIN	00982.940	480

982 A 4



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use at temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 200

DIN 982 ➔ replaced by ISO 7040

REACh SVHC free

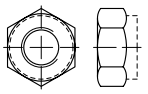
M 4	S	100	116,00	A 4
M 5	S	100	116,00	A 4
M 6	S	100	133,00	A 4
M 8	S	100	175,00	A 4
M 10	S	100	350,00	A 4
M 12	S	50	445,00	A 4
M 16	S	25	770,00	A 4
M 20	S	25	3150,00	A 4
M 24	S	25	3600,00	A 4

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions	PU Pieces	€/100/Mat.
~DIN	00985.920	480

985 A 2



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 201
Brass ➔ pg. 630

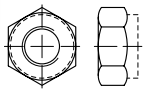
DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 2,5	S	1000	29,50	A 2
M 3	S	1000	31,00	A 2
M 3	K	100	38,00	A 2
M 4	S	1000	24,10	A 2
M 4	K	100	30,00	A 2
M 5	S	1000	24,10	A 2
M 5	K	100	30,00	A 2
M 6	S	1000	31,50	A 2
M 6	K	100	38,00	A 2
M 8	S	500	60,00	A 2
M 8	K	100	70,00	A 2
M 10	S	500	118,00	A 2
M 10	K	50	131,00	A 2
M 12	S	250	161,00	A 2
M 12	K	25	192,00	A 2
M 14	S	250	365,00	A 2
M 14	K	25	425,00	A 2
M 16	S	250	385,00	A 2
M 16	K	25	445,00	A 2
M 18	S	25	990,00	A 2
M 20	S	1	1180,00	A 2
M 22	S	1	1250,00	A 2
M 24	S	1	1250,00	A 2
M 27	S	1	4600,00	A 2
M 30	S	1	4600,00	A 2
M 36	S	1	9000,00	A 2

Dimensions	PU Pieces	€/100/Mat.
~DIN	00985.940	480

985 A 4



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 201
Brass ➔ pg. 630

DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

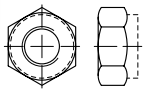
M 3	S	1000	96,00 A4
M 3	K	100	110,00 A4
M 4	S	1000	54,00 A4
M 4	K	100	63,00 A4
M 5	S	1000	54,00 A4
M 5	K	100	63,00 A4
M 6	S	1000	72,00 A4
M 6	K	100	88,00 A4
M 8	S	500	104,00 A4
M 8	K	100	118,00 A4
M 10	S	500	204,00 A4
M 10	K	50	229,00 A4
M 12	S	250	315,00 A4
M 12	K	25	360,00 A4
M 14	S	250	620,00 A4
M 14	K	25	720,00 A4
M 16	S	250	720,00 A4
M 16	K	25	800,00 A4
M 20	S	1	2000,00 A4
M 24	S	1	2100,00 A4
M 27	S	1	6000,00 A4
M 30	S	1	7700,00 A4

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions	PU Pieces	€/100/Mat.
DIN	00985.948	480

985 A 4 - 80



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C, high strength (strongly cold worked)

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 201
Brass ➔ pg. 630

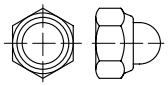
DIN 985 ➔ replaced by ISO 10511

REACh SVHC free

M 5	S	1000	81,00 A4
M 6	S	1000	107,00 A4
M 8	S	500	146,00 A4
M 10	S	500	285,00 A4
M 12	S	250	445,00 A4
M 16	S	250	930,00 A4

~DIN	00986.920	481

986 A 2



Prevailing torque type hexagon domed cap nuts with non-metallic insert

for use under temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-68 Material properties ➔ TI-236

Steel ➔ pg. 203

REACh SVHC free

M 4	S	100	86,00 A2
M 5	S	100	86,00 A2
M 6	S	100	105,00 A2
M 8	S	100	110,00 A2
M 10 s = 17	S	100	235,00 A2
M 12 s = 19	S	50	330,00 A2
M 16	S	25	800,00 A2

Dimensions	PU Pieces	€/100/Mat.
~DIN	00988.920	481

988 A 2/1.4310



Shim rings

Caution! Tolerances as per product grade A-B ISO 4759-3/DIN 522.

Material properties ➔ TI-236

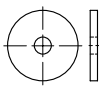
Steel ➔ pg. 203
Spring steel ➔ pg. 204

RoHS ✓ REACh SVHC free

hole ∅	x	outside ∅	x	thickness h			
6	x	12	x	0,25	S	1000	510,00 A2
6	x	12	x	0,5	S	1000	495,00 A2
6	x	12	x	1	S	1000	650,00 A2
8	x	14	x	0,1	S	1000	580,00 A2
8	x	14	x	0,25	S	1000	495,00 A2
8	x	14	x	0,5	S	1000	495,00 A2
8	x	14	x	1	S	1000	640,00 A2
10	x	16	x	0,1	S	1000	430,00 A2
10	x	16	x	0,25	S	1000	485,00 A2
10	x	16	x	0,5	S	1000	485,00 A2
10	x	16	x	1	S	1000	630,00 A2
12	x	18	x	0,1	S	1000	430,00 A2
12	x	18	x	0,25	S	1000	485,00 A2
12	x	18	x	0,5	S	1000	485,00 A2
12	x	18	x	1	S	1000	630,00 A2
14	x	20	x	1	S	1000	67,00 A2
16	x	22	x	0,1	S	1000	540,00 A2
16	x	22	x	0,25	S	1000	530,00 A2
16	x	22	x	0,5	S	1000	495,00 A2
16	x	22	x	1	S	1000	640,00 A2
18	x	25	x	1	S	1000	640,00 A2
20	x	28	x	0,1	S	1000	570,00 A2
20	x	28	x	0,2	S	1000	600,00 A2
20	x	28	x	0,25	S	1000	530,00 A2
20	x	28	x	0,5	S	1000	510,00 A2
20	x	28	x	1	S	1000	650,00 A2
20	x	28	x	2	S	1000	930,00 A2
25	x	35	x	0,1	S	1000	485,00 A2
25	x	35	x	0,2	S	1000	520,00 A2
25	x	35	x	0,25	S	1000	580,00 A2
25	x	35	x	0,5	S	500	540,00 A2
25	x	35	x	1	S	500	710,00 A2
30	x	42	x	1	S	500	640,00 A2
40	x	50	x	0,2	S	500	209,00 A2
40	x	50	x	0,5	S	100	265,00 A2
40	x	50	x	1	S	100	530,00 A2

Dimensions	PU	Pieces	€/100/Mat.
DIN	01052.924		485

1052 A 2



Washers for timber connectors, heavy, round type

Dimensions ➔ TI-85 Material properties ➔ TI-236

Steel ➔ pg. 205

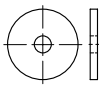
RoHS ✓ REACh SVHC free

hole ∅ x outside ∅ x thickness

14	x	58	x	6	S	25	860,00 A 2
18	x	68	x	6	S	25	1150,00 A 2
23	x	80	x	8	S	10	2800,00 A 2
25	x	92	x	8	S	10	3350,00 A 2
27	x	105	x	8	S	10	3800,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
DIN	01052.944		485

1052 A 4



Washers for timber connectors, heavy, round type

Dimensions ➔ TI-85 Material properties ➔ TI-236

Steel ➔ pg. 205

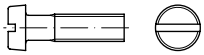
RoHS ✓ REACh SVHC free

hole ∅ x outside ∅ x thickness

14	x	58	x	6	S	25	1310,00 A 4
18	x	68	x	6	S	25	1790,00 A 4
23	x	80	x	8	S	10	4350,00 A 4
25	x	92	x	8	S	10	5300,00 A 4
27	x	105	x	8	S	10	5900,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
ISO	01207.914		30

1207 A 1 turned



Slotted cheese head screws

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 205
Brass/Plastic ➔ pg. 630

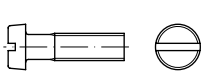
ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓ REACh SVHC free

M 1,4	x	3	S	100	105,00 A 1
M 1,4	x	4	S	100	107,00 A 1
M 1,4	x	5	S	100	111,00 A 1
M 1,4	x	6	S	100	117,00 A 1
M 1,4	x	8	S	100	122,00 A 1
M 1,4	x	10	S	100	130,00 A 1
M 1,6	x	3	S	100	30,00 A 1
M 1,6	x	4	S	100	22,60 A 1
M 1,6	x	5	S	100	20,90 A 1
M 1,6	x	6	S	100	19,70 A 1
M 1,6	x	8	S	100	21,80 A 1
M 1,6	x	10	S	100	24,10 A 1
M 1,6	x	12	S	100	33,00 A 1

Dimensions	PU	Pieces	€/100/Mat.
ISO	01207.920		30

1207 A 2



Slotted cheese head screws

partly from l = 60 mm partial thread

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 205
Brass/Plastic ➔ pg. 630

ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓ REACh SVHC free

M 1	x	2	S	2000	285,00 A 2
M 1	x	3	S	2000	290,00 A 2
M 1	x	4	S	2000	295,00 A 2
M 1	x	5	S	2000	300,00 A 2
M 1	x	6	S	2000	310,00 A 2
M 1	x	8	S	2000	335,00 A 2
M 1	x	10	S	2000	370,00 A 2
M 1,2	x	2	S	2000	285,00 A 2
M 1,2	x	3	S	2000	290,00 A 2
M 1,2	x	4	S	2000	295,00 A 2
M 1,2	x	5	S	2000	300,00 A 2
M 1,2	x	6	S	2000	335,00 A 2
M 1,2	x	8	S	2000	370,00 A 2
M 1,2	x	10	S	2000	430,00 A 2
M 1,2	x	12	S	2000	485,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
M 1,4	x	2	S	2000	285,00 A 2
M 1,4	x	3	S	2000	290,00 A 2
M 1,4	x	4	S	2000	295,00 A 2
M 1,4	x	5	S	2000	300,00 A 2
M 1,4	x	6	S	2000	335,00 A 2
M 1,4	x	8	S	2000	370,00 A 2
M 1,4	x	10	S	2000	430,00 A 2
M 1,4	x	12	S	2000	485,00 A 2
M 1,6	x	2	S	2000	285,00 A 2
M 1,6	x	3	S	2000	290,00 A 2
M 1,6	x	4	S	2000	295,00 A 2
M 1,6	x	5	S	2000	300,00 A 2
M 1,6	x	6	S	2000	335,00 A 2
M 1,6	x	8	S	2000	370,00 A 2
M 1,6	x	10	S	2000	430,00 A 2
M 1,6	x	12	S	2000	485,00 A 2
M 1,6	x	16	S	2000	560,00 A 2
M 2	x	3	S	1000	7,10 A 2
M 2	x	4	S	1000	7,20 A 2
M 2	x	5	S	1000	7,30 A 2
M 2	x	6	S	1000	7,40 A 2
M 2	x	8	S	1000	7,80 A 2
M 2	x	10	S	1000	8,50 A 2
M 2	x	12	S	1000	9,50 A 2
M 2	x	16	S	1000	10,30 A 2
M 2	x	20	S	1000	17,10 A 2
M 2,5	x	3	S	1000	7,10 A 2
M 2,5	x	4	S	1000	7,20 A 2
M 2,5	x	5	S	1000	7,30 A 2
M 2,5	x	6	S	1000	7,40 A 2
M 2,5	x	8	S	1000	7,80 A 2
M 2,5	x	10	S	1000	8,50 A 2
M 2,5	x	12	S	1000	9,50 A 2
M 2,5	x	16	S	1000	10,30 A 2
M 2,5	x	18	S	1000	19,00 A 2
M 2,5	x	20	S	1000	21,00 A 2
M 2,5	x	22	S	1000	25,50 A 2
M 2,5	x	25	S	1000	26,50 A 2
M 2,5	x	30	S	1000	28,50 A 2
M 2,5	x	35	S	1000	52,00 A 2
M 2,5	x	40	S	1000	97,00 A 2
M 3	x	3	S	1000	19,00 A 2
M 3	x	4	S	1000	11,60 A 2
M 3	x	5	S	1000	7,80 A 2
M 3	x	5	K	200	9,70 A 2
M 3	x	6	S	1000	5,30 A 2
M 3	x	6	K	200	7,10 A 2
M 3	x	8	S	1000	4,55 A 2
M 3	x	8	K	200	6,50 A 2
M 3	x	10	S	1000	4,75 A 2
M 3	x	10	K	200	6,70 A 2
M 3	x	12	S	1000	5,20 A 2
M 3	x	12	K	200	7,10 A 2
M 3	x	14	S	1000	7,40 A 2
M 3	x	14	K	200	9,30 A 2
M 3	x	16	S	1000	7,60 A 2
M 3	x	16	K	200	9,60 A 2
M 3	x	18	S	1000	8,20 A 2
M 3	x	18	K	200	10,10 A 2
M 3	x	20	S	1000	9,00 A 2
M 3	x	20	K	200	11,20 A 2
M 3	x	22	S	1000	11,10 A 2
M 3	x	22	K	200	13,00 A 2
M 3	x	25	S	1000	11,40 A 2
M 3	x	25	K	200	13,50 A 2
M 3	x	30	S	1000	12,10 A 2
M 3	x	30	K	200	14,00 A 2
M 3	x	35	S	1000	17,60 A 2
M 3	x	40	K	200	23,80 A 2
M 3	x	45	S	500	34,50 A 2
M 3	x	50	K	200	69,00 A 2
M 3	x	55	K	200	133,00 A 2
M 3,5	x	6	K	200	38,00 A 2
M 3,5	x	8	K	200	31,00 A 2
M 3,5	x	10	K	200	30,50 A 2

Dimensions	PU	Pieces	€/100/Mat.
M 3,5 x 12	K	200	32,00 A2
M 3,5 x 16	K	200	34,00 A2
M 3,5 x 20	K	200	41,00 A2
M 3,5 x 25	K	200	62,00 A2
M 4 x 4	K	200	21,80 A2
M 4 x 5	S	1000	12,50 A2
M 4 x 5	K	200	14,40 A2
M 4 x 6	S	1000	8,20 A2
M 4 x 6	K	200	10,10 A2
M 4 x 8	S	1000	8,20 A2
M 4 x 8	K	200	10,10 A2
M 4 x 10	S	1000	6,70 A2
M 4 x 10	K	200	8,60 A2
M 4 x 12	S	1000	7,20 A2
M 4 x 12	K	200	9,10 A2
M 4 x 14	S	1000	10,60 A2
M 4 x 16	S	1000	10,90 A2
M 4 x 16	K	200	10,10 A2
M 4 x 18	S	1000	11,20 A2
M 4 x 18	K	200	13,60 A2
M 4 x 20	S	1000	11,60 A2
M 4 x 20	K	200	14,80 A2
M 4 x 22	K	200	17,40 A2
M 4 x 25	S	500	12,10 A2
M 4 x 25	K	200	18,80 A2
M 4 x 30	S	500	12,50 A2
M 4 x 30	K	200	19,40 A2
M 4 x 35	S	500	21,80 A2
M 4 x 35	K	100	23,00 A2
M 4 x 40	K	100	28,50 A2
M 4 x 45	K	100	31,50 A2
M 4 x 50	K	100	41,00 A2
M 4 x 55	K	100	57,00 A2
M 4 x 60	K	100	61,00 A2
M 4 x 70	K	100	66,00 A2
M 4 x 80	K	100	82,00 A2
M 4 x 90	K	100	115,00 A2
M 4 x 100	K	100	165,00 A2
M 5 x 6	S	500	17,10 A2
M 5 x 8	S	500	12,10 A2
M 5 x 8	K	200	14,00 A2
M 5 x 10	S	500	10,00 A2
M 5 x 10	K	200	11,90 A2
M 5 x 12	S	500	10,90 A2
M 5 x 12	K	200	12,80 A2
M 5 x 14	K	200	15,90 A2
M 5 x 16	S	500	12,20 A2
M 5 x 16	K	200	16,20 A2
M 5 x 18	S	500	13,20 A2
M 5 x 18	K	200	16,50 A2
M 5 x 20	S	500	13,80 A2
M 5 x 20	K	200	16,80 A2
M 5 x 22	K	200	17,00 A2
M 5 x 25	S	500	15,40 A2
M 5 x 25	K	200	17,30 A2
M 5 x 30	S	500	18,90 A2
M 5 x 30	K	200	20,80 A2
M 5 x 35	S	200	20,70 A2
M 5 x 35	K	100	24,60 A2
M 5 x 40	S	200	28,50 A2
M 5 x 40	K	100	32,00 A2
M 5 x 45	K	100	36,50 A2
M 5 x 50	K	100	45,00 A2
M 5 x 55	K	100	71,00 A2
M 5 x 60	K	100	73,00 A2
M 5 x 70	K	100	77,00 A2
M 5 x 80	K	100	83,00 A2
M 5 x 90	K	100	118,00 A2
M 5 x 100	S	100	241,00 A2
M 6 x 8	K	100	19,50 A2
M 6 x 10	S	200	15,70 A2
M 6 x 10	K	100	19,50 A2
M 6 x 12	S	200	13,40 A2
M 6 x 12	K	100	17,30 A2
M 6 x 16	S	200	15,10 A2

Dimensions	PU	Pieces	€/100/Mat.
M 6 x 16	K	100	19,00 A2
M 6 x 18	S	200	16,10 A2
M 6 x 18	K	100	20,00 A2
M 6 x 20	S	200	16,50 A2
M 6 x 20	K	100	20,40 A2
M 6 x 25	S	200	18,90 A2
M 6 x 25	K	100	22,80 A2
M 6 x 30	S	200	21,40 A2
M 6 x 30	K	100	25,50 A2
M 6 x 35	S	100	24,30 A2
M 6 x 35	K	50	32,00 A2
M 6 x 40	S	100	27,50 A2
M 6 x 40	K	50	35,50 A2
M 6 x 45	S	100	34,00 A2
M 6 x 45	K	50	41,50 A2
M 6 x 50	K	50	67,00 A2
M 6 x 60	K	50	82,00 A2
M 6 x 70	K	50	90,00 A2
M 6 x 75	K	50	96,00 A2
M 6 x 80	K	50	99,00 A2
M 6 x 90	K	50	108,00 A2
M 6 x 100	K	50	116,00 A2
M 8 x 10	K	50	67,00 A2
M 8 x 12	S	100	43,50 A2
M 8 x 12	K	50	52,00 A2
M 8 x 16	S	100	40,00 A2
M 8 x 16	K	50	47,50 A2
M 8 x 20	S	100	41,00 A2
M 8 x 20	K	50	48,50 A2
M 8 x 25	S	100	43,50 A2
M 8 x 25	K	50	52,00 A2
M 8 x 30	S	100	48,50 A2
M 8 x 30	K	50	57,00 A2
M 8 x 35	S	100	58,00 A2
M 8 x 35	K	50	66,00 A2
M 8 x 40	S	100	67,00 A2
M 8 x 40	K	50	74,00 A2
M 8 x 50	S	100	87,00 A2
M 8 x 50	K	50	95,00 A2
M 8 x 60	K	50	116,00 A2
M 8 x 70	K	50	135,00 A2
M 8 x 80	K	50	147,00 A2
M 8 x 90	K	50	163,00 A2
M 8 x 100	K	50	176,00 A2
M 10 x 12	K	50	95,00 A2
M 10 x 16	K	50	92,00 A2
M 10 x 20	K	50	73,00 A2
M 10 x 25	K	50	81,00 A2
M 10 x 30	K	50	88,00 A2
M 10 x 35	K	50	98,00 A2
M 10 x 40	K	50	106,00 A2
M 10 x 45	K	50	126,00 A2
M 10 x 50	K	50	148,00 A2
M 10 x 60	K	50	194,00 A2
M 10 x 70	K	25	218,00 A2
M 10 x 80	K	25	235,00 A2
M 10 x 90	K	25	260,00 A2
M 10 x 100	K	25	280,00 A2

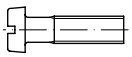
RIO® REYHER INTERNET ORDER

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- Price and availability check

Dimensions	PU	Pieces	€/100/Mat.
ISO 01207.940			30

1207 A 4



Slotted cheese head screws

partly from l = 60 mm partial thread

Dimensions ➔ TI-37
Material properties ➔ TI-236
Standard conversion ➔ TI-11
Steel ➔ pg. 205
Brass/Plastic ➔ pg. 630

ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓ REACh SVHC free

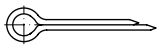
M 2	x	3	S	1000	8,20 A4
M 2	x	3	K	200	10,30 A4
M 2	x	4	S	1000	8,00 A4
M 2	x	4	K	200	10,10 A4
M 2	x	5	S	1000	8,10 A4
M 2	x	5	K	200	10,20 A4
M 2	x	6	S	1000	8,20 A4
M 2	x	6	K	200	10,30 A4
M 2	x	8	S	1000	8,70 A4
M 2	x	8	K	200	10,70 A4
M 2	x	10	S	1000	9,40 A4
M 2	x	10	K	200	11,50 A4
M 2	x	12	S	1000	10,50 A4
M 2	x	12	K	200	12,60 A4
M 2	x	16	S	1000	11,50 A4
M 2	x	16	K	200	13,60 A4
M 2	x	20	S	1000	16,40 A4
M 2	x	20	K	200	18,50 A4
M 2	x	25	K	200	31,50 A4
M 2,5	x	3	S	1000	8,20 A4
M 2,5	x	3	K	200	10,30 A4
M 2,5	x	4	S	1000	8,00 A4
M 2,5	x	4	K	200	10,10 A4
M 2,5	x	5	S	1000	8,10 A4
M 2,5	x	5	K	200	10,20 A4
M 2,5	x	6	S	1000	8,20 A4
M 2,5	x	6	K	200	10,30 A4
M 2,5	x	8	S	1000	8,70 A4
M 2,5	x	8	K	200	10,70 A4
M 2,5	x	10	S	1000	9,40 A4
M 2,5	x	10	K	200	11,50 A4
M 2,5	x	12	S	1000	10,50 A4
M 2,5	x	12	K	200	12,60 A4
M 2,5	x	14	K	200	13,60 A4
M 2,5	x	16	S	1000	11,50 A4
M 2,5	x	16	K	200	17,10 A4
M 2,5	x	18	K	200	18,40 A4
M 2,5	x	20	S	1000	16,30 A4
M 2,5	x	20	K	200	19,20 A4
M 2,5	x	22	K	200	35,50 A4
M 2,5	x	25	K	200	37,50 A4
M 3	x	3	S	1000	22,50 A4
M 3	x	3	K	200	24,60 A4
M 3	x	4	S	1000	14,40 A4
M 3	x	4	K	200	16,50 A4
M 3	x	5	S	1000	11,50 A4
M 3	x	5	K	200	13,60 A4
M 3	x	6	S	1000	7,30 A4
M 3	x	6	K	200	9,40 A4
M 3	x	8	S	1000	6,70 A4
M 3	x	8	K	200	8,80 A4

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 10	S	1000	6,10 A4
M 3 x 10	K	200	8,20 A4
M 3 x 12	S	1000	6,80 A4
M 3 x 12	K	200	8,90 A4
M 3 x 14	K	200	9,50 A4
M 3 x 16	S	1000	7,40 A4
M 3 x 16	K	200	10,50 A4
M 3 x 18	K	200	12,50 A4
M 3 x 20	S	1000	8,30 A4
M 3 x 20	K	200	14,40 A4
M 3 x 22	K	200	15,80 A4
M 3 x 25	S	1000	11,20 A4
M 3 x 25	K	200	16,30 A4
M 3 x 30	S	1000	15,60 A4
M 3 x 30	K	200	17,70 A4
M 3 x 35	S	500	28,00 A4
M 3 x 35	K	100	32,00 A4
M 3 x 40	S	500	33,50 A4
M 3 x 40	K	100	38,00 A4
M 3 x 50	S	500	61,00 A4
M 3 x 50	K	100	65,00 A4
M 3 x 55	K	100	98,00 A4
M 3 x 60	K	100	120,00 A4
M 3,5 x 6	K	100	53,00 A4
M 3,5 x 8	K	200	41,50 A4
M 3,5 x 10	K	200	40,50 A4
M 3,5 x 20	S	500	59,00 A4
M 3,5 x 20	K	200	63,00 A4
M 4 x 4	K	200	27,00 A4
M 4 x 5	S	1000	15,90 A4
M 4 x 5	K	200	18,00 A4
M 4 x 6	S	1000	10,60 A4
M 4 x 6	K	200	12,70 A4
M 4 x 8	S	1000	10,30 A4
M 4 x 8	K	200	12,40 A4
M 4 x 10	S	1000	9,10 A4
M 4 x 10	K	200	11,20 A4
M 4 x 12	S	1000	9,70 A4
M 4 x 12	K	200	11,80 A4
M 4 x 16	S	1000	11,20 A4
M 4 x 16	K	200	13,30 A4
M 4 x 18	S	1000	12,10 A4
M 4 x 18	K	200	17,90 A4
M 4 x 20	S	1000	13,60 A4
M 4 x 20	K	200	19,20 A4
M 4 x 22	K	200	21,50 A4
M 4 x 25	S	500	14,80 A4
M 4 x 25	K	200	22,90 A4
M 4 x 30	S	500	16,80 A4
M 4 x 30	K	200	24,90 A4
M 4 x 35	S	500	24,00 A4
M 4 x 35	K	100	28,50 A4
M 4 x 40	S	500	30,00 A4
M 4 x 40	K	100	34,00 A4
M 4 x 45	K	100	40,00 A4
M 4 x 50	S	500	42,00 A4
M 4 x 50	K	100	46,50 A4
M 4 x 55	K	100	72,00 A4
M 4 x 60	K	100	75,00 A4
M 4 x 70	K	100	89,00 A4
M 4 x 80	K	100	95,00 A4
M 5 x 6	S	500	18,30 A4
M 5 x 6	K	200	20,40 A4
M 5 x 8	S	500	17,70 A4
M 5 x 8	K	200	19,80 A4
M 5 x 10	S	500	15,60 A4
M 5 x 10	K	200	17,70 A4
M 5 x 12	S	500	15,30 A4
M 5 x 12	K	200	17,40 A4
M 5 x 16	S	500	17,00 A4
M 5 x 16	K	200	19,10 A4
M 5 x 18	K	200	20,50 A4
M 5 x 20	S	500	19,20 A4
M 5 x 20	K	200	21,30 A4
M 5 x 25	S	500	21,40 A4

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 25	K	200	23,50 A4
M 5 x 30	S	500	26,50 A4
M 5 x 30	K	200	28,50 A4
M 5 x 35	S	200	29,00 A4
M 5 x 35	K	100	33,50 A4
M 5 x 40	S	200	43,50 A4
M 5 x 40	K	100	48,00 A4
M 5 x 45	K	100	51,00 A4
M 5 x 50	S	200	49,00 A4
M 5 x 50	K	100	54,00 A4
M 5 x 60	K	100	94,00 A4
M 5 x 70	K	100	108,00 A4
M 5 x 80	K	100	122,00 A4
M 5 x 100	K	100	150,00 A4
M 6 x 8	S	200	22,90 A4
M 6 x 8	K	100	27,50 A4
M 6 x 10	S	200	21,90 A4
M 6 x 10	K	100	26,50 A4
M 6 x 12	S	200	19,60 A4
M 6 x 12	K	100	23,90 A4
M 6 x 16	S	200	21,90 A4
M 6 x 16	K	100	26,50 A4
M 6 x 18	K	100	36,00 A4
M 6 x 20	S	200	24,20 A4
M 6 x 20	K	100	37,50 A4
M 6 x 22	K	100	38,50 A4
M 6 x 25	S	200	27,50 A4
M 6 x 25	K	100	41,00 A4
M 6 x 30	S	200	31,50 A4
M 6 x 30	K	100	43,00 A4
M 6 x 35	S	100	36,00 A4
M 6 x 35	K	50	44,50 A4
M 6 x 40	S	100	53,00 A4
M 6 x 40	K	50	62,00 A4
M 6 x 45	K	50	70,00 A4
M 6 x 50	S	100	67,00 A4
M 6 x 50	K	50	76,00 A4
M 6 x 60	K	50	100,00 A4
M 6 x 70	K	50	128,00 A4
M 6 x 75	K	50	149,00 A4
M 6 x 80	K	50	160,00 A4
M 8 x 10	S	100	76,00 A4
M 8 x 10	K	50	84,00 A4
M 8 x 12	S	100	59,00 A4
M 8 x 12	K	50	68,00 A4
M 8 x 16	S	100	52,00 A4
M 8 x 16	K	50	60,00 A4
M 8 x 20	S	100	54,00 A4
M 8 x 20	K	50	63,00 A4
M 8 x 25	S	100	60,00 A4
M 8 x 25	K	50	68,00 A4
M 8 x 30	S	100	66,00 A4
M 8 x 30	K	50	75,00 A4
M 8 x 35	S	100	79,00 A4
M 8 x 35	K	50	88,00 A4
M 8 x 40	S	100	88,00 A4
M 8 x 40	K	50	97,00 A4
M 8 x 45	K	50	116,00 A4
M 8 x 50	S	100	125,00 A4
M 8 x 50	K	50	133,00 A4
M 8 x 55	K	50	160,00 A4
M 8 x 60	K	50	180,00 A4
M 8 x 70	K	50	217,00 A4
M 10 x 16	K	50	148,00 A4
M 10 x 20	K	50	101,00 A4
M 10 x 25	K	50	110,00 A4
M 10 x 30	K	50	125,00 A4
M 10 x 35	K	50	133,00 A4
M 10 x 40	K	50	145,00 A4
M 10 x 50	K	50	206,00 A4
M 10 x 60	K	50	250,00 A4
M 10 x 65	K	50	350,00 A4
M 10 x 70	K	50	400,00 A4

Dimensions	PU	Pieces	€/100/Mat.
ISO	01234.300		40
1234	**1.4300/A 2**		



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 208
Copper ➔ pg.632

ISO 1234 ➔ replaces DIN 94 (compatible)

RoHS ✓ REACh SVHC free

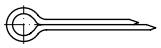
nominal ∅ = drilling ∅ x length

1	x	8	S	1000	6,90 A2
1	x	10	S	1000	7,00 A2
1	x	16	S	1000	7,10 A2
1	x	20	S	1000	7,20 A2
1	x	25	S	1000	8,40 A2
1	x	32	S	1000	11,40 A2
1,6	x	8	S	1000	8,10 A2
1,6	x	10	S	1000	8,20 A2
1,6	x	12	S	1000	8,30 A2
1,6	x	16	S	1000	8,40 A2
1,6	x	20	S	1000	8,50 A2
1,6	x	25	S	1000	9,90 A2
1,6	x	32	S	1000	11,40 A2
2	x	10	S	1000	11,00 A2
2	x	12	S	1000	11,20 A2
2	x	14	S	1000	11,40 A2
2	x	16	S	1000	11,60 A2
2	x	20	S	1000	11,80 A2
2	x	25	S	1000	13,70 A2
2	x	32	S	1000	16,30 A2
2	x	40	S	1000	19,00 A2
2,5	x	12	S	500	18,40 A2
2,5	x	16	S	500	18,90 A2
2,5	x	20	S	500	19,90 A2
2,5	x	25	S	500	23,30 A2
2,5	x	32	S	500	28,50 A2
2,5	x	36	S	500	31,00 A2
2,5	x	40	S	500	34,00 A2
2,5	x	45	S	500	37,50 A2
2,5	x	50	S	500	40,50 A2
3,2	x	16	S	500	26,00 A2
3,2	x	20	S	500	28,00 A2
3,2	x	25	S	500	32,00 A2
3,2	x	32	S	500	38,50 A2
3,2	x	36	S	500	42,50 A2
3,2	x	40	S	500	46,00 A2
3,2	x	45	S	500	52,00 A2
3,2	x	50	S	500	55,00 A2
4	x	20	S	500	44,00 A2
4	x	25	S	500	52,00 A2
4	x	28	S	500	53,00 A2
4	x	32	S	500	62,00 A2
4	x	36	S	500	68,00 A2
4	x	40	S	500	73,00 A2
4	x	45	S	500	80,00 A2
4	x	50	S	500	88,00 A2
4	x	63	S	500	114,00 A2
5	x	25	S	250	75,00 A2
5	x	28	S	250	76,00 A2
5	x	32	S	250	90,00 A2
5	x	36	S	250	99,00 A2
5	x	40	S	250	106,00 A2
5	x	45	S	250	118,00 A2

Dimensions			PU	Pieces	€/100/Mat.
5	x	50	S	250	127,00 A2
5	x	56	S	250	141,00 A2
5	x	63	S	250	156,00 A2
5	x	71	S	250	173,00 A2
5	x	80	S	250	180,00 A2
6,3	x	32	S	250	129,00 A2
6,3	x	36	S	250	141,00 A2
6,3	x	40	S	250	152,00 A2
6,3	x	45	S	250	180,00 A2
6,3	x	50	S	250	185,00 A2
6,3	x	56	S	250	199,00 A2
6,3	x	63	S	250	220,00 A2
6,3	x	71	S	250	243,00 A2
6,3	x	80	S	250	270,00 A2
8	x	36	S	100	285,00 A2
8	x	45	S	100	310,00 A2
8	x	50	S	100	335,00 A2
8	x	56	S	100	365,00 A2
8	x	63	S	100	400,00 A2
8	x	71	S	100	440,00 A2
8	x	80	S	100	485,00 A2
10	x	63	S	50	590,00 A2
10	x	71	S	50	710,00 A2
10	x	80	S	50	770,00 A2
10	x	100	S	25	930,00 A2

ISO | 01234.940 | 40

1234 A 4



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 208
Copper ➔ pg.632

ISO 1234 ➔ replaces DIN 94 (compatible)

RoHS ✓ | REACh SVHC free

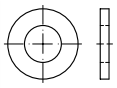
nominal ∅ = drilling ∅ x length

1	x	16	K	100	13,50 A4
1	x	20	K	100	15,60 A4
1,6	x	10	K	100	13,90 A4
1,6	x	12	K	100	14,90 A4
1,6	x	16	K	100	18,90 A4
1,6	x	20	K	100	23,80 A4
1,6	x	25	K	100	27,50 A4
1,6	x	32	K	100	31,00 A4
2	x	10	K	100	19,30 A4
2	x	16	K	100	23,10 A4
2	x	20	K	100	27,50 A4
2	x	25	K	100	32,00 A4
2	x	32	K	100	38,00 A4
2	x	40	K	100	46,50 A4
2,5	x	20	K	100	42,50 A4
2,5	x	25	K	100	54,00 A4
2,5	x	32	K	100	60,00 A4
3,2	x	16	K	100	46,00 A4
3,2	x	20	K	100	55,00 A4
3,2	x	25	K	100	62,00 A4
3,2	x	32	K	100	70,00 A4
3,2	x	36	K	100	78,00 A4
3,2	x	40	K	100	86,00 A4
3,2	x	45	K	100	95,00 A4
3,2	x	50	K	100	107,00 A4
3,2	x	63	K	100	128,00 A4
4	x	20	K	100	86,00 A4

Dimensions			PU	Pieces	€/100/Mat.
4	x	25	K	100	99,00 A4
4	x	32	K	100	118,00 A4
4	x	40	K	100	143,00 A4
4	x	50	K	100	168,00 A4
4	x	63	K	100	188,00 A4
5	x	32	K	50	185,00 A4
5	x	36	K	50	204,00 A4
5	x	40	K	50	223,00 A4
5	x	50	K	50	265,00 A4
5	x	63	K	50	300,00 A4
6,3	x	36	K	50	290,00 A4
6,3	x	40	K	50	315,00 A4
6,3	x	50	K	50	370,00 A4
6,3	x	63	K	50	425,00 A4
6,3	x	80	K	25	480,00 A4
8	x	40	K	25	640,00 A4
8	x	45	K	25	680,00 A4
8	x	50	K	25	710,00 A4
8	x	56	S	25	740,00 A4
8	x	80	K	25	920,00 A4
8	x	100	K	25	1000,00 A4
8	x	140	K	25	1090,00 A4
10	x	71	K	25	840,00 A4
10	x	80	K	25	870,00 A4
10	x	90	K	25	880,00 A4
10	x	100	K	25	890,00 A4
10	x	112	K	25	910,00 A4
10	x	125	K	25	920,00 A4
13	x	71	K	25	1260,00 A4
13	x	100	K	25	1310,00 A4
13	x	125	K	25	1370,00 A4
13	x	140	K	25	1430,00 A4
13	x	160	K	25	1470,00 A4
13	x	180	K	25	1520,00 A4
13	x	200	K	25	1580,00 A4

DIN | 01440.920 | 490

1440 A 2



Washers for clevis pins

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 208

DIN 1440 ➔ replaced by ISO 8738

RoHS ✓ | REACh SVHC free

inside ∅ min. = bolt ∅ x outside ∅ x thickness

5	x	10	x	0,8	S	500	61,00 A2
6	x	12	x	1,6	S	500	74,00 A2
8	x	16	x	2	S	200	124,00 A2
10	x	20	x	2,5	S	200	169,00 A2
12	x	25	x	3	S	200	235,00 A2
14	x	28	x	3	S	100	335,00 A2
16	x	28	x	3	S	100	345,00 A2
18	x	30	x	4	S	100	440,00 A2
20	x	32	x	4	S	100	495,00 A2
25	x	40	x	4	S	50	660,00 A2

Dimensions	PU	Pieces	€/100/Mat.
DIN	01440.940		490

1440 A 4

Washers for clevis pins

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 208

DIN 1440 ➔ replaced by ISO 8738

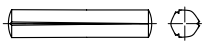
RoHS ✓ | REACh SVHC free

inside ∅ min. = bolt ∅ x outside ∅ x thickness

5	x	10	x	0,8	S	500	80,00 A4
6	x	12	x	1,6	S	500	94,00 A4
8	x	16	x	2	S	200	162,00 A4
10	x	20	x	2,5	S	200	235,00 A4
12	x	25	x	3	S	200	350,00 A4
14	x	28	x	3	S	100	480,00 A4
16	x	28	x	3	S	100	490,00 A4
18	x	30	x	4	S	100	670,00 A4
20	x	32	x	4	S	100	730,00 A4
23	x	36	x	4	S	50	940,00 A4
25	x	40	x	4	S	50	990,00 A4
30	x	45	x	5	S	50	2750,00 A4
36	x	52	x	6	S	25	3250,00 A4
40	x	58	x	6	S	25	4850,00 A4
50	x	68	x	8	S	10	7200,00 A4
60	x	80	x	9	S	10	9400,00 A4

DIN | 01471.910 | 500

1471 A 1



Grooved pins, full-length taper grooved

Dimensions ➔ TI-119 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 210

DIN 1471 ➔ replaced by ISO 8744

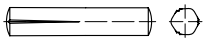
RoHS ✓ | REACh SVHC free

2	x	8	S	100	18,40 A1
2	x	10	S	100	19,00 A1
2	x	12	S	100	19,50 A1
2	x	16	S	100	20,50 A1
2	x	18	S	100	21,20 A1
2	x	20	S	100	22,00 A1
3	x	8	S	100	24,10 A1
3	x	10	S	100	25,50 A1
3	x	12	S	100	26,00 A1
3	x	16	S	100	26,00 A1
3	x	18	S	100	26,50 A1
3	x	20	S	100	28,00 A1
3	x	25	S	100	31,50 A1
4	x	8	S	100	28,00 A1
4	x	10	S	100	28,50 A1
4	x	12	S	100	29,00 A1

Dimensions			PU	Pieces	€/100/Mat.
4	x	16	S	100	33,50 A1
4	x	18	S	100	35,00 A1
4	x	20	S	100	36,00 A1
4	x	25	S	100	41,50 A1
4	x	30	S	100	45,50 A1
4	x	35	S	100	51,00 A1
4	x	40	S	100	54,00 A1
5	x	8	S	100	70,00 A1
5	x	10	S	100	37,50 A1
5	x	12	S	100	37,50 A1
5	x	16	S	100	45,50 A1
5	x	18	S	100	47,50 A1
5	x	20	S	100	51,00 A1
5	x	25	S	100	58,00 A1
5	x	30	S	100	63,00 A1
5	x	35	S	100	71,00 A1
5	x	40	S	100	76,00 A1
6	x	10	S	100	63,00 A1
6	x	12	S	100	65,00 A1
6	x	16	S	100	71,00 A1
6	x	18	S	100	74,00 A1
6	x	20	S	100	77,00 A1
6	x	25	S	100	88,00 A1
6	x	30	S	100	94,00 A1
6	x	40	S	100	112,00 A1
6	x	45	S	100	120,00 A1
6	x	50	S	100	127,00 A1
8	x	12	S	100	99,00 A1
8	x	16	S	100	105,00 A1
8	x	20	S	100	116,00 A1
8	x	25	S	100	131,00 A1
8	x	30	S	100	141,00 A1
8	x	35	S	100	156,00 A1
8	x	40	S	100	165,00 A1
8	x	45	S	100	178,00 A1
8	x	50	S	100	192,00 A1
8	x	60	S	100	216,00 A1

DIN 01472.910 500

1472 A 1



Grooved pins, half length taper grooved

Dimensions ➔ TI-118 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 211

DIN 1472 ➔ replaced by ISO 8745

RoHS ✓ REACh SVHC free

1,5	x	8	S	100	27,00 A1
1,5	x	10	S	100	27,50 A1
2	x	8	S	100	28,00 A1
2	x	10	S	100	29,00 A1
2	x	12	S	100	29,50 A1
2	x	14	S	100	30,00 A1
2	x	16	S	100	32,50 A1
2	x	18	S	100	33,00 A1
2	x	20	S	100	37,00 A1
3	x	6	S	100	29,00 A1
3	x	8	S	100	29,00 A1
3	x	10	S	100	30,00 A1
3	x	12	S	100	32,50 A1
3	x	14	S	100	33,00 A1
3	x	16	S	100	35,50 A1
3	x	18	S	100	36,00 A1
3	x	20	S	100	37,50 A1
3	x	25	S	100	38,50 A1
4	x	8	S	100	32,50 A1
4	x	10	S	100	33,50 A1
4	x	12	S	100	46,50 A1
4	x	14	S	100	48,00 A1
4	x	16	S	100	49,50 A1
4	x	18	S	100	53,00 A1
4	x	20	S	100	53,00 A1
4	x	25	S	100	57,00 A1
4	x	30	S	100	60,00 A1
4	x	40	S	100	64,00 A1
5	x	8	S	100	35,00 A1
5	x	10	S	100	37,50 A1
5	x	12	S	100	37,50 A1
5	x	16	S	100	45,50 A1
5	x	18	S	100	60,00 A1
5	x	20	S	100	65,00 A1
5	x	25	S	100	68,00 A1
5	x	30	S	100	69,00 A1
5	x	35	S	100	71,00 A1
5	x	40	S	100	76,00 A1
6	x	10	S	100	63,00 A1
6	x	16	S	100	71,00 A1
6	x	18	S	100	74,00 A1
6	x	20	S	100	77,00 A1
6	x	25	S	100	88,00 A1
6	x	30	S	100	94,00 A1
6	x	35	S	100	105,00 A1
6	x	40	S	100	112,00 A1
6	x	45	S	100	120,00 A1
6	x	50	S	100	127,00 A1
8	x	10	S	100	94,00 A1
8	x	12	S	100	99,00 A1
8	x	16	S	100	105,00 A1
8	x	18	S	100	110,00 A1
8	x	20	S	100	116,00 A1
8	x	25	S	100	131,00 A1
8	x	30	S	100	141,00 A1
8	x	35	S	100	156,00 A1
8	x	40	S	100	165,00 A1
8	x	45	S	100	178,00 A1
8	x	50	S	100	192,00 A1
8	x	60	S	100	216,00 A1

DIN 01473.910 500

1473 A 1



Grooved pins, full length parallel grooved

Dimensions ➔ TI-119 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 211

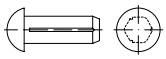
DIN 1473 ➔ replaced by ISO 8740

RoHS ✓ REACh SVHC free

2	x	8	S	100	18,40 A1
2	x	10	S	100	19,00 A1
2	x	12	S	100	19,50 A1
2	x	16	S	100	20,50 A1
2	x	18	S	100	21,20 A1
2	x	20	S	100	22,00 A1
3	x	8	S	100	24,10 A1
3	x	10	S	100	25,50 A1
3	x	12	S	100	25,50 A1
3	x	16	S	100	25,50 A1
3	x	18	S	100	26,50 A1
3	x	20	S	100	28,00 A1
3	x	24	S	100	30,00 A1
3	x	30	S	100	33,00 A1
4	x	8	S	100	28,00 A1
4	x	10	S	100	28,50 A1
4	x	12	S	100	28,50 A1
4	x	16	S	100	33,50 A1
4	x	18	S	100	33,50 A1
4	x	20	S	100	36,00 A1
4	x	24	S	100	40,50 A1
4	x	30	S	100	45,50 A1
4	x	35	S	100	51,00 A1
4	x	40	S	100	54,00 A1
5	x	8	S	100	35,00 A1
5	x	10	S	100	37,50 A1
5	x	12	S	100	37,50 A1
5	x	16	S	100	45,50 A1
5	x	18	S	100	47,50 A1
5	x	20	S	100	51,00 A1
5	x	24	S	100	58,00 A1
5	x	30	S	100	63,00 A1
5	x	35	S	100	71,00 A1
5	x	40	S	100	76,00 A1
6	x	10	S	100	63,00 A1
6	x	12	S	100	65,00 A1
6	x	16	S	100	71,00 A1
6	x	18	S	100	74,00 A1
6	x	20	S	100	77,00 A1
6	x	24	S	100	85,00 A1
6	x	30	S	100	94,00 A1
6	x	35	S	100	105,00 A1
6	x	40	S	100	112,00 A1
6	x	45	S	100	120,00 A1
6	x	50	S	100	127,00 A1
8	x	10	S	100	94,00 A1
8	x	12	S	100	99,00 A1
8	x	16	S	100	105,00 A1
8	x	20	S	100	116,00 A1
8	x	25	S	100	131,00 A1
8	x	30	S	100	141,00 A1
8	x	35	S	100	156,00 A1
8	x	40	S	100	165,00 A1
8	x	45	S	100	178,00 A1
8	x	50	S	100	192,00 A1
8	x	60	S	100	216,00 A1

Dimensions	PU Pieces	€/100/Mat.
DIN	01476.920	500

1476 1.4303 (A 2)



Grooved pins with round head

Dimensions ➔ TI-120 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 213
Brass, Aluminium ➔ pg. 632

DIN 1476 ➔ replaced by ISO 8746 (compatible)

RoHS ✓ REACh SVHC free

1,4	x	3	S	100	15,00 A 2
1,4	x	4	S	100	15,40 A 2
1,4	x	5	S	100	15,60 A 2
1,4	x	6	S	100	17,10 A 2
1,6	x	3	S	100	15,40 A 2
1,6	x	4	S	100	16,50 A 2
1,6	x	5	S	100	16,90 A 2
1,6	x	6	S	100	17,60 A 2
2	x	3	S	100	20,50 A 2
2	x	4	S	100	20,50 A 2
2	x	5	S	100	20,50 A 2
2	x	6	S	100	21,80 A 2
2	x	8	S	100	23,10 A 2
2	x	10	S	100	24,80 A 2
2,5	x	4	S	100	21,20 A 2
2,5	x	5	S	100	21,60 A 2
2,5	x	6	S	100	21,80 A 2
2,5	x	8	S	100	22,20 A 2
2,5	x	10	S	100	26,00 A 2
3	x	4	S	100	25,50 A 2
3	x	5	S	100	27,00 A 2
3	x	6	S	100	28,50 A 2
3	x	8	S	100	35,00 A 2
3	x	10	S	100	36,00 A 2
3	x	12	S	100	41,50 A 2
4	x	6	S	100	46,00 A 2
4	x	8	S	100	52,00 A 2
4	x	10	S	100	55,00 A 2
4	x	12	S	100	63,00 A 2
5	x	8	S	100	63,00 A 2
5	x	10	S	100	69,00 A 2
5	x	12	S	100	78,00 A 2
5	x	16	S	100	83,00 A 2
6	x	10	S	100	76,00 A 2
6	x	12	S	100	84,00 A 2

Dimensions	PU Pieces	€/100/Mat.
ISO	91479.923	660

1479 A 2 type C



Hexagon head tapping screws, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-46 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

Steel ➔ pg. 214

type with collar = DIN 6928 on request

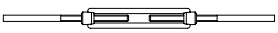
RoHS ✓ REACh SVHC free

C 2,9	x	9,5	S	1000	10,30 A 2
C 2,9	x	13	S	1000	11,60 A 2
C 2,9	x	16	S	1000	12,20 A 2
C 2,9	x	22	S	1000	16,50 A 2
C 2,9	x	25	S	1000	18,60 A 2
C 2,9	x	32	S	1000	22,80 A 2
C 3,5	x	9,5	S	1000	12,50 A 2
C 3,5	x	13	S	1000	12,70 A 2
C 3,5	x	16	S	1000	13,50 A 2
C 3,5	x	19	S	1000	15,00 A 2
C 3,5	x	22	S	1000	17,60 A 2
C 3,5	x	25	S	1000	20,30 A 2
C 3,5	x	32	S	1000	24,30 A 2
C 3,5	x	38	S	1000	27,00 A 2
C 3,9	x	9,5	S	1000	14,60 A 2
C 3,9	x	13	S	1000	14,40 A 2
C 3,9	x	16	S	1000	15,20 A 2
C 3,9	x	19	S	1000	15,60 A 2
C 3,9	x	22	S	500	20,10 A 2
C 3,9	x	25	S	500	22,40 A 2
C 3,9	x	32	S	500	26,00 A 2
C 4,2	x	9,5	S	1000	15,90 A 2
C 4,2	x	13	S	1000	15,60 A 2
C 4,2	x	16	S	1000	16,10 A 2
C 4,2	x	19	S	1000	17,60 A 2
C 4,2	x	22	S	500	22,60 A 2
C 4,2	x	25	S	500	23,10 A 2
C 4,2	x	32	S	500	28,50 A 2
C 4,2	x	38	S	500	32,00 A 2
C 4,2	x	45	S	500	39,00 A 2
C 4,2	x	50	S	500	46,00 A 2
C 4,8	x	13	S	1000	19,90 A 2
C 4,8	x	16	S	1000	21,40 A 2
C 4,8	x	19	S	1000	22,60 A 2
C 4,8	x	22	S	1000	25,50 A 2
C 4,8	x	25	S	1000	28,00 A 2
C 4,8	x	32	S	500	34,50 A 2
C 4,8	x	38	S	500	37,00 A 2
C 4,8	x	45	S	500	47,50 A 2
C 4,8	x	50	S	250	56,00 A 2
C 5,5	x	13	S	500	31,50 A 2
C 5,5	x	16	S	500	32,50 A 2
C 5,5	x	19	S	500	34,50 A 2
C 5,5	x	22	S	500	39,50 A 2
C 5,5	x	25	S	250	43,00 A 2
C 5,5	x	32	S	250	49,50 A 2
C 5,5	x	38	S	250	56,00 A 2
C 5,5	x	45	S	250	63,00 A 2
C 5,5	x	50	S	250	69,00 A 2
C 6,3	x	13	S	250	45,50 A 2
C 6,3	x	16	S	500	45,50 A 2

Dimensions	PU Pieces	€/100/Mat.
C 6,3	x 19	S 500	48,50 A 2
C 6,3	x 22	S 500	55,00 A 2
C 6,3	x 25	S 500	59,00 A 2
C 6,3	x 32	S 250	65,00 A 2
C 6,3	x 38	S 250	72,00 A 2
C 6,3	x 45	S 250	81,00 A 2
C 6,3	x 50	S 250	87,00 A 2
C 6,3	x 60	S 100	106,00 A 2
C 6,3	x 70	S 100	148,00 A 2
C 8	x 16	S 100	86,00 A 2
C 8	x 19	S 100	95,00 A 2
C 8	x 22	S 250	97,00 A 2
C 8	x 25	S 100	148,00 A 2
C 8	x 32	S 100	157,00 A 2
C 8	x 38	S 100	211,00 A 2
C 8	x 45	S 100	285,00 A 2
C 8	x 50	S 100	390,00 A 2
C 8	x 60	S 100	530,00 A 2

DIN	01480.924	510

1480 A 2 SP-AE



Turnbuckles, forged,open type, AE = with 2 welding studs

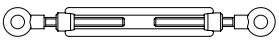
Dimensions ➔ TI-82 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

SP-AE M 12	S	1	9500,00 A 2
SP-AE M 16	S	1	20300,00 A 2
SP-AE M 20	S	1	27500,00 A 2

DIN	01480.925	510

1480 A 2 SP-RR



Turnbuckles, forged, open type, RR = with 2 eye bolts

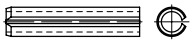
Dimensions ➔ TI-82 Material properties ➔ TI-236

Steel ➔ pg. 215

RoHS ✓ REACh SVHC free

SP-RR M 6	S	1	2850,00 A 2
SP-RR M 8	S	1	4100,00 A 2
SP-RR M 10	S	1	6100,00 A 2
SP-RR M 12	S	1	9500,00 A 2
SP-RR M 16	S	1	19700,00 A 2

Dimensions	PU Pieces	€/100/Mat.
DIN	01481.960	520
1481	**1.4310**	



Spring type straight pins, slotted, heavy duty (clamping sleeves)

Caution! Reduced spring load.

Dimensions ➔ TI-121 Standard conversion ➔ TI-10
Material properties ➔ TI-236

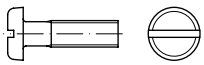
Spring steel ➔ pg. 217

DIN 1481 ➔ replaced by ISO 8752

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
1	x	4	S	100	16,10
1	x	5	S	100	16,10
1	x	6	S	100	16,10
1	x	8	S	100	16,10
1	x	10	S	100	17,10
1	x	12	S	100	17,50
1	x	14	S	100	18,00
1	x	16	S	100	18,60
1	x	20	S	100	19,90
1,5	x	5	S	100	15,80
1,5	x	6	S	100	16,10
1,5	x	8	S	100	16,10
1,5	x	10	S	100	17,10
1,5	x	12	S	100	17,50
1,5	x	14	S	100	18,00
1,5	x	16	S	100	18,60
1,5	x	18	S	100	19,20
1,5	x	20	S	100	20,50
2	x	4	S	100	16,10
2	x	5	S	100	16,10
2	x	6	S	100	16,10
2	x	8	S	100	17,10
2	x	10	S	100	17,60
2	x	12	S	100	18,40
2	x	14	S	100	19,20
2	x	16	S	100	20,10
2	x	18	S	100	20,90
2	x	20	S	100	22,00
2	x	22	S	100	23,10
2	x	24	S	100	24,10
2	x	26	S	100	25,50
2	x	28	S	100	26,50
2	x	30	S	100	28,00
2,5	x	4	S	100	16,50
2,5	x	6	S	100	17,50
2,5	x	8	S	100	18,00
2,5	x	10	S	100	19,20
2,5	x	12	S	100	19,70
2,5	x	14	S	100	20,90
2,5	x	16	S	100	21,80
2,5	x	18	S	100	23,10
2,5	x	20	S	100	24,70
2,5	x	22	S	100	26,00
2,5	x	24	S	100	27,50
2,5	x	26	S	100	29,00
2,5	x	28	S	100	30,50
2,5	x	30	S	100	32,00
3	x	4	S	100	18,00
3	x	5	S	100	19,20
3	x	6	S	100	20,90
3	x	8	S	100	23,10
3	x	10	S	100	24,80
3	x	12	S	100	27,00
3	x	14	S	100	30,50
3	x	16	S	100	31,50
3	x	18	S	100	33,00
3	x	20	S	100	34,00
3	x	22	S	100	37,50
3	x	24	S	50	41,00
3	x	26	S	50	42,50
3	x	28	S	50	44,50
3	x	30	S	50	47,00
3	x	32	S	50	48,50
3	x	36	S	50	52,00
3	x	40	S	50	54,00
3,5	x	6	S	100	28,00
3,5	x	10	S	100	31,50
3,5	x	12	S	100	35,50
3,5	x	14	S	100	40,00
3,5	x	16	S	100	43,50
3,5	x	18	S	100	46,00
3,5	x	20	S	100	52,00
3,5	x	22	S	100	53,00
3,5	x	24	S	100	58,00
3,5	x	26	S	100	59,00
3,5	x	28	S	100	63,00
3,5	x	30	S	100	66,00
3,5	x	32	S	100	70,00
3,5	x	36	S	100	75,00
3,5	x	40	S	100	85,00
4	x	6	S	100	28,00
4	x	8	S	100	30,50
4	x	10	S	100	31,50
4	x	12	S	100	35,50
4	x	14	S	50	42,00
4	x	16	S	50	45,50
4	x	18	S	50	48,50
4	x	20	S	50	53,00
4	x	22	S	50	55,00
4	x	24	S	50	60,00
4	x	26	S	50	63,00
4	x	28	S	50	65,00
4	x	30	S	50	68,00
4	x	32	S	50	68,00
4	x	36	S	50	77,00
4	x	40	S	50	87,00
4	x	45	S	50	91,00
4	x	50	S	50	105,00
4,5	x	10	S	100	37,50
4,5	x	12	S	100	41,50
4,5	x	14	S	100	45,50
4,5	x	16	S	100	48,50
4,5	x	18	S	100	53,00
4,5	x	20	S	100	58,00
4,5	x	22	S	100	61,00
4,5	x	24	S	100	65,00
4,5	x	26	S	100	69,00
4,5	x	28	S	100	72,00
4,5	x	30	S	100	78,00
4,5	x	32	S	100	82,00
4,5	x	36	S	100	97,00
4,5	x	40	S	100	103,00
4,5	x	45	S	100	112,00
4,5	x	50	S	100	122,00
5	x	6	S	50	36,50
5	x	8	S	50	40,00
5	x	10	S	50	44,00
5	x	12	S	50	49,50
5	x	14	S	50	54,00
5	x	16	S	50	60,00
5	x	18	S	50	65,00
5	x	20	S	50	70,00
5	x	22	S	50	74,00
5	x	24	S	50	79,00
5	x	26	S	50	84,00
5	x	28	S	50	90,00
5	x	30	S	50	97,00
5	x	32	S	50	101,00
5	x	36	S	50	112,00
5	x	40	S	50	122,00
5	x	45	S	50	131,00
5	x	50	S	50	148,00
5	x	60	S	50	237,00
5	x	70	S	50	310,00
6	x	10	S	25	63,00
6	x	12	S	25	67,00
6	x	14	S	25	70,00
6	x	16	S	25	74,00
6	x	18	S	25	86,00
6	x	20	S	25	99,00
6	x	22	S	25	105,00
6	x	24	S	25	112,00
6	x	26	S	25	120,00
6	x	28	S	25	127,00
6	x	30	S	25	135,00
6	x	32	S	25	144,00
6	x	36	S	25	159,00
6	x	40	S	25	194,00
6	x	45	S	25	222,00
6	x	50	S	25	255,00
6	x	60	S	25	330,00
6	x	70	S	25	365,00
6	x	80	S	25	390,00
10	x	10	S	50	154,00
10	x	12	S	50	159,00
10	x	16	S	50	175,00
10	x	18	S	50	226,00
10	x	20	S	50	226,00
10	x	22	S	50	260,00
10	x	24	S	50	270,00
10	x	28	S	50	290,00
10	x	30	S	10	315,00
10	x	32	S	50	305,00
10	x	36	S	50	365,00
10	x	40	S	50	435,00
10	x	45	S	10	475,00
10	x	50	S	50	520,00
10	x	55	S	10	540,00
10	x	60	S	10	580,00
10	x	65	S	50	610,00
10	x	70	S	50	630,00
10	x	80	S	10	680,00
10	x	90	S	50	710,00
10	x	100	S	50	780,00

Dimensions	PU	Pieces	€/100/Mat.
ISO 01580.920			30
1580 A 2			



Slotted pan head screws

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-236

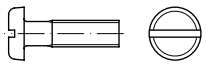
Steel ➔ pg. 220
Brass, Plastic ➔ pg. 633

ISO 1580 ➔ replaces DIN 85 (compatible)

RoHS ✓ REACh SVHC free

M 3	x	4	S	1000	17,10	A 2
M 3	x	5	S	1000	11,60	A 2
M 3	x	6	S	1000	6,40	A 2
M 3	x	6	K	200	8,30	A 2
M 3	x	8	S	1000	5,90	A 2
M 3	x	8	K	200	7,80	A 2
M 3	x	10	S	1000	5,60	A 2
M 3	x	10	K	200	7,50	A 2
M 3	x	12	S	1000	6,10	A 2
M 3	x	12	K	200	8,00	A 2
M 3	x	14	S	1000	6,70	A 2
M 3	x	16	S	1000	6,90	A 2
M 3	x	16	K	200	8,80	A 2
M 3	x	20	S	1000	7,60	A 2
M 3	x	20	K	200	9,50	A 2
M 3	x	25	K	200	10,20	A 2
M 3	x	30	S	500	17,10	A 2
M 3	x	35	K	200	13,10	A 2
M 4	x	5	S	1000	17,10	A 2
M 4	x	5	K	200	20,80	A 2
M 4	x	6	S	1000	11,40	A 2
M 4	x	8	S	1000	9,10	A 2
M 4	x	8	K	200	11,00	A 2
M 4	x	10	S	1000	8,30	A 2
M 4	x	10	K	200	10,20	A 2
M 4	x	12	S	1000	8,50	A 2
M 4	x	12	K	200	10,40	A 2
M 4	x	16	S	1000	9,10	A 2
M 4	x	16	K	200	11,00	A 2
M 4	x	20	S	1000	9,50	A 2
M 4	x	20	K	200	11,40	A 2
M 4	x	25	S	500	11,40	A 2
M 4	x	25	K	200	13,30	A 2
M 4	x	30	S	500	12,70	A 2
M 4	x	35	S	500	17,10	A 2
M 4	x	40	S	500	20,90	A 2
M 4	x	50	S	500	36,00	A 2
M 4	x	60	S	500	42,50	A 2
M 5	x	6	S	500	22,20	A 2
M 5	x	6	K	100	26,50	A 2
M 5	x	8	S	500	19,40	A 2
M 5	x	8	K	200	21,20	A 2
M 5	x	10	S	500	15,20	A 2
M 5	x	10	K	200	17,10	A 2
M 5	x	12	S	500	11,40	A 2
M 5	x	12	K	200	13,30	A 2
M 5	x	16	S	500	12,70	A 2
M 5	x	16	K	200	14,60	A 2
M 5	x	20	S	500	14,10	A 2
M 5	x	20	K	200	16,00	A 2
M 5	x	25	S	500	16,10	A 2
M 5	x	25	K	100	20,00	A 2
M 5	x	30	S	500	19,20	A 2
M 5	x	30	K	100	23,00	A 2
M 5	x	35	S	500	27,00	A 2
M 5	x	40	K	100	34,50	A 2
M 5	x	45	S	500	37,50	A 2
M 5	x	50	S	500	46,00	A 2
M 5	x	60	S	500	55,00	A 2
M 5	x	70	S	200	67,00	A 2
M 5	x	80	S	200	95,00	A 2
M 6	x	8	S	500	22,80	A 2
M 6	x	10	S	200	17,00	A 2
M 6	x	10	K	100	20,90	A 2
M 6	x	12	S	200	15,60	A 2
M 6	x	12	K	100	19,40	A 2
M 6	x	16	S	200	16,70	A 2
M 6	x	16	K	100	20,60	A 2
M 6	x	20	S	200	18,50	A 2
M 6	x	20	K	100	22,40	A 2
M 6	x	25	S	200	20,70	A 2
M 6	x	25	K	100	24,60	A 2
M 6	x	30	S	200	24,10	A 2
M 6	x	30	K	100	28,00	A 2
M 6	x	35	S	200	33,50	A 2
M 6	x	40	K	100	35,00	A 2
M 6	x	45	K	100	40,00	A 2
M 6	x	50	K	50	81,00	A 2
M 6	x	60	S	200	124,00	A 2
M 6	x	70	S	200	148,00	A 2
M 6	x	80	S	200	180,00	A 2

Dimensions	PU	Pieces	€/100/Mat.
ISO 01580.940			30
1580 A 4			



Slotted pan head screws

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 220
Brass, Plastic ➔ pg. 633

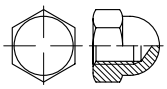
ISO 1580 ➔ replaces DIN 85 (compatible)

RoHS ✓ REACh SVHC free

M 2	x	3	S	1000	74,00	A 4
M 2	x	4	S	1000	42,00	A 4
M 2	x	5	S	1000	41,50	A 4
M 2	x	6	S	1000	36,00	A 4
M 2	x	8	S	1000	38,00	A 4
M 2	x	10	S	1000	40,00	A 4
M 2	x	12	S	1000	42,00	A 4
M 2	x	16	S	1000	53,00	A 4
M 2	x	20	S	1000	59,00	A 4
M 2	x	25	S	1000	76,00	A 4
M 2	x	30	S	1000	95,00	A 4
M 2,5	x	3	S	1000	84,00	A 4
M 2,5	x	4	S	1000	68,00	A 4
M 2,5	x	5	S	1000	59,00	A 4
M 2,5	x	6	S	1000	61,00	A 4
M 2,5	x	8	S	1000	63,00	A 4
M 2,5	x	10	S	1000	66,00	A 4
M 2,5	x	12	S	1000	68,00	A 4
M 2,5	x	16	S	1000	74,00	A 4
M 2,5	x	20	S	1000	89,00	A 4
M 2,5	x	25	S	1000	105,00	A 4
M 2,5	x	30	S	1000	137,00	A 4
M 3	x	5	S	1000	14,50	A 4
M 3	x	5	K	200	16,60	A 4
M 3	x	6	S	1000	9,10	A 4
M 3	x	6	K	200	11,20	A 4
M 3	x	8	S	1000	8,40	A 4
M 3	x	8	K	200	10,50	A 4
M 3	x	10	S	1000	8,00	A 4
M 3	x	10	K	200	10,10	A 4
M 3	x	12	S	1000	8,40	A 4
M 3	x	12	K	200	10,50	A 4
M 3	x	16	S	1000	9,70	A 4
M 3	x	16	K	200	11,80	A 4
M 3	x	20	S	1000	10,30	A 4
M 3	x	20	K	200	12,40	A 4
M 3	x	25	K	100	13,30	A 4
M 3	x	30	K	100	17,60	A 4
M 4	x	5	S	1000	23,80	A 4
M 4	x	5	K	200	26,00	A 4
M 4	x	6	S	1000	13,50	A 4
M 4	x	6	K	200	15,60	A 4
M 4	x	8	S	1000	12,80	A 4
M 4	x	8	K	200	14,90	A 4
M 4	x	10	S	1000	11,80	A 4
M 4	x	10	K	200	13,90	A 4
M 4	x	12	S	1000	11,60	A 4
M 4	x	12	K	200	13,70	A 4
M 4	x	16	S	1000	13,20	A 4
M 4	x	16	K	200	15,30	A 4
M 4	x	20	S	1000	15,00	A 4
M 4	x	20	K	200	17,10	A 4
M 4	x	25	K	200	19,30	A 4
M 4	x	30	K	100	24,50	A 4
M 4	x	35	K	100	37,00	A 4
M 4	x	40	K	100	41,50	A 4
M 4	x	45	K	100	54,00	A 4
M 4	x	50	K	100	50,00	A 4
M 5	x	8	S	500	24,20	A 4
M 5	x	8	K	200	28,50	A 4
M 5	x	10	S	500	19,60	A 4
M 5	x	10	K	200	21,70	A 4
M 5	x	12	S	500	18,60	A 4
M 5	x	12	K	200	20,70	A 4
M 5	x	16	S	500	20,60	A 4
M 5	x	16	K	200	22,70	A 4
M 5	x	20	S	500	23,50	A 4
M 5	x	20	K	200	26,00	A 4
M 5	x	25	S	500	26,50	A 4
M 5	x	25	K	100	31,00	A 4
M 5	x	30	S	500	32,00	A 4
M 5	x	30	K	100	36,00	A 4
M 5	x	40	K	100	49,00	A 4
M 5	x	50	K	100	102,00	A 4
M 6	x	8	K	100	42,00	A 4
M 6	x	10	S	200	26,50	A 4
M 6	x	10	K	100	31,00	A 4
M 6	x	12	S	200	24,00	A 4
M 6	x	12	K	100	28,50	A 4
M 6	x	16	S	200	26,50	A 4
M 6	x	16	K	100	31,00	A 4
M 6	x	20	S	200	30,00	A 4
M 6	x	20	K	100	34,00	A 4
M 6	x	25	S	200	33,00	A 4
M 6	x	25	K	100	37,00	A 4
M 6	x	30	S	200	41,50	A 4
M 6	x	30	K	100	45,50	A 4
M 6	x	35	K	50	48,00	A 4
M 6	x	40	K	50	53,00	A 4
M 6	x	50	K	50	116,00	A 4
M 8	x	10	K	50	98,00	A 4
M 8	x	12	K	50	94,00	A 4
M 8	x	16	K	50	96,00	A 4
M 8	x	20	K	50	98,00	A 4
M 8	x	25	K	50	103,00	A 4

Dimensions	PU	Pieces	€/100/Mat.
DIN	01587.920		530

1587 A 2



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

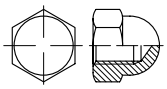
Dimensions ➔ TI-63
Material properties ➔ TI-236
Steel ➔ pg. 221
Brass, Plastic ➔ pg. 633

RoHS ✓ | REACh SVHC free

M 4		S	1000	42,00 A 2
M 4		K	100	51,00 A 2
M 5		S	1000	48,50 A 2
M 5		K	50	63,00 A 2
M 6		S	500	55,00 A 2
M 6		K	50	70,00 A 2
M 8		S	500	103,00 A 2
M 8		K	50	114,00 A 2
M 10	s = 17	S	250	195,00 A 2
M 10	s = 17	K	25	231,00 A 2
M 12	s = 19	S	200	345,00 A 2
M 12	s = 19	K	25	385,00 A 2
M 14	s = 22	S	10	550,00 A 2
M 16		S	10	580,00 A 2
M 20		S	1	1120,00 A 2
M 24		S	1	2650,00 A 2
M 27		S	1	8600,00 A 2
M 30		S	1	10500,00 A 2

DIN	01587.940	530

1587 A 4



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63
Material properties ➔ TI-236
Steel ➔ pg. 221
Brass, Plastic ➔ pg. 633

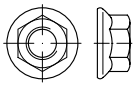
RoHS ✓ | REACh SVHC free

M 3		S	100	97,00 A 4
M 4		S	100	97,00 A 4
M 5		S	1000	105,00 A 4
M 5		K	50	110,00 A 4
M 6		S	500	128,00 A 4
M 6		K	50	145,00 A 4
M 8		S	500	177,00 A 4
M 8		K	50	193,00 A 4
M 10	s = 17	S	250	360,00 A 4
M 10	s = 17	K	25	390,00 A 4
M 12	s = 19	S	200	570,00 A 4
M 12	s = 19	K	25	600,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
M 14 s = 22	S	10	960,00 A 4
M 16	S	10	1100,00 A 4
M 18	S	10	2100,00 A 4
M 20	S	1	1790,00 A 4
M 24	S	1	3500,00 A 4
M 27	S	1	12200,00 A 4

EN	01661.920	615

1661 A 2



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7
Steel ➔ pg. 222

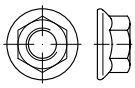
EN 1661 ➔ replaces DIN 6923

RoHS ✓ | REACh SVHC free

M 4	S	1000	16,10 A 2
M 5	S	1000	24,30 A 2
M 6	S	1000	39,00 A 2
M 8	S	1000	49,50 A 2
M 10	S	500	73,00 A 2
M 12	S	250	152,00 A 2

EN	01661.940	615

1661 A 4



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7
Steel ➔ pg. 222

EN 1661 ➔ replaces DIN 6923

RoHS ✓ | REACh SVHC free

M 5	S	1000	55,00 A 4
M 6	S	1000	71,00 A 4
M 8	S	1000	81,00 A 4
M 10	S	500	189,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
EN	01665.920		401

1665 A 2



Hexagon flange bolts, heavy series

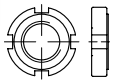
Dimensions ➔ TI-17
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6
Steel ➔ pg. 223

EN 1665 ➔ replaces DIN 6921

RoHS ✓ | REACh SVHC free

M 5	x	10	S	200	33,50	A 2
M 5	x	12	S	200	34,50	A 2
M 5	x	16	S	200	36,00	A 2
M 5	x	20	S	200	37,00	A 2
M 5	x	25	S	200	39,50	A 2
M 5	x	30	S	200	42,50	A 2
M 6	x	10	S	200	42,50	A 2
M 6	x	12	S	200	44,00	A 2
M 6	x	16	S	200	46,50	A 2
M 6	x	20	S	200	48,50	A 2
M 6	x	25	S	200	53,00	A 2
M 6	x	30	S	200	55,00	A 2
M 6	x	35	S	200	60,00	A 2
M 6	x	40	S	200	63,00	A 2
M 6	x	45	S	200	66,00	A 2
M 8	x	16	S	200	83,00	A 2
M 8	x	20	S	200	86,00	A 2
M 8	x	25	S	200	91,00	A 2
M 8	x	30	S	200	99,00	A 2
M 8	x	35	S	200	105,00	A 2
M 8	x	40	S	200	110,00	A 2
M 8	x	45	S	200	116,00	A 2
M 8	x	50	S	200	124,00	A 2
M 10	x	20	S	100	124,00	A 2
M 10	x	25	S	100	133,00	A 2
M 10	x	30	S	100	141,00	A 2
M 10	x	35	S	100	150,00	A 2
M 10	x	40	S	100	161,00	A 2
M 10	x	45	S	100	171,00	A 2
M 10	x	50	S	100	180,00	A 2
M 10	x	60	S	100	199,00	A 2

Dimensions	PU	Pieces	€/100/Mat.
DIN	01804.920		530
1804 A 2			



Slotted round nuts

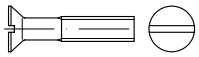
Dimensions ➔ TI-74 Material properties ➔ TI-236

Steel ➔ pg. 224

RoHS ✓ REACh SVHC free

M 14	x	1,5	S	1	3350,00	A2
M 16	x	1,5	S	1	3750,00	A2
M 18	x	1,5	S	1	3850,00	A2
M 20	x	1,5	S	1	3950,00	A2
M 24	x	1,5	S	1	7000,00	A2
M 30	x	1,5	S	1	7700,00	A2
M 40	x	1,5	S	1	10300,00	A2
M 42	x	1,5	S	1	11200,00	A2
M 45	x	1,5	S	1	11600,00	A2
M 50	x	1,5	S	1	12700,00	A2

ISO	02009.920	450
2009 A 2		



Slotted countersunk head screws

Dimensions ➔ TI-27 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 225
Brass, Plastic ➔ pg. 634

ISO 2009 ➔ replaces DIN 963

RoHS ✓ REACh SVHC free

M 1	x	2	S	1000	285,00	A2
M 1	x	3	S	1000	285,00	A2
M 1	x	4	S	1000	285,00	A2
M 1	x	5	S	1000	285,00	A2
M 1,2	x	2	S	1000	285,00	A2
M 1,2	x	3	S	1000	285,00	A2
M 1,2	x	4	S	1000	285,00	A2
M 1,2	x	5	S	1000	305,00	A2
M 1,2	x	6	S	1000	335,00	A2
M 1,4	x	2	S	1000	285,00	A2
M 1,4	x	3	S	1000	285,00	A2
M 1,4	x	4	S	1000	285,00	A2
M 1,4	x	5	S	1000	305,00	A2
M 1,4	x	6	S	1000	335,00	A2
M 1,4	x	8	S	1000	370,00	A2
M 1,4	x	10	S	1000	430,00	A2
M 1,6	x	3	S	1000	105,00	A2
M 1,6	x	4	S	1000	105,00	A2
M 1,6	x	5	S	1000	124,00	A2
M 1,6	x	6	S	1000	133,00	A2
M 1,6	x	8	S	1000	142,00	A2
M 1,6	x	10	S	1000	152,00	A2
M 2	x	3	S	1000	124,00	A2
M 2	x	4	S	1000	8,80	A2
M 2	x	5	S	1000	6,30	A2
M 2	x	6	S	1000	6,60	A2
M 2	x	8	S	1000	7,00	A2
M 2	x	10	S	1000	7,60	A2
M 2	x	12	S	1000	8,20	A2
M 2	x	16	S	1000	8,80	A2
M 2	x	18	S	1000	11,40	A2
M 2,5	x	4	S	1000	8,80	A2
M 2,5	x	5	S	1000	6,30	A2
M 2,5	x	6	S	1000	6,60	A2
M 2,5	x	8	S	1000	7,00	A2
M 2,5	x	10	S	1000	7,60	A2
M 2,5	x	12	S	1000	8,20	A2
M 2,5	x	14	S	1000	8,80	A2
M 2,5	x	16	S	1000	8,80	A2
M 2,5	x	20	S	1000	24,20	A2
M 2,5	x	25	S	1000	31,00	A2
M 3	x	4	S	1000	48,00	A2
M 3	x	5	S	1000	9,60	A2
M 3	x	5	K	200	11,50	A2
M 3	x	6	S	1000	5,50	A2
M 3	x	6	K	200	7,40	A2
M 3	x	8	S	1000	5,10	A2
M 3	x	8	K	200	7,00	A2
M 3	x	10	S	1000	4,65	A2
M 3	x	10	K	200	6,60	A2
M 3	x	12	S	1000	4,75	A2
M 3	x	12	K	200	6,70	A2
M 3	x	14	K	200	10,90	A2
M 3	x	16	S	1000	5,40	A2
M 3	x	16	K	200	7,30	A2
M 3	x	20	S	1000	6,30	A2
M 3	x	20	K	200	8,20	A2
M 3	x	22	S	1000	21,00	A2
M 3	x	25	S	1000	7,90	A2
M 3	x	25	K	200	9,80	A2
M 3	x	30	S	1000	46,50	A2
M 3	x	30	K	200	15,60	A2
M 3	x	35	S	1000	48,00	A2
M 3	x	40	S	1000	61,00	A2
M 3	x	45	S	1000	55,00	A2
M 3	x	50	S	500	74,00	A2
M 3	x	60	S	500	110,00	A2
M 3,5	x	8	S	1000	36,00	A2
M 3,5	x	10	S	1000	36,50	A2
M 3,5	x	12	S	1000	28,50	A2
M 3,5	x	16	S	1000	32,50	A2
M 4	x	8	S	1000	8,20	A2
M 4	x	10	S	1000	7,10	A2
M 4	x	12	S	1000	6,60	A2
M 4	x	14	S	1000	36,50	A2
M 4	x	16	S	1000	6,90	A2
M 4	x	20	S	1000	7,80	A2
M 4	x	25	S	500	8,80	A2
M 4	x	30	S	500	11,80	A2
M 4	x	35	S	500	16,00	A2
M 4	x	40	S	500	21,80	A2
M 4	x	50	S	500	33,50	A2
M 5	x	6	S	500	12,90	A2
M 5	x	6	K	200	14,80	A2
M 5	x	8	S	500	11,30	A2
M 5	x	8	K	200	13,20	A2
M 5	x	10	S	500	11,30	A2
M 5	x	10	K	200	13,20	A2
M 5	x	12	S	500	8,40	A2
M 5	x	12	K	200	10,30	A2
M 5	x	14	K	200	16,40	A2
M 5	x	16	S	500	9,70	A2
M 5	x	16	K	200	11,60	A2
M 5	x	18	S	500	12,40	A2
M 5	x	20	S	500	11,20	A2
M 5	x	20	K	200	13,10	A2
M 5	x	25	S	500	13,20	A2
M 5	x	25	K	200	15,10	A2
M 5	x	30	S	500	14,90	A2
M 5	x	30	K	200	16,80	A2
M 5	x	35	S	200	18,10	A2
M 5	x	35	K	100	22,00	A2
M 5	x	40	S	200	23,30	A2
M 5	x	40	K	100	27,50	A2
M 5	x	45	K	100	33,50	A2
M 5	x	50	K	100	42,50	A2
M 5	x	60	K	100	64,00	A2
M 5	x	65	K	100	88,00	A2
M 5	x	70	K	100	88,00	A2
M 5	x	80	S	500	99,00	A2
M 5	x	90	K	100	125,00	A2
M 5	x	100	K	100	142,00	A2
M 6	x	8	S	200	20,30	A2
M 6	x	8	K	100	24,20	A2
M 6	x	10	S	200	13,60	A2
M 6	x	10	K	100	17,50	A2
M 6	x	12	S	200	13,10	A2
M 6	x	12	K	100	17,00	A2
M 6	x	16	S	200	12,30	A2
M 6	x	16	K	100	16,10	A2
M 6	x	18	K	100	26,50	A2
M 6	x	20	S	200	13,60	A2
M 6	x	20	K	100	17,50	A2
M 6	x	25	S	200	15,60	A2
M 6	x	25	K	100	19,40	A2
M 6	x	30	S	200	18,90	A2
M 6	x	30	K	100	22,80	A2
M 6	x	35	S	100	22,60	A2
M 6	x	35	K	50	30,50	A2
M 6	x	40	S	100	29,50	A2
M 6	x	40	K	50	37,00	A2
M 6	x	45	K	100	43,00	A2
M 6	x	50	K	50	53,00	A2
M 6	x	55	K	50	78,00	A2
M 6	x	60	K	50	78,00	A2
M 6	x	65	K	50	87,00	A2
M 6	x	70	K	50	87,00	A2
M 6	x	80	K	50	95,00	A2
M 6	x	90	K	50	125,00	A2
M 6	x	100	K	50	190,00	A2
M 6	x	110	K	50	345,00	A2
M 6	x	120	K	25	380,00	A2
M 6	x	130	K	25	485,00	A2
M 6	x	140	K	25	570,00	A2
M 6	x	160	K	25	670,00	A2
M 8	x	12	S	100	30,50	A2
M 8	x	16	S	100	31,50	A2
M 8	x	20	S	100	32,50	A2
M 8	x	25	S	100	39,00	A2
M 8	x	30	S	100	41,50	A2
M 8	x	35	S	100	46,00	A2
M 8	x	40	S	100	51,00	A2
M 8	x	45	S	100	64,00	A2
M 8	x	50	S	100	67,00	A2
M 8	x	55	S	100	93,00	A2
M 8	x	60	S	100	97,00	A2
M 8	x	70	S	100	102,00	A2
M 8	x	80	S	100	111,00	A2
M 8	x	90	S	100	119,00	A2
M 8	x	100	S	100	194,00	A2
M 8	x	110	S	100	340,00	A2
M 10	x	16	K	50	124,00	A2
M 10	x	20	S	100	63,00	A2
M 10	x	20	K	50	71,00	A2
M 10	x	25	S	100	72,00	A2
M 10	x	25	K	50	79,00	A2
M 10	x	30	S	100	80,00	A2
M 10	x	30	K	50	88,00	A2
M 10	x	35	S	100	89,00	A2
M 10	x	35	K	50	96,00	A2
M 10	x	40	S	100	97,00	A2
M 10	x	40	K	50	105,00	A2
M 10	x	50	S	100	114,00	A2

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	50	K	50	121,00 A2
M 10	x	60	S	100	148,00 A2
M 10	x	60	K	50	155,00 A2
M 10	x	70	S	50	190,00 A2
M 10	x	80	S	50	219,00 A2
M 10	x	90	K	50	237,00 A2
M 10	x	100	K	50	335,00 A2
M 10	x	120	K	25	760,00 A2
M 10	x	130	K	25	800,00 A2
M 10	x	140	K	25	800,00 A2

ISO	02009.940	450
2009	**A 4**	



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-236
Standard conversion ➔ TI-11

Steel ➔ pg. 225
Brass, Plastic ➔ pg. 634

ISO 2009 ➔ replaces DIN 963

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	3	S	1000	179,00 A4
M 2	x	4	S	1000	9,70 A4
M 2	x	4	K	200	11,80 A4
M 2	x	5	S	1000	7,00 A4
M 2	x	5	K	200	9,10 A4
M 2	x	6	S	1000	7,30 A4
M 2	x	6	K	200	9,40 A4
M 2	x	8	S	1000	7,70 A4
M 2	x	8	K	200	9,80 A4
M 2	x	10	S	1000	8,40 A4
M 2	x	10	K	200	10,50 A4
M 2	x	12	S	1000	9,10 A4
M 2	x	12	K	200	11,20 A4
M 2	x	16	S	1000	9,70 A4
M 2	x	16	K	200	11,80 A4
M 2	x	20	S	1000	12,80 A4
M 2	x	20	K	200	14,90 A4
M 2,5	x	4	S	1000	9,70 A4
M 2,5	x	4	K	200	11,80 A4
M 2,5	x	5	S	1000	7,00 A4
M 2,5	x	5	K	200	9,10 A4
M 2,5	x	6	S	1000	7,30 A4
M 2,5	x	6	K	200	9,40 A4
M 2,5	x	8	S	1000	7,70 A4
M 2,5	x	8	K	200	9,80 A4
M 2,5	x	10	S	1000	8,40 A4
M 2,5	x	10	K	200	10,50 A4
M 2,5	x	12	S	1000	9,10 A4
M 2,5	x	12	K	200	11,20 A4
M 2,5	x	16	S	1000	9,70 A4
M 2,5	x	16	K	200	11,80 A4
M 2,5	x	20	K	200	14,90 A4
M 3	x	4	S	1000	16,10 A4
M 3	x	4	K	200	18,20 A4
M 3	x	5	S	1000	13,90 A4
M 3	x	5	K	200	16,00 A4
M 3	x	6	S	1000	8,30 A4
M 3	x	6	K	200	10,40 A4
M 3	x	8	S	1000	7,10 A4
M 3	x	8	K	200	9,20 A4
M 3	x	10	S	1000	6,00 A4
M 3	x	10	K	200	8,10 A4
M 3	x	12	S	1000	6,30 A4
M 3	x	12	K	200	8,40 A4
M 3	x	16	S	1000	7,30 A4
M 3	x	16	K	200	9,40 A4
M 3	x	20	S	1000	8,00 A4
M 3	x	20	K	200	10,10 A4
M 3	x	25	S	1000	11,60 A4
M 3	x	25	K	200	13,70 A4
M 3	x	30	S	1000	13,00 A4
M 3	x	30	K	200	15,00 A4
M 3	x	35	S	1000	63,00 A4
M 3	x	40	S	1000	80,00 A4
M 3	x	40	K	200	33,50 A4
M 3	x	45	S	1000	99,00 A4
M 3	x	50	S	1000	124,00 A4
M 4	x	8	S	1000	11,60 A4
M 4	x	10	S	1000	9,80 A4
M 4	x	12	S	1000	9,40 A4
M 4	x	16	S	1000	9,90 A4
M 4	x	20	S	1000	10,90 A4
M 4	x	25	S	500	13,50 A4
M 4	x	30	S	500	17,80 A4
M 4	x	35	S	500	21,40 A4
M 4	x	40	S	500	25,00 A4
M 4	x	45	S	500	41,50 A4
M 4	x	50	S	500	42,00 A4
M 4	x	60	S	500	63,00 A4
M 5	x	6	S	500	53,00 A4
M 5	x	8	S	500	15,00 A4
M 5	x	8	K	200	17,10 A4
M 5	x	10	S	500	15,00 A4
M 5	x	10	K	200	17,10 A4
M 5	x	12	S	500	11,70 A4
M 5	x	12	K	200	13,80 A4
M 5	x	16	S	500	13,60 A4
M 5	x	16	K	200	15,70 A4
M 5	x	18	K	200	25,50 A4
M 5	x	20	S	500	15,90 A4
M 5	x	20	K	200	18,00 A4
M 5	x	25	S	500	18,30 A4
M 5	x	25	K	200	20,40 A4
M 5	x	30	S	500	20,90 A4
M 5	x	30	K	200	23,00 A4
M 5	x	35	S	200	29,00 A4
M 5	x	35	K	100	33,50 A4
M 5	x	40	S	200	32,50 A4
M 5	x	40	K	100	36,50 A4
M 5	x	45	K	100	44,50 A4
M 5	x	50	K	100	48,50 A4
M 5	x	60	K	100	66,00 A4
M 5	x	70	K	100	104,00 A4
M 5	x	80	K	100	115,00 A4
M 5	x	90	K	100	152,00 A4
M 5	x	100	K	100	154,00 A4
M 6	x	8	S	200	59,00 A4
M 6	x	8	K	100	33,50 A4
M 6	x	10	S	200	21,40 A4
M 6	x	10	K	100	26,00 A4
M 6	x	12	S	200	20,70 A4
M 6	x	12	K	100	25,00 A4
M 6	x	14	S	200	25,50 A4
M 6	x	16	S	200	19,90 A4
M 6	x	16	K	100	24,20 A4
M 6	x	18	K	100	34,50 A4
M 6	x	20	S	200	22,90 A4
M 6	x	20	K	100	27,50 A4
M 6	x	25	S	200	27,00 A4
M 6	x	25	K	100	31,00 A4
M 6	x	30	S	200	31,00 A4
M 6	x	30	K	100	35,50 A4
M 6	x	35	S	100	39,50 A4
M 6	x	35	K	50	48,00 A4
M 6	x	40	S	100	48,50 A4
M 6	x	40	K	50	57,00 A4
M 6	x	45	S	100	54,00 A4
M 6	x	45	K	50	62,00 A4
M 6	x	50	S	100	57,00 A4
M 6	x	50	K	50	65,00 A4
M 6	x	55	K	100	80,00 A4
M 6	x	60	S	100	71,00 A4
M 6	x	60	K	50	80,00 A4
M 6	x	65	K	50	126,00 A4
M 6	x	70	K	50	127,00 A4
M 6	x	80	K	50	150,00 A4
M 6	x	90	K	50	187,00 A4
M 6	x	100	K	50	450,00 A4
M 6	x	110	K	50	580,00 A4
M 6	x	120	K	50	600,00 A4
M 8	x	12	S	100	84,00 A4
M 8	x	16	S	100	48,50 A4
M 8	x	20	S	100	50,00 A4
M 8	x	25	S	100	57,00 A4
M 8	x	30	S	100	62,00 A4
M 8	x	35	S	100	70,00 A4
M 8	x	40	S	100	78,00 A4
M 8	x	45	S	100	93,00 A4
M 8	x	50	S	100	104,00 A4
M 8	x	55	S	100	115,00 A4
M 8	x	60	S	100	117,00 A4
M 8	x	70	S	100	182,00 A4
M 8	x	80	S	100	221,00 A4
M 8	x	90	S	100	300,00 A4
M 8	x	100	S	100	305,00 A4
M 10	x	16	K	50	174,00 A4
M 10	x	20	S	100	97,00 A4
M 10	x	20	K	50	106,00 A4
M 10	x	25	S	100	111,00 A4
M 10	x	25	K	50	119,00 A4
M 10	x	30	S	100	124,00 A4
M 10	x	30	K	50	132,00 A4
M 10	x	35	S	100	137,00 A4
M 10	x	35	K	50	145,00 A4
M 10	x	40	S	100	150,00 A4
M 10	x	40	K	50	159,00 A4
M 10	x	45	S	100	163,00 A4
M 10	x	45	K	50	172,00 A4
M 10	x	50	S	100	176,00 A4
M 10	x	50	K	50	185,00 A4
M 10	x	60	S	100	227,00 A4
M 10	x	60	K	50	238,00 A4
M 10	x	70	S	50	350,00 A4
M 10	x	70	K	25	370,00 A4
M 10	x	80	S	50	420,00 A4
M 10	x	90	K	25	520,00 A4
M 10	x	100	K	25	620,00 A4
M 10	x	110	K	25	830,00 A4
M 10	x	120	K	25	920,00 A4
M 10	x	130	K	25	1050,00 A4
M 10	x	140	K	25	1210,00 A4
M 12	x	16	K	25	244,00 A4
M 12	x	20	K	25	450,00 A4
M 12	x	25	K	25	450,00 A4
M 12	x	30	K	25	480,00 A4
M 12	x	35	K	25	510,00 A4
M 12	x	40	K	25	530,00 A4
M 12	x	45	K	25	590,00 A4
M 12	x	50	K	25	590,00 A4
M 12	x	60	K	25	680,00 A4
M 12	x	70	K	25	920,00 A4
M 12	x	80	K	25	1070,00 A4
M 12	x	90	K	25	1450,00 A4
M 12	x	100	K	25	1970,00 A4
M 16	x	25	K	1	1590,00 A4
M 16	x	30	K	1	1630,00 A4
M 16	x	35	K	1	1670,00 A4
M 16	x	40	K	1	1730,00 A4
M 16	x	45	K	1	1820,00 A4
M 16	x	50	K	1	1820,00 A4
M 16	x	60	K	1	1910,00 A4
M 16	x	70	K	25	2310,00 A4

Dimensions	PU	Pieces	€/100/Mat.
ISO 02010.920			450
2010 A 2			



Slotted raised countersunk head screws

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 227
Brass ➔ pg. 635

ISO 2010 ➔ replaces DIN 964

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	5	K	200	9,70 A2
M 3	x	6	S	1000	6,30 A2
M 3	x	6	K	200	8,20 A2
M 3	x	8	S	1000	5,70 A2
M 3	x	8	K	200	7,60 A2
M 3	x	10	S	1000	5,20 A2
M 3	x	10	K	200	7,10 A2
M 3	x	12	S	1000	5,30 A2
M 3	x	12	K	200	7,10 A2
M 3	x	16	K	200	7,80 A2
M 3	x	20	S	1000	7,10 A2
M 3	x	20	K	200	8,90 A2
M 3	x	25	K	200	10,80 A2
M 4	x	6	S	1000	13,50 A2
M 4	x	6	K	200	15,40 A2
M 4	x	8	S	1000	9,10 A2
M 4	x	8	K	200	11,00 A2
M 4	x	10	S	1000	7,80 A2
M 4	x	10	K	200	9,70 A2
M 4	x	12	S	1000	7,30 A2
M 4	x	12	K	200	9,20 A2
M 4	x	16	S	1000	8,00 A2
M 4	x	16	K	200	9,90 A2
M 4	x	20	S	1000	8,20 A2
M 4	x	20	K	200	10,10 A2
M 4	x	25	K	200	11,70 A2
M 4	x	30	K	200	14,50 A2
M 4	x	35	K	100	23,20 A2
M 5	x	8	K	100	20,10 A2
M 5	x	10	S	500	12,50 A2
M 5	x	10	K	200	14,40 A2
M 5	x	12	S	500	9,50 A2
M 5	x	12	K	200	11,40 A2
M 5	x	16	S	500	10,90 A2
M 5	x	16	K	200	12,80 A2
M 5	x	18	K	200	19,80 A2
M 5	x	20	S	500	12,20 A2
M 5	x	20	K	200	14,00 A2
M 5	x	25	S	500	14,30 A2
M 5	x	25	K	200	16,20 A2
M 5	x	30	S	500	16,90 A2
M 5	x	30	K	200	18,80 A2
M 5	x	35	S	200	20,70 A2
M 5	x	35	K	100	24,60 A2
M 5	x	40	K	100	31,00 A2
M 5	x	45	K	100	34,50 A2
M 5	x	50	K	100	43,50 A2
M 5	x	60	K	100	64,00 A2
M 5	x	70	K	100	92,00 A2
M 5	x	80	K	100	102,00 A2
M 6	x	10	S	200	15,60 A2
M 6	x	10	K	100	19,40 A2
M 6	x	12	S	200	15,00 A2
M 6	x	12	K	100	18,90 A2
M 6	x	16	S	200	13,60 A2
M 6	x	16	K	100	17,50 A2
M 6	x	20	S	200	15,60 A2
M 6	x	20	K	100	19,40 A2
M 6	x	25	S	200	18,10 A2
M 6	x	25	K	100	22,00 A2
M 6	x	30	S	200	20,10 A2
M 6	x	30	K	100	24,00 A2
M 6	x	35	S	100	26,00 A2
M 6	x	35	K	50	34,00 A2
M 6	x	40	S	100	33,50 A2
M 6	x	40	K	50	41,50 A2
M 6	x	45	K	50	44,00 A2
M 6	x	50	K	50	59,00 A2
M 6	x	55	S	100	77,00 A2
M 6	x	60	K	50	77,00 A2
M 6	x	70	K	50	114,00 A2
M 6	x	80	S	50	355,00 A2
M 6	x	90	S	50	465,00 A2
M 6	x	100	S	50	590,00 A2
M 6	x	105	S	50	670,00 A2
M 6	x	110	S	50	670,00 A2
M 8	x	12	K	50	72,00 A2
M 8	x	16	S	100	36,00 A2
M 8	x	16	K	50	43,50 A2
M 8	x	20	S	100	37,50 A2
M 8	x	20	K	50	45,50 A2
M 8	x	25	S	100	44,00 A2
M 8	x	25	K	50	52,00 A2
M 8	x	30	S	100	47,50 A2
M 8	x	30	K	50	55,00 A2
M 8	x	35	S	100	53,00 A2
M 8	x	40	S	100	58,00 A2
M 8	x	40	K	50	66,00 A2
M 8	x	45	S	100	70,00 A2
M 8	x	50	S	100	73,00 A2
M 8	x	55	S	100	105,00 A2
M 8	x	60	S	100	102,00 A2
M 8	x	70	S	100	156,00 A2
M 8	x	80	K	50	192,00 A2
M 10	x	20	S	100	84,00 A2
M 10	x	25	S	100	90,00 A2
M 10	x	25	K	50	98,00 A2
M 10	x	30	K	50	106,00 A2
M 10	x	35	S	100	105,00 A2
M 10	x	40	K	50	127,00 A2

Dimensions	PU	Pieces	€/100/Mat.
ISO 02010.940			450
2010 A 4			



Slotted raised countersunk head screws

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 227
Brass ➔ pg. 635

ISO 2010 ➔ replaces DIN 964

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	4	K	200	19,60 A4
M 2	x	5	K	200	10,70 A4
M 2	x	6	K	200	11,20 A4
M 2	x	8	K	200	11,80 A4
M 2	x	10	K	200	12,70 A4
M 2	x	12	K	200	13,50 A4
M 2	x	20	K	200	46,50 A4
M 2,5	x	6	K	200	11,20 A4
M 2,5	x	8	K	200	11,80 A4
M 2,5	x	10	K	200	12,70 A4
M 2,5	x	16	K	200	18,60 A4
M 2,5	x	20	K	200	24,20 A4
M 3	x	6	S	1000	9,10 A4
M 3	x	6	K	200	11,20 A4
M 3	x	8	K	200	9,90 A4
M 3	x	10	K	200	8,90 A4
M 3	x	12	K	200	9,30 A4
M 3	x	16	K	200	10,00 A4
M 3	x	20	K	200	11,10 A4
M 3	x	25	K	200	14,10 A4
M 3	x	30	K	200	21,20 A4
M 4	x	6	K	200	21,00 A4
M 4	x	8	S	1000	13,30 A4
M 4	x	8	K	200	15,40 A4
M 4	x	10	S	1000	10,90 A4
M 4	x	10	K	200	13,00 A4
M 4	x	12	K	200	12,60 A4
M 4	x	16	S	1000	11,20 A4
M 4	x	16	K	200	13,30 A4
M 4	x	18	K	200	20,00 A4
M 4	x	20	S	1000	12,10 A4
M 4	x	20	K	200	14,20 A4
M 4	x	25	K	200	17,10 A4
M 4	x	30	K	200	21,90 A4
M 4	x	35	K	100	32,50 A4
M 4	x	40	K	100	43,00 A4
M 4	x	45	K	100	56,00 A4
M 5	x	10	S	500	16,70 A4
M 5	x	10	K	200	18,80 A4
M 5	x	12	K	200	15,90 A4
M 5	x	16	S	500	15,40 A4
M 5	x	16	K	200	17,50 A4
M 5	x	20	S	500	16,20 A4
M 5	x	20	K	200	18,30 A4
M 5	x	25	K	200	21,40 A4
M 5	x	30	K	200	27,00 A4
M 5	x	35	K	100	36,50 A4
M 5	x	40	S	200	40,00 A4
M 5	x	40	K	100	44,00 A4
M 5	x	50	S	200	86,00 A4
M 5	x	50	K	100	90,00 A4
M 5	x	60	K	100	112,00 A4
M 5	x	70	K	100	137,00 A4
M 5	x	80	K	100	152,00 A4
M 6	x	10	S	200	24,80 A4
M 6	x	10	K	100	29,50 A4
M 6	x	12	K	100	28,00 A4
M 6	x	16	S	200	22,70 A4
M 6	x	16	K	100	27,00 A4
M 6	x	20	S	200	26,50 A4
M 6	x	20	K	100	31,00 A4
M 6	x	25	S	200	31,00 A4
M 6	x	25	K	100	35,50 A4
M 6	x	30	S	200	35,50 A4
M 6	x	30	K	100	40,00 A4
M 6	x	35	S	100	44,50 A4
M 6	x	40	S	100	59,00 A4
M 6	x	40	K	50	68,00 A4
M 6	x	50	S	100	90,00 A4
M 6	x	50	K	50	99,00 A4
M 6	x	60	K	50	105,00 A4
M 6	x	70	K	50	153,00 A4
M 6	x	80	K	50	182,00 A4
M 8	x	16	K	50	65,00 A4
M 8	x	20	S	100	59,00 A4
M 8	x	20	K	50	68,00 A4
M 8	x	25	S	100	65,00 A4
M 8	x	25	K	50	73,00 A4
M 8	x	30	S	100	73,00 A4
M 8	x	40	K	50	99,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	50	K	50	140,00 A4
M 10	x	20	K	50	125,00 A4
M 10	x	25	K	50	130,00 A4
M 10	x	50	K	50	217,00 A4

DIN	02093.960	540
2093	1.4310/1.4568*	



Disc springs

*t ≤ 2 mm = 1.4310 or 1.4568; t > 2 mm = 1.4568

Caution! Reduced spring load.

Product information ➔ TI-141

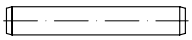
Steel ➔ pg. 227

RoHS ✓ | REACh SVHC free

outside ∅ x inside ∅ x thickness t

8	x	3,2	x	0,5	S	200	71,00
8	x	4,2	x	0,3	S	200	67,00
8	x	4,2	x	0,4	S	200	69,00
10	x	5,2	x	0,4	S	200	74,00
10	x	5,2	x	0,5	S	200	77,00
12,5	x	6,2	x	0,5	S	200	87,00
12,5	x	6,2	x	0,7	S	200	101,00
15	x	8,2	x	0,8	S	200	118,00
16	x	8,2	x	0,6	S	200	110,00
16	x	8,2	x	0,9	S	200	131,00
18	x	9,2	x	0,7	S	200	131,00
18	x	9,2	x	1	S	200	158,00
20	x	8,2	x	0,5	S	200	124,00
20	x	10,2	x	0,6	S	200	135,00
20	x	10,2	x	0,8	S	200	156,00
20	x	10,2	x	0,9	S	200	165,00
20	x	10,2	x	1	S	200	175,00
20	x	10,2	x	1,1	S	200	182,00
25	x	12,2	x	0,9	S	200	209,00
25	x	12,2	x	1,5	S	200	290,00
28	x	14,2	x	1	S	200	260,00
28	x	14,2	x	1,5	S	200	340,00
31,5	x	16,3	x	1,25	S	200	710,00
31,5	x	16,3	x	1,75	S	200	940,00
31,5	x	16,3	x	2	S	200	970,00
35,5	x	18,3	x	1,25	S	100	870,00
35,5	x	18,3	x	2	S	100	1310,00
40	x	20,4	x	1,5	S	100	1250,00
40	x	20,4	x	2	S	100	1630,00
40	x	20,4	x	2,25	S	100	1820,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	02338.910	3100	
2338	A 1	m6	



Parallel pins, tolerance m6

conform to EN 22338

Dimensions ➔ TI-116 Standard conversion ➔ TI-10

Material properties ➔ TI-236

Steel ➔ pg. 229

ISO 2338 ➔ replaces DIN 7

RoHS ✓ | REACh SVHC free

∅ - tol. x length (with cone)

0,8 m6	x	4	S	500	18,40 A1
0,8 m6	x	5	S	500	19,20 A1
0,8 m6	x	6	S	500	19,70 A1
0,8 m6	x	8	S	500	20,30 A1
0,8 m6	x	10	S	500	21,10 A1
1 m6	x	3	S	500	13,30 A1
1 m6	x	4	S	500	13,70 A1
1 m6	x	5	S	500	14,40 A1
1 m6	x	6	S	500	14,80 A1
1 m6	x	8	S	500	15,20 A1
1 m6	x	10	S	500	15,80 A1
1 m6	x	12	S	500	16,50 A1
1,5 m6	x	3	S	500	14,80 A1
1,5 m6	x	4	S	500	15,20 A1
1,5 m6	x	5	S	500	15,60 A1
1,5 m6	x	6	S	500	15,90 A1
1,5 m6	x	8	S	500	16,90 A1
1,5 m6	x	10	S	500	17,60 A1
1,5 m6	x	12	S	500	18,40 A1
1,5 m6	x	14	S	500	19,20 A1
1,5 m6	x	16	S	500	20,30 A1
1,5 m6	x	18	S	500	33,50 A1
1,5 m6	x	20	S	500	33,50 A1
2 m6	x	4	S	500	16,30 A1
2 m6	x	5	S	500	16,70 A1
2 m6	x	6	S	500	17,10 A1
2 m6	x	8	S	500	18,80 A1
2 m6	x	10	S	500	19,50 A1
2 m6	x	12	S	500	20,30 A1
2 m6	x	14	S	500	21,10 A1
2 m6	x	16	S	500	22,00 A1
2 m6	x	18	S	500	22,90 A1
2 m6	x	20	S	500	24,80 A1
2,5 m6	x	4	S	500	18,40 A1
2,5 m6	x	5	S	500	19,00 A1
2,5 m6	x	6	S	500	19,50 A1
2,5 m6	x	8	S	500	20,30 A1
2,5 m6	x	10	S	500	21,10 A1
2,5 m6	x	12	S	500	22,20 A1
2,5 m6	x	14	S	500	26,00 A1
2,5 m6	x	16	S	500	28,00 A1
2,5 m6	x	18	S	500	30,50 A1
2,5 m6	x	20	S	500	31,50 A1
2,5 m6	x	24	S	500	37,50 A1
3 m6	x	4	S	200	22,90 A1
3 m6	x	5	S	200	23,70 A1
3 m6	x	6	S	200	24,50 A1
3 m6	x	8	S	200	26,00 A1
3 m6	x	10	S	200	27,00 A1
3 m6	x	12	S	200	28,50 A1
3 m6	x	14	S	200	30,00 A1
3 m6	x	16	S	200	30,50 A1
3 m6	x	18	S	200	35,50 A1
3 m6	x	20	S	200	37,50 A1

Dimensions			PU	Pieces	€/100/Mat.
3 m6	x	24	S	200	43,00 A1
3 m6	x	28	S	200	49,50 A1
3 m6	x	30	S	200	55,00 A1
3 m6	x	32	S	200	59,00 A1
3 m6	x	40	S	200	105,00 A1
3 m6	x	45	S	200	125,00 A1
3 m6	x	50	S	200	148,00 A1
3 m6	x	60	S	200	380,00 A1
4 m6	x	5	S	200	33,00 A1
4 m6	x	6	S	200	33,50 A1
4 m6	x	8	S	200	36,00 A1
4 m6	x	10	S	200	41,00 A1
4 m6	x	12	S	200	44,50 A1
4 m6	x	14	S	200	51,00 A1
4 m6	x	16	S	200	53,00 A1
4 m6	x	18	S	200	55,00 A1
4 m6	x	20	S	200	61,00 A1
4 m6	x	24	S	200	64,00 A1
4 m6	x	26	S	200	69,00 A1
4 m6	x	28	S	200	76,00 A1
4 m6	x	32	S	200	87,00 A1
4 m6	x	36	S	200	101,00 A1
4 m6	x	40	S	200	106,00 A1
4 m6	x	50	S	200	171,00 A1
4 m6	x	60	S	200	250,00 A1
5 m6	x	5	S	200	36,50 A1
5 m6	x	6	S	200	36,50 A1
5 m6	x	8	S	200	48,50 A1
5 m6	x	10	S	200	49,50 A1
5 m6	x	12	S	200	53,00 A1
5 m6	x	14	S	200	56,00 A1
5 m6	x	16	S	200	58,00 A1
5 m6	x	18	S	200	69,00 A1
5 m6	x	20	S	200	71,00 A1
5 m6	x	24	S	200	77,00 A1
5 m6	x	28	S	200	83,00 A1
5 m6	x	30	S	200	88,00 A1
5 m6	x	32	S	200	97,00 A1
5 m6	x	36	S	200	106,00 A1
5 m6	x	40	S	200	122,00 A1
5 m6	x	45	S	200	141,00 A1
5 m6	x	50	S	200	158,00 A1
6 m6	x	6	S	200	62,00 A1
6 m6	x	8	S	200	65,00 A1
6 m6	x	10	S	200	69,00 A1
6 m6	x	12	S	200	77,00 A1
6 m6	x	14	S	200	80,00 A1
6 m6	x	16	S	200	83,00 A1
6 m6	x	18	S	200	85,00 A1
6 m6	x	20	S	200	88,00 A1
6 m6	x	24	S	200	112,00 A1
6 m6	x	28	S	200	118,00 A1
6 m6	x	30	S	200	135,00 A1
6 m6	x	32	S	200	124,00 A1
6 m6	x	36	S	200	131,00 A1
6 m6	x	40	S	200	163,00 A1
6 m6	x	45	S	100	175,00 A1
6 m6	x	50	S	100	184,00 A1
6 m6	x	55	S	100	199,00 A1
6 m6	x	60	S	100	211,00 A1
8 m6	x	10	S	100	116,00 A1
8 m6	x	12	S	100	120,00 A1
8 m6	x	14	S	100	125,00 A1
8 m6	x	16	S	100	137,00 A1
8 m6	x	18	S	100	144,00 A1
8 m6	x	20	S	100	150,00 A1
8 m6	x	22	S	100	154,00 A1
8 m6	x	24	S	100	158,00 A1
8 m6	x	28	S	100	163,00 A1
8 m6	x	30	S	100	178,00 A1
8 m6	x	32	S	100	180,00 A1
8 m6	x	36	S	100	228,00 A1
8 m6	x	40	S	100	243,00 A1
8 m6	x	45	S	100	260,00 A1
8 m6	x	50	S	100	290,00 A1

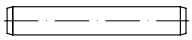
Dimensions	PU	Pieces	€/100/Mat.
8 m6 x 55	S	100	320,00 A1
8 m6 x 60	S	100	340,00 A1
8 m6 x 70	S	100	400,00 A1
8 m6 x 80	S	100	485,00 A1
8 m6 x 90	S	100	490,00 A1
10 m6 x 10	S	100	173,00 A1
10 m6 x 12	S	100	178,00 A1
10 m6 x 14	S	100	184,00 A1
10 m6 x 16	S	100	190,00 A1
10 m6 x 18	S	100	199,00 A1
10 m6 x 20	S	100	247,00 A1
10 m6 x 24	S	100	265,00 A1
10 m6 x 28	S	100	300,00 A1
10 m6 x 32	S	100	325,00 A1
10 m6 x 36	S	100	345,00 A1
10 m6 x 40	S	100	370,00 A1
10 m6 x 45	S	50	395,00 A1
10 m6 x 50	S	50	450,00 A1
10 m6 x 55	S	50	495,00 A1
10 m6 x 60	S	50	530,00 A1
10 m6 x 70	S	50	590,00 A1
10 m6 x 80	S	50	670,00 A1
10 m6 x 90	S	50	740,00 A1
10 m6 x 100	S	50	910,00 A1
12 m6 x 16	S	50	375,00 A1
12 m6 x 18	S	50	420,00 A1
12 m6 x 20	S	50	450,00 A1
12 m6 x 24	S	50	460,00 A1
12 m6 x 30	S	50	580,00 A1
12 m6 x 32	S	50	660,00 A1
12 m6 x 40	S	50	790,00 A1
12 m6 x 45	S	50	890,00 A1
12 m6 x 50	S	50	970,00 A1
12 m6 x 55	S	50	1060,00 A1
12 m6 x 60	S	50	1140,00 A1
12 m6 x 70	S	10	1350,00 A1
12 m6 x 80	S	10	1480,00 A1
12 m6 x 90	S	10	1650,00 A1
12 m6 x 100	S	10	1800,00 A1
16 m6 x 20	S	10	1120,00 A1
16 m6 x 24	S	10	1160,00 A1
16 m6 x 28	S	10	1290,00 A1
16 m6 x 32	S	10	1590,00 A1
16 m6 x 36	S	10	2200,00 A1
16 m6 x 40	S	10	2370,00 A1
16 m6 x 45	S	10	2700,00 A1
16 m6 x 50	S	10	2950,00 A1
16 m6 x 55	S	10	3250,00 A1
16 m6 x 60	S	10	3450,00 A1
16 m6 x 70	S	10	3850,00 A1
16 m6 x 80	S	10	4100,00 A1
16 m6 x 90	S	10	4350,00 A1
16 m6 x 100	S	10	4600,00 A1

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- Flexible labelling with product images

ISO	02338.940	3100
2338	**A 4**	**m6**



Parallel pins, tolerance m6

conform to EN 22338

Dimensions → TI-116 Standard conversion → TI-10
Material properties → TI-236

Steel → pg. 229

ISO 2338 → replaces DIN 7

RoHS ✓ REACh SVHC free

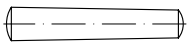
∅ – tol. x length (with cone)

Dimensions	PU	Pieces	€/100/Mat.
1 m6 x 3	S	500	36,00 A4
1 m6 x 4	S	500	36,00 A4
1 m6 x 5	S	500	36,00 A4
1 m6 x 6	S	500	37,50 A4
1 m6 x 8	S	500	40,00 A4
1 m6 x 10	S	500	40,50 A4
1 m6 x 12	S	500	40,50 A4
1,5 m6 x 4	S	500	27,00 A4
1,5 m6 x 5	S	500	27,00 A4
1,5 m6 x 6	S	500	28,00 A4
1,5 m6 x 8	S	500	28,00 A4
1,5 m6 x 10	S	500	30,00 A4
1,5 m6 x 12	S	500	31,00 A4
1,5 m6 x 14	S	500	32,50 A4
1,5 m6 x 16	S	500	33,50 A4
1,5 m6 x 18	S	500	47,00 A4
1,5 m6 x 20	S	500	51,00 A4
2 m6 x 5	S	500	29,50 A4
2 m6 x 6	S	500	30,00 A4
2 m6 x 8	S	500	31,00 A4
2 m6 x 10	S	500	33,00 A4
2 m6 x 12	S	500	35,50 A4
2 m6 x 14	S	500	37,50 A4
2 m6 x 16	S	500	40,00 A4
2 m6 x 18	S	500	47,00 A4
2 m6 x 20	S	500	51,00 A4
2 m6 x 24	S	500	58,00 A4
2,5 m6 x 4	S	500	30,00 A4
2,5 m6 x 5	S	500	31,00 A4
2,5 m6 x 6	S	500	33,00 A4
2,5 m6 x 8	S	500	35,50 A4
2,5 m6 x 10	S	500	37,50 A4
2,5 m6 x 12	S	500	40,00 A4
2,5 m6 x 14	S	500	42,00 A4
2,5 m6 x 16	S	500	44,50 A4
2,5 m6 x 18	S	500	47,00 A4
2,5 m6 x 20	S	500	51,00 A4
2,5 m6 x 24	S	500	58,00 A4
3 m6 x 4	S	500	34,50 A4
3 m6 x 5	S	500	30,00 A4
3 m6 x 6	S	500	38,50 A4
3 m6 x 8	S	500	42,00 A4
3 m6 x 10	S	500	45,00 A4
3 m6 x 12	S	500	49,00 A4
3 m6 x 14	S	500	55,00 A4
3 m6 x 16	S	500	58,00 A4
3 m6 x 18	S	500	66,00 A4
3 m6 x 20	S	500	71,00 A4
3 m6 x 24	S	500	77,00 A4
3 m6 x 28	S	500	81,00 A4
3 m6 x 30	S	500	86,00 A4
3 m6 x 32	S	500	89,00 A4
4 m6 x 6	S	500	58,00 A4
4 m6 x 8	S	500	66,00 A4

Dimensions	PU	Pieces	€/100/Mat.
4 m6 x 10	S	500	73,00 A4
4 m6 x 12	S	500	80,00 A4
4 m6 x 14	S	500	86,00 A4
4 m6 x 16	S	500	93,00 A4
4 m6 x 18	S	500	107,00 A4
4 m6 x 20	S	500	114,00 A4
4 m6 x 24	S	200	128,00 A4
4 m6 x 28	S	200	143,00 A4
4 m6 x 30	S	200	149,00 A4
4 m6 x 32	S	200	156,00 A4
4 m6 x 36	S	200	172,00 A4
4 m6 x 40	S	200	191,00 A4
5 m6 x 6	S	500	64,00 A4
5 m6 x 8	S	500	73,00 A4
5 m6 x 10	S	500	82,00 A4
5 m6 x 12	S	500	86,00 A4
5 m6 x 14	S	200	94,00 A4
5 m6 x 16	S	200	99,00 A4
5 m6 x 18	S	200	107,00 A4
5 m6 x 20	S	200	131,00 A4
5 m6 x 24	S	200	128,00 A4
5 m6 x 28	S	200	143,00 A4
5 m6 x 30	S	200	149,00 A4
5 m6 x 32	S	200	158,00 A4
5 m6 x 36	S	200	170,00 A4
5 m6 x 40	S	200	187,00 A4
5 m6 x 45	S	200	206,00 A4
5 m6 x 50	S	200	223,00 A4
6 m6 x 8	S	100	100,00 A4
6 m6 x 10	S	100	103,00 A4
6 m6 x 12	S	100	112,00 A4
6 m6 x 14	S	100	122,00 A4
6 m6 x 16	S	100	128,00 A4
6 m6 x 18	S	100	158,00 A4
6 m6 x 20	S	100	166,00 A4
6 m6 x 24	S	100	183,00 A4
6 m6 x 28	S	100	208,00 A4
6 m6 x 30	S	100	210,00 A4
6 m6 x 32	S	100	221,00 A4
6 m6 x 36	S	100	242,00 A4
6 m6 x 40	S	100	265,00 A4
6 m6 x 45	S	100	285,00 A4
6 m6 x 50	S	100	310,00 A4
6 m6 x 55	S	100	330,00 A4
6 m6 x 60	S	100	355,00 A4
8 m6 x 10	S	100	172,00 A4
8 m6 x 12	S	100	185,00 A4
8 m6 x 14	S	100	202,00 A4
8 m6 x 16	S	100	214,00 A4
8 m6 x 18	S	100	229,00 A4
8 m6 x 20	S	100	244,00 A4
8 m6 x 24	S	100	275,00 A4
8 m6 x 28	S	100	300,00 A4
8 m6 x 30	S	100	310,00 A4
8 m6 x 32	S	100	330,00 A4
8 m6 x 36	S	100	355,00 A4
8 m6 x 40	S	100	390,00 A4
8 m6 x 45	S	100	425,00 A4
8 m6 x 50	S	100	460,00 A4
8 m6 x 55	S	100	500,00 A4
8 m6 x 60	S	100	560,00 A4
8 m6 x 70	S	100	670,00 A4
8 m6 x 80	S	100	740,00 A4
10 m6 x 12	S	50	330,00 A4
10 m6 x 14	S	50	330,00 A4
10 m6 x 16	S	50	330,00 A4
10 m6 x 18	S	50	340,00 A4
10 m6 x 20	S	50	355,00 A4
10 m6 x 24	S	50	395,00 A4
10 m6 x 28	S	50	445,00 A4
10 m6 x 30	S	50	465,00 A4
10 m6 x 32	S	50	485,00 A4
10 m6 x 36	S	50	570,00 A4
10 m6 x 40	S	50	610,00 A4
10 m6 x 45	S	50	670,00 A4

Dimensions				PU	Pieces	€/100/Mat.
10	m6	x	50	S	50	730,00 A4
10	m6	x	55	S	50	780,00 A4
10	m6	x	60	S	50	830,00 A4
10	m6	x	70	S	25	1000,00 A4
10	m6	x	80	S	25	1100,00 A4
10	m6	x	90	S	25	1220,00 A4
10	m6	x	100	S	25	1310,00 A4
12	m6	x	14	S	50	740,00 A4
12	m6	x	16	S	50	590,00 A4
12	m6	x	18	S	50	630,00 A4
12	m6	x	20	S	50	690,00 A4
12	m6	x	24	S	50	740,00 A4
12	m6	x	28	S	50	830,00 A4
12	m6	x	32	S	50	930,00 A4
12	m6	x	36	S	50	1020,00 A4
12	m6	x	40	S	50	1160,00 A4
12	m6	x	45	S	50	1260,00 A4
12	m6	x	50	S	10	1370,00 A4
12	m6	x	55	S	10	1520,00 A4
12	m6	x	60	S	10	1600,00 A4
12	m6	x	70	S	10	1850,00 A4
12	m6	x	80	S	10	2190,00 A4
12	m6	x	90	S	10	2380,00 A4
12	m6	x	100	S	10	2700,00 A4
16	m6	x	20	S	10	1220,00 A4
16	m6	x	24	S	10	1350,00 A4
16	m6	x	28	S	10	1580,00 A4
16	m6	x	32	S	10	1750,00 A4
16	m6	x	36	S	10	1870,00 A4
16	m6	x	40	S	10	2000,00 A4
16	m6	x	45	S	10	2190,00 A4
16	m6	x	50	S	10	2330,00 A4
16	m6	x	55	S	10	2500,00 A4
16	m6	x	60	S	10	2750,00 A4
16	m6	x	70	S	10	3000,00 A4
16	m6	x	80	S	10	3300,00 A4
16	m6	x	90	S	10	3650,00 A4
16	m6	x	100	S	10	3950,00 A4

ISO	02339.912	3100
2339	**A 1**	**type B**



Taper pins, taper 1 : 50, B = turned

confirm to EN 22339

Dimensions ➔ TI-117 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 230

ISO 2339 ➔ replaces DIN 1

RoHS ✓ REACh SVHC free

∅ x length (with cone)

1	x	8	S	50	120,00 A1
1	x	10	S	50	96,00 A1
1	x	12	S	50	105,00 A1
1	x	14	S	50	105,00 A1
1	x	16	S	50	113,00 A1
1	x	18	S	50	113,00 A1
1,5	x	6	S	50	105,00 A1
1,5	x	8	S	50	105,00 A1
1,5	x	10	S	50	53,00 A1
1,5	x	12	S	50	56,00 A1
1,5	x	14	S	50	58,00 A1
1,5	x	16	S	50	58,00 A1
1,5	x	18	S	50	65,00 A1
1,5	x	20	S	50	68,00 A1
1,5	x	22	S	50	70,00 A1
1,5	x	24	S	50	74,00 A1
1,5	x	26	S	50	75,00 A1
2	x	8	S	50	81,00 A1
2	x	10	S	50	81,00 A1
2	x	12	S	50	83,00 A1
2	x	14	S	50	92,00 A1
2	x	16	S	50	95,00 A1
2	x	18	S	50	101,00 A1
2	x	20	S	50	105,00 A1
2	x	22	S	50	110,00 A1
2	x	24	S	50	114,00 A1
2	x	26	S	50	119,00 A1
2	x	28	S	50	122,00 A1
2	x	30	S	50	128,00 A1
2	x	32	S	50	132,00 A1
2	x	36	S	50	158,00 A1
2,5	x	12	S	50	64,00 A1
2,5	x	14	S	50	64,00 A1
2,5	x	16	S	50	68,00 A1
2,5	x	18	S	50	74,00 A1
2,5	x	20	S	50	81,00 A1
2,5	x	22	S	50	88,00 A1
2,5	x	24	S	50	94,00 A1
2,5	x	26	S	50	99,00 A1
2,5	x	28	S	50	105,00 A1
2,5	x	30	S	50	110,00 A1
2,5	x	32	S	50	116,00 A1
2,5	x	36	S	50	120,00 A1
3	x	12	S	50	68,00 A1
3	x	14	S	50	68,00 A1
3	x	16	S	50	74,00 A1
3	x	18	S	50	81,00 A1
3	x	20	S	50	92,00 A1
3	x	22	S	50	103,00 A1
3	x	24	S	50	112,00 A1
3	x	26	S	50	120,00 A1
3	x	28	S	50	127,00 A1
3	x	30	S	50	137,00 A1
3	x	32	S	50	144,00 A1
3	x	36	S	50	150,00 A1
3	x	40	S	50	158,00 A1
3	x	45	S	50	165,00 A1
3	x	50	S	50	175,00 A1
4	x	18	S	50	112,00 A1
4	x	20	S	50	124,00 A1
4	x	22	S	50	135,00 A1
4	x	24	S	50	148,00 A1
4	x	26	S	25	159,00 A1
4	x	28	S	25	169,00 A1
4	x	30	S	25	182,00 A1
4	x	32	S	25	195,00 A1
4	x	36	S	25	214,00 A1
4	x	40	S	25	233,00 A1
4	x	45	S	25	255,00 A1
4	x	50	S	25	275,00 A1
4	x	55	S	25	295,00 A1
4	x	60	S	25	330,00 A1
5	x	20	S	25	167,00 A1
5	x	22	S	25	178,00 A1
5	x	24	S	25	192,00 A1
5	x	26	S	25	205,00 A1
5	x	28	S	25	216,00 A1
5	x	30	S	25	229,00 A1
5	x	32	S	25	241,00 A1
5	x	36	S	25	265,00 A1
5	x	40	S	25	280,00 A1
5	x	45	S	10	315,00 A1
5	x	50	S	10	335,00 A1
5	x	55	S	10	355,00 A1
5	x	60	S	10	375,00 A1
5	x	70	S	10	430,00 A1
6	x	24	S	10	247,00 A1
6	x	26	S	10	260,00 A1
6	x	28	S	10	270,00 A1
6	x	30	S	10	285,00 A1
6	x	32	S	10	295,00 A1
6	x	36	S	10	325,00 A1
6	x	40	S	10	355,00 A1
6	x	45	S	10	390,00 A1
6	x	50	S	10	425,00 A1
6	x	55	S	10	475,00 A1
6	x	60	S	10	510,00 A1
6	x	70	S	10	570,00 A1
6	x	80	S	10	630,00 A1
8	x	28	S	10	425,00 A1
8	x	30	S	10	485,00 A1
8	x	32	S	10	530,00 A1
8	x	36	S	10	610,00 A1
8	x	40	S	10	670,00 A1
8	x	45	S	10	730,00 A1
8	x	50	S	10	800,00 A1
8	x	55	S	10	860,00 A1
8	x	60	S	10	900,00 A1
8	x	70	S	1	1010,00 A1
8	x	80	S	1	1100,00 A1
8	x	90	S	1	1200,00 A1
8	x	100	S	1	1290,00 A1
10	x	32	S	10	720,00 A1
10	x	36	S	10	780,00 A1
10	x	40	S	10	820,00 A1
10	x	45	S	10	870,00 A1
10	x	50	S	10	900,00 A1
10	x	55	S	1	1010,00 A1
10	x	60	S	1	1080,00 A1
10	x	70	S	1	1180,00 A1
10	x	80	S	1	1270,00 A1
10	x	90	S	1	1410,00 A1
10	x	100	S	1	1560,00 A1

ISO	02342.910	140
2342	**A 1**	



Slotted headless screws with chamfered end

Dimensions ➔ TI-19 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 232

ISO 2342 ➔ replaces DIN 427 (compatible)

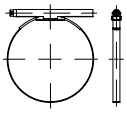
RoHS ✓ REACh SVHC free

M 3	x	6	S	100	89,00 A1
M 3	x	8	S	100	99,00 A1
M 4	x	8	S	100	105,00 A1
M 4	x	10	S	100	110,00 A1
M 4	x	12	S	100	118,00 A1
M 4	x	16	S	100	127,00 A1
M 4	x	20	S	100	137,00 A1
M 5	x	10	S	100	118,00 A1
M 5	x	12	S	100	122,00 A1
M 5	x	16	S	100	161,00 A1
M 5	x	20	S	100	201,00 A1
M 6	x	12	S	100	260,00 A1
M 6	x	16	S	100	265,00 A1
M 6	x	20	S	100	270,00 A1
M 6	x	30	S	100	285,00 A1
M 8	x	16	S	100	360,00 A1

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	20	S	100	375,00 A1
M 10	x	20	S	100	495,00 A1
M 10	x	25	S	100	540,00 A1
M 10	x	30	S	100	570,00 A1
M 10	x	50	S	100	660,00 A1

DIN 03017.311 555

3017 1.4016 (W2) type A



Hose clamps, A = with worm gear drive

clamping screw with slotted, hexagon and cross recess (H2), band and casing: 1.4016, screw = steel, ZP

Dimensions ➔ TI-131

Stainless ➔ pg. 528

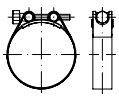
RoHS ✓ REACh SVHC free

clamping range / band width x wrench size

8- 12/ 7,5	C6	S	100	102,00
10- 16/ 7,5	C6	S	100	103,00
8- 16/ 9	C7	S	100	106,00
12- 20/ 9	C7	S	100	108,00
16- 27/ 9	C7	S	100	114,00
20- 32/ 9	C7	S	100	120,00
25- 40/ 9	C7	S	100	125,00
32- 50/ 9	C7	S	50	130,00
40- 60/ 9	C7	S	50	134,00
50- 70/ 9	C7	S	50	136,00
60- 80/ 9	C7	S	25	144,00
70- 90/ 9	C7	S	25	171,00
80-100/ 9	C7	S	25	175,00
90-110/ 9	C7	S	25	184,00

DIN 03017.903 555

3017 1.4016 (W2) type C1



Hose clamps, C1 = with hinge bolts, one-piece

with hexagon clamping screw

Dimensions ➔ TI-131

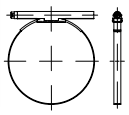
RoHS ✓ REACh SVHC free

clamping range / band width

17- 19/18		S	50	1200,00
19- 21/18		S	50	1200,00
21- 23/18		S	50	1210,00
23- 25/18		S	50	1230,00
25- 27/18		S	50	1240,00
27- 29/18		S	50	1240,00
29- 31/18		S	50	1250,00
31- 34/18		S	50	1250,00
34- 37/18		S	50	1250,00
37- 40/18		S	50	1260,00
40- 43/18		S	50	1260,00
43- 47/20		S	50	1290,00
47- 51/20		S	50	1320,00
51- 55/20		S	50	1320,00
55- 59/20		S	50	1350,00
59- 63/20		S	50	1360,00
63- 68/20		S	50	1400,00
68- 73/25		S	25	1690,00
73- 79/25		S	25	1710,00
79- 85/25		S	25	1760,00
85- 91/25		S	25	1780,00
91- 97/25		S	25	1820,00
97-104/25		S	25	1840,00
104-112/25		S	25	1890,00
112-121/25		S	25	1940,00
121-130/25		S	25	2000,00
130-140/30		S	10	3300,00
140-150/30		S	10	3350,00
150-162/30		S	10	3450,00
162-174/30		S	10	3700,00
174-187/30		S	10	3800,00
187-200/30		S	10	3850,00
200-213/30		S	10	4150,00
213-226/30		S	10	4200,00
226-239/30		S	10	4300,00
239-252/30		S	10	4400,00

DIN 03017.941 555

3017 A 4 (W5) type A



Hose clamps, A = with worm gear drive

clamping screw with slot and hexagon, band, casing and screw: 1.4401

Dimensions ➔ TI-131 Material properties ➔ TI-236

Steel ➔ pg. 234

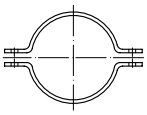
RoHS ✓ REACh SVHC free

clamping range / band width x wrench size

8- 16/ 9	C7	S	100	193,00 A4
12- 20/ 9	C7	S	100	217,00 A4
12- 22/ 9	C7	S	100	221,00 A4
16- 27/ 9	C7	S	100	229,00 A4
16- 27/12	C7	S	50	375,00 A4
20- 32/ 9	C7	S	100	231,00 A4
20- 32/12	C7	S	50	380,00 A4
25- 40/ 9	C7	S	100	260,00 A4
25- 40/12	C7	S	50	400,00 A4
32- 50/ 9	C7	S	50	275,00 A4
35- 50/12	C7	S	50	420,00 A4
40- 60/ 9	C7	S	50	295,00 A4
40- 60/12	C7	S	25	510,00 A4
50- 70/ 9	C7	S	50	310,00 A4
50- 70/12	C7	S	25	530,00 A4
60- 80/ 9	C7	S	25	340,00 A4
60- 80/12	C7	S	25	600,00 A4
70- 90/ 9	C7	S	25	360,00 A4
70- 90/12	C7	S	25	630,00 A4
80-100/ 9	C7	S	25	370,00 A4
80-100/12	C7	S	1	660,00 A4
90-110/ 9	C7	S	25	385,00 A4
90-110/12	C7	S	20	690,00 A4
100-120/12	C7	S	1	750,00 A4
110-130/12	C7	S	1	800,00 A4
120-140/12	C7	S	1	840,00 A4
130-150/12	C7	S	1	870,00 A4
140-160/12	C7	S	1	900,00 A4
150-170/12	C7	S	1	930,00 A4
160-180/12	C7	S	1	960,00 A4
170-190/12	C7	S	1	990,00 A4

DIN 03567.951 560

3567 1.4571 (A 5) type A



Pipe clamps, A = equal sided

Dimensions ➔ TI-132 Material properties ➔ TI-232

Steel ➔ pg. 235

prices are valid for pipe clamps halves

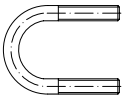
RoHS ✓ REACh SVHC free

inside ∅ / for pipe nominal width

A 34 / NW 25		S	1	1550,00 A5
A 43 / NW 32		S	1	1610,00 A5
A 49 / NW 40		S	1	1710,00 A5
A 61 / NW 50		S	1	2550,00 A5
A 77 / NW 65		S	1	3100,00 A5
A 89 / NW 80		S	1	3300,00 A5
A 115 / NW 100		S	1	7200,00 A5
A 140 / NW 125		S	1	8000,00 A5
A 169 / NW 150		S	1	9100,00 A5
A 220 / NW 200		S	1	11500,00 A5

DIN 03570.941 560

3570 A 4 type A



Stirrup bolts without nuts, A = double-sided fixing thread

hanger height for sheet thickness 10 mm

nuts ➔ DIN 555/ISO 4034

Dimensions ➔ TI-130 Material properties ➔ TI-232

Steel ➔ pg. 235

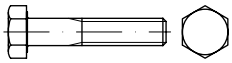
RoHS ✓ REACh SVHC free

nominal width / ~ pipe outside ∅

A 23 / NW 15		S	1	570,00 A4
A 30 / NW 20		S	1	710,00 A4
A 38 / NW 25		S	1	730,00 A4
A 46 / NW 32		S	1	780,00 A4
A 52 / NW 40		S	1	820,00 A4
A 64 / NW 50		S	1	1160,00 A4
A 82 / NW 65		S	1	1330,00 A4
A 94 / NW 80		S	1	1390,00 A4
A 120 / NW 100		S	1	4650,00 A4
A 148 / NW 125		S	1	5500,00 A4

Dimensions	PU	Pieces	€/100/Mat.
A 176 / NW 150	S	1	6100,00 A4
A 228 / NW 200	S	1	12600,00 A4
A 282 / NW 250	S	1	14300,00 A4
A 332 / NW 300	S	1	16600,00 A4
A 530 / NW 500	S	1	26100,00 A4

ISO	04014.920	**
4014	**A 2 (- 70)***	



Hexagon head bolts

short dimensions partly thread nearly to head,
**M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 236
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

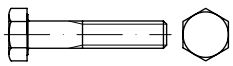
RoHS ✓ REACh SVHC free

*Prop. class for dimensions different depending on production

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 30	S	100	15,60 A2
M 5 x 35	S	100	18,80 A2
M 5 x 40	S	100	19,70 A2
M 5 x 45	S	100	23,10 A2
M 5 x 50	S	100	27,00 A2
M 5 x 55	S	100	53,00 A2
M 5 x 60	S	100	53,00 A2
M 5 x 65	S	200	115,00 A2
M 5 x 70	S	100	117,00 A2
M 5 x 80	S	100	395,00 A2
M 5 x 90	S	100	530,00 A2
M 5 x 100	S	100	670,00 A2
M 6 x 30	S	200	15,00 A2
M 6 x 35	S	100	16,80 A2
M 6 x 40	S	100	19,40 A2
M 6 x 45	S	100	22,60 A2
M 6 x 50	S	100	27,00 A2
M 6 x 55	S	100	40,00 A2
M 6 x 60	S	100	45,00 A2
M 6 x 65	S	100	57,00 A2
M 6 x 70	S	100	61,00 A2
M 6 x 75	S	100	88,00 A2
M 6 x 80	S	100	74,00 A2
M 6 x 85	S	100	121,00 A2
M 6 x 90	S	100	97,00 A2
M 6 x 100	S	100	114,00 A2
M 6 x 110	S	50	143,00 A2
M 6 x 120	S	50	168,00 A2
M 6 x 130	S	50	275,00 A2
M 6 x 140	S	50	290,00 A2
M 6 x 150	S	50	345,00 A2
M 6 x 160*	S	50	370,00 A2
M 6 x 170*	S	50	450,00 A2
M 6 x 180*	S	50	455,00 A2
M 8 x 35	S	100	28,50 A2
M 8 x 40	S	100	33,00 A2
M 8 x 45	S	100	35,00 A2
M 8 x 50	S	100	37,50 A2
M 8 x 55	S	100	41,50 A2
M 8 x 60	S	100	42,50 A2
M 8 x 65	S	100	59,00 A2
M 8 x 70	S	100	62,00 A2
M 8 x 75	S	100	120,00 A2
M 8 x 80	S	100	95,00 A2
M 8 x 85	S	100	145,00 A2
M 8 x 90	S	100	116,00 A2
M 8 x 100	S	100	141,00 A2
M 8 x 110	S	50	169,00 A2
M 8 x 120	S	50	192,00 A2
M 8 x 130	S	50	216,00 A2
M 8 x 140	S	50	239,00 A2
M 8 x 150	S	50	265,00 A2
M 8 x 160	S	25	365,00 A2
M 8 x 170	S	25	445,00 A2
M 8 x 180	S	25	445,00 A2
M 8 x 190	S	25	590,00 A2
M 8 x 200	S	25	590,00 A2
M 8 x 220*	S	25	890,00 A2
M 10 x 40	S	100	60,00 A2
M 10 x 45	S	100	61,00 A2
M 10 x 50	S	100	65,00 A2
M 10 x 55	S	50	71,00 A2
M 10 x 60	S	50	75,00 A2
M 10 x 65	S	50	86,00 A2
M 10 x 70	S	50	88,00 A2
M 10 x 75	S	50	159,00 A2
M 10 x 80	S	50	108,00 A2
M 10 x 85	S	50	239,00 A2
M 10 x 90	S	50	163,00 A2
M 10 x 100	S	50	209,00 A2
M 10 x 110	S	100	305,00 A2
M 10 x 120	S	50	315,00 A2
M 10 x 130	S	50	385,00 A2
M 10 x 140	S	50	450,00 A2
M 10 x 150	S	50	500,00 A2
M 10 x 160	S	50	590,00 A2
M 10 x 170	S	1	720,00 A2
M 10 x 180	S	1	730,00 A2
M 10 x 190	S	1	950,00 A2
M 10 x 200	S	1	950,00 A2
M 10 x 210	S	1	1230,00 A2
M 10 x 220	S	1	1380,00 A2
M 12 x 40	S	50	80,00 A2
M 12 x 45	S	50	85,00 A2
M 12 x 50	S	50	93,00 A2
M 12 x 55	S	50	101,00 A2
M 12 x 60	S	50	106,00 A2
M 12 x 65	S	50	120,00 A2
M 12 x 70	S	50	127,00 A2
M 12 x 75	S	50	226,00 A2
M 12 x 80	S	50	154,00 A2
M 12 x 85	S	50	290,00 A2
M 12 x 90	S	50	207,00 A2
M 12 x 100	S	50	231,00 A2
M 12 x 105	S	50	475,00 A2
M 12 x 110	S	25	285,00 A2
M 12 x 120	S	25	335,00 A2
M 12 x 130	S	1	405,00 A2
M 12 x 140	S	1	570,00 A2
M 12 x 150	S	1	550,00 A2
M 12 x 160	S	1	660,00 A2
M 12 x 170	S	1	830,00 A2
M 12 x 180	S	1	830,00 A2
M 12 x 190	S	1	1130,00 A2
M 12 x 200	S	1	1130,00 A2
M 12 x 210	S	1	1450,00 A2
M 12 x 220	S	1	1580,00 A2
M 12 x 230	S	1	1670,00 A2
M 12 x 240	S	1	1760,00 A2
M 12 x 250	S	1	1850,00 A2
M 12 x 260*	S	1	2050,00 A2
M 12 x 280*	S	1	2220,00 A2
M 12 x 300*	S	1	2370,00 A2
M 12 x 320*	S	1	2850,00 A2
M 14 x 50	S	100	285,00 A2
M 14 x 55	S	50	127,00 A2
M 14 x 60	S	50	131,00 A2
M 14 x 65	S	50	141,00 A2
M 14 x 70	S	50	148,00 A2
M 14 x 75	S	50	330,00 A2
M 14 x 80	S	50	167,00 A2
M 14 x 90	S	50	184,00 A2
M 14 x 100	S	50	199,00 A2
M 14 x 110	S	25	290,00 A2
M 14 x 120	S	25	320,00 A2
M 14 x 130	S	25	740,00 A2
M 14 x 140	S	25	800,00 A2
M 14 x 150	S	1	700,00 A2
M 14 x 160	S	1	900,00 A2
M 14 x 170*	S	1	1000,00 A2
M 14 x 180*	S	1	1060,00 A2
M 14 x 200*	S	1	1220,00 A2
M 16 x 55	S	50	195,00 A2
M 16 x 60	S	50	199,00 A2
M 16 x 65	S	50	216,00 A2
M 16 x 70	S	25	228,00 A2
M 16 x 75	S	25	255,00 A2
M 16 x 80	S	25	255,00 A2
M 16 x 85	S	25	345,00 A2
M 16 x 90	S	25	280,00 A2
M 16 x 95	S	25	400,00 A2
M 16 x 100	S	25	305,00 A2
M 16 x 110	S	25	440,00 A2
M 16 x 120	S	25	475,00 A2
M 16 x 130	S	1	590,00 A2
M 16 x 140	S	1	640,00 A2
M 16 x 150	S	1	700,00 A2
M 16 x 160	S	1	900,00 A2
M 16 x 170	S	1	1000,00 A2
M 16 x 180	S	1	1060,00 A2
M 16 x 190	S	1	1220,00 A2
M 16 x 200	S	1	1220,00 A2
M 16 x 210	S	1	1450,00 A2
M 16 x 220	S	1	1450,00 A2
M 16 x 230	S	1	1680,00 A2
M 16 x 240	S	1	1680,00 A2
M 16 x 250	S	1	2000,00 A2
M 16 x 260*	S	1	2000,00 A2
M 16 x 270*	S	1	2250,00 A2
M 16 x 280*	S	1	2250,00 A2
M 16 x 290*	S	1	2500,00 A2
M 16 x 300*	S	1	2500,00 A2
M 18 x 65	S	1	510,00 A2
M 18 x 70	S	25	540,00 A2
M 18 x 75	S	1	590,00 A2
M 18 x 80	S	25	590,00 A2
M 18 x 90	S	25	650,00 A2
M 18 x 100	S	25	710,00 A2
M 18 x 110	S	25	1000,00 A2
M 18 x 120	S	25	1090,00 A2
M 18 x 130	S	25	1280,00 A2
M 18 x 140	S	25	1400,00 A2
M 18 x 150	S	25	1520,00 A2
M 18 x 160	S	25	1600,00 A2
M 20 x 65	S	1	340,00 A2
M 20 x 70	S	1	360,00 A2
M 20 x 75	S	1	395,00 A2
M 20 x 80	S	1	395,00 A2
M 20 x 85	S	1	540,00 A2
M 20 x 90	S	1	430,00 A2
M 20 x 100	S	1	470,00 A2
M 20 x 110	S	1	670,00 A2
M 20 x 120	S	1	730,00 A2
M 20 x 130	S	1	850,00 A2
M 20 x 140	S	1	940,00 A2
M 20 x 150	S	1	1020,00 A2
M 20 x 160	S	1	1310,00 A2
M 20 x 170	S	1	1420,00 A2
M 20 x 180	S	1	1500,00 A2
M 20 x 190	S	1	1690,00 A2
M 20 x 200	S	1	1690,00 A2
M 20 x 210	S	1	2070,00 A2
M 20 x 220	S	1	2070,00 A2
M 20 x 230	S	1	2360,00 A2
M 20 x 240	S	1	2360,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	250	S	1	2650,00 A 2
M 20	x	260*	S	1	2650,00 A 2
M 20	x	270*	S	1	2950,00 A 2
M 20	x	280*	S	1	2950,00 A 2
M 20	x	290*	S	1	3250,00 A 2
M 20	x	300*	S	1	3250,00 A 2
M 22	x	80	S	10	1420,00 A 2
M 22	x	90	S	10	1520,00 A 2
M 22	x	100	S	10	1670,00 A 2
M 22	x	110	S	10	1880,00 A 2
M 22	x	120	S	10	2050,00 A 2
M 22	x	130	S	1	1550,00 A 2
M 22	x	140	S	1	1680,00 A 2
M 22	x	150	S	10	2650,00 A 2
M 22	x	160	S	1	2130,00 A 2
M 22	x	180	S	1	2410,00 A 2
M 22	x	200	S	1	2700,00 A 2
M 24	x	75	S	1	790,00 A 2
M 24	x	80	S	1	640,00 A 2
M 24	x	85	S	1	840,00 A 2
M 24	x	90	S	1	670,00 A 2
M 24	x	95	S	1	910,00 A 2
M 24	x	100	S	1	720,00 A 2
M 24	x	110	S	1	810,00 A 2
M 24	x	120	S	1	870,00 A 2
M 24	x	130	S	1	1100,00 A 2
M 24	x	140	S	1	1190,00 A 2
M 24	x	150	S	1	1260,00 A 2
M 24	x	160	S	1	1870,00 A 2
M 24	x	170	S	1	2170,00 A 2
M 24	x	180	S	1	2170,00 A 2
M 24	x	190	S	1	2410,00 A 2
M 24	x	200	S	1	2410,00 A 2
M 24	x	210	S	1	2750,00 A 2
M 24	x	220	S	1	2750,00 A 2
M 24	x	230	S	1	3050,00 A 2
M 24	x	240	S	1	3050,00 A 2
M 24	x	250	S	1	3500,00 A 2
M 24	x	260*	S	1	3500,00 A 2
M 24	x	280*	S	1	3850,00 A 2
M 24	x	290*	S	1	4150,00 A 2
M 24	x	300*	S	1	4150,00 A 2
M 27	x	90	S	1	1790,00 A 2
M 27	x	100	S	1	1930,00 A 2
M 27	x	110	S	1	2080,00 A 2
M 27	x	120	S	1	2230,00 A 2
M 27	x	130	S	1	2300,00 A 2
M 27	x	140	S	1	2440,00 A 2
M 27	x	150	S	1	2600,00 A 2
M 27	x	160*	S	1	2750,00 A 2
M 27	x	170*	S	1	3050,00 A 2
M 27	x	180*	S	1	3050,00 A 2
M 27	x	200*	S	1	3300,00 A 2
M 27	x	210*	S	1	4100,00 A 2
M 27	x	220*	S	1	4100,00 A 2
M 27	x	230*	S	1	4550,00 A 2
M 27	x	240*	S	1	4550,00 A 2
M 27	x	250*	S	1	5100,00 A 2
M 30	x	90*	S	1	2330,00 A 2
M 30	x	100*	S	1	2550,00 A 2
M 30	x	110*	S	1	2750,00 A 2
M 30	x	120*	S	1	2900,00 A 2
M 30	x	130*	S	1	3050,00 A 2
M 30	x	140*	S	1	3450,00 A 2
M 30	x	150*	S	1	3650,00 A 2
M 30	x	160*	S	1	4050,00 A 2
M 30	x	170*	S	1	4450,00 A 2
M 30	x	180*	S	1	4450,00 A 2
M 30	x	190*	S	1	4850,00 A 2
M 30	x	200*	S	1	4850,00 A 2
M 30	x	210*	S	1	5300,00 A 2
M 30	x	220*	S	1	5300,00 A 2
M 30	x	240*	S	1	5700,00 A 2
M 30	x	250*	S	1	6000,00 A 2
M 33	x	100*	S	1	3350,00 A 2
M 33	x	110*	S	1	3600,00 A 2
M 33	x	120*	S	1	3800,00 A 2
M 33	x	130*	S	1	4050,00 A 2
M 33	x	140*	S	1	4300,00 A 2
M 33	x	150*	S	1	4500,00 A 2
M 33	x	160*	S	1	4750,00 A 2
M 33	x	170*	S	1	5200,00 A 2
M 33	x	180*	S	1	5200,00 A 2
M 33	x	190*	S	1	5700,00 A 2
M 33	x	200*	S	1	5700,00 A 2
M 33	x	210*	S	1	6100,00 A 2
M 33	x	220*	S	1	6100,00 A 2
M 33	x	230*	S	1	6600,00 A 2
M 33	x	240*	S	1	6600,00 A 2
M 33	x	250*	S	1	7100,00 A 2
M 36	x	100*	S	1	4100,00 A 2
M 36	x	110*	S	1	4400,00 A 2
M 36	x	120*	S	1	4650,00 A 2
M 36	x	130*	S	1	4900,00 A 2
M 36	x	140*	S	1	5200,00 A 2
M 36	x	150*	S	1	5500,00 A 2
M 36	x	160*	S	1	5800,00 A 2
M 36	x	170*	S	1	6700,00 A 2
M 36	x	180*	S	1	6700,00 A 2
M 36	x	190*	S	1	7200,00 A 2
M 36	x	200*	S	1	7200,00 A 2
M 36	x	210*	S	1	7800,00 A 2
M 36	x	220*	S	1	7800,00 A 2
M 36	x	230*	S	1	8400,00 A 2
M 36	x	240*	S	1	8400,00 A 2
M 36	x	250*	S	1	8900,00 A 2

ISO	04014.927	*
4014	**A 2 - 70**	**AD W2**



Hexagon head bolts

short dimensions partly thread nearly to head,
for pressure vessel const. as per AD regulations,
products with renunciation of inspection certificate,
*M 10/12 = RAZ 3223 other ∅ = RAZ 403

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 236
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	50	S	100	67,00 A 2-70
M 10	x	55	S	100	72,00 A 2-70
M 10	x	60	S	100	78,00 A 2-70
M 10	x	65	S	100	90,00 A 2-70
M 10	x	70	S	100	91,00 A 2-70
M 10	x	75	S	50	159,00 A 2-70
M 10	x	80	S	50	110,00 A 2-70
M 10	x	90	S	50	167,00 A 2-70
M 10	x	100	S	50	212,00 A 2-70
M 10	x	110	S	50	260,00 A 2-70
M 10	x	120	S	50	320,00 A 2-70
M 10	x	130	S	50	390,00 A 2-70
M 10	x	140	S	50	450,00 A 2-70
M 10	x	150	S	50	510,00 A 2-70
M 12	x	50	S	50	92,00 A 2-70
M 12	x	55	S	50	99,00 A 2-70
M 12	x	60	S	50	106,00 A 2-70
M 12	x	65	S	50	119,00 A 2-70
M 12	x	70	S	50	127,00 A 2-70
M 12	x	75	S	50	226,00 A 2-70
M 12	x	80	S	25	153,00 A 2-70
M 12	x	85	S	25	295,00 A 2-70
M 12	x	90	S	25	207,00 A 2-70
M 12	x	100	S	25	231,00 A 2-70
M 12	x	110	S	25	285,00 A 2-70
M 12	x	120	S	25	335,00 A 2-70
M 12	x	130	S	25	415,00 A 2-70
M 12	x	140	S	25	490,00 A 2-70
M 12	x	150	S	25	560,00 A 2-70
M 16	x	50	S	25	194,00 A 2-70
M 16	x	55	S	25	199,00 A 2-70
M 16	x	60	S	25	203,00 A 2-70
M 16	x	65	S	25	218,00 A 2-70
M 16	x	70	S	25	229,00 A 2-70
M 16	x	75	S	25	330,00 A 2-70
M 16	x	80	S	25	260,00 A 2-70
M 16	x	85	S	25	375,00 A 2-70
M 16	x	90	S	25	285,00 A 2-70
M 16	x	95	S	25	405,00 A 2-70
M 16	x	100	S	25	310,00 A 2-70
M 16	x	110	S	25	445,00 A 2-70
M 16	x	120	S	25	485,00 A 2-70
M 16	x	130	S	25	600,00 A 2-70
M 16	x	140	S	25	640,00 A 2-70
M 16	x	150	S	1	700,00 A 2-70
M 16	x	160	S	1	910,00 A 2-70
M 16	x	170	S	1	950,00 A 2-70
M 16	x	180	S	1	1070,00 A 2-70
M 20	x	65	S	25	340,00 A 2-70
M 20	x	70	S	25	360,00 A 2-70
M 20	x	75	S	25	400,00 A 2-70
M 20	x	80	S	25	400,00 A 2-70
M 20	x	85	S	25	790,00 A 2-70
M 20	x	90	S	25	435,00 A 2-70
M 20	x	100	S	25	470,00 A 2-70
M 20	x	110	S	25	670,00 A 2-70
M 20	x	120	S	25	730,00 A 2-70
M 20	x	130	S	25	860,00 A 2-70
M 20	x	140	S	1	940,00 A 2-70
M 20	x	150	S	1	1020,00 A 2-70
M 20	x	160	S	1	1370,00 A 2-70
M 20	x	170	S	1	1770,00 A 2-70
M 20	x	180	S	1	1840,00 A 2-70
M 20	x	190	S	1	2040,00 A 2-70
M 20	x	200	S	1	2130,00 A 2-70
M 20	x	220	S	1	2090,00 A 2-70

E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

€/100 = price in € plus VAT when ordering full package unit

Dimensions		PU	Pieces	€/100/Mat.
ISO	04014.940			**
4014	**A 4 (- 70)***			



Hexagon head bolts

short dimensions partly thread nearly to head,
**M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 236
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ REACh SVHC free

*Prop. class for dimensions different depending on production

Dimensions		PU	Pieces	€/100/Mat.
M 5	x 30	S	100	24,40 A4
M 5	x 35	S	100	26,50 A4
M 5	x 40	S	100	29,00 A4
M 5	x 45	S	100	33,50 A4
M 5	x 50	S	100	42,00 A4
M 5	x 55	S	100	69,00 A4
M 5	x 60	S	100	72,00 A4
M 5	x 70	S	100	152,00 A4
M 5	x 80	S	100	470,00 A4
M 5	x 90	S	100	600,00 A4
M 5	x 100	S	100	770,00 A4
M 6	x 30	S	200	24,20 A4
M 6	x 35	S	100	26,00 A4
M 6	x 40	S	100	28,00 A4
M 6	x 45	S	100	32,00 A4
M 6	x 50	S	100	36,50 A4
M 6	x 55	S	100	51,00 A4
M 6	x 60	S	100	58,00 A4
M 6	x 65	S	100	70,00 A4
M 6	x 70	S	100	74,00 A4
M 6	x 80	S	100	92,00 A4
M 6	x 90	S	100	120,00 A4
M 6	x 100	S	100	133,00 A4
M 6	x 110	S	50	176,00 A4
M 6	x 120	S	50	214,00 A4
M 6	x 130	S	50	365,00 A4
M 6	x 140	S	1	405,00 A4
M 6	x 150	S	1	445,00 A4
M 6	x 160*	S	1	485,00 A4
M 6	x 170*	S	1	620,00 A4
M 8	x 35	S	100	53,00 A4
M 8	x 40	S	100	53,00 A4
M 8	x 45	S	100	56,00 A4
M 8	x 50	S	100	60,00 A4
M 8	x 55	S	100	71,00 A4
M 8	x 60	S	100	73,00 A4
M 8	x 65	S	100	96,00 A4
M 8	x 70	S	100	101,00 A4
M 8	x 75	S	100	210,00 A4
M 8	x 80	S	100	152,00 A4
M 8	x 85	S	100	221,00 A4
M 8	x 90	S	100	178,00 A4
M 8	x 100	S	100	210,00 A4
M 8	x 110	S	50	260,00 A4
M 8	x 120	S	50	295,00 A4
M 8	x 130	S	50	365,00 A4
M 8	x 140	S	1	430,00 A4
M 8	x 150	S	1	490,00 A4
M 8	x 160	S	1	610,00 A4
M 8	x 170	S	1	750,00 A4
M 8	x 180	S	1	750,00 A4
M 8	x 190	S	1	990,00 A4
M 8	x 200	S	1	990,00 A4
M 8	x 220*	S	1	1460,00 A4
M 10	x 40	S	100	99,00 A4
M 10	x 45	S	100	101,00 A4
M 10	x 50	S	100	105,00 A4
M 10	x 55	S	50	118,00 A4
M 10	x 60	S	50	122,00 A4
M 10	x 65	S	50	143,00 A4
M 10	x 70	S	50	145,00 A4
M 10	x 75	S	50	260,00 A4
M 10	x 80	S	50	177,00 A4
M 10	x 90	S	50	242,00 A4
M 10	x 95	S	50	800,00 A4
M 10	x 100	S	50	310,00 A4
M 10	x 110	S	50	390,00 A4
M 10	x 120	S	50	475,00 A4
M 10	x 130	S	50	610,00 A4
M 10	x 140	S	1	1490,00 A4
M 10	x 150	S	50	800,00 A4
M 10	x 160	S	1	990,00 A4
M 10	x 170	S	1	1210,00 A4
M 10	x 180	S	1	1210,00 A4
M 10	x 190	S	1	1600,00 A4
M 10	x 200	S	1	1600,00 A4
M 10	x 210	S	1	1970,00 A4
M 10	x 220	S	1	2220,00 A4
M 12	x 45	S	50	147,00 A4
M 12	x 50	S	50	149,00 A4
M 12	x 55	S	50	164,00 A4
M 12	x 60	S	50	166,00 A4
M 12	x 65	S	50	198,00 A4
M 12	x 70	S	50	202,00 A4
M 12	x 75	S	50	360,00 A4
M 12	x 80	S	50	235,00 A4
M 12	x 85	S	50	420,00 A4
M 12	x 90	S	50	290,00 A4
M 12	x 95	S	50	440,00 A4
M 12	x 100	S	50	340,00 A4
M 12	x 110	S	25	415,00 A4
M 12	x 120	S	25	510,00 A4
M 12	x 130	S	1	640,00 A4
M 12	x 140	S	1	960,00 A4
M 12	x 150	S	50	870,00 A4
M 12	x 160	S	1	1130,00 A4
M 12	x 170	S	1	1640,00 A4
M 12	x 180	S	1	1420,00 A4
M 12	x 190	S	1	1750,00 A4
M 12	x 200	S	1	1750,00 A4
M 12	x 210	S	1	2140,00 A4
M 12	x 220	S	1	2260,00 A4
M 12	x 240	S	1	2440,00 A4
M 12	x 250	S	1	2550,00 A4
M 12	x 260*	S	1	2750,00 A4
M 12	x 280*	S	1	2900,00 A4
M 12	x 300*	S	1	3050,00 A4
M 12	x 320*	S	1	3200,00 A4
M 12	x 340*	S	1	3350,00 A4
M 12	x 360*	S	1	3500,00 A4
M 14	x 50	S	100	365,00 A4
M 14	x 55	S	50	365,00 A4
M 14	x 60	S	50	365,00 A4
M 14	x 65	S	50	395,00 A4
M 14	x 70	S	50	400,00 A4
M 14	x 80	S	50	435,00 A4
M 14	x 90	S	50	485,00 A4
M 14	x 100	S	50	530,00 A4
M 14	x 110	S	25	670,00 A4
M 14	x 120	S	25	750,00 A4
M 14	x 130	S	25	890,00 A4
M 14	x 140	S	25	990,00 A4
M 14	x 150	S	1	1070,00 A4
M 14	x 160	S	1	1410,00 A4
M 14	x 170*	S	1	1620,00 A4
M 14	x 180*	S	1	1620,00 A4
M 14	x 190*	S	1	1830,00 A4
M 14	x 200*	S	1	1830,00 A4
M 16	x 55	S	50	355,00 A4
M 16	x 60	S	50	355,00 A4
M 16	x 65	S	50	390,00 A4
M 16	x 70	S	25	395,00 A4
M 16	x 75	S	25	430,00 A4
M 16	x 80	S	25	430,00 A4
M 16	x 85	S	25	600,00 A4
M 16	x 90	S	25	480,00 A4
M 16	x 100	S	25	520,00 A4
M 16	x 110	S	25	660,00 A4
M 16	x 120	S	25	740,00 A4
M 16	x 130	S	1	880,00 A4
M 16	x 140	S	1	980,00 A4
M 16	x 150	S	1	1070,00 A4
M 16	x 160	S	1	1410,00 A4
M 16	x 170	S	1	1620,00 A4
M 16	x 180	S	1	1620,00 A4
M 16	x 190	S	1	1830,00 A4
M 16	x 200	S	1	1830,00 A4
M 16	x 210	S	1	2600,00 A4
M 16	x 220	S	1	2600,00 A4
M 16	x 230	S	1	2950,00 A4
M 16	x 240	S	1	2950,00 A4
M 16	x 250	S	1	3300,00 A4
M 16	x 260*	S	1	3300,00 A4
M 16	x 270*	S	1	3650,00 A4
M 16	x 280*	S	1	3650,00 A4
M 16	x 290*	S	1	4000,00 A4
M 16	x 300*	S	1	4000,00 A4
M 16	x 320*	S	1	6500,00 A4
M 16	x 340*	S	1	7000,00 A4
M 16	x 360*	S	1	7200,00 A4
M 16	x 380*	S	1	7300,00 A4
M 16	x 400*	S	1	7400,00 A4
M 18	x 70	S	1	790,00 A4
M 18	x 80	S	1	870,00 A4
M 18	x 90	S	1	960,00 A4
M 18	x 100	S	1	1040,00 A4
M 18	x 110	S	1	1560,00 A4
M 18	x 120	S	1	1690,00 A4
M 18	x 130	S	1	1970,00 A4
M 18	x 140	S	1	2000,00 A4
M 18	x 150	S	1	2000,00 A4
M 18	x 160	S	1	2030,00 A4
M 18	x 170	S	1	3000,00 A4
M 18	x 180	S	1	3000,00 A4
M 18	x 190	S	1	3400,00 A4
M 18	x 200	S	1	3400,00 A4
M 20	x 65	S	1	610,00 A4
M 20	x 70	S	1	630,00 A4
M 20	x 75	S	1	660,00 A4
M 20	x 80	S	1	660,00 A4
M 20	x 85	S	1	950,00 A4
M 20	x 90	S	1	760,00 A4
M 20	x 100	S	1	840,00 A4
M 20	x 110	S	1	1040,00 A4
M 20	x 120	S	1	1130,00 A4
M 20	x 130	S	1	1320,00 A4
M 20	x 140	S	1	1440,00 A4
M 20	x 150	S	1	1570,00 A4
M 20	x 160	S	1	2030,00 A4
M 20	x 170	S	1	2330,00 A4
M 20	x 180	S	1	2330,00 A4
M 20	x 190	S	1	2650,00 A4
M 20	x 200	S	1	2650,00 A4
M 20	x 210	S	1	3050,00 A4
M 20	x 220	S	1	3050,00 A4
M 20	x 230	S	1	3400,00 A4
M 20	x 240	S	1	3400,00 A4
M 20	x 250	S	1	4500,00 A4
M 20	x 260*	S	1	4500,00 A4
M 20	x 270*	S	1	4950,00 A4
M 20	x 280*	S	1	4950,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	290*	S	1	5400,00 A4
M 20	x	300*	S	1	5400,00 A4
M 22	x	70	S	10	1680,00 A4
M 22	x	80	S	10	1680,00 A4
M 22	x	90	S	10	1810,00 A4
M 22	x	100	S	10	1980,00 A4
M 22	x	110	S	10	2270,00 A4
M 22	x	120	S	10	2460,00 A4
M 22	x	130	S	10	2650,00 A4
M 22	x	140	S	10	3050,00 A4
M 22	x	150	S	10	3300,00 A4
M 22	x	160	S	10	3550,00 A4
M 22	x	170	S	10	4000,00 A4
M 22	x	180	S	10	3900,00 A4
M 22	x	200	S	10	4400,00 A4
M 24	x	75	S	1	1520,00 A4
M 24	x	80	S	1	1280,00 A4
M 24	x	85	S	1	1730,00 A4
M 24	x	90	S	1	1390,00 A4
M 24	x	100	S	1	1540,00 A4
M 24	x	110	S	1	1740,00 A4
M 24	x	120	S	1	1840,00 A4
M 24	x	130	S	1	2000,00 A4
M 24	x	140	S	1	2210,00 A4
M 24	x	150	S	1	2350,00 A4
M 24	x	160	S	1	3150,00 A4
M 24	x	170	S	1	3500,00 A4
M 24	x	180	S	1	3500,00 A4
M 24	x	190	S	1	3900,00 A4
M 24	x	200	S	1	3900,00 A4
M 24	x	210	S	1	5100,00 A4
M 24	x	220	S	1	5100,00 A4
M 24	x	230	S	1	5600,00 A4
M 24	x	240	S	1	5600,00 A4
M 24	x	250	S	1	6100,00 A4
M 24	x	260*	S	1	6100,00 A4
M 24	x	270*	S	1	6600,00 A4
M 24	x	280*	S	1	6600,00 A4
M 24	x	290*	S	1	7100,00 A4
M 24	x	300*	S	1	7100,00 A4
M 27	x	90	S	1	2850,00 A4
M 27	x	100	S	1	3100,00 A4
M 27	x	110	S	1	3350,00 A4
M 27	x	120	S	1	3550,00 A4
M 27	x	130	S	1	3700,00 A4
M 27	x	140	S	1	3900,00 A4
M 27	x	150	S	1	4150,00 A4
M 27	x	160*	S	1	4400,00 A4
M 27	x	170*	S	1	4850,00 A4
M 27	x	180*	S	1	4850,00 A4
M 27	x	190*	S	1	5300,00 A4
M 27	x	200*	S	1	5300,00 A4
M 27	x	210*	S	1	6800,00 A4
M 27	x	220*	S	1	6800,00 A4
M 27	x	230*	S	1	7400,00 A4
M 27	x	240*	S	1	7400,00 A4
M 27	x	250*	S	1	8100,00 A4
M 27	x	260*	S	1	8700,00 A4
M 27	x	280*	S	1	9900,00 A4
M 30	x	90*	S	1	3550,00 A4
M 30	x	100*	S	1	3850,00 A4
M 30	x	110*	S	1	4150,00 A4
M 30	x	120*	S	1	4400,00 A4
M 30	x	130*	S	1	4600,00 A4
M 30	x	140*	S	1	4900,00 A4
M 30	x	150*	S	1	5200,00 A4
M 30	x	160*	S	1	5500,00 A4
M 30	x	170*	S	1	6100,00 A4
M 30	x	180*	S	1	6100,00 A4
M 30	x	190*	S	1	6600,00 A4
M 30	x	200*	S	1	6600,00 A4
M 30	x	210*	S	1	8000,00 A4
M 30	x	220*	S	1	8000,00 A4
M 30	x	240*	S	1	8600,00 A4
M 30	x	250*	S	1	9500,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 30	x	260*	S	1	10000,00 A4
M 30	x	280*	S	1	11000,00 A4
M 30	x	300*	S	1	12000,00 A4
M 33	x	90*	S	1	4950,00 A4
M 33	x	100*	S	1	5400,00 A4
M 33	x	110*	S	1	5700,00 A4
M 33	x	120*	S	1	6100,00 A4
M 33	x	130*	S	1	6500,00 A4
M 33	x	140*	S	1	6800,00 A4
M 33	x	150*	S	1	7200,00 A4
M 33	x	160*	S	1	7600,00 A4
M 33	x	170*	S	1	8300,00 A4
M 33	x	180*	S	1	8300,00 A4
M 33	x	190*	S	1	9000,00 A4
M 33	x	200*	S	1	9000,00 A4
M 33	x	210*	S	1	10200,00 A4
M 33	x	220*	S	1	10200,00 A4
M 33	x	230*	S	1	11400,00 A4
M 33	x	240*	S	1	11400,00 A4
M 33	x	250*	S	1	12200,00 A4
M 36	x	100*	S	1	6600,00 A4
M 36	x	110*	S	1	7000,00 A4
M 36	x	120*	S	1	7500,00 A4
M 36	x	130*	S	1	7800,00 A4
M 36	x	140*	S	1	8300,00 A4
M 36	x	150*	S	1	8700,00 A4
M 36	x	160*	S	1	9200,00 A4
M 36	x	170*	S	1	10600,00 A4
M 36	x	180*	S	1	10600,00 A4
M 36	x	190*	S	1	11500,00 A4
M 36	x	200*	S	1	11500,00 A4
M 36	x	220*	S	1	12800,00 A4
M 36	x	230*	S	1	14200,00 A4
M 36	x	240*	S	1	14200,00 A4
M 36	x	250*	S	1	15600,00 A4

ISO	04014.947 *
4014	**A 4 - 70** **AD W2**



Hexagon head bolts

short dimensions partly thread nearly to head,
for pressure vessel const. as per AD regulations,
products with renunciation of inspection certificate,
*M 10/12 = RAZ 3223 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 236
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	50	S	100	107,00 A4-70
M 10	x	55	S	100	119,00 A4-70
M 10	x	60	S	100	123,00 A4-70
M 10	x	65	S	100	144,00 A4-70
M 10	x	70	S	100	149,00 A4-70
M 10	x	75	S	50	255,00 A4-70
M 10	x	80	S	50	178,00 A4-70
M 10	x	90	S	50	246,00 A4-70
M 10	x	100	S	50	310,00 A4-70
M 10	x	110	S	50	390,00 A4-70
M 10	x	120	S	50	480,00 A4-70
M 10	x	130	S	1	620,00 A4-70
M 10	x	140	S	1	710,00 A4-70

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	150	S	1	800,00 A4-70
M 12	x	50	S	50	147,00 A4-70
M 12	x	55	S	50	162,00 A4-70
M 12	x	60	S	50	166,00 A4-70
M 12	x	65	S	50	197,00 A4-70
M 12	x	70	S	50	200,00 A4-70
M 12	x	75	S	25	365,00 A4-70
M 12	x	80	S	25	235,00 A4-70
M 12	x	85	S	50	360,00 A4-70
M 12	x	90	S	25	290,00 A4-70
M 12	x	100	S	25	340,00 A4-70
M 12	x	110	S	25	415,00 A4-70
M 12	x	120	S	25	510,00 A4-70
M 12	x	140	S	1	760,00 A4-70
M 12	x	150	S	1	880,00 A4-70
M 16	x	55	S	25	365,00 A4-70
M 16	x	60	S	25	365,00 A4-70
M 16	x	65	S	25	395,00 A4-70
M 16	x	70	S	25	400,00 A4-70
M 16	x	75	S	25	510,00 A4-70
M 16	x	80	S	25	435,00 A4-70
M 16	x	85	S	25	610,00 A4-70
M 16	x	90	S	25	485,00 A4-70
M 16	x	100	S	25	530,00 A4-70
M 16	x	110	S	25	660,00 A4-70
M 16	x	120	S	25	750,00 A4-70
M 16	x	130	S	1	890,00 A4-70
M 16	x	140	S	1	980,00 A4-70
M 16	x	150	S	1	1080,00 A4-70
M 16	x	160	S	1	1410,00 A4-70
M 16	x	170	S	1	1630,00 A4-70
M 16	x	180	S	1	1630,00 A4-70
M 16	x	200	S	1	1830,00 A4-70
M 20	x	65	S	25	620,00 A4-70
M 20	x	70	S	25	640,00 A4-70
M 20	x	75	S	25	760,00 A4-70
M 20	x	80	S	25	670,00 A4-70
M 20	x	90	S	25	770,00 A4-70
M 20	x	100	S	25	850,00 A4-70
M 20	x	110	S	25	1050,00 A4-70
M 20	x	120	S	20	1130,00 A4-70
M 20	x	130	S	20	1310,00 A4-70
M 20	x	140	S	1	1440,00 A4-70
M 20	x	150	S	1	1560,00 A4-70
M 20	x	160	S	1	2030,00 A4-70
M 20	x	170	S	1	2180,00 A4-70
M 20	x	180	S	1	2330,00 A4-70
M 20	x	190	S	1	2550,00 A4-70
M 20	x	200	S	1	2650,00 A4-70
M 24	x	90	S	1	1400,00 A4-70
M 24	x	100	S	1	1520,00 A4-70
M 24	x	110	S	1	1620,00 A4-70
M 24	x	120	S	1	1840,00 A4-70
M 24	x	150	S	1	2360,00 A4-70

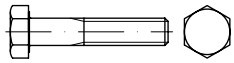
RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

€/100 = price in € plus VAT when ordering full package unit

ISO	04014.948	403
4014	**A 4 - 80**	



Hexagon head bolts

high strength (strongly cold worked),
short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

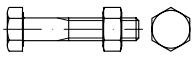
Steel ➔ pg. 236
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25	S	200	57,00 A4-80
M 5	x	30	S	200	61,00 A4-80
M 5	x	35	S	200	67,00 A4-80
M 5	x	40	S	200	73,00 A4-80
M 5	x	50	S	200	104,00 A4-80
M 5	x	60	S	200	181,00 A4-80
M 5	x	70	S	100	380,00 A4-80
M 5	x	80	S	100	1180,00 A4-80
M 6	x	30	S	100	61,00 A4-80
M 6	x	35	S	100	66,00 A4-80
M 6	x	40	S	100	71,00 A4-80
M 6	x	45	S	100	81,00 A4-80
M 6	x	50	S	100	92,00 A4-80
M 6	x	55	S	100	128,00 A4-80
M 6	x	60	S	100	147,00 A4-80
M 6	x	65	S	100	177,00 A4-80
M 6	x	70	S	100	183,00 A4-80
M 6	x	80	S	50	229,00 A4-80
M 6	x	90	S	50	305,00 A4-80
M 6	x	100	S	50	335,00 A4-80
M 6	x	110	S	50	445,00 A4-80
M 6	x	120	S	50	540,00 A4-80
M 6	x	130	S	50	920,00 A4-80
M 6	x	140	S	50	1010,00 A4-80
M 6	x	150	S	50	1120,00 A4-80
M 8	x	35	S	100	133,00 A4-80
M 8	x	40	S	100	133,00 A4-80
M 8	x	45	S	100	141,00 A4-80
M 8	x	50	S	100	152,00 A4-80
M 8	x	55	S	100	179,00 A4-80
M 8	x	60	S	100	183,00 A4-80
M 8	x	65	S	100	240,00 A4-80
M 8	x	70	S	50	255,00 A4-80
M 8	x	75	S	50	550,00 A4-80
M 8	x	80	S	50	380,00 A4-80
M 8	x	90	S	50	445,00 A4-80
M 8	x	100	S	50	530,00 A4-80
M 8	x	110	S	50	640,00 A4-80
M 8	x	120	S	50	740,00 A4-80
M 8	x	130	S	50	920,00 A4-80
M 8	x	140	S	1	1070,00 A4-80
M 8	x	150	S	1	1220,00 A4-80
M 8	x	160	S	1	1540,00 A4-80
M 10	x	40	S	100	246,00 A4-80
M 10	x	45	S	100	250,00 A4-80
M 10	x	50	S	100	265,00 A4-80
M 10	x	55	S	50	295,00 A4-80
M 10	x	60	S	50	305,00 A4-80
M 10	x	65	S	50	355,00 A4-80
M 10	x	70	S	50	365,00 A4-80
M 10	x	75	S	50	660,00 A4-80
M 10	x	80	S	50	440,00 A4-80
M 10	x	90	S	50	610,00 A4-80
M 10	x	100	S	50	770,00 A4-80
M 10	x	110	S	25	980,00 A4-80
M 10	x	120	S	25	1200,00 A4-80
M 10	x	130	S	1	1540,00 A4-80
M 10	x	140	S	1	3750,00 A4-80
M 10	x	150	S	1	2000,00 A4-80
M 10	x	160	S	1	2480,00 A4-80
M 10	x	170	S	1	3050,00 A4-80
M 10	x	180	S	1	3550,00 A4-80
M 10	x	190	S	1	4000,00 A4-80
M 10	x	200	S	1	4550,00 A4-80
M 10	x	220	S	1	5600,00 A4-80
M 12	x	45	S	50	365,00 A4-80
M 12	x	50	S	50	370,00 A4-80
M 12	x	55	S	50	410,00 A4-80
M 12	x	60	S	50	415,00 A4-80
M 12	x	65	S	50	495,00 A4-80
M 12	x	70	S	25	500,00 A4-80
M 12	x	75	S	25	910,00 A4-80
M 12	x	80	S	25	590,00 A4-80
M 12	x	90	S	25	720,00 A4-80
M 12	x	100	S	25	850,00 A4-80
M 12	x	110	S	25	1040,00 A4-80
M 12	x	120	S	25	1280,00 A4-80
M 12	x	130	S	1	1620,00 A4-80
M 12	x	140	S	1	2400,00 A4-80
M 12	x	150	S	1	2190,00 A4-80
M 12	x	160	S	1	2850,00 A4-80
M 12	x	170	S	1	4100,00 A4-80
M 12	x	180	S	1	3550,00 A4-80
M 12	x	190	S	1	4100,00 A4-80
M 12	x	200	S	1	4400,00 A4-80
M 12	x	220	S	1	5700,00 A4-80
M 14	x	50	S	50	910,00 A4-80
M 14	x	55	S	50	910,00 A4-80
M 14	x	60	S	50	910,00 A4-80
M 14	x	70	S	50	1000,00 A4-80
M 14	x	80	S	50	1100,00 A4-80
M 14	x	90	S	50	1220,00 A4-80
M 14	x	100	S	50	1310,00 A4-80
M 14	x	110	S	1	1640,00 A4-80
M 16	x	55	S	25	910,00 A4-80
M 16	x	60	S	25	910,00 A4-80
M 16	x	65	S	25	990,00 A4-80
M 16	x	70	S	25	1000,00 A4-80
M 16	x	75	S	25	1280,00 A4-80
M 16	x	80	S	25	1100,00 A4-80
M 16	x	85	S	25	1490,00 A4-80
M 16	x	90	S	25	1220,00 A4-80
M 16	x	100	S	25	1310,00 A4-80
M 16	x	110	S	25	1640,00 A4-80
M 16	x	120	S	25	1870,00 A4-80
M 16	x	130	S	1	2210,00 A4-80
M 16	x	140	S	1	2460,00 A4-80
M 16	x	150	S	1	2700,00 A4-80
M 16	x	160	S	1	3550,00 A4-80
M 16	x	170	S	1	3850,00 A4-80
M 16	x	180	S	1	4100,00 A4-80
M 16	x	190	S	1	4400,00 A4-80
M 16	x	200	S	1	4600,00 A4-80
M 16	x	220	S	1	5500,00 A4-80
M 20	x	65	S	1	1540,00 A4-80
M 20	x	70	S	1	1600,00 A4-80
M 20	x	75	S	1	1890,00 A4-80
M 20	x	80	S	1	1680,00 A4-80
M 20	x	90	S	1	1910,00 A4-80
M 20	x	100	S	1	2120,00 A4-80
M 20	x	110	S	1	2650,00 A4-80
M 20	x	120	S	1	2850,00 A4-80
M 20	x	130	S	1	3300,00 A4-80
M 20	x	140	S	1	3650,00 A4-80
M 20	x	150	S	1	3950,00 A4-80
M 20	x	160	S	1	5100,00 A4-80
M 20	x	170	S	1	5700,00 A4-80
M 20	x	180	S	1	5900,00 A4-80
M 20	x	190	S	1	6200,00 A4-80
M 20	x	200	S	1	6700,00 A4-80
M 20	x	220	S	1	7600,00 A4-80
M 24	x	80	S	1	3250,00 A4-80
M 24	x	90	S	1	3500,00 A4-80
M 24	x	100	S	1	3900,00 A4-80
M 24	x	110	S	1	4350,00 A4-80
M 24	x	120	S	1	4600,00 A4-80
M 24	x	130	S	1	5100,00 A4-80
M 24	x	150	S	1	5900,00 A4-80
M 24	x	160	S	1	7900,00 A4-80
M 24	x	170	S	1	8800,00 A4-80
M 24	x	180	S	1	9300,00 A4-80
M 24	x	190	S	1	9800,00 A4-80
M 24	x	200	S	1	9800,00 A4-80
M 24	x	220	S	1	12800,00 A4-80

ISO	04014.912	403
4014	**Mu A 4**	**SB**



Hexagon head bolts, Mu = with hexagon nuts ISO 4032 SB = acc. to EN 15048

for bolted fastenings by steel structures that are not preloaded
with inspection certificate 3.1,
prices are plus certificate costs

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-248
Standard conversion ➔ TI-6

CE | RoHS ✓ | REACh SVHC free

Declaration of performance ➔ www.reyher.de

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	60	S	50	475,00 A4
M 12	x	70	S	50	520,00 A4
M 12	x	80	S	50	570,00 A4
M 12	x	90	S	25	620,00 A4
M 12	x	100	S	25	750,00 A4
M 12	x	110	S	25	930,00 A4
M 12	x	120	S	25	1030,00 A4
M 16	x	60	S	25	950,00 A4
M 16	x	70	S	25	1030,00 A4
M 16	x	80	S	25	1110,00 A4
M 16	x	90	S	25	1310,00 A4
M 16	x	100	S	25	1400,00 A4
M 16	x	110	S	25	1780,00 A4
M 16	x	120	S	25	1810,00 A4
M 16	x	130	S	10	1880,00 A4
M 16	x	140	S	10	2330,00 A4
M 16	x	150	S	10	2700,00 A4
M 16	x	160	S	10	2800,00 A4
M 20	x	70	S	10	1610,00 A4
M 20	x	80	S	10	1760,00 A4
M 20	x	90	S	10	1930,00 A4
M 20	x	100	S	10	2050,00 A4
M 20	x	120	S	10	2800,00 A4
M 20	x	140	S	10	3700,00 A4
M 20	x	160	S	10	4350,00 A4
M 20	x	180	S	10	5100,00 A4
M 24	x	80	S	10	2950,00 A4
M 24	x	90	S	10	3150,00 A4
M 24	x	100	S	10	3350,00 A4
M 24	x	120	S	10	4550,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	140	S	5	6200,00 A4
M 24	x	160	S	5	6900,00 A4
M 24	x	180	S	5	8000,00 A4

ISO	04014.950	403
4014	**1.4571 (A 5)**	



Hexagon head bolts

short dimensions partly thread nearly to head

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 236
Brass ➔ pg. 636

ISO 4014 ➔ replaces DIN 931

RoHS ✓ | REACh SVHC free

M 6	x	30	S	100	80,00 A5
M 6	x	35	S	100	85,00 A5
M 6	x	40	S	100	93,00 A5
M 6	x	50	S	100	120,00 A5
M 8	x	70	S	50	335,00 A5
M 8	x	80	S	50	490,00 A5
M 10	x	60	S	50	400,00 A5
M 10	x	70	S	50	475,00 A5
M 10	x	80	S	50	580,00 A5
M 10	x	90	S	50	800,00 A5
M 10	x	100	S	50	1000,00 A5
M 10	x	110	S	25	1280,00 A5
M 10	x	120	S	25	1580,00 A5
M 12	x	70	S	25	660,00 A5
M 12	x	80	S	25	770,00 A5
M 12	x	90	S	25	940,00 A5
M 12	x	100	S	25	1120,00 A5
M 12	x	110	S	25	1370,00 A5
M 12	x	120	S	25	1680,00 A5
M 16	x	55	S	1	1310,00 A5
M 16	x	60	S	1	1350,00 A5
M 16	x	65	S	1	1390,00 A5
M 16	x	70	S	1	1430,00 A5
M 16	x	80	S	1	1490,00 A5
M 16	x	90	S	1	1580,00 A5
M 16	x	100	S	1	1640,00 A5
M 16	x	110	S	1	1750,00 A5
M 16	x	120	S	1	1830,00 A5
M 16	x	130	S	1	1910,00 A5
M 16	x	140	S	1	2020,00 A5
M 16	x	150	S	1	2120,00 A5
M 16	x	160	S	1	2230,00 A5
M 20	x	65	S	1	1930,00 A5
M 20	x	70	S	1	1980,00 A5
M 20	x	80	S	1	2100,00 A5
M 20	x	85	S	1	2170,00 A5
M 20	x	90	S	1	2380,00 A5
M 20	x	100	S	1	2440,00 A5
M 20	x	110	S	1	2480,00 A5
M 20	x	120	S	1	2600,00 A5
M 20	x	130	S	1	2750,00 A5
M 20	x	140	S	1	2850,00 A5
M 20	x	150	S	1	3050,00 A5
M 20	x	160	S	1	3300,00 A5
M 20	x	170	S	1	3700,00 A5
M 20	x	180	S	1	4250,00 A5

Dimensions			PU	Pieces	€/100/Mat.
ISO	04017.920	**			
4017	**A 2 (– 70)***				



Hexagon head screws

**M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

M 3	x	6*	S	100	15,50 A2
M 3	x	8*	S	100	11,10 A2
M 3	x	10*	S	100	10,60 A2
M 3	x	12*	S	100	9,90 A2
M 3	x	14*	S	100	13,10 A2
M 3	x	16*	S	100	9,90 A2
M 3	x	20*	S	100	11,10 A2
M 3	x	25*	S	100	12,00 A2
M 3	x	30*	S	100	14,40 A2
M 3	x	35*	S	100	20,70 A2
M 3	x	40*	S	100	31,00 A2
M 4	x	6*	S	200	15,50 A2
M 4	x	8*	S	200	11,10 A2
M 4	x	10*	S	200	10,60 A2
M 4	x	12*	S	200	9,90 A2
M 4	x	14*	S	100	13,10 A2
M 4	x	16*	S	200	8,10 A2
M 4	x	18*	S	100	10,60 A2
M 4	x	20*	S	200	8,80 A2
M 4	x	22*	S	100	12,20 A2
M 4	x	25*	S	200	10,10 A2
M 4	x	30*	S	200	11,30 A2
M 4	x	35*	S	200	19,40 A2
M 4	x	40*	S	200	23,10 A2
M 4	x	45*	S	100	29,50 A2
M 4	x	50*	S	100	35,00 A2
M 4	x	60*	S	100	107,00 A2
M 5	x	6*	S	100	33,00 A2
M 5	x	8*	S	100	11,10 A2
M 5	x	10	S	500	10,60 A2
M 5	x	10	K	100	14,60 A2
M 5	x	12	S	500	9,90 A2
M 5	x	12	K	100	13,80 A2
M 5	x	14	S	500	13,10 A2
M 5	x	14	K	100	17,80 A2
M 5	x	16	S	500	8,10 A2
M 5	x	16	K	100	12,00 A2
M 5	x	18	S	500	10,60 A2
M 5	x	18	K	100	15,40 A2
M 5	x	20	S	500	8,80 A2
M 5	x	20	K	100	12,60 A2
M 5	x	22	S	200	12,20 A2
M 5	x	25	S	200	11,60 A2
M 5	x	25	K	100	15,60 A2
M 5	x	30	S	200	13,00 A2
M 5	x	30	K	100	16,90 A2
M 5	x	35	S	200	15,30 A2
M 5	x	40	S	200	22,00 A2
M 5	x	45	S	200	29,50 A2
M 5	x	50	S	200	35,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	55	S	200	41,50 A2
M 5	x	60	S	200	44,50 A2
M 5	x	70	S	100	117,00 A2
M 5	x	80	S	100	395,00 A2
M 6	x	6*	S	100	127,00 A2
M 6	x	8*	S	100	15,50 A2
M 6	x	10	S	500	13,10 A2
M 6	x	10	K	100	17,00 A2
M 6	x	12	S	500	13,10 A2
M 6	x	12	K	100	17,00 A2
M 6	x	14	S	500	15,60 A2
M 6	x	14	K	100	20,30 A2
M 6	x	16	S	200	9,30 A2
M 6	x	16	K	100	13,30 A2
M 6	x	18	S	200	13,30 A2
M 6	x	20	S	200	10,60 A2
M 6	x	20	K	100	14,60 A2
M 6	x	22	S	200	14,80 A2
M 6	x	25	S	200	11,90 A2
M 6	x	25	K	100	15,80 A2
M 6	x	30	S	200	13,80 A2
M 6	x	30	K	100	17,60 A2
M 6	x	35	S	200	15,00 A2
M 6	x	35	K	100	19,00 A2
M 6	x	40	S	200	16,80 A2
M 6	x	40	K	100	20,70 A2
M 6	x	45	S	100	26,50 A2
M 6	x	50	S	100	28,50 A2
M 6	x	55	S	100	36,50 A2
M 6	x	60	S	100	41,50 A2
M 6	x	65	S	100	57,00 A2
M 6	x	70	S	100	57,00 A2
M 6	x	75	S	100	85,00 A2
M 6	x	80	S	100	68,00 A2
M 6	x	90	S	100	97,00 A2
M 6	x	100	S	100	112,00 A2
M 6	x	110	S	100	435,00 A2
M 6	x	120	S	100	510,00 A2
M 8	x	8*	S	100	147,00 A2
M 8	x	10	S	200	30,50 A2
M 8	x	10	K	100	34,50 A2
M 8	x	12	S	200	28,50 A2
M 8	x	12	K	100	32,50 A2
M 8	x	14	S	200	34,00 A2
M 8	x	16	S	200	19,40 A2
M 8	x	16	K	100	23,30 A2
M 8	x	18	S	200	24,10 A2
M 8	x	20	S	200	19,40 A2
M 8	x	20	K	100	24,30 A2
M 8	x	22	S	200	29,00 A2
M 8	x	25	S	200	22,90 A2
M 8	x	25	K	100	27,00 A2
M 8	x	30	S	200	24,30 A2
M 8	x	30	K	100	28,50 A2
M 8	x	35	S	200	30,50 A2
M 8	x	35	K	100	40,00 A2
M 8	x	40	S	200	29,00 A2
M 8	x	40	K	100	33,00 A2
M 8	x	45	S	200	32,00 A2
M 8	x	45	K	100	36,00 A2
M 8	x	50	S	200	34,00 A2
M 8	x	50	K	100	38,50 A2
M 8	x	55	S	100	52,00 A2
M 8	x	60	S	200	55,00 A2
M 8	x	60	K	100	59,00 A2
M 8	x	65	S	50	68,00 A2
M 8	x	70	S	50	81,00 A2
M 8	x	75	S	50	127,00 A2
M 8	x	80	S	50	102,00 A2
M 8	x	85	S	50	163,00 A2
M 8	x	90	S	50	130,00 A2
M 8	x	100	S	50	147,00 A2
M 8	x	110	S	50	220,00 A2
M 8	x	120	S	50	260,00 A2
M 8	x	130	S	50	325,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 140	S	50	390,00 A2
M 8 x 150	S	50	455,00 A2
M 8 x 160	S	50	530,00 A2
M 8 x 170	S	50	650,00 A2
M 8 x 180	S	50	650,00 A2
M 8 x 190	S	50	1240,00 A2
M 8 x 200	S	50	1630,00 A2
M 10 x 10*	S	100	245,00 A2
M 10 x 12	S	100	79,00 A2
M 10 x 14	S	100	93,00 A2
M 10 x 16	S	100	57,00 A2
M 10 x 18	S	100	63,00 A2
M 10 x 20	S	100	41,50 A2
M 10 x 22	S	100	49,00 A2
M 10 x 25	S	100	39,50 A2
M 10 x 30	S	100	44,00 A2
M 10 x 35	S	100	48,50 A2
M 10 x 40	S	100	53,00 A2
M 10 x 45	S	100	56,00 A2
M 10 x 50	S	100	60,00 A2
M 10 x 55	S	100	84,00 A2
M 10 x 60	S	100	89,00 A2
M 10 x 65	S	100	101,00 A2
M 10 x 70	S	100	106,00 A2
M 10 x 75	S	50	169,00 A2
M 10 x 80	S	50	127,00 A2
M 10 x 85	S	50	218,00 A2
M 10 x 90	S	50	171,00 A2
M 10 x 100	S	50	218,00 A2
M 10 x 110	S	50	325,00 A2
M 10 x 120	S	50	355,00 A2
M 10 x 130	S	1	445,00 A2
M 10 x 140	S	1	530,00 A2
M 10 x 150	S	1	600,00 A2
M 10 x 160	S	1	680,00 A2
M 10 x 170	S	1	840,00 A2
M 10 x 180	S	1	840,00 A2
M 10 x 190	S	1	1320,00 A2
M 10 x 200	S	1	1450,00 A2
M 12 x 16	S	100	118,00 A2
M 12 x 20	S	100	80,00 A2
M 12 x 22	S	100	95,00 A2
M 12 x 25	S	100	60,00 A2
M 12 x 30	S	100	63,00 A2
M 12 x 35	S	100	69,00 A2
M 12 x 40	S	100	74,00 A2
M 12 x 45	S	100	79,00 A2
M 12 x 50	S	50	85,00 A2
M 12 x 55	S	50	91,00 A2
M 12 x 60	S	50	97,00 A2
M 12 x 65	S	50	139,00 A2
M 12 x 70	S	50	148,00 A2
M 12 x 75	S	50	216,00 A2
M 12 x 80	S	50	178,00 A2
M 12 x 85	S	50	315,00 A2
M 12 x 90	S	50	231,00 A2
M 12 x 95	S	50	340,00 A2
M 12 x 100	S	50	280,00 A2
M 12 x 110	S	25	330,00 A2
M 12 x 120	S	25	440,00 A2
M 12 x 130	S	1	530,00 A2
M 12 x 140	S	1	620,00 A2
M 12 x 150	S	1	1050,00 A2
M 12 x 160	S	1	800,00 A2
M 12 x 170	S	1	980,00 A2
M 12 x 180	S	1	980,00 A2
M 12 x 190	S	1	1600,00 A2
M 12 x 200	S	1	1790,00 A2
M 14 x 20	S	50	220,00 A2
M 14 x 25	S	50	156,00 A2
M 14 x 30	S	50	112,00 A2
M 14 x 35	S	50	116,00 A2
M 14 x 40	S	50	120,00 A2
M 14 x 45	S	50	127,00 A2
M 14 x 50	S	50	135,00 A2
M 14 x 55	S	50	152,00 A2
M 14 x 60	S	50	158,00 A2
M 14 x 65	S	50	173,00 A2
M 14 x 70	S	50	220,00 A2
M 14 x 75	S	50	300,00 A2
M 14 x 80	S	50	248,00 A2
M 14 x 90	S	50	405,00 A2
M 14 x 100	S	50	465,00 A2
M 14 x 110	S	25	580,00 A2
M 14 x 120	S	25	650,00 A2
M 14 x 130	S	25	770,00 A2
M 14 x 140	S	25	870,00 A2
M 14 x 150	S	25	950,00 A2
M 16 x 20	S	50	218,00 A2
M 16 x 25	S	50	181,00 A2
M 16 x 30	S	50	132,00 A2
M 16 x 35	S	50	132,00 A2
M 16 x 40	S	50	141,00 A2
M 16 x 45	S	50	151,00 A2
M 16 x 50	S	50	160,00 A2
M 16 x 55	S	25	171,00 A2
M 16 x 60	S	25	182,00 A2
M 16 x 65	S	25	195,00 A2
M 16 x 70	S	25	203,00 A2
M 16 x 75	S	25	241,00 A2
M 16 x 80	S	25	241,00 A2
M 16 x 85	S	25	495,00 A2
M 16 x 90	S	25	405,00 A2
M 16 x 100	S	25	465,00 A2
M 16 x 110	S	25	580,00 A2
M 16 x 120	S	25	650,00 A2
M 16 x 130	S	25	770,00 A2
M 16 x 140	S	25	870,00 A2
M 16 x 150	S	25	950,00 A2
M 16 x 160	S	25	1690,00 A2
M 16 x 170	S	25	1740,00 A2
M 16 x 180	S	25	1740,00 A2
M 16 x 190	S	10	1920,00 A2
M 16 x 200	S	10	1920,00 A2
M 18 x 30	S	25	500,00 A2
M 18 x 35	S	25	405,00 A2
M 18 x 40	S	25	375,00 A2
M 18 x 45	S	25	400,00 A2
M 18 x 50	S	25	425,00 A2
M 18 x 55	S	25	460,00 A2
M 18 x 60	S	25	470,00 A2
M 18 x 65	S	25	520,00 A2
M 18 x 70	S	25	540,00 A2
M 18 x 75	S	25	620,00 A2
M 18 x 80	S	25	620,00 A2
M 18 x 90	S	25	1010,00 A2
M 18 x 100	S	25	1140,00 A2
M 18 x 110	S	1	1300,00 A2
M 18 x 120	S	1	1440,00 A2
M 18 x 130	S	1	1740,00 A2
M 18 x 140	S	1	1890,00 A2
M 18 x 150	S	1	2120,00 A2
M 20 x 30	S	25	330,00 A2
M 20 x 35	S	25	270,00 A2
M 20 x 40	S	25	248,00 A2
M 20 x 45	S	25	265,00 A2
M 20 x 50	S	25	285,00 A2
M 20 x 55	S	25	310,00 A2
M 20 x 60	S	25	315,00 A2
M 20 x 65	S	25	350,00 A2
M 20 x 70	S	25	360,00 A2
M 20 x 75	S	25	410,00 A2
M 20 x 80	S	25	410,00 A2
M 20 x 85	S	25	840,00 A2
M 20 x 90	S	25	670,00 A2
M 20 x 95	S	10	670,00 A2
M 20 x 100	S	10	760,00 A2
M 20 x 110	S	10	870,00 A2
M 20 x 120	S	10	960,00 A2
M 20 x 130	S	10	1160,00 A2
M 20 x 140	S	10	1260,00 A2
M 20 x 150	S	10	1370,00 A2
M 20 x 160	S	10	2130,00 A2
M 20 x 170	S	10	2210,00 A2
M 20 x 180	S	10	2210,00 A2
M 20 x 200	S	10	2410,00 A2
M 20 x 220*	S	10	2950,00 A2
M 22 x 30	S	25	1360,00 A2
M 22 x 35	S	25	1360,00 A2
M 22 x 40	S	25	1360,00 A2
M 22 x 50	S	25	840,00 A2
M 22 x 55	S	1	880,00 A2
M 22 x 60	S	10	1440,00 A2
M 22 x 65	S	10	1580,00 A2
M 22 x 70	S	10	1610,00 A2
M 22 x 80	S	1	1070,00 A2
M 22 x 90	S	1	1320,00 A2
M 22 x 100	S	10	2650,00 A2
M 22 x 110	S	1	2330,00 A2
M 22 x 120	S	10	3200,00 A2
M 22 x 130	S	1	2430,00 A2
M 22 x 140	S	1	2470,00 A2
M 24 x 40	S	20	1070,00 A2
M 24 x 45	S	20	1070,00 A2
M 24 x 50	S	20	570,00 A2
M 24 x 55	S	10	590,00 A2
M 24 x 60	S	10	610,00 A2
M 24 x 65	S	10	640,00 A2
M 24 x 70	S	10	670,00 A2
M 24 x 80	S	10	720,00 A2
M 24 x 90	S	1	1010,00 A2
M 24 x 100	S	1	1220,00 A2
M 24 x 110	S	1	1430,00 A2
M 24 x 120	S	1	1580,00 A2
M 24 x 130	S	1	1710,00 A2
M 24 x 140	S	1	1890,00 A2
M 24 x 150	S	1	2040,00 A2
M 24 x 160	S	1	2950,00 A2
M 24 x 170	S	1	3050,00 A2
M 24 x 180	S	1	3050,00 A2
M 24 x 190	S	1	3150,00 A2
M 24 x 200	S	1	3150,00 A2
M 27 x 50	S	1	1060,00 A2
M 27 x 55	S	1	1160,00 A2
M 27 x 60	S	1	1170,00 A2
M 27 x 65	S	1	1270,00 A2
M 27 x 70	S	1	1270,00 A2
M 27 x 80	S	1	1370,00 A2
M 27 x 90	S	1	1470,00 A2
M 27 x 100	S	1	1560,00 A2
M 27 x 110	S	1	1780,00 A2
M 27 x 120	S	1	1890,00 A2
M 27 x 130	S	1	2040,00 A2
M 27 x 140	S	1	2150,00 A2
M 27 x 150	S	1	2280,00 A2
M 30 x 60*	S	1	1560,00 A2
M 30 x 65*	S	1	1690,00 A2
M 30 x 70*	S	1	1760,00 A2
M 30 x 80*	S	1	1870,00 A2
M 30 x 90*	S	1	2040,00 A2
M 30 x 100*	S	1	2220,00 A2
M 30 x 110*	S	1	2440,00 A2
M 30 x 120*	S	1	2600,00 A2
M 30 x 130*	S	1	2850,00 A2
M 30 x 140*	S	1	3050,00 A2
M 30 x 150*	S	1	3200,00 A2
M 33 x 70*	S	1	2280,00 A2
M 33 x 80*	S	1	2470,00 A2
M 33 x 90*	S	1	2650,00 A2
M 33 x 100*	S	1	2850,00 A2
M 33 x 110*	S	1	3150,00 A2
M 33 x 120*	S	1	3350,00 A2
M 33 x 130*	S	1	3500,00 A2
M 33 x 140*	S	1	3700,00 A2
M 33 x 150*	S	1	3900,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 36	x	80*	S	1	3200,00 A2
M 36	x	90*	S	1	3400,00 A2
M 36	x	100*	S	1	3650,00 A2
M 36	x	110*	S	1	4050,00 A2
M 36	x	120*	S	1	4250,00 A2
M 36	x	130*	S	1	4300,00 A2
M 36	x	140*	S	1	4550,00 A2
M 36	x	150*	S	1	4750,00 A2

ISO 04017.927 *

4017 A 2 - 70 AD W2



Hexagon head screws

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate,
*M 10/12 = RAZ 3223 other ∅ = RAZ 403

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

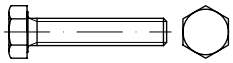
RoHS ✓ | REACh SVHC free

M 10	x	16	S	100	59,00 A2-70
M 10	x	20	S	100	43,00 A2-70
M 10	x	25	S	100	41,00 A2-70
M 10	x	30	S	100	45,50 A2-70
M 10	x	35	S	100	49,50 A2-70
M 10	x	40	S	100	53,00 A2-70
M 10	x	45	S	100	57,00 A2-70
M 10	x	50	S	100	61,00 A2-70
M 12	x	20	S	50	80,00 A2-70
M 12	x	25	S	50	60,00 A2-70
M 12	x	30	S	50	62,00 A2-70
M 12	x	35	S	50	68,00 A2-70
M 12	x	40	S	50	74,00 A2-70
M 12	x	45	S	50	79,00 A2-70
M 12	x	50	S	50	85,00 A2-70
M 12	x	55	S	50	90,00 A2-70
M 12	x	60	S	50	95,00 A2-70
M 12	x	65	S	50	138,00 A2-70
M 12	x	70	S	50	147,00 A2-70
M 12	x	75	S	25	216,00 A2-70
M 12	x	80	S	25	178,00 A2-70
M 16	x	30	S	25	131,00 A2-70
M 16	x	35	S	25	131,00 A2-70
M 16	x	40	S	25	140,00 A2-70
M 16	x	45	S	25	150,00 A2-70
M 16	x	50	S	25	159,00 A2-70
M 16	x	55	S	25	170,00 A2-70
M 16	x	60	S	25	182,00 A2-70
M 16	x	65	S	25	195,00 A2-70
M 16	x	70	S	25	205,00 A2-70
M 16	x	75	S	25	285,00 A2-70
M 16	x	80	S	25	241,00 A2-70
M 16	x	85	S	25	500,00 A2-70
M 16	x	110	S	25	580,00 A2-70
M 16	x	120	S	25	650,00 A2-70
M 20	x	30	S	25	335,00 A2-70
M 20	x	35	S	25	275,00 A2-70
M 20	x	40	S	25	255,00 A2-70
M 20	x	45	S	25	270,00 A2-70
M 20	x	50	S	25	300,00 A2-70

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	55	S	25	315,00 A2-70
M 20	x	60	S	25	315,00 A2-70
M 20	x	65	S	25	355,00 A2-70
M 20	x	70	S	25	360,00 A2-70
M 20	x	75	S	25	415,00 A2-70
M 20	x	80	S	25	415,00 A2-70
M 20	x	90	S	25	680,00 A2-70
M 20	x	120	S	10	970,00 A2-70

ISO 04017.940 **

4017 A 4 (- 70)*



Hexagon head screws

**M 10/12/14/22 = RAZ 3220 other ∅ = RAZ 401

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

M 3	x	5*	S	100	22,50 A4
M 3	x	6*	S	100	18,20 A4
M 3	x	8*	S	100	15,00 A4
M 3	x	10*	S	100	14,50 A4
M 3	x	12*	S	100	13,60 A4
M 3	x	16*	S	100	13,60 A4
M 3	x	18*	S	100	18,70 A4
M 3	x	20*	S	100	14,80 A4
M 3	x	25*	S	100	16,60 A4
M 3	x	30*	S	100	19,20 A4
M 3	x	35*	S	100	30,00 A4
M 3	x	40*	S	100	42,00 A4
M 4	x	6*	S	200	18,20 A4
M 4	x	8*	S	200	15,00 A4
M 4	x	10*	S	200	14,50 A4
M 4	x	12*	S	200	13,60 A4
M 4	x	14*	S	200	16,20 A4
M 4	x	16*	S	200	11,10 A4
M 4	x	18*	S	200	14,60 A4
M 4	x	20*	S	200	11,70 A4
M 4	x	25*	S	200	14,30 A4
M 4	x	30*	S	200	16,20 A4
M 4	x	35*	S	200	28,00 A4
M 4	x	40*	S	200	36,50 A4
M 4	x	45*	S	200	43,00 A4
M 4	x	50*	S	200	46,00 A4
M 4	x	60*	S	100	141,00 A4
M 5	x	6*	S	100	46,00 A4
M 5	x	8*	S	100	15,00 A4
M 5	x	10	S	500	14,50 A4
M 5	x	10	K	100	19,80 A4
M 5	x	12	S	500	13,60 A4
M 5	x	12	K	100	18,80 A4
M 5	x	14	S	500	16,20 A4
M 5	x	14	K	100	21,40 A4
M 5	x	16	S	500	12,10 A4
M 5	x	16	K	100	17,40 A4
M 5	x	18	S	500	16,20 A4
M 5	x	18	K	100	21,40 A4
M 5	x	20	S	500	13,40 A4
M 5	x	20	K	100	18,60 A4

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	22	S	200	19,10 A4
M 5	x	25	S	200	15,40 A4
M 5	x	30	S	200	17,90 A4
M 5	x	35	S	200	26,00 A4
M 5	x	40	S	200	32,50 A4
M 5	x	45	S	200	43,00 A4
M 5	x	50	S	200	46,00 A4
M 5	x	55	S	200	63,00 A4
M 5	x	60	S	200	67,00 A4
M 5	x	70	S	100	153,00 A4
M 5	x	80	S	100	470,00 A4
M 6	x	8*	S	100	23,30 A4
M 6	x	10	S	500	21,20 A4
M 6	x	10	K	100	26,50 A4
M 6	x	12	S	500	19,60 A4
M 6	x	12	K	100	24,80 A4
M 6	x	14	S	500	22,70 A4
M 6	x	14	K	100	28,00 A4
M 6	x	16	S	200	15,40 A4
M 6	x	20	S	200	16,60 A4
M 6	x	22	S	200	22,90 A4
M 6	x	25	S	200	18,30 A4
M 6	x	30	S	200	20,90 A4
M 6	x	35	S	200	24,60 A4
M 6	x	40	S	200	28,00 A4
M 6	x	45	S	100	37,50 A4
M 6	x	50	S	100	43,50 A4
M 6	x	55	S	100	58,00 A4
M 6	x	60	S	100	63,00 A4
M 6	x	65	S	50	99,00 A4
M 6	x	70	S	50	99,00 A4
M 6	x	75	S	50	149,00 A4
M 6	x	80	S	50	120,00 A4
M 6	x	90	S	50	168,00 A4
M 6	x	100	S	50	192,00 A4
M 6	x	110	S	50	580,00 A4
M 6	x	120	S	50	700,00 A4
M 8	x	8*	S	100	91,00 A4
M 8	x	10	S	200	46,00 A4
M 8	x	12	S	200	45,00 A4
M 8	x	14	S	200	54,00 A4
M 8	x	16	S	200	35,50 A4
M 8	x	18	S	200	45,50 A4
M 8	x	20	S	200	35,50 A4
M 8	x	22	S	200	45,50 A4
M 8	x	25	S	200	36,00 A4
M 8	x	30	S	200	38,00 A4
M 8	x	35	S	200	42,50 A4
M 8	x	40	S	100	44,50 A4
M 8	x	45	S	100	53,00 A4
M 8	x	50	S	100	57,00 A4
M 8	x	55	S	100	74,00 A4
M 8	x	60	S	100	80,00 A4
M 8	x	65	S	50	108,00 A4
M 8	x	70	S	50	114,00 A4
M 8	x	75	S	50	174,00 A4
M 8	x	80	S	50	140,00 A4
M 8	x	90	S	50	200,00 A4
M 8	x	100	S	50	227,00 A4
M 8	x	110	S	1	300,00 A4
M 8	x	120	S	1	345,00 A4
M 8	x	130	S	1	445,00 A4
M 8	x	140	S	1	540,00 A4
M 8	x	150	S	1	640,00 A4
M 8	x	160	S	1	730,00 A4
M 8	x	170	S	1	920,00 A4
M 8	x	180	S	1	920,00 A4
M 8	x	200	S	1	1380,00 A4
M 10	x	10*	S	100	244,00 A4
M 10	x	12	S	100	141,00 A4
M 10	x	14	S	100	139,00 A4
M 10	x	16	S	100	83,00 A4
M 10	x	20	S	100	66,00 A4
M 10	x	22	S	100	79,00 A4
M 10	x	25	S	100	63,00 A4

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 10 x 30	S	100	68,00 A4
M 10 x 35	S	100	71,00 A4
M 10 x 40	S	100	77,00 A4
M 10 x 45	S	100	84,00 A4
M 10 x 50	S	100	92,00 A4
M 10 x 55	S	100	118,00 A4
M 10 x 60	S	100	124,00 A4
M 10 x 65	S	100	149,00 A4
M 10 x 70	S	100	158,00 A4
M 10 x 75	S	100	246,00 A4
M 10 x 80	S	50	193,00 A4
M 10 x 85	S	50	305,00 A4
M 10 x 90	S	50	250,00 A4
M 10 x 95	S	50	470,00 A4
M 10 x 100	S	50	400,00 A4
M 10 x 110	S	50	460,00 A4
M 10 x 120	S	50	570,00 A4
M 10 x 130	S	1	740,00 A4
M 10 x 140	S	1	870,00 A4
M 10 x 150	S	1	1020,00 A4
M 10 x 160	S	1	1150,00 A4
M 10 x 170	S	1	1320,00 A4
M 10 x 180	S	1	1420,00 A4
M 10 x 200	S	1	1830,00 A4
M 12 x 16	S	100	156,00 A4
M 12 x 18	S	100	145,00 A4
M 12 x 20	S	100	118,00 A4
M 12 x 22	S	100	138,00 A4
M 12 x 25	S	100	99,00 A4
M 12 x 30	S	100	99,00 A4
M 12 x 35	S	100	107,00 A4
M 12 x 40	S	100	110,00 A4
M 12 x 45	S	100	118,00 A4
M 12 x 50	S	50	126,00 A4
M 12 x 55	S	50	154,00 A4
M 12 x 60	S	50	156,00 A4
M 12 x 65	S	50	198,00 A4
M 12 x 70	S	50	206,00 A4
M 12 x 75	S	50	295,00 A4
M 12 x 80	S	50	238,00 A4
M 12 x 85	S	50	380,00 A4
M 12 x 90	S	50	325,00 A4
M 12 x 95	S	1	630,00 A4
M 12 x 100	S	50	345,00 A4
M 12 x 110	S	1	600,00 A4
M 12 x 120	S	50	620,00 A4
M 12 x 130	S	1	600,00 A4
M 12 x 140	S	1	980,00 A4
M 12 x 150	S	1	1140,00 A4
M 12 x 160	S	1	1300,00 A4
M 12 x 170	S	1	1570,00 A4
M 12 x 180	S	1	1620,00 A4
M 12 x 190	S	1	2040,00 A4
M 12 x 200	S	1	2360,00 A4
M 14 x 20	S	50	315,00 A4
M 14 x 25	S	50	295,00 A4
M 14 x 30	S	50	250,00 A4
M 14 x 35	S	50	250,00 A4
M 14 x 40	S	50	250,00 A4
M 14 x 45	S	50	255,00 A4
M 14 x 50	S	50	270,00 A4
M 14 x 55	S	50	300,00 A4
M 14 x 60	S	50	305,00 A4
M 14 x 65	S	50	355,00 A4
M 14 x 70	S	50	365,00 A4
M 14 x 75	S	50	500,00 A4
M 14 x 80	S	50	415,00 A4
M 14 x 90	S	50	600,00 A4
M 14 x 100	S	50	700,00 A4
M 14 x 110	S	25	900,00 A4
M 14 x 120	S	25	1020,00 A4
M 14 x 130	S	25	1160,00 A4
M 14 x 140	S	25	1280,00 A4
M 14 x 150	S	1	1410,00 A4
M 14 x 160*	S	1	2650,00 A4

Dimensions	PU	Pieces	€/100/Mat.
M 16 x 20	S	50	315,00 A4
M 16 x 25	S	50	290,00 A4
M 16 x 30	S	50	248,00 A4
M 16 x 35	S	50	248,00 A4
M 16 x 40	S	50	248,00 A4
M 16 x 45	S	50	255,00 A4
M 16 x 50	S	50	270,00 A4
M 16 x 55	S	25	300,00 A4
M 16 x 60	S	25	305,00 A4
M 16 x 65	S	25	355,00 A4
M 16 x 70	S	25	365,00 A4
M 16 x 75	S	25	410,00 A4
M 16 x 80	S	25	410,00 A4
M 16 x 90	S	25	590,00 A4
M 16 x 100	S	25	690,00 A4
M 16 x 110	S	1	890,00 A4
M 16 x 120	S	1	1010,00 A4
M 16 x 130	S	1	1150,00 A4
M 16 x 140	S	1	1270,00 A4
M 16 x 150	S	1	1410,00 A4
M 16 x 160	S	1	2600,00 A4
M 16 x 170	S	1	2700,00 A4
M 16 x 180	S	1	2700,00 A4
M 16 x 190	S	1	2850,00 A4
M 16 x 200	S	1	2850,00 A4
M 18 x 30	S	1	790,00 A4
M 18 x 35	S	1	710,00 A4
M 18 x 40	S	1	710,00 A4
M 18 x 45	S	1	710,00 A4
M 18 x 50	S	1	740,00 A4
M 18 x 55	S	1	790,00 A4
M 18 x 60	S	1	800,00 A4
M 18 x 65	S	1	890,00 A4
M 18 x 70	S	1	920,00 A4
M 18 x 75	S	1	1020,00 A4
M 18 x 80	S	1	1020,00 A4
M 18 x 90	S	1	1470,00 A4
M 18 x 100	S	1	1730,00 A4
M 18 x 110	S	1	2100,00 A4
M 18 x 120	S	1	2290,00 A4
M 18 x 130	S	1	2700,00 A4
M 18 x 150	S	1	3200,00 A4
M 20 x 20*	S	25	710,00 A4
M 20 x 30	S	25	530,00 A4
M 20 x 35	S	25	470,00 A4
M 20 x 40	S	25	470,00 A4
M 20 x 45	S	25	470,00 A4
M 20 x 50	S	25	490,00 A4
M 20 x 55	S	25	530,00 A4
M 20 x 60	S	25	540,00 A4
M 20 x 65	S	25	600,00 A4
M 20 x 70	S	25	610,00 A4
M 20 x 75	S	25	680,00 A4
M 20 x 80	S	25	680,00 A4
M 20 x 90	S	1	980,00 A4
M 20 x 100	S	1	1150,00 A4
M 20 x 110	S	1	1400,00 A4
M 20 x 120	S	1	1530,00 A4
M 20 x 130	S	1	1790,00 A4
M 20 x 140	S	1	1920,00 A4
M 20 x 150	S	1	2120,00 A4
M 20 x 160	S	1	3850,00 A4
M 20 x 170	S	1	3900,00 A4
M 20 x 180	S	1	3900,00 A4
M 20 x 190	S	1	4150,00 A4
M 20 x 200	S	1	4150,00 A4
M 22 x 30*	S	1	2260,00 A4
M 22 x 40	S	1	2260,00 A4
M 22 x 45	S	1	2260,00 A4
M 22 x 50	S	1	1840,00 A4
M 22 x 55	S	1	1880,00 A4
M 22 x 60	S	10	1930,00 A4
M 22 x 65	S	1	1990,00 A4
M 22 x 70	S	10	2100,00 A4
M 22 x 75	S	1	2280,00 A4

Dimensions	PU	Pieces	€/100/Mat.
M 22 x 80	S	10	2290,00 A4
M 22 x 90	S	10	2950,00 A4
M 22 x 100	S	10	3550,00 A4
M 22 x 110	S	10	3950,00 A4
M 22 x 120	S	10	4350,00 A4
M 22 x 130	S	10	4700,00 A4
M 22 x 140	S	10	5100,00 A4
M 22 x 150	S	10	5600,00 A4
M 24 x 30	S	1	2020,00 A4
M 24 x 35	S	1	2020,00 A4
M 24 x 40	S	1	1690,00 A4
M 24 x 45	S	1	1690,00 A4
M 24 x 50	S	1	1150,00 A4
M 24 x 55	S	1	1170,00 A4
M 24 x 60	S	1	1200,00 A4
M 24 x 65	S	1	1250,00 A4
M 24 x 70	S	1	1310,00 A4
M 24 x 75	S	1	1430,00 A4
M 24 x 80	S	1	1430,00 A4
M 24 x 90	S	1	1950,00 A4
M 24 x 100	S	1	2120,00 A4
M 24 x 110	S	1	2450,00 A4
M 24 x 120	S	1	2700,00 A4
M 24 x 130	S	1	2950,00 A4
M 24 x 140	S	1	3150,00 A4
M 24 x 150	S	1	3450,00 A4
M 24 x 160	S	1	5200,00 A4
M 24 x 170	S	1	5300,00 A4
M 24 x 180	S	1	5300,00 A4
M 24 x 190	S	1	5400,00 A4
M 24 x 200	S	1	5400,00 A4
M 27 x 50	S	1	2100,00 A4
M 27 x 55	S	1	2220,00 A4
M 27 x 60	S	1	2320,00 A4
M 27 x 65	S	1	2420,00 A4
M 27 x 70	S	1	2550,00 A4
M 27 x 80	S	1	2750,00 A4
M 27 x 90	S	1	3000,00 A4
M 27 x 100	S	1	3200,00 A4
M 27 x 110	S	1	3600,00 A4
M 27 x 120	S	1	3800,00 A4
M 27 x 130	S	1	3950,00 A4
M 27 x 140	S	1	4150,00 A4
M 27 x 150	S	1	4300,00 A4
M 30 x 40*	S	1	5100,00 A4
M 30 x 50*	S	1	3700,00 A4
M 30 x 60*	S	1	2900,00 A4
M 30 x 65*	S	1	3000,00 A4
M 30 x 70*	S	1	3100,00 A4
M 30 x 80*	S	1	3350,00 A4
M 30 x 90*	S	1	3600,00 A4
M 30 x 100*	S	1	4000,00 A4
M 30 x 110*	S	1	4550,00 A4
M 30 x 120*	S	1	4850,00 A4
M 30 x 130*	S	1	5100,00 A4
M 30 x 140*	S	1	5200,00 A4
M 30 x 150*	S	1	5300,00 A4
M 33 x 70*	S	1	4200,00 A4
M 33 x 80*	S	1	4550,00 A4
M 33 x 90*	S	1	4850,00 A4
M 33 x 120*	S	1	6100,00 A4
M 33 x 130*	S	1	6300,00 A4
M 33 x 140*	S	1	6400,00 A4
M 33 x 150*	S	1	6500,00 A4
M 36 x 80*	S	1	5600,00 A4
M 36 x 90*	S	1	6000,00 A4
M 36 x 100*	S	1	6800,00 A4
M 36 x 110*	S	1	7100,00 A4
M 36 x 120*	S	1	7400,00 A4
M 36 x 130*	S	1	7600,00 A4
M 36 x 140*	S	1	7800,00 A4
M 36 x 150*	S	1	7900,00 A4

ISO	04017.947	*
4017	**A 4 - 70**	**AD W2**



Hexagon head screws

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *M 10/12 = RAZ 3223 other ∅ = RAZ 403

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

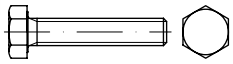
Steel ➔ pg. 254
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	10	S	100	14,50 A4-70
M 5	x	12	S	100	13,60 A4-70
M 5	x	16	S	100	12,10 A4-70
M 5	x	20	S	100	13,70 A4-70
M 6	x	8	S	200	24,80 A4-70
M 6	x	10	S	200	21,70 A4-70
M 6	x	12	S	200	20,00 A4-70
M 6	x	16	S	200	15,40 A4-70
M 6	x	20	S	200	16,60 A4-70
M 6	x	25	S	200	18,30 A4-70
M 6	x	30	S	100	20,90 A4-70
M 8	x	12	S	200	45,00 A4-70
M 8	x	16	S	200	35,50 A4-70
M 8	x	20	S	200	35,50 A4-70
M 8	x	25	S	200	36,00 A4-70
M 8	x	30	S	200	38,00 A4-70
M 8	x	35	S	200	42,50 A4-70
M 8	x	40	S	100	44,50 A4-70
M 8	x	45	S	100	55,00 A4-70
M 10	x	16	S	100	86,00 A4-70
M 10	x	20	S	100	65,00 A4-70
M 10	x	25	S	100	63,00 A4-70
M 10	x	30	S	100	67,00 A4-70
M 10	x	35	S	100	70,00 A4-70
M 10	x	40	S	100	77,00 A4-70
M 10	x	45	S	100	86,00 A4-70
M 10	x	50	S	100	93,00 A4-70
M 10	x	55	S	50	120,00 A4-70
M 10	x	60	S	100	123,00 A4-70
M 10	x	70	S	50	158,00 A4-70
M 10	x	80	S	50	196,00 A4-70
M 12	x	16	S	50	152,00 A4-70
M 12	x	20	S	50	116,00 A4-70
M 12	x	25	S	50	98,00 A4-70
M 12	x	30	S	50	98,00 A4-70
M 12	x	35	S	50	106,00 A4-70
M 12	x	40	S	50	109,00 A4-70
M 12	x	45	S	50	117,00 A4-70
M 12	x	50	S	50	126,00 A4-70
M 12	x	55	S	50	152,00 A4-70
M 12	x	60	S	50	154,00 A4-70
M 12	x	65	S	50	197,00 A4-70
M 12	x	70	S	50	204,00 A4-70
M 12	x	75	S	50	300,00 A4-70
M 12	x	80	S	25	238,00 A4-70
M 12	x	90	S	50	300,00 A4-70
M 16	x	20	S	50	320,00 A4-70
M 16	x	25	S	25	295,00 A4-70
M 16	x	30	S	25	250,00 A4-70
M 16	x	35	S	25	250,00 A4-70
M 16	x	40	S	25	250,00 A4-70
M 16	x	45	S	25	255,00 A4-70
M 16	x	50	S	25	270,00 A4-70
M 16	x	55	S	25	305,00 A4-70
M 16	x	60	S	25	310,00 A4-70
M 16	x	65	S	25	355,00 A4-70
M 16	x	70	S	25	365,00 A4-70
M 16	x	75	S	25	475,00 A4-70
M 16	x	80	S	25	415,00 A4-70
M 16	x	90	S	50	600,00 A4-70
M 16	x	100	S	25	710,00 A4-70
M 20	x	30	S	25	530,00 A4-70
M 20	x	35	S	25	475,00 A4-70
M 20	x	40	S	25	475,00 A4-70
M 20	x	45	S	25	475,00 A4-70
M 20	x	50	S	25	500,00 A4-70
M 20	x	55	S	25	540,00 A4-70
M 20	x	60	S	25	540,00 A4-70
M 20	x	65	S	25	610,00 A4-70
M 20	x	70	S	25	620,00 A4-70
M 20	x	75	S	25	660,00 A4-70
M 20	x	80	S	25	680,00 A4-70
M 20	x	90	S	10	990,00 A4-70
M 20	x	100	S	10	1190,00 A4-70
M 20	x	120	S	1	1530,00 A4-70
M 20	x	160	S	1	3900,00 A4-70
M 24	x	110	S	1	2460,00 A4-70
M 24	x	130	S	1	2950,00 A4-70

ISO	04017.948	403
4017	**A 4 - 80**	



Hexagon head screws

high strength (strongly cold worked)

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	10	S	500	36,50 A4-80
M 5	x	16	S	500	30,50 A4-80
M 5	x	20	S	500	40,50 A4-80
M 5	x	25	S	200	33,50 A4-80
M 5	x	30	S	200	38,50 A4-80
M 5	x	35	S	200	45,00 A4-80
M 5	x	40	S	200	66,00 A4-80
M 5	x	50	S	200	81,00 A4-80
M 5	x	60	S	200	116,00 A4-80
M 5	x	70	S	100	168,00 A4-80
M 6	x	10	S	100	54,00 A4-80
M 6	x	12	S	100	49,00 A4-80
M 6	x	16	S	100	38,50 A4-80
M 6	x	20	S	100	42,00 A4-80
M 6	x	25	S	100	46,00 A4-80
M 6	x	30	S	100	53,00 A4-80
M 6	x	35	S	100	62,00 A4-80
M 6	x	40	S	100	71,00 A4-80
M 6	x	45	S	100	95,00 A4-80
M 6	x	50	S	100	110,00 A4-80
M 6	x	55	S	100	143,00 A4-80
M 6	x	60	S	100	154,00 A4-80
M 6	x	70	S	50	248,00 A4-80
M 6	x	80	S	50	305,00 A4-80
M 6	x	90	S	50	420,00 A4-80
M 6	x	100	S	50	485,00 A4-80
M 6	x	110	S	50	560,00 A4-80
M 6	x	120	S	50	630,00 A4-80
M 8	x	10	S	100	116,00 A4-80
M 8	x	12	S	100	114,00 A4-80
M 8	x	16	S	100	91,00 A4-80
M 8	x	20	S	100	91,00 A4-80
M 8	x	25	S	100	91,00 A4-80
M 8	x	30	S	100	96,00 A4-80
M 8	x	35	S	100	107,00 A4-80
M 8	x	40	S	100	114,00 A4-80
M 8	x	45	S	100	133,00 A4-80
M 8	x	50	S	100	143,00 A4-80
M 8	x	55	S	100	187,00 A4-80
M 8	x	60	S	100	198,00 A4-80
M 8	x	65	S	100	242,00 A4-80
M 8	x	70	S	100	265,00 A4-80
M 8	x	80	S	100	310,00 A4-80
M 8	x	90	S	50	320,00 A4-80
M 8	x	100	S	50	385,00 A4-80
M 8	x	110	S	1	460,00 A4-80
M 8	x	120	S	1	560,00 A4-80
M 8	x	130	S	1	670,00 A4-80
M 8	x	140	S	1	800,00 A4-80
M 8	x	150	S	1	960,00 A4-80
M 8	x	160	S	1	1160,00 A4-80
M 10	x	16	S	100	208,00 A4-80
M 10	x	20	S	100	162,00 A4-80
M 10	x	25	S	100	158,00 A4-80
M 10	x	30	S	100	168,00 A4-80
M 10	x	35	S	100	177,00 A4-80
M 10	x	40	S	100	191,00 A4-80
M 10	x	45	S	100	210,00 A4-80
M 10	x	50	S	100	229,00 A4-80
M 10	x	55	S	100	295,00 A4-80
M 10	x	60	S	100	310,00 A4-80
M 10	x	65	S	100	375,00 A4-80
M 10	x	70	S	100	395,00 A4-80
M 10	x	75	S	50	620,00 A4-80
M 10	x	80	S	50	485,00 A4-80
M 10	x	90	S	50	630,00 A4-80
M 10	x	100	S	50	1000,00 A4-80
M 10	x	110	S	50	1160,00 A4-80
M 10	x	120	S	50	1430,00 A4-80
M 10	x	130	S	1	1850,00 A4-80
M 10	x	140	S	1	2190,00 A4-80
M 10	x	150	S	1	2550,00 A4-80
M 10	x	160	S	1	2900,00 A4-80
M 10	x	170	S	1	3350,00 A4-80
M 10	x	180	S	1	3550,00 A4-80
M 10	x	190	S	1	4100,00 A4-80
M 10	x	200	S	1	4600,00 A4-80
M 12	x	20	S	100	295,00 A4-80
M 12	x	25	S	100	246,00 A4-80
M 12	x	30	S	100	246,00 A4-80
M 12	x	35	S	100	265,00 A4-80
M 12	x	40	S	100	275,00 A4-80
M 12	x	45	S	50	295,00 A4-80
M 12	x	50	S	50	315,00 A4-80
M 12	x	55	S	50	380,00 A4-80
M 12	x	60	S	50	385,00 A4-80
M 12	x	65	S	50	495,00 A4-80
M 12	x	70	S	50	510,00 A4-80
M 12	x	75	S	50	750,00 A4-80
M 12	x	80	S	50	600,00 A4-80
M 12	x	90	S	50	810,00 A4-80
M 12	x	100	S	1	870,00 A4-80
M 12	x	110	S	1	1520,00 A4-80
M 12	x	120	S	1	1560,00 A4-80
M 12	x	130	S	1	1520,00 A4-80

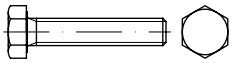
€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	140	S	1	2440,00 A4-80
M 12	x	150	S	1	2850,00 A4-80
M 12	x	160	S	1	3300,00 A4-80
M 12	x	170	S	1	3950,00 A4-80
M 12	x	180	S	1	4100,00 A4-80
M 12	x	190	S	1	5100,00 A4-80
M 12	x	200	S	1	6000,00 A4-80
M 14	x	25	S	50	740,00 A4-80
M 14	x	30	S	50	630,00 A4-80
M 14	x	35	S	50	630,00 A4-80
M 14	x	40	S	50	630,00 A4-80
M 14	x	45	S	50	640,00 A4-80
M 14	x	50	S	50	680,00 A4-80
M 14	x	55	S	50	760,00 A4-80
M 14	x	60	S	50	770,00 A4-80
M 14	x	65	S	50	900,00 A4-80
M 14	x	70	S	1	920,00 A4-80
M 14	x	80	S	1	1040,00 A4-80
M 14	x	90	S	1	1520,00 A4-80
M 16	x	25	S	50	740,00 A4-80
M 16	x	30	S	50	630,00 A4-80
M 16	x	35	S	50	630,00 A4-80
M 16	x	40	S	50	630,00 A4-80
M 16	x	45	S	50	640,00 A4-80
M 16	x	50	S	25	680,00 A4-80
M 16	x	55	S	25	760,00 A4-80
M 16	x	60	S	25	770,00 A4-80
M 16	x	65	S	25	900,00 A4-80
M 16	x	70	S	25	920,00 A4-80
M 16	x	75	S	25	1200,00 A4-80
M 16	x	80	S	25	1040,00 A4-80
M 16	x	90	S	25	1490,00 A4-80
M 16	x	100	S	25	1730,00 A4-80
M 16	x	110	S	25	1970,00 A4-80
M 16	x	120	S	1	2550,00 A4-80
M 16	x	130	S	1	2900,00 A4-80
M 16	x	140	S	1	3200,00 A4-80
M 16	x	150	S	1	3550,00 A4-80
M 16	x	160	S	1	4350,00 A4-80
M 16	x	170	S	1	4750,00 A4-80
M 16	x	180	S	1	5200,00 A4-80
M 16	x	190	S	1	6300,00 A4-80
M 16	x	200	S	1	7100,00 A4-80
M 20	x	30	S	25	1330,00 A4-80
M 20	x	35	S	25	1430,00 A4-80
M 20	x	40	S	25	1200,00 A4-80
M 20	x	45	S	25	1200,00 A4-80
M 20	x	50	S	25	1240,00 A4-80
M 20	x	55	S	25	1350,00 A4-80
M 20	x	60	S	25	1350,00 A4-80
M 20	x	65	S	25	1520,00 A4-80
M 20	x	70	S	25	1540,00 A4-80
M 20	x	75	S	25	1640,00 A4-80
M 20	x	80	S	25	1700,00 A4-80
M 20	x	90	S	1	2460,00 A4-80
M 20	x	100	S	1	2900,00 A4-80
M 20	x	110	S	1	3550,00 A4-80
M 20	x	120	S	1	3850,00 A4-80
M 20	x	130	S	1	4500,00 A4-80
M 20	x	140	S	1	4850,00 A4-80
M 20	x	150	S	1	5400,00 A4-80
M 20	x	160	S	1	6000,00 A4-80
M 20	x	170	S	1	6800,00 A4-80
M 20	x	180	S	1	7500,00 A4-80
M 20	x	190	S	1	8300,00 A4-80
M 20	x	200	S	1	9400,00 A4-80
M 24	x	50	S	10	2900,00 A4-80
M 24	x	55	S	10	2180,00 A4-80
M 24	x	60	S	10	3050,00 A4-80
M 24	x	70	S	10	3300,00 A4-80
M 24	x	80	S	10	2750,00 A4-80
M 24	x	90	S	10	2950,00 A4-80
M 24	x	100	S	10	3200,00 A4-80
M 24	x	110	S	10	3400,00 A4-80
M 24	x	120	S	10	3650,00 A4-80

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	130	S	1	7400,00 A4-80
M 24	x	140	S	1	8000,00 A4-80
M 24	x	150	S	1	8700,00 A4-80
M 24	x	160	S	1	13100,00 A4-80
M 24	x	170	S	1	13300,00 A4-80
M 24	x	180	S	1	13900,00 A4-80
M 24	x	190	S	1	14500,00 A4-80
M 24	x	200	S	1	15600,00 A4-80

ISO	04017.941	2010

4017 A 4 BUMAX88*



Hexagon head screws

dimension from M 6 and length L > 3xd
suitable for use acc. to pressure equipment directive
➔ certificate 3.1 on request

Dimensions ➔ TI-15
Material properties ➔ TI-237
Tightening torque ➔ TI-250
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass ➔ pg. 636

*mechanical properties ~ Class 8.8

PED Pre-Approval | RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	10	S	100	175,00 A4-88
M 5	x	12	S	100	179,00 A4-88
M 5	x	16	S	100	189,00 A4-88
M 5	x	20	S	100	196,00 A4-88
M 5	x	25	S	100	208,00 A4-88
M 5	x	30	S	100	219,00 A4-88
M 5	x	35	S	100	229,00 A4-88
M 5	x	40	S	100	240,00 A4-88
M 6	x	16	S	100	183,00 A4-88
M 6	x	20	S	100	196,00 A4-88
M 6	x	25	S	100	212,00 A4-88
M 6	x	30	S	100	229,00 A4-88
M 6	x	35	S	100	246,00 A4-88
M 6	x	40	S	100	265,00 A4-88
M 6	x	45	S	100	280,00 A4-88
M 6	x	50	S	100	300,00 A4-88
M 8	x	16	S	50	310,00 A4-88
M 8	x	20	S	50	330,00 A4-88
M 8	x	25	S	50	365,00 A4-88
M 8	x	30	S	50	395,00 A4-88
M 8	x	35	S	50	425,00 A4-88
M 8	x	40	S	50	455,00 A4-88
M 8	x	45	S	50	485,00 A4-88
M 8	x	50	S	50	520,00 A4-88
M 8	x	60	S	50	580,00 A4-88
M 8	x	70	S	50	1830,00 A4-88
M 10	x	16	S	50	550,00 A4-88
M 10	x	20	S	50	620,00 A4-88
M 10	x	25	S	50	720,00 A4-88
M 10	x	30	S	50	760,00 A4-88
M 10	x	35	S	50	810,00 A4-88
M 10	x	40	S	50	890,00 A4-88
M 10	x	45	S	50	960,00 A4-88
M 12	x	45	S	25	1260,00 A4-88
M 12	x	70	S	25	1600,00 A4-88
M 12	x	80	S	25	1790,00 A4-88
M 12	x	90	S	25	1910,00 A4-88
M 12	x	100	S	25	2310,00 A4-88
M 14	x	30	S	25	2310,00 A4-88

Dimensions			PU	Pieces	€/100/Mat.
M 14	x	40	S	25	2480,00 A4-88
M 14	x	50	S	25	2650,00 A4-88
M 14	x	60	S	25	2850,00 A4-88
M 14	x	70	S	25	2850,00 A4-88
M 16	x	40	S	25	2270,00 A4-88
M 16	x	45	S	25	2400,00 A4-88
M 16	x	50	S	25	2550,00 A4-88
M 16	x	60	S	25	2800,00 A4-88
M 16	x	70	S	25	3100,00 A4-88
M 16	x	80	S	25	3400,00 A4-88
M 20	x	45	S	10	5100,00 A4-88
M 20	x	50	S	10	5300,00 A4-88
M 20	x	55	S	10	5400,00 A4-88
M 20	x	60	S	10	5600,00 A4-88
M 20	x	65	S	10	5900,00 A4-88
M 20	x	70	S	10	6100,00 A4-88
M 20	x	75	S	10	6300,00 A4-88
M 20	x	80	S	10	6600,00 A4-88
M 20	x	100	S	10	7400,00 A4-88
M 24	x	50	S	10	7600,00 A4-88
M 24	x	65	S	10	8500,00 A4-88
M 24	x	70	S	10	8900,00 A4-88
M 24	x	80	S	10	9500,00 A4-88
M 24	x	90	S	10	10700,00 A4-88
M 30	x	60	S	10	35300,00 A4-88
M 30	x	70	S	10	36300,00 A4-88
M 30	x	80	S	10	37200,00 A4-88
M 30	x	90	S	10	38200,00 A4-88
M 30	x	100	S	10	39300,00 A4-88

ISO	04017.942	2010

4017 A 4 BUMAX109*



Hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-237
Tightening torque ➔ TI-250
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass ➔ pg. 636

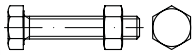
*mechanical properties ~ Class 10.9

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	16	S	100	250,00 A4-109
M 6	x	20	S	100	265,00 A4-109
M 6	x	25	S	100	305,00 A4-109
M 6	x	30	S	100	305,00 A4-109
M 8	x	20	S	50	380,00 A4-109
M 8	x	25	S	50	400,00 A4-109
M 8	x	30	S	50	445,00 A4-109
M 8	x	35	S	50	480,00 A4-109
M 8	x	40	S	50	670,00 A4-109
M 8	x	45	S	50	690,00 A4-109
M 8	x	50	S	50	740,00 A4-109
M 8	x	55	S	50	850,00 A4-109
M 8	x	60	S	50	930,00 A4-109
M 10	x	30	S	50	950,00 A4-109
M 10	x	40	S	50	1040,00 A4-109
M 12	x	30	S	25	1220,00 A4-109
M 12	x	40	S	25	1390,00 A4-109
M 16	x	40	S	25	2550,00 A4-109
M 16	x	50	S	25	2850,00 A4-109
M 16	x	60	S	25	3150,00 A4-109
M 20	x	40	S	10	4700,00 A4-109

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	50	S	10	6200,00 A4-109
M 20	x	60	S	10	6800,00 A4-109
M 20	x	70	S	10	7400,00 A4-109
M 20	x	80	S	10	8400,00 A4-109

ISO	04017.912	403
4017	**Mu A 4**	**SB**



Hexagon head screws, Mu = with hexagon nuts ISO 4032 SB = acc. to EN 15048

for bolted fastenings by steel structures that are not preloaded
with inspection certificate 3.1,
prices are plus certificate costs

Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-248
Standard conversion ➔ TI-6

Declaration of performance ➔ www.reyher.de

M 12	x	30	S	50	310,00 A4
M 12	x	35	S	50	320,00 A4
M 12	x	40	S	50	335,00 A4
M 12	x	45	S	50	355,00 A4
M 12	x	50	S	50	375,00 A4
M 16	x	35	S	50	690,00 A4
M 16	x	40	S	50	710,00 A4
M 16	x	45	S	50	740,00 A4
M 16	x	50	S	50	850,00 A4
M 20	x	40	S	25	1290,00 A4
M 20	x	45	S	25	1350,00 A4
M 20	x	50	S	25	1390,00 A4
M 20	x	55	S	25	1440,00 A4
M 20	x	60	S	25	1490,00 A4
M 20	x	65	S	25	1560,00 A4
M 24	x	50	S	10	2340,00 A4
M 24	x	55	S	10	2410,00 A4
M 24	x	60	S	10	2550,00 A4
M 24	x	65	S	10	2650,00 A4
M 24	x	70	S	10	2700,00 A4

Dimensions	PU	Pieces	€/100/Mat.
ISO	04017.950		*
4017	**1.4571 (A 5)**		



Hexagon head screws

*M 10/12 = RAZ 3220 other ∅ = RAZ 403

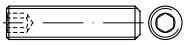
Dimensions ➔ TI-15
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 254
Brass, Plastic ➔ pg. 636

ISO 4017 ➔ replaces DIN 933

M 6	x	10	S	100	126,00 A5
M 6	x	20	S	100	133,00 A5
M 6	x	25	S	100	154,00 A5
M 6	x	30	S	100	156,00 A5
M 6	x	40	S	100	164,00 A5
M 6	x	50	S	100	175,00 A5
M 8	x	25	S	100	200,00 A5
M 8	x	30	S	100	223,00 A5
M 8	x	35	S	100	242,00 A5
M 8	x	40	S	100	335,00 A5
M 8	x	50	S	100	370,00 A5
M 8	x	60	S	100	465,00 A5
M 10	x	20	S	1	850,00 A5
M 10	x	25	S	1	870,00 A5
M 10	x	30	S	1	880,00 A5
M 10	x	35	S	1	900,00 A5
M 10	x	40	S	1	920,00 A5
M 10	x	45	S	1	940,00 A5
M 10	x	50	S	1	1120,00 A5
M 12	x	20	S	1	870,00 A5
M 12	x	25	S	1	880,00 A5
M 12	x	30	S	1	900,00 A5
M 12	x	35	S	1	920,00 A5
M 12	x	40	S	1	940,00 A5
M 12	x	45	S	1	960,00 A5
M 12	x	50	S	1	1140,00 A5
M 12	x	60	S	1	1370,00 A5
M 16	x	25	S	1	1240,00 A5
M 16	x	30	S	1	1260,00 A5
M 16	x	35	S	1	1310,00 A5
M 16	x	40	S	1	1350,00 A5
M 16	x	45	S	1	1370,00 A5
M 16	x	50	S	1	1410,00 A5
M 16	x	55	S	1	2000,00 A5
M 16	x	60	S	1	2100,00 A5
M 16	x	65	S	1	2310,00 A5
M 20	x	35	S	1	2480,00 A5
M 20	x	40	S	1	2500,00 A5
M 20	x	45	S	1	2600,00 A5
M 20	x	50	S	1	2650,00 A5
M 20	x	60	S	1	2950,00 A5
M 20	x	70	S	1	3400,00 A5

Dimensions	PU	Pieces	€/100/Mat.
ISO	04026.910		370
4026	**A 1/A 2**		



Hexagon socket set screws with flat point

Dimensions ➔ TI-20
Material properties ➔ TI-236
Standard conversion ➔ TI-6

Steel ➔ pg. 272

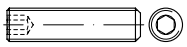
ISO 4026 ➔ replaces DIN 913

M 2	x	2	S	500	161,00 A1/A2
M 2	x	3	S	500	112,00 A1/A2
M 2	x	4	S	500	114,00 A1/A2
M 2	x	5	S	500	114,00 A1/A2
M 2	x	6	S	500	114,00 A1/A2
M 2	x	8	S	500	116,00 A1/A2
M 2,5	x	3	S	500	88,00 A1/A2
M 2,5	x	4	S	500	86,00 A1/A2
M 2,5	x	5	S	500	86,00 A1/A2
M 2,5	x	6	S	500	86,00 A1/A2
M 3	x	2	S	500	87,00 A1/A2
M 3	x	3	S	500	43,50 A1/A2
M 3	x	4	S	500	47,00 A1/A2
M 3	x	5	S	500	46,50 A1/A2
M 3	x	6	S	500	51,00 A1/A2
M 3	x	8	S	500	53,00 A1/A2
M 3	x	10	S	500	54,00 A1/A2
M 3	x	12	S	500	60,00 A1/A2
M 3	x	16	S	500	44,50 A1/A2
M 3	x	20	S	500	58,00 A1/A2
M 3	x	25	S	500	99,00 A1/A2
M 4	x	4	S	500	33,00 A1/A2
M 4	x	5	S	500	33,00 A1/A2
M 4	x	6	S	500	33,50 A1/A2
M 4	x	8	S	500	34,50 A1/A2
M 4	x	10	S	500	37,00 A1/A2
M 4	x	12	S	500	39,00 A1/A2
M 4	x	16	S	500	42,50 A1/A2
M 4	x	20	S	500	45,50 A1/A2
M 4	x	25	S	500	78,00 A1/A2
M 4	x	30	S	200	86,00 A1/A2
M 5	x	4	S	500	36,00 A1/A2
M 5	x	5	S	500	37,00 A1/A2
M 5	x	6	S	500	37,50 A1/A2
M 5	x	8	S	500	38,50 A1/A2
M 5	x	10	S	500	39,50 A1/A2
M 5	x	12	S	500	41,50 A1/A2
M 5	x	16	S	500	45,50 A1/A2
M 5	x	20	S	500	54,00 A1/A2
M 5	x	25	S	200	60,00 A1/A2
M 5	x	30	S	200	105,00 A1/A2
M 5	x	35	S	200	149,00 A1/A2
M 5	x	40	S	200	152,00 A1/A2
M 5	x	45	S	200	161,00 A1/A2
M 6	x	5	S	500	42,50 A1/A2
M 6	x	6	S	500	42,50 A1/A2
M 6	x	8	S	500	44,50 A1/A2
M 6	x	10	S	500	45,50 A1/A2
M 6	x	12	S	500	47,50 A1/A2
M 6	x	16	S	500	54,00 A1/A2
M 6	x	20	S	500	62,00 A1/A2
M 6	x	25	S	200	71,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	200	82,00 A 1/A 2
M 6	x	35	S	200	101,00 A 1/A 2
M 6	x	40	S	200	110,00 A 1/A 2
M 6	x	45	S	100	255,00 A 1/A 2
M 6	x	50	S	100	300,00 A 1/A 2
M 6	x	60	S	100	340,00 A 1/A 2
M 8	x	6	S	500	91,00 A 1/A 2
M 8	x	8	S	500	62,00 A 1/A 2
M 8	x	10	S	500	62,00 A 1/A 2
M 8	x	12	S	200	68,00 A 1/A 2
M 8	x	16	S	200	74,00 A 1/A 2
M 8	x	20	S	200	88,00 A 1/A 2
M 8	x	25	S	200	101,00 A 1/A 2
M 8	x	30	S	100	116,00 A 1/A 2
M 8	x	35	S	100	141,00 A 1/A 2
M 8	x	40	S	100	163,00 A 1/A 2
M 8	x	45	S	100	178,00 A 1/A 2
M 8	x	50	S	50	224,00 A 1/A 2
M 8	x	60	S	50	405,00 A 1/A 2
M 8	x	70	S	50	520,00 A 1/A 2
M 8	x	80	S	50	630,00 A 1/A 2
M 8	x	100	S	50	740,00 A 1/A 2
M 10	x	10	S	200	91,00 A 1/A 2
M 10	x	12	S	100	93,00 A 1/A 2
M 10	x	16	S	100	99,00 A 1/A 2
M 10	x	18	S	100	114,00 A 1/A 2
M 10	x	20	S	100	120,00 A 1/A 2
M 10	x	25	S	100	142,00 A 1/A 2
M 10	x	30	S	100	165,00 A 1/A 2
M 10	x	35	S	50	201,00 A 1/A 2
M 10	x	40	S	50	212,00 A 1/A 2
M 10	x	45	S	50	226,00 A 1/A 2
M 10	x	50	S	50	247,00 A 1/A 2
M 10	x	60	S	50	345,00 A 1/A 2
M 10	x	70	S	50	440,00 A 1/A 2
M 10	x	80	S	50	540,00 A 1/A 2
M 10	x	100	S	50	660,00 A 1/A 2
M 12	x	10	S	50	190,00 A 1/A 2
M 12	x	12	S	50	192,00 A 1/A 2
M 12	x	16	S	50	192,00 A 1/A 2
M 12	x	20	S	50	218,00 A 1/A 2
M 12	x	25	S	50	239,00 A 1/A 2
M 12	x	30	S	50	260,00 A 1/A 2
M 12	x	35	S	25	285,00 A 1/A 2
M 12	x	40	S	25	315,00 A 1/A 2
M 12	x	45	S	25	355,00 A 1/A 2
M 12	x	50	S	25	385,00 A 1/A 2
M 12	x	60	S	25	560,00 A 1/A 2
M 12	x	70	S	25	1040,00 A 1/A 2
M 12	x	80	S	25	1080,00 A 1/A 2
M 12	x	90	S	10	1210,00 A 1/A 2
M 16	x	16	S	10	420,00 A 1/A 2
M 16	x	20	S	10	610,00 A 1/A 2
M 16	x	25	S	10	1130,00 A 1/A 2
M 16	x	30	S	10	660,00 A 1/A 2
M 16	x	40	S	10	1070,00 A 1/A 2
M 16	x	50	S	10	1830,00 A 1/A 2
M 16	x	60	S	10	1940,00 A 1/A 2
M 16	x	70	S	10	2280,00 A 1/A 2
M 16	x	80	S	10	2750,00 A 1/A 2
M 16	x	90	S	10	2950,00 A 1/A 2
M 16	x	100	S	10	3300,00 A 1/A 2
M 20	x	20	S	10	1860,00 A 1/A 2
M 20	x	25	S	10	1940,00 A 1/A 2
M 20	x	30	S	10	2280,00 A 1/A 2
M 20	x	35	S	10	2900,00 A 1/A 2
M 20	x	40	S	10	3000,00 A 1/A 2
M 20	x	50	S	10	3150,00 A 1/A 2
M 20	x	60	S	10	3900,00 A 1/A 2
M 20	x	70	S	10	4100,00 A 1/A 2
M 20	x	80	S	10	4500,00 A 1/A 2
M 20	x	90	S	10	4950,00 A 1/A 2
M 20	x	100	S	10	5400,00 A 1/A 2

Dimensions			PU	Pieces	€/100/Mat.
ISO		04026.940			370

4026 A 4



Hexagon socket set screws with flat point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 272

ISO 4026 ➔ replaces DIN 913

RoHS ✓ REACh SVHC free

M 3	x	4	S	500	84,00 A 4
M 3	x	5	S	500	89,00 A 4
M 3	x	6	S	500	98,00 A 4
M 3	x	8	S	500	112,00 A 4
M 4	x	5	S	500	110,00 A 4
M 4	x	6	S	500	114,00 A 4
M 4	x	8	S	500	120,00 A 4
M 4	x	10	S	500	126,00 A 4
M 4	x	12	S	500	135,00 A 4
M 4	x	16	S	500	156,00 A 4
M 4	x	20	S	500	164,00 A 4
M 5	x	5	S	500	128,00 A 4
M 5	x	6	S	500	128,00 A 4
M 5	x	8	S	500	131,00 A 4
M 5	x	10	S	500	141,00 A 4
M 5	x	12	S	500	154,00 A 4
M 5	x	16	S	500	164,00 A 4
M 5	x	20	S	500	185,00 A 4
M 5	x	25	S	200	193,00 A 4
M 5	x	30	S	200	210,00 A 4
M 6	x	6	S	500	143,00 A 4
M 6	x	8	S	500	145,00 A 4
M 6	x	10	S	500	154,00 A 4
M 6	x	12	S	500	162,00 A 4
M 6	x	16	S	500	185,00 A 4
M 6	x	20	S	500	208,00 A 4
M 6	x	25	S	200	248,00 A 4
M 6	x	30	S	200	275,00 A 4
M 6	x	35	S	200	290,00 A 4
M 6	x	40	S	200	315,00 A 4
M 6	x	45	S	100	340,00 A 4
M 6	x	50	S	100	385,00 A 4
M 8	x	8	S	500	198,00 A 4
M 8	x	10	S	500	198,00 A 4
M 8	x	12	S	200	221,00 A 4
M 8	x	16	S	200	244,00 A 4
M 8	x	20	S	200	295,00 A 4
M 8	x	25	S	200	360,00 A 4
M 8	x	30	S	100	390,00 A 4
M 8	x	35	S	100	435,00 A 4
M 8	x	40	S	100	470,00 A 4
M 8	x	50	S	50	580,00 A 4
M 8	x	60	S	50	680,00 A 4
M 10	x	10	S	200	315,00 A 4
M 10	x	12	S	100	315,00 A 4
M 10	x	16	S	100	340,00 A 4
M 10	x	20	S	100	435,00 A 4
M 10	x	25	S	100	495,00 A 4
M 10	x	30	S	100	465,00 A 4
M 10	x	35	S	50	495,00 A 4
M 10	x	40	S	50	530,00 A 4
M 10	x	45	S	50	570,00 A 4

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	50	S	50	640,00 A 4
M 10	x	60	S	50	830,00 A 4
M 10	x	70	S	50	1020,00 A 4
M 12	x	12	S	50	360,00 A 4
M 12	x	16	S	50	360,00 A 4
M 12	x	20	S	50	445,00 A 4
M 12	x	25	S	50	495,00 A 4
M 12	x	30	S	50	540,00 A 4
M 12	x	35	S	25	600,00 A 4
M 12	x	40	S	25	640,00 A 4
M 12	x	45	S	25	700,00 A 4
M 12	x	50	S	25	750,00 A 4
M 12	x	55	S	25	890,00 A 4
M 12	x	60	S	25	1000,00 A 4
M 16	x	16	S	10	1490,00 A 4
M 16	x	20	S	10	2420,00 A 4
M 16	x	25	S	10	750,00 A 4
M 16	x	30	S	10	880,00 A 4
M 16	x	35	S	10	970,00 A 4
M 16	x	40	S	10	1010,00 A 4
M 16	x	50	S	10	4050,00 A 4
M 20	x	20	S	10	3900,00 A 4
M 20	x	25	S	10	4200,00 A 4
M 20	x	30	S	10	4550,00 A 4
M 20	x	35	S	10	5100,00 A 4
M 20	x	40	S	10	5800,00 A 4
M 20	x	50	S	10	6900,00 A 4
M 24	x	25	S	10	6500,00 A 4
M 24	x	30	S	10	6900,00 A 4
M 24	x	35	S	10	7600,00 A 4
M 24	x	40	S	10	7900,00 A 4
M 24	x	45	S	10	8200,00 A 4
M 24	x	50	S	10	8800,00 A 4

ISO	04027.910	370

4027 A 1/A 2



Hexagon socket set screws with cone point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 274

ISO 4027 ➔ replaces DIN 914

RoHS ✓ REACh SVHC free

M 2	x	2	S	500	142,00 A 1/A 2
M 2	x	3	S	500	108,00 A 1/A 2
M 2	x	4	S	500	108,00 A 1/A 2
M 2	x	5	S	500	110,00 A 1/A 2
M 2	x	6	S	500	110,00 A 1/A 2
M 2	x	8	S	500	110,00 A 1/A 2
M 2,5	x	4	S	500	83,00 A 1/A 2
M 2,5	x	5	S	500	84,00 A 1/A 2
M 2,5	x	6	S	500	84,00 A 1/A 2
M 3	x	3	S	500	55,00 A 1/A 2
M 3	x	4	S	500	45,50 A 1/A 2
M 3	x	5	S	500	45,00 A 1/A 2
M 3	x	6	S	500	48,50 A 1/A 2
M 3	x	8	S	500	51,00 A 1/A 2
M 3	x	10	S	500	53,00 A 1/A 2
M 3	x	12	S	500	59,00 A 1/A 2
M 3	x	16	S	500	65,00 A 1/A 2
M 4	x	4	S	500	46,00 A 1/A 2

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	5	S	500	42,50 A1/A2
M 4	x	6	S	500	43,50 A1/A2
M 4	x	8	S	500	44,00 A1/A2
M 4	x	10	S	500	47,00 A1/A2
M 4	x	12	S	500	51,00 A1/A2
M 4	x	16	S	500	55,00 A1/A2
M 4	x	20	S	500	66,00 A1/A2
M 4	x	25	S	500	101,00 A1/A2
M 4	x	30	S	200	110,00 A1/A2
M 5	x	4	S	500	67,00 A1/A2
M 5	x	5	S	500	57,00 A1/A2
M 5	x	6	S	500	53,00 A1/A2
M 5	x	8	S	500	54,00 A1/A2
M 5	x	10	S	500	56,00 A1/A2
M 5	x	12	S	500	59,00 A1/A2
M 5	x	16	S	500	65,00 A1/A2
M 5	x	20	S	500	77,00 A1/A2
M 5	x	25	S	200	85,00 A1/A2
M 5	x	30	S	200	148,00 A1/A2
M 6	x	6	S	500	59,00 A1/A2
M 6	x	8	S	500	58,00 A1/A2
M 6	x	10	S	500	59,00 A1/A2
M 6	x	12	S	500	62,00 A1/A2
M 6	x	16	S	500	71,00 A1/A2
M 6	x	20	S	500	80,00 A1/A2
M 6	x	25	S	200	89,00 A1/A2
M 6	x	30	S	200	105,00 A1/A2
M 6	x	35	S	200	127,00 A1/A2
M 6	x	40	S	200	142,00 A1/A2
M 6	x	45	S	100	330,00 A1/A2
M 6	x	50	S	100	385,00 A1/A2
M 8	x	8	S	500	86,00 A1/A2
M 8	x	10	S	500	79,00 A1/A2
M 8	x	12	S	200	87,00 A1/A2
M 8	x	16	S	200	95,00 A1/A2
M 8	x	20	S	200	112,00 A1/A2
M 8	x	25	S	200	129,00 A1/A2
M 8	x	30	S	100	148,00 A1/A2
M 8	x	35	S	100	180,00 A1/A2
M 8	x	40	S	100	209,00 A1/A2
M 8	x	45	S	100	228,00 A1/A2
M 8	x	50	S	50	290,00 A1/A2
M 8	x	60	S	50	530,00 A1/A2
M 10	x	10	S	200	127,00 A1/A2
M 10	x	12	S	100	120,00 A1/A2
M 10	x	16	S	100	127,00 A1/A2
M 10	x	20	S	100	154,00 A1/A2
M 10	x	25	S	100	203,00 A1/A2
M 10	x	30	S	100	212,00 A1/A2
M 10	x	35	S	50	260,00 A1/A2
M 10	x	40	S	50	275,00 A1/A2
M 10	x	50	S	50	320,00 A1/A2
M 10	x	60	S	50	440,00 A1/A2
M 12	x	16	S	50	207,00 A1/A2
M 12	x	20	S	50	235,00 A1/A2
M 12	x	25	S	50	260,00 A1/A2
M 12	x	30	S	50	280,00 A1/A2
M 12	x	35	S	25	305,00 A1/A2
M 12	x	40	S	25	335,00 A1/A2
M 12	x	50	S	25	415,00 A1/A2
M 12	x	60	S	25	540,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
ISO		04027.940			370
4027		**A 4**			
M 2,5	x	8	S	500	240,00 A4
M 3	x	4	S	500	74,00 A4
M 3	x	5	S	500	93,00 A4
M 3	x	6	S	500	93,00 A4
M 3	x	8	S	500	105,00 A4
M 3	x	10	S	500	118,00 A4
M 4	x	4	S	500	104,00 A4
M 4	x	5	S	500	104,00 A4
M 4	x	6	S	500	107,00 A4
M 4	x	8	S	500	114,00 A4
M 4	x	10	S	500	120,00 A4
M 4	x	12	S	500	128,00 A4
M 4	x	16	S	500	147,00 A4
M 4	x	20	S	500	156,00 A4
M 5	x	5	S	500	122,00 A4
M 5	x	6	S	500	122,00 A4
M 5	x	8	S	500	124,00 A4
M 5	x	10	S	500	133,00 A4
M 5	x	12	S	500	145,00 A4
M 5	x	16	S	500	156,00 A4
M 5	x	20	S	500	177,00 A4
M 5	x	25	S	200	183,00 A4
M 5	x	30	S	200	200,00 A4
M 6	x	6	S	500	135,00 A4
M 6	x	8	S	500	137,00 A4
M 6	x	10	S	500	145,00 A4
M 6	x	12	S	500	154,00 A4
M 6	x	16	S	500	175,00 A4
M 6	x	20	S	500	198,00 A4
M 6	x	25	S	200	235,00 A4
M 6	x	30	S	200	260,00 A4
M 6	x	35	S	200	275,00 A4
M 6	x	45	S	100	320,00 A4
M 6	x	50	S	100	365,00 A4
M 8	x	8	S	500	189,00 A4
M 8	x	10	S	500	189,00 A4
M 8	x	12	S	200	210,00 A4
M 8	x	16	S	200	231,00 A4
M 8	x	20	S	200	280,00 A4
M 8	x	25	S	200	340,00 A4
M 8	x	30	S	100	370,00 A4
M 8	x	35	S	100	415,00 A4
M 8	x	40	S	100	445,00 A4
M 8	x	45	S	100	490,00 A4
M 8	x	50	S	50	560,00 A4
M 8	x	60	S	50	640,00 A4
M 10	x	10	S	200	300,00 A4
M 10	x	12	S	100	300,00 A4
M 10	x	16	S	100	320,00 A4
M 10	x	20	S	100	410,00 A4
M 10	x	25	S	100	470,00 A4
M 10	x	30	S	100	530,00 A4



Hexagon socket set screws with cone point

Dimensions ➔ TI-20
Material properties ➔ TI-236
Standard conversion ➔ TI-6
Steel ➔ pg. 274

ISO 4027 ➔ replaces DIN 914

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	35	S	50	570,00 A4
M 10	x	40	S	50	600,00 A4
M 10	x	45	S	50	660,00 A4
M 10	x	50	S	50	740,00 A4
M 10	x	60	S	50	950,00 A4
M 12	x	12	S	50	410,00 A4
M 12	x	16	S	50	410,00 A4
M 12	x	20	S	50	510,00 A4
M 12	x	25	S	50	570,00 A4
M 12	x	30	S	50	610,00 A4
M 12	x	35	S	25	690,00 A4
M 12	x	40	S	25	740,00 A4
M 12	x	45	S	25	790,00 A4
M 12	x	50	S	25	850,00 A4
M 12	x	60	S	25	1140,00 A4
M 16	x	20	S	10	830,00 A4
M 16	x	25	S	10	850,00 A4
M 16	x	30	S	10	1000,00 A4
M 16	x	40	S	10	1160,00 A4
M 16	x	50	S	10	1180,00 A4
M 16	x	60	S	10	1220,00 A4

Dimensions			PU	Pieces	€/100/Mat.
ISO		04028.910			370
4028		**A 1/A 2**			
M 2	x	6	S	500	86,00 A1/A2
M 2	x	10	S	500	110,00 A1/A2
M 3	x	4	S	500	59,00 A1/A2
M 3	x	5	S	500	59,00 A1/A2
M 3	x	6	S	500	61,00 A1/A2
M 3	x	8	S	500	71,00 A1/A2
M 3	x	10	S	500	72,00 A1/A2
M 3	x	12	S	500	78,00 A1/A2
M 4	x	5	S	500	45,50 A1/A2
M 4	x	6	S	500	46,00 A1/A2
M 4	x	8	S	500	46,50 A1/A2
M 4	x	10	S	500	51,00 A1/A2
M 4	x	12	S	500	53,00 A1/A2
M 4	x	16	S	500	58,00 A1/A2
M 4	x	20	S	500	70,00 A1/A2
M 4	x	25	S	500	106,00 A1/A2
M 5	x	5	S	500	60,00 A1/A2
M 5	x	6	S	500	57,00 A1/A2
M 5	x	8	S	500	58,00 A1/A2
M 5	x	10	S	500	60,00 A1/A2
M 5	x	12	S	500	63,00 A1/A2
M 5	x	16	S	500	69,00 A1/A2
M 5	x	20	S	500	82,00 A1/A2
M 5	x	25	S	200	89,00 A1/A2
M 5	x	30	S	200	156,00 A1/A2
M 5	x	35	S	200	161,00 A1/A2
M 6	x	6	S	500	63,00 A1/A2
M 6	x	8	S	500	61,00 A1/A2
M 6	x	10	S	500	63,00 A1/A2
M 6	x	12	S	500	66,00 A1/A2



Hexagon socket set screws with full dog point

Dimensions ➔ TI-20
Material properties ➔ TI-236
Standard conversion ➔ TI-6
Steel ➔ pg. 275

ISO 4028 ➔ replaces DIN 915

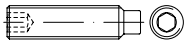
RoHS ✓ REACh SVHC free

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	16	S	500	74,00 A1/A2
M 6	x	20	S	500	85,00 A1/A2
M 6	x	25	S	200	95,00 A1/A2
M 6	x	30	S	200	112,00 A1/A2
M 6	x	35	S	200	137,00 A1/A2
M 6	x	40	S	200	152,00 A1/A2
M 6	x	50	S	100	405,00 A1/A2
M 8	x	8	S	500	90,00 A1/A2
M 8	x	10	S	500	85,00 A1/A2
M 8	x	12	S	200	92,00 A1/A2
M 8	x	16	S	200	101,00 A1/A2
M 8	x	20	S	200	120,00 A1/A2
M 8	x	25	S	200	137,00 A1/A2
M 8	x	30	S	100	158,00 A1/A2
M 8	x	35	S	100	192,00 A1/A2
M 8	x	40	S	100	222,00 A1/A2
M 8	x	45	S	100	243,00 A1/A2
M 8	x	60	S	50	550,00 A1/A2
M 10	x	10	S	200	137,00 A1/A2
M 10	x	12	S	100	127,00 A1/A2
M 10	x	16	S	100	135,00 A1/A2
M 10	x	20	S	100	163,00 A1/A2
M 10	x	25	S	100	195,00 A1/A2
M 10	x	30	S	100	226,00 A1/A2
M 10	x	35	S	50	275,00 A1/A2
M 10	x	40	S	50	290,00 A1/A2
M 10	x	45	S	50	310,00 A1/A2
M 10	x	50	S	50	340,00 A1/A2
M 10	x	60	S	50	470,00 A1/A2
M 12	x	16	S	50	218,00 A1/A2
M 12	x	20	S	50	250,00 A1/A2
M 12	x	25	S	50	275,00 A1/A2
M 12	x	30	S	50	300,00 A1/A2
M 12	x	40	S	25	360,00 A1/A2
M 12	x	50	S	25	440,00 A1/A2
M 12	x	60	S	25	580,00 A1/A2

ISO 04028.940 370

4028 A 4



Hexagon socket set screws with full dog point

Dimensions ➔ TI-20 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 275

ISO 4028 ➔ replaces DIN 915

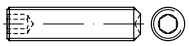
RoHS ✓ REACh SVHC free

M 4	x	6	S	500	102,00 A4
M 4	x	8	S	500	107,00 A4
M 4	x	10	S	500	116,00 A4
M 4	x	16	S	500	141,00 A4
M 4	x	20	S	500	149,00 A4
M 5	x	6	S	500	116,00 A4
M 5	x	8	S	500	118,00 A4
M 5	x	10	S	500	128,00 A4
M 5	x	12	S	500	139,00 A4
M 5	x	16	S	500	149,00 A4
M 5	x	20	S	500	168,00 A4
M 5	x	25	S	200	177,00 A4
M 6	x	6	S	500	131,00 A4
M 6	x	8	S	500	133,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	10	S	500	139,00 A4
M 6	x	12	S	500	147,00 A4
M 6	x	16	S	500	168,00 A4
M 6	x	20	S	500	189,00 A4
M 6	x	30	S	200	246,00 A4
M 6	x	35	S	200	265,00 A4
M 6	x	40	S	200	285,00 A4
M 6	x	45	S	100	305,00 A4
M 6	x	50	S	100	350,00 A4
M 8	x	8	S	500	181,00 A4
M 8	x	10	S	500	181,00 A4
M 8	x	12	S	200	200,00 A4
M 8	x	16	S	200	221,00 A4
M 8	x	20	S	200	265,00 A4
M 8	x	25	S	200	325,00 A4
M 8	x	30	S	100	355,00 A4
M 8	x	40	S	100	425,00 A4
M 8	x	50	S	50	530,00 A4
M 10	x	10	S	200	340,00 A4
M 10	x	12	S	100	340,00 A4
M 10	x	16	S	100	305,00 A4
M 10	x	20	S	100	395,00 A4
M 10	x	25	S	100	450,00 A4
M 10	x	30	S	100	510,00 A4
M 10	x	40	S	50	580,00 A4
M 12	x	12	S	50	475,00 A4
M 12	x	16	S	50	390,00 A4
M 12	x	20	S	50	485,00 A4
M 12	x	25	S	50	550,00 A4
M 12	x	30	S	50	590,00 A4
M 12	x	35	S	25	660,00 A4
M 12	x	40	S	25	710,00 A4
M 12	x	50	S	25	820,00 A4
M 12	x	60	S	25	1260,00 A4
M 16	x	25	S	10	820,00 A4
M 16	x	30	S	10	960,00 A4
M 16	x	35	S	10	1050,00 A4
M 16	x	40	S	10	1120,00 A4

ISO 04029.910 370

4029 A 1/A 2



Hexagon socket set screws with cup point

Dimensions ➔ TI-21 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 277

ISO 4029 ➔ replaces DIN 916

RoHS ✓ REACh SVHC free

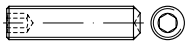
M 2	x	2	S	500	141,00 A1/A2
M 2	x	3	S	500	114,00 A1/A2
M 2	x	4	S	500	116,00 A1/A2
M 2	x	5	S	500	116,00 A1/A2
M 2	x	6	S	500	116,00 A1/A2
M 3	x	4	S	500	48,50 A1/A2
M 3	x	5	S	500	47,50 A1/A2
M 3	x	6	S	500	52,00 A1/A2
M 3	x	8	S	500	53,00 A1/A2
M 3	x	10	S	500	55,00 A1/A2
M 3	x	12	S	500	61,00 A1/A2
M 3	x	16	S	500	120,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	20	S	500	131,00 A1/A2
M 4	x	3	S	500	33,50 A1/A2
M 4	x	4	S	500	33,50 A1/A2
M 4	x	5	S	500	33,50 A1/A2
M 4	x	6	S	500	34,50 A1/A2
M 4	x	8	S	500	35,50 A1/A2
M 4	x	10	S	500	37,50 A1/A2
M 4	x	12	S	500	39,50 A1/A2
M 4	x	16	S	500	43,00 A1/A2
M 4	x	20	S	500	52,00 A1/A2
M 4	x	25	S	500	80,00 A1/A2
M 4	x	30	S	200	88,00 A1/A2
M 5	x	5	S	500	37,50 A1/A2
M 5	x	6	S	500	38,00 A1/A2
M 5	x	8	S	500	39,00 A1/A2
M 5	x	10	S	500	40,00 A1/A2
M 5	x	12	S	500	42,00 A1/A2
M 5	x	16	S	500	46,00 A1/A2
M 5	x	20	S	500	55,00 A1/A2
M 5	x	25	S	200	61,00 A1/A2
M 5	x	30	S	200	106,00 A1/A2
M 6	x	6	S	500	43,50 A1/A2
M 6	x	8	S	500	45,50 A1/A2
M 6	x	10	S	500	46,00 A1/A2
M 6	x	12	S	500	48,50 A1/A2
M 6	x	16	S	500	55,00 A1/A2
M 6	x	20	S	500	63,00 A1/A2
M 6	x	25	S	200	71,00 A1/A2
M 6	x	30	S	200	83,00 A1/A2
M 6	x	35	S	200	101,00 A1/A2
M 6	x	40	S	200	112,00 A1/A2
M 6	x	45	S	100	260,00 A1/A2
M 6	x	50	S	100	305,00 A1/A2
M 6	x	60	S	100	345,00 A1/A2
M 8	x	6	S	500	63,00 A1/A2
M 8	x	8	S	500	63,00 A1/A2
M 8	x	10	S	500	63,00 A1/A2
M 8	x	12	S	200	69,00 A1/A2
M 8	x	16	S	200	75,00 A1/A2
M 8	x	20	S	200	88,00 A1/A2
M 8	x	25	S	200	103,00 A1/A2
M 8	x	30	S	100	118,00 A1/A2
M 8	x	35	S	100	142,00 A1/A2
M 8	x	40	S	100	165,00 A1/A2
M 8	x	45	S	100	180,00 A1/A2
M 8	x	50	S	50	226,00 A1/A2
M 8	x	60	S	50	410,00 A1/A2
M 8	x	70	S	50	420,00 A1/A2
M 10	x	10	S	200	93,00 A1/A2
M 10	x	12	S	100	94,00 A1/A2
M 10	x	16	S	100	101,00 A1/A2
M 10	x	20	S	100	122,00 A1/A2
M 10	x	25	S	100	144,00 A1/A2
M 10	x	30	S	100	169,00 A1/A2
M 10	x	35	S	50	203,00 A1/A2
M 10	x	40	S	50	214,00 A1/A2
M 10	x	45	S	50	229,00 A1/A2
M 10	x	50	S	50	250,00 A1/A2
M 10	x	60	S	50	350,00 A1/A2
M 12	x	12	S	50	320,00 A1/A2
M 12	x	16	S	50	194,00 A1/A2
M 12	x	20	S	50	222,00 A1/A2
M 12	x	25	S	50	243,00 A1/A2
M 12	x	30	S	50	265,00 A1/A2
M 12	x	35	S	25	285,00 A1/A2
M 12	x	40	S	25	320,00 A1/A2
M 12	x	50	S	25	390,00 A1/A2
M 12	x	60	S	25	520,00 A1/A2
M 16	x	16	S	10	830,00 A1/A2
M 16	x	20	S	10	650,00 A1/A2
M 16	x	25	S	10	780,00 A1/A2
M 16	x	30	S	10	940,00 A1/A2
M 16	x	40	S	10	1200,00 A1/A2
M 16	x	50	S	10	1490,00 A1/A2

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	60	S	10	1800,00 A1/A2
M 20	x	25	S	10	2850,00 A1/A2
M 20	x	30	S	10	3050,00 A1/A2
M 20	x	35	S	10	3250,00 A1/A2
M 20	x	50	S	10	3450,00 A1/A2

ISO	04029.940	370

4029 A 4



Hexagon socket set screws with cup point

Dimensions ➔ TI-21
Material properties ➔ TI-236
Standard conversion ➔ TI-6

Steel ➔ pg. 277

ISO 4029 ➔ replaces DIN 916

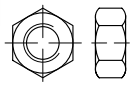
RoHS ✓ | REACh SVHC free

M 2	x	2	S	500	290,00 A4
M 2	x	4	S	500	310,00 A4
M 2	x	5	S	500	330,00 A4
M 2	x	6	S	500	335,00 A4
M 3	x	5	S	500	124,00 A4
M 3	x	6	S	500	143,00 A4
M 3	x	8	S	500	168,00 A4
M 3	x	10	S	500	202,00 A4
M 3	x	12	S	500	221,00 A4
M 3	x	16	S	500	238,00 A4
M 3	x	20	S	500	270,00 A4
M 4	x	5	S	500	103,00 A4
M 4	x	6	S	500	107,00 A4
M 4	x	8	S	500	112,00 A4
M 4	x	10	S	500	120,00 A4
M 4	x	12	S	500	128,00 A4
M 4	x	16	S	500	145,00 A4
M 4	x	20	S	500	156,00 A4
M 5	x	5	S	500	120,00 A4
M 5	x	6	S	500	120,00 A4
M 5	x	8	S	500	124,00 A4
M 5	x	10	S	500	133,00 A4
M 5	x	12	S	500	145,00 A4
M 5	x	16	S	500	156,00 A4
M 5	x	20	S	500	175,00 A4
M 5	x	25	S	200	183,00 A4
M 5	x	30	S	200	198,00 A4
M 6	x	6	S	500	135,00 A4
M 6	x	8	S	500	137,00 A4
M 6	x	10	S	500	145,00 A4
M 6	x	12	S	500	154,00 A4
M 6	x	16	S	500	175,00 A4
M 6	x	20	S	500	196,00 A4
M 6	x	25	S	200	233,00 A4
M 6	x	30	S	200	260,00 A4
M 6	x	35	S	200	275,00 A4
M 6	x	40	S	200	295,00 A4
M 6	x	50	S	100	360,00 A4
M 8	x	8	S	500	187,00 A4
M 8	x	10	S	500	187,00 A4
M 8	x	12	S	200	208,00 A4
M 8	x	16	S	200	229,00 A4
M 8	x	20	S	200	275,00 A4
M 8	x	25	S	200	340,00 A4
M 8	x	30	S	100	365,00 A4
M 8	x	35	S	100	410,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	40	S	100	440,00 A4
M 8	x	50	S	50	550,00 A4
M 8	x	60	S	50	640,00 A4
M 10	x	8	S	200	440,00 A4
M 10	x	10	S	200	295,00 A4
M 10	x	12	S	100	295,00 A4
M 10	x	16	S	100	320,00 A4
M 10	x	20	S	100	405,00 A4
M 10	x	25	S	100	465,00 A4
M 10	x	30	S	100	530,00 A4
M 10	x	35	S	50	560,00 A4
M 10	x	40	S	50	600,00 A4
M 10	x	50	S	50	730,00 A4
M 10	x	60	S	50	940,00 A4
M 12	x	12	S	50	350,00 A4
M 12	x	16	S	50	405,00 A4
M 12	x	20	S	50	500,00 A4
M 12	x	25	S	50	560,00 A4
M 12	x	30	S	50	610,00 A4
M 12	x	35	S	25	690,00 A4
M 12	x	40	S	25	730,00 A4
M 12	x	50	S	25	840,00 A4
M 12	x	60	S	25	1140,00 A4
M 16	x	16	S	10	1010,00 A4
M 16	x	20	S	10	1110,00 A4
M 16	x	25	S	10	950,00 A4
M 16	x	30	S	10	990,00 A4
M 16	x	35	S	10	1100,00 A4
M 16	x	40	S	10	1140,00 A4

ISO	04032.910	410

4032 A 1 turned



Hexagon nuts, ISO type 1

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

Steel ➔ pg. 278
Brass, Aluminium, Titanium, Copper ➔ pg. 637

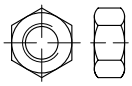
ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

M 1,6	S	500	41,00 A1
M 2	S	500	29,00 A1
M 2	K	100	37,50 A1
M 2,3	S	500	48,00 A1
M 2,3	K	100	52,00 A1
M 2,5	S	500	26,50 A1
M 2,5	K	100	32,00 A1
M 2,6	S	500	52,00 A1
M 2,6	K	100	60,00 A1

Dimensions	PU	Pieces	€/100/Mat.
ISO	04032.920		**

4032 A 2 (- 70)*



Hexagon nuts, ISO type 1

**M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

Steel ➔ pg. 278
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

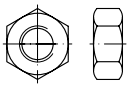
RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

M 3*	S	1000	10,60 A2
M 3*	K	100	16,80 A2
M 3,5*	K	100	45,00 A2
M 4*	S	1000	12,00 A2
M 4*	K	100	17,50 A2
M 5	S	1000	14,00 A2
M 6	S	1000	21,20 A2
M 7*	S	100	35,00 A2
M 8	S	500	39,00 A2
M 10	S	250	84,00 A2
M 12	S	250	120,00 A2
M 14	S	25	211,00 A2
M 16	S	50	211,00 A2
M 18	S	10	540,00 A2
M 20	S	25	540,00 A2
M 22	S	10	1220,00 A2
M 24	S	25	1220,00 A2
M 27	S	1	6100,00 A2
M 30*	S	1	4750,00 A2
M 33*	S	1	5500,00 A2
M 36*	S	5	4700,00 A2
M 42*	S	1	6800,00 A2
M 48*	S	1	11300,00 A2

ISO	04032.931	3310

4032 A 2 - 70 lubricated



Hexagon nuts, ISO type 1, lubricated

coefficient of friction per batch on request

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

ISO 4032 ➔ replaces DIN 934

RoHS ✓ | REACh SVHC free

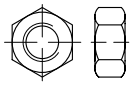
M 6	S	1000	21,20 A2
M 8	S	500	39,00 A2
M 10	S	250	84,00 A2
M 12	S	250	120,00 A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 16	S	50	211,00 A 2
M 20	S	25	540,00 A 2
M 24	S	25	1220,00 A 2

ISO | 04032.926 | 409

4032 A 2 - 70* AD W2



Hexagon nuts, ISO type 1

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *≥ M 30: A 2-50

Dimensions → TI-62 | Tightening torque → TI-249
Material properties → TI-236 | Standard conversion → TI-7

Steel → pg. 278
Brass, Aluminium, Titanium, Copper → pg. 637

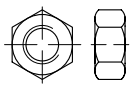
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 10	S	100	730,00 A 2-70
M 12	S	100	840,00 A 2-70
M 14	S	25	1030,00 A 2-70
M 16	S	50	1160,00 A 2-70
M 20	S	25	1560,00 A 2-70
M 24	S	25	2180,00 A 2-70
M 27	S	1	3450,00 A 2-70
M 30	S	1	4000,00 A 2-70
M 33	S	1	4750,00 A 2-70

ISO | 04032.940 | **

4032 A 4 (- 70)*



Hexagon nuts, ISO type 1

**M 5 - M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62 | Tightening torque → TI-249
Material properties → TI-236 | Standard conversion → TI-7

Steel → pg. 278
Brass, Aluminium, Titanium, Copper → pg. 637

ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

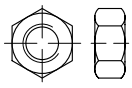
*Prop. class for dimensions different depending on production

M 2*	S	1000	38,00 A 4
M 2*	K	100	43,50 A 4
M 2,5*	S	500	36,50 A 4
M 2,5*	K	100	42,00 A 4
M 3*	S	1000	15,20 A 4
M 3*	K	100	21,90 A 4
M 4*	S	1000	17,10 A 4
M 4*	K	100	25,50 A 4
M 5	S	1000	18,50 A 4
M 6	S	1000	28,50 A 4
M 7	S	100	52,00 A 4
M 8	S	500	55,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
M 10	S	250	118,00 A 4
M 12	S	250	162,00 A 4
M 14	S	25	335,00 A 4
M 16	S	50	335,00 A 4
M 18	S	10	820,00 A 4
M 20	S	25	820,00 A 4
M 22	S	10	1660,00 A 4
M 24	S	10	1660,00 A 4
M 27*	S	10	3150,00 A 4
M 30*	S	10	4200,00 A 4
M 33*	S	10	5400,00 A 4
M 36*	S	5	6600,00 A 4
M 39*	S	5	13300,00 A 4
M 42*	S	1	9200,00 A 4
M 48*	S	1	17500,00 A 4

ISO | 04032.951 | 3310

4032 A 4 - 70 lubricated



Hexagon nuts, ISO type 1, lubricated

coefficient of friction per batch on request

Dimensions → TI-62 | Tightening torque → TI-249
Material properties → TI-236 | Standard conversion → TI-7

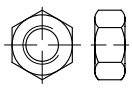
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 6	S	1000	26,00 A 4
M 8	S	500	49,50 A 4
M 10	S	250	106,00 A 4
M 12	S	250	146,00 A 4
M 16	S	50	300,00 A 4
M 20	S	25	740,00 A 4
M 24	S	25	1500,00 A 4

ISO | 04032.947 | 409

4032 A 4 - 70* AD W2



Hexagon nuts, ISO type 1

for pressure vessel const. as per AD regulations, products with renunciation of inspection certificate, *≥ M 30: A 4-50

Dimensions → TI-62 | Tightening torque → TI-249
Material properties → TI-236 | Standard conversion → TI-7

Steel → pg. 278
Brass, Aluminium, Titanium, Copper → pg. 637

ISO 4032 → replaces DIN 934

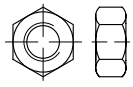
RoHS ✓ | REACh SVHC free

M 8	S	500	910,00 A 4-70
M 10	S	100	950,00 A 4-70
M 12	S	100	1030,00 A 4-70
M 14	S	25	1180,00 A 4-70

Dimensions	PU	Pieces	€/100/Mat.
M 16	S	50	1410,00 A 4-70
M 20	S	25	1930,00 A 4-70
M 24	S	25	2700,00 A 4-70
M 27	S	1	4200,00 A 4-70
M 30	S	1	4850,00 A 4-70

ISO | 04032.948 | 3310

4032 A 4 - 80



Hexagon nuts, ISO type 1

high strength (strongly cold worked)

Dimensions → TI-62 | Tightening torque → TI-249
Material properties → TI-236 | Standard conversion → TI-7

Steel → pg. 278
Brass, Aluminium, Titanium, Copper → pg. 637

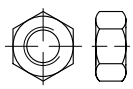
ISO 4032 → replaces DIN 934

RoHS ✓ | REACh SVHC free

M 5	S	1000	16,20 A 4-80
M 6	S	200	21,60 A 4-80
M 8	S	200	27,00 A 4-80
M 10	S	100	54,00 A 4-80
M 12	S	100	70,00 A 4-80
M 14	S	100	118,00 A 4-80
M 16	S	50	151,00 A 4-80
M 18	S	50	550,00 A 4-80
M 20	S	50	244,00 A 4-80
M 24	S	25	740,00 A 4-80

ISO | 04032.941 | 2011

4032 A 4 BUMAX88*



Hexagon nuts, ISO type 1

dimension from M 6 suitable for use acc. to pressure equipment directive, → certificate 3.1 on request

Dimensions → TI-62 | Tightening torque → TI-250
Material properties → TI-237 | Standard conversion → TI-7

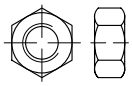
Steel → pg. 278
Brass, Aluminium, Titanium, Copper → pg. 637

*mechanical properties ~ Class 8

PED Pre-Approval | RoHS ✓ | REACh SVHC free

M 6	S	100	100,00 A 4-88
M 8	S	100	168,00 A 4-88
M 10	S	50	400,00 A 4-88
M 12	S	50	680,00 A 4-88
M 16	S	25	1750,00 A 4-88
M 20	S	25	2900,00 A 4-88
M 24	S	10	13700,00 A 4-88
M 30	S	10	27500,00 A 4-88

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.942	2011
4032	**A 4 BUMAX109***	



Hexagon nuts, ISO type 1

Dimensions ➔ TI-62
Material properties ➔ TI-237
Tightening torque ➔ TI-250
Standard conversion ➔ TI-7

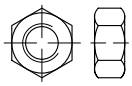
Steel ➔ pg. 278
Brass, Aluminium, Titanium, Copper ➔ pg. 637

*mechanical properties ~ Class 10

RoHS ✓ REACh SVHC free

M 6	S	100	244,00	A4-109
M 8	S	100	450,00	A4-109
M 10	S	50	570,00	A4-109
M 12	S	50	780,00	A4-109
M 16	S	25	2800,00	A4-109
M 20	S	25	3800,00	A4-109

ISO	04032.950	3300
4032	**1.4571 (A 5)**	



Hexagon nuts, ISO type 1

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

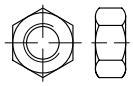
Steel ➔ pg. 278
Brass, Aluminium, Titanium, Copper ➔ pg. 637

ISO 4032 ➔ replaces DIN 934

RoHS ✓ REACh SVHC free

M 6	S	100	214,00	A5
M 8	S	100	233,00	A5
M 10	S	100	248,00	A5
M 12	S	50	315,00	A5
M 16	S	25	540,00	A5
M 20	S	25	1070,00	A5
M 24	S	10	1890,00	A5
M 27	S	10	3000,00	A5
M 30	S	10	4100,00	A5

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.924	3310
4032	**A 2**	**left**



Hexagon nuts, ISO type 1, with metric left hand thread

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

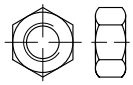
Steel ➔ pg. 280

ISO 4032 ➔ replaces DIN 934

RoHS ✓ REACh SVHC free

M 5	S	100	39,00	A2
M 6	S	100	59,00	A2
M 8	S	100	94,00	A2
M 10	S	50	180,00	A2
M 12	S	25	245,00	A2
M 14	S	25	460,00	A2
M 16	S	25	460,00	A2
M 18	S	25	570,00	A2
M 20	S	10	710,00	A2
M 22	S	10	990,00	A2
M 24	S	10	1950,00	A2
M 27	S	1	2050,00	A2
M 30	S	1	2370,00	A2

ISO	04032.944	3310
4032	**A 4**	**left**



Hexagon nuts, ISO type 1, with metric left hand thread

Dimensions ➔ TI-62
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

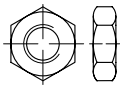
Steel ➔ pg. 280

ISO 4032 ➔ replaces DIN 934

RoHS ✓ REACh SVHC free

M 5	S	100	55,00	A4
M 6	S	100	76,00	A4
M 8	S	100	116,00	A4
M 10	S	50	217,00	A4
M 12	S	25	295,00	A4
M 14	S	25	550,00	A4
M 16	S	25	570,00	A4
M 18	S	25	780,00	A4
M 20	S	10	950,00	A4
M 22	S	10	1520,00	A4
M 24	S	10	2380,00	A4
M 27	S	1	2950,00	A4
M 30	S	1	3450,00	A4

Dimensions	PU Pieces	€/100/Mat.
ISO	04035.920	*
4035	**A 2**	



Hexagon nuts, shallow pattern with chamfers

*M 5–M 39 = RAZ 3370 other ∅ = RAZ 170

Dimensions ➔ TI-61
Material properties ➔ TI-236
Standard conversion ➔ TI-7

Steel ➔ pg. 284
Brass ➔ pg. 638

ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓ REACh SVHC free

M 2	S	100	38,00	A2
M 2,5	S	100	33,00	A2
M 3	S	1000	24,30	A2
M 3	K	100	28,50	A2
M 4	S	1000	23,30	A2
M 4	K	100	27,50	A2
M 5	S	1000	23,30	A2
M 5	K	100	27,50	A2
M 6	S	1000	33,50	A2
M 6	K	100	37,50	A2
M 8	S	1000	62,00	A2
M 8	K	100	67,00	A2
M 10	S	100	131,00	A2
M 12	S	50	146,00	A2
M 14	S	25	395,00	A2
M 16	S	100	485,00	A2
M 16	K	25	495,00	A2
M 18	S	10	700,00	A2
M 20	S	10	880,00	A2
M 22	S	10	1120,00	A2
M 24	S	10	1500,00	A2
M 27	S	10	2030,00	A2
M 30	S	10	2850,00	A2
M 36	S	1	5100,00	A2

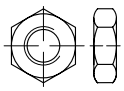
RKP®
REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions	PU	Pieces	€/100/Mat.
ISO 04035.940			*

4035 A 4



Hexagon nuts, shallow pattern with chamfers

*M 5–M 39 = RAZ 3370 other ∅ = RAZ 170

Dimensions ➔ TI-61
Material properties ➔ TI-236
Standard conversion ➔ TI-7

Steel ➔ pg. 284
Brass ➔ pg. 638

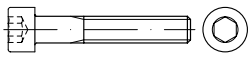
ISO 4035 ➔ replaces DIN 439 type B

RoHS ✓ | REACh SVHC free

M 2	S	100	63,00 A4
M 2,5	S	100	63,00 A4
M 3	S	100	36,50 A4
M 4	S	100	35,50 A4
M 5	S	100	41,00 A4
M 6	S	100	47,50 A4
M 8	S	100	89,00 A4
M 10	S	100	166,00 A4
M 12	S	50	355,00 A4
M 14	S	25	530,00 A4
M 16	S	25	680,00 A4
M 18	S	10	930,00 A4
M 20	S	10	1220,00 A4
M 24	S	10	2040,00 A4
M 27	S	10	2850,00 A4
M 30	S	10	3950,00 A4
M 36	S	1	7100,00 A4
M 42	S	1	11200,00 A4

Dimensions	PU	Pieces	€/100/Mat.
ISO 04762.920			360

4762 A 2 (- 70)*



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 286

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ | REACh SVHC free

*Prop. class for dimensions different depending on production

M 1,6	x	4*	S	100	163,00 A2
M 1,6	x	5*	S	100	175,00 A2
M 1,6	x	6*	S	100	186,00 A2
M 1,6	x	8*	S	100	201,00 A2
M 2	x	3*	S	100	81,00 A2
M 2	x	4*	S	100	51,00 A2
M 2	x	5*	S	100	51,00 A2
M 2	x	6*	S	100	51,00 A2
M 2	x	8*	S	100	51,00 A2
M 2	x	10*	S	100	53,00 A2
M 2	x	12*	S	100	56,00 A2
M 2	x	16*	S	100	63,00 A2
M 2	x	20*	S	100	76,00 A2
M 2,5	x	4*	S	100	51,00 A2
M 2,5	x	5*	S	100	51,00 A2
M 2,5	x	6*	S	100	51,00 A2
M 2,5	x	8*	S	100	51,00 A2
M 2,5	x	10*	S	100	53,00 A2
M 2,5	x	12*	S	100	56,00 A2
M 2,5	x	14*	S	100	79,00 A2
M 2,5	x	16*	S	100	63,00 A2
M 2,5	x	20*	S	100	76,00 A2
M 2,5	x	25*	S	100	101,00 A2
M 3	x	4*	S	100	38,00 A2
M 3	x	5*	S	100	31,00 A2
M 3	x	6*	S	100	23,10 A2
M 3	x	8*	S	100	20,30 A2
M 3	x	10*	S	100	17,50 A2
M 3	x	12*	S	100	17,50 A2
M 3	x	14*	S	100	14,70 A2
M 3	x	16*	S	100	11,70 A2
M 3	x	18*	S	100	15,90 A2
M 3	x	20*	S	100	12,70 A2
M 3	x	22*	S	100	16,60 A2
M 3	x	25*	S	100	13,40 A2
M 3	x	30*	S	100	17,30 A2
M 3	x	35*	S	100	20,30 A2
M 3	x	40*	S	100	22,20 A2
M 3	x	45*	S	100	40,00 A2
M 3	x	50*	S	100	40,00 A2
M 4	x	5*	S	100	37,00 A2
M 4	x	6*	S	200	25,00 A2
M 4	x	8*	S	500	20,30 A2
M 4	x	8*	K	200	22,70 A2
M 4	x	10*	S	500	18,90 A2
M 4	x	10*	K	200	22,80 A2
M 4	x	12*	S	500	18,90 A2
M 4	x	12*	K	200	22,80 A2
M 4	x	14*	S	500	14,70 A2
M 4	x	14*	K	200	17,10 A2
M 4	x	16*	S	500	11,70 A2
M 4	x	16*	K	200	15,60 A2
M 4	x	18*	S	500	15,90 A2
M 4	x	18*	K	200	18,30 A2
M 4	x	20*	S	500	12,70 A2
M 4	x	20*	K	200	16,70 A2
M 4	x	22*	S	500	16,60 A2
M 4	x	22*	K	200	19,00 A2
M 4	x	25*	S	500	13,40 A2
M 4	x	25*	K	200	15,80 A2
M 4	x	30*	S	500	17,30 A2
M 4	x	30*	K	200	19,60 A2
M 4	x	35*	S	500	17,80 A2
M 4	x	35*	K	200	20,20 A2
M 4	x	40*	S	500	19,90 A2
M 4	x	40*	K	200	22,30 A2
M 4	x	45*	S	200	40,00 A2
M 4	x	50*	S	200	40,00 A2
M 4	x	55*	S	200	235,00 A2
M 4	x	60*	S	200	260,00 A2
M 4	x	70*	S	200	335,00 A2
M 4	x	80*	S	200	860,00 A2
M 5	x	6*	S	100	44,50 A2
M 5	x	8*	S	100	20,30 A2
M 5	x	10	S	500	18,90 A2
M 5	x	10	K	100	22,80 A2
M 5	x	12	S	500	18,90 A2
M 5	x	12	K	100	22,80 A2
M 5	x	14	S	500	16,80 A2
M 5	x	14	K	100	21,50 A2
M 5	x	16	S	500	13,20 A2
M 5	x	16	K	100	17,10 A2
M 5	x	18	S	500	16,50 A2
M 5	x	18	K	100	21,20 A2
M 5	x	20	S	500	13,60 A2
M 5	x	20	K	100	17,50 A2
M 5	x	22	S	500	18,60 A2
M 5	x	22	K	100	23,30 A2
M 5	x	25	S	500	14,70 A2
M 5	x	25	K	100	18,60 A2
M 5	x	30	S	500	17,30 A2
M 5	x	30	K	100	21,20 A2
M 5	x	35	S	500	19,20 A2
M 5	x	35	K	100	23,90 A2
M 5	x	40	S	500	20,90 A2
M 5	x	40	K	100	26,00 A2
M 5	x	45	S	100	28,00 A2
M 5	x	50	S	100	31,00 A2
M 5	x	55	S	100	44,50 A2
M 5	x	60	S	100	58,00 A2
M 5	x	65	S	100	84,00 A2
M 5	x	70	S	100	67,00 A2
M 5	x	75	S	100	179,00 A2
M 5	x	80	S	100	137,00 A2
M 5	x	90	S	100	470,00 A2
M 5	x	100	S	100	690,00 A2
M 6	x	6*	S	100	46,50 A2
M 6	x	8*	S	100	26,50 A2
M 6	x	10	S	500	23,10 A2
M 6	x	10	K	100	27,50 A2
M 6	x	12	S	500	23,10 A2
M 6	x	12	K	100	27,50 A2
M 6	x	14	S	500	23,30 A2
M 6	x	14	K	100	28,50 A2
M 6	x	16	S	500	16,30 A2
M 6	x	16	K	100	20,30 A2
M 6	x	18	S	500	22,20 A2
M 6	x	18	K	100	27,00 A2
M 6	x	20	S	500	18,10 A2
M 6	x	20	K	100	22,00 A2
M 6	x	22	S	100	23,10 A2
M 6	x	25	S	500	19,50 A2
M 6	x	25	K	100	23,50 A2
M 6	x	30	S	500	21,10 A2
M 6	x	30	K	100	25,00 A2
M 6	x	35	S	500	23,90 A2
M 6	x	35	K	100	28,00 A2
M 6	x	40	S	500	26,00 A2
M 6	x	40	K	100	30,00 A2
M 6	x	45	S	500	35,00 A2
M 6	x	45	K	100	40,00 A2
M 6	x	50	S	500	41,50 A2
M 6	x	50	K	100	46,50 A2
M 6	x	55	S	500	50,00 A2
M 6	x	55	K	100	55,00 A2
M 6	x	60	S	500	55,00 A2
M 6	x	60	K	100	59,00 A2
M 6	x	65	S	500	88,00 A2
M 6	x	65	K	100	93,00 A2
M 6	x	70	S	500	71,00 A2
M 6	x	70	K	100	76,00 A2
M 6	x	75	S	100	122,00 A2
M 6	x	80	S	100	97,00 A2
M 6	x	85	S	100	640,00 A2
M 6	x	90	S	100	165,00 A2
M 6	x	95	S	100	700,00 A2
M 6	x	100	S	100	184,00 A2
M 6	x	110	S	100	203,00 A2
M 6	x	120	S	100	241,00 A2
M 6	x	130	S	50	265,00 A2
M 6	x	140	S	50	300,00 A2
M 6	x	150	S	50	340,00 A2
M 8	x	8*	S	100	194,00 A2
M 8	x	10	S	100	45,50 A2
M 8	x	12	S	200	42,50 A2
M 8	x	14	S	200	52,00 A2
M 8	x	16	S	200	37,00 A2
M 8	x	16	K	100	41,00 A2
M 8	x	18	S	200	42,50 A2
M 8	x	20	S	200	31,50 A2

Dimensions	PU	Pieces	€/100/Mat.
M 8 x 20	K	100	35,50 A2
M 8 x 22	S	200	38,00 A2
M 8 x 25	S	200	29,50 A2
M 8 x 25	K	100	33,50 A2
M 8 x 30	S	200	33,00 A2
M 8 x 30	K	100	37,00 A2
M 8 x 35	S	200	36,00 A2
M 8 x 35	K	100	40,00 A2
M 8 x 40	S	200	39,50 A2
M 8 x 40	K	100	43,50 A2
M 8 x 45	S	200	44,50 A2
M 8 x 50	S	200	48,50 A2
M 8 x 55	S	200	66,00 A2
M 8 x 60	S	200	68,00 A2
M 8 x 65	S	200	137,00 A2
M 8 x 70	S	200	104,00 A2
M 8 x 75	S	200	203,00 A2
M 8 x 80	S	200	135,00 A2
M 8 x 85	S	100	260,00 A2
M 8 x 90	S	200	148,00 A2
M 8 x 100	S	200	166,00 A2
M 8 x 110	S	50	222,00 A2
M 8 x 120	S	50	265,00 A2
M 8 x 130	S	50	290,00 A2
M 8 x 140	S	50	320,00 A2
M 8 x 150	S	50	350,00 A2
M 8 x 160*	S	50	920,00 A2
M 8 x 170*	S	50	1210,00 A2
M 8 x 180*	S	50	1700,00 A2
M 10 x 12	S	100	124,00 A2
M 10 x 16	S	100	70,00 A2
M 10 x 18	S	100	84,00 A2
M 10 x 20	S	100	55,00 A2
M 10 x 25	S	100	50,00 A2
M 10 x 30	S	100	53,00 A2
M 10 x 35	S	100	55,00 A2
M 10 x 40	S	100	59,00 A2
M 10 x 45	S	100	71,00 A2
M 10 x 50	S	100	75,00 A2
M 10 x 55	S	100	98,00 A2
M 10 x 60	S	100	105,00 A2
M 10 x 65	S	100	155,00 A2
M 10 x 70	S	100	124,00 A2
M 10 x 75	S	100	228,00 A2
M 10 x 80	S	100	152,00 A2
M 10 x 90	S	100	173,00 A2
M 10 x 100	S	100	211,00 A2
M 10 x 110	S	50	290,00 A2
M 10 x 120	S	50	320,00 A2
M 10 x 130	S	50	390,00 A2
M 10 x 140	S	50	465,00 A2
M 10 x 150	S	50	530,00 A2
M 10 x 160*	S	50	1550,00 A2
M 10 x 170*	S	50	1750,00 A2
M 10 x 180*	S	50	2230,00 A2
M 12 x 16	S	100	177,00 A2
M 12 x 20	S	100	88,00 A2
M 12 x 25	S	100	83,00 A2
M 12 x 30	S	100	77,00 A2
M 12 x 35	S	100	82,00 A2
M 12 x 40	S	100	88,00 A2
M 12 x 45	S	100	98,00 A2
M 12 x 50	S	100	106,00 A2
M 12 x 55	S	100	139,00 A2
M 12 x 60	S	100	144,00 A2
M 12 x 65	S	100	228,00 A2
M 12 x 70	S	100	182,00 A2
M 12 x 75	S	100	350,00 A2
M 12 x 80	S	100	190,00 A2
M 12 x 85	S	100	600,00 A2
M 12 x 90	S	100	237,00 A2
M 12 x 100	S	100	275,00 A2
M 12 x 110	S	10	405,00 A2
M 12 x 120	S	10	445,00 A2
M 12 x 130	S	10	530,00 A2

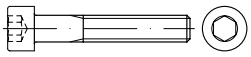
Dimensions	PU	Pieces	€/100/Mat.
M 12 x 140	S	1	630,00 A2
M 12 x 150	S	1	710,00 A2
M 12 x 160	S	1	2040,00 A2
M 12 x 170*	S	1	2230,00 A2
M 12 x 180*	S	1	2750,00 A2
M 14 x 20	S	50	880,00 A2
M 14 x 25	S	50	620,00 A2
M 14 x 30	S	50	460,00 A2
M 14 x 35	S	50	460,00 A2
M 14 x 40	S	50	460,00 A2
M 14 x 45	S	50	485,00 A2
M 14 x 50	S	50	530,00 A2
M 14 x 55	S	50	620,00 A2
M 14 x 60	S	50	640,00 A2
M 14 x 65	S	50	900,00 A2
M 14 x 70	S	50	900,00 A2
M 14 x 80	S	50	920,00 A2
M 14 x 90	S	1	1040,00 A2
M 14 x 100	S	1	1220,00 A2
M 14 x 110	S	1	1930,00 A2
M 14 x 120	S	1	2180,00 A2
M 14 x 130	S	1	2550,00 A2
M 14 x 140	S	1	2900,00 A2
M 14 x 150	S	1	3250,00 A2
M 16 x 20	S	50	560,00 A2
M 16 x 25	S	25	345,00 A2
M 16 x 30	S	25	260,00 A2
M 16 x 35	S	25	260,00 A2
M 16 x 40	S	25	260,00 A2
M 16 x 45	S	25	270,00 A2
M 16 x 50	S	25	295,00 A2
M 16 x 55	S	25	345,00 A2
M 16 x 60	S	25	355,00 A2
M 16 x 65	S	25	500,00 A2
M 16 x 70	S	25	500,00 A2
M 16 x 75	S	25	740,00 A2
M 16 x 80	S	25	510,00 A2
M 16 x 90	S	25	580,00 A2
M 16 x 100	S	25	680,00 A2
M 16 x 110	S	25	1080,00 A2
M 16 x 120	S	25	1210,00 A2
M 16 x 130	S	25	1410,00 A2
M 16 x 140	S	1	1600,00 A2
M 16 x 150	S	1	1790,00 A2
M 16 x 160	S	1	3700,00 A2
M 16 x 170*	S	1	4000,00 A2
M 16 x 180*	S	1	4300,00 A2
M 16 x 190*	S	1	4550,00 A2
M 16 x 200*	S	1	5200,00 A2
M 20 x 30	S	10	910,00 A2
M 20 x 35	S	25	910,00 A2
M 20 x 40	S	25	590,00 A2
M 20 x 45	S	25	590,00 A2
M 20 x 50	S	25	590,00 A2
M 20 x 55	S	25	650,00 A2
M 20 x 60	S	25	670,00 A2
M 20 x 65	S	25	930,00 A2
M 20 x 70	S	25	760,00 A2
M 20 x 75	S	25	1060,00 A2
M 20 x 80	S	1	870,00 A2
M 20 x 90	S	1	1170,00 A2
M 20 x 100	S	1	1350,00 A2
M 20 x 110	S	1	2080,00 A2
M 20 x 120	S	1	2370,00 A2
M 20 x 130	S	1	3000,00 A2
M 20 x 140	S	1	3350,00 A2
M 20 x 150	S	1	3800,00 A2
M 20 x 160*	S	1	5700,00 A2
M 20 x 170*	S	1	6000,00 A2
M 20 x 180*	S	1	6500,00 A2
M 20 x 190*	S	1	7000,00 A2
M 20 x 200*	S	1	7500,00 A2
M 24 x 40	S	1	2700,00 A2
M 24 x 45	S	1	2700,00 A2
M 24 x 50	S	1	2080,00 A2

Dimensions	PU	Pieces	€/100/Mat.
M 24 x 55	S	1	3000,00 A2
M 24 x 60	S	1	2180,00 A2
M 24 x 65	S	1	3150,00 A2
M 24 x 70	S	1	2220,00 A2
M 24 x 75	S	1	3250,00 A2
M 24 x 80	S	1	2390,00 A2
M 24 x 90	S	1	2700,00 A2
M 24 x 100	S	1	2900,00 A2
M 24 x 110	S	1	3500,00 A2
M 24 x 120	S	1	3800,00 A2
M 24 x 130	S	1	4100,00 A2
M 24 x 140	S	1	4400,00 A2
M 24 x 150	S	1	4650,00 A2
M 24 x 160*	S	1	7300,00 A2
M 24 x 170*	S	1	7900,00 A2
M 24 x 180*	S	1	8400,00 A2
M 24 x 200*	S	1	9300,00 A2
M 30 x 50*	S	1	5700,00 A2
M 30 x 60*	S	1	5800,00 A2
M 30 x 70*	S	1	6100,00 A2
M 30 x 80*	S	1	6400,00 A2
M 30 x 90*	S	1	6800,00 A2
M 30 x 100*	S	1	7100,00 A2
M 30 x 110*	S	1	7500,00 A2
M 30 x 120*	S	1	7800,00 A2
M 30 x 130*	S	1	8200,00 A2
M 30 x 140*	S	1	8500,00 A2
M 30 x 150*	S	1	8900,00 A2

ISO | 04762.940 | 360

4762

A 4 (- 70)*



Hexagon socket head cap screws

Dimensions ➔ TI-12
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 286

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓

REACh SVHC free

*Prop. class for dimensions different depending on production

M 2	x	3*	S	100	116,00 A4
M 2	x	4*	S	100	65,00 A4
M 2	x	5*	S	100	65,00 A4
M 2	x	6*	S	100	65,00 A4
M 2	x	8*	S	100	65,00 A4
M 2	x	10*	S	100	68,00 A4
M 2	x	12*	S	100	71,00 A4
M 2	x	16*	S	100	81,00 A4
M 2,5	x	4*	S	100	65,00 A4
M 2,5	x	5*	S	100	65,00 A4
M 2,5	x	6*	S	100	65,00 A4
M 2,5	x	8*	S	100	65,00 A4
M 2,5	x	10*	S	100	68,00 A4
M 2,5	x	12*	S	100	71,00 A4
M 2,5	x	14*	S	100	99,00 A4
M 2,5	x	16*	S	100	81,00 A4
M 2,5	x	20*	S	100	100,00 A4
M 3	x	4*	S	100	52,00 A4
M 3	x	5*	S	100	49,50 A4
M 3	x	6*	S	100	37,50 A4
M 3	x	8*	S	100	31,50 A4
M 3	x	10*	S	100	27,00 A4
M 3	x	12*	S	100	27,00 A4
M 3	x	14*	S	100	27,00 A4
M 3	x	16*	S	100	18,30 A4

€/100 = price in € plus VAT when ordering full package unit

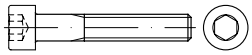
Dimensions	PU	Pieces	€/100/Mat.
M 3 x 18*	S	100	23,50 A4
M 3 x 20*	S	100	19,30 A4
M 3 x 22*	S	100	24,80 A4
M 3 x 25*	S	100	20,60 A4
M 3 x 30*	S	100	24,00 A4
M 3 x 35*	S	100	32,50 A4
M 3 x 40*	S	100	35,50 A4
M 3 x 45*	S	100	63,00 A4
M 3 x 50*	S	100	63,00 A4
M 4 x 5*	S	100	66,00 A4
M 4 x 6*	S	200	39,00 A4
M 4 x 8*	S	500	31,50 A4
M 4 x 8*	K	200	34,00 A4
M 4 x 10*	S	500	29,00 A4
M 4 x 10*	K	200	31,50 A4
M 4 x 12*	S	500	29,00 A4
M 4 x 12*	K	200	31,50 A4
M 4 x 14*	S	500	29,00 A4
M 4 x 14*	K	200	31,50 A4
M 4 x 16*	S	500	18,30 A4
M 4 x 16*	K	200	20,90 A4
M 4 x 18*	S	500	23,50 A4
M 4 x 18*	K	200	26,50 A4
M 4 x 20*	S	500	19,30 A4
M 4 x 20*	K	200	22,00 A4
M 4 x 22*	S	500	24,80 A4
M 4 x 25*	S	500	20,60 A4
M 4 x 25*	K	200	23,20 A4
M 4 x 30*	S	500	24,00 A4
M 4 x 30*	K	200	27,00 A4
M 4 x 35*	S	500	32,00 A4
M 4 x 35*	K	200	35,00 A4
M 4 x 40*	S	500	38,50 A4
M 4 x 40*	K	200	41,00 A4
M 4 x 45*	S	200	63,00 A4
M 4 x 50*	S	200	63,00 A4
M 4 x 55*	S	200	233,00 A4
M 4 x 60*	S	200	310,00 A4
M 4 x 70*	S	200	395,00 A4
M 5 x 6*	S	100	65,00 A4
M 5 x 8*	S	100	37,00 A4
M 5 x 10	S	500	29,00 A4
M 5 x 10	K	100	34,00 A4
M 5 x 12	S	500	29,00 A4
M 5 x 12	K	100	34,00 A4
M 5 x 14	S	500	29,00 A4
M 5 x 14	K	100	34,00 A4
M 5 x 16	S	500	20,10 A4
M 5 x 16	K	100	25,50 A4
M 5 x 18	S	500	28,00 A4
M 5 x 18	K	100	33,00 A4
M 5 x 20	S	500	21,90 A4
M 5 x 20	K	100	27,50 A4
M 5 x 22	S	500	29,00 A4
M 5 x 22	K	100	34,00 A4
M 5 x 25	S	500	22,30 A4
M 5 x 25	K	100	27,50 A4
M 5 x 30	S	500	27,00 A4
M 5 x 30	K	100	32,00 A4
M 5 x 35	S	500	33,50 A4
M 5 x 35	K	100	38,50 A4
M 5 x 40	S	500	36,50 A4
M 5 x 40	K	100	42,00 A4
M 5 x 45	S	100	40,00 A4
M 5 x 50	S	100	45,00 A4
M 5 x 55	S	100	63,00 A4
M 5 x 60	S	100	80,00 A4
M 5 x 70	S	100	95,00 A4
M 5 x 80	S	100	212,00 A4
M 5 x 90	S	100	580,00 A4
M 5 x 100	S	100	1020,00 A4
M 6 x 8*	S	100	37,00 A4
M 6 x 10	S	500	33,50 A4
M 6 x 10	K	100	38,50 A4
M 6 x 12	S	500	34,00 A4
M 6 x 12	K	100	39,50 A4
M 6 x 14	S	500	37,00 A4
M 6 x 14	K	100	42,50 A4
M 6 x 16	S	500	25,00 A4
M 6 x 16	K	100	30,50 A4
M 6 x 18	S	500	34,00 A4
M 6 x 18	K	100	39,00 A4
M 6 x 20	S	500	27,00 A4
M 6 x 20	K	100	32,50 A4
M 6 x 22	S	500	36,50 A4
M 6 x 22	K	100	41,50 A4
M 6 x 25	S	500	30,00 A4
M 6 x 25	K	100	35,00 A4
M 6 x 30	S	500	32,00 A4
M 6 x 30	K	100	37,00 A4
M 6 x 35	S	500	33,50 A4
M 6 x 35	K	100	39,00 A4
M 6 x 40	S	500	38,50 A4
M 6 x 40	K	100	44,00 A4
M 6 x 45	S	500	51,00 A4
M 6 x 45	K	100	56,00 A4
M 6 x 50	S	500	58,00 A4
M 6 x 50	K	100	64,00 A4
M 6 x 55	S	500	72,00 A4
M 6 x 60	S	500	75,00 A4
M 6 x 60	K	100	81,00 A4
M 6 x 65	S	500	129,00 A4
M 6 x 65	K	100	134,00 A4
M 6 x 70	S	500	87,00 A4
M 6 x 70	K	100	93,00 A4
M 6 x 75	S	100	157,00 A4
M 6 x 80	S	100	137,00 A4
M 6 x 90	S	100	280,00 A4
M 6 x 100	S	100	315,00 A4
M 6 x 110	S	100	340,00 A4
M 6 x 120	S	100	405,00 A4
M 6 x 130	S	100	460,00 A4
M 6 x 140	S	100	530,00 A4
M 6 x 150	S	100	590,00 A4
M 8 x 10	S	100	62,00 A4
M 8 x 12	S	200	58,00 A4
M 8 x 14	S	200	67,00 A4
M 8 x 16	S	200	50,00 A4
M 8 x 18	S	200	57,00 A4
M 8 x 20	S	200	39,00 A4
M 8 x 22	S	200	53,00 A4
M 8 x 25	S	200	42,00 A4
M 8 x 30	S	200	44,00 A4
M 8 x 35	S	200	48,50 A4
M 8 x 40	S	200	62,00 A4
M 8 x 45	S	200	72,00 A4
M 8 x 50	S	200	82,00 A4
M 8 x 55	S	200	93,00 A4
M 8 x 60	S	200	97,00 A4
M 8 x 65	S	200	189,00 A4
M 8 x 70	S	200	152,00 A4
M 8 x 75	S	200	290,00 A4
M 8 x 80	S	200	189,00 A4
M 8 x 90	S	200	214,00 A4
M 8 x 100	S	200	242,00 A4
M 8 x 110	S	50	390,00 A4
M 8 x 120	S	50	450,00 A4
M 8 x 130	S	50	495,00 A4
M 8 x 140	S	50	560,00 A4
M 8 x 150	S	50	630,00 A4
M 8 x 160*	S	50	1530,00 A4
M 8 x 170*	S	50	1930,00 A4
M 8 x 180*	S	50	2600,00 A4
M 10 x 10*	S	100	475,00 A4
M 10 x 12	S	100	152,00 A4
M 10 x 16	S	100	92,00 A4
M 10 x 18	S	100	120,00 A4
M 10 x 20	S	100	73,00 A4
M 10 x 25	S	100	70,00 A4
M 10 x 30	S	100	73,00 A4
M 10 x 35	S	100	79,00 A4
M 10 x 40	S	100	84,00 A4
M 10 x 45	S	100	100,00 A4
M 10 x 50	S	100	113,00 A4
M 10 x 55	S	100	133,00 A4
M 10 x 60	S	100	144,00 A4
M 10 x 65	S	100	207,00 A4
M 10 x 70	S	100	167,00 A4
M 10 x 75	S	100	295,00 A4
M 10 x 80	S	100	197,00 A4
M 10 x 90	S	100	242,00 A4
M 10 x 100	S	100	300,00 A4
M 10 x 110	S	50	520,00 A4
M 10 x 120	S	50	560,00 A4
M 10 x 130	S	1	670,00 A4
M 10 x 140	S	1	810,00 A4
M 10 x 150	S	1	890,00 A4
M 10 x 160*	S	1	2410,00 A4
M 10 x 170*	S	1	2750,00 A4
M 10 x 180*	S	1	3450,00 A4
M 12 x 16	S	100	219,00 A4
M 12 x 20	S	100	155,00 A4
M 12 x 25	S	100	148,00 A4
M 12 x 30	S	100	112,00 A4
M 12 x 35	S	100	120,00 A4
M 12 x 40	S	100	129,00 A4
M 12 x 45	S	100	146,00 A4
M 12 x 50	S	100	157,00 A4
M 12 x 55	S	100	197,00 A4
M 12 x 60	S	100	210,00 A4
M 12 x 65	S	100	280,00 A4
M 12 x 70	S	100	233,00 A4
M 12 x 75	S	100	420,00 A4
M 12 x 80	S	100	285,00 A4
M 12 x 90	S	100	330,00 A4
M 12 x 100	S	100	390,00 A4
M 12 x 110	S	10	700,00 A4
M 12 x 120	S	10	770,00 A4
M 12 x 130	S	10	920,00 A4
M 12 x 140	S	1	1080,00 A4
M 12 x 150	S	1	1240,00 A4
M 12 x 160	S	1	3050,00 A4
M 12 x 170*	S	1	3250,00 A4
M 12 x 180*	S	1	3500,00 A4
M 14 x 20	S	50	1140,00 A4
M 14 x 25	S	50	850,00 A4
M 14 x 30	S	50	750,00 A4
M 14 x 35	S	50	750,00 A4
M 14 x 40	S	50	750,00 A4
M 14 x 45	S	50	810,00 A4
M 14 x 50	S	50	860,00 A4
M 14 x 55	S	50	980,00 A4
M 14 x 60	S	50	1100,00 A4
M 14 x 65	S	50	1430,00 A4
M 14 x 70	S	1	1200,00 A4
M 14 x 80	S	1	1650,00 A4
M 14 x 90	S	1	1870,00 A4
M 14 x 100	S	1	2120,00 A4
M 14 x 110	S	1	3300,00 A4
M 14 x 120	S	1	3900,00 A4
M 14 x 130	S	1	4450,00 A4
M 14 x 140	S	1	5100,00 A4
M 14 x 150	S	1	5800,00 A4
M 16 x 20	S	50	700,00 A4
M 16 x 25	S	25	470,00 A4
M 16 x 30	S	25	415,00 A4
M 16 x 35	S	25	415,00 A4
M 16 x 40	S	25	415,00 A4
M 16 x 45	S	25	450,00 A4
M 16 x 50	S	25	475,00 A4
M 16 x 55	S	25	550,00 A4
M 16 x 60	S	25	610,00 A4
M 16 x 65	S	25	800,00 A4
M 16 x 70	S	25	670,00 A4
M 16 x 75	S	1	1290,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	80	S	25	920,00 A4
M 16	x	90	S	25	1040,00 A4
M 16	x	100	S	25	1180,00 A4
M 16	x	110	S	1	1830,00 A4
M 16	x	120	S	1	2150,00 A4
M 16	x	130	S	1	2470,00 A4
M 16	x	140	S	1	2800,00 A4
M 16	x	150	S	1	3250,00 A4
M 16	x	160	S	1	4650,00 A4
M 16	x	170*	S	1	4950,00 A4
M 16	x	180*	S	1	5300,00 A4
M 16	x	190*	S	1	5600,00 A4
M 16	x	200*	S	1	6100,00 A4
M 16	x	220*	S	1	9400,00 A4
M 16	x	240*	S	1	11100,00 A4
M 16	x	250*	S	1	12100,00 A4
M 16	x	260*	S	1	13500,00 A4
M 16	x	280*	S	1	16200,00 A4
M 16	x	300*	S	1	19500,00 A4
M 18	x	40*	S	1	1970,00 A4
M 18	x	45*	S	1	1970,00 A4
M 18	x	50*	S	1	2220,00 A4
M 18	x	55*	S	1	2400,00 A4
M 18	x	60*	S	1	2600,00 A4
M 18	x	65*	S	1	3350,00 A4
M 18	x	70*	S	1	2850,00 A4
M 18	x	75*	S	1	4350,00 A4
M 18	x	80*	S	1	3650,00 A4
M 18	x	90*	S	1	4150,00 A4
M 18	x	100*	S	1	4650,00 A4
M 18	x	110*	S	1	7200,00 A4
M 18	x	120*	S	1	8100,00 A4
M 20	x	30	S	1	1610,00 A4
M 20	x	35	S	1	1610,00 A4
M 20	x	40	S	10	1040,00 A4
M 20	x	45	S	10	1130,00 A4
M 20	x	50	S	10	1200,00 A4
M 20	x	55	S	1	1280,00 A4
M 20	x	60	S	1	1390,00 A4
M 20	x	65	S	1	2260,00 A4
M 20	x	70	S	1	1490,00 A4
M 20	x	75	S	1	2800,00 A4
M 20	x	80	S	1	1930,00 A4
M 20	x	90	S	1	2260,00 A4
M 20	x	100	S	1	2600,00 A4
M 20	x	110	S	1	3800,00 A4
M 20	x	120	S	1	4100,00 A4
M 20	x	130	S	1	5100,00 A4
M 20	x	140	S	1	5700,00 A4
M 20	x	150	S	1	6500,00 A4
M 20	x	160*	S	1	7000,00 A4
M 20	x	170*	S	1	7300,00 A4
M 20	x	180*	S	1	7700,00 A4
M 20	x	190*	S	1	8100,00 A4
M 20	x	200*	S	1	8600,00 A4
M 24	x	40	S	1	4300,00 A4
M 24	x	45	S	1	4300,00 A4
M 24	x	50	S	1	3800,00 A4
M 24	x	55	S	1	4950,00 A4
M 24	x	60	S	1	3800,00 A4
M 24	x	65	S	1	5200,00 A4
M 24	x	70	S	1	4200,00 A4
M 24	x	75	S	1	5500,00 A4
M 24	x	80	S	1	4550,00 A4
M 24	x	90	S	1	4850,00 A4
M 24	x	100	S	1	5400,00 A4
M 24	x	110	S	1	5900,00 A4
M 24	x	120	S	1	6500,00 A4
M 24	x	130	S	1	7000,00 A4
M 24	x	140	S	1	7600,00 A4
M 24	x	150	S	1	8100,00 A4
M 24	x	160*	S	1	8700,00 A4
M 24	x	180*	S	1	9600,00 A4
M 24	x	190*	S	1	10100,00 A4
M 24	x	200*	S	1	10600,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 24	x	210*	S	1	16600,00 A4
M 24	x	220*	S	1	18300,00 A4
M 24	x	230*	S	1	20600,00 A4
M 24	x	240*	S	1	23800,00 A4
M 30	x	50*	S	1	7100,00 A4
M 30	x	60*	S	1	7200,00 A4
M 30	x	70*	S	1	7800,00 A4
M 30	x	80*	S	1	8200,00 A4
M 30	x	90*	S	1	8600,00 A4
M 30	x	100*	S	1	9100,00 A4
M 30	x	110*	S	1	9500,00 A4
M 30	x	120*	S	1	9900,00 A4
M 30	x	130*	S	1	10300,00 A4
M 30	x	140*	S	1	10800,00 A4
M 30	x	150*	S	1	11200,00 A4
M 30	x	160*	S	1	14300,00 A4
M 30	x	170*	S	1	17500,00 A4
M 30	x	180*	S	1	21400,00 A4
M 30	x	200*	S	1	27500,00 A4

ISO 04762.948 361

4762 A 4 - 80



Hexagon socket head cap screws

high strength (strongly cold worked)

Dimensions ➔ TI-12
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6
Steel ➔ pg. 286

ISO 4762 ➔ replaces DIN 912 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	8	S	100	124,00 A4-80
M 6	x	10	S	100	124,00 A4-80
M 6	x	12	S	100	102,00 A4-80
M 6	x	14	S	100	126,00 A4-80
M 6	x	16	S	100	76,00 A4-80
M 6	x	20	S	100	83,00 A4-80
M 6	x	25	S	100	91,00 A4-80
M 6	x	30	S	100	98,00 A4-80
M 6	x	35	S	100	102,00 A4-80
M 6	x	40	S	100	118,00 A4-80
M 6	x	45	S	100	187,00 A4-80
M 6	x	50	S	100	175,00 A4-80
M 6	x	55	S	100	217,00 A4-80
M 6	x	60	S	100	227,00 A4-80
M 6	x	70	S	100	265,00 A4-80
M 8	x	10	S	100	208,00 A4-80
M 8	x	12	S	100	244,00 A4-80
M 8	x	16	S	100	152,00 A4-80
M 8	x	20	S	100	118,00 A4-80
M 8	x	25	S	100	126,00 A4-80
M 8	x	30	S	100	133,00 A4-80
M 8	x	35	S	100	147,00 A4-80
M 8	x	40	S	100	185,00 A4-80
M 8	x	45	S	100	217,00 A4-80
M 8	x	50	S	100	246,00 A4-80
M 8	x	55	S	100	280,00 A4-80
M 8	x	60	S	100	295,00 A4-80
M 8	x	70	S	100	460,00 A4-80
M 8	x	80	S	50	570,00 A4-80
M 8	x	90	S	50	660,00 A4-80
M 8	x	100	S	50	740,00 A4-80
M 10	x	16	S	100	275,00 A4-80

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	20	S	100	280,00 A4-80
M 10	x	25	S	100	210,00 A4-80
M 10	x	30	S	100	221,00 A4-80
M 10	x	35	S	100	240,00 A4-80
M 10	x	40	S	100	255,00 A4-80
M 10	x	45	S	100	300,00 A4-80
M 10	x	50	S	100	340,00 A4-80
M 10	x	55	S	50	405,00 A4-80
M 10	x	60	S	50	435,00 A4-80
M 10	x	70	S	50	500,00 A4-80
M 10	x	80	S	50	600,00 A4-80
M 10	x	90	S	50	740,00 A4-80
M 10	x	100	S	50	910,00 A4-80
M 12	x	20	S	100	465,00 A4-80
M 12	x	25	S	100	445,00 A4-80
M 12	x	30	S	100	340,00 A4-80
M 12	x	35	S	50	365,00 A4-80
M 12	x	40	S	50	390,00 A4-80
M 12	x	45	S	50	440,00 A4-80
M 12	x	50	S	50	470,00 A4-80
M 12	x	55	S	50	600,00 A4-80
M 12	x	60	S	50	640,00 A4-80
M 12	x	70	S	50	710,00 A4-80
M 12	x	80	S	50	870,00 A4-80
M 12	x	90	S	50	1010,00 A4-80
M 12	x	100	S	50	1180,00 A4-80
M 16	x	20	S	50	3050,00 A4-80
M 16	x	25	S	50	1430,00 A4-80
M 16	x	30	S	50	1260,00 A4-80
M 16	x	35	S	50	1260,00 A4-80
M 16	x	40	S	50	1260,00 A4-80
M 16	x	45	S	50	1370,00 A4-80
M 16	x	50	S	50	1450,00 A4-80
M 16	x	55	S	25	1660,00 A4-80
M 16	x	60	S	25	1850,00 A4-80
M 16	x	70	S	25	2020,00 A4-80
M 16	x	80	S	1	2800,00 A4-80
M 16	x	90	S	1	3150,00 A4-80
M 16	x	100	S	1	3550,00 A4-80
M 20	x	30	S	1	4850,00 A4-80
M 20	x	35	S	1	4300,00 A4-80
M 20	x	40	S	1	3150,00 A4-80
M 20	x	45	S	1	3400,00 A4-80
M 20	x	50	S	1	3650,00 A4-80
M 20	x	60	S	1	4200,00 A4-80
M 20	x	70	S	1	4500,00 A4-80
M 20	x	80	S	1	5900,00 A4-80
M 20	x	90	S	1	6900,00 A4-80
M 20	x	100	S	1	7800,00 A4-80

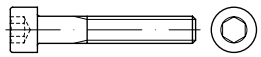
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€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
ISO	04762.941				2010
4762	**A 4 BUMAX88***				
M 3	x	6	S	500	104,00 A4-88
M 3	x	8	S	500	110,00 A4-88
M 3	x	10	S	500	126,00 A4-88
M 3	x	12	S	500	126,00 A4-88
M 3	x	16	S	500	131,00 A4-88
M 3	x	20	S	500	133,00 A4-88
M 3	x	25	S	500	139,00 A4-88
M 4	x	6	S	200	116,00 A4-88
M 4	x	8	S	200	122,00 A4-88
M 4	x	10	S	200	126,00 A4-88
M 4	x	12	S	200	131,00 A4-88
M 4	x	16	S	200	139,00 A4-88
M 4	x	20	S	200	145,00 A4-88
M 4	x	25	S	200	156,00 A4-88
M 4	x	30	S	200	191,00 A4-88
M 5	x	10	S	100	187,00 A4-88
M 5	x	12	S	100	193,00 A4-88
M 5	x	16	S	100	202,00 A4-88
M 5	x	20	S	100	210,00 A4-88
M 5	x	25	S	100	225,00 A4-88
M 5	x	30	S	100	315,00 A4-88
M 5	x	35	S	100	325,00 A4-88
M 5	x	40	S	100	340,00 A4-88
M 5	x	45	S	100	355,00 A4-88
M 5	x	50	S	100	365,00 A4-88
M 6	x	12	S	100	214,00 A4-88
M 6	x	16	S	100	225,00 A4-88
M 6	x	20	S	100	238,00 A4-88
M 6	x	25	S	100	255,00 A4-88
M 6	x	30	S	100	275,00 A4-88
M 6	x	35	S	100	365,00 A4-88
M 6	x	40	S	100	385,00 A4-88
M 6	x	45	S	100	405,00 A4-88
M 6	x	50	S	100	425,00 A4-88
M 6	x	60	S	100	460,00 A4-88
M 6	x	70	S	100	500,00 A4-88
M 8	x	16	S	50	340,00 A4-88
M 8	x	20	S	50	365,00 A4-88
M 8	x	25	S	50	395,00 A4-88
M 8	x	30	S	50	430,00 A4-88
M 8	x	35	S	50	470,00 A4-88
M 8	x	40	S	50	510,00 A4-88
M 8	x	45	S	50	550,00 A4-88
M 8	x	50	S	50	590,00 A4-88
M 8	x	60	S	50	670,00 A4-88
M 10	x	16	S	50	800,00 A4-88
M 10	x	20	S	50	720,00 A4-88
M 10	x	25	S	50	760,00 A4-88
M 10	x	30	S	50	810,00 A4-88
M 10	x	35	S	50	880,00 A4-88



Hexagon socket head cap screws

dimension from M 8 and lenght L > 3 x d
suitable for use acc. to pressure equipment directive
➔ certificate 3.1 on request

Dimensions ➔ TI-12
Tightening torque ➔ TI-250
Material properties ➔ TI-237
Standard conversion ➔ TI-6

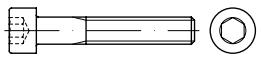
Steel ➔ pg. 286

*mechanical properties ~ property class 8.8

PED Pre-Approval | RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	40	S	50	920,00 A4-88
M 10	x	45	S	50	1260,00 A4-88
M 10	x	50	S	50	1330,00 A4-88
M 10	x	55	S	50	1430,00 A4-88
M 10	x	60	S	50	1450,00 A4-88
M 10	x	65	S	50	1490,00 A4-88
M 10	x	70	S	50	1560,00 A4-88
M 10	x	75	S	50	1730,00 A4-88
M 10	x	80	S	50	1770,00 A4-88
M 10	x	90	S	50	1890,00 A4-88
M 12	x	20	S	25	960,00 A4-88
M 12	x	25	S	25	1020,00 A4-88
M 12	x	30	S	25	1100,00 A4-88
M 12	x	35	S	25	1160,00 A4-88
M 12	x	40	S	25	1220,00 A4-88
M 12	x	45	S	25	1310,00 A4-88
M 12	x	50	S	25	1390,00 A4-88
M 12	x	60	S	25	1640,00 A4-88
M 12	x	70	S	25	1790,00 A4-88
M 12	x	80	S	25	2060,00 A4-88
M 12	x	90	S	25	2290,00 A4-88
M 12	x	100	S	25	2480,00 A4-88
M 12	x	120	S	25	2850,00 A4-88
M 16	x	35	S	25	2020,00 A4-88
M 16	x	40	S	25	2120,00 A4-88
M 16	x	45	S	25	2290,00 A4-88
M 16	x	50	S	25	2420,00 A4-88
M 16	x	55	S	25	2650,00 A4-88
M 16	x	60	S	25	2800,00 A4-88
M 16	x	80	S	25	3700,00 A4-88
M 16	x	90	S	25	4100,00 A4-88
M 16	x	100	S	25	4350,00 A4-88
M 20	x	40	S	10	5100,00 A4-88
M 20	x	45	S	10	5400,00 A4-88
M 20	x	50	S	10	5600,00 A4-88
M 20	x	60	S	10	6000,00 A4-88
M 20	x	70	S	10	6400,00 A4-88
M 20	x	80	S	10	7100,00 A4-88
M 20	x	90	S	10	7600,00 A4-88
M 20	x	100	S	10	8000,00 A4-88
M 24	x	50	S	10	8200,00 A4-88
M 24	x	60	S	10	8900,00 A4-88
M 24	x	70	S	10	9500,00 A4-88
M 24	x	80	S	10	9700,00 A4-88
M 24	x	90	S	10	11000,00 A4-88
M 24	x	100	S	10	11400,00 A4-88

ISO	04762.942				2010
4762	**A 4 BUMAX109***				
M 4	x	12	S	200	1560,00 A4-109
M 4	x	20	S	200	223,00 A4-109
M 6	x	20	S	100	390,00 A4-109
M 6	x	30	S	100	435,00 A4-109
M 6	x	40	S	100	570,00 A4-109
M 6	x	50	S	100	610,00 A4-109



Hexagon socket head cap screws

Dimensions ➔ TI-12
Tightening torque ➔ TI-250
Material properties ➔ TI-237
Standard conversion ➔ TI-6

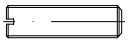
Steel ➔ pg. 286

*mechanical properties ~ property class 10.9

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	60	S	100	670,00 A4-109
M 8	x	20	S	50	510,00 A4-109
M 8	x	30	S	50	580,00 A4-109
M 8	x	40	S	50	660,00 A4-109
M 8	x	50	S	50	740,00 A4-109
M 8	x	60	S	50	740,00 A4-109
M 8	x	70	S	50	900,00 A4-109
M 8	x	80	S	50	1330,00 A4-109
M 8	x	90	S	50	2040,00 A4-109
M 10	x	20	S	50	910,00 A4-109
M 10	x	30	S	50	1040,00 A4-109
M 10	x	40	S	50	1120,00 A4-109
M 10	x	50	S	50	1660,00 A4-109
M 10	x	60	S	50	1830,00 A4-109
M 10	x	70	S	50	1790,00 A4-109
M 10	x	80	S	50	2120,00 A4-109
M 12	x	30	S	25	1490,00 A4-109
M 12	x	40	S	25	1640,00 A4-109
M 12	x	50	S	25	1810,00 A4-109
M 12	x	60	S	25	2080,00 A4-109
M 12	x	70	S	25	2230,00 A4-109
M 12	x	80	S	25	2480,00 A4-109
M 12	x	90	S	25	2750,00 A4-109
M 12	x	100	S	25	2950,00 A4-109
M 12	x	120	S	25	3350,00 A4-109
M 16	x	40	S	25	2750,00 A4-109
M 16	x	50	S	25	2950,00 A4-109
M 16	x	60	S	25	3200,00 A4-109
M 16	x	80	S	25	4200,00 A4-109
M 16	x	90	S	25	4650,00 A4-109
M 16	x	100	S	25	4850,00 A4-109

ISO	04766.910				230
4766	**A 1**				
M 3	x	3	S	50	28,50 A1
M 3	x	4	S	50	29,00 A1
M 3	x	5	S	50	30,50 A1
M 3	x	6	S	50	32,50 A1
M 3	x	8	S	50	34,50 A1
M 3	x	10	S	50	36,00 A1
M 4	x	4	S	50	31,50 A1
M 4	x	5	S	50	31,50 A1
M 4	x	6	S	50	33,00 A1
M 4	x	8	S	50	35,50 A1
M 4	x	10	S	50	37,00 A1
M 4	x	12	S	50	39,00 A1
M 4	x	16	S	50	41,50 A1
M 5	x	5	S	50	34,50 A1
M 5	x	6	S	50	36,00 A1
M 5	x	8	S	50	38,50 A1
M 5	x	10	S	50	40,50 A1
M 5	x	12	S	50	43,00 A1
M 5	x	16	S	50	47,50 A1
M 5	x	20	S	25	62,00 A1



Slotted grub screws with flat point

Dimensions ➔ TI-19
Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 305
Brass, Plastic ➔ pg. 638

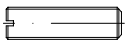
ISO 4766 ➔ replaces DIN 551 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	25	S	25	72,00 A1
M 6	x	6	S	25	43,50 A1
M 6	x	8	S	25	45,50 A1
M 6	x	10	S	25	48,50 A1
M 6	x	12	S	25	53,00 A1
M 6	x	16	S	25	55,00 A1
M 6	x	20	S	25	63,00 A1
M 6	x	25	S	25	72,00 A1
M 6	x	30	S	25	85,00 A1
M 6	x	40	S	25	97,00 A1
M 8	x	8	S	50	57,00 A1
M 8	x	10	S	25	70,00 A1
M 8	x	12	S	25	76,00 A1
M 8	x	16	S	25	85,00 A1
M 8	x	20	S	25	101,00 A1
M 8	x	25	S	25	120,00 A1
M 8	x	30	S	25	131,00 A1
M 8	x	35	S	25	139,00 A1
M 8	x	40	S	25	150,00 A1
M 10	x	10	S	10	122,00 A1
M 10	x	12	S	10	122,00 A1
M 10	x	16	S	10	129,00 A1
M 10	x	20	S	10	159,00 A1
M 10	x	25	S	10	180,00 A1
M 10	x	30	S	10	192,00 A1
M 10	x	35	S	10	205,00 A1
M 10	x	40	S	10	216,00 A1

ISO | 04766.940 | 230

4766 A 4



Slotted grub screws with flat point

Dimensions ➔ TI-19
Material properties ➔ TI-236

Standard conversion ➔ TI-6

Steel ➔ pg. 305
Brass, Plastic ➔ pg. 638

ISO 4766 ➔ replaces DIN 551 (compatible)

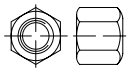
RoHS ✓ | REACh SVHC free

M 3	x	4	S	50	124,00 A4
M 3	x	6	S	50	141,00 A4
M 3	x	8	S	50	147,00 A4
M 3	x	10	S	50	156,00 A4
M 4	x	5	S	50	88,00 A4
M 4	x	6	S	50	92,00 A4
M 4	x	10	S	50	103,00 A4
M 4	x	16	S	50	116,00 A4
M 4	x	20	S	50	135,00 A4
M 4	x	25	S	50	162,00 A4
M 4	x	30	S	50	185,00 A4
M 5	x	5	S	50	350,00 A4
M 5	x	6	S	50	100,00 A4
M 5	x	8	S	50	107,00 A4
M 5	x	10	S	50	114,00 A4
M 5	x	12	S	25	131,00 A4
M 5	x	16	S	25	141,00 A4
M 5	x	20	S	25	168,00 A4
M 6	x	5	S	25	110,00 A4
M 6	x	6	S	25	118,00 A4
M 6	x	8	S	25	122,00 A4
M 6	x	10	S	25	131,00 A4
M 6	x	12	S	25	141,00 A4
M 6	x	16	S	25	149,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	20	S	25	172,00 A4
M 6	x	25	S	25	200,00 A4
M 6	x	30	S	25	233,00 A4
M 8	x	6	S	25	168,00 A4
M 8	x	8	S	25	168,00 A4
M 8	x	10	S	25	191,00 A4
M 8	x	12	S	25	210,00 A4
M 8	x	16	S	25	233,00 A4
M 8	x	20	S	25	280,00 A4
M 8	x	30	S	25	365,00 A4
M 8	x	40	S	25	420,00 A4

DIN | 06330.942 | 570

6330 A 4 type B



Hexagon nuts with a height of 1,5 d, B = with one spherical bearing face

Dimensions ➔ TI-64
Material properties ➔ TI-236

Steel ➔ pg. 309

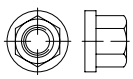
RoHS ✓ | REACh SVHC free

thread - wrench size

BM 6	s = 10	S	25	315,00 A4
BM 8	s = 13	S	25	390,00 A4
BM 10	s = 17	S	25	560,00 A4
BM 12	s = 19	S	25	720,00 A4
BM 16	s = 24	S	10	1280,00 A4
BM 20	s = 30	S	10	2140,00 A4
BM 24	s = 36	S	10	3700,00 A4

DIN | 06331.940 | 570

6331 A 4



Hexagon nuts with collar with a height of 1,5 d

Dimensions ➔ TI-64
Material properties ➔ TI-236

Steel ➔ pg. 309

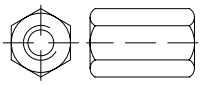
RoHS ✓ | REACh SVHC free

thread - wrench size

M 8	s = 13	S	10	700,00 A4
M 10	s = 16	S	10	980,00 A4
M 12	s = 18	S	10	1280,00 A4
M 16	s = 24	S	10	2250,00 A4
M 20	s = 30	S	10	3950,00 A4
M 24	s = 36	S	10	7200,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	06334.940		570

6334 A 4



Hexagon nuts with a height of 3 d

Dimensions ➔ TI-64
Material properties ➔ TI-236

Steel ➔ pg. 310

round and hexagon couplings ➔ article 88088/88087

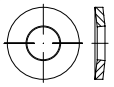
RoHS ✓ | REACh SVHC free

internal thread - wrench size

M 6	s = 10	S	10	1520,00 A4
M 8	s = 13	S	10	1520,00 A4
M 10	s = 17	S	10	2650,00 A4
M 12	s = 19	S	10	3700,00 A4
M 16	s = 24	S	10	6100,00 A4
M 20	s = 30	S	10	8900,00 A4
M 24	s = 36	S	10	12800,00 A4

~DIN | 06796.(*) | 580

6796 1.4310/A 2*



Conical spring washers for screwed fastenings

*≤ ∅ 8 = 1.4310 = (960), > ∅ 8 = A 2 = (920)

Caution! Reduced spring load.

Material properties ➔ TI-236

Spring steel ➔ pg. 311

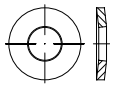
RoHS ✓ | REACh SVHC free

nominal ∅ x outside ∅ x thickness

4	x	9	x	1	S	1000	29,50
5	x	11	x	1,2	S	1000	34,00
6	x	14	x	1,5	S	1000	64,00
8	x	18	x	2	S	500	77,00
10	x	23	x	2,5	S	500	88,00
12	x	29	x	3	S	250	100,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	06796.940	580

6796 A 4



Conical spring washers for screwed fastenings

Caution! Reduced spring load.

Material properties ➔ TI-236

Spring steel ➔ pg. 311

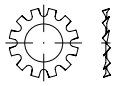
RoHS ✓ | REACh SVHC free

nominal ∅ x outside ∅ x thickness

5	x	11	x 1,2	S	100	70,00 A4
6	x	14	x 1,5	S	100	270,00 A4
8	x	18	x 2	S	100	295,00 A4
10	x	23	x 2,5	S	100	465,00 A4
12	x	29	x 3	S	100	770,00 A4
16	x	39	x 4	S	50	2250,00 A4
20	x	45	x 5	S	25	4100,00 A4

Dimensions	PU Pieces	€/100/Mat.
~DIN	06797.961	580

6797 1.4310 type A



Toothed lock washers, A = external teeth

Caution! Reduced spring load.

Dimensions ➔ TI-99 Material properties ➔ TI-236

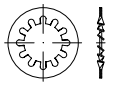
Spring steel ➔ pg. 311

RoHS ✓ | REACh SVHC free

A 3,2	S	2000	3,80
A 3,2	K	100	8,30
A 4,3	S	1000	4,55
A 4,3	K	100	9,00
A 5,3	S	1000	6,00
A 5,3	K	100	10,60
A 6,4	S	1000	7,10
A 6,4	K	100	11,60
A 8,4	S	1000	12,90
A 8,4	K	100	17,30
A 10,5	S	1000	19,50
A 10,5	K	100	24,10
A 13	S	100	22,60
A 17	S	50	49,50

Dimensions	PU Pieces	€/100/Mat.
~DIN	06797.964	580

6797 1.4310 type I



Toothed lock washers, I = internal teeth

Caution! Reduced spring load.

Dimensions ➔ TI-99 Material properties ➔ TI-236

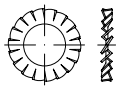
Spring steel ➔ 312

RoHS ✓ | REACh SVHC free

I 3,2	S	2000	3,90
I 4,3	S	1000	4,65
I 5,3	S	1000	6,30
I 6,4	S	1000	7,40
I 8,4	S	1000	13,30
I 10,5	S	1000	27,50
I 12,5	S	500	40,50

Dimensions	PU Pieces	€/100/Mat.
~DIN	06798.961	580

6798 1.4310 type A



Serrated lock washers, A = external teeth

Caution! Reduced spring load.

Dimensions ➔ TI-99 Material properties ➔ TI-236

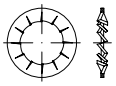
Spring steel ➔ pg. 313
Bronze ➔ pg. 639

RoHS ✓ | REACh SVHC free

A 2,2	K	1000	5,30
A 3,2	S	2000	4,20
A 3,2	K	100	7,90
A 4,3	S	1000	4,95
A 4,3	K	100	8,80
A 5,3	S	1000	7,40
A 5,3	K	100	11,00
A 6,4	S	1000	8,40
A 6,4	K	100	12,20
A 8,4	S	1000	14,20
A 8,4	K	100	17,80
A 10,5	S	1000	20,50
A 10,5	K	100	24,10
A 13	S	100	25,50
A 17	S	50	64,00
A 21	S	50	87,00
A 25	S	50	112,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	06798.964	580

6798 1.4310 type I



Serrated lock washers, I = internal teeth

Caution! Reduced spring load.

Dimensions ➔ TI-99 Material properties ➔ TI-236

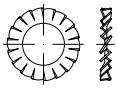
Spring steel ➔ pg. 313

RoHS ✓ | REACh SVHC free

I 3,2	S	2000	5,20
I 4,3	S	1000	6,20
I 5,3	S	1000	9,00
I 6,4	S	1000	10,50
I 8,4	S	1000	17,50

Dimensions	PU Pieces	€/100/Mat.
~DIN	06798.944	580

6798 A 4 unmagnetic* type A



Serrated lock washers, A = external teeth

*permeability μ ≤ 1,1 H/m

Caution! Reduced spring load.

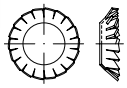
Dimensions ➔ TI-99 Material properties ➔ TI-236

Spring steel ➔ pg. 313
Bronze ➔ pg. 639

RoHS ✓ | REACh SVHC free

A 3,2	S	2000	18,50 A4
A 4,3	S	1000	20,40 A4
A 5,3	S	1000	27,50 A4
A 6,4	S	1000	31,00 A4
A 8,4	S	1000	52,00 A4
A 10,5	S	1000	81,00 A4
A 13	S	100	89,00 A4
A 17	S	50	98,00 A4

Dimensions	PU	Pieces	€/100/Mat.
~DIN	06798.965		580
6798	**1.4310**		**type V**



Serrated lock washers, V = countersunk

Caution! Reduced spring load.

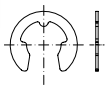
Dimensions ➔ TI-99 Material properties ➔ TI-236

Spring steel ➔ pg. 314

RoHS ✓ REACh SVHC free

V 3,2	S	1000		9,90
V 4,3	S	1000		11,20
V 5,3	S	1000		16,30
V 6,4	S	1000		23,50
V 8,4	S	1000		38,00
V 10,5	S	1000		49,50
V 13	S	100		72,00

~DIN	06799.300	580
6799	**1.4122**	



Retaining rings for shafts

Caution! Reduced spring load.

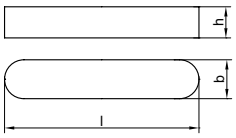
Dimensions ➔ TI-100 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

nominal size = slot ∅

1,5	S	250		15,80
1,9	S	250		15,40
2,3	S	250		18,00
3,2	S	250		20,50
4	S	250		24,70
5	S	250		32,00
6	S	100		36,50
7	S	100		56,00
8	S	100		71,00
9	S	100		97,00
10	S	100		125,00
12	S	100		178,00
15	S	100		415,00
19	S	50		465,00

Dimensions	PU	Pieces	€/100/Mat.
DIN	06885.941		590
6885	**A 4**		**type A**



Parallel keys, deep pattern, A = round-ended (without holes)

Dimensions ➔ TI-138 Material properties ➔ TI-236

Steel ➔ pg. 315

RoHS ✓ REACh SVHC free

width b x height h x length l

A 3	x	3	x	10	S	100	76,00	A4
A 3	x	3	x	12	S	100	77,00	A4
A 3	x	3	x	16	S	100	77,00	A4
A 3	x	3	x	20	S	100	81,00	A4
A 4	x	4	x	10	S	100	86,00	A4
A 4	x	4	x	12	S	100	90,00	A4
A 4	x	4	x	14	S	100	91,00	A4
A 4	x	4	x	16	S	100	91,00	A4
A 4	x	4	x	18	S	100	98,00	A4
A 4	x	4	x	20	S	100	98,00	A4
A 4	x	4	x	22	S	100	105,00	A4
A 5	x	5	x	10	S	100	76,00	A4
A 5	x	5	x	12	S	100	76,00	A4
A 5	x	5	x	14	S	50	77,00	A4
A 5	x	5	x	16	S	50	79,00	A4
A 5	x	5	x	18	S	50	82,00	A4
A 5	x	5	x	20	S	50	84,00	A4
A 5	x	5	x	22	S	50	88,00	A4
A 5	x	5	x	25	S	50	92,00	A4
A 5	x	5	x	28	S	50	102,00	A4
A 5	x	5	x	30	S	50	102,00	A4
A 5	x	5	x	32	S	50	139,00	A4
A 5	x	5	x	36	S	50	148,00	A4
A 5	x	5	x	40	S	50	156,00	A4
A 5	x	5	x	45	S	50	166,00	A4
A 5	x	5	x	50	S	50	175,00	A4
A 6	x	6	x	12	S	25	97,00	A4
A 6	x	6	x	14	S	50	97,00	A4
A 6	x	6	x	16	S	25	97,00	A4
A 6	x	6	x	18	S	25	101,00	A4
A 6	x	6	x	20	S	25	104,00	A4
A 6	x	6	x	22	S	25	110,00	A4
A 6	x	6	x	25	S	25	116,00	A4
A 6	x	6	x	28	S	25	122,00	A4
A 6	x	6	x	30	S	25	131,00	A4
A 6	x	6	x	32	S	25	131,00	A4
A 6	x	6	x	36	S	25	139,00	A4
A 6	x	6	x	40	S	25	147,00	A4
A 6	x	6	x	50	S	25	172,00	A4
A 6	x	6	x	56	S	25	179,00	A4
A 6	x	6	x	60	S	25	200,00	A4
A 6	x	6	x	63	S	25	227,00	A4
A 6	x	6	x	70	S	25	231,00	A4
A 6	x	6	x	80	S	25	265,00	A4
A 8	x	7	x	16	S	10	152,00	A4
A 8	x	7	x	18	S	10	152,00	A4
A 8	x	7	x	20	S	10	152,00	A4
A 8	x	7	x	22	S	10	166,00	A4
A 8	x	7	x	25	S	10	166,00	A4
A 8	x	7	x	28	S	10	177,00	A4
A 8	x	7	x	30	S	10	189,00	A4
A 8	x	7	x	32	S	10	189,00	A4
A 8	x	7	x	36	S	10	202,00	A4
A 8	x	7	x	40	S	10	217,00	A4
A 8	x	5	x	40	S	10	217,00	A4
A 8	x	7	x	45	S	10	320,00	A4
A 8	x	5	x	45	S	10	320,00	A4
A 8	x	7	x	50	S	10	340,00	A4
A 8	x	7	x	56	S	10	380,00	A4
A 8	x	7	x	60	S	10	400,00	A4
A 8	x	7	x	63	S	10	420,00	A4
A 8	x	7	x	70	S	10	435,00	A4
A 8	x	7	x	80	S	10	475,00	A4
A 8	x	7	x	90	S	10	510,00	A4
A 8	x	7	x	100	S	10	600,00	A4
A 10	x	8	x	20	S	10	214,00	A4
A 10	x	8	x	22	S	10	219,00	A4
A 10	x	8	x	25	S	10	219,00	A4
A 10	x	8	x	28	S	10	233,00	A4
A 10	x	8	x	30	S	10	255,00	A4
A 10	x	8	x	32	S	10	255,00	A4
A 10	x	8	x	36	S	10	275,00	A4
A 10	x	8	x	40	S	10	295,00	A4
A 10	x	8	x	45	S	10	320,00	A4
A 10	x	8	x	50	S	10	340,00	A4
A 10	x	8	x	56	S	10	370,00	A4
A 10	x	8	x	60	S	10	405,00	A4
A 10	x	8	x	63	S	10	560,00	A4
A 10	x	8	x	70	S	10	610,00	A4
A 10	x	8	x	80	S	10	690,00	A4
A 10	x	8	x	90	S	10	780,00	A4
A 10	x	8	x	100	S	10	830,00	A4
A 10	x	8	x	110	S	10	910,00	A4
A 10	x	8	x	120	S	10	970,00	A4
A 12	x	8	x	28	S	10	295,00	A4
A 12	x	8	x	30	S	10	295,00	A4
A 12	x	8	x	32	S	10	295,00	A4
A 12	x	8	x	36	S	10	315,00	A4
A 12	x	8	x	40	S	10	340,00	A4
A 12	x	8	x	45	S	10	370,00	A4
A 12	x	8	x	50	S	10	400,00	A4
A 12	x	8	x	56	S	10	435,00	A4
A 12	x	8	x	60	S	10	480,00	A4
A 12	x	8	x	63	S	10	480,00	A4
A 12	x	8	x	70	S	10	530,00	A4
A 12	x	8	x	80	S	10	600,00	A4
A 12	x	8	x	90	S	10	660,00	A4
A 12	x	8	x	100	S	10	740,00	A4
A 14	x	9	x	32	S	10	495,00	A4
A 14	x	9	x	40	S	10	520,00	A4
A 14	x	9	x	45	S	10	550,00	A4
A 14	x	9	x	50	S	10	550,00	A4
A 14	x	9	x	56	S	5	570,00	A4
A 14	x	9	x	60	S	5	620,00	A4
A 14	x	9	x	63	S	5	660,00	A4
A 14	x	9	x	70	S	5	690,00	A4
A 14	x	9	x	80	S	5	780,00	A4
A 14	x	9	x	100	S	5	960,00	A4
A 14	x	9	x	125	S	5	1180,00	A4
A 16	x	10	x	30	S	5	1340,00	A4
A 16	x	10	x	40	S	5	1340,00	A4
A 16	x	10	x	50	S	5	1340,00	A4
A 16	x	10	x	63	S	5	1610,00	A4
A 16	x	10	x	70	S	5	1690,00	A4
A 16	x	10	x	80	S	5	1900,00	A4
A 16	x	10	x	90	S	5	2060,00	A4
A 16	x	10	x	100	S	5	2060,00	A4

Dimensions	PU Pieces	€/100/Mat.
DIN	06912.920	600

6912 A 2



Hexagon socket head cap screws, low head, with centre

length ≤ 100 mm sometimes thread up to head

Dimensions ➔ TI-12 Tightening torque ➔ TI-246, 249
Material properties ➔ TI-236

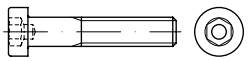
Steel ➔ pg. 317

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6	S	200	92,00 A 2
M 4	x	8	S	200	78,00 A 2
M 4	x	10	S	200	65,00 A 2
M 4	x	12	S	200	77,00 A 2
M 4	x	16	S	200	55,00 A 2
M 4	x	20	S	200	58,00 A 2
M 4	x	25	S	200	60,00 A 2
M 4	x	30	S	200	70,00 A 2
M 4	x	35	S	200	74,00 A 2
M 4	x	40	S	200	79,00 A 2
M 5	x	6	S	100	108,00 A 2
M 5	x	8	S	100	93,00 A 2
M 5	x	10	S	100	89,00 A 2
M 5	x	12	S	100	77,00 A 2
M 5	x	14	S	100	77,00 A 2
M 5	x	16	S	100	60,00 A 2
M 5	x	20	S	100	64,00 A 2
M 5	x	25	S	100	68,00 A 2
M 5	x	30	S	100	80,00 A 2
M 5	x	35	S	100	92,00 A 2
M 5	x	40	S	100	96,00 A 2
M 5	x	45	S	100	106,00 A 2
M 5	x	50	S	100	117,00 A 2
M 6	x	8	S	100	99,00 A 2
M 6	x	10	S	100	86,00 A 2
M 6	x	12	S	100	95,00 A 2
M 6	x	14	S	100	95,00 A 2
M 6	x	16	S	100	76,00 A 2
M 6	x	20	S	100	82,00 A 2
M 6	x	25	S	100	86,00 A 2
M 6	x	30	S	100	93,00 A 2
M 6	x	35	S	100	106,00 A 2
M 6	x	40	S	100	99,00 A 2
M 6	x	45	S	100	106,00 A 2
M 6	x	50	S	100	106,00 A 2
M 6	x	55	S	100	131,00 A 2
M 6	x	60	S	100	145,00 A 2
M 6	x	70	S	100	194,00 A 2
M 6	x	80	S	100	260,00 A 2
M 8	x	10	S	100	157,00 A 2
M 8	x	12	S	100	170,00 A 2
M 8	x	14	S	100	161,00 A 2
M 8	x	16	S	100	152,00 A 2
M 8	x	20	S	100	131,00 A 2
M 8	x	25	S	100	124,00 A 2
M 8	x	30	S	100	131,00 A 2
M 8	x	35	S	100	148,00 A 2
M 8	x	40	S	100	161,00 A 2
M 8	x	45	S	100	194,00 A 2
M 8	x	50	S	100	212,00 A 2
M 8	x	55	S	100	235,00 A 2
M 8	x	60	S	100	255,00 A 2
M 8	x	65	S	100	325,00 A 2
M 8	x	70	S	50	325,00 A 2
M 8	x	80	S	50	390,00 A 2
M 8	x	90	S	50	430,00 A 2
M 8	x	100	S	50	490,00 A 2
M 10	x	16	S	100	295,00 A 2
M 10	x	20	S	100	270,00 A 2
M 10	x	25	S	100	255,00 A 2
M 10	x	30	S	100	275,00 A 2
M 10	x	35	S	100	290,00 A 2
M 10	x	40	S	100	310,00 A 2
M 10	x	45	S	100	340,00 A 2
M 10	x	50	S	100	385,00 A 2
M 10	x	55	S	50	425,00 A 2
M 10	x	60	S	50	440,00 A 2
M 10	x	70	S	50	510,00 A 2
M 10	x	80	S	50	570,00 A 2
M 10	x	90	S	50	710,00 A 2
M 10	x	100	S	50	830,00 A 2
M 12	x	20	S	50	415,00 A 2
M 12	x	25	S	50	385,00 A 2
M 12	x	30	S	50	390,00 A 2
M 12	x	35	S	50	415,00 A 2
M 12	x	40	S	50	455,00 A 2
M 12	x	45	S	50	495,00 A 2
M 12	x	50	S	50	550,00 A 2
M 12	x	55	S	50	590,00 A 2
M 12	x	60	S	50	610,00 A 2
M 12	x	70	S	50	700,00 A 2
M 12	x	80	S	25	790,00 A 2
M 12	x	90	S	25	980,00 A 2
M 12	x	100	S	25	1130,00 A 2
M 16	x	25	S	1	1580,00 A 2
M 16	x	30	S	1	1230,00 A 2
M 16	x	35	S	1	1250,00 A 2
M 16	x	40	S	1	1290,00 A 2
M 16	x	45	S	1	1350,00 A 2
M 16	x	50	S	1	1400,00 A 2
M 16	x	55	S	1	1520,00 A 2
M 16	x	60	S	1	1560,00 A 2
M 16	x	70	S	1	1690,00 A 2
M 16	x	80	S	1	1830,00 A 2
M 16	x	90	S	1	2040,00 A 2
M 16	x	100	S	1	2330,00 A 2
M 20	x	35	S	1	2430,00 A 2
M 20	x	40	S	1	2600,00 A 2
M 20	x	45	S	1	2650,00 A 2
M 20	x	50	S	1	2700,00 A 2
M 20	x	60	S	1	3000,00 A 2
M 20	x	70	S	1	3200,00 A 2
M 20	x	80	S	1	4000,00 A 2
M 20	x	90	S	1	4550,00 A 2
M 20	x	100	S	1	5400,00 A 2

Dimensions	PU Pieces	€/100/Mat.
DIN	06912.940	600

6912 A 4



Hexagon socket head cap screws, low head, with centre

length ≤ 100 mm sometimes thread up to head

Dimensions ➔ TI-12 Tightening torque ➔ TI-246, 249
Material properties ➔ TI-236

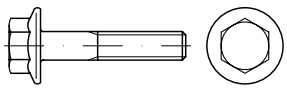
Steel ➔ pg. 317

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	6	S	100	123,00 A 4
M 4	x	8	S	100	103,00 A 4
M 4	x	10	S	200	91,00 A 4
M 4	x	12	S	200	86,00 A 4
M 4	x	16	S	200	62,00 A 4
M 4	x	20	S	200	66,00 A 4
M 4	x	25	S	200	70,00 A 4
M 4	x	30	S	200	79,00 A 4
M 4	x	35	S	200	93,00 A 4
M 4	x	40	S	200	100,00 A 4
M 5	x	6	S	100	130,00 A 4
M 5	x	8	S	100	111,00 A 4
M 5	x	10	S	100	133,00 A 4
M 5	x	12	S	100	116,00 A 4
M 5	x	16	S	100	84,00 A 4
M 5	x	18	S	100	89,00 A 4
M 5	x	20	S	100	91,00 A 4
M 5	x	25	S	100	95,00 A 4
M 5	x	30	S	100	111,00 A 4
M 5	x	35	S	100	124,00 A 4
M 5	x	40	S	100	136,00 A 4
M 5	x	50	S	100	202,00 A 4
M 6	x	8	S	100	153,00 A 4
M 6	x	10	S	100	138,00 A 4
M 6	x	12	S	100	135,00 A 4
M 6	x	16	S	100	107,00 A 4
M 6	x	20	S	100	112,00 A 4
M 6	x	25	S	100	127,00 A 4
M 6	x	30	S	100	133,00 A 4
M 6	x	35	S	100	142,00 A 4
M 6	x	40	S	100	161,00 A 4
M 6	x	45	S	100	194,00 A 4
M 6	x	50	S	100	223,00 A 4
M 6	x	55	S	100	280,00 A 4
M 6	x	60	S	100	305,00 A 4
M 6	x	70	S	100	355,00 A 4
M 6	x	80	S	100	420,00 A 4
M 8	x	10	S	100	194,00 A 4
M 8	x	12	S	100	194,00 A 4
M 8	x	16	S	100	200,00 A 4
M 8	x	20	S	100	165,00 A 4
M 8	x	25	S	100	172,00 A 4
M 8	x	30	S	100	181,00 A 4
M 8	x	35	S	100	200,00 A 4
M 8	x	40	S	100	255,00 A 4
M 8	x	45	S	100	280,00 A 4
M 8	x	50	S	100	320,00 A 4
M 8	x	55	S	100	345,00 A 4
M 8	x	60	S	100	365,00 A 4
M 8	x	70	S	50	620,00 A 4
M 8	x	80	S	50	770,00 A 4

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	90	S	50	1060,00 A4
M 10	x	16	S	100	395,00 A4
M 10	x	20	S	100	385,00 A4
M 10	x	25	S	100	365,00 A4
M 10	x	30	S	100	365,00 A4
M 10	x	35	S	100	390,00 A4
M 10	x	40	S	100	425,00 A4
M 10	x	45	S	100	475,00 A4
M 10	x	50	S	100	520,00 A4
M 10	x	55	S	50	600,00 A4
M 10	x	60	S	50	630,00 A4
M 10	x	70	S	50	710,00 A4
M 10	x	80	S	50	850,00 A4
M 10	x	90	S	50	1070,00 A4
M 10	x	100	S	50	1280,00 A4
M 12	x	16	S	50	650,00 A4
M 12	x	20	S	50	670,00 A4
M 12	x	25	S	50	640,00 A4
M 12	x	30	S	50	590,00 A4
M 12	x	35	S	50	620,00 A4
M 12	x	40	S	50	660,00 A4
M 12	x	45	S	50	730,00 A4
M 12	x	50	S	50	780,00 A4
M 12	x	55	S	50	890,00 A4
M 12	x	60	S	50	920,00 A4
M 12	x	70	S	25	1000,00 A4
M 12	x	80	S	25	1230,00 A4
M 12	x	90	S	1	1390,00 A4
M 12	x	100	S	1	1390,00 A4
M 16	x	25	S	1	2030,00 A4
M 16	x	30	S	1	1590,00 A4
M 16	x	35	S	1	1640,00 A4
M 16	x	40	S	1	1680,00 A4
M 16	x	45	S	1	1760,00 A4
M 16	x	50	S	1	1830,00 A4
M 16	x	55	S	1	2020,00 A4
M 16	x	60	S	1	2060,00 A4
M 16	x	65	S	1	2150,00 A4
M 16	x	70	S	1	2210,00 A4
M 16	x	80	S	1	2900,00 A4
M 16	x	90	S	1	3450,00 A4
M 16	x	100	S	1	3450,00 A4
M 16	x	110	S	1	6000,00 A4
M 16	x	120	S	1	6100,00 A4
M 16	x	130	S	1	6200,00 A4
M 16	x	140	S	1	6400,00 A4
M 20	x	30	S	1	3600,00 A4
M 20	x	35	S	1	3650,00 A4
M 20	x	40	S	1	3550,00 A4
M 20	x	45	S	1	3650,00 A4
M 20	x	50	S	1	3900,00 A4
M 20	x	60	S	1	4300,00 A4
M 20	x	70	S	1	4750,00 A4
M 20	x	80	S	1	6000,00 A4
M 20	x	90	S	1	8200,00 A4
M 20	x	100	S	1	8400,00 A4
M 20	x	110	S	1	10900,00 A4
M 20	x	120	S	1	11000,00 A4
M 20	x	130	S	1	11100,00 A4
M 20	x	150	S	1	11400,00 A4
M 24	x	50	S	1	6100,00 A4
M 24	x	55	S	1	6100,00 A4
M 24	x	60	S	1	6100,00 A4
M 24	x	70	S	1	6400,00 A4
M 24	x	80	S	1	7600,00 A4
M 24	x	90	S	1	9800,00 A4
M 24	x	100	S	1	10000,00 A4
M 24	x	110	S	1	12500,00 A4
M 24	x	120	S	1	12600,00 A4
M 24	x	130	S	1	12700,00 A4
M 24	x	150	S	1	13000,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	06921.920		615
6921	**A 2**		



Hexagon flange bolts

Dimensions ➔ TI-17
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

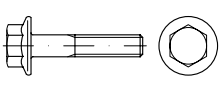
Steel ➔ pg. 320

DIN 6921 ➔ replaced by EN 1665

RoHS ✓ | REACh SVHC free

M 5	x	10	S	200	33,50
M 5	x	12	S	200	34,50
M 5	x	16	S	200	36,00
M 5	x	20	S	200	37,00
M 5	x	25	S	200	39,50
M 5	x	30	S	200	42,50
M 6	x	10	S	200	42,50
M 6	x	12	S	200	44,00
M 6	x	16	S	200	46,50
M 6	x	20	S	200	48,50
M 6	x	25	S	200	53,00
M 6	x	30	S	200	55,00
M 6	x	35	S	200	60,00
M 6	x	40	S	200	63,00
M 6	x	45	S	200	66,00
M 8	x	16	S	200	83,00
M 8	x	20	S	200	86,00
M 8	x	25	S	200	91,00
M 8	x	30	S	200	99,00
M 8	x	35	S	200	105,00
M 8	x	40	S	200	110,00
M 8	x	45	S	200	116,00
M 8	x	50	S	200	124,00
M 10	x	20	S	100	124,00
M 10	x	25	S	100	133,00
M 10	x	30	S	100	141,00
M 10	x	35	S	100	150,00
M 10	x	40	S	100	161,00
M 10	x	45	S	100	171,00
M 10	x	50	S	100	180,00
M 10	x	60	S	100	199,00

Dimensions	PU	Pieces	€/100/Mat.
~DIN	06921.926		00615
6921	**A 2**		**locking**



Hexagon locking bolts with flange

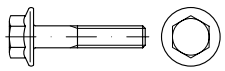
Dimensions ➔ TI-17
Material properties ➔ TI-236
Tightening torque ➔ TI-249

RoHS ✓ | REACh SVHC free

M 5	x	10	S	200	37,00
M 5	x	12	S	200	37,50
M 5	x	16	S	200	39,50
M 5	x	20	S	200	41,00
M 5	x	25	S	200	43,50
M 5	x	30	S	200	47,00
M 6	x	10	S	200	47,00
M 6	x	12	S	200	48,50
M 6	x	16	S	200	52,00
M 6	x	20	S	200	54,00
M 6	x	25	S	200	59,00
M 6	x	30	S	200	61,00
M 6	x	35	S	200	67,00
M 6	x	40	S	200	70,00
M 6	x	45	S	200	72,00
M 8	x	16	S	200	91,00
M 8	x	20	S	200	94,00
M 8	x	25	S	200	101,00
M 8	x	30	S	200	110,00
M 8	x	35	S	200	116,00
M 8	x	40	S	200	122,00
M 8	x	45	S	200	129,00
M 8	x	50	S	200	137,00
M 10	x	20	S	100	137,00
M 10	x	25	S	100	148,00
M 10	x	30	S	100	156,00
M 10	x	35	S	100	165,00
M 10	x	40	S	100	178,00
M 10	x	45	S	100	190,00
M 10	x	50	S	100	199,00
M 10	x	60	S	100	209,00

Dimensions	PU Pieces	€/100/Mat.
DIN	06921.940	615

6921 A 4



Hexagon flange bolts

Dimensions ➔ TI-17
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-6

Steel ➔ pg. 320

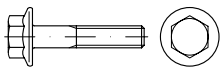
DIN 6921 ➔ replaced by EN 1665

RoHS ✓ | REACh SVHC free

M 5	x	10	S	200	48,50
M 5	x	12	S	200	49,50
M 5	x	16	S	200	52,00
M 5	x	20	S	200	54,00
M 5	x	25	S	200	57,00
M 5	x	30	S	200	61,00
M 6	x	10	S	200	61,00
M 6	x	12	S	200	64,00
M 6	x	16	S	200	68,00
M 6	x	20	S	200	71,00
M 6	x	25	S	200	77,00
M 6	x	30	S	200	80,00
M 6	x	35	S	200	86,00
M 6	x	40	S	200	91,00
M 6	x	45	S	200	95,00
M 8	x	16	S	200	120,00
M 8	x	20	S	200	124,00
M 8	x	25	S	200	133,00
M 8	x	30	S	200	143,00
M 8	x	35	S	200	152,00
M 8	x	40	S	200	160,00
M 8	x	45	S	200	168,00
M 8	x	50	S	200	179,00
M 10	x	20	S	100	179,00
M 10	x	25	S	100	193,00
M 10	x	30	S	100	204,00
M 10	x	35	S	100	217,00
M 10	x	40	S	100	233,00
M 10	x	45	S	100	248,00
M 10	x	50	S	100	265,00
M 10	x	60	S	100	275,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	06921.944	615

6921 A 4 locking



Hexagon locking bolts with flange

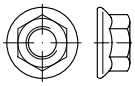
Dimensions ➔ TI-17
Material properties ➔ TI-236
Tightening torque ➔ TI-249

RoHS ✓ | REACh SVHC free

M 5	x	10	S	200	54,00
M 5	x	12	S	200	55,00
M 5	x	16	S	200	57,00
M 5	x	20	S	200	59,00
M 5	x	25	S	200	63,00
M 5	x	30	S	200	68,00
M 6	x	10	S	200	68,00
M 6	x	12	S	200	71,00
M 6	x	16	S	200	74,00
M 6	x	20	S	200	77,00
M 6	x	25	S	200	85,00
M 6	x	30	S	200	88,00
M 6	x	35	S	200	96,00
M 6	x	40	S	200	100,00
M 6	x	45	S	200	104,00
M 8	x	16	S	200	133,00
M 8	x	20	S	200	137,00
M 8	x	25	S	200	145,00
M 8	x	30	S	200	158,00
M 8	x	35	S	200	166,00
M 8	x	40	S	200	175,00
M 8	x	45	S	200	185,00
M 8	x	50	S	200	196,00
M 10	x	20	S	100	196,00
M 10	x	25	S	100	210,00
M 10	x	30	S	100	223,00
M 10	x	35	S	100	238,00
M 10	x	40	S	100	260,00
M 10	x	45	S	100	275,00
M 10	x	50	S	100	290,00
M 10	x	60	S	100	305,00

Dimensions	PU Pieces	€/100/Mat.
DIN	06923.920	615

6923 A 2



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

Steel ➔ pg. 322

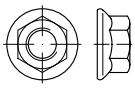
DIN 6923 ➔ replaced by EN 1661

RoHS ✓ | REACh SVHC free

M 4	S	1000	16,10 A2
M 5	S	1000	24,30 A2
M 6	S	1000	39,00 A2
M 8	S	1000	49,50 A2
M 10	S	500	73,00 A2
M 12	S	250	152,00 A2

Dimensions	PU Pieces	€/100/Mat.
DIN	06923.940	615

6923 A 4



Hexagon flange nuts

Dimensions ➔ TI-64
Material properties ➔ TI-236
Tightening torque ➔ TI-249
Standard conversion ➔ TI-7

Steel ➔ pg. 322

DIN 6923 ➔ replaced by EN 1661

RoHS ✓ | REACh SVHC free

M 5	S	1000	55,00 A4
M 6	S	1000	71,00 A4
M 8	S	1000	81,00 A4
M 10	S	500	189,00 A4

ROM® REYHER ORDER MANAGEMENT

Absolute reliability for Kanban supplies

- Customized Kanban service with combinable modules
- State-of-the-art RFID solutions and barcode-based capture
- Flexible labelling with product images

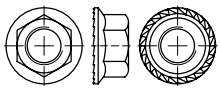
E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU Pieces	€/100/Mat.
~DIN	06923.924	615

6923 A 2 locking



Hexagon locking nuts with flange

Caution!
Only suitable for use on soft counter-material

Dimensions ➔ TI-64 Tightening torque ➔ TI-249
Material properties ➔ TI-236

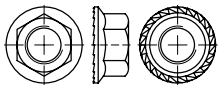
Steel ➔ pg. 322

RoHS ✓ REACh SVHC free

M 4	S	500	17,10 A2
M 5	S	500	26,00 A2
M 6	S	1000	41,00 A2
M 8	S	1000	52,00 A2
M 10	S	500	76,00 A2
M 12	S	200	159,00 A2

Dimensions	PU Pieces	€/100/Mat.
~DIN	06923.944	615

6923 A 4 locking



Hexagon locking nuts with flange

Caution!
Only suitable for use on soft counter-material

Dimensions ➔ TI-64 Tightening torque ➔ TI-249
Material properties ➔ TI-236

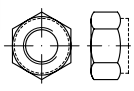
Steel ➔ pg. 322

RoHS ✓ REACh SVHC free

M 4	S	500	31,50 A4
M 5	S	500	57,00 A4
M 6	S	500	74,00 A4
M 8	S	500	84,00 A4
M 10	S	200	200,00 A4
M 12	S	100	255,00 A4

Dimensions	PU Pieces	€/100/Mat.
~DIN	06924.920	480

6924 A 2



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use under temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-7
Material properties ➔ TI-236 Lock of fasteners ➔ TI-256

Steel ➔ pg. 323

DIN 6924 coarse pitch thread ➔ replaced by ISO 7040 (compatible)

REACh SVHC free

M 5	S	1000	76,00 A2
M 6	S	1000	88,00 A2
M 8	S	500	112,00 A2
M 16	S	100	415,00 A2
M 20	S	25	790,00 A2

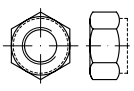
RKP® REYHER KITTING & PACKAGING

Uniform appearance with individual trader packaging

- Neutral range of packaging with uniform fronts e.g. with pouring lip
- Packaging in your corporate design
- Individual label design
- Free choice of packing units
- Call up from storage as usual

Dimensions	PU Pieces	€/100/Mat.
~DIN	06924.940	480

6924 A 4



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use under temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-7
Material properties ➔ TI-236 Lock of fasteners ➔ TI-256

Steel ➔ pg. 323

DIN 6924 coarse pitch thread ➔ replaced by ISO 7040 (compatible)

REACh SVHC free

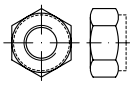
M 5	S	100	116,00 A4
M 6	S	100	133,00 A4
M 8	S	100	175,00 A4
M 16	S	25	770,00 A4
M 20	S	25	3150,00 A4
M 24	S	25	3600,00 A4

RKP® REYHER KITTING & PACKAGING

Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions	PU Pieces	€/100/Mat.
~ISO	07040.920	*
7040	**A 2**	



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use under temperatures from -50 to +120 °C,
*M 10/12 RAZ = 3395, other ∅ RAZ = 480

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

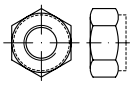
Dimensions ➔ TI-9
Material properties ➔ TI-236
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256
Steel ➔ pg. 324

ISO 7040 ➔ replaces DIN 982 and 6924

REACh SVHC free

M 5	S	1000	76,00	A 2
M 6	S	1000	88,00	A 2
M 8	S	500	112,00	A 2
M 10	S	500	194,00	A 2
M 12	S	250	241,00	A 2
M 16	S	100	415,00	A 2
M 20	S	25	790,00	A 2

Dimensions	PU Pieces	€/100/Mat.
~ISO	07040.924	3395
7040	**A 2 - 70**	**HS**



Prevailing torque type hexagon nuts with non-metallic insert, high type, with heat-stabilised polyamide locking ring

for use under temperatures up to ~ +150/180 °C
(BN 205107-03)

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9
Material properties ➔ TI-236
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256
Steel ➔ pg. 325

ISO 7040 ➔ replaces DIN 982 and 6924

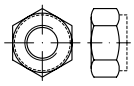
REACh SVHC free

M 3	S	1000	880,00	A 2
M 4	S	100	161,00	A 2
M 5	S	500	165,00	A 2
M 5	K	100	169,00	A 2
M 6	S	500	248,00	A 2
M 6	K	100	255,00	A 2
M 8	S	500	345,00	A 2
M 8	K	100	350,00	A 2
M 10	S	500	610,00	A 2
M 10	K	100	620,00	A 2
M 12	S	100	770,00	A 2
M 16	S	25	1540,00	A 2

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions	PU Pieces	€/100/Mat.
~ISO	07040.940	*
7040	**A 4**	



Prevailing torque type hexagon nuts with non-metallic insert, high type

for use under temperatures from -50 to +120 °C,
*M 10/12 RAZ = 3395, other ∅ RAZ = 480

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9
Material properties ➔ TI-236
Standard conversion ➔ TI-7
Lock of fasteners ➔ TI-256
Steel ➔ pg. 324

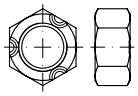
ISO 7040 ➔ replaces DIN 982 and 6924

REACh SVHC free

M 5	S	100	116,00	A 4
M 6	S	100	133,00	A 4
M 8	S	100	175,00	A 4
M 10	S	100	350,00	A 4
M 12	S	50	445,00	A 4
M 16	S	25	770,00	A 4
M 20	S	25	3150,00	A 4
M 24	S	25	3600,00	A 4

Dimensions	PU Pieces	€/100/Mat.
~ISO	07042.920	*

7042 A 2



Prevailing torque type hexagon nuts (all metal nuts)

*M 10/12/14 RAZ = 3395, other ∅ RAZ = 480

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9
Standard conversion ➔ TI-7
Material properties ➔ TI-236
Lock of fasteners ➔ TI-256

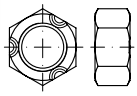
ISO 7042 ➔ replaces DIN 980 and 6925

RoHS ✓ | REACh SVHC free

M 3	S	1000	23,30 A 2
M 4	S	1000	47,00 A 2
M 5	S	1000	53,00 A 2
M 8	S	500	82,00 A 2
M 10	S	500	112,00 A 2
M 12	S	250	135,00 A 2
M 16	S	100	310,00 A 2
M 18	S	50	340,00 A 2
M 20	S	25	355,00 A 2
M 24	S	25	410,00 A 2

Dimensions	PU Pieces	€/100/Mat.
~ISO	07042.940	*

7042 A 4



Prevailing torque type hexagon nuts (all metal nuts)

*M 10/12/14 RAZ = 3395, other ∅ RAZ = 480

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9
Standard conversion ➔ TI-7
Material properties ➔ TI-236
Lock of fasteners ➔ TI-256

ISO 7042 ➔ replaces DIN 980 and 6925

RoHS ✓ | REACh SVHC free

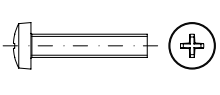
M 3	S	1000	168,00 A 4
M 4	S	100	208,00 A 4
M 5	S	1000	229,00 A 4
M 6	S	1000	235,00 A 4
M 8	S	500	248,00 A 4
M 10	S	500	370,00 A 4
M 12	S	250	570,00 A 4
M 14	S	100	690,00 A 4
M 16	S	100	930,00 A 4
M 18	S	50	980,00 A 4
M 20	S	25	1240,00 A 4
M 24	S	25	2330,00 A 4
M 30	S	10	3400,00 A 4

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions	PU Pieces	€/100/Mat.
ISO	07045.925	710

7045 A 2 H



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40
Standard conversion ➔ TI-11
Material properties ➔ TI-236
Steel ➔ pg. 326

ISO 7045 ➔ replaces DIN 7985 (compatible)

RoHS ✓ | REACh SVHC free

M 1,6	x	2 -H	S	1000	38,00 A 2
M 1,6	x	3 -H	S	1000	34,00 A 2
M 1,6	x	4 -H	S	1000	31,50 A 2
M 1,6	x	5 -H	S	1000	31,50 A 2
M 1,6	x	6 -H	S	1000	31,50 A 2
M 1,6	x	8 -H	S	1000	32,50 A 2
M 1,6	x	10 -H	S	1000	35,00 A 2
M 1,6	x	12 -H	S	1000	40,00 A 2
M 1,6	x	16 -H	S	1000	47,50 A 2
M 2	x	2 -H	S	1000	34,50 A 2
M 2	x	3 -H	S	1000	19,70 A 2
M 2	x	4 -H	S	1000	13,40 A 2
M 2	x	4 -H	K	200	15,30 A 2
M 2	x	5 -H	S	1000	11,00 A 2
M 2	x	5 -H	K	200	12,90 A 2
M 2	x	6 -H	S	1000	11,00 A 2
M 2	x	6 -H	K	200	12,90 A 2
M 2	x	8 -H	S	1000	11,00 A 2
M 2	x	8 -H	K	200	12,90 A 2
M 2	x	10 -H	S	1000	11,00 A 2
M 2	x	10 -H	K	200	12,90 A 2
M 2	x	12 -H	S	1000	12,00 A 2
M 2	x	12 -H	K	200	13,90 A 2
M 2	x	14 -H	S	1000	16,80 A 2
M 2	x	16 -H	S	1000	12,70 A 2
M 2	x	16 -H	K	200	14,60 A 2
M 2	x	18 -H	S	1000	17,90 A 2
M 2	x	20 -H	S	1000	14,70 A 2
M 2	x	20 -H	K	200	16,60 A 2
M 2,5	x	3 -H	S	1000	20,90 A 2
M 2,5	x	4 -H	S	1000	13,40 A 2
M 2,5	x	4 -H	K	200	15,30 A 2
M 2,5	x	5 -H	S	1000	13,70 A 2
M 2,5	x	5 -H	K	200	15,60 A 2
M 2,5	x	6 -H	S	1000	11,00 A 2
M 2,5	x	6 -H	K	200	12,90 A 2
M 2,5	x	8 -H	S	1000	11,00 A 2
M 2,5	x	8 -H	K	200	12,90 A 2
M 2,5	x	10 -H	S	1000	11,00 A 2
M 2,5	x	10 -H	K	200	12,90 A 2
M 2,5	x	12 -H	S	1000	12,00 A 2
M 2,5	x	12 -H	K	200	13,90 A 2
M 2,5	x	14 -H	S	1000	16,80 A 2
M 2,5	x	16 -H	S	1000	12,70 A 2
M 2,5	x	18 -H	S	1000	17,90 A 2
M 2,5	x	20 -H	S	1000	14,70 A 2
M 2,5	x	25 -H	S	1000	23,30 A 2
M 2,5	x	30 -H	S	1000	34,50 A 2
M 3	x	4 -H	S	1000	12,50 A 2
M 3	x	5 -H	S	1000	10,60 A 2
M 3	x	6 -H	S	1000	7,10 A 2
M 3	x	6 -H	K	200	8,90 A 2

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 8 -H	S	1000	7,50 A2
M 3 x 8 -H	K	200	9,40 A2
M 3 x 10 -H	S	1000	8,00 A2
M 3 x 10 -H	K	200	9,90 A2
M 3 x 12 -H	S	1000	8,50 A2
M 3 x 12 -H	K	200	10,40 A2
M 3 x 14 -H	S	1000	12,10 A2
M 3 x 16 -H	S	1000	11,10 A2
M 3 x 16 -H	K	200	15,10 A2
M 3 x 18 -H	S	1000	14,00 A2
M 3 x 20 -H	S	1000	10,60 A2
M 3 x 20 -H	K	200	12,40 A2
M 3 x 22 -H	S	1000	15,00 A2
M 3 x 25 -H	S	1000	11,50 A2
M 3 x 30 -H	S	1000	16,90 A2
M 3 x 35 -H	S	1000	31,00 A2
M 3 x 40 -H	S	1000	35,00 A2
M 3 x 45 -H	S	500	52,00 A2
M 3 x 50 -H	S	500	52,00 A2
M 4 x 4 -H	S	1000	18,80 A2
M 4 x 5 -H	S	1000	14,30 A2
M 4 x 6 -H	S	1000	11,30 A2
M 4 x 6 -H	K	200	13,20 A2
M 4 x 8 -H	S	1000	11,30 A2
M 4 x 8 -H	K	200	13,20 A2
M 4 x 10 -H	S	1000	11,80 A2
M 4 x 10 -H	K	200	13,70 A2
M 4 x 12 -H	S	1000	12,40 A2
M 4 x 12 -H	K	200	14,30 A2
M 4 x 14 -H	S	1000	18,40 A2
M 4 x 16 -H	S	1000	15,90 A2
M 4 x 16 -H	K	200	17,90 A2
M 4 x 18 -H	S	1000	20,30 A2
M 4 x 20 -H	S	1000	15,50 A2
M 4 x 20 -H	K	200	17,40 A2
M 4 x 22 -H	S	1000	23,70 A2
M 4 x 25 -H	S	1000	18,00 A2
M 4 x 25 -H	K	200	19,90 A2
M 4 x 30 -H	S	1000	21,10 A2
M 4 x 30 -H	K	200	22,90 A2
M 4 x 35 -H	S	500	26,50 A2
M 4 x 40 -H	S	500	28,50 A2
M 4 x 45 -H	S	500	33,50 A2
M 4 x 50 -H	S	200	65,00 A2
M 4 x 55 -H	S	200	76,00 A2
M 4 x 60 -H	S	200	77,00 A2
M 4 x 70 -H	S	200	99,00 A2
M 5 x 6 -H	S	500	28,50 A2
M 5 x 8 -H	S	500	20,10 A2
M 5 x 8 -H	K	200	22,00 A2
M 5 x 10 -H	S	500	19,90 A2
M 5 x 10 -H	K	200	21,80 A2
M 5 x 12 -H	S	500	20,10 A2
M 5 x 12 -H	K	200	22,00 A2
M 5 x 14 -H	S	500	29,50 A2
M 5 x 16 -H	S	500	22,40 A2
M 5 x 16 -H	K	200	24,30 A2
M 5 x 18 -H	S	500	33,00 A2
M 5 x 20 -H	S	500	25,00 A2
M 5 x 20 -H	K	200	27,00 A2
M 5 x 22 -H	S	500	37,50 A2
M 5 x 25 -H	S	500	29,00 A2
M 5 x 25 -H	K	200	30,50 A2
M 5 x 30 -H	S	500	33,50 A2
M 5 x 30 -H	K	200	35,50 A2
M 5 x 35 -H	S	500	38,00 A2
M 5 x 35 -H	K	200	40,00 A2
M 5 x 40 -H	S	500	44,00 A2
M 5 x 40 -H	K	200	46,00 A2
M 5 x 45 -H	S	200	49,50 A2
M 5 x 50 -H	S	200	53,00 A2
M 5 x 55 -H	S	200	61,00 A2
M 5 x 60 -H	S	200	62,00 A2
M 5 x 70 -H	S	100	96,00 A2
M 5 x 80 -H	S	100	113,00 A2
M 5 x 90 -H	S	100	137,00 A2
M 6 x 8 -H	S	200	24,80 A2
M 6 x 10 -H	S	200	25,00 A2
M 6 x 12 -H	S	200	26,50 A2
M 6 x 14 -H	S	200	39,50 A2
M 6 x 16 -H	S	200	30,00 A2
M 6 x 18 -H	S	200	40,00 A2
M 6 x 20 -H	S	200	32,50 A2
M 6 x 25 -H	S	200	36,50 A2
M 6 x 30 -H	S	200	42,50 A2
M 6 x 35 -H	S	200	47,00 A2
M 6 x 40 -H	S	200	54,00 A2
M 6 x 45 -H	S	200	60,00 A2
M 6 x 50 -H	S	200	62,00 A2
M 6 x 55 -H	S	200	69,00 A2
M 6 x 60 -H	S	100	69,00 A2
M 6 x 70 -H	S	100	115,00 A2
M 6 x 80 -H	S	100	132,00 A2
M 6 x 90 -H	S	100	162,00 A2
M 8 x 10 -H	S	100	56,00 A2
M 8 x 12 -H	S	100	46,50 A2
M 8 x 16 -H	S	100	54,00 A2
M 8 x 20 -H	S	100	58,00 A2
M 8 x 25 -H	S	100	61,00 A2
M 8 x 30 -H	S	100	65,00 A2
M 8 x 35 -H	S	100	67,00 A2
M 8 x 40 -H	S	100	70,00 A2
M 8 x 45 -H	S	100	83,00 A2
M 8 x 50 -H	S	100	85,00 A2
M 8 x 55 -H	S	100	89,00 A2
M 8 x 60 -H	S	100	89,00 A2
M 10 x 12 -H	S	100	335,00 A2
M 10 x 16 -H	S	100	305,00 A2
M 10 x 20 -H	S	100	325,00 A2
M 10 x 25 -H	S	100	360,00 A2
M 10 x 30 -H	S	100	390,00 A2
M 10 x 35 -H	S	100	430,00 A2
M 10 x 40 -H	S	100	465,00 A2
M 10 x 45 -H	S	100	530,00 A2
M 10 x 50 -H	S	100	530,00 A2
M 10 x 55 -H	S	100	560,00 A2
M 10 x 60 -H	S	100	590,00 A2

ISO	07045.926	710
7045	**A 2**	**Z**



Cheese head screws with Pozidriv cross recess Z

Dimensions ➔ TI-40
Standard conversion ➔ TI-11
Material properties ➔ TI-236
Steel ➔ pg. 327

ISO 7045 ➔ replaces DIN 7985 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions	PU	Pieces	€/100/Mat.
M 1,6 x 3 -Z	S	1000	47,50 A2
M 1,6 x 4 -Z	S	1000	45,50 A2
M 1,6 x 5 -Z	S	1000	46,50 A2
M 1,6 x 6 -Z	S	1000	47,50 A2
M 1,6 x 8 -Z	S	1000	52,00 A2
M 1,6 x 12 -Z	S	1000	67,00 A2
M 1,6 x 16 -Z	S	1000	80,00 A2
M 2 x 3 -Z	S	1000	19,70 A2
M 2 x 5 -Z	S	1000	11,00 A2
M 2 x 6 -Z	S	1000	11,00 A2
M 2 x 8 -Z	S	1000	11,00 A2
M 2 x 10 -Z	S	1000	11,00 A2
M 2 x 12 -Z	S	1000	12,00 A2
M 2 x 16 -Z	S	1000	12,70 A2
M 2,5 x 4 -Z	S	1000	13,40 A2
M 2,5 x 6 -Z	S	1000	11,00 A2
M 2,5 x 8 -Z	S	1000	11,00 A2
M 2,5 x 10 -Z	S	1000	11,00 A2
M 2,5 x 12 -Z	S	1000	12,00 A2
M 2,5 x 16 -Z	S	1000	12,70 A2
M 2,5 x 18 -Z	S	1000	14,70 A2
M 2,5 x 20 -Z	S	1000	14,70 A2
M 2,5 x 25 -Z	S	1000	23,30 A2
M 2,5 x 30 -Z	S	1000	30,50 A2
M 3 x 4 -Z	S	1000	12,50 A2
M 3 x 5 -Z	S	1000	10,60 A2
M 3 x 6 -Z	S	1000	7,10 A2
M 3 x 8 -Z	S	1000	7,50 A2
M 3 x 10 -Z	S	1000	8,00 A2
M 3 x 12 -Z	S	1000	8,50 A2
M 3 x 14 -Z	S	1000	13,70 A2
M 3 x 16 -Z	S	1000	11,10 A2
M 3 x 18 -Z	S	1000	10,30 A2
M 3 x 20 -Z	S	1000	10,60 A2
M 3 x 25 -Z	S	1000	11,50 A2
M 3 x 30 -Z	S	1000	16,90 A2
M 3 x 35 -Z	S	1000	31,00 A2
M 4 x 5 -Z	S	1000	14,30 A2
M 4 x 6 -Z	S	1000	11,30 A2
M 4 x 8 -Z	S	1000	11,30 A2
M 4 x 10 -Z	S	1000	11,80 A2
M 4 x 12 -Z	S	1000	12,40 A2
M 4 x 14 -Z	S	1000	15,90 A2
M 4 x 16 -Z	S	1000	15,90 A2
M 4 x 18 -Z	S	1000	17,80 A2
M 4 x 20 -Z	S	1000	15,50 A2
M 4 x 30 -Z	S	1000	21,10 A2
M 4 x 35 -Z	S	500	26,50 A2
M 4 x 40 -Z	S	500	28,50 A2
M 4 x 45 -Z	S	500	33,50 A2
M 4 x 50 -Z	S	200	65,00 A2
M 4 x 60 -Z	S	200	77,00 A2
M 4 x 70 -Z	S	200	110,00 A2
M 5 x 6 -Z	S	500	28,50 A2
M 5 x 8 -Z	S	500	20,10 A2
M 5 x 10 -Z	S	500	19,90 A2
M 5 x 12 -Z	S	500	20,10 A2
M 5 x 14 -Z	S	500	22,40 A2
M 5 x 16 -Z	S	500	22,40 A2
M 5 x 18 -Z	S	500	25,00 A2
M 5 x 20 -Z	S	500	25,00 A2
M 5 x 25 -Z	S	500	29,00 A2
M 5 x 30 -Z	S	500	33,50 A2
M 5 x 35 -Z	S	500	38,00 A2
M 5 x 40 -Z	S	500	44,00 A2
M 5 x 45 -Z	S	200	49,50 A2
M 5 x 50 -Z	S	200	53,00 A2
M 6 x 8 -Z	S	200	24,80 A2
M 6 x 10 -Z	S	200	25,00 A2
M 6 x 12 -Z	S	200	26,50 A2
M 6 x 16 -Z	S	1000	30,00 A2
M 6 x 20 -Z	S	200	32,50 A2
M 6 x 25 -Z	S	200	36,50 A2
M 6 x 30 -Z	S	200	42,50 A2
M 6 x 40 -Z	S	200	54,00 A2
M 6 x 45 -Z	S	200	60,00 A2
M 6 x 50 -Z	S	200	62,00 A2
M 6 x 55 -Z	S	200	69,00 A2
M 6 x 60 -Z	S	100	69,00 A2
M 8 x 10 -Z	S	200	209,00 A2
M 8 x 12 -Z	S	200	180,00 A2
M 8 x 16 -Z	S	200	199,00 A2
M 8 x 20 -Z	S	200	214,00 A2
M 8 x 25 -Z	S	200	237,00 A2

Dimensions		PU	Pieces	€/100/Mat.
M 8	x 30 -Z	S	200	260,00 A2
M 8	x 50 -Z	S	200	345,00 A2
M10	x 30 -Z	S	100	390,00 A2

ISO | 07045.944 | 710

7045 A 4 H



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40
Material properties ➔ TI-236
Standard conversion ➔ TI-11
Steel ➔ pg. 326

ISO 7045 ➔ replaces DIN 7985 (compatible)

RoHS ✓ | REACh SVHC free

M 1,6	x 3 -H	S	1000	53,00 A2
M 1,6	x 4 -H	S	1000	49,00 A2
M 1,6	x 5 -H	S	1000	49,00 A2
M 1,6	x 6 -H	S	1000	49,00 A2
M 1,6	x 8 -H	S	1000	50,00 A2
M 1,6	x 10 -H	S	1000	54,00 A2
M 2	x 4 -H	S	1000	23,50 A2
M 2	x 6 -H	S	1000	19,60 A2
M 2	x 8 -H	S	1000	19,60 A2
M 2	x 10 -H	S	1000	19,60 A2
M 2	x 12 -H	S	1000	21,20 A2
M 2	x 16 -H	S	1000	22,50 A2
M 2	x 20 -H	S	1000	26,50 A2
M 2,5	x 4 -H	S	1000	23,50 A2
M 2,5	x 5 -H	S	1000	19,60 A2
M 2,5	x 6 -H	S	1000	19,60 A2
M 2,5	x 8 -H	S	1000	19,60 A2
M 2,5	x 10 -H	S	1000	19,60 A2
M 2,5	x 12 -H	S	1000	21,20 A2
M 2,5	x 14 -H	S	1000	28,50 A2
M 2,5	x 16 -H	S	1000	22,50 A2
M 2,5	x 20 -H	S	1000	26,50 A2
M 2,5	x 30 -H	S	500	53,00 A2
M 3	x 4 -H	S	1000	22,30 A2
M 3	x 5 -H	S	1000	18,80 A2
M 3	x 6 -H	S	1000	12,40 A2
M 3	x 8 -H	S	1000	12,20 A2
M 3	x 10 -H	S	1000	13,40 A2
M 3	x 12 -H	S	1000	14,40 A2
M 3	x 14 -H	S	1000	21,40 A2
M 3	x 16 -H	S	1000	15,60 A2
M 3	x 20 -H	S	1000	17,40 A2
M 3	x 25 -H	S	1000	20,40 A2
M 3	x 30 -H	S	1000	30,00 A2
M 3	x 35 -H	S	1000	55,00 A2
M 3	x 40 -H	S	1000	62,00 A2
M 3	x 50 -H	S	500	91,00 A2
M 4	x 5 -H	S	1000	25,50 A2
M 4	x 6 -H	S	1000	20,10 A2
M 4	x 10 -H	S	1000	19,30 A2
M 4	x 12 -H	S	1000	20,80 A2
M 4	x 14 -H	S	1000	33,00 A2
M 4	x 16 -H	S	1000	22,30 A2
M 4	x 18 -H	S	1000	36,00 A2
M 4	x 20 -H	S	1000	25,00 A2
M 4	x 22 -H	S	1000	42,00 A2
M 4	x 25 -H	S	1000	30,00 A2
M 4	x 30 -H	S	500	37,50 A2
M 4	x 35 -H	S	500	47,00 A2
M 4	x 40 -H	S	500	51,00 A2
M 4	x 45 -H	S	200	115,00 A2
M 4	x 50 -H	S	200	115,00 A2
M 5	x 6 -H	S	500	50,00 A2
M 5	x 8 -H	S	500	36,00 A2
M 5	x 10 -H	S	500	28,50 A2
M 5	x 12 -H	S	500	30,50 A2
M 5	x 14 -H	S	500	53,00 A2
M 5	x 16 -H	S	500	32,50 A2
M 5	x 18 -H	S	500	59,00 A2
M 5	x 20 -H	S	500	35,50 A2
M 5	x 22 -H	S	500	66,00 A2
M 5	x 25 -H	S	500	42,50 A2
M 5	x 30 -H	S	500	50,00 A2
M 5	x 35 -H	S	500	57,00 A2
M 5	x 40 -H	S	500	79,00 A2
M 5	x 45 -H	S	500	104,00 A2
M 5	x 50 -H	S	200	110,00 A2
M 5	x 60 -H	S	200	143,00 A2
M 6	x 8 -H	S	200	60,00 A2
M 6	x 10 -H	S	200	42,50 A2
M 6	x 12 -H	S	200	44,50 A2
M 6	x 16 -H	S	200	48,00 A2
M 6	x 20 -H	S	200	52,00 A2
M 6	x 25 -H	S	200	57,00 A2
M 6	x 30 -H	S	200	64,00 A2
M 6	x 35 -H	S	200	71,00 A2
M 6	x 40 -H	S	200	84,00 A2
M 6	x 45 -H	S	200	112,00 A2
M 6	x 50 -H	S	200	114,00 A2
M 6	x 60 -H	S	100	137,00 A2

ISO | 07046.924 | 460

7046-2 A 2 H



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-236
Standard conversion ➔ TI-11
Steel ➔ pg. 328

ISO 7046 ➔ replaces DIN 965 (compatible)

RoHS ✓ | REACh SVHC free

M 1,6	x 3 -H	S	2000	114,00 A2
M 1,6	x 3 -H	K	1000	124,00 A2
M 1,6	x 4 -H	S	2000	114,00 A2
M 1,6	x 4 -H	K	1000	124,00 A2
M 1,6	x 5 -H	S	2000	124,00 A2
M 1,6	x 5 -H	K	1000	133,00 A2
M 1,6	x 6 -H	S	2000	127,00 A2
M 1,6	x 6 -H	K	1000	137,00 A2
M 1,6	x 8 -H	S	2000	131,00 A2
M 1,6	x 8 -H	K	1000	141,00 A2
M 1,6	x 10 -H	S	2000	135,00 A2
M 1,6	x 10 -H	K	1000	144,00 A2
M 1,6	x 12 -H	S	2000	139,00 A2
M 1,6	x 12 -H	K	1000	148,00 A2
M 1,6	x 16 -H	S	2000	142,00 A2
M 1,6	x 16 -H	K	1000	152,00 A2
M 2	x 3 -H	S	1000	11,00 A2
M 2	x 4 -H	S	1000	11,00 A2
M 2	x 5 -H	S	1000	11,00 A2
M 2	x 6 -H	S	1000	11,00 A2
M 2	x 8 -H	S	1000	11,00 A2
M 2	x 10 -H	S	1000	11,00 A2
M 2	x 12 -H	S	1000	12,00 A2
M 2	x 14 -H	S	1000	22,80 A2
M 2	x 16 -H	S	1000	38,00 A2
M 2	x 20 -H	S	1000	42,00 A2
M 2,5	x 3 -H	S	1000	22,80 A2
M 2,5	x 4 -H	S	1000	22,80 A2
M 2,5	x 5 -H	S	1000	11,00 A2
M 2,5	x 6 -H	S	1000	11,00 A2
M 2,5	x 8 -H	S	1000	11,00 A2
M 2,5	x 10 -H	S	1000	11,00 A2
M 2,5	x 12 -H	S	1000	11,40 A2
M 2,5	x 16 -H	S	1000	12,40 A2
M 2,5	x 20 -H	S	1000	13,30 A2
M 2,5	x 25 -H	S	1000	28,50 A2
M 3	x 4 -H	S	1000	12,50 A2
M 3	x 5 -H	S	1000	10,60 A2
M 3	x 5 -H	K	200	12,50 A2
M 3	x 6 -H	S	1000	7,10 A2
M 3	x 6 -H	K	200	8,90 A2
M 3	x 8 -H	S	1000	7,50 A2
M 3	x 8 -H	K	200	9,40 A2
M 3	x 10 -H	K	200	9,90 A2
M 3	x 12 -H	S	1000	8,50 A2
M 3	x 12 -H	K	200	10,40 A2
M 3	x 16 -H	S	1000	9,20 A2
M 3	x 16 -H	K	200	11,10 A2
M 3	x 20 -H	S	1000	10,60 A2
M 3	x 20 -H	K	200	12,40 A2
M 3	x 22 -H	S	1000	17,10 A2
M 3	x 25 -H	S	1000	11,50 A2
M 3	x 30 -H	S	1000	16,90 A2
M 3	x 35 -H	S	500	28,50 A2
M 3	x 40 -H	S	500	35,50 A2
M 3	x 45 -H	S	500	65,00 A2
M 3	x 50 -H	S	500	65,00 A2
M 4	x 5 -H	S	1000	14,30 A2
M 4	x 6 -H	S	1000	11,30 A2
M 4	x 8 -H	S	1000	4,15 A2
M 4	x 10 -H	S	1000	11,80 A2
M 4	x 12 -H	S	1000	12,40 A2
M 4	x 14 -H	S	1000	14,00 A2
M 4	x 16 -H	S	1000	14,00 A2
M 4	x 18 -H	S	1000	15,70 A2
M 4	x 20 -H	S	1000	15,50 A2
M 4	x 25 -H	S	1000	18,00 A2
M 4	x 30 -H	S	1000	21,10 A2
M 4	x 35 -H	S	500	26,50 A2
M 4	x 40 -H	S	500	28,50 A2
M 4	x 45 -H	S	500	65,00 A2
M 4	x 50 -H	S	500	65,00 A2
M 4	x 60 -H	S	500	86,00 A2
M 5	x 6 -H	S	500	28,50 A2
M 5	x 8 -H	S	500	20,10 A2
M 5	x 8 -H	K	200	22,00 A2
M 5	x 10 -H	S	500	19,90 A2
M 5	x 10 -H	K	200	21,80 A2
M 5	x 12 -H	S	500	20,10 A2
M 5	x 12 -H	K	200	22,00 A2
M 5	x 14 -H	S	500	22,50 A2
M 5	x 16 -H	S	500	22,40 A2
M 5	x 16 -H	K	200	24,30 A2
M 5	x 18 -H	S	500	33,00 A2
M 5	x 20 -H	S	500	25,00 A2
M 5	x 20 -H	K	200	27,00 A2
M 5	x 25 -H	S	500	29,00 A2
M 5	x 25 -H	K	200	30,50 A2
M 5	x 30 -H	S	500	33,50 A2
M 5	x 30 -H	K	200	35,50 A2
M 5	x 35 -H	S	500	38,00 A2
M 5	x 35 -H	K	200	40,00 A2
M 5	x 40 -H	S	200	44,00 A2
M 5	x 45 -H	S	200	54,00 A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 50 -H	S	200	57,00 A 2
M 5 x 55 -H	S	200	71,00 A 2
M 5 x 60 -H	S	200	71,00 A 2
M 5 x 70 -H	S	200	96,00 A 2
M 5 x 80 -H	S	200	113,00 A 2
M 5 x 90 -H	S	200	133,00 A 2
M 5 x 100 -H	S	200	161,00 A 2
M 6 x 8 -H	S	200	33,50 A 2
M 6 x 10 -H	S	200	25,00 A 2
M 6 x 12 -H	S	200	26,50 A 2
M 6 x 16 -H	S	200	30,00 A 2
M 6 x 20 -H	S	200	32,50 A 2
M 6 x 25 -H	S	200	36,50 A 2
M 6 x 30 -H	S	200	42,50 A 2
M 6 x 35 -H	S	200	47,00 A 2
M 6 x 40 -H	S	200	54,00 A 2
M 6 x 45 -H	S	200	60,00 A 2
M 6 x 50 -H	S	200	68,00 A 2
M 6 x 55 -H	S	200	77,00 A 2
M 6 x 60 -H	S	200	77,00 A 2
M 6 x 70 -H	S	100	115,00 A 2
M 6 x 80 -H	S	100	132,00 A 2
M 6 x 90 -H	S	100	150,00 A 2
M 6 x 100 -H	S	100	168,00 A 2
M 6 x 110 -H	S	100	355,00 A 2
M 6 x 120 -H	S	100	430,00 A 2
M 8 x 10 -H	S	100	143,00 A 2
M 8 x 12 -H	S	100	55,00 A 2
M 8 x 16 -H	S	100	59,00 A 2
M 8 x 20 -H	S	100	66,00 A 2
M 8 x 25 -H	S	100	77,00 A 2
M 8 x 30 -H	S	100	80,00 A 2
M 8 x 35 -H	S	100	84,00 A 2
M 8 x 40 -H	S	100	91,00 A 2
M 8 x 45 -H	S	100	97,00 A 2
M 8 x 50 -H	S	100	110,00 A 2
M 8 x 55 -H	S	100	122,00 A 2
M 8 x 60 -H	S	100	122,00 A 2
M 8 x 70 -H	S	100	144,00 A 2
M 8 x 80 -H	S	100	167,00 A 2
M 10 x 12 -H	S	100	237,00 A 2
M 10 x 16 -H	S	100	275,00 A 2
M 10 x 20 -H	S	100	305,00 A 2
M 10 x 25 -H	S	100	360,00 A 2
M 10 x 30 -H	S	100	420,00 A 2
M 10 x 35 -H	S	100	455,00 A 2
M 10 x 40 -H	S	100	495,00 A 2
M 10 x 45 -H	S	100	550,00 A 2
M 10 x 50 -H	S	100	600,00 A 2
M 10 x 55 -H	S	100	660,00 A 2
M 10 x 60 -H	S	100	700,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
ISO	07046.927		460
7046-2 A 2			Z



Countersunk head screws with Pozidriv cross recess Z

Dimensions ➔ TI-39
Material properties ➔ TI-236
Standard conversion ➔ TI-11
Steel ➔ pg. 329

ISO 7046 ➔ replaces DIN 965 (compatible)

RoHS ✓ REACh SVHC free

M 2 x 3 -Z	S	1000	22,80 A 2
M 2 x 4 -Z	S	1000	24,70 A 2
M 2 x 5 -Z	S	1000	27,00 A 2
M 2 x 6 -Z	S	1000	30,00 A 2
M 2 x 10 -Z	S	1000	30,00 A 2
M 2 x 12 -Z	S	1000	31,00 A 2
M 2 x 14 -Z	S	1000	38,00 A 2
M 2 x 16 -Z	S	1000	38,00 A 2
M 2 x 20 -Z	S	1000	42,00 A 2
M 2,5 x 3 -Z	S	1000	22,80 A 2
M 2,5 x 4 -Z	S	1000	22,80 A 2
M 2,5 x 5 -Z	S	1000	11,00 A 2
M 2,5 x 6 -Z	S	1000	11,00 A 2
M 2,5 x 8 -Z	S	1000	11,00 A 2
M 2,5 x 10 -Z	S	1000	11,00 A 2
M 2,5 x 12 -Z	S	1000	11,40 A 2
M 2,5 x 16 -Z	S	1000	12,40 A 2
M 2,5 x 20 -Z	S	1000	13,30 A 2
M 2,5 x 25 -Z	S	1000	28,50 A 2
M 3 x 4 -Z	S	1000	12,50 A 2
M 3 x 5 -Z	S	1000	10,60 A 2
M 3 x 6 -Z	S	1000	7,10 A 2
M 3 x 8 -Z	S	1000	7,50 A 2
M 3 x 10 -Z	S	1000	8,00 A 2
M 3 x 12 -Z	S	1000	8,50 A 2
M 3 x 14 -Z	S	1000	8,40 A 2
M 3 x 16 -Z	S	1000	9,20 A 2
M 3 x 22 -Z	S	1000	11,50 A 2
M 3 x 25 -Z	S	1000	11,50 A 2
M 3 x 30 -Z	S	1000	16,90 A 2
M 3 x 40 -Z	S	500	35,50 A 2
M 3 x 50 -Z	S	500	65,00 A 2
M 4 x 5 -Z	S	1000	14,30 A 2
M 4 x 6 -Z	S	1000	11,30 A 2
M 4 x 8 -Z	S	1000	11,30 A 2
M 4 x 10 -Z	S	1000	11,80 A 2
M 4 x 12 -Z	S	1000	12,40 A 2
M 4 x 14 -Z	S	1000	14,00 A 2
M 4 x 16 -Z	S	1000	14,00 A 2
M 4 x 20 -Z	S	1000	15,50 A 2
M 4 x 22 -Z	S	1000	18,00 A 2
M 4 x 25 -Z	S	1000	18,00 A 2
M 4 x 30 -Z	S	1000	21,10 A 2
M 4 x 40 -Z	S	500	28,50 A 2
M 4 x 45 -Z	S	500	65,00 A 2
M 4 x 60 -Z	S	500	76,00 A 2
M 5 x 8 -Z	S	500	20,10 A 2
M 5 x 10 -Z	S	500	19,90 A 2
M 5 x 12 -Z	S	500	20,10 A 2
M 5 x 16 -Z	S	500	22,40 A 2
M 5 x 18 -Z	S	500	27,00 A 2
M 5 x 20 -Z	S	500	25,00 A 2

Dimensions	PU	Pieces	€/100/Mat.
M 5 x 25 -Z	S	500	29,00 A 2
M 5 x 30 -Z	S	500	33,50 A 2
M 5 x 35 -Z	S	500	38,00 A 2
M 5 x 40 -Z	S	200	44,00 A 2
M 5 x 45 -Z	S	200	57,00 A 2
M 5 x 50 -Z	S	200	57,00 A 2
M 5 x 55 -Z	S	200	71,00 A 2
M 5 x 60 -Z	S	200	71,00 A 2
M 5 x 70 -Z	S	200	96,00 A 2
M 5 x 80 -Z	S	200	113,00 A 2
M 5 x 90 -Z	S	200	133,00 A 2
M 5 x 100 -Z	S	200	161,00 A 2
M 6 x 8 -Z	S	200	33,50 A 2
M 6 x 10 -Z	S	200	25,00 A 2
M 6 x 12 -Z	S	200	26,50 A 2
M 6 x 16 -Z	S	200	30,00 A 2
M 6 x 20 -Z	S	200	32,50 A 2
M 6 x 25 -Z	S	200	36,50 A 2
M 6 x 30 -Z	S	200	42,50 A 2
M 6 x 40 -Z	S	200	54,00 A 2
M 6 x 50 -Z	S	200	68,00 A 2
M 6 x 60 -Z	S	200	77,00 A 2
M 6 x 70 -Z	S	100	171,00 A 2
M 6 x 80 -Z	S	100	199,00 A 2
M 6 x 90 -Z	S	100	237,00 A 2
M 6 x 100 -Z	S	100	285,00 A 2
M 6 x 110 -Z	S	100	355,00 A 2
M 6 x 120 -Z	S	100	430,00 A 2
M 8 x 10 -Z	S	100	143,00 A 2
M 8 x 12 -Z	S	100	161,00 A 2
M 8 x 16 -Z	S	100	190,00 A 2
M 8 x 20 -Z	S	100	209,00 A 2
M 8 x 25 -Z	S	100	247,00 A 2
M 8 x 30 -Z	S	100	285,00 A 2
M 8 x 40 -Z	S	100	345,00 A 2
M 8 x 45 -Z	S	100	380,00 A 2
M 8 x 50 -Z	S	100	410,00 A 2
M 8 x 55 -Z	S	100	445,00 A 2
M 8 x 60 -Z	S	100	475,00 A 2
M 8 x 70 -Z	S	100	560,00 A 2
M 8 x 80 -Z	S	100	670,00 A 2
M 10 x 16 -Z	S	100	275,00 A 2
M 10 x 25 -Z	S	100	360,00 A 2
M 10 x 35 -Z	S	100	455,00 A 2
M 10 x 40 -Z	S	100	495,00 A 2

Dimensions	PU Pieces	€/100/Mat.
ISO	07046.945	460
7046-2 A 4		H



Countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 328

ISO 7046 ➔ replaces DIN 965 (compatible)

RoHS ✓ REACh SVHC free

M 1,6	x	3	-H	S	1000	126,00	A4
M 1,6	x	4	-H	S	1000	126,00	A4
M 1,6	x	5	-H	S	1000	137,00	A4
M 1,6	x	10	-H	S	1000	149,00	A4
M 1,6	x	16	-H	S	1000	158,00	A4
M 2	x	3	-H	S	1000	34,00	A4
M 2	x	4	-H	S	1000	34,00	A4
M 2	x	5	-H	S	1000	36,50	A4
M 2	x	6	-H	S	1000	39,50	A4
M 2	x	8	-H	S	1000	42,00	A4
M 2	x	10	-H	S	1000	44,50	A4
M 2	x	12	-H	S	1000	47,50	A4
M 2	x	16	-H	S	1000	51,00	A4
M 2	x	20	-H	S	1000	57,00	A4
M 2,5	x	3	-H	S	1000	34,00	A4
M 2,5	x	4	-H	S	1000	34,00	A4
M 2,5	x	5	-H	S	1000	38,00	A4
M 2,5	x	6	-H	S	1000	40,00	A4
M 2,5	x	8	-H	S	1000	46,50	A4
M 2,5	x	10	-H	S	1000	51,00	A4
M 2,5	x	12	-H	S	1000	55,00	A4
M 2,5	x	14	-H	S	1000	62,00	A4
M 2,5	x	16	-H	S	1000	62,00	A4
M 2,5	x	20	-H	S	1000	74,00	A4
M 2,5	x	25	-H	S	1000	89,00	A4
M 3	x	4	-H	S	1000	42,00	A4
M 3	x	5	-H	S	1000	42,00	A4
M 3	x	6	-H	S	1000	12,40	A4
M 3	x	8	-H	S	1000	12,10	A4
M 3	x	10	-H	S	1000	13,40	A4
M 3	x	12	-H	S	1000	14,40	A4
M 3	x	14	-H	S	1000	15,60	A4
M 3	x	16	-H	S	1000	15,60	A4
M 3	x	20	-H	S	1000	17,40	A4
M 3	x	25	-H	S	1000	20,40	A4
M 3	x	30	-H	S	1000	30,00	A4
M 3	x	35	-H	S	1000	55,00	A4
M 3	x	40	-H	S	500	70,00	A4
M 4	x	5	-H	S	1000	28,50	A4
M 4	x	6	-H	S	1000	20,10	A4
M 4	x	8	-H	S	1000	18,10	A4
M 4	x	10	-H	S	1000	19,30	A4
M 4	x	12	-H	S	1000	20,80	A4
M 4	x	16	-H	S	1000	22,30	A4
M 4	x	18	-H	S	1000	25,50	A4
M 4	x	20	-H	S	1000	25,00	A4
M 4	x	25	-H	S	1000	30,00	A4
M 4	x	30	-H	S	1000	37,50	A4
M 4	x	35	-H	S	500	47,00	A4
M 4	x	40	-H	S	500	51,00	A4
M 4	x	45	-H	S	500	115,00	A4
M 4	x	50	-H	S	200	115,00	A4
M 4	x	55	-H	S	200	139,00	A4
M 4	x	60	-H	S	200	179,00	A4
M 5	x	6	-H	S	500	42,00	A4
M 5	x	8	-H	S	500	38,00	A4
M 5	x	10	-H	S	500	28,50	A4
M 5	x	12	-H	S	500	30,50	A4
M 5	x	16	-H	S	500	32,50	A4
M 5	x	20	-H	S	500	35,50	A4
M 5	x	25	-H	S	500	42,50	A4
M 5	x	30	-H	S	500	50,00	A4
M 5	x	35	-H	S	200	62,00	A4
M 5	x	40	-H	S	200	80,00	A4
M 5	x	45	-H	S	200	134,00	A4
M 5	x	50	-H	S	200	147,00	A4
M 5	x	55	-H	S	200	172,00	A4
M 5	x	60	-H	S	200	200,00	A4
M 6	x	8	-H	S	200	52,00	A4
M 6	x	10	-H	S	200	42,50	A4
M 6	x	12	-H	S	200	44,50	A4
M 6	x	16	-H	S	200	48,00	A4
M 6	x	20	-H	S	200	52,00	A4
M 6	x	25	-H	S	200	60,00	A4
M 6	x	30	-H	S	200	64,00	A4
M 6	x	35	-H	S	200	84,00	A4
M 6	x	40	-H	S	200	84,00	A4
M 6	x	45	-H	S	200	114,00	A4
M 6	x	50	-H	S	200	114,00	A4
M 6	x	55	-H	S	200	137,00	A4
M 6	x	60	-H	S	200	137,00	A4
M 6	x	70	-H	S	200	200,00	A4
M 6	x	80	-H	S	200	255,00	A4
M 6	x	90	-H	S	200	305,00	A4
M 8	x	10	-H	S	200	137,00	A4
M 8	x	12	-H	S	100	137,00	A4
M 8	x	16	-H	S	100	112,00	A4
M 8	x	20	-H	S	100	120,00	A4
M 8	x	25	-H	S	100	129,00	A4
M 8	x	30	-H	S	100	149,00	A4
M 8	x	35	-H	S	100	174,00	A4
M 8	x	40	-H	S	100	192,00	A4
M 8	x	45	-H	S	100	370,00	A4
M 8	x	50	-H	S	100	435,00	A4
M 8	x	55	-H	S	100	550,00	A4
M 8	x	60	-H	S	100	610,00	A4
M 8	x	70	-H	S	100	700,00	A4
M 8	x	80	-H	S	100	790,00	A4
M 8	x	90	-H	S	100	900,00	A4
M 10	x	16	-H	S	100	530,00	A4
M 10	x	20	-H	S	100	295,00	A4
M 10	x	25	-H	S	100	320,00	A4
M 10	x	30	-H	S	100	340,00	A4
M 10	x	35	-H	S	100	380,00	A4
M 10	x	40	-H	S	100	415,00	A4
M 10	x	45	-H	S	100	425,00	A4
M 10	x	50	-H	S	100	425,00	A4
M 10	x	55	-H	S	100	475,00	A4
M 10	x	60	-H	S	100	475,00	A4
M 10	x	70	-H	S	100	890,00	A4
M 10	x	80	-H	S	100	1050,00	A4

Dimensions	PU Pieces	€/100/Mat.
ISO	07047.924	460
7047 A 2		H



Raised countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39 Standard conversion ➔ TI-11
Material properties ➔ TI-232

Steel ➔ pg. 329

ISO 7047 ➔ replaces DIN 966 (compatible)

RoHS ✓ REACh SVHC free

M 2,5	x	4	-H	S	1000	28,50	A2
M 2,5	x	5	-H	S	1000	26,00	A2
M 2,5	x	6	-H	S	1000	21,80	A2
M 2,5	x	8	-H	S	1000	13,20	A2
M 2,5	x	10	-H	S	1000	13,20	A2
M 2,5	x	12	-H	S	1000	16,10	A2
M 2,5	x	16	-H	S	1000	20,90	A2
M 2,5	x	20	-H	S	1000	30,50	A2
M 2,5	x	25	-H	S	1000	45,50	A2
M 3	x	4	-H	S	1000	19,00	A2
M 3	x	5	-H	S	1000	10,60	A2
M 3	x	6	-H	S	1000	7,10	A2
M 3	x	8	-H	S	1000	7,50	A2
M 3	x	10	-H	S	1000	8,00	A2
M 3	x	12	-H	S	1000	9,20	A2
M 3	x	16	-H	S	1000	9,20	A2
M 3	x	18	-H	S	1000	10,50	A2
M 3	x	20	-H	S	1000	10,60	A2
M 3	x	25	-H	S	1000	18,50	A2
M 3	x	30	-H	S	500	24,70	A2
M 3	x	35	-H	S	500	26,50	A2
M 3	x	45	-H	S	500	61,00	A2
M 3	x	50	-H	S	500	95,00	A2
M 4	x	5	-H	S	1000	22,80	A2
M 4	x	6	-H	S	1000	11,00	A2
M 4	x	8	-H	S	1000	11,30	A2
M 4	x	10	-H	S	1000	11,80	A2
M 4	x	12	-H	S	1000	12,40	A2
M 4	x	14	-H	S	1000	14,00	A2
M 4	x	16	-H	S	1000	14,00	A2
M 4	x	20	-H	S	1000	15,50	A2
M 4	x	25	-H	S	1000	18,00	A2
M 4	x	30	-H	S	500	21,10	A2
M 4	x	35	-H	S	500	26,50	A2
M 4	x	40	-H	S	500	28,50	A2
M 4	x	45	-H	S	500	67,00	A2
M 4	x	50	-H	S	500	110,00	A2
M 5	x	6	-H	S	500	30,50	A2
M 5	x	8	-H	S	500	20,10	A2
M 5	x	10	-H	S	500	19,90	A2
M 5	x	12	-H	S	500	20,10	A2
M 5	x	16	-H	S	500	22,40	A2
M 5	x	20	-H	S	500	25,00	A2
M 5	x	25	-H	S	500	29,00	A2
M 5	x	30	-H	S	500	33,50	A2
M 5	x	35	-H	S	500	38,00	A2
M 5	x	40	-H	S	200	44,00	A2
M 5	x	45	-H	S	200	59,00	A2
M 5	x	50	-H	S	200	62,00	A2
M 5	x	55	-H	S	200	86,00	A2
M 5	x	60	-H	S	200	81,00	A2
M 5	x	70	-H	S	200	114,00	A2

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	80 -H	S	200	161,00 A2
M 6	x	8 -H	S	200	38,00 A2
M 6	x	10 -H	S	200	38,00 A2
M 6	x	12 -H	S	200	26,50 A2
M 6	x	16 -H	S	200	30,00 A2
M 6	x	20 -H	S	200	32,50 A2
M 6	x	22 -H	S	200	126,00 A2
M 6	x	25 -H	S	200	36,50 A2
M 6	x	30 -H	S	200	42,50 A2
M 6	x	35 -H	S	200	47,00 A2
M 6	x	40 -H	S	200	54,00 A2
M 6	x	45 -H	S	200	63,00 A2
M 6	x	50 -H	S	200	64,00 A2
M 6	x	55 -H	S	200	77,00 A2
M 6	x	60 -H	S	200	77,00 A2
M 6	x	65 -H	S	200	142,00 A2
M 6	x	70 -H	S	200	167,00 A2
M 6	x	80 -H	S	200	209,00 A2
M 8	x	10 -H	S	200	57,00 A2
M 8	x	12 -H	S	200	57,00 A2
M 8	x	16 -H	S	200	45,00 A2
M 8	x	20 -H	S	200	47,50 A2
M 8	x	25 -H	S	200	59,00 A2
M 8	x	30 -H	S	200	64,00 A2
M 8	x	35 -H	S	100	71,00 A2
M 8	x	40 -H	S	100	75,00 A2
M 8	x	45 -H	S	100	151,00 A2
M 8	x	50 -H	S	100	151,00 A2
M 8	x	55 -H	S	100	163,00 A2
M 8	x	60 -H	S	100	175,00 A2

ISO 07047.944 460

7047 A 4 H



Raised countersunk head screws with Phillips cross recess H

Dimensions ➔ TI-39
Material properties ➔ TI-232
Standard conversion ➔ TI-11
Steel ➔ pg. 329

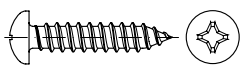
ISO 7047 ➔ replaces DIN 966 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 2,5	x	6 -H	S	1000	36,50 A4
M 2,5	x	8 -H	S	1000	22,10 A4
M 2,5	x	10 -H	S	1000	31,00 A4
M 2,5	x	12 -H	S	1000	27,00 A4
M 2,5	x	16 -H	S	1000	35,00 A4
M 2,5	x	20 -H	S	1000	51,00 A4
M 2,5	x	25 -H	S	1000	76,00 A4
M 3	x	4 -H	S	1000	31,50 A4
M 3	x	5 -H	S	1000	17,70 A4
M 3	x	6 -H	S	1000	12,10 A4
M 3	x	8 -H	S	1000	12,60 A4
M 3	x	10 -H	S	1000	13,40 A4
M 3	x	12 -H	S	1000	14,40 A4
M 3	x	16 -H	S	1000	15,60 A4
M 3	x	20 -H	S	1000	17,40 A4
M 3	x	25 -H	S	1000	20,40 A4
M 3	x	30 -H	S	1000	41,00 A4
M 4	x	6 -H	S	1000	18,30 A4
M 4	x	8 -H	S	1000	18,10 A4
M 4	x	10 -H	S	1000	19,30 A4
M 4	x	12 -H	S	1000	20,80 A4
M 4	x	16 -H	S	1000	22,30 A4
M 4	x	20 -H	S	1000	25,00 A4
M 4	x	25 -H	S	1000	30,00 A4
M 4	x	30 -H	S	1000	35,00 A4
M 4	x	35 -H	S	1000	44,50 A4
M 4	x	40 -H	S	1000	47,50 A4
M 5	x	6 -H	S	500	51,00 A4
M 5	x	8 -H	S	500	33,50 A4
M 5	x	10 -H	S	500	28,50 A4
M 5	x	12 -H	S	500	30,50 A4
M 5	x	16 -H	S	500	32,50 A4
M 5	x	20 -H	S	500	35,50 A4
M 5	x	25 -H	S	500	42,50 A4
M 5	x	30 -H	S	500	50,00 A4
M 5	x	35 -H	S	500	63,00 A4
M 5	x	40 -H	S	200	73,00 A4
M 5	x	45 -H	S	200	98,00 A4
M 5	x	50 -H	S	200	103,00 A4
M 6	x	8 -H	S	200	63,00 A4
M 6	x	10 -H	S	200	42,50 A4
M 6	x	12 -H	S	200	44,50 A4
M 6	x	16 -H	S	200	48,00 A4
M 6	x	20 -H	S	200	50,00 A4
M 6	x	25 -H	S	200	57,00 A4
M 6	x	30 -H	S	200	64,00 A4
M 6	x	35 -H	S	200	71,00 A4
M 6	x	40 -H	S	200	84,00 A4
M 6	x	45 -H	S	200	105,00 A4
M 6	x	50 -H	S	200	107,00 A4
M 6	x	55 -H	S	200	128,00 A4
M 6	x	60 -H	S	200	152,00 A4
M 8	x	10 -H	S	200	95,00 A4
M 8	x	16 -H	S	200	75,00 A4
M 8	x	20 -H	S	200	79,00 A4
M 8	x	25 -H	S	200	97,00 A4
M 8	x	30 -H	S	200	106,00 A4
M 8	x	35 -H	S	100	118,00 A4
M 8	x	40 -H	S	100	124,00 A4
M 8	x	45 -H	S	100	255,00 A4
M 8	x	50 -H	S	100	255,00 A4
M 8	x	55 -H	S	100	275,00 A4
M 8	x	60 -H	S	100	290,00 A4

ISO 07049.926 690

7049 A 2 type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

nominal lengths from 60 mm with partial thread

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-46
Material properties ➔ TI-236
Assembly ➔ TI-251
Standard conversion ➔ TI-11
Steel ➔ pg. 330

ISO 7049 ➔ replaces DIN 7981 (compatible)

RoHS ✓ | REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
C 2,2	x	4,5-H	S	1000	11,40 A2
C 2,2	x	6,5-H	S	1000	11,00 A2
C 2,2	x	6,5-H	K	100	14,90 A2
C 2,2	x	9,5-H	S	1000	8,70 A2
C 2,2	x	13 -H	S	1000	12,40 A2
C 2,2	x	16 -H	S	1000	14,20 A2
C 2,2	x	19 -H	S	1000	19,00 A2
C 2,9	x	6,5-H	S	1000	7,10 A2
C 2,9	x	6,5-H	K	100	11,00 A2
C 2,9	x	9,5-H	S	1000	4,95 A2
C 2,9	x	9,5-H	K	100	8,80 A2
C 2,9	x	13 -H	S	1000	5,20 A2
C 2,9	x	13 -H	K	100	9,00 A2
C 2,9	x	16 -H	S	1000	5,70 A2
C 2,9	x	16 -H	K	100	9,60 A2
C 2,9	x	19 -H	S	1000	6,10 A2
C 2,9	x	19 -H	K	100	10,00 A2
C 2,9	x	22 -H	S	1000	10,20 A2
C 2,9	x	22 -H	K	100	14,00 A2
C 2,9	x	25 -H	S	1000	10,60 A2
C 2,9	x	25 -H	K	100	14,50 A2
C 3,5	x	6,5-H	S	1000	8,00 A2
C 3,5	x	9,5-H	S	1000	6,50 A2
C 3,5	x	9,5-H	K	100	10,40 A2
C 3,5	x	13 -H	S	1000	6,90 A2
C 3,5	x	13 -H	K	100	10,70 A2
C 3,5	x	16 -H	S	1000	7,20 A2
C 3,5	x	16 -H	K	100	11,10 A2
C 3,5	x	19 -H	S	1000	8,00 A2
C 3,5	x	19 -H	K	100	11,90 A2
C 3,5	x	22 -H	S	1000	10,00 A2
C 3,5	x	22 -H	K	100	13,90 A2
C 3,5	x	25 -H	S	1000	10,40 A2
C 3,5	x	25 -H	K	100	14,20 A2
C 3,5	x	32 -H	S	1000	11,80 A2
C 3,5	x	32 -H	K	100	15,70 A2
C 3,5	x	38 -H	S	1000	13,20 A2
C 3,5	x	38 -H	K	100	17,10 A2
C 3,5	x	45 -H	S	1000	17,10 A2
C 3,5	x	50 -H	S	1000	22,80 A2
C 3,5	x	60 -H	S	500	31,50 A2
C 3,9	x	9,5-H	S	1000	7,80 A2
C 3,9	x	9,5-H	K	100	11,70 A2
C 3,9	x	13 -H	S	1000	7,80 A2
C 3,9	x	13 -H	K	100	11,70 A2
C 3,9	x	16 -H	S	1000	8,40 A2
C 3,9	x	16 -H	K	100	12,30 A2
C 3,9	x	19 -H	S	1000	9,10 A2
C 3,9	x	19 -H	K	100	13,00 A2
C 3,9	x	22 -H	S	500	11,20 A2
C 3,9	x	22 -H	K	100	15,10 A2
C 3,9	x	25 -H	S	500	11,60 A2
C 3,9	x	25 -H	K	100	15,50 A2
C 3,9	x	32 -H	S	500	13,80 A2
C 3,9	x	32 -H	K	100	17,60 A2
C 3,9	x	38 -H	S	500	15,80 A2
C 3,9	x	38 -H	K	100	19,60 A2
C 3,9	x	45 -H	S	500	19,50 A2
C 3,9	x	50 -H	S	500	23,40 A2
C 4,2	x	9,5-H	S	1000	8,80 A2
C 4,2	x	9,5-H	K	100	12,60 A2
C 4,2	x	13 -H	S	1000	8,90 A2
C 4,2	x	13 -H	K	100	12,80 A2
C 4,2	x	16 -H	S	1000	10,00 A2
C 4,2	x	16 -H	K	100	13,90 A2
C 4,2	x	19 -H	S	500	10,90 A2
C 4,2	x	19 -H	K	100	14,80 A2
C 4,2	x	22 -H	S	500	12,40 A2
C 4,2	x	22 -H	K	100	16,20 A2
C 4,2	x	25 -H	S	500	12,70 A2
C 4,2	x	25 -H	K	100	16,60 A2
C 4,2	x	32 -H	S	500	15,80 A2
C 4,2	x	32 -H	K	100	19,60 A2
C 4,2	x	38 -H	S	500	17,90 A2
C 4,2	x	38 -H	K	100	21,80 A2
C 4,2	x	45 -H	S	500	26,00 A2
C 4,2	x	45 -H	K	100	30,00 A2
C 4,2	x	50 -H	S	500	29,50 A2
C 4,2	x	50 -H	K	100	33,50 A2
C 4,8	x	9,5-H	S	500	11,00 A2
C 4,8	x	9,5-H	K	100	14,90 A2

Dimensions			PU	Pieces	€/100/Mat.
C 4,8	x	13 -H	S	500	11,40 A2
C 4,8	x	13 -H	K	100	15,30 A2
C 4,8	x	16 -H	S	500	12,40 A2
C 4,8	x	16 -H	K	100	16,20 A2
C 4,8	x	19 -H	S	500	13,80 A2
C 4,8	x	19 -H	K	100	17,60 A2
C 4,8	x	22 -H	S	500	15,80 A2
C 4,8	x	22 -H	K	100	19,60 A2
C 4,8	x	25 -H	S	500	16,10 A2
C 4,8	x	25 -H	K	100	20,00 A2
C 4,8	x	32 -H	S	250	20,50 A2
C 4,8	x	32 -H	K	100	24,50 A2
C 4,8	x	38 -H	S	250	22,90 A2
C 4,8	x	38 -H	K	100	27,00 A2
C 4,8	x	45 -H	S	250	30,00 A2
C 4,8	x	45 -H	K	100	34,00 A2
C 4,8	x	50 -H	S	250	31,00 A2
C 4,8	x	50 -H	K	100	35,00 A2
C 4,8	x	60 -H	S	250	42,00 A2
C 4,8	x	70 -H	S	250	55,00 A2
C 4,8	x	80 -H	S	100	66,00 A2
C 4,8	x	90 -H	S	100	85,00 A2
C 4,8	x	100 -H	S	100	107,00 A2
C 4,8	x	120 -H	S	100	142,00 A2
C 5,5	x	13 -H	S	500	18,50 A2
C 5,5	x	13 -H	K	100	22,40 A2
C 5,5	x	16 -H	S	500	19,70 A2
C 5,5	x	16 -H	K	100	23,60 A2
C 5,5	x	19 -H	S	500	21,10 A2
C 5,5	x	19 -H	K	100	24,90 A2
C 5,5	x	22 -H	S	500	23,10 A2
C 5,5	x	22 -H	K	100	27,00 A2
C 5,5	x	25 -H	S	500	24,80 A2
C 5,5	x	25 -H	K	100	29,00 A2
C 5,5	x	32 -H	S	250	29,00 A2
C 5,5	x	32 -H	K	100	33,00 A2
C 5,5	x	38 -H	S	250	33,00 A2
C 5,5	x	38 -H	K	100	37,00 A2
C 5,5	x	45 -H	S	250	39,50 A2
C 5,5	x	45 -H	K	100	43,50 A2
C 5,5	x	50 -H	S	250	44,00 A2
C 5,5	x	50 -H	K	100	48,00 A2
C 5,5	x	60 -H	S	100	53,00 A2
C 5,5	x	70 -H	S	100	61,00 A2
C 5,5	x	80 -H	S	100	76,00 A2
C 5,5	x	90 -H	S	100	105,00 A2
C 5,5	x	100 -H	S	100	129,00 A2
C 6,3	x	13 -H	S	250	25,50 A2
C 6,3	x	13 -H	K	100	29,50 A2
C 6,3	x	16 -H	S	500	21,20 A2
C 6,3	x	16 -H	K	100	25,50 A2
C 6,3	x	19 -H	S	250	22,80 A2
C 6,3	x	19 -H	K	100	27,00 A2
C 6,3	x	22 -H	S	250	25,00 A2
C 6,3	x	22 -H	K	100	29,00 A2
C 6,3	x	25 -H	S	250	26,50 A2
C 6,3	x	25 -H	K	100	30,50 A2
C 6,3	x	32 -H	S	250	32,00 A2
C 6,3	x	32 -H	K	100	36,00 A2
C 6,3	x	38 -H	S	250	35,50 A2
C 6,3	x	38 -H	K	100	39,50 A2
C 6,3	x	45 -H	S	250	42,50 A2
C 6,3	x	45 -H	K	100	46,00 A2
C 6,3	x	50 -H	S	250	53,00 A2
C 6,3	x	50 -H	K	100	57,00 A2
C 6,3	x	60 -H	K	100	60,00 A2
C 6,3	x	70 -H	K	100	78,00 A2
C 6,3	x	80 -H	K	100	103,00 A2
C 6,3	x	90 -H	K	100	125,00 A2
C 6,3	x	100 -H	K	100	152,00 A2

Dimensions			PU	Pieces	€/100/Mat.
ISO	07049.925				690
7049	**A 2**				**type F-H**
2,9	x	6,5 -F-H	S	1000	14,20 A2
2,9	x	9,5 -F-H	S	1000	14,40 A2
2,9	x	13 -F-H	S	1000	15,40 A2
2,9	x	16 -F-H	S	1000	17,10 A2
3,5	x	9,5 -F-H	S	1000	19,40 A2
3,5	x	13 -F-H	S	1000	20,50 A2
3,5	x	16 -F-H	S	1000	21,60 A2
3,9	x	9,5 -F-H	S	1000	23,30 A2
3,9	x	13 -F-H	S	1000	23,30 A2
4,2	x	9,5 -F-H	S	1000	26,50 A2

Pan head tapping screws with Phillips cross recess H, F = with flat end

Caution! Hardness only ~ 250 HV.

Dimensions → TI-46 Assembly → TI-251
Material properties → TI-236 Standard conversion → TI-11

Steel → pg. 330

ISO 7049 → replaces DIN 7981 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
ISO	07049.944				690
7049	**A 4**				**type C-H**
C 2,2	x	4,5-H	S	1000	25,50 A4
C 2,2	x	6,5-H	S	1000	24,40 A4
C 2,2	x	9,5-H	S	1000	19,10 A4
C 2,2	x	13 -H	S	1000	27,50 A4
C 2,2	x	16 -H	S	1000	31,50 A4
C 2,2	x	19 -H	S	1000	38,00 A4
C 2,9	x	6,5-H	S	1000	4,90 A4
C 2,9	x	9,5-H	S	1000	11,00 A4
C 2,9	x	13 -H	S	1000	11,40 A4
C 2,9	x	16 -H	S	1000	12,60 A4
C 2,9	x	19 -H	S	1000	13,50 A4
C 2,9	x	22 -H	S	1000	22,50 A4
C 2,9	x	25 -H	S	1000	23,50 A4
C 3,5	x	6,5-H	S	1000	14,70 A4

Pan head tapping screws with Phillips cross recess H, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions → TI-46 Assembly → TI-251
Material properties → TI-236 Standard conversion → TI-11

Steel → pg. 330

ISO 7049 → replaces DIN 7981 (compatible)

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
C 3,5	x	6,5-H	K	100	22,10 A4
C 3,5	x	9,5-H	S	1000	14,30 A4
C 3,5	x	13 -H	S	1000	13,40 A4
C 3,5	x	16 -H	S	1000	13,80 A4
C 3,5	x	19 -H	S	1000	17,70 A4
C 3,5	x	22 -H	S	1000	23,10 A4
C 3,5	x	25 -H	S	1000	25,50 A4
C 3,5	x	32 -H	S	1000	27,50 A4
C 3,5	x	38 -H	S	1000	31,50 A4
C 3,9	x	9,5-H	S	1000	17,30 A4
C 3,9	x	13 -H	S	1000	14,20 A4
C 3,9	x	16 -H	S	1000	18,50 A4
C 3,9	x	19 -H	S	1000	20,20 A4
C 3,9	x	25 -H	S	500	26,00 A4
C 3,9	x	32 -H	S	500	30,50 A4
C 3,9	x	38 -H	S	500	35,00 A4
C 3,9	x	45 -H	S	500	43,50 A4
C 3,9	x	50 -H	S	500	52,00 A4
C 4,2	x	9,5-H	S	1000	19,30 A4
C 4,2	x	13 -H	S	1000	18,30 A4
C 4,2	x	16 -H	S	1000	20,10 A4
C 4,2	x	19 -H	S	500	21,80 A4
C 4,2	x	22 -H	S	500	27,50 A4
C 4,2	x	25 -H	S	500	28,50 A4
C 4,2	x	32 -H	S	500	35,00 A4
C 4,2	x	38 -H	S	500	40,00 A4
C 4,2	x	45 -H	S	500	58,00 A4
C 4,8	x	9,5-H	S	500	24,40 A4
C 4,8	x	13 -H	S	100	25,50 A4
C 4,8	x	16 -H	S	500	27,00 A4
C 4,8	x	19 -H	S	500	27,50 A4
C 4,8	x	22 -H	S	500	35,00 A4
C 4,8	x	25 -H	S	500	33,50 A4
C 4,8	x	32 -H	S	250	43,50 A4
C 4,8	x	38 -H	S	250	51,00 A4
C 4,8	x	45 -H	S	250	67,00 A4
C 4,8	x	50 -H	S	250	69,00 A4
C 4,8	x	60 -H	S	250	93,00 A4
C 4,8	x	70 -H	S	250	122,00 A4
C 4,8	x	90 -H	S	100	187,00 A4
C 4,8	x	100 -H	S	100	236,00 A4
C 5,5	x	13 -H	S	500	41,00 A4
C 5,5	x	16 -H	S	500	44,00 A4
C 5,5	x	19 -H	S	500	47,00 A4
C 5,5	x	22 -H	S	500	52,00 A4
C 5,5	x	25 -H	S	500	55,00 A4
C 5,5	x	32 -H	S	250	65,00 A4
C 5,5	x	38 -H	S	250	73,00 A4
C 5,5	x	45 -H	S	250	87,00 A4
C 5,5	x	50 -H	S	250	98,00 A4
C 5,5	x	60 -H	S	100	116,00 A4
C 6,3	x	13 -H	S	250	56,00 A4
C 6,3	x	16 -H	S	500	47,00 A4
C 6,3	x	19 -H	S	250	51,00 A4
C 6,3	x	22 -H	S	250	56,00 A4
C 6,3	x	25 -H	S	250	59,00 A4
C 6,3	x	32 -H	S	250	71,00 A4
C 6,3	x	38 -H	S	250	79,00 A4
C 6,3	x	45 -H	S	250	94,00 A4
C 6,3	x	50 -H	S	250	116,00 A4

Dimensions	PU	Pieces	€/100/Mat.
ISO	07050.924		690

7050 A 2 type C-H



Countersunk head tapping screws with Phillips cross recess H, C = with cone end

nominal lengths from 60 mm with partial thread, countersunk ⍼ = 90°

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-47 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

Steel ➔ pg. 332

ISO 7050 ➔ replaces DIN 7982

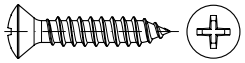
RoHS ✓ REACh SVHC free

2,2	x	6,5	-C-H	S	1000	14,20 A2
2,2	x	9,5	-C-H	S	1000	9,80 A2
2,2	x	13	-C-H	S	1000	18,70 A2
2,2	x	16	-C-H	S	1000	26,50 A2
2,2	x	19	-C-H	S	1000	37,50 A2
2,9	x	6,5	-C-H	S	1000	6,70 A2
2,9	x	9,5	-C-H	S	1000	4,95 A2
2,9	x	13	-C-H	S	1000	5,20 A2
2,9	x	16	-C-H	S	1000	5,70 A2
2,9	x	19	-C-H	S	1000	6,10 A2
2,9	x	22	-C-H	S	1000	10,20 A2
2,9	x	25	-C-H	S	1000	10,60 A2
3,5	x	9,5	-C-H	S	1000	6,50 A2
3,5	x	13	-C-H	S	1000	6,90 A2
3,5	x	16	-C-H	S	1000	7,20 A2
3,5	x	19	-C-H	S	1000	8,00 A2
3,5	x	22	-C-H	S	1000	10,00 A2
3,5	x	25	-C-H	S	1000	10,40 A2
3,5	x	32	-C-H	S	1000	11,80 A2
3,5	x	38	-C-H	S	1000	13,20 A2
3,5	x	45	-C-H	S	1000	17,10 A2
3,5	x	50	-C-H	S	1000	22,80 A2
3,5	x	60	-C-H	S	500	31,50 A2
4,2	x	9,5	-C-H	S	1000	8,80 A2
4,2	x	13	-C-H	S	1000	8,90 A2
4,2	x	16	-C-H	S	1000	10,00 A2
4,2	x	19	-C-H	S	500	10,90 A2
4,2	x	22	-C-H	S	500	12,40 A2
4,2	x	25	-C-H	S	500	12,70 A2
4,2	x	32	-C-H	S	500	15,80 A2
4,2	x	38	-C-H	S	500	17,90 A2
4,2	x	45	-C-H	S	500	26,00 A2
4,2	x	50	-C-H	S	500	29,50 A2
4,2	x	60	-C-H	S	250	53,00 A2
4,8	x	13	-C-H	S	500	11,40 A2
4,8	x	16	-C-H	S	500	12,40 A2
4,8	x	19	-C-H	S	500	13,80 A2
4,8	x	22	-C-H	S	500	15,80 A2
4,8	x	25	-C-H	S	500	16,10 A2
4,8	x	32	-C-H	S	250	20,50 A2
4,8	x	38	-C-H	S	250	22,90 A2
4,8	x	45	-C-H	S	250	30,00 A2
4,8	x	50	-C-H	S	250	31,00 A2
4,8	x	55	-C-H	S	250	66,00 A2
4,8	x	60	-C-H	S	250	42,00 A2
4,8	x	70	-C-H	S	250	55,00 A2
4,8	x	80	-C-H	S	250	66,00 A2
4,8	x	90	-C-H	S	100	85,00 A2

Dimensions	PU	Pieces	€/100/Mat.
4,8 x 100 -C-H	S	100	107,00 A2
5,5 x 13 -C-H	S	500	18,50 A2
5,5 x 16 -C-H	S	500	19,70 A2
5,5 x 19 -C-H	S	500	21,10 A2
5,5 x 22 -C-H	S	500	23,10 A2
5,5 x 25 -C-H	S	500	24,80 A2
5,5 x 32 -C-H	S	250	29,00 A2
5,5 x 38 -C-H	S	250	33,00 A2
5,5 x 45 -C-H	S	250	39,50 A2
5,5 x 50 -C-H	S	250	44,00 A2
5,5 x 60 -C-H	S	250	53,00 A2
6,3 x 16 -C-H	S	500	21,20 A2
6,3 x 19 -C-H	S	500	22,80 A2
6,3 x 22 -C-H	S	500	25,00 A2
6,3 x 25 -C-H	S	500	26,50 A2
6,3 x 32 -C-H	S	250	32,00 A2
6,3 x 38 -C-H	S	250	35,50 A2
6,3 x 45 -C-H	S	250	42,50 A2
6,3 x 50 -C-H	S	250	53,00 A2

ISO	07051.924	690

7051 A 2 type C-H



Raised countersunk head tapping screws with Phillips cross recess H, C = with cone end

countersunk ⍼ = 90°

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-47 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

Steel ➔ pg. 333

ISO 7051 ➔ replaces DIN 7983

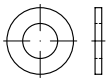
RoHS ✓ REACh SVHC free

2,9	x	9,5	-C-H	S	1000	4,95 A2
2,9	x	13	-C-H	S	1000	5,20 A2
2,9	x	16	-C-H	S	1000	5,70 A2
2,9	x	19	-C-H	S	1000	6,10 A2
2,9	x	22	-C-H	S	1000	10,20 A2
2,9	x	25	-C-H	S	1000	10,60 A2
3,5	x	9,5	-C-H	S	1000	6,50 A2
3,5	x	13	-C-H	S	1000	6,90 A2
3,5	x	16	-C-H	S	1000	7,20 A2
3,5	x	19	-C-H	S	1000	8,00 A2
3,5	x	22	-C-H	S	1000	10,00 A2
3,5	x	25	-C-H	S	1000	10,40 A2
3,5	x	32	-C-H	S	1000	11,80 A2
3,5	x	38	-C-H	S	1000	13,20 A2
4,2	x	9,5	-C-H	S	1000	8,80 A2
4,2	x	13	-C-H	S	1000	8,90 A2
4,2	x	16	-C-H	S	1000	10,00 A2
4,2	x	19	-C-H	S	500	10,90 A2
4,2	x	22	-C-H	S	500	12,40 A2
4,2	x	25	-C-H	S	500	12,70 A2
4,2	x	32	-C-H	S	500	15,80 A2
4,2	x	38	-C-H	S	500	17,90 A2
4,2	x	45	-C-H	S	500	26,00 A2
4,2	x	50	-C-H	S	500	29,50 A2
4,2	x	60	-C-H	S	200	40,00 A2
4,8	x	13	-C-H	S	500	11,40 A2
4,8	x	16	-C-H	S	500	12,40 A2
4,8	x	19	-C-H	S	500	13,80 A2
4,8	x	22	-C-H	S	500	15,80 A2

Dimensions	PU	Pieces	€/100/Mat.
4,8 x 25 -C-H	S	500	16,10 A2
4,8 x 32 -C-H	S	250	20,50 A2
4,8 x 38 -C-H	S	250	22,90 A2
4,8 x 45 -C-H	S	250	30,00 A2
4,8 x 50 -C-H	S	250	31,00 A2
4,8 x 60 -C-H	S	250	51,00 A2
5,5 x 13 -C-H	S	500	18,50 A2
5,5 x 16 -C-H	S	500	19,70 A2
5,5 x 19 -C-H	S	500	21,10 A2
5,5 x 22 -C-H	S	500	23,10 A2
5,5 x 25 -C-H	S	500	24,80 A2
5,5 x 32 -C-H	S	250	29,00 A2
5,5 x 38 -C-H	S	250	33,00 A2
5,5 x 45 -C-H	S	250	39,50 A2
5,5 x 50 -C-H	S	250	44,00 A2
6,3 x 16 -C-H	S	500	21,20 A2
6,3 x 19 -C-H	S	500	22,80 A2
6,3 x 22 -C-H	S	500	25,00 A2
6,3 x 25 -C-H	S	500	26,50 A2
6,3 x 32 -C-H	S	250	32,00 A2
6,3 x 38 -C-H	S	250	35,50 A2
6,3 x 45 -C-H	S	250	42,50 A2
6,3 x 50 -C-H	S	250	53,00 A2

ISO	07089.924	3380

7089 A 2 200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 333
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

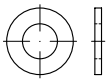
RoHS ✓ REACh SVHC free

for screws M			
1,6	S	1000	27,50 A2
2	S	1000	5,20 A2
2,5	S	1000	5,20 A2
3	S	1000	20,90 A2
3	K	200	23,20 A2
4	S	1000	22,00 A2
4	K	200	24,30 A2
5	S	1000	22,80 A2
5	K	200	27,00 A2
6	S	1000	34,00 A2
6	K	200	38,50 A2
8	S	1000	41,50 A2
8	K	200	47,50 A2
10	S	500	84,00 A2
10	K	100	92,00 A2
12	S	500	123,00 A2
12	K	100	132,00 A2
14	S	100	220,00 A2
16	S	100	235,00 A2
16	K	25	245,00 A2
18	S	200	82,00 A2
20	S	100	350,00 A2
20	K	25	360,00 A2
22	S	200	182,00 A2
24	S	100	670,00 A2
24	K	25	680,00 A2
27	S	100	370,00 A2
30	S	100	1050,00 A2

Dimensions	PU	Pieces	€/100/Mat.
30	K	25	1060,00 A 2
33	S	100	530,00 A 2
36	S	50	2700,00 A 2
39	S	10	780,00 A 2
42	S	10	2000,00 A 2
45	S	10	3200,00 A 2
48	S	1	6400,00 A 2
52	S	1	11900,00 A 2
56	S	1	20200,00 A 2

ISO 07089.944 3380

7089 A 4 200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 333
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

RoHS ✓ REACh SVHC free

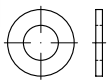
for screws M

2	S	1000	14,90 A 4
2,5	S	1000	12,10 A 4
3	S	1000	2,45 A 4
4	S	1000	99,00 A 4
4	K	200	102,00 A 4
5	S	1000	105,00 A 4
5	K	200	110,00 A 4
6	S	1000	122,00 A 4
6	K	200	128,00 A 4
8	S	1000	140,00 A 4
8	K	200	146,00 A 4
10	S	500	315,00 A 4
10	K	100	325,00 A 4
12	S	500	340,00 A 4
12	K	100	350,00 A 4
14	S	500	75,00 A 4
16	S	100	770,00 A 4
16	K	25	790,00 A 4
18	S	200	129,00 A 4
20	S	100	840,00 A 4
20	K	25	860,00 A 4
22	S	200	260,00 A 4
24	S	100	1590,00 A 4
24	K	25	1610,00 A 4
27	S	100	550,00 A 4
30	S	100	1660,00 A 4
30	K	25	1680,00 A 4
33	S	10	970,00 A 4
36	S	10	890,00 A 4
39	S	10	2070,00 A 4
42	S	10	2120,00 A 4

Dimensions	PU	Pieces	€/100/Mat.

ISO 07089.941 2012

7089 A 4 BUMAX88 200 HV



Plain washers, normal series, product grade A, without chamfer

dimension from ∅ 6 suitable for use acc. to pressure equipment directive
➔ certificate 3.1 on request

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 333
Brass, Copper, Plastic, Aluminium ➔ pg. 639

for the use of bolts with property class BUMAX88

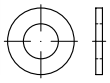
DGRL Pre-Approval RoHS ✓ REACh SVHC free

for screws M

24	S	50	2550,00 A 4-88

ISO 07089.942 2012

7089 A 4 BUMAX109 300 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 333
Brass, Copper, Plastic, Aluminium ➔ pg. 639

for the use of bolts with property class BUMAX109

RoHS ✓ REACh SVHC free

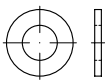
for screws M

5	S	200	112,00 A 4-109
6	S	200	120,00 A 4-109
8	S	100	158,00 A 4-109
10	S	100	340,00 A 4-109
12	S	100	470,00 A 4-109
16	S	100	970,00 A 4-109
20	S	100	1390,00 A 4-109

Dimensions	PU	Pieces	€/100/Mat.

ISO 07089.954 3380

7089 A 5 (1.4571) 200 HV



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 333
Brass, Copper, Plastic, Aluminium ➔ pg. 639

ISO 7089 ➔ replaces DIN 125 type A

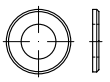
RoHS ✓ REACh SVHC free

for screws M

6	S	100	114,00 A 5
8	S	100	125,00 A 5
10	S	100	240,00 A 5
12	S	50	270,00 A 5
16	S	50	395,00 A 5
20	S	25	580,00 A 5
24	S	25	2220,00 A 5
30	S	10	2650,00 A 5

ISO 07090.924 3380

7090 A 2 200 HV



Plain washers, normal series, with chamfer, product grade A

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 335
Brass ➔ pg. 640

ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

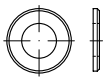
for screws M

4	S	1000	52,00 A 2
5	S	1000	36,50 A 2
5	K	200	305,00 A 2
6	S	1000	48,50 A 2
6	K	200	355,00 A 2
8	S	500	69,00 A 2
8	K	100	380,00 A 2
10	S	250	103,00 A 2
10	K	50	620,00 A 2
12	S	250	141,00 A 2
12	K	50	770,00 A 2
16	S	100	228,00 A 2
16	K	25	1710,00 A 2
20	S	50	365,00 A 2
20	K	10	1750,00 A 2
24	S	50	910,00 A 2
24	K	10	1810,00 A 2

Dimensions | PU Pieces | €/100/Mat.

ISO 07090.944 3380

7090 A 4 200 HV



Plain washers, normal series, with chamfer, product grade A

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 335
Brass ➔ pg. 640

ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

for screws M				
4	S	1000	59,00	A4
5	S	1000	335,00	A4
5	K	200	340,00	A4
6	S	1000	390,00	A4
6	K	200	395,00	A4
8	S	500	420,00	A4
8	K	100	420,00	A4
10	S	250	680,00	A4
10	K	100	680,00	A4
12	S	250	840,00	A4
12	K	100	850,00	A4
16	S	100	1880,00	A4
16	K	25	1890,00	A4
18	S	50	202,00	A4
20	S	50	1930,00	A4
20	K	10	1940,00	A4
24	S	50	2000,00	A4
27	S	25	580,00	A4
30	S	25	720,00	A4
33	S	25	2070,00	A4
36	S	10	5600,00	A4
42	S	10	7500,00	A4
45	S	10	10900,00	A4
48	S	10	12400,00	A4
52	S	1	12900,00	A4
56	S	1	14900,00	A4

Dimensions | PU Pieces | €/100/Mat.

ISO 07090.954 3380

7090 A 5 200 HV



Plain washers, normal series, with chamfer, product grade A

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 335
Brass ➔ pg. 640

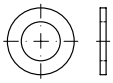
ISO 7090 ➔ replaces DIN 125 type B

RoHS ✓ REACh SVHC free

for screws M				
4	S	1000	59,00	A5
5	S	1000	335,00	A5
6	S	1000	390,00	A5
8	S	500	420,00	A5
10	S	250	680,00	A5
12	S	250	840,00	A5
16	S	100	1880,00	A5
20	S	50	1930,00	A5
24	S	50	2000,00	A5
30	S	25	2700,00	A5

ISO 07092.924 3380

7092 A 2 200 HV



Plain washers, small series, product grade A

primarily for cap screws

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338
Brass ➔ pg. 641

ISO 7092 ➔ replaces DIN 433

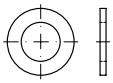
RoHS ✓ REACh SVHC free

for screws M				
2	S	2000	6,50	A2
2,5	S	2000	4,30	A2
3	S	2000	2,10	A2
4	S	2000	2,35	A2
5	S	2000	3,35	A2
6	S	1000	4,95	A2
8	S	1000	9,90	A2
10	S	1000	12,20	A2
12	S	100	20,10	A2
14	S	100	31,50	A2
16	S	50	40,50	A2

Dimensions | PU Pieces | €/100/Mat.

ISO 07092.944 3380

7092 A 4 200 HV



Plain washers, small series, product grade A

primarily for cap screws

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338
Brass ➔ pg. 641

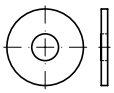
ISO 7092 ➔ replaces DIN 433

RoHS ✓ REACh SVHC free

for screws M				
3	S	2000	3,25	A4
4	S	2000	4,35	A4
5	S	2000	5,30	A4
6	S	1000	8,10	A4
8	S	1000	14,70	A4
10	S	1000	20,00	A4
12	S	100	36,50	A4
16	S	50	64,00	A4
20	S	25	94,00	A4
24	S	25	375,00	A4

ISO 07093.924 750

7093-1 A 2 200 HV



Plain washers, large series, product grade A

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338
Brass ➔ pg. 641

ISO 7093 ➔ replaces DIN 9021

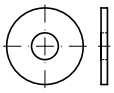
RoHS ✓ REACh SVHC free

for screws M				
3	S	1000	27,50	A2
3	K	200	32,50	A2
4	S	1000	32,50	A2
4	K	200	36,00	A2
5	S	1000	40,00	A2
5	K	200	45,50	A2
6	S	1000	45,50	A2
6	K	200	53,00	A2
8	S	500	52,00	A2
8	K	100	59,00	A2
10	S	250	57,00	A2
10	K	50	71,00	A2
12	S	250	186,00	A2
12	K	50	224,00	A2
14	S	100	154,00	A2
16	S	100	226,00	A2

Dimensions	PU	Pieces	€/100/Mat.
16	K	25	265,00 A2
18	S	100	295,00 A2
20	S	50	670,00 A2
20	K	10	760,00 A2
24	S	25	860,00 A2

ISO 07093.944 750

7093-1 A 4 200 HV



Plain washers, large series, product grade A

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338
Brass ➔ pg. 641

ISO 7093 ➔ replaces DIN 9021

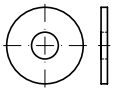
RoHS ✓ REACh SVHC free

for screws M

3	S	1000	46,50 A4
4	S	1000	61,00 A4
5	S	100	61,00 A4
6	S	100	126,00 A4
8	S	100	158,00 A4
10	S	100	200,00 A4
12	S	100	475,00 A4
14	S	100	720,00 A4
16	S	100	910,00 A4
18	S	50	2400,00 A4
20	S	50	2550,00 A4
22	S	10	3700,00 A4
24	S	10	4800,00 A4

ISO 07093.954 750

7093-1 A 5 200 HV



Plain washers, large series, product grade A

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338
Brass ➔ pg. 641

ISO 7093 ➔ replaces DIN 9021

RoHS ✓ REACh SVHC free

for screws M

5	S	100	61,00 A5
6	S	100	126,00 A5
8	S	100	158,00 A5
10	S	100	200,00 A5
12	S	100	475,00 A5
16	S	100	910,00 A5
20	S	50	2550,00 A5
24	S	10	4800,00 A5

Dimensions	PU	Pieces	€/100/Mat.

ISO 07094.920 170

7094 A 2 100 HV



Plain washers, extra large series, product grade C

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338

ISO 7094 ➔ replaces DIN 440 type R (compatible)

RoHS ✓ REACh SVHC free

for screws M

5	S	100	15,20 A2
6	S	100	20,90 A2
8	S	100	49,50 A2
10	S	50	72,00 A2
12	S	50	159,00 A2
16	S	50	305,00 A2
20	S	50	640,00 A2

ISO 07094.940 170

7094 A 4 100 HV



Plain washers, extra large series, product grade C

especially for wood constructions

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 338

ISO 7094 ➔ replaces DIN 440 type R (compatible)

RoHS ✓ REACh SVHC free

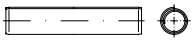
for screws M

5	S	100	64,00 A4
6	S	100	89,00 A4
8	S	100	196,00 A4
10	S	50	305,00 A4
12	S	50	475,00 A4
16	S	50	1520,00 A4
20	S	50	2230,00 A4

Dimensions	PU	Pieces	€/100/Mat.

DIN 07343.960 623

7343 1.4310



Spring-type straight pins, coiled, standard duty

Caution! Reduced spring load.

Dimensions ➔ TI-121 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Spring steel ➔ pg. 339

DIN 7343 ➔ replaced by ISO 8750 (compatible)

RoHS ✓ REACh SVHC free

1	x	6	S	1000	15,00
1	x	10	S	1000	16,10
1	x	12	S	1000	17,10
1,5	x	5	S	1000	14,60
1,5	x	6	S	1000	14,80
1,5	x	8	S	1000	15,20
1,5	x	10	S	1000	16,10
1,5	x	12	S	1000	17,10
2	x	4	S	1000	14,60
2	x	5	S	1000	15,20
2	x	6	S	1000	15,60
2	x	8	S	1000	16,10
2	x	10	S	1000	17,10
2	x	12	S	1000	17,50
2	x	14	S	1000	18,00
2	x	16	S	1000	19,20
2	x	18	S	1000	19,70
2	x	20	S	1000	21,10
2,5	x	5	S	1000	16,50
2,5	x	6	S	1000	17,10
2,5	x	8	S	1000	17,50
2,5	x	10	S	1000	18,00
2,5	x	12	S	1000	19,20
2,5	x	14	S	1000	19,70
2,5	x	16	S	1000	21,10
2,5	x	18	S	1000	23,10
2,5	x	20	S	1000	24,50
2,5	x	22	S	1000	25,50
2,5	x	24	S	1000	27,00
3	x	8	S	1000	23,10
3	x	10	S	1000	24,50
3	x	12	S	1000	26,50
3	x	14	S	1000	30,50
3	x	16	S	1000	31,50
3	x	18	S	1000	33,00
3	x	20	S	1000	34,00
3	x	22	S	1000	38,00
3	x	24	S	1000	39,50
3	x	26	S	1000	42,00
3	x	28	S	1000	44,00
3	x	30	S	1000	46,00
3	x	32	S	1000	47,50
4	x	8	S	500	31,50
4	x	10	S	500	32,00
4	x	12	S	500	36,00
4	x	14	S	500	40,50
4	x	16	S	500	44,50
4	x	18	S	500	47,00
4	x	20	S	500	53,00
4	x	22	S	500	56,00

Dimensions			PU	Pieces	€/100/Mat.
4	x	24	S	500	60,00
4	x	26	S	500	63,00
4	x	28	S	500	66,00
4	x	30	S	500	69,00
4	x	32	S	500	73,00
4	x	35	S	500	78,00
4	x	40	S	500	88,00
4	x	45	S	500	101,00
4	x	50	S	500	110,00
5	x	12	S	500	49,50
5	x	14	S	500	54,00
5	x	16	S	500	60,00
5	x	18	S	500	66,00
5	x	20	S	500	71,00
5	x	22	S	500	76,00
5	x	24	S	500	82,00
5	x	26	S	500	88,00
5	x	28	S	500	92,00
5	x	30	S	500	101,00
5	x	32	S	500	105,00
5	x	35	S	500	116,00
5	x	40	S	500	125,00
5	x	45	S	500	139,00
5	x	50	S	250	152,00
6	x	12	S	500	64,00
6	x	14	S	500	70,00
6	x	16	S	500	77,00
6	x	18	S	500	84,00
6	x	20	S	500	89,00
6	x	22	S	500	99,00
6	x	24	S	500	105,00
6	x	26	S	500	112,00
6	x	28	S	500	118,00
6	x	30	S	500	129,00
6	x	32	S	500	133,00
6	x	35	S	500	148,00
6	x	40	S	250	161,00
6	x	45	S	250	178,00
6	x	50	S	250	195,00
8	x	16	S	500	93,00
8	x	18	S	500	103,00
8	x	20	S	500	112,00
8	x	22	S	500	122,00
8	x	24	S	500	129,00
8	x	26	S	500	139,00
8	x	28	S	500	148,00
8	x	30	S	500	158,00
8	x	32	S	500	167,00
8	x	35	S	500	186,00
8	x	40	S	250	205,00
8	x	45	S	250	229,00
8	x	50	S	250	250,00

DIN 07349.920 620

7349 A 2 100 HV



Washers for screws with heavy spring-type straight pins

Dimensions ➔ TI-85 Material properties ➔ TI-236

Steel ➔ pg. 341

RoHS ✓ REACh SVHC free

inside ∅	x	outside ∅	x	thickness			
3,2	x	9	x	1	S	100	13,70 A 2
4,3	x	12	x	1,6	S	100	14,40 A 2
5,3	x	15	x	2	S	100	23,30 A 2
6,4	x	17	x	3	S	100	43,50 A 2
8,4	x	21	x	4	S	100	79,00 A 2
10,5	x	25	x	4	S	100	112,00 A 2
13	x	30	x	6	S	50	265,00 A 2
17	x	40	x	6	S	50	395,00 A 2
21	x	44	x	8	S	25	730,00 A 2
25	x	50	x	10	S	25	1130,00 A 2

DIN 07349.940 620

7349 A 4 100 HV



Washers for screws with heavy spring-type straight pins

Dimensions ➔ TI-85 Material properties ➔ TI-236

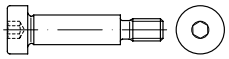
Steel ➔ pg. 341

RoHS ✓ REACh SVHC free

inside ∅	x	outside ∅	x	thickness			
8,4	x	21	x	4	S	100	102,00 A 4
10,5	x	25	x	4	S	50	145,00 A 4
13	x	30	x	6	S	50	360,00 A 4
17	x	40	x	6	S	50	510,00 A 4
21	x	44	x	8	S	25	890,00 A 4
25	x	50	x	10	S	10	1870,00 A 4

~ISO 07379.920 3400

7379 A 2 f9



Hex. socket head shoulder screws, outer nominal size = ISO 7379, tolerance of fit shank f9

Dimensions ➔ TI-13 Material properties ➔ TI-236

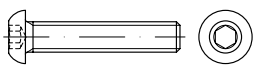
Steel ➔ pg. 342

RoHS ✓ REACh SVHC free

shank ∅ / thread M	x	shank length			
6 f9 M 5	x	10	S	50	640,00 A 2
6 f9 M 5	x	12	S	50	690,00 A 2
6 f9 M 5	x	16	S	50	760,00 A 2
6 f9 M 5	x	20	S	50	810,00 A 2
6 f9 M 5	x	25	S	50	860,00 A 2
8 f9 M 6	x	12	S	50	860,00 A 2
8 f9 M 6	x	16	S	50	910,00 A 2
8 f9 M 6	x	20	S	50	970,00 A 2
8 f9 M 6	x	25	S	50	1030,00 A 2
10f9 M 8	x	16	S	50	1350,00 A 2
10f9 M 8	x	20	S	50	1440,00 A 2
10f9 M 8	x	25	S	50	1580,00 A 2
10f9 M 8	x	30	S	50	1710,00 A 2
12f9 M 10	x	20	S	50	2030,00 A 2
12f9 M 10	x	25	S	50	2200,00 A 2
12f9 M 10	x	30	S	50	2290,00 A 2
12f9 M 10	x	40	S	50	2600,00 A 2
16f9 M 12	x	30	S	25	4850,00 A 2
16f9 M 12	x	40	S	25	5400,00 A 2
16f9 M 12	x	50	S	25	6200,00 A 2

ISO 07380.920 3500

7380-1 A 2



Hexagon socket button head screws

sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14 Tightening torque ➔ TI-246, 249
Material properties ➔ TI-232

Steel ➔ pg. 342

RoHS ✓ REACh SVHC free

M 3	x	4	S	500	63,00 A 2
M 3	x	5	S	500	63,00 A 2
M 3	x	6	S	500	52,00 A 2
M 3	x	8	S	500	52,00 A 2
M 3	x	10	S	500	52,00 A 2
M 3	x	12	S	500	52,00 A 2
M 3	x	16	S	500	56,00 A 2
M 3	x	20	S	500	56,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	25	S	500	60,00 A2
M 4	x	4	S	500	94,00 A2
M 4	x	5	S	500	87,00 A2
M 4	x	6	S	500	60,00 A2
M 4	x	8	S	500	60,00 A2
M 4	x	10	S	500	60,00 A2
M 4	x	12	S	500	60,00 A2
M 4	x	16	S	500	63,00 A2
M 4	x	20	S	500	63,00 A2
M 4	x	25	S	500	63,00 A2
M 4	x	30	S	500	67,00 A2
M 4	x	35	S	200	71,00 A2
M 5	x	6	S	500	60,00 A2
M 5	x	8	S	500	56,00 A2
M 5	x	10	S	500	56,00 A2
M 5	x	12	S	500	56,00 A2
M 5	x	16	S	500	56,00 A2
M 5	x	20	S	500	60,00 A2
M 5	x	25	S	500	60,00 A2
M 5	x	30	S	500	60,00 A2
M 5	x	40	S	500	63,00 A2
M 5	x	45	S	200	67,00 A2
M 6	x	8	S	500	56,00 A2
M 6	x	10	S	500	56,00 A2
M 6	x	12	S	500	56,00 A2
M 6	x	16	S	500	60,00 A2
M 6	x	20	S	500	60,00 A2
M 6	x	25	S	500	63,00 A2
M 6	x	30	S	500	67,00 A2
M 6	x	35	S	200	114,00 A2
M 6	x	40	S	200	127,00 A2
M 6	x	45	S	200	151,00 A2
M 6	x	50	S	200	168,00 A2
M 6	x	55	S	200	197,00 A2
M 6	x	60	S	200	209,00 A2
M 8	x	10	S	200	94,00 A2
M 8	x	12	S	200	94,00 A2
M 8	x	16	S	200	94,00 A2
M 8	x	20	S	200	102,00 A2
M 8	x	25	S	200	106,00 A2
M 8	x	30	S	200	137,00 A2
M 8	x	35	S	200	156,00 A2
M 8	x	40	S	200	168,00 A2
M 8	x	45	S	200	169,00 A2
M 8	x	50	S	200	175,00 A2
M 8	x	60	S	200	178,00 A2
M 10	x	16	S	200	154,00 A2
M 10	x	20	S	200	155,00 A2
M 10	x	25	S	200	175,00 A2
M 10	x	30	S	200	195,00 A2
M 10	x	40	S	100	199,00 A2
M 10	x	50	S	100	224,00 A2

Dimensions	PU	Pieces	€/100/Mat.
~ISO	07380.921		3500

7380-1 A 2 ISR



Hexalobular socket button head screws, ISR = hexalobular socket, thread up to head

~DIN 34805-1

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14 Tightening torque ➔ TI-246, 249
Material properties ➔ TI-232

Steel ➔ pg. 343

RoHS ✓ REACh SVHC free

M 3	x	4 -T10	S	500	63,00 A2
M 3	x	5 -T10	S	500	63,00 A2
M 3	x	6 -T10	S	500	52,00 A2
M 3	x	8 -T10	S	500	52,00 A2
M 3	x	10 -T10	S	500	52,00 A2
M 3	x	12 -T10	S	500	52,00 A2
M 3	x	16 -T10	S	500	56,00 A2
M 3	x	20 -T10	S	500	56,00 A2
M 3	x	25 -T10	S	500	60,00 A2
M 3	x	30 -T10	S	500	63,00 A2
M 3	x	35 -T10	S	500	67,00 A2
M 3	x	40 -T10	S	500	72,00 A2
M 4	x	4 -T20	S	500	94,00 A2
M 4	x	5 -T20	S	500	87,00 A2
M 4	x	6 -T20	S	500	60,00 A2
M 4	x	8 -T20	S	500	60,00 A2
M 4	x	10 -T20	S	500	60,00 A2
M 4	x	12 -T20	S	500	60,00 A2
M 4	x	16 -T20	S	500	63,00 A2
M 4	x	20 -T20	S	500	63,00 A2
M 4	x	25 -T20	S	500	63,00 A2
M 4	x	30 -T20	S	500	67,00 A2
M 4	x	35 -T20	S	200	71,00 A2
M 4	x	40 -T20	S	200	75,00 A2
M 4	x	45 -T20	S	200	78,00 A2
M 4	x	50 -T20	S	200	84,00 A2
M 5	x	6 -T25	S	500	60,00 A2
M 5	x	8 -T25	S	500	56,00 A2
M 5	x	10 -T25	S	500	56,00 A2
M 5	x	12 -T25	S	500	56,00 A2
M 5	x	16 -T25	S	500	56,00 A2
M 5	x	20 -T25	S	500	60,00 A2
M 5	x	25 -T25	S	500	60,00 A2
M 5	x	30 -T25	S	500	60,00 A2
M 5	x	35 -T25	S	200	61,00 A2
M 5	x	40 -T25	S	200	63,00 A2
M 5	x	45 -T25	S	200	67,00 A2
M 5	x	50 -T25	S	200	72,00 A2
M 6	x	8 -T30	S	500	56,00 A2
M 6	x	10 -T30	S	500	56,00 A2
M 6	x	12 -T30	S	500	56,00 A2
M 6	x	16 -T30	S	500	60,00 A2
M 6	x	20 -T30	S	500	60,00 A2
M 6	x	25 -T30	S	500	63,00 A2
M 6	x	30 -T30	S	500	67,00 A2
M 6	x	35 -T30	S	200	114,00 A2
M 6	x	40 -T30	S	200	127,00 A2
M 6	x	45 -T30	S	200	151,00 A2
M 6	x	50 -T30	S	200	168,00 A2
M 6	x	55 -T30	S	200	181,00 A2
M 6	x	60 -T30	S	200	209,00 A2
M 8	x	10 -T40	S	200	94,00 A2
M 8	x	12 -T40	S	200	94,00 A2
M 8	x	16 -T40	S	200	94,00 A2
M 8	x	20 -T40	S	200	102,00 A2
M 8	x	25 -T40	S	200	106,00 A2
M 8	x	30 -T40	S	200	137,00 A2
M 8	x	35 -T40	S	200	156,00 A2
M 8	x	40 -T40	S	200	168,00 A2
M 8	x	45 -T40	S	200	169,00 A2
M 8	x	50 -T40	S	200	175,00 A2
M 8	x	55 -T40	S	200	177,00 A2
M 8	x	60 -T40	S	200	178,00 A2
M 10	x	16 -T50	S	200	154,00 A2
M 10	x	20 -T50	S	200	155,00 A2
M 10	x	25 -T50	S	200	175,00 A2
M 10	x	30 -T50	S	200	195,00 A2
M 10	x	35 -T50	S	200	197,00 A2
M 10	x	40 -T50	S	100	199,00 A2
M 10	x	45 -T50	S	100	213,00 A2
M 10	x	50 -T50	S	100	224,00 A2

ISO	07380.922	3500

7380-2 A 2



Hexagon socket button head screws with collar

sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14 Tightening torque ➔ TI-246, 249
Material properties ➔ TI-232

Steel ➔ pg. 344

RoHS ✓ REACh SVHC free

M 3	x	6	S	500	122,00 A2
M 3	x	8	S	500	139,00 A2
M 3	x	10	S	500	148,00 A2
M 4	x	6	S	500	156,00 A2
M 4	x	8	S	500	156,00 A2
M 4	x	10	S	500	140,00 A2
M 4	x	12	S	500	142,00 A2
M 4	x	16	S	500	148,00 A2
M 4	x	20	S	500	163,00 A2
M 4	x	25	S	500	178,00 A2
M 5	x	6	S	500	161,00 A2
M 5	x	8	S	500	161,00 A2
M 5	x	10	S	500	149,00 A2
M 5	x	12	S	500	152,00 A2
M 5	x	16	S	500	167,00 A2
M 5	x	20	S	500	184,00 A2
M 5	x	25	S	500	194,00 A2
M 6	x	8	S	500	148,00 A2
M 6	x	10	S	500	154,00 A2
M 6	x	12	S	500	171,00 A2
M 6	x	16	S	500	194,00 A2
M 6	x	20	S	500	218,00 A2
M 6	x	25	S	500	247,00 A2
M 6	x	30	S	500	280,00 A2
M 6	x	35	S	200	305,00 A2
M 6	x	40	S	200	330,00 A2
M 6	x	45	S	200	350,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	10	S	200	300,00 A 2
M 8	x	12	S	200	290,00 A 2
M 8	x	16	S	200	315,00 A 2
M 8	x	20	S	200	385,00 A 2
M 8	x	25	S	200	455,00 A 2

~ISO	07380.924	3500

7380-2 A 2 ISR



Hexalobular socket button head screws with collar, ISR = hexalobular socket, thread up to head

~DIN 34805-2

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Tightening torque ➔ TI-246, 249
Material properties ➔ TI-232

RoHS ✓ | REACh SVHC free

M 3	x	4 -T10	S	500	110,00 A 2
M 3	x	5 -T10	S	500	116,00 A 2
M 3	x	6 -T10	S	500	122,00 A 2
M 3	x	8 -T10	S	500	139,00 A 2
M 3	x	10 -T10	S	500	148,00 A 2
M 3	x	12 -T10	S	500	155,00 A 2
M 3	x	16 -T10	S	500	159,00 A 2
M 3	x	20 -T10	S	500	164,00 A 2
M 3	x	25 -T10	S	500	167,00 A 2
M 3	x	30 -T10	S	500	173,00 A 2
M 3	x	35 -T10	S	500	177,00 A 2
M 3	x	40 -T10	S	500	179,00 A 2
M 4	x	4 -T20	S	500	144,00 A 2
M 4	x	5 -T20	S	500	151,00 A 2
M 4	x	6 -T20	S	500	156,00 A 2
M 4	x	8 -T20	S	500	156,00 A 2
M 4	x	10 -T20	S	500	140,00 A 2
M 4	x	12 -T20	S	500	142,00 A 2
M 4	x	16 -T20	S	500	148,00 A 2
M 4	x	20 -T20	S	500	163,00 A 2
M 4	x	25 -T20	S	500	178,00 A 2
M 4	x	30 -T20	S	500	187,00 A 2
M 4	x	35 -T20	S	200	199,00 A 2
M 4	x	40 -T20	S	200	208,00 A 2
M 4	x	45 -T20	S	200	215,00 A 2
M 4	x	50 -T20	S	200	220,00 A 2
M 5	x	6 -T20	S	500	161,00 A 2
M 5	x	8 -T25	S	500	161,00 A 2
M 5	x	10 -T25	S	500	149,00 A 2
M 5	x	12 -T25	S	500	152,00 A 2
M 5	x	16 -T25	S	500	167,00 A 2
M 5	x	20 -T25	S	500	184,00 A 2
M 5	x	25 -T25	S	500	194,00 A 2
M 5	x	30 -T25	S	500	207,00 A 2
M 5	x	35 -T25	S	200	213,00 A 2
M 5	x	40 -T25	S	200	218,00 A 2
M 5	x	45 -T25	S	200	227,00 A 2
M 5	x	50 -T25	S	200	239,00 A 2
M 6	x	8 -T30	S	500	148,00 A 2
M 6	x	10 -T30	S	500	154,00 A 2
M 6	x	12 -T30	S	500	171,00 A 2
M 6	x	16 -T30	S	500	194,00 A 2
M 6	x	20 -T30	S	500	218,00 A 2
M 6	x	25 -T30	S	500	247,00 A 2
M 6	x	30 -T30	S	500	280,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	35 -T30	S	200	305,00 A 2
M 6	x	40 -T30	S	200	330,00 A 2
M 6	x	45 -T30	S	200	350,00 A 2
M 6	x	50 -T30	S	200	370,00 A 2
M 6	x	55 -T30	S	200	400,00 A 2
M 6	x	60 -T30	S	200	420,00 A 2
M 8	x	10 -T40	S	200	300,00 A 2
M 8	x	12 -T40	S	200	290,00 A 2
M 8	x	16 -T40	S	200	315,00 A 2
M 8	x	20 -T40	S	200	385,00 A 2
M 8	x	25 -T40	S	200	455,00 A 2
M 8	x	30 -T40	S	200	470,00 A 2
M 8	x	35 -T40	S	200	480,00 A 2
M 8	x	40 -T40	S	200	495,00 A 2
M 8	x	45 -T40	S	200	495,00 A 2
M 8	x	50 -T40	S	200	510,00 A 2
M 8	x	55 -T40	S	200	530,00 A 2
M 8	x	60 -T40	S	200	540,00 A 2
M 10	x	16 -T50	S	200	400,00 A 2
M 10	x	20 -T50	S	200	415,00 A 2
M 10	x	25 -T50	S	200	430,00 A 2
M 10	x	30 -T50	S	200	445,00 A 2
M 10	x	35 -T50	S	200	470,00 A 2
M 10	x	40 -T50	S	100	495,00 A 2
M 10	x	45 -T50	S	100	510,00 A 2
M 10	x	50 -T50	S	100	530,00 A 2
M 10	x	55 -T50	S	100	550,00 A 2

ISO	07434.910	230

7434 A 1



Slotted grub screws with cone point

Dimensions ➔ TI-19
Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 345
Brass ➔ pg. 641

ISO 7434 ➔ replaces DIN 553 (compatible)

RoHS ✓ | REACh SVHC free

M 2	x	3	S	50	29,00 A 1
M 2	x	4	S	50	30,50 A 1
M 2,5	x	5	S	50	31,50 A 1
M 2,5	x	6	S	50	32,50 A 1
M 2,5	x	8	S	50	33,00 A 1
M 3	x	4	S	50	30,00 A 1
M 3	x	5	S	50	31,50 A 1
M 3	x	6	S	50	33,50 A 1
M 3	x	8	S	50	35,50 A 1
M 4	x	5	S	50	33,00 A 1
M 4	x	6	S	50	34,50 A 1
M 4	x	8	S	50	36,50 A 1
M 4	x	10	S	50	38,50 A 1
M 4	x	12	S	50	40,50 A 1
M 4	x	16	S	50	42,50 A 1
M 5	x	5	S	50	35,50 A 1
M 5	x	6	S	50	37,50 A 1
M 5	x	8	S	50	40,00 A 1
M 5	x	10	S	50	42,00 A 1
M 5	x	12	S	50	44,50 A 1
M 5	x	16	S	50	49,50 A 1
M 6	x	6	S	25	45,00 A 1
M 6	x	8	S	25	46,50 A 1
M 6	x	10	S	25	51,00 A 1
M 6	x	12	S	25	53,00 A 1

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	16	S	25	57,00 A 1
M 6	x	20	S	25	65,00 A 1
M 6	x	25	S	25	75,00 A 1

ISO	07434.940	230

7434 A 4



Slotted grub screws with cone point

Dimensions ➔ TI-19
Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 345
Brass ➔ pg. 641

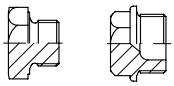
ISO 7434 ➔ replaces DIN 553 (compatible)

RoHS ✓ | REACh SVHC free

M 4	x	6	S	50	98,00 A 4
M 4	x	8	S	50	104,00 A 4
M 4	x	10	S	50	112,00 A 4
M 5	x	5	S	50	101,00 A 4
M 5	x	6	S	50	107,00 A 4
M 5	x	8	S	50	116,00 A 4
M 5	x	10	S	50	122,00 A 4
M 5	x	16	S	25	152,00 A 4
M 6	x	6	S	25	126,00 A 4
M 6	x	8	S	25	131,00 A 4
M 6	x	10	S	25	141,00 A 4
M 6	x	12	S	25	152,00 A 4
M 6	x	16	S	25	160,00 A 4
M 8	x	12	S	25	227,00 A 4
M 8	x	16	S	25	250,00 A 4
M 8	x	20	S	25	300,00 A 4
M 8	x	25	S	25	355,00 A 4

DIN	07604.941	640

7604 A 4 type A



≤ M16 ≥ M18

Hexagon head screw plugs with collar, light type, A = short stud end, cylindrical fine pitch thread

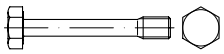
Dimensions ➔ TI-24
Material properties ➔ TI-236

Steel ➔ pg. 351

RoHS ✓ | REACh SVHC free

AM 10	x	1	S	10	1580,00 A 4
AM 12	x	1,5	S	10	2460,00 A 4
AM 14	x	1,5	S	10	2750,00 A 4
AM 16	x	1,5	S	1	2900,00 A 4
AM 18	x	1,5	S	1	6400,00 A 4
AM 22	x	1,5	S	1	7200,00 A 4

Dimensions	PU Pieces	€/100/Mat.
~DIN	07964.924	401
7964	**A 2**	**K-D1**



Hexagon head screws with waisted shank, short thread, wrench sizes acc. to ISO

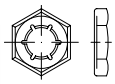
Dimensions ➔ TI-17 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

thread ∅ x length / thread length

M 8	x 20/10	S	100	320,00 A 2
M 8	x 30/10	S	100	330,00 A 2
M 10	x 25/12,5	S	50	420,00 A 2
M 10	x 35/12,5	S	50	435,00 A 2

~DIN	07967.960	640
7967	**1.4310**	



Self locking counter nuts

Caution! Reduced spring load.

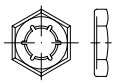
Dimensions ➔ TI-68 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

Spring steel ➔ pg. 352

RoHS ✓ REACh SVHC free

M 6	S	100	57,00
M 8	S	100	64,00
M 10	S	100	77,00
M 12	S	100	94,00
M 16	S	100	118,00
M 20	S	100	203,00
M 24	S	100	260,00
M 30	S	50	3150,00

Dimensions	PU Pieces	€/100/Mat.
~DIN	07967.940	640
7967	**A 4**	



Self locking counter nuts

Caution! Reduced spring load.

Dimensions ➔ TI-68 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

Spring steel ➔ pg. 352

RoHS ✓ REACh SVHC free

M 6	S	100	129,00 A 4
M 8	S	100	137,00 A 4
M 10	S	100	158,00 A 4
M 12	S	100	179,00 A 4
M 16	S	100	242,00 A 4
M 20	S	50	420,00 A 4
M 24	S	50	530,00 A 4
M 27	S	10	5300,00 A 4
M 30	S	10	6300,00 A 4

article	88312.920	660
88312	**A 2**	**type C**



Cylindrical head tapping screws with hexagon socket C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-50 Assembly ➔ TI-251
Material properties ➔ TI-236

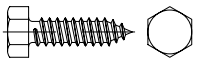
head sizes acc. to DIN 912/ISO 4762

RoHS ✓ REACh SVHC free

C 4,8	x	13	S	200	72,00 A 2
C 4,8	x	16	S	1000	73,00 A 2
C 4,8	x	19	S	1000	75,00 A 2
C 4,8	x	22	S	200	83,00 A 2
C 4,8	x	25	S	1000	84,00 A 2
C 4,8	x	32	S	500	90,00 A 2
C 4,8	x	38	S	500	103,00 A 2
C 4,8	x	45	S	200	125,00 A 2
C 4,8	x	50	S	200	156,00 A 2
C 4,8	x	60	S	200	186,00 A 2
C 4,8	x	70	S	200	218,00 A 2
C 5,5	x	16	S	200	82,00 A 2
C 5,5	x	19	S	500	83,00 A 2
C 5,5	x	22	S	200	91,00 A 2
C 5,5	x	25	S	200	95,00 A 2
C 5,5	x	32	S	200	106,00 A 2
C 5,5	x	38	S	250	118,00 A 2
C 5,5	x	45	S	250	127,00 A 2
C 5,5	x	50	S	200	161,00 A 2
C 5,5	x	60	S	200	194,00 A 2

Dimensions	PU Pieces	€/100/Mat.
C 5,5 x 70	S 200	229,00 A 2
C 6,3 x 16	S 200	88,00 A 2
C 6,3 x 19	S 200	93,00 A 2
C 6,3 x 22	S 200	99,00 A 2
C 6,3 x 25	S 500	108,00 A 2
C 6,3 x 32	S 200	118,00 A 2
C 6,3 x 38	S 200	127,00 A 2
C 6,3 x 45	S 200	130,00 A 2
C 6,3 x 50	S 250	165,00 A 2
C 6,3 x 60	S 200	199,00 A 2
C 6,3 x 70	S 200	243,00 A 2

DIN	07976.923	660
7976	**A 2**	**type C**



Hexagon head tapping screws, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-46 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

Steel ➔ pg. 354

DIN 7976 ➔ replaced by ISO 1479

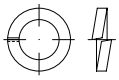
RoHS ✓ REACh SVHC free

C 2,9	x	9,5	S	1000	10,30 A 2
C 2,9	x	13	S	1000	11,60 A 2
C 2,9	x	16	S	1000	12,20 A 2
C 2,9	x	19	S	1000	13,50 A 2
C 2,9	x	22	S	1000	16,50 A 2
C 2,9	x	25	S	1000	18,60 A 2
C 2,9	x	32	S	1000	22,80 A 2
C 3,5	x	9,5	S	1000	12,50 A 2
C 3,5	x	13	S	1000	12,70 A 2
C 3,5	x	16	S	1000	13,50 A 2
C 3,5	x	19	S	1000	15,00 A 2
C 3,5	x	22	S	1000	17,60 A 2
C 3,5	x	25	S	1000	20,30 A 2
C 3,5	x	32	S	1000	24,30 A 2
C 3,5	x	38	S	1000	27,00 A 2
C 3,9	x	9,5	S	1000	14,60 A 2
C 3,9	x	13	S	1000	14,40 A 2
C 3,9	x	16	S	1000	15,20 A 2
C 3,9	x	19	S	1000	15,60 A 2
C 3,9	x	22	S	500	20,10 A 2
C 3,9	x	25	S	500	22,40 A 2
C 3,9	x	32	S	500	26,00 A 2
C 3,9	x	38	S	500	30,00 A 2
C 3,9	x	45	S	500	33,50 A 2
C 3,9	x	50	S	500	35,00 A 2
C 4,2	x	9,5	S	1000	15,90 A 2
C 4,2	x	13	S	1000	15,60 A 2
C 4,2	x	16	S	1000	16,10 A 2
C 4,2	x	19	S	1000	17,60 A 2
C 4,2	x	22	S	500	22,60 A 2
C 4,2	x	25	S	500	23,10 A 2
C 4,2	x	32	S	500	28,50 A 2
C 4,2	x	38	S	500	32,00 A 2
C 4,2	x	45	S	500	39,00 A 2
C 4,2	x	50	S	500	46,00 A 2
C 4,8	x	13	S	1000	19,90 A 2
C 4,8	x	16	S	1000	21,40 A 2
C 4,8	x	19	S	1000	22,60 A 2
C 4,8	x	22	S	1000	25,50 A 2

Dimensions			PU	Pieces	€/100/Mat.
C 4,8	x	25	S	1000	28,00 A2
C 4,8	x	32	S	500	34,50 A2
C 4,8	x	38	S	500	37,00 A2
C 4,8	x	45	S	500	47,50 A2
C 4,8	x	50	S	250	56,00 A2
C 5,5	x	13	S	500	31,50 A2
C 5,5	x	16	S	500	32,50 A2
C 5,5	x	19	S	500	34,50 A2
C 5,5	x	22	S	500	39,50 A2
C 5,5	x	25	S	250	43,00 A2
C 5,5	x	32	S	250	49,50 A2
C 5,5	x	38	S	250	56,00 A2
C 5,5	x	45	S	250	63,00 A2
C 5,5	x	50	S	250	69,00 A2
C 6,3	x	13	S	250	45,50 A2
C 6,3	x	16	S	500	45,50 A2
C 6,3	x	19	S	500	48,50 A2
C 6,3	x	22	S	500	55,00 A2
C 6,3	x	25	S	500	59,00 A2
C 6,3	x	32	S	250	65,00 A2
C 6,3	x	38	S	250	72,00 A2
C 6,3	x	45	S	250	81,00 A2
C 6,3	x	50	S	250	87,00 A2
C 6,3	x	60	S	100	106,00 A2
C 6,3	x	70	S	100	148,00 A2
C 8	x	16	S	100	86,00 A2
C 8	x	19	S	100	95,00 A2
C 8	x	22	S	250	97,00 A2
C 8	x	25	S	100	148,00 A2
C 8	x	32	S	100	157,00 A2
C 8	x	38	S	100	211,00 A2
C 8	x	45	S	100	285,00 A2
C 8	x	50	S	100	390,00 A2
C 8	x	60	S	100	530,00 A2

~DIN | 07980.960 | 680

7980 1.4310



Spring lock washers for cheese head screws

Caution! Reduced spring load.

Dimensions ➔ TI-100 Material properties ➔ TI-236

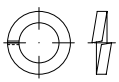
Spring steel ➔ pg. 357

RoHS ✓ REACh SVHC free

3	S 1000	5,30
3	K 100	8,50
4	S 1000	5,80
4	K 100	8,90
5	S 1000	8,70
5	K 100	11,80
6	S 1000	10,10
6	K 100	13,10
8	S 1000	19,40
8	K 100	22,40
10	S 1000	33,50
10	K 100	37,00
12	S 500	41,00
12	K 100	44,00
16	S 250	97,00
16	K 50	103,00

~DIN | 07980.940 | 680

7980 A 4



Spring lock washers for cheese head screws

Caution! Reduced spring load.

Dimensions ➔ TI-100 Material properties ➔ TI-236

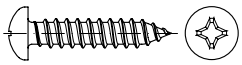
Spring steel ➔ pg. 357

RoHS ✓ REACh SVHC free

4	S 1000	8,20 A4
4	K 100	11,80 A4
5	S 1000	11,60 A4
5	K 100	14,90 A4
6	S 1000	13,50 A4
6	K 100	16,80 A4
8	S 1000	30,00 A4
8	K 100	33,00 A4
10	S 1000	46,00 A4
10	K 100	49,50 A4
12	S 500	57,00 A4
12	K 100	60,00 A4
16	S 100	128,00 A4
16	K 50	132,00 A4
20	S 50	295,00 A4

DIN | 07981.924 | 690

7981 A 2 type C-H



Pan head tapping screws with Phillips cross recess H, C = with cone end

nominal lengths from 60 mm with partial thread

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-46 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

Steel ➔ pg. 357

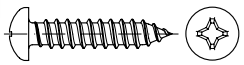
DIN 7981 ➔ replaced by ISO 7049

RoHS ✓ REACh SVHC free

C 2,2	x	4,5-H	S 1000	11,40 A2
C 2,2	x	6,5-H	S 1000	11,00 A2
C 2,2	x	6,5-H	K 100	14,90 A2
C 2,2	x	9,5-H	S 1000	8,70 A2
C 2,2	x	13 -H	S 1000	12,40 A2
C 2,2	x	16 -H	S 1000	14,20 A2
C 2,2	x	19 -H	S 1000	19,00 A2
C 2,9	x	6,5-H	K 100	11,00 A2
C 2,9	x	6,5-H	S 1000	7,10 A2
C 2,9	x	9,5-H	S 1000	4,95 A2
C 2,9	x	9,5-H	K 100	8,80 A2
C 2,9	x	13 -H	S 1000	5,20 A2
C 2,9	x	13 -H	K 100	9,00 A2
C 2,9	x	16 -H	S 1000	5,70 A2
C 2,9	x	16 -H	K 100	9,60 A2
C 2,9	x	19 -H	S 1000	6,10 A2
C 2,9	x	19 -H	K 100	10,00 A2
C 2,9	x	22 -H	S 1000	10,20 A2
C 2,9	x	22 -H	K 100	14,00 A2
C 2,9	x	25 -H	S 1000	10,60 A2
C 2,9	x	25 -H	K 100	14,50 A2
C 3,5	x	6,5-H	S 1000	8,00 A2
C 3,5	x	9,5-H	S 1000	6,50 A2
C 3,5	x	9,5-H	K 100	10,40 A2
C 3,5	x	13 -H	S 1000	6,90 A2
C 3,5	x	13 -H	K 100	10,70 A2
C 3,5	x	16 -H	S 1000	7,20 A2
C 3,5	x	16 -H	K 100	11,10 A2
C 3,5	x	19 -H	S 1000	8,00 A2
C 3,5	x	19 -H	K 100	11,90 A2
C 3,5	x	22 -H	S 1000	10,00 A2
C 3,5	x	22 -H	K 100	13,90 A2
C 3,5	x	25 -H	S 1000	10,40 A2
C 3,5	x	25 -H	K 100	14,20 A2
C 3,5	x	32 -H	S 1000	11,80 A2
C 3,5	x	32 -H	K 100	15,70 A2
C 3,5	x	38 -H	S 1000	13,20 A2
C 3,5	x	38 -H	K 100	17,10 A2
C 3,5	x	45 -H	S 1000	17,10 A2
C 3,5	x	50 -H	S 1000	22,80 A2
C 3,5	x	60 -H	S 500	31,50 A2
C 3,9	x	9,5-H	S 1000	7,80 A2
C 3,9	x	9,5-H	K 100	11,70 A2
C 3,9	x	13 -H	S 1000	7,80 A2
C 3,9	x	13 -H	K 100	11,70 A2
C 3,9	x	16 -H	S 1000	8,40 A2
C 3,9	x	16 -H	K 100	12,30 A2
C 3,9	x	19 -H	S 1000	9,10 A2
C 3,9	x	19 -H	K 100	13,00 A2
C 3,9	x	22 -H	S 500	11,20 A2
C 3,9	x	22 -H	K 100	15,10 A2
C 3,9	x	25 -H	S 500	11,60 A2
C 3,9	x	25 -H	K 100	15,50 A2
C 3,9	x	32 -H	S 500	13,80 A2
C 3,9	x	32 -H	K 100	17,60 A2
C 3,9	x	38 -H	S 500	15,80 A2
C 3,9	x	38 -H	K 100	19,60 A2
C 3,9	x	45 -H	S 500	19,50 A2
C 3,9	x	50 -H	S 500	23,40 A2
C 4,2	x	9,5-H	S 1000	8,80 A2
C 4,2	x	9,5-H	K 100	12,60 A2
C 4,2	x	13 -H	S 1000	8,90 A2
C 4,2	x	13 -H	K 100	12,80 A2
C 4,2	x	16 -H	S 1000	10,00 A2
C 4,2	x	16 -H	K 100	13,90 A2
C 4,2	x	19 -H	S 500	10,90 A2
C 4,2	x	19 -H	K 100	14,80 A2
C 4,2	x	22 -H	S 500	12,40 A2
C 4,2	x	22 -H	K 100	16,20 A2
C 4,2	x	25 -H	S 500	12,70 A2
C 4,2	x	25 -H	K 100	16,60 A2
C 4,2	x	32 -H	S 500	15,80 A2
C 4,2	x	32 -H	K 100	19,60 A2
C 4,2	x	38 -H	S 500	17,90 A2
C 4,2	x	38 -H	K 100	21,80 A2
C 4,2	x	45 -H	S 500	26,00 A2
C 4,2	x	45 -H	K 100	30,00 A2
C 4,2	x	50 -H	S 500	29,50 A2
C 4,2	x	50 -H	K 100	33,50 A2
C 4,8	x	9,5-H	S 500	11,00 A2
C 4,8	x	9,5-H	K 100	14,90 A2
C 4,8	x	13 -H	S 500	11,40 A2
C 4,8	x	13 -H	K 100	15,30 A2
C 4,8	x	16 -H	S 500	12,40 A2
C 4,8	x	16 -H	K 100	16,20 A2
C 4,8	x	19 -H	S 500	13,80 A2
C 4,8	x	19 -H	K 100	17,60 A2

Dimensions				PU	Pieces	€/100/Mat.
C 4,8	x	22	-H	S	500	15,80 A2
C 4,8	x	22	-H	K	100	19,60 A2
C 4,8	x	25	-H	S	500	16,10 A2
C 4,8	x	25	-H	K	100	20,00 A2
C 4,8	x	32	-H	S	250	20,50 A2
C 4,8	x	32	-H	K	100	24,50 A2
C 4,8	x	38	-H	S	250	22,90 A2
C 4,8	x	38	-H	K	100	27,00 A2
C 4,8	x	45	-H	S	250	30,00 A2
C 4,8	x	45	-H	K	100	34,00 A2
C 4,8	x	50	-H	S	250	31,00 A2
C 4,8	x	50	-H	K	100	35,00 A2
C 4,8	x	60	-H	S	250	42,00 A2
C 4,8	x	70	-H	S	250	55,00 A2
C 4,8	x	80	-H	S	100	66,00 A2
C 4,8	x	90	-H	S	100	85,00 A2
C 4,8	x	100	-H	S	100	107,00 A2
C 4,8	x	120	-H	S	100	142,00 A2
C 5,5	x	13	-H	S	500	18,50 A2
C 5,5	x	13	-H	K	100	22,40 A2
C 5,5	x	16	-H	S	500	19,70 A2
C 5,5	x	16	-H	K	100	23,60 A2
C 5,5	x	19	-H	S	500	21,10 A2
C 5,5	x	19	-H	K	100	24,90 A2
C 5,5	x	22	-H	S	500	23,10 A2
C 5,5	x	22	-H	K	100	27,00 A2
C 5,5	x	25	-H	S	500	24,80 A2
C 5,5	x	25	-H	K	100	29,00 A2
C 5,5	x	32	-H	S	250	29,00 A2
C 5,5	x	32	-H	K	100	33,00 A2
C 5,5	x	38	-H	S	250	33,00 A2
C 5,5	x	38	-H	K	100	37,00 A2
C 5,5	x	45	-H	S	250	39,50 A2
C 5,5	x	45	-H	K	100	43,50 A2
C 5,5	x	50	-H	S	250	44,00 A2
C 5,5	x	50	-H	K	100	48,00 A2
C 5,5	x	60	-H	S	100	53,00 A2
C 5,5	x	70	-H	S	100	61,00 A2
C 5,5	x	80	-H	S	100	76,00 A2
C 5,5	x	90	-H	S	100	105,00 A2
C 5,5	x	100	-H	S	100	129,00 A2
C 6,3	x	13	-H	S	250	25,50 A2
C 6,3	x	13	-H	K	100	29,50 A2
C 6,3	x	16	-H	S	500	21,20 A2
C 6,3	x	16	-H	K	100	25,50 A2
C 6,3	x	19	-H	S	250	22,80 A2
C 6,3	x	19	-H	K	100	27,00 A2
C 6,3	x	22	-H	S	250	25,00 A2
C 6,3	x	22	-H	K	100	29,00 A2
C 6,3	x	25	-H	S	250	26,50 A2
C 6,3	x	25	-H	K	100	30,50 A2
C 6,3	x	32	-H	S	250	32,00 A2
C 6,3	x	32	-H	K	100	36,00 A2
C 6,3	x	38	-H	S	250	35,50 A2
C 6,3	x	38	-H	K	100	39,50 A2
C 6,3	x	45	-H	S	250	42,50 A2
C 6,3	x	45	-H	K	100	46,00 A2
C 6,3	x	50	-H	S	250	53,00 A2
C 6,3	x	50	-H	K	100	57,00 A2
C 6,3	x	60	-H	K	100	60,00 A2
C 6,3	x	70	-H	K	100	78,00 A2
C 6,3	x	80	-H	K	100	103,00 A2
C 6,3	x	90	-H	K	100	125,00 A2
C 6,3	x	100	-H	K	100	152,00 A2

Dimensions				PU	Pieces	€/100/Mat.
DIN		07981.944				690
7981		**A 4**				**type C-H**
C 2,2	x	4,5	-H	S	1000	25,50 A4
C 2,2	x	6,5	-H	S	1000	24,40 A4
C 2,2	x	9,5	-H	S	1000	19,10 A4
C 2,2	x	13	-H	S	1000	27,50 A4
C 2,2	x	16	-H	S	1000	31,50 A4
C 2,2	x	19	-H	S	1000	38,00 A4
C 2,9	x	6,5	-H	S	1000	4,90 A4
C 2,9	x	9,5	-H	S	1000	11,00 A4
C 2,9	x	13	-H	S	1000	11,40 A4
C 2,9	x	16	-H	S	1000	12,60 A4
C 2,9	x	19	-H	S	1000	13,50 A4
C 2,9	x	22	-H	S	1000	22,50 A4
C 2,9	x	25	-H	S	1000	23,50 A4
C 3,5	x	6,5	-H	S	1000	14,70 A4
C 3,5	x	6,5	-H	K	100	22,10 A4
C 3,5	x	9,5	-H	S	1000	14,30 A4
C 3,5	x	13	-H	S	1000	13,40 A4
C 3,5	x	16	-H	S	1000	13,80 A4
C 3,5	x	19	-H	S	1000	17,70 A4
C 3,5	x	22	-H	S	1000	23,10 A4
C 3,5	x	25	-H	S	1000	25,50 A4
C 3,5	x	32	-H	S	1000	27,50 A4
C 3,5	x	38	-H	S	1000	31,50 A4
C 3,9	x	9,5	-H	S	1000	17,30 A4
C 3,9	x	13	-H	S	1000	14,20 A4
C 3,9	x	16	-H	S	1000	18,50 A4
C 3,9	x	19	-H	S	1000	20,20 A4
C 3,9	x	25	-H	S	500	26,00 A4
C 3,9	x	32	-H	S	500	30,50 A4
C 3,9	x	38	-H	S	500	35,00 A4
C 3,9	x	45	-H	S	500	43,50 A4
C 3,9	x	50	-H	S	500	52,00 A4
C 4,2	x	9,5	-H	S	1000	19,30 A4
C 4,2	x	13	-H	S	1000	18,30 A4
C 4,2	x	16	-H	S	1000	20,10 A4
C 4,2	x	19	-H	S	500	21,80 A4
C 4,2	x	22	-H	S	500	27,50 A4
C 4,2	x	25	-H	S	500	28,50 A4
C 4,2	x	32	-H	S	500	35,00 A4
C 4,2	x	38	-H	S	500	40,00 A4
C 4,2	x	45	-H	S	500	58,00 A4
C 4,2	x	50	-H	S	500	66,00 A4
C 4,8	x	9,5	-H	S	500	24,40 A4
C 4,8	x	13	-H	S	100	25,50 A4
C 4,8	x	16	-H	S	500	27,00 A4
C 4,8	x	19	-H	S	500	27,50 A4
C 4,8	x	22	-H	S	500	35,00 A4
C 4,8	x	25	-H	S	500	33,50 A4
C 4,8	x	32	-H	S	250	43,50 A4
C 4,8	x	38	-H	S	250	51,00 A4



Pan head tapping screws with Phillips cross recess H, C = with cone end

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-46 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

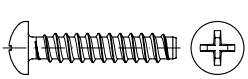
Steel ➔ pg. 357

DIN 7981 ➔ replaced by ISO 7049

RoHS ✓ REACh SVHC free

Dimensions				PU	Pieces	€/100/Mat.
C 4,8	x	45	-H	S	250	67,00 A4
C 4,8	x	50	-H	S	250	69,00 A4
C 4,8	x	60	-H	S	250	93,00 A4
C 4,8	x	70	-H	S	250	122,00 A4
C 4,8	x	80	-H	S	100	145,00 A4
C 4,8	x	90	-H	S	100	187,00 A4
C 4,8	x	100	-H	S	100	236,00 A4
C 5,5	x	13	-H	S	500	41,00 A4
C 5,5	x	16	-H	S	500	44,00 A4
C 5,5	x	19	-H	S	500	47,00 A4
C 5,5	x	22	-H	S	500	52,00 A4
C 5,5	x	25	-H	S	500	55,00 A4
C 5,5	x	32	-H	S	250	65,00 A4
C 5,5	x	38	-H	S	250	73,00 A4
C 5,5	x	45	-H	S	250	87,00 A4
C 5,5	x	50	-H	S	250	98,00 A4
C 5,5	x	60	-H	S	100	116,00 A4
C 6,3	x	13	-H	S	250	56,00 A4
C 6,3	x	16	-H	S	500	47,00 A4
C 6,3	x	19	-H	S	250	51,00 A4
C 6,3	x	22	-H	S	250	56,00 A4
C 6,3	x	25	-H	S	250	59,00 A4
C 6,3	x	32	-H	S	250	71,00 A4
C 6,3	x	38	-H	S	250	79,00 A4
C 6,3	x	45	-H	S	250	94,00 A4
C 6,3	x	50	-H	S	250	116,00 A4

DIN		07981.927				690
7981		**A 2**				**type F-H**
2,9	x	6,5	-F-H	S	1000	14,20 A2
2,9	x	9,5	-F-H	S	1000	14,40 A2
2,9	x	13	-F-H	S	1000	15,40 A2
2,9	x	16	-F-H	S	1000	17,10 A2
3,5	x	9,5	-F-H	S	1000	19,40 A2
3,5	x	13	-F-H	S	1000	20,50 A2
3,5	x	16	-F-H	S	1000	21,60 A2
3,9	x	9,5	-F-H	S	1000	23,30 A2
3,9	x	13	-F-H	S	1000	23,30 A2
4,2	x	9,5	-F-H	S	1000	26,50 A2



Pan head tapping screws with Phillips cross recess H, F = with flat end

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-46 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

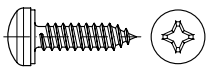
Steel ➔ pg. 359

DIN 7981 ➔ replaced by ISO 7049

RoHS ✓ REACh SVHC free

Dimensions	PU Pieces	€/100/Mat.
article	88981.920	998

7981 A 2 article 88981



Cap-head tapping screws with Phillips cross recess H type C = with cone point

Caution! Hardness only ~ 250 HV.

Matching decorative caps ➔ Article 88003

Material properties ➔ TI-236 Assembly ➔ TI-251

RoHS ✓ REACh SVHC free

3,9	x	9,5	-H	S 1000	31,50 A2
3,9	x	13	-H	S 1000	30,50 A2
3,9	x	16	-H	S 1000	20,50 A2
3,9	x	19	-H	S 1000	33,50 A2
3,9	x	22	-H	S 500	27,50 A2
3,9	x	25	-H	S 500	40,00 A2
3,9	x	32	-H	S 500	37,00 A2
3,9	x	38	-H	S 500	56,00 A2

article	88003.*	800

88003 Plastic



Decorative caps for cap screws article 88981 Ø 3.9

white RAL 9010 (*630),
grey RAL 7001 (*640),
black RAL 9005 (*650)

REACH ➔ TI-262

F. 3,9	S 1000	8,60

Dimensions	PU Pieces	€/100/Mat.
DIN	07982.924	690

7982 A 2 type C-H



Countersunk head tapping screws with Phillips cross recess H, C = with cone end

nominal lengths from 60 mm with partial thread, countersunk ⊀ = 80°

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-47 Assembly ➔ TI-251
Material properties ➔ TI-236 Standard conversion ➔ TI-11

Steel ➔ pg. 360

DIN 7982 ➔ replaced by ISO 7050

RoHS ✓ REACh SVHC free

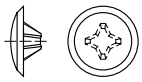
C 2,2	x	6,5	-H	S 1000	14,20 A2
C 2,2	x	9,5	-H	S 1000	9,80 A2
C 2,2	x	13	-H	S 1000	18,70 A2
C 2,2	x	16	-H	S 1000	26,50 A2
C 2,2	x	19	-H	S 1000	37,50 A2
C 2,9	x	6,5	-H	S 1000	6,70 A2
C 2,9	x	9,5	-H	S 1000	4,95 A2
C 2,9	x	9,5	-H	K 100	8,80 A2
C 2,9	x	13	-H	S 1000	5,20 A2
C 2,9	x	13	-H	K 100	9,00 A2
C 2,9	x	16	-H	S 1000	5,70 A2
C 2,9	x	16	-H	K 100	9,60 A2
C 2,9	x	19	-H	S 1000	6,10 A2
C 2,9	x	19	-H	K 100	10,00 A2
C 2,9	x	22	-H	S 1000	10,20 A2
C 2,9	x	22	-H	K 100	14,00 A2
C 2,9	x	25	-H	S 1000	10,60 A2
C 2,9	x	25	-H	K 100	14,50 A2
C 3,5	x	9,5	-H	S 1000	6,50 A2
C 3,5	x	9,5	-H	K 100	10,40 A2
C 3,5	x	13	-H	S 1000	6,90 A2
C 3,5	x	13	-H	K 100	10,70 A2
C 3,5	x	16	-H	S 1000	7,20 A2
C 3,5	x	16	-H	K 100	11,10 A2
C 3,5	x	19	-H	S 1000	8,00 A2
C 3,5	x	19	-H	K 100	11,90 A2
C 3,5	x	22	-H	S 1000	10,00 A2
C 3,5	x	22	-H	K 100	13,90 A2
C 3,5	x	25	-H	S 1000	10,40 A2
C 3,5	x	25	-H	K 100	14,20 A2
C 3,5	x	32	-H	S 1000	11,80 A2
C 3,5	x	32	-H	K 100	15,70 A2
C 3,5	x	38	-H	S 1000	13,20 A2
C 3,5	x	38	-H	K 100	17,10 A2
C 3,5	x	45	-H	S 1000	17,10 A2
C 3,5	x	50	-H	S 1000	22,80 A2
C 3,5	x	60	-H	S 500	31,50 A2
C 3,9	x	9,5	-H	S 1000	7,80 A2
C 3,9	x	9,5	-H	K 100	11,70 A2
C 3,9	x	13	-H	S 1000	7,80 A2
C 3,9	x	13	-H	K 100	11,70 A2
C 3,9	x	16	-H	S 1000	8,40 A2
C 3,9	x	16	-H	K 100	12,30 A2
C 3,9	x	19	-H	S 1000	9,10 A2
C 3,9	x	19	-H	K 100	13,00 A2
C 3,9	x	22	-H	S 500	11,20 A2
C 3,9	x	22	-H	K 100	15,10 A2
C 3,9	x	25	-H	S 500	11,60 A2

Dimensions				PU Pieces	€/100/Mat.
C 3,9	x	25	-H	K 100	15,50 A2
C 3,9	x	32	-H	S 500	13,80 A2
C 3,9	x	32	-H	K 100	17,60 A2
C 3,9	x	38	-H	S 500	15,80 A2
C 3,9	x	38	-H	K 100	19,60 A2
C 3,9	x	45	-H	S 500	19,50 A2
C 3,9	x	50	-H	S 500	21,10 A2
C 3,9	x	60	-H	S 500	28,50 A2
C 4,2	x	9,5	-H	S 1000	8,80 A2
C 4,2	x	9,5	-H	K 100	12,60 A2
C 4,2	x	13	-H	S 1000	8,90 A2
C 4,2	x	13	-H	K 100	12,80 A2
C 4,2	x	16	-H	S 1000	10,00 A2
C 4,2	x	16	-H	K 100	13,90 A2
C 4,2	x	19	-H	S 500	10,90 A2
C 4,2	x	19	-H	K 100	14,80 A2
C 4,2	x	22	-H	S 500	12,40 A2
C 4,2	x	22	-H	K 100	16,20 A2
C 4,2	x	25	-H	S 500	12,70 A2
C 4,2	x	25	-H	K 100	16,60 A2
C 4,2	x	32	-H	S 500	15,80 A2
C 4,2	x	32	-H	K 100	19,60 A2
C 4,2	x	38	-H	S 500	17,90 A2
C 4,2	x	38	-H	K 100	21,80 A2
C 4,2	x	45	-H	S 500	26,00 A2
C 4,2	x	45	-H	K 100	30,00 A2
C 4,2	x	50	-H	S 500	29,50 A2
C 4,2	x	50	-H	K 100	33,50 A2
C 4,2	x	60	-H	S 250	53,00 A2
C 4,8	x	13	-H	S 500	11,40 A2
C 4,8	x	13	-H	K 100	15,30 A2
C 4,8	x	16	-H	S 500	12,40 A2
C 4,8	x	16	-H	K 100	16,20 A2
C 4,8	x	19	-H	S 500	13,80 A2
C 4,8	x	19	-H	K 100	17,60 A2
C 4,8	x	22	-H	S 500	15,80 A2
C 4,8	x	22	-H	K 100	19,60 A2
C 4,8	x	25	-H	S 500	16,10 A2
C 4,8	x	25	-H	K 100	20,00 A2
C 4,8	x	32	-H	S 250	20,50 A2
C 4,8	x	32	-H	K 100	24,40 A2
C 4,8	x	38	-H	S 250	22,90 A2
C 4,8	x	38	-H	K 100	27,00 A2
C 4,8	x	45	-H	S 250	30,00 A2
C 4,8	x	45	-H	K 100	34,00 A2
C 4,8	x	50	-H	S 250	31,00 A2
C 4,8	x	50	-H	K 100	35,00 A2
C 4,8	x	55	-H	S 250	66,00 A2
C 4,8	x	60	-H	S 250	42,00 A2
C 4,8	x	70	-H	S 250	55,00 A2
C 4,8	x	80	-H	S 250	66,00 A2
C 4,8	x	90	-H	S 100	85,00 A2
C 4,8	x	100	-H	S 100	107,00 A2
C 5,5	x	13	-H	S 500	18,50 A2
C 5,5	x	13	-H	K 100	22,40 A2
C 5,5	x	16	-H	K 100	23,60 A2
C 5,5	x	19	-H	S 500	21,10 A2
C 5,5	x	19	-H	K 100	24,90 A2
C 5,5	x	22	-H	S 500	23,10 A2
C 5,5	x	22	-H	K 100	27,00 A2
C 5,5	x	25	-H	S 500	24,80 A2
C 5,5	x	25	-H	K 100	29,00 A2
C 5,5	x	32	-H	S 250	29,00 A2
C 5,5	x	32	-H	K 100	33,00 A2
C 5,5	x	38	-H	S 250	33,00 A2
C 5,5	x	38	-H	K 100	37,00 A2
C 5,5	x	45	-H	S 250	39,50 A2
C 5,5	x	45	-H	K 100	43,50 A2
C 5,5	x	50	-H	S 250	44,00 A2
C 5,5	x	50	-H	K 100	48,00 A2
C 5,5	x	60	-H	S 250	53,00 A2
C 6,3	x	16	-H	S 500	21,20 A2
C 6,3	x	16	-H	K 100	25,50 A2
C 6,3	x	19	-H	S 500	22,80 A2
C 6,3	x	19	-H	K 100	27,00 A2

Dimensions				PU	Pieces	€/100/Mat.
C 6,3	x	22	-H	S	500	25,00 A2
C 6,3	x	22	-H	K	100	29,00 A2
C 6,3	x	25	-H	S	500	26,50 A2
C 6,3	x	25	-H	K	100	30,50 A2
C 6,3	x	32	-H	S	250	32,00 A2
C 6,3	x	32	-H	K	100	36,00 A2
C 6,3	x	38	-H	S	250	35,50 A2
C 6,3	x	38	-H	K	100	39,50 A2
C 6,3	x	45	-H	S	250	42,50 A2
C 6,3	x	45	-H	K	100	46,00 A2
C 6,3	x	50	-H	S	250	53,00 A2
C 6,3	x	50	-H	K	100	57,00 A2

article	88004.(*)	800

88004 Plastic H



Caps for countersunk head screws with Phillips cross recess H

white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

REACH ➔ TI-262

cross recess no. x caps ∅ / for screws ∅						
2	x	12 / 3,5-5	S	1000	3,10 plastic

DIN	07983.924	690

7983 A 2 type C-H



Raised countersunk head tapping screws with Phillips cross recess H, C = with cone end

countersunk ⌵ = 80°

Caution! Hardness only ~ 250 HV.

Dimensions ➔ TI-47
Assembly ➔ TI-251
Material properties ➔ TI-236
Standard conversion ➔ TI-11

Steel ➔ pg. 362

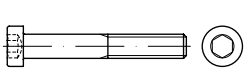
DIN 7983 ➔ replaced by ISO 7051

RoHS ✓ | REACh SVHC free

C 2,9	x	9,5-H	S	1000	4,95 A2
C 2,9	x	9,5-H	K	100	8,80 A2
C 2,9	x	13 -H	S	1000	5,20 A2
C 2,9	x	13 -H	K	100	9,00 A2
C 2,9	x	16 -H	S	1000	5,70 A2
C 2,9	x	16 -H	K	100	9,60 A2
C 2,9	x	19 -H	S	1000	6,10 A2
C 2,9	x	19 -H	K	100	10,00 A2
C 2,9	x	22 -H	S	1000	10,20 A2
C 2,9	x	22 -H	K	100	14,00 A2
C 2,9	x	25 -H	S	1000	10,60 A2
C 2,9	x	25 -H	K	100	14,50 A2
C 3,5	x	9,5-H	S	1000	6,50 A2
C 3,5	x	9,5-H	K	100	10,40 A2
C 3,5	x	13 -H	S	1000	6,90 A2
C 3,5	x	13 -H	K	100	10,70 A2
C 3,5	x	16 -H	S	1000	7,20 A2
C 3,5	x	16 -H	K	100	11,10 A2
C 3,5	x	19 -H	S	1000	8,00 A2
C 3,5	x	19 -H	K	100	11,90 A2
C 3,5	x	22 -H	S	1000	10,00 A2
C 3,5	x	22 -H	K	100	13,90 A2
C 3,5	x	25 -H	S	1000	10,40 A2
C 3,5	x	25 -H	K	100	14,20 A2
C 3,5	x	32 -H	S	1000	11,80 A2
C 3,5	x	32 -H	K	100	15,70 A2
C 3,5	x	38 -H	S	1000	13,20 A2
C 3,5	x	38 -H	K	100	17,10 A2
C 3,9	x	9,5-H	S	1000	7,80 A2
C 3,9	x	9,5-H	K	100	11,70 A2
C 3,9	x	13 -H	S	1000	7,80 A2
C 3,9	x	13 -H	K	100	11,70 A2
C 3,9	x	16 -H	S	1000	8,40 A2
C 3,9	x	16 -H	K	100	12,30 A2
C 3,9	x	19 -H	S	1000	9,10 A2
C 3,9	x	19 -H	K	100	13,00 A2
C 3,9	x	22 -H	S	500	11,20 A2
C 3,9	x	22 -H	K	100	15,10 A2
C 3,9	x	25 -H	S	500	11,60 A2
C 3,9	x	25 -H	K	100	15,50 A2
C 3,9	x	32 -H	S	500	13,80 A2
C 3,9	x	32 -H	K	100	17,60 A2
C 3,9	x	38 -H	S	500	15,80 A2
C 3,9	x	38 -H	K	100	19,60 A2
C 4,2	x	9,5-H	S	1000	8,80 A2
C 4,2	x	9,5-H	K	100	12,60 A2
C 4,2	x	13 -H	S	1000	8,90 A2
C 4,2	x	13 -H	K	100	12,80 A2
C 4,2	x	16 -H	S	1000	10,00 A2
C 4,2	x	16 -H	K	100	13,90 A2
C 4,2	x	19 -H	S	500	10,90 A2
C 4,2	x	19 -H	K	100	14,80 A2
C 4,2	x	22 -H	S	500	12,40 A2
C 4,2	x	22 -H	K	100	16,20 A2
C 4,2	x	25 -H	S	500	12,70 A2
C 4,2	x	25 -H	K	100	16,60 A2
C 4,2	x	32 -H	S	500	15,80 A2
C 4,2	x	32 -H	K	100	19,60 A2
C 4,2	x	38 -H	S	500	17,90 A2
C 4,2	x	38 -H	K	100	21,80 A2
C 4,2	x	45 -H	S	500	26,00 A2
C 4,2	x	45 -H	K	100	30,00 A2
C 4,2	x	50 -H	S	500	29,50 A2
C 4,2	x	50 -H	K	100	33,50 A2
C 4,2	x	60 -H	S	200	40,00 A2
C 4,8	x	13 -H	S	500	11,40 A2
C 4,8	x	13 -H	K	100	15,30 A2
C 4,8	x	16 -H	S	500	12,40 A2
C 4,8	x	16 -H	K	100	16,20 A2
C 4,8	x	19 -H	S	500	13,80 A2
C 4,8	x	19 -H	K	100	17,60 A2
C 4,8	x	22 -H	S	500	15,80 A2
C 4,8	x	22 -H	K	100	19,60 A2
C 4,8	x	25 -H	S	500	16,10 A2
C 4,8	x	25 -H	K	100	20,00 A2
C 4,8	x	32 -H	S	250	20,50 A2
C 4,8	x	32 -H	K	100	24,40 A2
C 4,8	x	38 -H	S	250	22,90 A2
C 4,8	x	38 -H	K	100	27,00 A2
C 4,8	x	45 -H	S	250	30,00 A2
C 4,8	x	45 -H	K	100	34,00 A2
C 4,8	x	50 -H	S	250	31,00 A2
C 4,8	x	50 -H	K	100	35,00 A2
C 4,8	x	60 -H	S	250	51,00 A2
C 5,5	x	13 -H	S	500	18,50 A2
C 5,5	x	13 -H	K	100	22,40 A2
C 5,5	x	16 -H	S	500	19,70 A2
C 5,5	x	16 -H	K	100	23,60 A2
C 5,5	x	19 -H	S	500	21,10 A2
C 5,5	x	19 -H	K	100	24,90 A2
C 5,5	x	22 -H	K	100	27,00 A2
C 5,5	x	25 -H	K	100	29,00 A2
C 5,5	x	32 -H	S	250	29,00 A2
C 5,5	x	32 -H	K	100	33,00 A2
C 5,5	x	38 -H	S	250	33,00 A2
C 5,5	x	38 -H	K	100	37,00 A2
C 5,5	x	45 -H	S	250	39,50 A2
C 5,5	x	45 -H	K	100	43,50 A2
C 5,5	x	50 -H	S	250	44,00 A2
C 5,5	x	50 -H	K	100	48,00 A2
C 6,3	x	16 -H	K	100	25,50 A2
C 6,3	x	19 -H	K	100	27,00 A2
C 6,3	x	22 -H	S	500	25,00 A2
C 6,3	x	22 -H	K	100	29,00 A2
C 6,3	x	25 -H	S	500	26,50 A2
C 6,3	x	25 -H	K	100	30,50 A2
C 6,3	x	32 -H	K	100	36,00 A2
C 6,3	x	38 -H	K	100	39,50 A2
C 6,3	x	45 -H	K	100	46,00 A2
C 6,3	x	50 -H	S	250	53,00 A2
C 6,3	x	50 -H	K	100	57,00 A2

DIN	07984.920	700

7984 A 2



Hexagon socket head cap screws with low head

length ≤ 100 mm sometimes thread up to head

Caution!
Screws have a reduced loadability.

Dimensions ➔ TI-13
Tightening torque ➔ TI-246, 249
Material properties ➔ TI-236

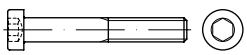
Steel ➔ pg. 362

RoHS ✓ | REACh SVHC free

M 3	x	5	S	200	95,00 A2
M 3	x	6	S	200	95,00 A2
M 3	x	8	S	200	95,00 A2
M 3	x	10	S	200	95,00 A2
M 3	x	12	S	100	95,00 A2
M 3	x	16	S	100	59,00 A2
M 3	x	20	S	100	65,00 A2
M 3	x	25	S	100	67,00 A2
M 3	x	30	S	100	87,00 A2
M 3	x	40	S	100	91,00 A2
M 4	x	6	S	200	95,00 A2
M 4	x	8	S	200	95,00 A2
M 4	x	10	S	200	95,00 A2
M 4	x	12	S	200	95,00 A2
M 4	x	16	S	200	67,00 A2
M 4	x	20	S	100	71,00 A2
M 4	x	25	S	100	76,00 A2
M 4	x	30	S	100	95,00 A2
M 4	x	35	S	100	105,00 A2
M 4	x	40	S	100	116,00 A2
M 5	x	8	S	100	105,00 A2
M 5	x	10	S	100	95,00 A2
M 5	x	12	S	100	95,00 A2
M 5	x	14	S	100	86,00 A2
M 5	x	16	S	100	75,00 A2
M 5	x	20	S	100	80,00 A2
M 5	x	25	S	100	85,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	30	S	100	99,00 A2
M 5	x	35	S	100	110,00 A2
M 5	x	40	S	100	120,00 A2
M 5	x	45	S	100	116,00 A2
M 5	x	50	S	100	124,00 A2
M 5	x	60	S	100	138,00 A2
M 6	x	8	S	100	130,00 A2
M 6	x	10	S	100	119,00 A2
M 6	x	12	S	100	119,00 A2
M 6	x	16	S	100	94,00 A2
M 6	x	20	S	100	102,00 A2
M 6	x	25	S	100	107,00 A2
M 6	x	30	S	100	117,00 A2
M 6	x	35	S	100	132,00 A2
M 6	x	40	S	100	145,00 A2
M 6	x	45	S	100	175,00 A2
M 6	x	50	S	100	194,00 A2
M 6	x	55	S	100	243,00 A2
M 6	x	60	S	100	265,00 A2
M 8	x	10	S	100	212,00 A2
M 8	x	12	S	100	212,00 A2
M 8	x	16	S	100	192,00 A2
M 8	x	20	S	100	163,00 A2
M 8	x	25	S	100	155,00 A2
M 8	x	30	S	100	163,00 A2
M 8	x	35	S	100	183,00 A2
M 8	x	40	S	100	201,00 A2
M 8	x	45	S	100	235,00 A2
M 8	x	50	S	100	270,00 A2
M 8	x	60	S	100	345,00 A2
M 10	x	16	S	100	390,00 A2
M 10	x	20	S	100	330,00 A2
M 10	x	25	S	100	315,00 A2
M 10	x	30	S	100	340,00 A2
M 10	x	35	S	100	360,00 A2
M 10	x	40	S	100	385,00 A2
M 10	x	45	S	100	450,00 A2
M 10	x	50	S	100	475,00 A2
M 10	x	55	S	100	560,00 A2
M 10	x	60	S	100	590,00 A2
M 12	x	25	S	100	485,00 A2
M 12	x	30	S	100	485,00 A2
M 12	x	35	S	100	520,00 A2
M 12	x	40	S	100	570,00 A2
M 12	x	45	S	100	630,00 A2
M 16	x	30	S	25	1830,00 A2
M 16	x	35	S	25	1830,00 A2
M 16	x	40	S	25	1900,00 A2
M 16	x	45	S	25	2000,00 A2
M 16	x	50	S	25	2080,00 A2
M 16	x	55	S	25	2290,00 A2
M 16	x	60	S	25	2350,00 A2

Dimensions	PU	Pieces	€/100/Mat.
DIN	07984.940		700
7984	**A 4**		



Hexagon socket head cap screws with low head

length ≤ 100 mm sometimes thread up to head

Caution!
Screws have a reduced loadability.

Dimensions ➔ TI-13 Tightening torque ➔ TI-246, 249
Material properties ➔ TI-236

Steel ➔ pg. 362

RoHS ✓ | REACh SVHC free

M 4	x	6	S	200	221,00 A4
M 4	x	8	S	200	186,00 A4
M 4	x	10	S	200	152,00 A4
M 4	x	12	S	200	152,00 A4
M 4	x	16	S	200	122,00 A4
M 5	x	10	S	100	165,00 A4
M 5	x	12	S	100	143,00 A4
M 5	x	16	S	100	105,00 A4
M 5	x	20	S	100	113,00 A4
M 6	x	10	S	100	197,00 A4
M 6	x	12	S	100	167,00 A4
M 6	x	16	S	100	131,00 A4
M 6	x	20	S	100	139,00 A4
M 6	x	25	S	100	159,00 A4
M 6	x	30	S	100	166,00 A4
M 6	x	35	S	100	178,00 A4
M 6	x	40	S	100	201,00 A4
M 8	x	12	S	100	330,00 A4
M 8	x	16	S	100	250,00 A4
M 8	x	20	S	100	204,00 A4
M 8	x	25	S	100	214,00 A4
M 8	x	30	S	100	227,00 A4
M 8	x	35	S	100	250,00 A4
M 8	x	40	S	100	320,00 A4
M 8	x	50	S	100	400,00 A4
M 10	x	20	S	100	475,00 A4
M 10	x	25	S	100	450,00 A4
M 10	x	30	S	100	455,00 A4
M 10	x	35	S	100	480,00 A4
M 12	x	20	S	100	830,00 A4
M 12	x	25	S	50	790,00 A4
M 12	x	30	S	50	720,00 A4
M 12	x	35	S	50	770,00 A4
M 12	x	40	S	50	820,00 A4
M 16	x	30	S	25	2440,00 A4
M 16	x	35	S	25	2550,00 A4
M 16	x	40	S	25	2600,00 A4

Dimensions	PU	Pieces	€/100/Mat.
DIN	07985.924		710
7985	**A 2**		**H**



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 364

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓ | REACh SVHC free

M 1,6	x	2 -H	S	1000	38,00 A2
M 1,6	x	3 -H	S	1000	34,00 A2
M 1,6	x	4 -H	S	1000	31,50 A2
M 1,6	x	5 -H	S	1000	31,50 A2
M 1,6	x	6 -H	S	1000	31,50 A2
M 1,6	x	8 -H	S	1000	32,50 A2
M 1,6	x	10 -H	S	1000	35,00 A2
M 1,6	x	12 -H	S	1000	40,00 A2
M 1,6	x	16 -H	S	1000	47,50 A2
M 2	x	2 -H	S	1000	34,50 A2
M 2	x	3 -H	S	1000	19,70 A2
M 2	x	4 -H	S	1000	13,40 A2
M 2	x	4 -H	K	200	15,30 A2
M 2	x	5 -H	S	1000	11,00 A2
M 2	x	5 -H	K	200	12,90 A2
M 2	x	6 -H	S	1000	11,00 A2
M 2	x	6 -H	K	200	12,90 A2
M 2	x	8 -H	S	1000	11,00 A2
M 2	x	8 -H	K	200	12,90 A2
M 2	x	10 -H	S	1000	11,00 A2
M 2	x	10 -H	K	200	12,90 A2
M 2	x	12 -H	S	1000	12,00 A2
M 2	x	12 -H	K	200	13,90 A2
M 2	x	14 -H	S	1000	16,80 A2
M 2	x	16 -H	S	1000	12,70 A2
M 2	x	16 -H	K	200	14,60 A2
M 2	x	18 -H	S	1000	17,90 A2
M 2	x	20 -H	S	1000	14,70 A2
M 2	x	20 -H	K	200	16,60 A2
M 2,5	x	3 -H	S	1000	20,90 A2
M 2,5	x	4 -H	S	1000	13,40 A2
M 2,5	x	4 -H	K	200	15,30 A2
M 2,5	x	5 -H	S	1000	13,70 A2
M 2,5	x	5 -H	K	200	15,60 A2
M 2,5	x	6 -H	S	1000	11,00 A2
M 2,5	x	6 -H	K	200	12,90 A2
M 2,5	x	8 -H	S	1000	11,00 A2
M 2,5	x	8 -H	K	200	12,90 A2
M 2,5	x	10 -H	S	1000	11,00 A2
M 2,5	x	10 -H	K	200	12,90 A2
M 2,5	x	12 -H	S	1000	12,00 A2
M 2,5	x	12 -H	K	200	13,90 A2
M 2,5	x	14 -H	S	1000	16,80 A2
M 2,5	x	16 -H	S	1000	12,70 A2
M 2,5	x	18 -H	S	1000	17,90 A2
M 2,5	x	20 -H	S	1000	14,70 A2
M 2,5	x	25 -H	S	1000	23,30 A2
M 2,5	x	30 -H	S	1000	34,50 A2
M 3	x	4 -H	S	1000	12,50 A2
M 3	x	5 -H	S	1000	10,60 A2
M 3	x	6 -H	S	1000	7,10 A2
M 3	x	6 -H	K	200	8,90 A2

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 8 -H	S	1000	7,50 A2
M 3 x 8 -H	K	200	9,40 A2
M 3 x 10 -H	S	1000	8,00 A2
M 3 x 10 -H	K	200	9,90 A2
M 3 x 12 -H	S	1000	8,50 A2
M 3 x 12 -H	K	200	10,40 A2
M 3 x 14 -H	S	1000	12,10 A2
M 3 x 16 -H	S	1000	11,10 A2
M 3 x 16 -H	K	200	15,10 A2
M 3 x 18 -H	S	1000	14,00 A2
M 3 x 20 -H	S	1000	10,60 A2
M 3 x 20 -H	K	200	12,40 A2
M 3 x 22 -H	S	1000	15,00 A2
M 3 x 25 -H	S	1000	11,50 A2
M 3 x 30 -H	S	1000	16,90 A2
M 3 x 35 -H	S	1000	31,00 A2
M 3 x 40 -H	S	1000	35,00 A2
M 3 x 45 -H	S	500	52,00 A2
M 3 x 50 -H	S	500	52,00 A2
M 4 x 4 -H	S	1000	18,80 A2
M 4 x 5 -H	S	1000	14,30 A2
M 4 x 6 -H	S	1000	11,30 A2
M 4 x 6 -H	K	200	13,20 A2
M 4 x 8 -H	S	1000	11,30 A2
M 4 x 8 -H	K	200	13,20 A2
M 4 x 10 -H	S	1000	11,80 A2
M 4 x 10 -H	K	200	13,70 A2
M 4 x 12 -H	S	1000	12,40 A2
M 4 x 12 -H	K	200	14,30 A2
M 4 x 14 -H	S	1000	18,40 A2
M 4 x 16 -H	S	1000	15,90 A2
M 4 x 16 -H	K	200	17,90 A2
M 4 x 18 -H	S	1000	20,30 A2
M 4 x 20 -H	S	1000	15,50 A2
M 4 x 20 -H	K	200	17,40 A2
M 4 x 22 -H	S	1000	23,70 A2
M 4 x 25 -H	S	1000	18,00 A2
M 4 x 25 -H	K	200	19,90 A2
M 4 x 30 -H	S	1000	21,10 A2
M 4 x 30 -H	K	200	22,90 A2
M 4 x 35 -H	S	500	26,50 A2
M 4 x 40 -H	S	500	28,50 A2
M 4 x 45 -H	S	500	33,50 A2
M 4 x 50 -H	S	200	65,00 A2
M 4 x 55 -H	S	200	76,00 A2
M 4 x 60 -H	S	200	77,00 A2
M 4 x 70 -H	S	200	99,00 A2
M 5 x 6 -H	S	500	28,50 A2
M 5 x 8 -H	S	500	20,10 A2
M 5 x 8 -H	K	200	22,00 A2
M 5 x 10 -H	S	500	19,90 A2
M 5 x 10 -H	K	200	21,80 A2
M 5 x 12 -H	S	500	20,10 A2
M 5 x 12 -H	K	200	22,00 A2
M 5 x 14 -H	S	500	29,50 A2
M 5 x 16 -H	S	500	22,40 A2
M 5 x 16 -H	K	200	24,30 A2
M 5 x 18 -H	S	500	33,00 A2
M 5 x 20 -H	S	500	25,00 A2
M 5 x 20 -H	K	200	27,00 A2
M 5 x 22 -H	S	500	37,50 A2
M 5 x 25 -H	S	500	29,00 A2
M 5 x 25 -H	K	200	30,50 A2
M 5 x 30 -H	S	500	33,50 A2
M 5 x 30 -H	K	200	35,50 A2
M 5 x 35 -H	S	500	38,00 A2
M 5 x 35 -H	K	200	40,00 A2
M 5 x 40 -H	S	500	44,00 A2
M 5 x 40 -H	K	200	46,00 A2
M 5 x 45 -H	S	200	49,50 A2
M 5 x 50 -H	S	200	53,00 A2
M 5 x 55 -H	S	200	61,00 A2
M 5 x 60 -H	S	200	62,00 A2
M 5 x 70 -H	S	100	96,00 A2
M 5 x 80 -H	S	100	113,00 A2
M 5 x 90 -H	S	100	137,00 A2
M 6 x 8 -H	S	200	24,80 A2
M 6 x 10 -H	S	200	25,00 A2
M 6 x 12 -H	S	200	26,50 A2
M 6 x 14 -H	S	200	39,50 A2
M 6 x 16 -H	S	200	30,00 A2
M 6 x 18 -H	S	200	40,00 A2
M 6 x 20 -H	S	200	32,50 A2
M 6 x 25 -H	S	200	36,50 A2
M 6 x 30 -H	S	200	42,50 A2
M 6 x 35 -H	S	200	47,00 A2
M 6 x 40 -H	S	200	54,00 A2
M 6 x 45 -H	S	200	60,00 A2
M 6 x 50 -H	S	200	62,00 A2
M 6 x 55 -H	S	200	69,00 A2
M 6 x 60 -H	S	100	69,00 A2
M 6 x 70 -H	S	100	115,00 A2
M 6 x 80 -H	S	100	132,00 A2
M 6 x 90 -H	S	100	162,00 A2
M 8 x 10 -H	S	100	56,00 A2
M 8 x 12 -H	S	100	46,50 A2
M 8 x 16 -H	S	100	54,00 A2
M 8 x 20 -H	S	100	58,00 A2
M 8 x 25 -H	S	100	61,00 A2
M 8 x 30 -H	S	100	65,00 A2
M 8 x 35 -H	S	100	67,00 A2
M 8 x 40 -H	S	100	70,00 A2
M 8 x 45 -H	S	100	83,00 A2
M 8 x 50 -H	S	100	85,00 A2
M 8 x 55 -H	S	100	89,00 A2
M 8 x 60 -H	S	100	89,00 A2
M 10 x 12 -H	S	100	335,00 A2
M 10 x 16 -H	S	100	305,00 A2
M 10 x 20 -H	S	100	325,00 A2
M 10 x 25 -H	S	100	360,00 A2
M 10 x 30 -H	S	100	390,00 A2
M 10 x 35 -H	S	100	430,00 A2
M 10 x 40 -H	S	100	465,00 A2
M 10 x 45 -H	S	100	530,00 A2
M 10 x 50 -H	S	100	530,00 A2
M 10 x 55 -H	S	100	560,00 A2
M 10 x 60 -H	S	100	590,00 A2

DIN 07985.944 710

7985 A 4 H



Cheese head screws with Phillips cross recess H

Dimensions ➔ TI-40 Standard conversion ➔ TI-11
Material properties ➔ TI-236

Steel ➔ pg. 364

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓ REACh SVHC free

M 1,6	x	3 -H	S	1000	53,00 A4
M 1,6	x	4 -H	S	1000	49,00 A4
M 1,6	x	5 -H	S	1000	49,00 A4
M 1,6	x	6 -H	S	1000	49,00 A4
M 1,6	x	8 -H	S	1000	50,00 A4
M 1,6	x	10 -H	S	1000	54,00 A4
M 1,6	x	12 -H	S	1000	62,00 A4
M 2	x	4 -H	S	1000	23,50 A4
M 2	x	5 -H	S	1000	19,60 A4
M 2	x	6 -H	S	1000	19,60 A4
M 2	x	8 -H	S	1000	19,60 A4
M 2	x	10 -H	S	1000	19,60 A4
M 2	x	12 -H	S	1000	21,20 A4
M 2	x	16 -H	S	1000	22,50 A4
M 2	x	20 -H	S	1000	26,50 A4
M 2,5	x	4 -H	S	1000	23,50 A4
M 2,5	x	5 -H	S	1000	19,60 A4
M 2,5	x	6 -H	S	1000	19,60 A4
M 2,5	x	8 -H	S	1000	19,60 A4
M 2,5	x	10 -H	S	1000	19,60 A4
M 2,5	x	12 -H	S	1000	21,20 A4
M 2,5	x	14 -H	S	1000	28,50 A4
M 2,5	x	16 -H	S	1000	22,50 A4
M 2,5	x	20 -H	S	1000	26,50 A4
M 2,5	x	30 -H	S	500	53,00 A4
M 3	x	4 -H	S	1000	22,30 A4
M 3	x	5 -H	S	1000	18,80 A4
M 3	x	6 -H	S	1000	12,40 A4
M 3	x	8 -H	S	1000	12,20 A4
M 3	x	10 -H	S	1000	13,40 A4
M 3	x	12 -H	S	1000	14,40 A4
M 3	x	14 -H	S	1000	21,40 A4
M 3	x	16 -H	S	1000	15,60 A4
M 3	x	20 -H	S	1000	17,40 A4
M 3	x	25 -H	S	1000	20,40 A4
M 3	x	30 -H	S	1000	30,00 A4
M 3	x	35 -H	S	1000	55,00 A4
M 3	x	40 -H	S	1000	62,00 A4
M 3	x	50 -H	S	500	91,00 A4
M 4	x	5 -H	S	1000	25,50 A4
M 4	x	6 -H	S	1000	20,10 A4
M 4	x	8 -H	S	1000	18,10 A4
M 4	x	10 -H	S	1000	19,30 A4
M 4	x	12 -H	S	1000	20,80 A4
M 4	x	14 -H	S	1000	33,00 A4
M 4	x	16 -H	S	1000	22,30 A4
M 4	x	18 -H	S	1000	36,00 A4
M 4	x	20 -H	S	1000	25,00 A4
M 4	x	22 -H	S	1000	42,00 A4
M 4	x	25 -H	S	1000	30,00 A4
M 4	x	30 -H	S	500	37,50 A4
M 4	x	35 -H	S	500	47,00 A4
M 4	x	40 -H	S	500	51,00 A4
M 4	x	45 -H	S	200	115,00 A4
M 4	x	50 -H	S	200	115,00 A4
M 5	x	6 -H	S	500	50,00 A4
M 5	x	8 -H	S	500	36,00 A4
M 5	x	10 -H	S	500	28,50 A4
M 5	x	12 -H	S	500	30,50 A4
M 5	x	14 -H	S	500	53,00 A4
M 5	x	16 -H	S	500	32,50 A4
M 5	x	18 -H	S	500	59,00 A4
M 5	x	20 -H	S	500	35,50 A4
M 5	x	22 -H	S	500	66,00 A4
M 5	x	25 -H	S	500	42,50 A4
M 5	x	30 -H	S	500	50,00 A4
M 5	x	35 -H	S	500	57,00 A4
M 5	x	40 -H	S	500	79,00 A4
M 5	x	45 -H	S	500	104,00 A4
M 5	x	50 -H	S	200	110,00 A4
M 5	x	60 -H	S	200	143,00 A4
M 6	x	8 -H	S	200	60,00 A4
M 6	x	10 -H	S	200	42,50 A4
M 6	x	12 -H	S	200	44,50 A4
M 6	x	16 -H	S	200	48,00 A4
M 6	x	20 -H	S	200	52,00 A4
M 6	x	25 -H	S	200	57,00 A4
M 6	x	30 -H	S	200	64,00 A4
M 6	x	35 -H	S	200	71,00 A4
M 6	x	40 -H	S	200	84,00 A4
M 6	x	45 -H	S	200	112,00 A4
M 6	x	50 -H	S	200	114,00 A4
M 6	x	60 -H	S	100	137,00 A4

DIN	07985.925	710
7985	A 2	Z



Cheese head screws with Pozidriv cross recess Z

Dimensions ➔ TI-40 Standard conversion ➔ TI-11
Material properties ➔ TI-236

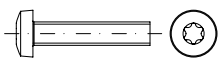
Steel ➔ pg. 366

DIN 7985 ➔ replaced by ISO 7045

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 1,6	x	3 -Z	S	1000	47,50 A2
M 1,6	x	4 -Z	S	1000	45,50 A2
M 1,6	x	5 -Z	S	1000	46,50 A2
M 1,6	x	6 -Z	S	1000	47,50 A2
M 1,6	x	8 -Z	S	1000	52,00 A2
M 1,6	x	10 -Z	S	1000	57,00 A2
M 1,6	x	12 -Z	S	1000	67,00 A2
M 1,6	x	16 -Z	S	1000	80,00 A2
M 2	x	3 -Z	S	1000	19,70 A2
M 2	x	5 -Z	S	1000	11,00 A2
M 2	x	6 -Z	S	1000	11,00 A2
M 2	x	8 -Z	S	1000	11,00 A2
M 2	x	10 -Z	S	1000	11,00 A2
M 2	x	12 -Z	S	1000	12,00 A2
M 2	x	16 -Z	S	1000	12,70 A2
M 2	x	20 -Z	S	1000	14,70 A2
M 2,5	x	4 -Z	S	1000	13,40 A2
M 2,5	x	6 -Z	S	1000	11,00 A2
M 2,5	x	8 -Z	S	1000	11,00 A2
M 2,5	x	10 -Z	S	1000	11,00 A2
M 2,5	x	12 -Z	S	1000	12,00 A2
M 2,5	x	16 -Z	S	1000	12,70 A2
M 2,5	x	18 -Z	S	1000	14,70 A2
M 2,5	x	20 -Z	S	1000	14,70 A2
M 2,5	x	25 -Z	S	1000	23,30 A2
M 2,5	x	30 -Z	S	1000	30,50 A2
M 3	x	4 -Z	S	1000	12,50 A2
M 3	x	5 -Z	S	1000	10,60 A2
M 3	x	6 -Z	S	1000	7,10 A2
M 3	x	8 -Z	S	1000	7,50 A2
M 3	x	10 -Z	S	1000	8,00 A2
M 3	x	12 -Z	S	1000	8,50 A2
M 3	x	14 -Z	S	1000	13,70 A2
M 3	x	16 -Z	S	1000	11,10 A2
M 3	x	18 -Z	S	1000	10,30 A2
M 3	x	20 -Z	S	1000	10,60 A2
M 3	x	25 -Z	S	1000	11,50 A2
M 3	x	30 -Z	S	1000	16,90 A2
M 3	x	35 -Z	S	1000	31,00 A2
M 3	x	40 -Z	S	1000	35,00 A2
M 4	x	5 -Z	S	1000	14,30 A2
M 4	x	6 -Z	S	1000	11,30 A2
M 4	x	8 -Z	S	1000	11,30 A2
M 4	x	10 -Z	S	1000	11,80 A2
M 4	x	12 -Z	S	1000	12,40 A2
M 4	x	14 -Z	S	1000	15,90 A2
M 4	x	16 -Z	S	1000	15,90 A2
M 4	x	18 -Z	S	1000	17,80 A2
M 4	x	20 -Z	S	1000	15,50 A2
M 4	x	30 -Z	S	1000	21,10 A2
M 4	x	35 -Z	S	500	26,50 A2
M 4	x	40 -Z	S	500	28,50 A2
M 4	x	45 -Z	S	500	33,50 A2
M 4	x	50 -Z	S	200	65,00 A2
M 4	x	60 -Z	S	200	77,00 A2
M 4	x	70 -Z	S	200	110,00 A2
M 5	x	6 -Z	S	500	28,50 A2
M 5	x	8 -Z	S	500	20,10 A2
M 5	x	10 -Z	S	500	19,90 A2
M 5	x	12 -Z	S	500	20,10 A2
M 5	x	14 -Z	S	500	22,40 A2
M 5	x	16 -Z	S	500	22,40 A2
M 5	x	18 -Z	S	500	25,00 A2
M 5	x	20 -Z	S	500	25,00 A2
M 5	x	25 -Z	S	500	29,00 A2
M 5	x	30 -Z	S	500	33,50 A2
M 5	x	35 -Z	S	500	38,00 A2
M 5	x	40 -Z	S	500	44,00 A2
M 5	x	45 -Z	S	200	49,50 A2
M 5	x	50 -Z	S	200	53,00 A2
M 6	x	8 -Z	S	200	24,80 A2
M 6	x	10 -Z	S	200	25,00 A2
M 6	x	12 -Z	S	200	26,50 A2
M 6	x	16 -Z	S	1000	30,00 A2
M 6	x	20 -Z	S	200	32,50 A2
M 6	x	25 -Z	S	200	36,50 A2
M 6	x	30 -Z	S	200	42,50 A2
M 6	x	35 -Z	S	200	47,00 A2
M 6	x	40 -Z	S	200	54,00 A2
M 6	x	45 -Z	S	200	60,00 A2
M 6	x	50 -Z	S	200	62,00 A2
M 6	x	55 -Z	S	200	69,00 A2
M 6	x	60 -Z	S	100	69,00 A2
M 8	x	10 -Z	S	200	209,00 A2
M 8	x	12 -Z	S	200	180,00 A2
M 8	x	16 -Z	S	200	199,00 A2
M 8	x	20 -Z	S	200	214,00 A2
M 8	x	25 -Z	S	200	237,00 A2
M 8	x	30 -Z	S	200	260,00 A2
M 8	x	35 -Z	S	200	280,00 A2
M 8	x	40 -Z	S	200	305,00 A2
M 8	x	50 -Z	S	200	345,00 A2
M 8	x	55 -Z	S	200	370,00 A2
M10	x	25 -Z	S	100	360,00 A2
M10	x	30 -Z	S	100	390,00 A2

~DIN	07985.926	710
7985	A 2	ISR



Cheese head screws, ISR = hexalobular socket

as per ISO 14583

Dimensions ➔ TI-40 Standard conversion ➔ TI-6
Material properties ➔ TI-236

Steel ➔ pg. 366

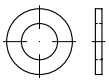
RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 1,6	x	2 -T5	S	1000	57,00 A2
M 1,6	x	3 -T5	S	1000	47,50 A2
M 1,6	x	4 -T5	S	1000	45,50 A2
M 1,6	x	5 -T5	S	1000	46,50 A2
M 1,6	x	6 -T5	S	1000	47,50 A2
M 1,6	x	8 -T5	S	1000	52,00 A2
M 1,6	x	10 -T5	S	1000	57,00 A2
M 1,6	x	12 -T5	S	1000	67,00 A2
M 1,6	x	16 -T5	S	1000	80,00 A2
M 2	x	2 -T6	S	1000	57,00 A2
M 2	x	3 -T6	S	1000	47,50 A2
M 2	x	4 -T6	S	1000	45,50 A2
M 2	x	5 -T6	S	1000	46,50 A2
M 2	x	6 -T6	S	1000	47,50 A2
M 2	x	8 -T6	S	1000	52,00 A2
M 2	x	10 -T6	S	1000	57,00 A2
M 2	x	12 -T6	S	1000	67,00 A2
M 2	x	16 -T6	S	1000	80,00 A2
M 2	x	20 -T6	S	1000	95,00 A2
M 2,5	x	3 -T8	S	1000	28,50 A2
M 2,5	x	4 -T8	S	1000	20,10 A2
M 2,5	x	5 -T8	S	1000	20,50 A2
M 2,5	x	6 -T8	S	1000	16,30 A2
M 2,5	x	8 -T8	S	1000	16,50 A2
M 2,5	x	10 -T8	S	1000	16,90 A2
M 2,5	x	12 -T8	S	1000	18,00 A2
M 2,5	x	16 -T8	S	1000	19,20 A2
M 2,5	x	20 -T8	S	1000	22,20 A2
M 2,5	x	25 -T8	S	1000	34,50 A2
M 3	x	4 -T10	S	1000	12,40 A2
M 3	x	5 -T10	S	1000	11,40 A2
M 3	x	6 -T10	S	1000	10,60 A2
M 3	x	8 -T10	S	1000	11,20 A2
M 3	x	10 -T10	S	1000	12,00 A2
M 3	x	12 -T10	S	1000	12,50 A2
M 3	x	16 -T10	S	1000	14,80 A2
M 3	x	20 -T10	S	1000	15,80 A2
M 3	x	25 -T10	S	1000	17,30 A2
M 3	x	30 -T10	S	1000	27,50 A2
M 4	x	5 -T20	S	1000	22,80 A2
M 4	x	6 -T20	S	1000	16,90 A2
M 4	x	8 -T20	S	1000	17,10 A2
M 4	x	10 -T20	S	1000	17,60 A2
M 4	x	12 -T20	S	1000	18,60 A2
M 4	x	16 -T20	S	1000	23,90 A2
M 4	x	20 -T20	S	1000	24,30 A2
M 4	x	25 -T20	S	1000	27,50 A2
M 4	x	30 -T20	S	1000	34,50 A2
M 4	x	35 -T20	S	500	47,00 A2
M 4	x	40 -T20	S	500	61,00 A2
M 5	x	6 -T25	S	500	42,50 A2
M 5	x	8 -T25	S	500	29,50 A2
M 5	x	10 -T25	S	500	30,00 A2
M 5	x	12 -T25	S	500	30,50 A2
M 5	x	16 -T25	S	500	33,50 A2
M 5	x	20 -T25	S	500	37,50 A2
M 5	x	25 -T25	S	500	43,00 A2
M 5	x	30 -T25	S	500	49,50 A2
M 5	x	35 -T25	S	500	56,00 A2
M 5	x	40 -T25	S	500	66,00 A2
M 5	x	45 -T25	S	500	80,00 A2
M 5	x	50 -T25	S	500	105,00 A2
M 6	x	8 -T30	S	200	37,50 A2
M 6	x	10 -T30	S	200	37,50 A2
M 6	x	12 -T30	S	500	39,50 A2
M 6	x	16 -T30	S	200	43,00 A2
M 6	x	20 -T30	S	200	48,50 A2
M 6	x	25 -T30	S	200	54,00 A2
M 6	x	30 -T30	S	200	64,00 A2
M 6	x	35 -T30	S	200	71,00 A2
M 6	x	40 -T30	S	200	80,00 A2
M 6	x	45 -T30	S	200	98,00 A2
M 6	x	50 -T30	S	200	124,00 A2
M 6	x	60 -T30	S	200	167,00 A2
M 8	x	10 -T45	S	500	209,00 A2
M 8	x	12 -T45	S	500	180,00 A2
M 8	x	16 -T45	S	500	199,00 A2
M 8	x	20 -T45	S	500	214,00 A2
M 8	x	25 -T45	S	500	237,00 A2
M 8	x	30 -T45	S	500	260,00 A2
M 8	x	35 -T45	S	500	280,00 A2
M 8	x	40 -T45	S	500	305,00 A2
M 8	x	45 -T45	S	200	325,00 A2
M 8	x	50 -T45	S	200	345,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	55 - T45	S	200	370,00 A2
M 8	x	60 - T45	S	200	390,00 A2
M10	x	12 - T50	S	200	335,00 A2
M10	x	16 - T50	S	200	300,00 A2
M10	x	20 - T50	S	200	325,00 A2
M10	x	25 - T50	S	200	360,00 A2
M10	x	30 - T50	S	200	390,00 A2
M10	x	35 - T50	S	200	430,00 A2
M10	x	40 - T50	S	200	465,00 A2
M10	x	45 - T50	S	100	520,00 A2
M10	x	50 - T50	S	100	530,00 A2
M10	x	55 - T50	S	100	560,00 A2
M10	x	60 - T50	S	100	590,00 A2

DIN 07989.943 720

7989-1 A 4 PK C



Washers for steel structures, product grade C (g)

old: type A

Dimensions ➔ TI-84 Material properties ➔ TI-236

Steel ➔ pg. 367

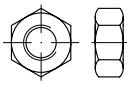
RoHS ✓ REACh SVHC free

nominal size / inside ∅ x outside ∅ x thickn.

10/11	x	20	x	8	S	100	770,00 A4
12/13,5	x	24	x	8	S	50	810,00 A4
16/17,5	x	30	x	8	S	50	930,00 A4
20/22	x	37	x	8	S	50	1070,00 A4
22/24	x	39	x	8	S	50	1200,00 A4
24/26	x	44	x	8	S	50	1520,00 A4
27/30	x	50	x	8	S	50	1560,00 A4
30/33	x	56	x	8	S	50	1660,00 A4

ISO 08673.920 3310

8673 A 2



Hexagon nuts, ISO type 1, with metric fine pitch thread

*M 5-M 39 = RAZ 3310 other ∅/M = RAZ 410

Dimensions ➔ TI-62 Tightening torque ➔ TI-249
Material properties ➔ TI-236 Standard conversion ➔ TI-7

Steel ➔ pg. 369
Brass ➔ pg. 642

ISO 8673 ➔ replaces DIN 934 fine thread

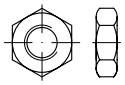
RoHS ✓ REACh SVHC free

M 6	x	0,75	S	100	152,00 A2
M 8	x	1	S	100	93,00 A2
M 10	x	1	S	50	127,00 A2
M 10	x	1,25	S	50	126,00 A2
M 12	x	1,25	S	50	222,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	1,5	S	50	495,00 A2
M 14	x	1,5	S	25	248,00 A2
M 16	x	1,5	S	25	330,00 A2
M 18	x	1,5	S	10	610,00 A2
M 20	x	1,5	S	10	620,00 A2
M 24	x	1,5	S	10	1420,00 A2
M 24	x	2	S	10	1420,00 A2
M 30	x	1,5	S	10	3500,00 A2
M 30	x	2	S	1	3500,00 A2
M 36	x	1,5	S	5	5700,00 A2

ISO 08675.920 *

8675 A 2



Hexagon thin nuts, chamfered, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3370 other ∅ = RAZ 170

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-236

Steel ➔ pg. 371
Brass ➔ pg. 643

ISO 8675 ➔ replaces DIN 439 fine thread

RoHS ✓ REACh SVHC free

M 8	x	1	S	100	129,00 A2
M 10	x	1	S	50	231,00 A2
M 10	x	1,25	S	50	231,00 A2
M 12	x	1,25	S	50	305,00 A2
M 12	x	1,5	S	50	305,00 A2
M 14	x	1,5	S	25	450,00 A2
M 16	x	1,5	S	25	560,00 A2
M 18	x	1	S	10	570,00 A2
M 18	x	1,5	S	10	790,00 A2
M 20	x	1,5	S	10	1010,00 A2
M 22	x	1,5	S	10	740,00 A2
M 24	x	1,5	S	10	1710,00 A2
M 30	x	1,5	S	10	3200,00 A2
M 30	x	2	S	10	3200,00 A2
M 36	x	1,5	S	1	5800,00 A2

Dimensions			PU	Pieces	€/100/Mat.
ISO	08675.940				*

8675 A 4

Hexagon thin nuts, chamfered, with metric fine pitch thread

*M 10/12/14/22 = RAZ 3370 other ∅ = RAZ 170

Dimensions ➔ TI-61 Standard conversion ➔ TI-7
Material properties ➔ TI-236

Steel ➔ pg. 371
Brass ➔ pg. 643

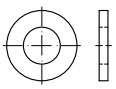
ISO 8675 ➔ replaces DIN 439 fine thread

RoHS ✓ REACh SVHC free

M 10	x	1	S	50	310,00 A4
M 10	x	1,25	S	50	450,00 A4
M 12	x	1,25	S	50	440,00 A4
M 12	x	1,5	S	50	405,00 A4
M 16	x	1,5	S	25	770,00 A4
M 18	x	1,5	S	10	1040,00 A4
M 20	x	1,5	S	10	1370,00 A4
M 22	x	1,5	S	10	1980,00 A4
M 24	x	1,5	S	10	2310,00 A4
M 24	x	2	S	10	2310,00 A4
M 30	x	1,5	S	10	4450,00 A4
M 30	x	2	S	10	4450,00 A4
M 33	x	2	S	1	5800,00 A4
M 36	x	3	S	1	7100,00 A4

ISO 08738.920 490

8738 A 2 160 HV



Washers for clevis pins, product grade A

ISO 8738 = EN 28738,
for pins acc. to ISO 2340 and ISO 2341

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 376

ISO 8738 ➔ replaces DIN 1440

RoHS ✓ REACh SVHC free

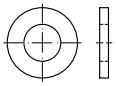
nominal diameter

5	S	50	73,00
6	S	50	89,00
8	S	50	148,00
10	S	50	203,00
12	S	25	285,00
14	S	25	400,00
16	S	25	415,00
20	S	10	600,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
ISO	08738.940		490

8738 A 4 160 HV



Washers for clevis pins, product grade A

ISO 8738 = EN 28738,
for pins acc. to ISO 2340 and ISO 2341

Dimensions ➔ TI-85 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 376

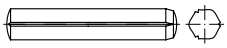
ISO 8738 ➔ replaces DIN 1440

RoHS ✓ REACh SVHC free

nominal diameter				
5	S	50	96,00	
6	S	50	113,00	
8	S	50	194,00	
10	S	50	285,00	
12	S	25	420,00	
14	S	25	580,00	
16	S	25	590,00	
18	S	10	800,00	
20	S	10	870,00	
30	S	1	3300,00	
36	S	1	3900,00	
40	S	1	5800,00	
50	S	1	8600,00	
60	S	1	11300,00	

ISO	08740.910	3650

8740 A 1



Grooved pins, full length parallel grooved, with chamfers

Dimensions ➔ TI-119 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Steel ➔ pg. 377

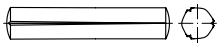
ISO 8740 ➔ replaces DIN 1473

RoHS ✓ REACh SVHC free

2	x	8	S	100	18,40	A1
2	x	10	S	100	19,00	A1
2	x	12	S	100	19,50	A1
2	x	16	S	100	20,50	A1
2	x	18	S	100	21,20	A1
2	x	20	S	100	22,00	A1
3	x	8	S	100	24,10	A1
3	x	10	S	100	25,50	A1
3	x	12	S	100	25,50	A1
3	x	16	S	100	25,50	A1
3	x	18	S	100	26,50	A1
3	x	20	S	100	28,00	A1
3	x	24	S	100	30,00	A1
3	x	30	S	100	33,00	A1
4	x	8	S	100	28,00	A1
4	x	10	S	100	28,50	A1
4	x	12	S	100	28,50	A1
4	x	16	S	100	33,50	A1
4	x	18	S	100	33,50	A1
4	x	20	S	100	36,00	A1
4	x	24	S	100	40,50	A1
4	x	30	S	100	45,50	A1
4	x	35	S	100	51,00	A1
4	x	40	S	100	54,00	A1
5	x	8	S	100	35,00	A1
5	x	10	S	100	37,50	A1
5	x	12	S	100	37,50	A1
5	x	16	S	100	45,50	A1
5	x	18	S	100	47,50	A1
5	x	20	S	100	51,00	A1
5	x	24	S	100	58,00	A1
5	x	30	S	100	63,00	A1
5	x	35	S	100	71,00	A1
5	x	40	S	100	76,00	A1
6	x	10	S	100	63,00	A1
6	x	12	S	100	65,00	A1
6	x	16	S	100	71,00	A1
6	x	18	S	100	74,00	A1
6	x	20	S	100	77,00	A1
6	x	24	S	100	85,00	A1
6	x	30	S	100	94,00	A1
6	x	35	S	100	105,00	A1
6	x	40	S	100	112,00	A1
6	x	45	S	100	120,00	A1
6	x	50	S	100	127,00	A1
8	x	10	S	100	94,00	A1
8	x	12	S	100	99,00	A1
8	x	16	S	100	105,00	A1
8	x	20	S	100	116,00	A1
8	x	25	S	100	131,00	A1
8	x	30	S	100	141,00	A1
8	x	35	S	100	156,00	A1
8	x	40	S	100	165,00	A1
8	x	45	S	100	178,00	A1
8	x	50	S	100	192,00	A1
8	x	60	S	100	216,00	A1

ISO	08744.910	3650

8744 A 1



Grooved pins, full-length taper grooved

Dimensions ➔ TI-119 Standard conversion ➔ TI-10
Material properties ➔ TI-236

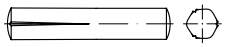
Steel ➔ pg. 378

ISO 8744 ➔ replaces DIN 1471

RoHS ✓ REACh SVHC free

2	x	8	S	100	18,40	A1
2	x	10	S	100	19,00	A1
2	x	12	S	100	19,50	A1
2	x	16	S	100	20,50	A1
2	x	18	S	100	21,20	A1
2	x	20	S	100	22,00	A1
3	x	8	S	100	24,10	A1
3	x	10	S	100	25,50	A1
3	x	12	S	100	26,00	A1
3	x	16	S	100	26,00	A1
3	x	18	S	100	26,50	A1
3	x	20	S	100	28,00	A1
4	x	8	S	100	28,00	A1
4	x	10	S	100	28,00	A1
4	x	12	S	100	29,00	A1
4	x	16	S	100	33,50	A1
4	x	18	S	100	35,00	A1
4	x	20	S	100	36,00	A1
4	x	25	S	100	41,50	A1
4	x	30	S	100	45,50	A1
4	x	35	S	100	51,00	A1
4	x	40	S	100	54,00	A1
5	x	8	S	100	35,00	A1
5	x	10	S	100	37,50	A1
5	x	12	S	100	37,50	A1
5	x	16	S	100	45,50	A1
5	x	18	S	100	47,50	A1
5	x	20	S	100	51,00	A1
5	x	25	S	100	58,00	A1
5	x	30	S	100	63,00	A1
5	x	35	S	100	71,00	A1
5	x	40	S	100	76,00	A1
6	x	10	S	100	63,00	A1
6	x	12	S	100	65,00	A1
6	x	16	S	100	71,00	A1
6	x	18	S	100	74,00	A1
6	x	20	S	100	77,00	A1
6	x	25	S	100	88,00	A1
6	x	30	S	100	94,00	A1
6	x	40	S	100	112,00	A1
6	x	45	S	100	120,00	A1
6	x	50	S	100	127,00	A1
8	x	12	S	100	99,00	A1
8	x	16	S	100	105,00	A1
8	x	20	S	100	116,00	A1
8	x	25	S	100	131,00	A1
8	x	30	S	100	141,00	A1
8	x	35	S	100	156,00	A1
8	x	40	S	100	165,00	A1
8	x	45	S	100	178,00	A1
8	x	50	S	100	192,00	A1
8	x	60	S	100	216,00	A1

Dimensions	PU	Pieces	€/100/Mat.
ISO 08745.910			3650
8745 A 1			



Grooved pins, half-length taper grooved

Dimensions ➔ TI-118 Standard conversion ➔ TI-10
Material properties ➔ TI-236

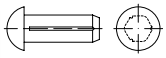
Steel ➔ pg. 379

ISO 8745 ➔ replaces DIN 1472

RoHS ✓ | REACh SVHC free

1,5	x	8	S	100	27,00	A1
1,5	x	10	S	100	27,50	A1
2	x	8	S	100	28,00	A1
2	x	10	S	100	29,00	A1
2	x	12	S	100	29,50	A1
2	x	14	S	100	30,00	A1
2	x	16	S	100	32,50	A1
2	x	18	S	100	33,00	A1
2	x	20	S	100	37,00	A1
3	x	6	S	100	29,00	A1
3	x	8	S	100	29,00	A1
3	x	10	S	100	30,00	A1
3	x	12	S	100	32,50	A1
3	x	14	S	100	33,00	A1
3	x	16	S	100	35,50	A1
3	x	18	S	100	36,00	A1
3	x	20	S	100	37,50	A1
3	x	25	S	100	38,50	A1
4	x	8	S	100	32,50	A1
4	x	10	S	100	33,50	A1
4	x	12	S	100	46,50	A1
4	x	14	S	100	48,00	A1
4	x	16	S	100	49,50	A1
4	x	18	S	100	53,00	A1
4	x	20	S	100	53,00	A1
4	x	25	S	100	57,00	A1
4	x	30	S	100	60,00	A1
4	x	40	S	100	64,00	A1
5	x	8	S	100	35,00	A1
5	x	10	S	100	37,50	A1
5	x	12	S	100	37,50	A1
5	x	16	S	100	45,50	A1
5	x	18	S	100	60,00	A1
5	x	20	S	100	65,00	A1
5	x	25	S	100	68,00	A1
5	x	30	S	100	69,00	A1
5	x	35	S	100	71,00	A1
5	x	40	S	100	76,00	A1
6	x	10	S	100	63,00	A1
6	x	18	S	100	74,00	A1
6	x	20	S	100	77,00	A1
6	x	25	S	100	88,00	A1
6	x	30	S	100	94,00	A1
6	x	35	S	100	105,00	A1
6	x	40	S	100	112,00	A1
6	x	45	S	100	120,00	A1
6	x	50	S	100	127,00	A1
8	x	12	S	100	99,00	A1
8	x	16	S	100	105,00	A1
8	x	18	S	100	110,00	A1
8	x	20	S	100	116,00	A1
8	x	25	S	100	131,00	A1
8	x	30	S	100	141,00	A1
8	x	35	S	100	156,00	A1
8	x	40	S	100	165,00	A1
8	x	45	S	100	178,00	A1
8	x	50	S	100	192,00	A1
8	x	60	S	100	216,00	A1

ISO	08746.920	500
8746	1.4303 (A 2)	type A



Grooved pins with round head, A = with chamfer

Dimensions ➔ TI-120 Standard conversion ➔ TI-10
Material properties ➔ TI-236

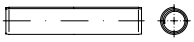
Steel ➔ pg. 380
Brass, Aluminium ➔ pg. 643

ISO 8746 ➔ replaces DIN 1476 (compatible)

RoHS ✓ | REACh SVHC free

1,4	x	3	S	100	15,00	A2
1,4	x	4	S	100	15,40	A2
1,4	x	5	S	100	15,60	A2
1,4	x	6	S	100	17,10	A2
1,6	x	3	S	100	15,40	A2
1,6	x	4	S	100	16,50	A2
1,6	x	5	S	100	16,90	A2
1,6	x	6	S	100	17,60	A2
2	x	3	S	100	20,50	A2
2	x	4	S	100	20,50	A2
2	x	5	S	100	20,50	A2
2	x	6	S	100	21,80	A2
2	x	8	S	100	23,10	A2
2	x	10	S	100	24,80	A2
2,5	x	4	S	100	21,20	A2
2,5	x	5	S	100	21,60	A2
2,5	x	6	S	100	21,80	A2
2,5	x	8	S	100	22,20	A2
2,5	x	10	S	100	26,00	A2
3	x	4	S	100	25,50	A2
3	x	5	S	100	27,00	A2
3	x	6	S	100	28,50	A2
3	x	8	S	100	35,00	A2
3	x	10	S	100	36,00	A2
3	x	12	S	100	41,50	A2
4	x	6	S	100	46,00	A2
4	x	8	S	100	52,00	A2
4	x	10	S	100	55,00	A2
4	x	12	S	100	63,00	A2
5	x	8	S	100	63,00	A2
5	x	10	S	100	69,00	A2
5	x	12	S	100	78,00	A2
5	x	16	S	100	83,00	A2
6	x	10	S	100	76,00	A2
6	x	12	S	100	84,00	A2

Dimensions	PU	Pieces	€/100/Mat.
ISO 08750.960			623
8750 1.4310			



Spring-type straight pins, coiled, standard duty

Caution! Reduced spring load.

Dimensions ➔ TI-121 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Spring steel ➔ pg. 381

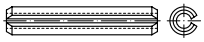
ISO 8750 ➔ replaces DIN 7343 (compatible)

RoHS ✓ | REACh SVHC free

1	x	6	S	1000	15,00	
1	x	10	S	1000	16,10	
1	x	12	S	1000	17,10	
1,5	x	5	S	1000	14,60	
1,5	x	6	S	1000	14,80	
1,5	x	8	S	1000	15,20	
1,5	x	10	S	1000	16,10	
1,5	x	12	S	1000	17,10	
2	x	4	S	1000	14,60	
2	x	5	S	1000	15,20	
2	x	6	S	1000	15,60	
2	x	8	S	1000	16,10	
2	x	10	S	1000	17,10	
2	x	12	S	1000	17,50	
2	x	14	S	1000	18,00	
2	x	16	S	1000	19,20	
2	x	18	S	1000	19,70	
2	x	20	S	1000	21,10	
2,5	x	5	S	1000	16,50	
2,5	x	6	S	1000	17,10	
2,5	x	8	S	1000	17,50	
2,5	x	10	S	1000	18,00	
2,5	x	12	S	1000	19,20	
2,5	x	14	S	1000	19,70	
2,5	x	16	S	1000	21,10	
2,5	x	18	S	1000	23,10	
2,5	x	20	S	1000	24,50	
2,5	x	22	S	1000	25,50	
2,5	x	24	S	1000	27,00	
3	x	8	S	1000	23,10	
3	x	10	S	1000	24,50	
3	x	12	S	1000	26,50	
3	x	14	S	1000	30,50	
3	x	16	S	1000	31,50	
3	x	18	S	1000	33,00	
3	x	20	S	1000	34,00	
3	x	22	S	1000	38,00	
3	x	24	S	1000	39,50	
3	x	26	S	1000	42,00	
3	x	28	S	1000	44,00	
3	x	30	S	1000	46,00	
3	x	32	S	1000	47,50	
4	x	8	S	500	31,50	
4	x	10	S	500	32,00	
4	x	12	S	500	36,00	
4	x	14	S	500	40,50	
4	x	16	S	500	44,50	
4	x	18	S	500	47,00	
4	x	20	S	500	53,00	
4	x	22	S	500	56,00	
4	x	24	S	500	60,00	

Dimensions			PU	Pieces	€/100/Mat.
4	x	26	S	500	63,00
4	x	28	S	500	66,00
4	x	30	S	500	69,00
4	x	32	S	500	73,00
4	x	35	S	500	78,00
4	x	40	S	500	88,00
4	x	45	S	500	101,00
4	x	50	S	500	110,00
5	x	12	S	500	49,50
5	x	14	S	500	54,00
5	x	16	S	500	60,00
5	x	18	S	500	66,00
5	x	20	S	500	71,00
5	x	22	S	500	76,00
5	x	24	S	500	82,00
5	x	26	S	500	88,00
5	x	28	S	500	92,00
5	x	30	S	500	101,00
5	x	32	S	500	105,00
5	x	35	S	500	116,00
5	x	40	S	500	125,00
5	x	45	S	500	139,00
5	x	50	S	250	152,00
6	x	12	S	500	64,00
6	x	14	S	500	70,00
6	x	16	S	500	77,00
6	x	18	S	500	84,00
6	x	20	S	500	89,00
6	x	22	S	500	99,00
6	x	24	S	500	105,00
6	x	26	S	500	112,00
6	x	28	S	500	118,00
6	x	30	S	500	129,00
6	x	32	S	500	133,00
6	x	35	S	500	148,00
6	x	40	S	250	161,00
6	x	45	S	250	178,00
6	x	50	S	250	195,00
8	x	16	S	500	93,00
8	x	18	S	500	103,00
8	x	20	S	500	112,00
8	x	22	S	500	122,00
8	x	24	S	500	129,00
8	x	26	S	500	139,00
8	x	28	S	500	148,00
8	x	30	S	500	158,00
8	x	32	S	500	167,00
8	x	35	S	500	186,00
8	x	40	S	250	205,00
8	x	45	S	250	229,00
8	x	50	S	250	250,00

Dimensions	PU	Pieces	€/100/Mat.
ISO	08752.960		*
8752	**1.4310**		



Spring-type straight pins, slotted, heavy duty

Caution! Reduced spring load.

Dimensions ➔ TI-121 Standard conversion ➔ TI-10
Material properties ➔ TI-236

Spring steel ➔ pg. 381

ISO 8752 ➔ replaces DIN 1481

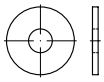
RoHS ✓ REACh SVHC free

1	x	4	S	100	16,10
1	x	5	S	100	16,10
1	x	6	S	100	16,10
1	x	8	S	100	16,10
1	x	10	S	100	17,10
1	x	12	S	100	17,50
1	x	14	S	100	18,00
1	x	16	S	100	18,60
1	x	20	S	100	19,90
1,5	x	5	S	100	15,80
1,5	x	6	S	100	16,10
1,5	x	8	S	100	16,10
1,5	x	10	S	100	17,10
1,5	x	12	S	100	17,50
1,5	x	14	S	100	18,00
1,5	x	16	S	100	18,60
1,5	x	18	S	100	19,20
1,5	x	20	S	100	20,50
2	x	4	S	100	16,10
2	x	5	S	100	16,10
2	x	6	S	100	16,10
2	x	8	S	100	17,10
2	x	10	S	100	17,60
2	x	12	S	100	18,40
2	x	14	S	100	19,20
2	x	16	S	100	20,10
2	x	18	S	100	20,90
2	x	20	S	100	22,00
2	x	22	S	100	23,10
2	x	24	S	100	24,10
2	x	26	S	100	25,50
2	x	28	S	100	26,50
2	x	30	S	100	28,00
2,5	x	4	S	100	16,50
2,5	x	5	S	100	17,50
2,5	x	6	S	100	17,50
2,5	x	8	S	100	18,00
2,5	x	10	S	100	19,20
2,5	x	12	S	100	19,70
2,5	x	14	S	100	20,90
2,5	x	16	S	100	21,80
2,5	x	18	S	100	23,10
2,5	x	20	S	100	24,70
2,5	x	22	S	100	26,00
2,5	x	24	S	100	27,50
2,5	x	26	S	100	29,00
2,5	x	28	S	100	30,50
2,5	x	30	S	100	32,00
3	x	4	S	100	18,00
3	x	5	S	100	19,20
3	x	6	S	100	20,90
3	x	8	S	100	23,10
3	x	10	S	100	24,80
3	x	12	S	100	27,00
3	x	14	S	100	30,50
3	x	16	S	100	31,50
3	x	18	S	100	33,00
3	x	20	S	100	34,00
3	x	22	S	100	37,50
3	x	24	S	50	41,00
3	x	26	S	50	42,50
3	x	28	S	50	44,50
3	x	30	S	50	47,00
3	x	32	S	50	48,50
3	x	36	S	50	52,00
3	x	40	S	50	54,00
3,5	x	6	S	100	28,00
3,5	x	10	S	100	31,50
3,5	x	12	S	100	35,50
3,5	x	14	S	100	40,00
3,5	x	16	S	100	43,50
3,5	x	18	S	100	46,00
3,5	x	20	S	100	52,00
3,5	x	22	S	100	53,00
3,5	x	24	S	100	58,00
3,5	x	26	S	100	59,00
3,5	x	28	S	100	63,00
3,5	x	30	S	100	66,00
3,5	x	32	S	100	70,00
3,5	x	36	S	100	75,00
3,5	x	40	S	100	85,00
4	x	6	S	100	28,00
4	x	8	S	100	30,50
4	x	10	S	100	31,50
4	x	12	S	100	35,50
4	x	14	S	50	42,00
4	x	16	S	50	45,50
4	x	18	S	50	48,50
4	x	20	S	50	53,00
4	x	22	S	50	55,00
4	x	24	S	50	60,00
4	x	26	S	50	63,00
4	x	28	S	50	65,00
4	x	30	S	50	68,00
4	x	32	S	50	68,00
4	x	36	S	50	77,00
4	x	40	S	50	87,00
4	x	45	S	50	91,00
4	x	50	S	50	105,00
4,5	x	10	S	100	37,50
4,5	x	12	S	100	41,50
4,5	x	14	S	100	45,50
4,5	x	16	S	100	48,50
4,5	x	18	S	100	53,00
4,5	x	20	S	100	58,00
4,5	x	22	S	100	61,00
4,5	x	24	S	100	65,00
4,5	x	26	S	100	69,00
4,5	x	28	S	100	72,00
4,5	x	30	S	100	78,00
4,5	x	32	S	100	82,00
4,5	x	36	S	100	97,00
4,5	x	40	S	100	103,00
4,5	x	45	S	100	112,00
4,5	x	50	S	100	122,00
5	x	6	S	50	36,50
5	x	8	S	50	40,00
5	x	10	S	50	44,00
5	x	12	S	50	49,50
5	x	14	S	50	54,00
5	x	16	S	50	60,00
5	x	18	S	50	65,00
5	x	20	S	50	70,00
5	x	22	S	50	74,00
5	x	24	S	50	79,00
5	x	26	S	50	84,00

Dimensions			PU	Pieces	€/100/Mat.
5	x	28	S	50	90,00
5	x	30	S	50	97,00
5	x	32	S	50	101,00
5	x	36	S	50	112,00
5	x	40	S	50	122,00
5	x	45	S	50	131,00
5	x	50	S	50	148,00
5	x	60	S	50	237,00
5	x	70	S	50	310,00
6	x	10	S	25	63,00
6	x	12	S	25	67,00
6	x	14	S	25	70,00
6	x	16	S	25	74,00
6	x	18	S	25	86,00
6	x	20	S	25	99,00
6	x	22	S	25	105,00
6	x	24	S	25	112,00
6	x	26	S	25	120,00
6	x	28	S	25	127,00
6	x	30	S	25	135,00
6	x	32	S	25	144,00
6	x	36	S	25	159,00
6	x	40	S	25	194,00
6	x	45	S	25	222,00
6	x	50	S	25	255,00
6	x	60	S	25	330,00
6	x	70	S	25	365,00
6	x	80	S	25	390,00
8	x	10	S	25	88,00
8	x	12	S	25	92,00
8	x	14	S	25	97,00
8	x	16	S	25	105,00
8	x	18	S	25	122,00
8	x	20	S	25	139,00
8	x	22	S	25	159,00
8	x	24	S	25	165,00
8	x	26	S	25	171,00
8	x	28	S	25	182,00
8	x	30	S	25	195,00
8	x	32	S	25	212,00
8	x	36	S	25	229,00
8	x	40	S	25	280,00
8	x	45	S	25	305,00
8	x	50	S	25	320,00
8	x	55	S	25	345,00
8	x	60	S	25	365,00
8	x	70	S	25	410,00
8	x	80	S	25	440,00
8	x	90	S	25	485,00
10	x	10	S	50	154,00
10	x	12	S	50	159,00
10	x	16	S	50	175,00
10	x	18	S	50	226,00
10	x	20	S	50	226,00
10	x	22	S	50	260,00
10	x	24	S	50	270,00
10	x	28	S	50	290,00
10	x	30	S	10	315,00
10	x	32	S	50	305,00
10	x	36	S	50	365,00
10	x	40	S	50	435,00
10	x	45	S	10	475,00
10	x	50	S	50	520,00
10	x	55	S	10	540,00
10	x	60	S	10	580,00
10	x	65	S	50	610,00
10	x	70	S	50	630,00
10	x	80	S	10	680,00
10	x	90	S	50	710,00
10	x	100	S	50	780,00

Dimensions			PU	Pieces	€/100/Mat.
DIN		09021.920			750

9021 A 2



Washers, outside Ø ≈ 3 x nom. thread Ø, product grade C

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 387
Brass, Plastic ➔ pg. 643

DIN 9021 ➔ replaced by ISO 7093

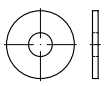
RoHS ✓ REACh SVHC free

inside Ø x outside Ø x thickness

3,2	x	9	x	0,8	S	1000	3,25	A2
3,2	x	9	x	0,8	K	100	6,20	A2
4,3	x	12	x	1	S	1000	4,30	A2
4,3	x	12	x	1	K	100	6,60	A2
5,3	x	15	x	1,2	S	1000	9,70	A2
5,3	x	15	x	1,2	K	100	12,50	A2
6,4	x	18	x	1,6	S	1000	12,70	A2
6,4	x	18	x	1,6	K	100	15,80	A2
8,4	x	24	x	2	S	1000	32,00	A2
8,4	x	24	x	2	K	100	35,00	A2
10,5	x	30	x	2,5	S	500	48,50	A2
10,5	x	30	x	2,5	K	50	53,00	A2
13	x	37	x	3	S	250	118,00	A2
13	x	37	x	3	K	50	122,00	A2
15	x	44	x	3	S	100	154,00	A2
17	x	50	x	3	S	100	186,00	A2
17	x	50	x	3	K	25	195,00	A2
20	x	56	x	4	S	100	295,00	A2
22	x	60	x	4	S	100	320,00	A2
22	x	60	x	4	K	10	345,00	A2
26	x	72	x	5	S	25	860,00	A2

DIN		09021.940			750

9021 A 4



Washers, outside Ø ≈ 3 x nom. thread Ø, product grade C

Dimensions ➔ TI-85 Standard conversion ➔ TI-84
Material properties ➔ TI-236

Steel ➔ pg. 387
Brass, Plastic ➔ pg. 643

DIN 9021 ➔ replaced by ISO 7093

RoHS ✓ REACh SVHC free

inside Ø x outside Ø x thickness

3,2	x	9	x	0,8	S	1000	4,65	A4
3,2	x	9	x	0,8	K	100	8,80	A4
4,3	x	12	x	1	S	1000	6,10	A4

Dimensions					PU	Pieces	€/100/Mat.	
4,3	x	12	x	1	K	100	9,70	A4
5,3	x	15	x	1,2	S	1000	13,50	A4
5,3	x	15	x	1,2	K	100	18,30	A4
6,4	x	18	x	1,6	S	1000	18,70	A4
6,4	x	18	x	1,6	K	100	23,30	A4
8,4	x	24	x	2	S	1000	42,00	A4
8,4	x	24	x	2	K	100	47,50	A4
10,5	x	30	x	2,5	S	500	84,00	A4
10,5	x	30	x	2,5	K	50	96,00	A4
13	x	37	x	3	S	250	168,00	A4
13	x	37	x	3	K	50	179,00	A4
15	x	44	x	3	S	100	233,00	A4
17	x	50	x	3	S	100	300,00	A4
17	x	50	x	3	K	25	325,00	A4
20	x	56	x	4	S	100	450,00	A4
22	x	60	x	4	S	10	560,00	A4
26	x	72	x	5	S	10	670,00	A4

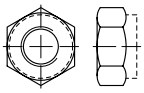
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~ISO		10511.920			3395

10511 A 2



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use under temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 388
Brass ➔ pg. 643

ISO 10511 ➔ replaces DIN 985

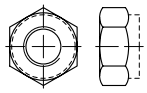
REACh SVHC free

M 3	S	1000	31,00
M 4	S	1000	24,10
M 5	S	1000	5,20
M 6	S	1000	31,50
M 8	S	500	60,00
M 10	S	500	118,00
M 12	S	250	161,00
M 14	S	250	365,00
M 16	S	250	385,00
M 18	S	25	990,00
M 20	S	1	1180,00

Dimensions	PU	Pieces	€/100/Mat.
M 22	S	1	1250,00
M 24	S	1	1250,00
M 27	S	1	4600,00
M 30	S	1	4600,00
M 36	S	1	9000,00

~ISO	10511.940	3395

10511 A 4



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use under temperatures from -50 to +120 °C

Caution!
Risk of cold shut. Please note the technical advice given in the information box.

Dimensions ➔ TI-9
Standard conversion ➔ TI-9
Material properties ➔ TI-236

Steel ➔ pg. 388
Brass ➔ pg. 643

ISO 10511 ➔ replaces DIN 985

REACh SVHC free

M 3	S	1000	96,00
M 4	S	1000	54,00
M 5	S	1000	54,00
M 6	S	1000	72,00
M 8	S	500	104,00
M 10	S	500	204,00
M 12	S	250	315,00
M 14	S	250	620,00
M 16	S	250	720,00
M 20	S	1	2000,00
M 24	S	1	2100,00
M 27	S	1	6000,00
M 30	S	1	7700,00

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

Dimensions	PU	Pieces	€/100/Mat.
ISO	10642.920		3800

10642 A 2



Hexagon socket countersunk head screws

sometimes thread up to head

Caution!
Screws have only a reducedloadability.

Dimensions ➔ TI-14
Tightening torque ➔ TI-246, 249
Material properties ➔ TI-236

Steel ➔ pg. 389

RoHS ✓ REACh SVHC free

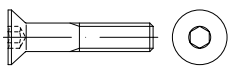
M 3	x	4	S	100	26,50	A 2
M 3	x	5	S	100	30,50	A 2
M 3	x	6	S	100	34,50	A 2
M 3	x	8	S	100	32,00	A 2
M 3	x	10	S	100	28,00	A 2
M 3	x	12	S	100	25,50	A 2
M 3	x	14	S	100	39,00	A 2
M 3	x	16	S	100	27,50	A 2
M 3	x	18	S	100	45,00	A 2
M 3	x	20	S	100	30,50	A 2
M 3	x	25	S	100	32,50	A 2
M 3	x	30	S	100	36,00	A 2
M 3	x	35	S	200	159,00	A 2
M 4	x	5	S	100	67,00	A 2
M 4	x	6	S	100	62,00	A 2
M 4	x	8	S	500	54,00	A 2
M 4	x	8	K	100	58,00	A 2
M 4	x	10	S	500	49,50	A 2
M 4	x	10	K	100	55,00	A 2
M 4	x	12	S	500	49,50	A 2
M 4	x	12	K	100	55,00	A 2
M 4	x	14	S	500	51,00	A 2
M 4	x	14	K	100	56,00	A 2
M 4	x	16	S	500	39,00	A 2
M 4	x	16	K	100	43,50	A 2
M 4	x	18	S	500	57,00	A 2
M 4	x	18	K	100	61,00	A 2
M 4	x	20	S	500	43,00	A 2
M 4	x	20	K	100	47,50	A 2
M 4	x	25	S	500	47,50	A 2
M 4	x	25	K	100	53,00	A 2
M 4	x	30	S	200	51,00	A 2
M 4	x	35	S	200	57,00	A 2
M 4	x	40	S	200	75,00	A 2
M 4	x	45	S	100	79,00	A 2
M 4	x	50	S	100	79,00	A 2
M 5	x	6	S	100	64,00	A 2
M 5	x	8	S	100	51,00	A 2
M 5	x	10	S	500	49,50	A 2
M 5	x	10	K	100	55,00	A 2
M 5	x	12	S	500	49,50	A 2
M 5	x	12	K	100	55,00	A 2
M 5	x	14	S	500	67,00	A 2
M 5	x	14	K	100	72,00	A 2
M 5	x	16	S	500	39,00	A 2
M 5	x	16	K	100	43,50	A 2
M 5	x	18	S	500	74,00	A 2
M 5	x	18	K	100	79,00	A 2
M 5	x	20	S	500	43,00	A 2
M 5	x	20	K	100	47,50	A 2
M 5	x	22	S	500	45,50	A 2
M 5	x	25	S	500	47,50	A 2
M 5	x	25	K	100	53,00	A 2
M 5	x	30	S	200	51,00	A 2
M 5	x	35	S	200	57,00	A 2
M 5	x	40	S	200	75,00	A 2
M 5	x	45	S	100	62,00	A 2
M 5	x	50	S	100	67,00	A 2
M 5	x	60	S	100	135,00	A 2
M 5	x	70	S	100	161,00	A 2
M 6	x	8	S	100	95,00	A 2
M 6	x	10	S	100	65,00	A 2
M 6	x	12	S	500	62,00	A 2
M 6	x	12	K	100	67,00	A 2
M 6	x	14	S	500	79,00	A 2
M 6	x	14	K	100	84,00	A 2
M 6	x	16	S	500	49,50	A 2
M 6	x	16	K	100	55,00	A 2
M 6	x	18	S	200	86,00	A 2
M 6	x	20	S	200	54,00	A 2
M 6	x	25	S	200	58,00	A 2
M 6	x	30	S	200	65,00	A 2
M 6	x	35	S	200	76,00	A 2
M 6	x	40	S	200	84,00	A 2
M 6	x	45	S	100	103,00	A 2
M 6	x	50	S	100	111,00	A 2
M 6	x	55	S	100	205,00	A 2
M 6	x	60	S	100	255,00	A 2
M 6	x	70	S	100	295,00	A 2
M 6	x	75	S	100	550,00	A 2
M 6	x	80	S	100	360,00	A 2
M 8	x	10	S	200	197,00	A 2
M 8	x	12	S	200	175,00	A 2
M 8	x	14	S	200	150,00	A 2
M 8	x	16	S	200	93,00	A 2
M 8	x	18	S	200	122,00	A 2
M 8	x	20	S	200	89,00	A 2
M 8	x	25	S	100	85,00	A 2
M 8	x	30	S	100	88,00	A 2
M 8	x	35	S	100	97,00	A 2
M 8	x	40	S	100	122,00	A 2
M 8	x	45	S	100	145,00	A 2
M 8	x	50	S	100	160,00	A 2
M 8	x	55	S	100	214,00	A 2
M 8	x	60	S	100	260,00	A 2
M 8	x	70	S	50	320,00	A 2
M 8	x	80	S	50	345,00	A 2
M 8	x	90	S	50	360,00	A 2
M 8	x	100	S	50	410,00	A 2
M 8	x	110	S	50	650,00	A 2
M 8	x	120	S	50	710,00	A 2
M 10	x	16	S	100	156,00	A 2
M 10	x	20	S	100	156,00	A 2
M 10	x	25	S	100	141,00	A 2
M 10	x	30	S	100	147,00	A 2
M 10	x	35	S	100	157,00	A 2
M 10	x	40	S	100	180,00	A 2
M 10	x	45	S	100	192,00	A 2
M 10	x	50	S	100	203,00	A 2
M 10	x	55	S	100	243,00	A 2
M 10	x	60	S	50	275,00	A 2
M 10	x	70	S	50	355,00	A 2
M 10	x	80	S	50	370,00	A 2
M 10	x	90	S	50	450,00	A 2
M 10	x	100	S	50	560,00	A 2
M 10	x	110	S	50	850,00	A 2
M 10	x	120	S	50	920,00	A 2
M 10	x	130	S	50	960,00	A 2
M 12	x	20	S	50	228,00	A 2
M 12	x	25	S	50	216,00	A 2
M 12	x	30	S	50	220,00	A 2
M 12	x	35	S	50	233,00	A 2
M 12	x	40	S	50	255,00	A 2
M 12	x	45	S	50	285,00	A 2
M 12	x	50	S	50	305,00	A 2

ISO 10642

Dimensions			PU	Pieces	€/100/Mat.
M 12	x	55	S	50	320,00 A2
M 12	x	60	S	50	335,00 A2
M 12	x	70	S	50	475,00 A2
M 12	x	80	S	50	495,00 A2
M 12	x	90	S	50	600,00 A2
M 12	x	100	S	50	700,00 A2
M 12	x	110	S	25	760,00 A2
M 12	x	120	S	25	840,00 A2
M 12	x	130	S	25	900,00 A2
M 12	x	140	S	25	970,00 A2
M 16	x	25	S	25	940,00 A2
M 16	x	30	S	25	790,00 A2
M 16	x	35	S	25	850,00 A2
M 16	x	40	S	25	940,00 A2
M 16	x	45	S	25	980,00 A2
M 16	x	50	S	25	1010,00 A2
M 16	x	55	S	25	1090,00 A2
M 16	x	60	S	25	1120,00 A2
M 16	x	65	S	25	1230,00 A2
M 16	x	70	S	25	1230,00 A2
M 16	x	80	S	25	1500,00 A2
M 16	x	90	S	25	1570,00 A2
M 16	x	100	S	25	1860,00 A2
M 16	x	110	S	25	2230,00 A2
M 16	x	120	S	25	2440,00 A2
M 16	x	130	S	25	2750,00 A2
M 16	x	140	S	25	3050,00 A2
M 16	x	150	S	25	3200,00 A2
M 20	x	40	S	25	1800,00 A2
M 20	x	45	S	25	1800,00 A2
M 20	x	50	S	25	1800,00 A2
M 20	x	55	S	25	1960,00 A2
M 20	x	60	S	25	2060,00 A2
M 20	x	70	S	25	2270,00 A2
M 20	x	80	S	25	2750,00 A2
M 20	x	90	S	25	2330,00 A2
M 20	x	100	S	25	2850,00 A2
M 20	x	110	S	25	4200,00 A2
M 20	x	120	S	25	4300,00 A2
M 20	x	130	S	1	4650,00 A2
M 20	x	140	S	1	4750,00 A2
M 20	x	150	S	1	4850,00 A2

ISO	10642.940	3800

10642 A 4



Hexagon socket countersunk head screws

∅ > M 20: head geometry acc. to DIN 7991, sometimes thread up to head

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-14
Material properties ➔ TI-236
Tightening torque ➔ TI-246, 249
Steel ➔ pg. 389

RoHS ✓ | REACh SVHC free

M 3	x	6	S	100	60,00 A4
M 3	x	8	S	100	60,00 A4
M 3	x	10	S	100	56,00 A4
M 3	x	12	S	100	43,50 A4
M 3	x	14	S	100	57,00 A4
M 3	x	16	S	100	55,00 A4

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	18	S	100	72,00 A4
M 3	x	20	S	100	56,00 A4
M 3	x	25	S	100	57,00 A4
M 3	x	30	S	100	62,00 A4
M 4	x	6	S	100	85,00 A4
M 4	x	8	S	500	77,00 A4
M 4	x	8	K	100	82,00 A4
M 4	x	10	S	500	70,00 A4
M 4	x	10	K	100	75,00 A4
M 4	x	12	S	500	76,00 A4
M 4	x	12	K	100	81,00 A4
M 4	x	14	S	500	76,00 A4
M 4	x	14	K	100	81,00 A4
M 4	x	16	S	500	62,00 A4
M 4	x	16	K	100	67,00 A4
M 4	x	18	S	500	80,00 A4
M 4	x	18	K	100	85,00 A4
M 4	x	20	S	500	67,00 A4
M 4	x	20	K	100	72,00 A4
M 4	x	25	S	500	70,00 A4
M 4	x	25	K	100	75,00 A4
M 4	x	30	S	200	76,00 A4
M 4	x	35	S	200	84,00 A4
M 4	x	40	S	200	105,00 A4
M 4	x	45	S	100	107,00 A4
M 4	x	50	S	100	107,00 A4
M 5	x	6	S	100	91,00 A4
M 5	x	8	S	100	81,00 A4
M 5	x	10	S	500	79,00 A4
M 5	x	10	K	100	84,00 A4
M 5	x	12	S	500	76,00 A4
M 5	x	12	K	100	81,00 A4
M 5	x	14	S	500	86,00 A4
M 5	x	14	K	100	92,00 A4
M 5	x	16	S	500	62,00 A4
M 5	x	16	K	100	67,00 A4
M 5	x	18	S	500	88,00 A4
M 5	x	18	K	100	94,00 A4
M 5	x	20	S	500	67,00 A4
M 5	x	20	K	100	72,00 A4
M 5	x	25	S	500	70,00 A4
M 5	x	25	K	100	75,00 A4
M 5	x	30	S	200	76,00 A4
M 5	x	35	S	200	84,00 A4
M 5	x	40	S	200	105,00 A4
M 5	x	45	S	100	99,00 A4
M 5	x	50	S	100	112,00 A4
M 5	x	55	S	100	130,00 A4
M 5	x	60	S	100	138,00 A4
M 6	x	8	S	100	181,00 A4
M 6	x	10	S	100	93,00 A4
M 6	x	12	S	500	88,00 A4
M 6	x	12	K	100	94,00 A4
M 6	x	14	S	500	107,00 A4
M 6	x	14	K	100	112,00 A4
M 6	x	16	S	500	69,00 A4
M 6	x	16	K	100	74,00 A4
M 6	x	18	S	200	113,00 A4
M 6	x	20	S	200	70,00 A4
M 6	x	25	S	200	86,00 A4
M 6	x	30	S	200	96,00 A4
M 6	x	35	S	200	107,00 A4
M 6	x	40	S	200	128,00 A4
M 6	x	45	S	100	181,00 A4
M 6	x	50	S	100	186,00 A4
M 6	x	55	S	100	290,00 A4
M 6	x	60	S	100	335,00 A4
M 6	x	70	S	100	405,00 A4
M 6	x	80	S	100	485,00 A4
M 6	x	90	S	100	630,00 A4
M 6	x	100	S	100	780,00 A4
M 8	x	10	S	100	295,00 A4
M 8	x	12	S	200	270,00 A4
M 8	x	14	S	200	244,00 A4
M 8	x	16	S	200	129,00 A4

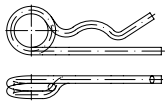
Dimensions			PU	Pieces	€/100/Mat.
M 8	x	18	S	200	255,00 A4
M 8	x	20	S	200	116,00 A4
M 8	x	25	S	100	117,00 A4
M 8	x	30	S	100	121,00 A4
M 8	x	35	S	100	131,00 A4
M 8	x	40	S	100	173,00 A4
M 8	x	45	S	100	202,00 A4
M 8	x	50	S	100	221,00 A4
M 8	x	55	S	100	305,00 A4
M 8	x	60	S	100	355,00 A4
M 8	x	70	S	50	435,00 A4
M 8	x	80	S	50	510,00 A4
M 8	x	90	S	50	610,00 A4
M 8	x	100	S	50	670,00 A4
M 8	x	120	S	50	1060,00 A4
M 10	x	16	S	25	295,00 A4
M 10	x	20	S	100	214,00 A4
M 10	x	25	S	100	205,00 A4
M 10	x	30	S	100	212,00 A4
M 10	x	35	S	100	227,00 A4
M 10	x	40	S	100	265,00 A4
M 10	x	45	S	100	280,00 A4
M 10	x	50	S	100	305,00 A4
M 10	x	55	S	100	385,00 A4
M 10	x	60	S	50	400,00 A4
M 10	x	70	S	50	485,00 A4
M 10	x	80	S	50	610,00 A4
M 10	x	90	S	50	720,00 A4
M 10	x	100	S	50	840,00 A4
M 10	x	120	S	50	1060,00 A4
M 12	x	20	S	50	410,00 A4
M 12	x	25	S	50	390,00 A4
M 12	x	30	S	50	375,00 A4
M 12	x	35	S	50	390,00 A4
M 12	x	40	S	50	420,00 A4
M 12	x	45	S	50	470,00 A4
M 12	x	50	S	50	485,00 A4
M 12	x	55	S	50	520,00 A4
M 12	x	60	S	50	630,00 A4
M 12	x	70	S	50	650,00 A4
M 12	x	80	S	50	750,00 A4
M 12	x	90	S	50	910,00 A4
M 12	x	100	S	50	1070,00 A4
M 12	x	110	S	25	1550,00 A4
M 12	x	120	S	25	1670,00 A4
M 16	x	25	S	25	1140,00 A4
M 16	x	30	S	1	1210,00 A4
M 16	x	35	S	1	1270,00 A4
M 16	x	40	S	1	1400,00 A4
M 16	x	45	S	1	1450,00 A4
M 16	x	50	S	1	1460,00 A4
M 16	x	55	S	1	1560,00 A4
M 16	x	60	S	1	1660,00 A4
M 16	x	70	S	1	1860,00 A4
M 16	x	80	S	1	2360,00 A4
M 16	x	90	S	1	2850,00 A4
M 16	x	100	S	1	3250,00 A4
M 16	x	110	S	1	4850,00 A4
M 16	x	120	S	1	4950,00 A4
M 16	x	130	S	1	5100,00 A4
M 16	x	140	S	1	5200,00 A4
M 16	x	150	S	1	5300,00 A4
M 20	x	40	S	1	2900,00 A4
M 20	x	45	S	1	3250,00 A4
M 20	x	50	S	1	3400,00 A4
M 20	x	55	S	1	3650,00 A4
M 20	x	60	S	1	3950,00 A4
M 20	x	70	S	1	4200,00 A4
M 20	x	80	S	1	5500,00 A4
M 20	x	90	S	1	7000,00 A4
M 20	x	100	S	1	7900,00 A4
M 20	x	110	S	1	10200,00 A4
M 20	x	120	S	1	10300,00 A4
M 20	x	130	S	1	10500,00 A4
M 20	x	140	S	1	10600,00 A4

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 20	x	150	S	1	10700,00 A4
M 24	x	50	S	1	4950,00 A4
M 24	x	55	S	1	4950,00 A4
M 24	x	60	S	1	4950,00 A4
M 24	x	70	S	1	5200,00 A4
M 24	x	80	S	1	6500,00 A4
M 24	x	90	S	1	8000,00 A4
M 24	x	100	S	1	8800,00 A4
M 24	x	110	S	1	11200,00 A4
M 24	x	120	S	1	11300,00 A4
M 24	x	140	S	1	11500,00 A4
M 24	x	150	S	1	11600,00 A4

DIN 11024.940 770

11024 A 4



Spring cotters for a bolt

Dimensions ➔ TI-123 Material properties ➔ TI-236

Steel ➔ pg. 395

RoHS ✓ REACh SVHC free

for hole ∅ (tol. H13) / shaft ∅ from-to				
2,5 / 9 -11,2	S	25	2190,00	A4
3,2 / 11,3 -14	S	25	2350,00	A4
4 / 14,1 -20	S	25	3900,00	A4
5 / 20,1 -26	S	10	4800,00	A4
6,3 / 26,1 -34	S	10	6900,00	A4
7 / 34,1 -45	S	10	8500,00	A4
8 / 45,1 -56	S	10	20600,00	A4

~DIN 11024.922 770

11024 A 2



Spring cotters for a bolt, single type

Dimensions ➔ TI-123 Material properties ➔ TI-236

Steel ➔ pg. 395

RoHS ✓ REACh SVHC free

wire ∅			
2	S	25	1580,00
3	S	25	1860,00
4	S	25	2330,00
5	S	25	3750,00
6	S	25	5200,00

ISO 14581.920 460

14581 A 2



Hexalobular socket countersunk head screws

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-15 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 2	x	3 - T6	S	2000	22,80 A2
M 2	x	4 - T6	S	2000	24,70 A2
M 2	x	5 - T6	S	2000	27,00 A2
M 2	x	6 - T6	S	2000	30,00 A2
M 2	x	8 - T6	S	2000	32,00 A2
M 2	x	10 - T6	S	2000	34,00 A2
M 2	x	12 - T6	S	2000	35,50 A2
M 2,5	x	4 - T8	S	2000	22,80 A2
M 2,5	x	5 - T8	S	1000	15,60 A2
M 2,5	x	6 - T8	S	1000	15,90 A2
M 2,5	x	8 - T8	S	1000	16,30 A2
M 2,5	x	10 - T8	S	1000	16,90 A2
M 2,5	x	12 - T8	S	1000	17,80 A2
M 2,5	x	16 - T8	S	1000	19,50 A2
M 2,5	x	20 - T8	S	1000	20,50 A2
M 2,5	x	25 - T8	S	1000	28,50 A2
M 3	x	4 - T10	S	1000	19,00 A2
M 3	x	5 - T10	S	1000	15,90 A2
M 3	x	6 - T10	S	1000	10,60 A2
M 3	x	8 - T10	S	1000	11,20 A2
M 3	x	10 - T10	S	1000	12,00 A2
M 3	x	12 - T10	S	1000	12,50 A2
M 3	x	16 - T10	S	1000	13,70 A2
M 3	x	20 - T10	S	1000	15,80 A2
M 3	x	22 - T10	S	1000	11,50 A2
M 3	x	25 - T10	S	1000	17,10 A2
M 3	x	30 - T10	S	1000	25,50 A2
M 4	x	5 - T20	S	1000	21,40 A2
M 4	x	6 - T20	S	1000	16,90 A2
M 4	x	8 - T20	S	1000	17,10 A2
M 4	x	10 - T20	S	1000	17,60 A2
M 4	x	12 - T20	S	1000	18,60 A2
M 4	x	16 - T20	S	1000	21,10 A2
M 4	x	20 - T20	S	1000	23,10 A2
M 4	x	25 - T20	S	1000	27,00 A2
M 4	x	30 - T20	S	1000	32,00 A2
M 4	x	35 - T20	S	500	40,00 A2
M 4	x	40 - T20	S	500	43,00 A2
M 5	x	6 - T25	S	1000	33,50 A2
M 5	x	8 - T25	S	500	29,50 A2
M 5	x	10 - T25	S	500	30,00 A2
M 5	x	12 - T25	S	500	30,00 A2
M 5	x	14 - T25	S	500	42,00 A2
M 5	x	16 - T25	S	500	33,50 A2
M 5	x	20 - T25	S	500	24,30 A2
M 5	x	25 - T25	S	500	43,00 A2
M 5	x	30 - T25	S	500	50,00 A2
M 5	x	35 - T25	S	500	56,00 A2
M 5	x	40 - T25	S	200	66,00 A2
M 5	x	45 - T25	S	200	80,00 A2
M 5	x	50 - T25	S	200	105,00 A2
M 6	x	8 - T30	S	1000	28,50 A2
M 6	x	10 - T30	S	200	20,50 A2
M 6	x	12 - T30	S	200	39,00 A2
M 6	x	16 - T30	S	200	44,50 A2
M 6	x	20 - T30	S	200	48,50 A2
M 6	x	25 - T30	S	200	54,00 A2
M 6	x	30 - T30	S	200	64,00 A2
M 6	x	35 - T30	S	200	84,00 A2
M 6	x	40 - T30	S	200	87,00 A2
M 6	x	45 - T30	S	200	87,00 A2
M 6	x	50 - T30	S	200	156,00 A2
M 6	x	60 - T30	S	200	158,00 A2
M 8	x	12 - T45	S	100	161,00 A2
M 8	x	16 - T45	S	100	190,00 A2
M 8	x	20 - T45	S	100	209,00 A2
M 8	x	25 - T45	S	100	247,00 A2
M 8	x	30 - T45	S	100	285,00 A2
M 8	x	35 - T45	S	100	315,00 A2
M 8	x	40 - T45	S	100	345,00 A2
M 8	x	45 - T45	S	100	380,00 A2
M 8	x	50 - T45	S	100	410,00 A2
M 8	x	55 - T45	S	100	445,00 A2
M 8	x	60 - T45	S	50	475,00 A2

ISO 14581.940 460

14581 A 4



Hexalobular socket countersunk head screws

Caution!
Screws have only a reduced loadability.

Dimensions ➔ TI-15 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 3	x	5 -T10	S	1000	31,50 A4
M 3	x	6 -T10	S	1000	21,00 A4
M 3	x	8 -T10	S	1000	23,10 A4
M 3	x	10 -T10	S	1000	24,20 A4
M 4	x	8 -T20	S	1000	34,00 A4
M 4	x	10 -T20	S	1000	36,00 A4
M 4	x	12 -T20	S	1000	37,00 A4
M 4	x	16 -T20	S	1000	42,00 A4
M 4	x	20 -T20	S	1000	46,50 A4
M 5	x	10 -T25	S	500	74,00 A4
M 5	x	12 -T25	S	500	80,00 A4
M 5	x	16 -T25	S	500	89,00 A4
M 5	x	20 -T25	S	500	93,00 A4
M 5	x	25 -T25	S	500	95,00 A4
M 5	x	30 -T25	S	500	99,00 A4
M 6	x	10 -T30	S	200	68,00 A4
M 6	x	16 -T30	S	200	89,00 A4
M 6	x	20 -T30	S	200	95,00 A4
M 6	x	25 -T30	S	200	105,00 A4
M 6	x	30 -T30	S	200	124,00 A4
M 6	x	35 -T30	S	200	162,00 A4
M 6	x	40 -T30	S	200	168,00 A4
M 6	x	45 -T30	S	200	210,00 A4
M 6	x	50 -T30	S	200	305,00 A4
M 8	x	16 -T45	S	200	83,00 A4
M 8	x	20 -T45	S	200	95,00 A4
M 8	x	25 -T45	S	100	485,00 A4
M 8	x	30 -T45	S	100	560,00 A4
M 8	x	35 -T45	S	100	610,00 A4
M 8	x	40 -T45	S	100	670,00 A4
M 8	x	45 -T45	S	100	720,00 A4
M 8	x	50 -T45	S	100	770,00 A4

Dimensions	PU	Pieces	€/100/Mat.
ISO 14583.920			710

14583 A 2



Pan head screws with hexalobular socket

Dimensions → TI-40 Material properties → TI-236

Steel → pg. 405

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
M 1,6	x	2	S	1000	57,00 A2
M 1,6	x	3	S	1000	47,50 A2
M 1,6	x	4	S	1000	45,50 A2
M 1,6	x	5	S	1000	46,50 A2
M 1,6	x	6	S	1000	47,50 A2
M 1,6	x	8	S	1000	52,00 A2
M 1,6	x	10	S	1000	57,00 A2
M 1,6	x	12	S	1000	67,00 A2
M 1,6	x	16	S	1000	80,00 A2
M 2	x	2	S	1000	57,00 A2
M 2	x	3	S	1000	47,50 A2
M 2	x	4	S	1000	45,50 A2
M 2	x	5	S	1000	46,50 A2
M 2	x	6	S	1000	47,50 A2
M 2	x	8	S	1000	52,00 A2
M 2	x	10	S	1000	57,00 A2
M 2	x	12	S	1000	67,00 A2
M 2	x	16	S	1000	80,00 A2
M 2	x	20	S	1000	95,00 A2
M 2,5	x	3	S	1000	28,50 A2
M 2,5	x	4	S	1000	20,10 A2
M 2,5	x	5	S	1000	20,50 A2
M 2,5	x	6	S	1000	16,30 A2
M 2,5	x	8	S	1000	16,50 A2
M 2,5	x	10	S	1000	16,90 A2
M 2,5	x	12	S	1000	18,00 A2
M 2,5	x	16	S	1000	19,20 A2
M 2,5	x	20	S	1000	22,20 A2
M 2,5	x	25	S	1000	34,50 A2
M 3	x	4	S	1000	12,40 A2
M 3	x	5	S	1000	11,40 A2
M 3	x	6	S	1000	10,60 A2
M 3	x	8	S	1000	11,20 A2
M 3	x	10	S	1000	12,00 A2
M 3	x	12	S	1000	12,50 A2
M 3	x	16	S	1000	14,80 A2
M 3	x	20	S	1000	15,80 A2
M 3	x	25	S	1000	17,30 A2
M 3	x	30	S	1000	27,50 A2
M 4	x	5	S	1000	22,80 A2
M 4	x	6	S	1000	16,90 A2
M 4	x	8	S	1000	17,10 A2
M 4	x	10	S	1000	17,60 A2
M 4	x	12	S	1000	18,60 A2
M 4	x	16	S	1000	23,90 A2
M 4	x	20	S	1000	24,30 A2
M 4	x	25	S	1000	27,50 A2
M 4	x	30	S	1000	34,50 A2
M 4	x	35	S	500	47,00 A2
M 4	x	40	S	500	61,00 A2
M 5	x	6	S	500	42,50 A2
M 5	x	8	S	500	29,50 A2
M 5	x	10	S	500	30,00 A2
M 5	x	12	S	500	30,50 A2
M 5	x	20	S	500	37,50 A2
M 5	x	25	S	500	43,00 A2
M 5	x	30	S	500	49,50 A2
M 5	x	35	S	500	56,00 A2
M 5	x	40	S	500	66,00 A2
M 5	x	45	S	500	80,00 A2
M 5	x	50	S	500	105,00 A2
M 6	x	8	S	200	37,50 A2
M 6	x	10	S	200	37,50 A2
M 6	x	12	S	500	39,50 A2
M 6	x	16	S	200	43,00 A2
M 6	x	20	S	200	48,50 A2
M 6	x	25	S	200	54,00 A2
M 6	x	30	S	200	64,00 A2
M 6	x	35	S	200	71,00 A2
M 6	x	40	S	200	80,00 A2
M 6	x	45	S	200	98,00 A2
M 6	x	50	S	200	124,00 A2
M 6	x	60	S	200	167,00 A2
M 8	x	10	S	500	209,00 A2
M 8	x	12	S	500	180,00 A2
M 8	x	16	S	500	199,00 A2
M 8	x	20	S	500	214,00 A2
M 8	x	25	S	500	237,00 A2
M 8	x	30	S	500	260,00 A2
M 8	x	35	S	500	280,00 A2
M 8	x	40	S	500	305,00 A2
M 8	x	45	S	200	325,00 A2
M 8	x	50	S	200	345,00 A2
M 8	x	55	S	200	370,00 A2
M 8	x	60	S	200	390,00 A2
M10	x	12	S	200	335,00 A2
M10	x	16	S	200	300,00 A2
M10	x	20	S	200	325,00 A2
M10	x	25	S	200	360,00 A2
M10	x	30	S	200	390,00 A2
M10	x	35	S	200	430,00 A2
M10	x	40	S	200	465,00 A2
M10	x	45	S	100	520,00 A2
M10	x	50	S	100	530,00 A2
M10	x	55	S	100	560,00 A2
M10	x	60	S	100	590,00 A2

ISO	14585.923	690

14585 A 2 type C



Pan head tapping screws with hexalobular socket, C = with cone end

Dimensions → TI-46 Material properties → TI-236

Steel → pg. 405

RoHS ✓ REACh SVHC free

Dimensions			PU	Pieces	€/100/Mat.
2,9	x	6,5 -C	S	1000	13,90 A2
2,9	x	9,5 -C	S	1000	7,40 A2
2,9	x	13 -C	S	1000	7,80 A2
2,9	x	16 -C	S	1000	8,60 A2
2,9	x	19 -C	S	1000	9,10 A2
2,9	x	22 -C	S	1000	15,40 A2
2,9	x	25 -C	S	1000	15,90 A2
3,5	x	9,5 -C	S	1000	9,70 A2
3,5	x	13 -C	S	1000	10,30 A2
3,5	x	16 -C	S	1000	10,80 A2
3,5	x	19 -C	S	1000	12,00 A2
3,5	x	22 -C	S	1000	15,00 A2
3,5	x	25 -C	S	1000	15,60 A2
3,5	x	32 -C	S	1000	17,60 A2
3,5	x	38 -C	S	1000	19,80 A2
3,9	x	9,5 -C	S	1000	11,70 A2
3,9	x	13 -C	S	1000	11,70 A2
3,9	x	16 -C	S	1000	12,50 A2
3,9	x	19 -C	S	1000	13,70 A2
3,9	x	22 -C	S	500	16,80 A2
3,9	x	25 -C	S	500	17,40 A2
3,9	x	32 -C	S	500	20,90 A2
3,9	x	38 -C	S	500	23,60 A2
3,9	x	45 -C	S	500	29,50 A2
3,9	x	50 -C	S	500	32,00 A2
4,2	x	9,5 -C	S	1000	8,80 A2
4,2	x	13 -C	S	1000	13,40 A2
4,2	x	16 -C	S	1000	15,20 A2
4,2	x	19 -C	S	500	16,40 A2
4,2	x	22 -C	S	500	18,50 A2
4,2	x	25 -C	S	500	19,10 A2
4,2	x	32 -C	S	500	23,60 A2
4,2	x	38 -C	S	500	27,00 A2
4,2	x	45 -C	S	500	39,00 A2
4,2	x	50 -C	S	500	44,00 A2
4,2	x	60 -C	S	500	79,00 A2
4,8	x	9,5 -C	S	500	24,80 A2
4,8	x	13 -C	S	500	17,10 A2
4,8	x	16 -C	S	500	18,50 A2
4,8	x	19 -C	S	500	20,90 A2
4,8	x	22 -C	S	500	23,60 A2
4,8	x	25 -C	S	500	24,20 A2
4,8	x	32 -C	S	250	31,00 A2
4,8	x	38 -C	S	250	34,50 A2
4,8	x	45 -C	S	250	45,00 A2
4,8	x	50 -C	S	250	46,50 A2
4,8	x	55 -C	S	250	98,00 A2
4,8	x	60 -C	S	250	63,00 A2
4,8	x	70 -C	S	250	83,00 A2
4,8	x	80 -C	S	250	98,00 A2
4,8	x	90 -C	S	100	127,00 A2
4,8	x	100 -C	S	100	160,00 A2
5,5	x	13 -C	S	500	28,00 A2
5,5	x	16 -C	S	500	30,00 A2
5,5	x	19 -C	S	500	32,00 A2
5,5	x	22 -C	S	500	35,00 A2
5,5	x	25 -C	S	500	37,50 A2
5,5	x	32 -C	S	250	43,50 A2
5,5	x	38 -C	S	250	49,50 A2
5,5	x	45 -C	S	250	59,00 A2
5,5	x	50 -C	S	250	66,00 A2
5,5	x	60 -C	S	250	79,00 A2
5,5	x	70 -C	S	250	94,00 A2
5,5	x	80 -C	S	250	114,00 A2
6,3	x	13 -C	S	500	31,50 A2
6,3	x	16 -C	S	500	32,00 A2
6,3	x	19 -C	S	500	34,50 A2
6,3	x	22 -C	S	500	37,50 A2
6,3	x	25 -C	S	500	40,00 A2
6,3	x	32 -C	S	250	48,00 A2
6,3	x	38 -C	S	250	53,00 A2
6,3	x	45 -C	S	250	64,00 A2
6,3	x	50 -C	S	250	79,00 A2
6,3	x	60 -C	S	250	95,00 A2
6,3	x	70 -C	S	250	114,00 A2

Dimensions	PU	Pieces	€/100/Mat.
ISO 14586.923			690

14586 A 2 type C



Countersunk head tapping screws with hexalobular socket, C = with cone end

countersunk ⊀ = 90°

Dimensions ➔ TI-47 Material properties ➔ TI-236

Steel ➔ pg. 404

RoHS ✓ REACh SVHC free

Dimensions				PU	Pieces	€/100/Mat.
2,9	x	6,5	-C	S	1000	13,90
2,9	x	9,5	-C	S	1000	7,40
2,9	x	13	-C	S	1000	7,80
2,9	x	16	-C	S	1000	8,60
2,9	x	19	-C	S	1000	9,10
2,9	x	22	-C	S	1000	15,40
2,9	x	25	-C	S	1000	15,90
3,5	x	9,5	-C	S	1000	9,70
3,5	x	13	-C	S	1000	10,30
3,5	x	16	-C	S	1000	10,80
3,5	x	19	-C	S	1000	12,00
3,5	x	22	-C	S	1000	15,00
3,5	x	25	-C	S	1000	15,60
3,5	x	32	-C	S	1000	17,60
3,5	x	38	-C	S	1000	19,80
3,9	x	9,5	-C	S	1000	11,70
3,9	x	13	-C	S	1000	11,70
3,9	x	16	-C	S	1000	12,50
3,9	x	19	-C	S	1000	13,70
3,9	x	22	-C	S	500	16,80
3,9	x	25	-C	S	500	17,40
3,9	x	32	-C	S	500	20,90
3,9	x	38	-C	S	500	23,60
3,9	x	45	-C	S	500	29,50
3,9	x	50	-C	S	500	32,00
4,2	x	9,5	-C	S	1000	13,10
4,2	x	13	-C	S	1000	13,40
4,2	x	16	-C	S	1000	15,20
4,2	x	19	-C	S	500	16,40
4,2	x	22	-C	S	500	18,50
4,2	x	25	-C	S	500	19,10
4,2	x	32	-C	S	500	23,60
4,2	x	38	-C	S	500	27,00
4,2	x	45	-C	S	500	39,00
4,2	x	50	-C	S	500	44,00
4,2	x	60	-C	S	500	79,00
4,8	x	9,5	-C	S	500	24,80
4,8	x	13	-C	S	500	17,10
4,8	x	16	-C	S	500	18,50
4,8	x	19	-C	S	500	20,90
4,8	x	22	-C	S	500	23,60
4,8	x	25	-C	S	500	24,20
4,8	x	32	-C	S	250	31,00
4,8	x	38	-C	S	250	34,50
4,8	x	45	-C	S	250	45,00
4,8	x	50	-C	S	250	46,50
4,8	x	55	-C	S	250	98,00
4,8	x	60	-C	S	250	63,00
4,8	x	70	-C	S	250	83,00
4,8	x	80	-C	S	250	98,00
4,8	x	90	-C	S	100	127,00
4,8	x	100	-C	S	100	160,00
5,5	x	13	-C	S	500	28,00
5,5	x	16	-C	S	500	30,00
5,5	x	19	-C	S	500	32,00
5,5	x	22	-C	S	500	35,00
5,5	x	25	-C	S	500	37,50
5,5	x	32	-C	S	250	43,50
5,5	x	38	-C	S	250	49,50
5,5	x	45	-C	S	250	59,00
5,5	x	50	-C	S	250	66,00
5,5	x	60	-C	S	250	79,00
5,5	x	70	-C	S	250	94,00
5,5	x	80	-C	S	250	114,00
6,3	x	13	-C	S	500	31,50
6,3	x	16	-C	S	500	32,00
6,3	x	19	-C	S	500	34,50
6,3	x	22	-C	S	500	37,50
6,3	x	25	-C	S	500	40,00
6,3	x	32	-C	S	250	48,00
6,3	x	38	-C	S	250	53,00
6,3	x	45	-C	S	250	64,00
6,3	x	50	-C	S	250	79,00
6,3	x	60	-C	S	250	95,00
6,3	x	70	-C	S	250	114,00

ISO	14586.943	690

14586 A 4 type C



Countersunk head tapping screws with hexalobular socket, C = with cone end

countersunk ⊀ = 90°

Dimensions ➔ TI-47 Material properties ➔ TI-236

Steel ➔ pg. 404

RoHS ✓ REACh SVHC free

Dimensions				PU	Pieces	€/100/Mat.
2,9	x	6,5	-T10	S	1000	18,40
2,9	x	9,5	-T10	S	1000	9,90
2,9	x	13	-T10	S	1000	10,40
2,9	x	16	-T10	S	1000	11,40
2,9	x	19	-T10	S	1000	12,10
2,9	x	22	-T10	S	1000	20,40
2,9	x	25	-T10	S	1000	21,20
3,5	x	9,5	-T15	S	1000	12,90
3,5	x	13	-T15	S	1000	13,60
3,5	x	16	-T15	S	1000	14,40
3,5	x	19	-T15	S	1000	15,90
3,5	x	22	-T15	S	1000	19,90
3,5	x	25	-T15	S	1000	20,70
3,5	x	32	-T15	S	1000	23,50
3,5	x	38	-T15	S	1000	26,50
3,9	x	9,5	-T15	S	1000	15,50
3,9	x	13	-T15	S	1000	15,50
3,9	x	16	-T15	S	1000	16,70
3,9	x	19	-T15	S	1000	18,20
3,9	x	22	-T15	S	500	22,30
3,9	x	25	-T15	S	500	23,10
3,9	x	32	-T15	S	500	28,00
3,9	x	38	-T15	S	500	31,50
3,9	x	45	-T15	S	500	39,00
3,9	x	50	-T15	S	500	42,00
4,2	x	9,5	-T20	S	1000	17,40
4,2	x	13	-T20	S	1000	17,80
4,2	x	16	-T20	S	1000	20,20
4,2	x	19	-T20	S	500	21,80
4,2	x	22	-T20	S	500	24,60
4,2	x	25	-T20	S	500	25,50
4,2	x	32	-T20	S	500	31,50
4,2	x	38	-T20	S	500	36,00
4,2	x	45	-T20	S	500	52,00
4,2	x	50	-T20	S	500	59,00
4,2	x	60	-T20	S	500	104,00
4,8	x	9,5	-T25	S	500	33,00
4,8	x	13	-T25	S	500	22,70
4,8	x	16	-T25	S	500	24,60
4,8	x	19	-T25	S	500	28,00
4,8	x	22	-T25	S	500	31,50
4,8	x	25	-T25	S	500	32,50
4,8	x	32	-T25	S	250	41,00
4,8	x	38	-T25	S	250	46,00
4,8	x	45	-T25	S	250	60,00
4,8	x	50	-T25	S	250	62,00
4,8	x	55	-T25	S	250	131,00
4,8	x	60	-T25	S	250	84,00
4,8	x	70	-T25	S	250	110,00
4,8	x	80	-T25	S	250	130,00
4,8	x	90	-T25	S	100	168,00
4,8	x	100	-T25	S	100	213,00
5,5	x	13	-T25	S	500	37,50
5,5	x	16	-T25	S	500	39,50
5,5	x	19	-T25	S	500	42,00
5,5	x	22	-T25	S	500	46,50
5,5	x	25	-T25	S	500	49,50
5,5	x	32	-T25	S	250	58,00
5,5	x	38	-T25	S	250	66,00
5,5	x	45	-T25	S	250	79,00
5,5	x	50	-T25	S	250	88,00
5,5	x	60	-T25	S	250	105,00
5,5	x	70	-T25	S	250	125,00
5,5	x	80	-T25	S	250	152,00
6,3	x	19	-T30	S	500	45,50
6,3	x	22	-T30	S	500	50,00
6,3	x	25	-T30	S	500	53,00
6,3	x	32	-T30	S	250	64,00
6,3	x	38	-T30	S	250	71,00
6,3	x	45	-T30	S	250	84,00
6,3	x	50	-T30	S	250	105,00
6,3	x	60	-T30	S	250	126,00
6,3	x	70	-T30	S	250	152,00

EN	16983.960	540

16983 1.4310/1.4568*



Disc springs

*t ≤ 2mm = 1.4310 or 1.4568; t > 2mm = 1.4568

Caution! Reduced spring load.

Product information ➔ TI-141

Steel ➔ pg. 407

RoHS ✓ REACh SVHC free

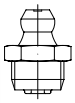
outside ∅ x inside ∅ x thickness t

8	x	3,2	x	0,5	S	200	71,00
8	x	4,2	x	0,3	S	200	67,00
8	x	4,2	x	0,4	S	200	69,00
10	x	5,2	x	0,4	S	200	74,00
10	x	5,2	x	0,5	S	200	77,00
12,5	x	6,2	x	0,5	S	200	87,00
12,5	x	6,2	x	0,7	S	200	101,00

Dimensions					PU	Pieces	€/100/Mat.
15	x	8,2	x	0,8	S	200	118,00
16	x	8,2	x	0,6	S	200	110,00
16	x	8,2	x	0,9	S	200	131,00
18	x	9,2	x	0,7	S	200	131,00
18	x	9,2	x	1	S	200	158,00
20	x	8,2	x	0,5	S	200	124,00
20	x	10,2	x	0,6	S	200	135,00
20	x	10,2	x	0,8	S	200	156,00
20	x	10,2	x	0,9	S	200	165,00
20	x	10,2	x	1	S	200	175,00
20	x	10,2	x	1,1	S	200	182,00
25	x	12,2	x	0,9	S	200	209,00
25	x	12,2	x	1,5	S	200	290,00
28	x	14,2	x	1	S	200	260,00
28	x	14,2	x	1,5	S	200	340,00
31,5	x	16,3	x	1,25	S	200	710,00
31,5	x	16,3	x	1,75	S	200	940,00
31,5	x	16,3	x	2	S	200	970,00
35,5	x	18,3	x	1,25	S	100	870,00
35,5	x	18,3	x	2	S	100	1310,00
40	x	20,4	x	1,5	S	100	1250,00
40	x	20,4	x	2	S	100	1630,00
40	x	20,4	x	2,25	S	100	1820,00

DIN 71412.941 782

71412 A 4 type A-M



Lubricating nipples, cone type, with hexagon, A = cone head straight / axial M = with taper fine pitch thread

Dimensions ➔ TI-25 Material properties ➔ TI-236

Steel ➔ pg. 409

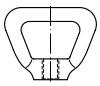
RoHS ✓ REACh SVHC free

thread M x pitch / wrench size s

AM 6	x 1 s = 7	S	50	2750,00	A4
AM 8	x 1 s = 9	S	50	2900,00	A4
AM 10	x 1 s = 11	S	25	3050,00	A4

DIN 80704.940 790

80704 A 4



Bow nuts

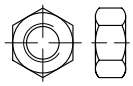
Dimensions ➔ TI-129 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 8	S	1	9400,00	A4
M 10	S	1	9900,00	A4
M 12	S	1	12000,00	A4
M 16	S	1	14100,00	A4
M 20	S	1	16800,00	A4

ASME B 83934.944 2200

18.2.2 A 4 UNC



Hex nuts with UNC thread

Dimensions ➔ TI-61 Tightening torque ➔ TI-246

Material properties ➔ TI-236

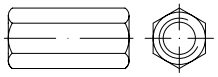
RoHS ✓ REACh SVHC free

∅ in inch

1/4	S	100	137,00	A4
3/8	S	100	275,00	A4
1/2	S	50	460,00	A4
5/8	S	25	810,00	A4

article 88087.910 810

88087 A 1



Hexagon couplings with continuous internal thread

product grade C (g), thread tol.: 6H, tolerance for wrench size = h13, l ± 1,0, thread screw-in depth: group N = max. 1,5d

Dimensions ➔ TI-66 Material properties ➔ TI-236

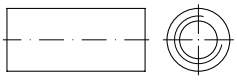
RoHS ✓ REACh SVHC free

internal thread x length / wrench sizes (s)

M 6	x 25 s = 10	S	50	560,00	A1/A2
M 8	x 30 s = 13	S	50	1140,00	A1/A2
M 10	x 30 s = 17	S	25	1950,00	A1/A2
M 12	x 40 s = 19	S	25	2850,00	A1/A2
M 16	x 50 s = 24	S	10	4950,00	A1/A2
M 20	x 50 s = 30	S	10	7500,00	A1/A2
M 24	x 50 s = 36	S	5	10600,00	A1/A2
M 30	x 60 s = 46	S	5	16500,00	A1/A2

article 88088.920 810

88088 A 2



Round couplings with continuous internal thread

product grade C (g), thread screw-in depth: group N = max. 1,5d

Dimensions ➔ TI-77 Material properties ➔ TI-236

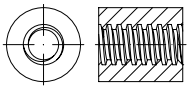
RoHS ✓ REACh SVHC free

internal thread x length x outside ∅

M 6	x	25	x	10	S	50	530,00 A2
M 6	x	30	x	10	S	50	650,00 A2
M 8	x	25	x	11	S	50	670,00 A2
M 8	x	30	x	11	S	50	830,00 A2
M 10	x	30	x	13	S	25	1010,00 A2
M 12	x	30	x	15	S	25	1310,00 A2
M 16	x	40	x	22	S	10	3150,00 A2

article 88089.944 811

88089 A 4



Round nuts with trapezoidal thread, height = 1,5 d

threaded rods TR ➔ DIN 975 trapezoidal

Dimensions ➔ TI-77 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

thread x pitch x outside ∅

TR 16	x 4 -36	S	1	15800,00	A4
TR 20	x 4 -36	S	1	19800,00	A4
TR 24	x 5 -50	S	1	26100,00	A4
TR 30	x 6 -60	S	1	40300,00	A4

Dimensions	PU	Pieces	€/100/Mat.
article	88091.920		816

88091 A 2 SPAX CSK-T



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. head T = T-STAR plus

slide-coated

Caution!
Lower tightness compared to hardened steel.

Bits ➔ article 88663, 88654
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

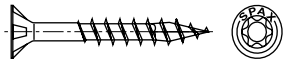
ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3	x 12/10-T10	K	200	5,25	A2
3	x 16/13-T10	K	200	5,55	A2
3	x 20/16-T10	K	200	6,25	A2
3	x 25/21-T10	K	200	6,45	A2
3	x 30/26-T10	K	200	7,00	A2
3	x 35/31-T10	K	200	10,40	A2
3	x 40/36-T10	K	200	11,05	A2
3,5	x 16/12-T20*	K	200	6,30	A2
3,5	x 20/15-T20*	K	200	7,00	A2
3,5	x 25/20-T20*	K	200	7,15	A2
3,5	x 30/25-T20*	K	200	7,45	A2
3,5	x 35/30-T20*	K	200	8,35	A2
3,5	x 40/35-T20*	K	200	9,10	A2
4	x 20/15-T20	K	200	8,35	A2
4	x 25/20-T20	K	200	8,85	A2
4	x 30/25-T20	K	200	9,70	A2
4	x 35/30-T20	K	200	10,40	A2
4	x 40/35-T20	K	200	11,10	A2
4	x 45/40-T20	K	200	11,45	A2
4	x 50/45-T20	K	200	11,90	A2
4	x 60/50-T20	K	100	18,15	A2
4,5	x 25/19-T20	K	200	10,40	A2
4,5	x 30/24-T20	K	200	11,05	A2
4,5	x 35/29-T20	K	200	12,15	A2
4,5	x 40/34-T20	K	200	13,35	A2
4,5	x 45/39-T20	K	200	14,60	A2
4,5	x 50/44-T20	K	200	15,80	A2
4,5	x 60/54-T20	K	100	20,90	A2
4,5	x 70/59-T20	K	100	24,05	A2
5	x 30/24-T20	K	200	12,50	A2
5	x 35/29-T20	K	200	13,90	A2
5	x 40/34-T20	K	200	15,80	A2
5	x 45/39-T20	K	200	17,75	A2
5	x 50/44-T20	K	200	19,60	A2
5	x 60/54-T20	K	100	24,05	A2
5	x 70/60-T20	K	100	34,50	A2
5	x 80/60-T20	K	100	41,50	A2
6	x 40/34-T30	K	200	31,00	A2
6	x 50/43-T30	K	100	34,50	A2
6	x 60/53-T30	K	100	41,00	A2
6	x 70/61-T30	K	100	42,50	A2
6	x 80/61-T30	K	100	43,50	A2

Dimensions	PU	Pieces	€/100/Mat.
article	88091.929		816

88091 A 2 SPAX CSK-T-P



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. head T = T-STAR plus P = partially threaded

slide-coated,
6x160 with CUT point

Caution!
Lower tightness compared to hardened steel.

Bits ➔ article 88663, 88654
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3,5	x 30/18-T20*	K	200	7,45	A2
3,5	x 35/23-T20*	K	200	8,35	A2
3,5	x 40/23-T20*	K	200	9,10	A2
4	x 30/18-T20	K	200	9,70	A2
4	x 35/23-T20	K	200	10,40	A2
4	x 40/23-T20	K	200	11,10	A2
4	x 45/30-T20	K	200	11,45	A2
4	x 50/32-T20	K	200	11,90	A2
4,5	x 40/25-T20	K	200	13,35	A2
4,5	x 45/30-T20	K	200	14,60	A2
4,5	x 50/32-T20	K	200	15,80	A2
4,5	x 60/37-T20	K	100	20,90	A2
4,5	x 70/42-T20	K	100	24,05	A2
5	x 40/27-T20	K	200	15,80	A2
5	x 45/30-T20	K	200	17,75	A2
5	x 50/32-T20	K	200	19,60	A2
5	x 60/37-T20	K	100	24,05	A2
5	x 70/41-T20	K	100	34,50	A2
5	x 80/46-T20	K	100	41,50	A2
5	x 90/61-T20	K	100	48,50	A2
5	x 100/61-T20	K	100	57,00	A2
5	x 120/68-T20	K	100	62,00	A2
6	x 60/37-T30	K	100	41,00	A2
6	x 70/41-T30	K	100	42,50	A2
6	x 80/46-T30	K	100	43,50	A2
6	x 90/61-T30	K	100	48,00	A2
6	x 100/61-T30	K	100	52,00	A2
6	x 120/68-T30	K	100	63,00	A2
6	x 140/68-T30	K	100	86,00	A2
6	x 160/68-T30	K	100	110,00	A2

Dimensions	PU	Pieces	€/100/Mat.
article	88092.925		816

88092 A 2 SPAX RCSK-T



SPAX universal screws with SPAX 4CUT point, RCSK = SPAX MULTI raised countersunk head T = T-STAR plus

slide-coated

Caution!
Lower tightness compared to hardened steel.

Bits ➔ article 88663, 88654
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3	x 20/16-T10	K	200	7,15	A2
3	x 25/21-T10	K	200	7,35	A2
3,5	x 16/13-T15	K	200	7,20	A2
3,5	x 20/16-T15	K	200	8,05	A2
3,5	x 30/25-T15	K	200	8,60	A2
4	x 30/25-T20	K	200	11,05	A2
4	x 40/35-T20	K	200	12,65	A2
4	x 45/40-T20	K	200	13,35	A2

article	88093.924	816

88093 A 2 SPAX PAN-T



SPAX universal screws with SPAX 4CUT point, PAN = pan head T = T-STAR plus

slide-coated

Caution!
Lower tightness compared to hardened steel.

Bits ➔ article 88663, 88654
caps ➔ article 88006

approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size

3	x 20/16-T10	K	200	7,45	A2
3	x 30/26-T10	K	200	8,40	A2
3,5	x 20/16-T15	K	200	8,40	A2
3,5	x 30/25-T15	K	200	9,00	A2
4	x 20/16-T20	K	200	10,00	A2
4	x 25/21-T20	K	200	10,60	A2
4	x 30/25-T20	K	200	11,60	A2
4	x 35/30-T20	K	200	12,50	A2
4	x 40/35-T20	K	200	13,30	A2
4	x 45/40-T20	K	200	13,75	A2
4	x 50/45-T20	K	200	14,25	A2

Dimensions			PU	Pieces	€/100/Mat.
5	x	25/20-T20	K	200	14,35 A2
5	x	30/25-T20	K	200	15,00 A2
5	x	40/35-T20	K	200	18,95 A2
5	x	50/44-T20	K	100	23,50 A2

article 88094.920 816

88094 A 2 SPAX CSK-Z



SPAX universal screws with SPAX 4CUT point, CSK = SPAX MULTI counters. head Z = Pozidriv cross recess

slide-coated,
bit sizes: ∅ 3 ➔ Z1, ∅ 3,5 - 5,0 ➔ Z2, ∅ 6 ➔ 3

Caution!
Lower tightness compared to hardened steel.

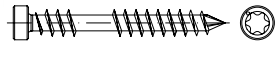
approvals: Z-9.1-235, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.					
3	x	12/10-Z	S	200	5,25 A2
3	x	16/13-Z	S	200	5,55 A2
3	x	20/16-Z	S	200	6,25 A2
3	x	25/21-Z	S	200	6,45 A2
3	x	30/26-Z	S	200	7,00 A2
3	x	40/36-Z	S	200	11,05 A2
3,5	x	16/12-Z	S	200	6,30 A2
3,5	x	20/15-Z	S	200	7,00 A2
3,5	x	25/20-Z	S	200	7,15 A2
3,5	x	30/25-Z	S	200	7,45 A2
3,5	x	35/30-Z	S	200	8,35 A2
3,5	x	40/35-Z	S	200	9,10 A2
4	x	20/15-Z	S	200	8,35 A2
4	x	25/20-Z	S	200	8,85 A2
4	x	30/25-Z	S	200	9,70 A2
4	x	35/30-Z	S	200	10,40 A2
4	x	40/35-Z	S	200	11,10 A2
4	x	45/40-Z	S	200	11,45 A2
4	x	50/45-Z	S	200	11,90 A2
4	x	60/50-Z	S	100	18,15 A2
4,5	x	25/19-Z	S	200	10,40 A2
4,5	x	30/24-Z	S	200	11,05 A2
4,5	x	35/29-Z	S	200	12,15 A2
4,5	x	40/34-Z	S	200	13,35 A2
4,5	x	45/39-Z	S	200	14,60 A2
4,5	x	50/44-Z	S	200	15,80 A2
4,5	x	60/54-Z	S	100	20,90 A2
4,5	x	70/59-Z	S	100	24,05 A2
5	x	30/24-Z	S	200	12,50 A2
5	x	35/29-Z	S	200	13,90 A2
5	x	40/34-Z	S	200	15,80 A2
5	x	45/39-Z	S	200	17,75 A2
5	x	50/44-Z	S	200	19,60 A2
5	x	60/54-Z	S	100	24,05 A2
5	x	70/60-Z	S	100	34,50 A2
5	x	80/60-Z	S	100	41,50 A2
5	x	100/60-Z	K	200	57,00 A2
6	x	40/33-Z	S	200	31,00 A2
6	x	50/43-Z	S	100	35,50 A2
6	x	60/53-Z	S	100	41,00 A2
6	x	70/60-Z	S	100	42,50 A2
6	x	80/60-Z	S	100	43,50 A2
6	x	90/60-Z	S	100	48,00 A2
6	x	100/60-Z	S	100	52,00 A2

article 88192.924 816

88192 A 2 SPAX D-C-T



SPAX screws D for terraces planks, with fixing thread and SPAX CUT point, C = cylindric head T = T-STAR plus

slide-coated

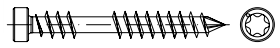
Bits ➔ article 88663, 88654

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size					
5	x	40/22 -T25	S	200	27,00 A2
5	x	50/23 -T25	S	200	32,50 A2
5	x	60/28 -T25	S	100	36,50 A2
5	x	70/33 -T25	S	100	55,00 A2
5	x	80/33 -T25	S	100	59,00 A2

article 88192.944 816

88192 A 4 SPAX D-C-T



SPAX screws D for terraces planks, with fixing thread and SPAX CUT point, C = cylindric head T = T-STAR plus

slide-coated

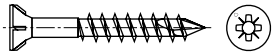
Bits ➔ article 88663, 88654

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size					
6	x	40/23 -T	S	200	50,00 A4
6	x	50/23 -T	S	200	54,00 A4
6	x	60/28 -T	S	100	61,00 A4
6	x	80/40 -T	S	100	99,00 A4
6	x	100/40 -T	S	100	109,00 A4

article 88190.924 816

88190 A 2 SPAX CSK-Z



SPAX glass strip screws with SPAX CUT point andmilling ribs, CSK = countersunk head Z = Pozidriv cross recess

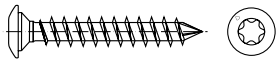
slide-coated

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.					
3,5	x	40/23-Z2	S	200	20,95 A2

article 88191.924 816

88191 A 2 SPAX CSK F-T



SPAX post screws with SPAX CUT point, self-tapping, CSK F = countersunk fillister head T = T-STAR plus

slide-coated

Bits ➔ article 88663, 88654

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size					
8	x	50/45 -T40	S	50	103,00 A2

article 88193.924 816

88193 A 2 SPAX-T-T



SPAX screws with SPAX 4CUT point, T = with flange head T = T-STAR plus

slide-coated

Bits ➔ article 88663, 88654

approvals: Z-9.1-449, ETA-12/0114

ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx. - bit size					
6	x	60/56-T30	S	100	52,00 A2
6	x	80/61-T30	S	100	62,00 A2
6	x	100/61-T30	S	100	72,00 A2
6	x	120/68-T30	S	100	100,00 A2

Dimensions			PU	Pieces	€/100/Mat.
6	x	140/68-T30	S	100	106,00 A 2
8	x	50/46-T40	S	50	100,00 A 2
8	x	80/70-T40	S	50	124,00 A 2
8	x	100/80-T40	S	50	143,00 A 2
8	x	120/80-T40	S	50	197,00 A 2
8	x	140/80-T40	S	50	214,00 A 2
8	x	160/80-T40	S	50	233,00 A 2
8	x	180/80-T40	S	50	279,00 A 2
8	x	200/80-T40	S	50	335,00 A 2

article 89018.920 816

89018 A 2 SPAX Facade



SPAX facade screws with raised countersunk head, CUT point, T-STAR plus

slide-coated

approvals: Z-9.1-235, ETA-12/0114
Bit sizes:
- ∅ 4,5 - T20
- ∅ 5,0 - T25

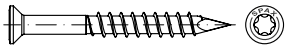
ETA CE | RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

4,5	x	35/25 -T	S	200	20,20
4,5	x	40/25 -T	S	200	20,95
4,5	x	45/30 -T	S	200	24,25
4,5	x	50/32 -T	S	200	27,00
4,5	x	60/37 -T	S	100	31,00
4,5	x	70/42 -T	S	100	34,50
4,5	x	80/46 -T	S	100	41,50
5	x	60/37 -T	S	100	40,50
5	x	70/42 -T	S	100	45,00
5	x	80/46 -T	S	100	54,00
5	x	90/61 -T	S	100	59,00
5	x	100/61 -T	S	100	64,00

Dimensions			PU	Pieces	€/100/Mat.
article		89018.922			816

89018 A 2 small head SPAX Facade



SPAX facade screws with very small raised countersunk head, CUT point, T-STAR plus

slide-coated

Bit sizes:
- ∅ 4/4,5 - T15
- ∅ 5,0 - T20

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

4	x	40/23 -T	S	100	18,80
4	x	45/30 -T	S	100	20,45
4,5	x	70/42 -T	S	100	36,00
5	x	100/61 -T	S	100	66,00

Dimensions			PU	Pieces	€/100/Mat.
article		89019.920			816

89019 A 2 fixing thread SPAX Facade



SPAX facade screws with raised countersunk head, 4CUT point, fixing thread, T-STAR plus

small head (∅ 8 mm),
slide-coated

Bit sizes ∅ 4,5 - T20

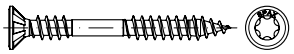
RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

4,5	x	50/21 -T	S	200	24,15
4,5	x	60/26 -T	S	100	30,50
4,5	x	70/31 -T	S	100	41,00

Dimensions			PU	Pieces	€/100/Mat.
article		89019.927			816

89019 A 2 fixing thread antique SPAX Facade



SPAX facade screws with raised countersunk head, antique look, 4CUT point, fixing thread, T-STAR plus

small head (∅ 8 mm),
slide-coated

Bit sizes ∅ 4,5 - T20

RoHS ✓ | REACh SVHC free

nominal ∅ x nominal length / thread length approx.

4,5	x	50/21 -T	S	200	27,50 Antik
4,5	x	60/26 -T	S	100	34,50 Antik

Chipboard screws

Additional chipboard screws with CE according to EN 14592

→ Article 89096
→ Article 89097
→ Article 89098

Dimensions			PU	Pieces	€/100/Mat.
article		88096.(*)			815

88096 A 4 powder-coated** PAN-ISR



Chipboard screws, PAN = pan head ISR = hexalobular socket

** head powder-coated
pure white RAL 9010 (*947),
anthracite grey RAL 7016 (*948),
sepia brown RAL 8014 (*949)

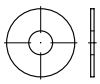
Material properties → TI-236

RoHS ✓ | REACh SVHC free

5,5	x	35/22 -T20	S	100	86,00 A 4
5,5	x	35/22 -T20	S	100	86,00 A 4
5,5	x	35/22 -T20	S	100	86,00 A 4

Dimensions						PU	Pieces	€/100/Mat.
article						88104.920		840

88104 A 2



Washers with large outside diameter, product grade C (g)

Dimensions ➔ TI-85 Material properties ➔ TI-236

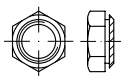
RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

4,3	x	20	x	1,5	S	100	38,00	A 2
5,3	x	20	x	1,5	S	100	47,50	A 2
5,3	x	30	x	1,5	S	100	106,00	A 2
6,4	x	20	x	1,5	S	100	47,50	A 2
6,4	x	25	x	1,5	S	100	60,00	A 2
6,4	x	30	x	1,5	S	100	88,00	A 2
8,4	x	20	x	1,5	S	100	47,50	A 2
8,4	x	25	x	1,5	S	100	60,00	A 2
8,4	x	30	x	1,5	S	100	88,00	A 2
8,4	x	40	x	1,5	S	100	103,00	A 2
8,4	x	50	x	2,5	S	100	122,00	A 2
10,5	x	25	x	1,5	S	100	68,00	A 2
10,5	x	30	x	1,5	S	100	88,00	A 2
10,5	x	40	x	1,5	S	100	110,00	A 2
12,5	x	30	x	1,5	S	100	88,00	A 2

article	88106.910	850

88106 A 1/A 2



Rivet nuts

Dimensions ➔ TI-78 Material properties ➔ TI-236

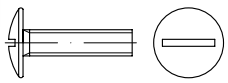
RoHS ✓ REACh SVHC free

thread M / collar height

M 3 / 0,9	S	100	158,00	A 1/A 2
M 4 / 0,9	S	100	280,00	A 1/A 2
M 5 / 0,9	S	100	295,00	A 1/A 2
M 6 / 0,9	S	100	310,00	A 1/A 2
M 8 / 1,9	S	100	370,00	A 1/A 2
M 10 / 1,9	S	100	400,00	A 1/A 2
M 12 / 2,9	S	50	780,00	A 1/A 2
M 16 / 2,4	S	50	1220,00	A 1/A 2

Dimensions						PU	Pieces	€/100/Mat.
article						88107.920		851

88107 A 2



Slotted mushroom head screws with thread up to head

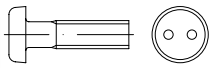
Dimensions ➔ TI-41 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 5	x	10			S	500	110,00	A 2
M 6	x	10			S	500	82,00	A 2
M 6	x	12			S	500	78,00	A 2
M 6	x	16			S	500	78,00	A 2
M 6	x	20			S	500	120,00	A 2
M 6	x	25			S	500	131,00	A 2
M 8	x	16			S	200	158,00	A 2
M 8	x	20			S	200	171,00	A 2
M 8	x	25			S	200	194,00	A 2
M 8	x	30			S	200	231,00	A 2
M 8	x	35			S	200	243,00	A 2
M 8	x	40			S	200	255,00	A 2
M 8	x	50			S	200	275,00	A 2
M 8	x	60			S	100	455,00	A 2

article	88111.920	855

88111 A 2 snake eyes



Theft resistant screws with pan head ~ DIN 85, metric thread, snake eyes drive

bits ➔ article 88665

Dimensions ➔ TI-27 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 3	x	6			S	100	285,00	A 2
M 3	x	8			S	100	285,00	A 2
M 3	x	10			S	100	209,00	A 2
M 3	x	12			S	100	209,00	A 2
M 3	x	16			S	100	209,00	A 2
M 3	x	20			S	100	237,00	A 2
M 4	x	6			S	100	285,00	A 2
M 4	x	10			S	100	220,00	A 2
M 4	x	12			S	100	220,00	A 2
M 4	x	16			S	100	220,00	A 2
M 4	x	20			S	100	220,00	A 2
M 4	x	25			S	100	220,00	A 2
M 5	x	12			S	100	247,00	A 2
M 5	x	16			S	100	247,00	A 2
M 5	x	20			S	100	247,00	A 2
M 5	x	25			S	100	247,00	A 2
M 5	x	30			S	100	247,00	A 2

Dimensions						PU	Pieces	€/100/Mat.
M 6	x	12			S	100	260,00	A 2
M 6	x	16			S	100	260,00	A 2
M 6	x	20			S	100	260,00	A 2
M 6	x	25			S	100	285,00	A 2
M 6	x	30			S	100	315,00	A 2
M 6	x	40			S	100	350,00	A 2

article	88112.920	855

88112 A 2 snake eyes



Theft resistant screws with countersunken head ~ DIN 963, metric thread, snake eyes drive

bits ➔ article 88665

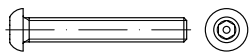
Dimensions ➔ TI-27 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 3	x	6			S	100	285,00	A 2
M 3	x	8			S	100	285,00	A 2
M 3	x	10			S	100	209,00	A 2
M 3	x	12			S	100	209,00	A 2
M 3	x	16			S	100	209,00	A 2
M 3	x	20			S	100	237,00	A 2
M 4	x	10			S	100	220,00	A 2
M 4	x	12			S	100	220,00	A 2
M 4	x	16			S	100	220,00	A 2
M 4	x	20			S	100	220,00	A 2
M 4	x	25			S	100	220,00	A 2
M 4	x	50			S	100	475,00	A 2
M 5	x	12			S	100	247,00	A 2
M 5	x	16			S	100	247,00	A 2
M 5	x	20			S	100	247,00	A 2
M 5	x	25			S	100	247,00	A 2
M 5	x	30			S	100	247,00	A 2
M 5	x	35			S	100	445,00	A 2
M 6	x	12			S	100	260,00	A 2
M 6	x	16			S	100	260,00	A 2
M 6	x	20			S	100	260,00	A 2
M 6	x	25			S	100	285,00	A 2
M 6	x	30			S	100	315,00	A 2
M 6	x	40			S	100	350,00	A 2

Dimensions	PU Pieces	€/100/Mat.
article	88113.920	855

88113 A 2 Pin-hex



Theft resistant screws with button head ~ ISO 7380, with metric thread, hexagon socket with pin

bits ➔ article 88666

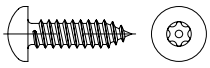
Dimensions ➔ TI-27 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M	3	x	6	S	100	228,00 A 2
M	3	x	8	S	100	199,00 A 2
M	3	x	10	S	100	152,00 A 2
M	3	x	12	S	100	152,00 A 2
M	3	x	16	S	100	152,00 A 2
M	3	x	20	S	100	161,00 A 2
M	4	x	6	S	100	228,00 A 2
M	4	x	8	S	100	228,00 A 2
M	4	x	10	S	100	146,00 A 2
M	4	x	12	S	100	150,00 A 2
M	4	x	16	S	100	150,00 A 2
M	4	x	20	S	100	161,00 A 2
M	4	x	25	S	100	192,00 A 2
M	4	x	30	S	100	216,00 A 2
M	4	x	40	S	100	285,00 A 2
M	5	x	10	S	100	169,00 A 2
M	5	x	12	S	100	173,00 A 2
M	5	x	16	S	100	173,00 A 2
M	5	x	20	S	100	188,00 A 2
M	5	x	25	S	100	220,00 A 2
M	5	x	30	S	100	250,00 A 2
M	5	x	35	S	100	335,00 A 2
M	5	x	40	S	100	390,00 A 2
M	5	x	50	S	100	430,00 A 2
M	5	x	60	S	100	530,00 A 2
M	6	x	10	S	100	237,00 A 2
M	6	x	12	S	100	220,00 A 2
M	6	x	16	S	100	222,00 A 2
M	6	x	20	S	100	241,00 A 2
M	6	x	25	S	100	275,00 A 2
M	6	x	30	S	100	305,00 A 2
M	6	x	35	S	100	380,00 A 2
M	6	x	40	S	100	395,00 A 2
M	6	x	45	S	100	465,00 A 2
M	6	x	50	S	100	495,00 A 2
M	6	x	60	S	100	610,00 A 2
M	8	x	10	S	100	430,00 A 2
M	8	x	12	S	100	380,00 A 2
M	8	x	16	S	100	340,00 A 2
M	8	x	20	S	100	360,00 A 2
M	8	x	25	S	100	385,00 A 2
M	8	x	30	S	100	445,00 A 2
M	8	x	35	S	100	510,00 A 2
M	8	x	40	S	100	560,00 A 2
M	8	x	45	S	100	620,00 A 2
M	8	x	50	S	100	650,00 A 2
M	8	x	60	S	100	860,00 A 2
M	10	x	16	S	100	860,00 A 2
M	10	x	20	S	100	950,00 A 2
M	10	x	25	S	100	1150,00 A 2
M	10	x	30	S	100	1350,00 A 2
M	10	x	40	S	100	1680,00 A 2
M	10	x	50	S	100	1990,00 A 2
M	10	x	60	S	100	2600,00 A 2
M	12	x	25	S	100	5500,00 A 2

article	88114.920	855

88114 A 2 PIN-ISR



Theft resistant screws with pan head DIN 7981, tapping screw thread ST, hexalobular socket with pin

bits ➔ article 88667

Dimensions ➔ TI-48 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

3,5	x	13	S	100	133,00 A 2
3,5	x	16	S	100	171,00 A 2
3,5	x	19	S	100	137,00 A 2
3,5	x	25	S	100	199,00 A 2
3,5	x	32	S	100	214,00 A 2
3,5	x	38	S	100	218,00 A 2
4,2	x	9,5	S	100	156,00 A 2
4,2	x	13	S	100	144,00 A 2
4,2	x	16	S	100	165,00 A 2
4,2	x	19	S	100	167,00 A 2
4,2	x	25	S	100	190,00 A 2
4,2	x	32	S	100	212,00 A 2
4,2	x	38	S	100	235,00 A 2
4,2	x	50	S	100	275,00 A 2
4,8	x	13	S	100	190,00 A 2
4,8	x	16	S	100	214,00 A 2
4,8	x	19	S	100	216,00 A 2
4,8	x	25	S	100	245,00 A 2
4,8	x	32	S	100	285,00 A 2
4,8	x	38	S	100	310,00 A 2
4,8	x	50	S	100	335,00 A 2
5,5	x	16	S	100	400,00 A 2
5,5	x	19	S	100	420,00 A 2
5,5	x	25	S	100	275,00 A 2
5,5	x	32	S	100	540,00 A 2
5,5	x	38	S	100	320,00 A 2
5,5	x	50	S	100	390,00 A 2
5,5	x	63	S	100	740,00 A 2
5,5	x	75	S	100	760,00 A 2
6,3	x	13	S	100	1070,00 A 2
6,3	x	16	S	100	495,00 A 2
6,3	x	19	S	100	580,00 A 2
6,3	x	25	S	100	660,00 A 2
6,3	x	32	S	100	710,00 A 2
6,3	x	38	S	100	760,00 A 2
6,3	x	50	S	100	890,00 A 2

Dimensions	PU Pieces	€/100/Mat.
article	88115.920	855

88115 A 2 PIN-ISR



Theft resistant screws with countersunk head DIN 7982, tapping screw thread ST, hexalobular socket with pin

bits ➔ article 88667

Dimensions ➔ TI-48 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

2,9	x	13	S	100	180,00 A 2
2,9	x	19	S	100	190,00 A 2
3,5	x	9,5	S	100	152,00 A 2
3,5	x	13	S	100	141,00 A 2
3,5	x	16	S	100	144,00 A 2
3,5	x	19	S	100	148,00 A 2
3,5	x	25	S	100	152,00 A 2
3,5	x	38	S	100	188,00 A 2
4,2	x	13	S	100	137,00 A 2
4,2	x	16	S	100	156,00 A 2
4,2	x	19	S	100	167,00 A 2
4,2	x	25	S	100	190,00 A 2
4,2	x	32	S	100	212,00 A 2
4,2	x	38	S	100	235,00 A 2
4,2	x	50	S	100	285,00 A 2
4,8	x	13	S	100	194,00 A 2
4,8	x	16	S	100	212,00 A 2
4,8	x	19	S	100	228,00 A 2
4,8	x	25	S	100	245,00 A 2
4,8	x	32	S	100	285,00 A 2
4,8	x	38	S	100	310,00 A 2
4,8	x	50	S	100	290,00 A 2
5,5	x	16	S	100	465,00 A 2
5,5	x	25	S	100	485,00 A 2
5,5	x	38	S	100	290,00 A 2
5,5	x	50	S	100	390,00 A 2
5,5	x	63	S	100	780,00 A 2
5,5	x	75	S	100	810,00 A 2
6,3	x	19	S	100	610,00 A 2
6,3	x	50	S	100	950,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
article		88116.920			855
88116	**A 2**				**PIN-ISR**



Theft resistant screws with button head ~ ISO 7380, metric thread, hexalobular socket with pin

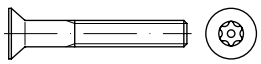
bits ➔ article 88667

Dimensions ➔ TI-26 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 3	x 6-T10	S	100	182,00	A 2
M 3	x 8-T10	S	100	182,00	A 2
M 3	x 10-T10	S	100	182,00	A 2
M 3	x 12-T10	S	100	186,00	A 2
M 3	x 16-T10	S	100	186,00	A 2
M 3	x 20-T10	S	100	199,00	A 2
M 4	x 6-T20	S	100	186,00	A 2
M 4	x 8-T20	S	100	186,00	A 2
M 4	x 10-T20	S	100	195,00	A 2
M 4	x 12-T20	S	100	205,00	A 2
M 4	x 16-T20	S	100	218,00	A 2
M 4	x 20-T20	S	100	231,00	A 2
M 4	x 25-T20	S	100	247,00	A 2
M 4	x 30-T20	S	100	275,00	A 2
M 4	x 40-T20	S	100	345,00	A 2
M 4	x 50-T20	S	100	380,00	A 2
M 5	x 8-T25	S	100	265,00	A 2
M 5	x 10-T25	S	100	265,00	A 2
M 5	x 12-T25	S	100	265,00	A 2
M 5	x 16-T25	S	100	280,00	A 2
M 5	x 20-T25	S	100	290,00	A 2
M 5	x 25-T25	S	100	325,00	A 2
M 5	x 30-T25	S	100	360,00	A 2
M 5	x 35-T25	S	100	390,00	A 2
M 5	x 40-T25	S	100	420,00	A 2
M 5	x 50-T25	S	100	530,00	A 2
M 5	x 60-T25	S	100	670,00	A 2
M 6	x 10-T30	S	100	320,00	A 2
M 6	x 12-T30	S	100	325,00	A 2
M 6	x 16-T30	S	100	345,00	A 2
M 6	x 20-T30	S	100	365,00	A 2
M 6	x 25-T30	S	100	410,00	A 2
M 6	x 30-T30	S	100	410,00	A 2
M 6	x 35-T30	S	100	450,00	A 2
M 6	x 40-T30	S	100	530,00	A 2
M 6	x 45-T30	S	100	560,00	A 2
M 6	x 50-T30	S	100	600,00	A 2
M 6	x 60-T30	S	100	780,00	A 2
M 8	x 12-T40	S	100	540,00	A 2
M 8	x 16-T40	S	100	590,00	A 2
M 8	x 20-T40	S	100	670,00	A 2
M 8	x 25-T40	S	100	720,00	A 2
M 8	x 30-T40	S	100	780,00	A 2
M 8	x 35-T40	S	100	900,00	A 2
M 8	x 40-T40	S	100	910,00	A 2
M 8	x 45-T40	S	100	1010,00	A 2
M 8	x 50-T40	S	100	1020,00	A 2
M 8	x 60-T40	S	100	1090,00	A 2
M 8	x 80-T40	S	100	1340,00	A 2
M10	x 12-T45	S	100	900,00	A 2
M10	x 20-T45	S	100	1010,00	A 2
M10	x 25-T45	S	100	1060,00	A 2
M10	x 30-T45	S	100	1100,00	A 2
M10	x 40-T45	S	100	1200,00	A 2
M10	x 45-T45	S	100	1270,00	A 2
M10	x 50-T45	S	100	1400,00	A 2
M10	x 60-T45	S	100	1450,00	A 2
M10	x 65-T45	S	100	1500,00	A 2
M10	x 80-T45	S	100	1640,00	A 2

Dimensions			PU	Pieces	€/100/Mat.
article		88117.920			855
88117	**A 2**				**PIN-ISR**



Theft resistant screws with countersunk head ~ ISO 10642, metric thread, hexalobular socket with pin

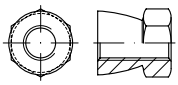
bits ➔ article 88667

Dimensions ➔ TI-27 Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 3	x 6-T10	S	100	146,00	A 2
M 3	x 8-T10	S	100	154,00	A 2
M 3	x 10-T10	S	100	163,00	A 2
M 3	x 12-T10	S	100	171,00	A 2
M 3	x 16-T10	S	100	190,00	A 2
M 3	x 20-T10	S	100	209,00	A 2
M 3,5	x 6-T15	S	100	152,00	A 2
M 3,5	x 12-T15	S	100	171,00	A 2
M 4	x 6-T20	S	100	171,00	A 2
M 4	x 8-T20	S	100	176,00	A 2
M 4	x 10-T20	S	100	180,00	A 2
M 4	x 12-T20	S	100	184,00	A 2
M 4	x 16-T20	S	100	190,00	A 2
M 4	x 20-T20	S	100	218,00	A 2
M 4	x 25-T20	S	100	237,00	A 2
M 4	x 30-T20	S	100	265,00	A 2
M 4	x 40-T20	S	100	305,00	A 2
M 4	x 50-T20	S	100	360,00	A 2
M 5	x 8-T25	S	100	260,00	A 2
M 5	x 10-T25	S	100	260,00	A 2
M 5	x 12-T25	S	100	260,00	A 2
M 5	x 16-T25	S	100	275,00	A 2
M 5	x 20-T25	S	100	315,00	A 2
M 5	x 25-T25	S	100	325,00	A 2
M 5	x 30-T25	S	100	360,00	A 2
M 5	x 35-T25	S	100	430,00	A 2
M 5	x 40-T25	S	100	440,00	A 2
M 5	x 50-T25	S	100	570,00	A 2
M 5	x 60-T25	S	100	680,00	A 2
M 5	x 70-T25	S	100	790,00	A 2
M 5	x 80-T25	S	100	800,00	A 2
M 6	x 10-T30	S	100	295,00	A 2
M 6	x 12-T30	S	100	305,00	A 2
M 6	x 16-T30	S	100	325,00	A 2
M 6	x 20-T30	S	100	355,00	A 2
M 6	x 25-T30	S	100	390,00	A 2
M 6	x 30-T30	S	100	420,00	A 2
M 6	x 35-T30	S	100	445,00	A 2
M 6	x 40-T30	S	100	510,00	A 2
M 6	x 45-T30	S	100	570,00	A 2
M 6	x 50-T30	S	100	620,00	A 2
M 6	x 60-T30	S	100	800,00	A 2
M 8	x 16-T40	S	100	680,00	A 2
M 8	x 20-T40	S	100	770,00	A 2
M 8	x 25-T40	S	100	840,00	A 2
M 8	x 30-T40	S	100	900,00	A 2
M 8	x 40-T40	S	100	1060,00	A 2
M 8	x 50-T40	S	100	1170,00	A 2
M 8	x 60-T40	S	100	1260,00	A 2
M 8	x 80-T40	S	100	1550,00	A 2
M10	x 60-T45	S	100	1550,00	A 2
M10	x 80-T45	S	100	1890,00	A 2

article		88118.910			855
88118	**A 1**				



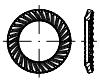
Theft resistant nuts / pull-off nuts, flat round type, hexagon, for one-way assembly (unscrewable)

Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

M 6	x 6	S	500	186,00	A 1
M 6	x 6	K	50	203,00	A 1
M 8	x 6	S	500	245,00	A 1
M 8	x 6	K	50	265,00	A 1
M 10	x 8	S	500	950,00	A 1
M 10	x 8	K	25	990,00	A 1
M 12	x 9	S	250	1670,00	A 1
M 12	x 9	K	25	1860,00	A 1
M 16	x 14	S	100	3950,00	A 1
M 16	x 14	K	25	4300,00	A 1

article		88120.924			860
88120	**A 2**				**type S**



SCHNORR safety washers with serrations on both sides, S = standard

Caution!
Lower tightness compared to hardened steel.

Dimensions ➔ TI-104 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

for screw M x outside ∅ x thickness

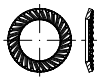
S 2	x 4	0,35	S	1000	2,85	A 2
S 2	x 4	0,35	K	200	4,75	A 2
S 2,5	x 4,8	0,45	S	2000	2,85	A 2
S 2,5	x 4,8	0,45	K	200	4,75	A 2
S 3	x 5,5	0,45	S	2000	2,85	A 2
S 3	x 5,5	0,45	K	200	4,75	A 2
S 4	x 7	0,5	S	1000	3,45	A 2
S 4	x 7	0,5	K	200	5,30	A 2
S 5	x 9	0,6	S	1000	5,80	A 2
S 5	x 9	0,6	K	200	7,70	A 2
S 6	x 10	0,7	S	1000	7,30	A 2

€/100 = price in € plus VAT when ordering full package unit

Dimensions					PU	Pieces	€/100/Mat.
S 6	x	10		0,7	K	200	9,20 A 2
S 8	x	13		0,8	S	1000	12,90 A 2
S 8	x	13		0,8	K	200	14,80 A 2
S10	x	16		1	S	1000	23,50 A 2
S10	x	16		1	K	200	25,50 A 2
S12	x	18		1,1	S	500	33,00 A 2
S12	x	18		1,1	K	100	35,00 A 2
S16	x	24		1,3	S	250	64,00 A 2
S16	x	24		1,3	K	100	66,00 A 2
S20	x	30		1,5	S	250	118,00 A 2
S20	x	30		1,5	K	100	120,00 A 2
S24	x	36		1,8	S	100	168,00 A 2

article 88121.924 860

88121 A 2 type VS



SCHNORR safety washers with serrations on both sides, VS = extra strong

Caution!
Lower tightness compared to hardened steel.

Dimensions ➔ TI-105 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

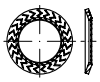
RoHS ✓ REACh SVHC free

for screw M x outside ∅ x thickness

VS 5	x	9	x	1	S	1000	23,30 A 2
VS 6	x	10	x	1	S	1000	28,00 A 2
VS 8	x	13	x	1,2	S	1000	39,50 A 2
VS 10	x	16	x	1,5	S	1000	84,00 A 2
VS 12	x	18	x	1,5	S	500	117,00 A 2
VS 16	x	24	x	2	S	250	233,00 A 2
VS 20	x	30	x	2	S	250	415,00 A 2

article 88123.940 865

88123 A 4 SK-S



TECKENTRUP lock washers, S (narrow) = for normal and small connecting surfaces

Dimensions ➔ TI-105 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

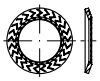
RoHS ✓ REACh SVHC free

for screw ∅ x outside ∅ x thickness

S 4	x	8,2	x	0,8	S	1000	22,70 A 4
S 5	x	10,2	x	1	S	1000	29,00 A 4
S 6	x	12,2	x	1,2	S	1000	31,00 A 4
S 8	x	16,2	x	1,4	S	1000	52,00 A 4
S 10	x	20,25	x	1,6	S	1000	84,00 A 4
S 12	x	24,25	x	1,6	S	1000	152,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
article	88123.947		865

88123 A 4 NSK-S



TECKENTRUP lock washers, S (narrow) = for normal and small connecting surfaces

Dimensions ➔ TI-105 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

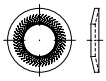
RoHS ✓ REACh SVHC free

for screw M

NSK-S 4	S	1000	22,70 A 4
NSK-S 5	S	1000	29,00 A 4
NSK-S 6	S	1000	31,00 A 4
NSK-S 8	S	1000	52,00 A 4
NSK-S 10	S	1000	84,00 A 4
NSK-S 12	S	1000	152,00 A 4

article 88124.940 865

88124 A 4 SK-M



TECKENTRUP lock washers, M (medium) = for normal connecting surface

Dimensions ➔ TI-105 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

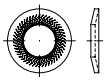
RoHS ✓ REACh SVHC free

for screw ∅ x outside ∅ x thickness

M 4	x	10,2	x	1	S	1000	28,00 A 4
M 5	x	12,2	x	1,2	S	1000	34,00 A 4
M 6	x	14,2	x	1,4	S	1000	43,00 A 4
M 8	x	18,2	x	1,4	S	1000	63,00 A 4
M 10	x	22,25	x	1,6	S	500	112,00 A 4
M 12	x	27,25	x	1,8	S	500	191,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
article	88124.947		865

88124 A 4 NSK-M



TECKENTRUP lock washers, M (medium) = for normal connecting surface

Dimensions ➔ TI-105 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

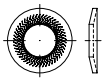
RoHS ✓ REACh SVHC free

for screw M

NSK-M 4	S	1000	28,00 A 4
NSK-M 5	S	1000	34,00 A 4
NSK-M 6	S	1000	43,00 A 4
NSK-M 8	S	1000	63,00 A 4
NSK-M 10	S	500	112,00 A 4
NSK-M 12	S	500	191,00 A 4
NSK-M 16	S	200	275,00 A 4

article 88125.940 865

88125 A 4 SK-B



TECKENTRUP lock washers, B (wide) = for large connecting surface

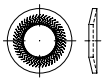
Dimensions ➔ TI-106 Lock of fasteners ➔ TI-256
Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

for screw ∅ x outside ∅ x thickness

B 6	x 18,2	x	1,4	S	1000	63,00 A 4
B 8	x 22,25	x	1,9	S	500	112,00 A 4
B 10	x 27,25	x	2,4	S	500	222,00 A 4

Dimensions	PU	Pieces	€/100/Mat.
article	88125.947		865
88125	**A 4**		**NSK-B**



TECKENTRUP lock washers, B (wide) = for large connecting surface

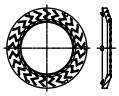
Dimensions → TI-106 Lock of fasteners → TI-256
Material properties → TI-236

RoHS ✓ REACh SVHC free

for screw M

NSK-B 6	S	1000	63,00 A4
NSK-B 8	S	500	112,00 A4
NSK-B 10	S	500	222,00 A4

article	88129.940	865
88129	**A 4**	**SK-K**



TECKENTRUP lock washers, K = with contact serrations

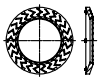
Dimensions → TI-106 Lock of fasteners → TI-256
Material properties → TI-236

RoHS ✓ REACh SVHC free

for screw ∅ x outside ∅ x thickness

K 4	x 8,2	x 0,8	S	1000	29,50 A4
K 5	x 10,2	x 1	S	1000	34,50 A4
K 6	x 12,2	x 1,2	S	1000	39,50 A4
K 8	x 16,2	x 1,4	S	1000	63,00 A4
K 10	x 20,25	x 1,6	S	500	179,00 A4
K 12	x 24,25	x 1,6	S	500	275,00 A4

article	88129.947	865
88129	**A 4**	**NSK-K**



TECKENTRUP lock washers, K = with contact serrations

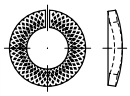
Dimensions → TI-106 Lock of fasteners → TI-256
Material properties → TI-236

RoHS ✓ REACh SVHC free

for screw M

NSK-K 4	S	1000	29,50 A4
NSK-K 5	S	1000	34,50 A4
NSK-K 6	S	1000	39,50 A4
NSK-K 8	S	1000	63,00 A4
NSK-K 10	S	500	179,00 A4
NSK-K 12	S	500	275,00 A4

article	88130.960	870
88130	**1.4310**	**VSK-D**



Lock rings, VSK-D = standard type

Caution!
Lower tightness compared to hardened steel.

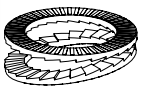
Dimensions → TI-107 Lock of fasteners → TI-256
Material properties → TI-236

RoHS ✓ REACh SVHC free

for screw ∅ x outside ∅ x thickness

4	x 7,6	x 0,8	S	1000	9,20
5	x 9,2	x 1,2	S	5000	10,60
6	x 11,8	x 1,6	S	2000	18,60
8	x 14,8	x 2	S	1000	30,00
10	x 18	x 2,2	S	500	47,00
12	x 21	x 2,5	S	500	69,00
14	x 24	x 3	S	250	114,00
16	x 27,3	x 3,5	S	200	154,00
18	x 29,4	x 3,5	S	150	248,00
20	x 33,6	x 4	S	100	248,00
24	x 40	x 5	S	50	470,00

article	88132.940	870
88132	**A 4**	



NORD-LOCK washers, standard, preassembled pairs

Caution!
Lower tightness compared to hardened steel.
When assembling take care to position the washer pairs correctly!

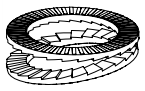
Dimensions → TI-107 Tightening torque → TI-247
Material properties → TI-236 Lock of fasteners → TI-256

RoHS ✓ REACh SVHC free

for screw ∅

NL 4 SS	S	200	420,00 A4
NL 5 SS	S	200	420,00 A4
NL 6 SS	S	200	510,00 A4
NL 8 SS	S	200	540,00 A4
NL 10 SS	S	200	610,00 A4
NL 12 SS	S	200	1100,00 A4
NL 16 SS	S	100	1560,00 A4
NL 18 SS	S	100	2080,00 A4
NL 20 SS	S	100	2080,00 A4
NL 24 SS	S	100	3150,00 A4

article	88132.945	870
88132	**A 4**	**SP**



NORD-LOCK washers, preassembled pairs SP = with enlarged outer diameter

Caution!
Lower tightness compared to hardened steel.
When assembling take care to position the washer pairs correctly!

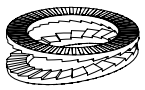
Dimensions → TI-107 Tightening torque → TI-247
Material properties → TI-236 Lock of fasteners → TI-256

RoHS ✓ REACh SVHC free

for screw ∅

NL 3,5 SP SS	S	200	570,00 A4
NL 4 SP SS	S	200	590,00 A4
NL 5 SP SS	S	200	610,00 A4
NL 6 SP SS	S	200	640,00 A4
NL 8 SP SS	S	200	790,00 A4
NL 10 SP SS	S	200	1280,00 A4
NL 12 SP SS	S	100	2320,00 A4
NL 14 SP SS	S	100	2600,00 A4
NL 16 SP SS	S	100	2600,00 A4
NL 18 SP SS	S	100	3900,00 A4
NL 20 SP SS	S	100	3950,00 A4
NL 22 SP SS	S	50	6700,00 A4
NL 24 SP SS	S	50	9100,00 A4
NL 27 SP SS	S	25	9100,00 A4
NL 30 SP SS	S	25	11300,00 A4

article	88032.940	870
88032	**A 4**	**HLS**



HEICO-LOCK wedge lock washers, preassembled pairs, HLS = standard

Caution!
Lower tightness compared to hardened steel.
When assembling take care to position the washer pairs correctly!

Dimensions → TI-103 Tightening torque → TI-247
Material properties → TI-236 Lock of fasteners → TI-256

RoHS ✓ REACh SVHC free

for screw ∅

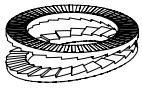
HLS- 3S	S	200	315,00
HLS- 3,5S	S	200	315,00
HLS- 4S	S	200	325,00
HLS- 5S	S	200	330,00
HLS- 6S	S	200	370,00
HLS- 8S	S	200	395,00
HLS-10S	S	200	450,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
HLS-12S	S	200	740,00
HLS-14S	S	100	1210,00
HLS-16S	S	100	1310,00
HLS-18S	S	100	1730,00
HLS-20S	S	100	1860,00
HLS-22S	S	100	2350,00
HLS-24S	S	100	2390,00
HLS-27S	S	50	4650,00
HLS-30S	S	50	4950,00
HLS-33S	S	25	5600,00
HLS-36S	S	25	6800,00
HLS-39S	S	25	8800,00
HLS-42S	S	25	9600,00

article 88032.944 870

88032 A 4 HLB



HEICO-LOCK wedge lock washers, preassembled pairs HLB = with enlarged outer diameter

Caution!
Lower tightness compared to hardened steel.
When assembling take care to position the washer pairs correctly!

Dimensions ➔ TI-103
Material properties ➔ TI-236
Tightening torque ➔ TI-247
Lock of fasteners ➔ TI-256

RoHS ✓ REACh SVHC free

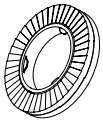
for screw ∅

HLB- 3,5S	S	200	380,00
HLB- 4S	S	200	380,00
HLB- 5S	S	200	385,00
HLB- 6S	S	200	410,00
HLB- 8S	S	200	520,00
HLB-10S	S	200	850,00
HLB-12S	S	100	1260,00
HLB-14S	S	100	1350,00
HLB-16S	S	100	1410,00
HLB-18S	S	100	2550,00
HLB-20S	S	100	2600,00
HLB-22S	S	50	4100,00
HLB-24S	S	50	6300,00
HLB-27S	S	25	6700,00

Dimensions	PU	Pieces	€/100/Mat.

article 88035.940 870

88035 A 4



HEICO-LOCK combi-washers, standard, preassembled pairs, with locking ring made of plastic

Dimensions ➔ TI-104
Material properties ➔ TI-236
Lock of fasteners ➔ TI-256

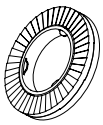
RoHS ✓ REACh SVHC free

for screw ∅

HKS- 8S	S	200	217,00 A4
HKS-10S	S	200	248,00 A4
HKS-12S	S	200	410,00 A4
HKS-16S	S	100	720,00 A4

article 88035.944 870

88035 A 4 B



HEICO-LOCK combi-washers, preassembled pairs, with locking ring made of plastic, B = with enlarged outer diameter

Dimensions ➔ TI-104
Material properties ➔ TI-236
Lock of fasteners ➔ TI-256

RoHS ✓ REACh SVHC free

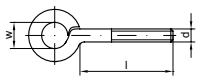
for screw ∅

HKB- 8S	S	200	290,00 A4
HKB-10S	S	200	470,00 A4
HKB-12S	S	100	700,00 A4
HKB-16S	S	100	780,00 A4

Dimensions	PU	Pieces	€/100/Mat.

article 88136.920 872

88136 A 2 type 48



Screw eyes type 48, with metric thread

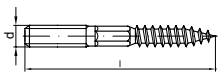
Dimensions ➔ TI-36
Material properties ➔ TI-236

RoHS ✓ REACh SVHC free

d x l x D				
M 4	x 10 D 6	S	50	173,00 A2
M 4	x 15 D 6	S	50	167,00 A2
M 4	x 20 D 6	S	50	173,00 A2
M 4	x 30 D 6	S	50	180,00 A2
M 5	x 15 D 8	S	50	184,00 A2
M 5	x 20 D 8	S	50	193,00 A2
M 5	x 30 D 8	S	50	197,00 A2
M 5	x 40 D 8	S	50	209,00 A2
M 6	x 15 D 10	S	50	214,00 A2
M 6	x 20 D 10	S	50	232,00 A2
M 6	x 25 D 10	S	50	236,00 A2
M 6	x 30 D 10	S	50	248,00 A2
M 6	x 40 D 10	S	50	260,00 A2
M 6	x 50 D 10	S	50	270,00 A2
M 6	x 60 D 10	S	50	275,00 A2
M 8	x 20 D 12	S	50	405,00 A2
M 8	x 25 D 12	S	50	420,00 A2
M 8	x 30 D 12	S	50	440,00 A2
M 8	x 40 D 12	S	50	480,00 A2
M 8	x 50 D 12	S	50	510,00 A2
M 8	x 60 D 12	S	50	540,00 A2
M 10	x 40 D 14	S	50	800,00 A2
M 10	x 70 D 14	S	50	1260,00 A2

article 88149.920 874

88149 A 2



Hanger bolts, one side = metric thread other side = wood screw thread

Material properties ➔ TI-236

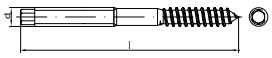
RoHS ✓ REACh SVHC free

∅ M x overall length				
M 6	x 50	S	100	188,00 A2
M 6	x 60	S	100	226,00 A2
M 6	x 70	S	100	270,00 A2
M 6	x 80	S	100	310,00 A2
M 6	x 100	S	100	380,00 A2
M 6	x 120	S	100	460,00 A2
M 6	x 130	S	100	510,00 A2
M 6	x 140	S	100	540,00 A2
M 6	x 150	S	100	580,00 A2
M 6	x 160	S	100	620,00 A2
M 6	x 180	S	100	700,00 A2
M 8	x 50	S	100	255,00 A2

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	60	S	100	305,00 A 2
M 8	x	70	S	100	355,00 A 2
M 8	x	80	S	50	445,00 A 2
M 8	x	90	S	50	460,00 A 2
M 8	x	100	S	50	510,00 A 2
M 8	x	110	S	50	530,00 A 2
M 8	x	120	S	50	560,00 A 2
M 8	x	130	S	50	660,00 A 2
M 8	x	140	S	50	710,00 A 2
M 8	x	150	S	50	760,00 A 2
M 8	x	160	S	50	810,00 A 2
M 8	x	180	S	50	910,00 A 2
M 8	x	200	S	50	1010,00 A 2
M 10	x	80	S	25	670,00 A 2
M 10	x	100	S	25	830,00 A 2
M 10	x	120	S	25	920,00 A 2
M 10	x	140	S	25	1080,00 A 2
M 10	x	160	S	25	1330,00 A 2
M 10	x	180	S	25	1500,00 A 2
M 10	x	200	S	25	1650,00 A 2

article 88149.925 874

88149 A 2 - 70 Hex



Hanger bolts, one side = metric thread, other side = wood screw thread, Hex = with hexagon

Material properties ➔ TI-236

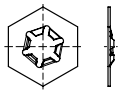
RoHS ✓ | REACh SVHC free

∅ M x overall length / wrench size

M 10	x 180 s = 7	S	25	1500,00 A 2
M 10	x 200 s = 7	S	25	1650,00 A 2
M 10	x 250 s = 7	S	25	2280,00 A 2
M 12	x 180 s = 9	S	25	2450,00 A 2
M 12	x 200 s = 9	S	25	2850,00 A 2
M 12	x 250 s = 9	S	25	3500,00 A 2

article 88151.920 857

88151 A 2 RUV



REYHER captivity washers for metric screws

for usage acc. to EC machinery directive

matching screws ➔ DIN 7964 A 2

Material properties ➔ TI-236 Rules ➔ TI-263

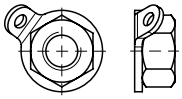
RoHS ✓ | REACh SVHC free

thread ∅ x wrench size x thickness

M 6	x	12	x	0,5	S	100	45,50 A 2
M 8	x	16	x	0,5	S	100	47,50 A 2
M10	x	18	x	0,5	S	100	49,50 A 2
M12	x	21	x	0,6	S	50	72,00 A 2
M16	x	27	x	0,7	S	50	600,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
article		88153.920			857

88153 A 2 RUV



REYHER captivity nuts

for usage acc. to EC machinery directive

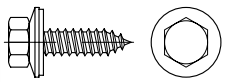
Material properties ➔ TI-236 Rules ➔ TI-263

RoHS ✓ | REACh SVHC free

M 5	K	25	760,00 A 2
M 6	K	25	800,00 A 2
M 8	K	25	860,00 A 2
M 10	K	10	950,00 A 2
M 12	K	10	1120,00 A 2

article 88176.920 876

88176 A 2 type A



Tapping screws for facing with assembled sealing washer, A = with cone end

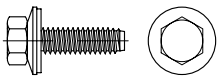
wrench size = 3/8", ∅ sealing washer = 16 mm

Dimensions ➔ TI-50 Material properties ➔ TI-236

A 6,5	x 16	S	500	66,00 A 2
A 6,5	x 19	S	500	69,00 A 2
A 6,5	x 25	S	500	77,00 A 2
A 6,5	x 32	S	400	88,00 A 2
A 6,5	x 38	S	400	103,00 A 2
A 6,5	x 45	S	300	110,00 A 2
A 6,5	x 50	S	250	112,00 A 2
A 6,5	x 64	S	200	144,00 A 2
A 6,5	x 75	S	200	161,00 A 2
A 6,5	x 85	S	200	180,00 A 2
A 6,5	x 90	S	150	180,00 A 2
A 6,5	x 100	S	100	199,00 A 2
A 6,5	x 115	S	100	212,00 A 2
A 6,5	x 130	S	100	247,00 A 2
A 6,5	x 150	S	100	300,00 A 2
A 6,5	x 175	S	100	380,00 A 2
A 6,5	x 200	S	100	470,00 A 2

Dimensions			PU	Pieces	€/100/Mat.
article		88276.920			876

88276 A 2 type BZ



Tapping screws for facing with assembled sealing washer, BZ = with flat end

wrench size = 3/8", ∅ sealing washer = 16 mm

caps ➔ article 88008

Dimensions ➔ TI-50 Material properties ➔ TI-236

BZ 6,3	x 16	S	500	69,00 A 2
BZ 6,3	x 19	S	500	73,00 A 2
BZ 6,3	x 25	S	500	77,00 A 2
BZ 6,3	x 32	S	400	88,00 A 2
BZ 6,3	x 38	S	400	103,00 A 2
BZ 6,3	x 45	S	300	110,00 A 2
BZ 6,3	x 50	S	250	112,00 A 2
BZ 6,3	x 64	S	200	144,00 A 2
BZ 6,3	x 75	S	200	161,00 A 2
BZ 6,3	x 90	S	150	180,00 A 2
BZ 6,3	x 100	S	100	199,00 A 2
BZ 6,3	x 115	S	100	212,00 A 2
BZ 6,3	x 130	S	100	247,00 A 2
BZ 6,3	x 150	S	100	300,00 A 2
BZ 6,3	x 175	S	100	380,00 A 2

article 88008.(*) 800

88008 Plastic



Caps for tapping screws for facing

white RAL 9010 (*630),
light grey RAL 9002 (*640),
light ivory RAL 1015 (*670),
red brown RAL 8012 (*650)

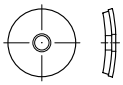
REACH ➔ TI-262

for articles 88176, 88276 with wrench size SW 3/8"

F. s = 3/8	S	200	7,00 Kunststoff

€/100 = price in € plus VAT when ordering full package unit

Dimensions				PU	Pieces	€/100/Mat.
article		88277.920				890
88277	**A 2**					
16	x	6,8	x 1	S	1000	15,60 A2
19	x	6,8	x 1	S	1000	20,90 A2
25	x	6,8	x 1	S	1000	40,00 A2
25	x	8,5	x 1	S	1000	44,00 A2
29	x	6,8	x 1	S	1000	52,00 A2



Sealing washers, convex metal washers with vulcanised sealing

thickness of sealing ~ 1,5 mm

Material properties ➔ TI-236

Aluminium ➔ 646

outside ∅ x inside ∅ x thickness

article		88296.924				890
88296	**A 2**					**ISR**
4,5	x	25	-15	S	200	29,50 A2
4,5	x	35	-15	S	200	33,00 A2
4,5	x	45	-15	S	200	37,00 A2
4,5	x	55	-15	S	200	41,00 A2

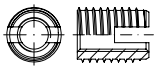


Spengler screws, raised csk. head wood screws acc. to DIN 7995, with hexalobular socket T25, including rosettes and sealing washer Ø 15

other washer ∅ on request

∅ x length - washer ∅

article		88302.910				899
88302	**A 1**					**type 302**
M 3	x	6		S	50	305,00 A1
M 4	x	8		S	50	305,00 A1
M 5	x	10		S	50	315,00 A1
M 6	x	14		S	25	365,00 A1
M 8	x	15		S	25	495,00 A1
M 10	x	18		S	25	650,00 A1
M 12	x	22		S	25	880,00 A1
M 16	x	22		S	10	2450,00 A1
M 20	x	27		S	10	3200,00 A1



ENSAT threaded inserts type 302, self tapping with cutting slot, inside = metric thread

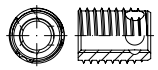
Product information ➔ TI-152

ENSAT driving tools ➔ pg. 437

RoHS ✓ | REACh SVHC free

internal thread M x length

article		88307.300				899
88307	**1.4105**					**type 307**
M 5	x	7		S	50	350,00
M 6	x	8		S	25	405,00
M 8	x	9		S	25	485,00
M 10	x	10		S	25	600,00



ENSAT threaded inserts type 307, short, self tapping with cutting bores, inside = metric thread

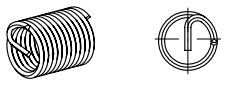
Product information ➔ TI-152

ENSAT driving tools ➔ 437

RoHS ✓ | REACh SVHC free

internal thread M x length

article		88330.921				910
88330	**A 2**					**type A-SR**
M 3	x	3		S	25	65,00 A2
M 3	x	4,5		S	25	74,00 A2
M 3	x	6		S	25	81,00 A2
M 4	x	4		S	200	47,00 A2
M 4	x	4		K	25	55,00 A2
M 4	x	6		S	200	55,00 A2
M 4	x	6		K	25	64,00 A2
M 4	x	8		S	200	58,00 A2
M 4	x	8		K	25	66,00 A2
M 5	x	5		S	200	60,00 A2
M 5	x	5		K	25	68,00 A2
M 5	x	7,5		S	200	71,00 A2
M 5	x	7,5		K	25	77,00 A2
M 5	x	10		S	200	73,00 A2
M 5	x	10		K	25	81,00 A2
M 6	x	6		S	200	71,00 A2
M 6	x	6		K	25	77,00 A2
M 6	x	9		S	200	77,00 A2



Wire thread inserts DIN 8140, with engaging tang, A = for metric thread, SR = AMECOIL type SR

Product information ➔ TI-150

RoHS ✓ | REACh SVHC free

thread M x length installed

Dimensions				PU	Pieces	€/100/Mat.
M 6	x	9		K	25	85,00 A2
M 6	x	12		S	200	81,00 A2
M 6	x	12		K	25	89,00 A2
M 6	x	15		S	200	95,00 A2
M 7	x	10,5		S	25	89,00 A2
M 8	x	8		S	100	73,00 A2
M 8	x	8		K	25	81,00 A2
M 8	x	12		S	100	85,00 A2
M 8	x	12		K	25	92,00 A2
M 8	x	16		S	100	90,00 A2
M 8	x	16		K	25	97,00 A2
M 8	x	20		S	100	106,00 A2
M 10	x	10		S	100	101,00 A2
M 10	x	10		K	25	109,00 A2
M 10	x	15		S	100	117,00 A2
M 10	x	15		K	25	125,00 A2
M 10	x	20		S	100	123,00 A2
M 10	x	20		K	25	131,00 A2
M 12	x	12		S	100	200,00 A2
M 12	x	12		K	15	212,00 A2
M 12	x	18		S	100	233,00 A2
M 12	x	18		K	15	244,00 A2
M 12	x	24		S	100	242,00 A2
M 12	x	24		K	15	255,00 A2
M 14	x	14		S	10	315,00 A2
M 14	x	21		S	10	355,00 A2
M 14	x	28		S	10	370,00 A2
M 16	x	16		S	50	395,00 A2
M 16	x	16		K	10	415,00 A2
M 16	x	24		S	50	460,00 A2
M 16	x	24		K	10	470,00 A2
M 16	x	32		S	50	480,00 A2
M 16	x	32		K	10	495,00 A2
M 18	x	18		S	10	485,00 A2
M 18	x	27		S	10	560,00 A2
M 20	x	20		S	10	550,00 A2
M 20	x	30		S	10	650,00 A2
M 20	x	40		S	10	670,00 A2
M 24	x	24		S	10	910,00 A2
M 24	x	36		S	10	1070,00 A2
M 24	x	48		S	10	1090,00 A2

article		88331.926				910
88331	**A 2**					**type A-fine**
M 8	x 1	x	8	S	25	81,00 A2
M 8	x 1	x	12	S	25	92,00 A2
M 8	x 1	x	16	S	25	97,00 A2
M 10	x 1	x	10	S	25	109,00 A2
M 10	x 1,25	x	10	S	25	109,00 A2
M 10	x 1	x	15	S	25	125,00 A2
M 10	x 1,25	x	15	S	25	125,00 A2
M 10	x 1	x	20	S	25	131,00 A2
M 10	x 1,25	x	20	S	25	131,00 A2
M 12	x 1,25	x	12	S	15	212,00 A2
M 12	x 1,5	x	12	S	15	212,00 A2
M 12	x 1,25	x	18	S	15	244,00 A2
M 12	x 1,5	x	18	S	15	244,00 A2



Wire thread inserts DIN 8140, with engaging tang, A = for metric fine pitch thread

Product information ➔ TI-150

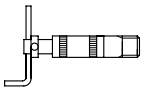
RoHS ✓ | REACh SVHC free

thread M x length installed

Dimensions				PU	Pieces	€/100/Mat.
M 12	x 1,25	x	24	S	15	255,00 A2
M 12	x 1,5	x	24	S	15	255,00 A2
M 14	x 1,25	x	8,4	S	15	185,00 A2
M 14	x 1,25	x	12,4	S	15	185,00 A2
M 14	x 1,5	x	14	S	10	315,00 A2
M 14	x 1,25	x	16,4	S	15	185,00 A2
M 14	x 1,5	x	21	S	10	355,00 A2
M 14	x 1,5	x	28	S	10	370,00 A2
M 16	x 1,5	x	16	S	10	415,00 A2
M 16	x 1,5	x	24	S	10	470,00 A2
M 16	x 1,5	x	32	S	10	495,00 A2
M 20	x 1,5	x	20	S	10	550,00 A2
M 20	x 2	x	20	S	10	550,00 A2
M 20	x 1,5	x	30	S	10	650,00 A2
M 20	x 2	x	30	S	10	650,00 A2
M 20	x 1,5	x	40	S	10	670,00 A2
M 20	x 2	x	40	S	10	670,00 A2
M 24	x 1,5	x	24	S	10	910,00 A2
M 24	x 2	x	24	S	10	910,00 A2
M 24	x 1,5	x	36	S	10	1070,00 A2
M 24	x 2	x	36	S	10	1070,00 A2
M 24	x 1,5	x	48	S	10	1090,00 A2
M 24	x 2	x	48	S	10	1290,00 A2

article 88333.000 915

88333 fine



AMECOIL multidimensional hand fitting tools, basic tool without mandrel and without threaded nose, fine = for thread inserts article 88331

Product information ➔ TI-150

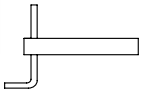
RoHS ✓ REACh SVHC free

size / for thread M

No. 2 M 6 -M 8	S	1	2140,00
No. 3 M10 -M12	S	1	2650,00
No. 4 M14 -M16	S	1	3800,00

article 88333.004 915

88333 SR



AMECOIL specific hand fitting tools, without threaded mandrel, SR = for thread inserts article 88330 and 88346

Product information ➔ TI-150

RoHS ✓ REACh SVHC free

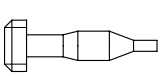
size / for thread M

No.1-M 2,5-M 8	S	1	2220,00
No.2-M10 -M16	S	1	2220,00

Dimensions				PU	Pieces	€/100/Mat.
M 8	x 1			S	1	2800,00
M 10	x 1			S	1	3100,00
M 10	x 1,25			S	1	3100,00
M 12	x 1,25			S	1	3200,00
M 12	x 1,5			S	1	3200,00
M 14	x 1,25			S	1	1880,00
M 14	x 1,5			S	1	1880,00
M 16	x 1,5			S	1	3700,00

article 88334.000 915

88334 fine



AMECOIL accessories for fitting tool, mandrel and threaded nose for basic fitting tool, fine = for thread inserts article 88331

Product information ➔ TI-150

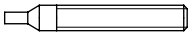
RoHS ✓ REACh SVHC free

for inserts with thread M

M 8	x 1	S	1	2800,00
M 10	x 1	S	1	3100,00
M 10	x 1,25	S	1	3100,00
M 12	x 1,25	S	1	3200,00
M 12	x 1,5	S	1	3200,00
M 14	x 1,25	S	1	1880,00
M 14	x 1,5	S	1	1880,00
M 16	x 1,5	S	1	3700,00

article 88334.004 915

88334 SR



AMECOIL threaded mandrels, for specific hand fitting tool, article 88330 and 88346, SR = for thread inserts

Product information ➔ TI-150

RoHS ✓ REACh SVHC free

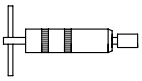
for inserts with thread M / mandrel no.

M 3 / No.1	S	1	5600,00
M 4 / No.1	S	1	5600,00
M 5 / No.1	S	1	5600,00
M 6 / No.1	S	1	5600,00
M 7 / No.1	S	1	5600,00
M 8 / No.1	S	1	5600,00
M 10 / No.2	S	1	6800,00
M 12 / No.2	S	1	6800,00
M 14 / No.2	S	1	6800,00
M 16 / No.2	S	1	6800,00

Dimensions				PU	Pieces	€/100/Mat.
M 20	x 1,5			S	1	10900,00
M 20	x 2			S	1	11200,00
M 24	x 1,5			S	1	11800,00
M 24	x 2			S	1	12300,00

article 88335.000 915

88335 fine



AMECOIL unidim. hand fitting tools, for each diameter, fine = for thread inserts article 88331

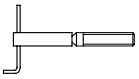
Product information ➔ TI-150

RoHS ✓ REACh SVHC free

for inserts with thread M

article 88335.004 915

88335 SR



AMECOIL specific hand fitting tools, for each diameter, SR = for thread inserts article 88330 and 88346

Product information ➔ TI-150

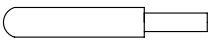
RoHS ✓ REACh SVHC free

for inserts with thread M

M 18	S	1	36600,00
M 20	S	1	36600,00
M 24	S	1	36600,00

article 88336.000 915

88336



AMECOIL tang breaks for the removal of the engaging tang, for type SR and fine

Product information ➔ TI-150

for threads exceeding ∅ 18 use a tapered pliers

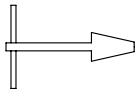
RoHS ✓ REACh SVHC free

M 3	S	1	415,00
M 4	S	1	475,00
M 5	S	1	600,00
M 6	S	1	880,00

Dimensions		PU	Pieces	€/100/Mat.
M 8		S	1	940,00
M 10		S	1	950,00
M 12		S	1	1060,00
M 14		S	1	1140,00
M 16		S	1	1240,00
M 18		S	1	1320,00

article 88337.000 915

88337



AMECOIL extractors for type SR and fine

Product information ➔ TI-150

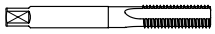
RoHS ✓ | REACh SVHC free

size / for inserts with thread M

No.1 M 2,5-M 8		S	1	1840,00
No.2 M 5 -M 12		S	1	1970,00
No.3 M 10 -M 24		S	1	2110,00

article 88338.000 915

88338



AMECOIL finish taps for through and blind holes, manual or machine, 2 pitch point

Product information ➔ TI-150

RoHS ✓ | REACh SVHC free

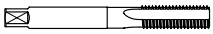
for inserts with thread M

M 3			S	1	1270,00
M 4			S	1	1310,00
M 5			S	1	1350,00
M 6			S	1	1510,00
M 7			S	1	1530,00
M 8			S	1	1860,00
M 8	x	1	S	1	2400,00
M 10			S	1	2380,00
M 10	x	1	S	1	2700,00
M 10	x	1,25	S	1	2750,00
M 12			S	1	3200,00
M 12	x	1,25	S	1	3700,00
M 12	x	1,5	S	1	3550,00
M 14			S	1	4000,00
M 14	x	1,25	S	1	4200,00
M 14	x	1,5	S	1	4200,00
M 16			S	1	4650,00
M 16	x	1,5	S	1	4800,00
M 18			S	1	6700,00
M 20			S	1	8500,00
M 20	x	1,5	S	1	7600,00
M 20	x	2	S	1	13100,00

Dimensions			PU	Pieces	€/100/Mat.
M 24			S	1	10500,00
M 24	x	1,5	S	1	9900,00
M 24	x	2	S	1	12100,00

article 88339.000 915

88339



AMECOIL roughing taps for through and blind holes, 4-pitch point

Product information ➔ TI-150

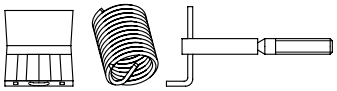
RoHS ✓ | REACh SVHC free

for inserts with thread M

M 18	S	1	7000,00
M 20	S	1	8800,00
M 22	S	1	9300,00
M 24	S	1	10900,00

article 88342.000 913

88342 AMECOIL assortment MINIKIT type SR



Content: 5 thread inserts, drill bit, tap, fitting tool

M 4	S	1	8300,00
M 5	S	1	8300,00
M 6	S	1	8300,00
M 8	S	1	9100,00
M 10	S	1	11100,00

article 88343.000 913

88343

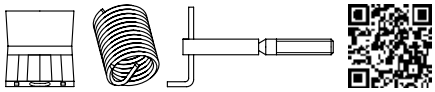


AMECOIL boxes, without content

Toolbox empty	S	1	2650,00

Dimensions		PU	Pieces	€/100/Mat.
article 88344.000				913

88344 AMECOIL assortment type SR



AMECOIL assortments, in each case with drill bit, tap, fitting tool and tang break

no.1 = 15 pieces each M 2,5-M 5, length = 1,5 d
no.2 = 15 pieces each M 4-M 8, length = 1,5 d
no.3 = 15 pieces each M 6-M 12, length = 1,5 d

No.1	S	1	33200,00
No.2	S	1	33200,00
No.3	S	1	33200,00

article 88346.922 910

88346 A 2 type B SR



Wire thread inserts DIN 8140, with engaging tang, B = with locking, for metric thread SR = AMECOIL type SR

Product information ➔ TI-150

RoHS ✓ | REACh SVHC free

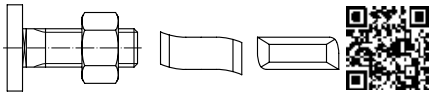
nominal size: thread M x installed length

BM 3	x	3	S	25	77,00	A 2
BM 3	x	4,5	S	25	89,00	A 2
BM 3	x	6	S	25	97,00	A 2
BM 4	x	4	S	25	66,00	A 2
BM 4	x	6	S	25	75,00	A 2
BM 4	x	8	S	25	78,00	A 2
BM 5	x	5	S	25	81,00	A 2
BM 5	x	7,5	S	25	93,00	A 2
BM 5	x	10	S	25	96,00	A 2
BM 6	x	6	S	25	93,00	A 2
BM 6	x	9	S	25	101,00	A 2
BM 6	x	12	S	25	106,00	A 2
BM 8	x	8	S	25	96,00	A 2
BM 8	x	12	S	25	110,00	A 2
BM 8	x	16	S	25	115,00	A 2
BM 10	x	10	S	25	131,00	A 2
BM 10	x	15	S	25	150,00	A 2
BM 10	x	20	S	25	156,00	A 2
BM 12	x	12	S	15	255,00	A 2
BM 12	x	18	S	15	295,00	A 2
BM 12	x	24	S	15	310,00	A 2
BM 16	x	16	S	10	490,00	A 2
BM 16	x	24	S	10	570,00	A 2
BM 16	x	32	S	10	590,00	A 2
BM 20	x	20	S	10	670,00	A 2
BM 20	x	30	S	10	760,00	A 2
BM 20	x	40	S	10	790,00	A 2
BM 24	x	24	S	10	1090,00	A 2
BM 24	x	36	S	10	1280,00	A 2
BM 24	x	48	S	10	1300,00	A 2

Dimensions | PU Pieces | €/100/Mat.

article 88928.940 985

88928 Mu A 4 HS 28/15



T-head bolts / Halfen bolts, Mu = with hexagon nut

for profiles 28/15, 28/12, 28/28, 26/26, head types subject to confirmation, head width ~22,5 mm

Material properties ➔ TI-236

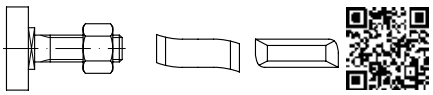
Steel ➔ pg. 442

ETA CE | RoHS ✓ | REACh SVHC free

M 10	x	40	S	50	990,00	A4
M 10	x	50	S	50	1060,00	A4
M 10	x	80	S	25	1300,00	A4

article 88938.940 985

88938 Mu A 4 HS 38/17



T-head bolts / Halfen bolts, Mu = with hexagon nut

for profiles 38/17, 36/20, 36/36, 35/50, head types subject to confirmation, head width ~30,5 mm

Material properties ➔ TI-236

Steel ➔ pg. 443

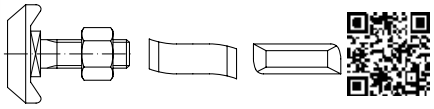
ETA CE | RoHS ✓ | REACh SVHC free

M 10	x	30	S	50	1380,00	A4
M 12	x	30	S	25	1400,00	A4
M 12	x	40	S	25	1440,00	A4
M 12	x	50	S	25	1550,00	A4
M 12	x	60	S	25	1790,00	A4
M 12	x	80	S	25	1830,00	A4
M 16	x	30	S	10	1880,00	A4
M 16	x	40	S	10	2120,00	A4
M 16	x	50	S	10	2230,00	A4
M 16	x	60	S	10	2330,00	A4
M 16	x	80	S	10	2800,00	A4
M 16	x	100	S	10	2950,00	A4

Dimensions | PU Pieces | €/100/Mat.

article 88940.940 985

88940 Mu A 4 HS 40/22



Hook bolts / Halfen bolts, Mu = with hexagon nut

for profiles 40/22, 40/25, 422, head types subject to confirmation, head width ~32,5 mm

Material properties ➔ TI-236

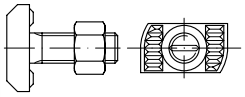
Steel ➔ pg. 443

ETA CE | RoHS ✓ | REACh SVHC free

M 10	x	30	S	50	2900,00	A4
M 10	x	40	S	50	2950,00	A4
M 10	x	50	S	50	3050,00	A4
M 12	x	30	S	25	1860,00	A4
M 12	x	40	S	25	2270,00	A4
M 12	x	50	S	25	2650,00	A4
M 12	x	80	S	25	2800,00	A4
M 16	x	50	S	10	2700,00	A4
M 16	x	80	S	10	3000,00	A4
M 16	x	100	S	10	3600,00	A4

article 88941.940 985

88941 Mu A 4 HZS 41/22



T-head bolts / Halfen bolts, Mu = with hexagon nut

for profiles HZA/HZM 41/22, head width ~34,5 mm

Material properties ➔ TI-236

Steel ➔ pg. 443

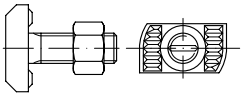
RoHS ✓ | REACh SVHC free

M 12	x	50	S	25	4700,00	A4
M 12	x	80	S	25	4950,00	A4
M 16	x	35	S	25	4650,00	A4
M 16	x	50	S	25	5200,00	A4

Dimensions | PU Pieces | €/100/Mat.

article 88943.940 985

88943 Mu A 4 HZS 38/23



T-head bolts / Halfen bolts, Mu = with hexagon nut

for profile 38/23 DYNAGRIP, head width ~28,8 mm

Material properties ➔ TI-236

Steel ➔ pg. 443

RoHS ✓ | REACh SVHC free

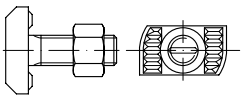
M 16	x	60	S	25	4450,00	A4
M 16	x	80	S	25	4850,00	A4

Attention!

Hot dip galvanized screw/nut assemblies can only be fastened with each other because the thread tolerances of these sets, according to ISO 10684 (DIN 267-10), match each other. The use with other screw or nut thread tolerances can lead to problems or failure of the fastening.

article 88944.940 985

88944 Mu A 4 - 70 HZS 53/34



T-head bolts / Halfen bolts, Mu = with hexagon nut

for profile HZA 53/34, head width ~41,6 mm

Material properties ➔ TI-236

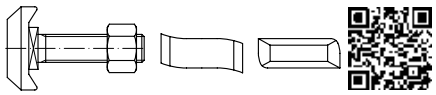
Steel ➔ pg. 444

RoHS ✓ | REACh SVHC free

M 16	x	60	S	25	5500,00	A4
M 16	x	100	S	25	6100,00	A4
M 20	x	65	S	25	5900,00	A4
M 20	x	100	S	25	6700,00	A4

Dimensions	PU Pieces	€/100/Mat.
article	88950.940	985

88950 Mu A 4 HS 50/30



Hook bolts / Halfen bolts, Mu = with hexagon nut

for profiles 50/30, 50/40, 49/30, 52/34, 54/33, 486, head types subject to confirmation, head width ~41 mm

Material properties ➔ TI-236

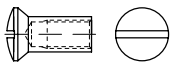
Steel ➔ pg. 444

ETA CE · RoHS ✓ · REACh SVHC free

M 12	x	30	S	25	2310,00 A4
M 12	x	40	S	25	2330,00 A4
M 12	x	50	S	25	2550,00 A4
M 16	x	40	S	10	4150,00 A4
M 16	x	50	S	10	4400,00 A4
M 16	x	60	S	10	4700,00 A4
M 16	x	80	S	10	5600,00 A4
M 20	x	55	S	10	4850,00 A4
M 20	x	75	S	10	5500,00 A4
M 20	x	100	S	10	5700,00 A4

article	88964.910	996

88964 A 1



Sleeve nuts with raised countersunk head, with internal thread

Dimensions ➔ TI-79 Material properties ➔ TI-236

RoHS ✓ · REACh SVHC free

internal thread M x length

M 4	x	14	S	100	265,00 A1
M 5	x	15	S	100	345,00 A1
M 6	x	15	S	100	395,00 A1
M 6	x	20	S	100	420,00 A1
M 8	x	15	S	100	710,00 A1
M 8	x	20	S	100	760,00 A1

Dimensions	PU Pieces	€/100/Mat.
article	89096.920	815

89096 A 2 PAN-Z



Chipboard screws, PAN = pan head, Z = Pozidriv cross recess

CE acc. EN 14592 starting from a thread length 4 x d

Caution!
Lower tightness compared to hardened steel.

Dimensions ➔ TI-52 Material properties ➔ TI-236

CE · RoHS ✓ · REACh SVHC free

Declaration of performance ➔ www.reyher.de

3	x	16 -Z	S	1000	11,00 A2
3	x	20 -Z	S	1000	11,20 A2
3	x	25 -Z	S	1000	11,50 A2
3	x	30 -Z	S	1000	12,20 A2
3,5	x	16 -Z	S	1000	12,20 A2
3,5	x	20 -Z	S	1000	12,60 A2
3,5	x	25 -Z	S	1000	13,10 A2
3,5	x	30 -Z	S	1000	13,60 A2
3,5	x	35 -Z	S	1000	15,60 A2
3,5	x	40 -Z	S	1000	16,00 A2
4	x	16 -Z	S	1000	14,10 A2
4	x	20 -Z	S	1000	15,60 A2
4	x	25 -Z	S	1000	16,50 A2
4	x	30 -Z	S	1000	17,50 A2
4	x	35 -Z	S	1000	20,40 A2
4	x	40 -Z	S	1000	21,30 A2
4	x	45 -Z	S	1000	22,30 A2
4	x	50 -Z	S	1000	23,30 A2
4,5	x	12 -Z	S	1000	20,90 A2
4,5	x	16 -Z	S	1000	18,00 A2
4,5	x	20 -Z	S	1000	16,50 A2
4,5	x	25 -Z	S	1000	17,50 A2
4,5	x	30 -Z	S	1000	19,40 A2
4,5	x	35 -Z	S	500	20,40 A2
4,5	x	40 -Z	S	500	22,30 A2
4,5	x	45 -Z	S	500	24,30 A2
4,5	x	50 -Z	S	500	31,50 A2
4,5	x	60 -Z	S	500	41,00 A2
5	x	20 -Z	S	1000	22,30 A2
5	x	25 -Z	S	1000	22,90 A2
5	x	30 -Z	S	1000	23,30 A2
5	x	35 -Z	S	1000	29,50 A2
5	x	40 -Z	S	1000	30,00 A2
5	x	45 -Z	S	1000	34,00 A2
5	x	50 -Z	S	500	35,00 A2
5	x	60 -Z	S	500	39,00 A2
5	x	70 -Z	S	500	62,00 A2
6	x	40 -Z	S	500	46,50 A2
6	x	45 -Z	S	500	49,50 A2
6	x	50 -Z	S	200	54,00 A2
6	x	60 -Z	S	200	60,00 A2
6	x	70 -Z	S	200	78,00 A2

Dimensions	PU Pieces	€/100/Mat.
article	89097.920	815

89097 A 2 CSK-Z



Chipboard screws, CSK = countersunk head, Z = Pozidriv cross recess

CE acc. EN 14592 starting from a thread length 4 x d

Caution!
Lower tightness compared to hardened steel.

Dimensions ➔ TI-52 Material properties ➔ TI-236

CE · RoHS ✓ · REACh SVHC free

Declaration of performance ➔ www.reyher.de

3	x	12 -Z	S	1000	10,00 A2
3	x	12 -Z	K	200	13,90 A2
3	x	16 -Z	S	1000	10,00 A2
3	x	16 -Z	K	200	13,90 A2
3	x	20 -Z	S	1000	10,90 A2
3	x	20 -Z	K	200	14,80 A2
3	x	25 -Z	S	1000	11,40 A2
3	x	25 -Z	K	200	15,30 A2
3	x	30 -Z	S	1000	12,10 A2
3	x	30 -Z	K	200	15,90 A2
3,5	x	16 -Z	S	1000	11,60 A2
3,5	x	16 -Z	K	200	15,50 A2
3,5	x	20 -Z	S	1000	12,10 A2
3,5	x	20 -Z	K	200	15,90 A2
3,5	x	25 -Z	S	1000	13,00 A2
3,5	x	25 -Z	K	200	16,50 A2
3,5	x	30 -Z	S	1000	13,40 A2
3,5	x	30 -Z	K	200	17,30 A2
3,5	x	35 -Z	S	1000	15,80 A2
3,5	x	35 -Z	K	200	19,60 A2
3,5	x	40 -Z	S	1000	16,20 A2
3,5	x	40 -Z	K	200	20,10 A2
3,5	x	45 -Z	S	1000	17,60 A2
3,5	x	45 -Z	K	200	24,20 A2
3,5	x	50 -Z	S	1000	21,80 A2
3,5	x	50 -Z	K	200	27,50 A2
4	x	16 -Z	S	1000	14,00 A2
4	x	16 -Z	K	200	17,80 A2
4	x	20 -Z	S	1000	15,10 A2
4	x	20 -Z	K	200	19,00 A2
4	x	25 -Z	S	1000	15,80 A2
4	x	25 -Z	K	200	19,60 A2
4	x	30 -Z	S	1000	17,60 A2
4	x	30 -Z	K	200	21,40 A2
4	x	35 -Z	S	1000	19,40 A2
4	x	35 -Z	K	200	23,20 A2
4	x	40 -Z	S	1000	20,50 A2
4	x	40 -Z	K	200	24,40 A2
4	x	45 -Z	S	1000	21,80 A2
4	x	45 -Z	K	200	26,00 A2
4	x	50 -Z	S	1000	22,90 A2
4	x	50 -Z	K	200	27,00 A2
4,5	x	20 -Z	S	1000	12,60 A2
4,5	x	20 -Z	K	200	21,50 A2
4,5	x	25 -Z	S	1000	18,00 A2
4,5	x	25 -Z	K	200	22,50 A2
4,5	x	30 -Z	S	1000	19,00 A2
4,5	x	30 -Z	K	200	22,90 A2
4,5	x	35 -Z	S	500	20,30 A2
4,5	x	35 -Z	K	200	24,20 A2
4,5	x	40 -Z	S	500	21,60 A2

Dimensions	PU	Pieces	€/100/Mat.
4,5 x 40 -Z	K	200	25,50 A2
4,5 x 45 -Z	S	500	23,70 A2
4,5 x 45 -Z	K	200	28,00 A2
4,5 x 50 -Z	S	500	30,00 A2
4,5 x 50 -Z	K	200	33,50 A2
4,5 x 60 -Z	S	500	40,00 A2
4,5 x 60 -Z	K	100	44,00 A2
5 x 20 -Z	S	1000	22,80 A2
5 x 20 -Z	K	200	28,50 A2
5 x 25 -Z	S	1000	22,40 A2
5 x 25 -Z	K	200	26,50 A2
5 x 30 -Z	S	1000	22,40 A2
5 x 30 -Z	K	200	26,50 A2
5 x 35 -Z	S	1000	28,50 A2
5 x 35 -Z	K	200	32,00 A2
5 x 40 -Z	S	1000	28,50 A2
5 x 40 -Z	K	200	32,50 A2
5 x 50 -Z	S	1000	34,50 A2
5 x 50 -Z	K	200	38,50 A2
5 x 60 -Z	S	500	48,50 A2
5 x 60 -Z	K	100	53,00 A2
5 x 70 -Z	S	500	62,00 A2
5 x 70 -Z	K	100	66,00 A2
5 x 80 -Z	S	500	69,00 A2
5 x 80 -Z	K	100	73,00 A2
6 x 40 -Z	S	500	36,50 A2
6 x 40 -Z	K	200	40,50 A2
6 x 50 -Z	S	200	51,00 A2
6 x 50 -Z	K	100	55,00 A2
6 x 60 -Z	S	200	59,00 A2
6 x 60 -Z	K	100	63,00 A2
6 x 70 -Z	S	200	77,00 A2
6 x 70 -Z	K	100	81,00 A2
6 x 80 -Z	S	200	83,00 A2
6 x 80 -Z	K	100	87,00 A2

article	89097.929	815

89097 A 2 CSK-Z-P



Chipboard screws,
CSK = countersunk head,
P = partially threaded,
Z = Pozidriv cross recess

CE acc. EN 14592 starting from a thread length 4 x d

Caution!
Lower tightness compared to hardened steel.

Dimensions ➔ TI-52 Material properties ➔ TI-236

Declaration of performance ➔ www.reyher.de

Dimensions	PU	Pieces	€/100/Mat.
4 x 40 -Z	S	1000	20,50 A2
4 x 40 -Z	K	200	24,40 A2
4 x 45 -Z	S	1000	21,80 A2
4 x 45 -Z	K	200	26,00 A2
4 x 50 -Z	S	1000	22,90 A2
4 x 50 -Z	K	200	27,00 A2
4 x 60 -Z	S	500	28,00 A2
4 x 60 -Z	K	100	32,00 A2
4 x 70 -Z	S	500	34,50 A2
4 x 70 -Z	K	100	39,00 A2
4 x 80 -Z	S	500	45,50 A2
4 x 80 -Z	K	100	53,00 A2
4,5 x 40 -Z	S	500	21,60 A2
4,5 x 40 -Z	K	200	25,50 A2

Dimensions	PU	Pieces	€/100/Mat.
4,5 x 45 -Z	S	500	23,70 A2
4,5 x 45 -Z	K	200	28,00 A2
4,5 x 50 -Z	S	500	30,00 A2
4,5 x 50 -Z	K	200	33,50 A2
4,5 x 60 -Z	S	500	40,00 A2
4,5 x 60 -Z	K	100	44,00 A2
4,5 x 70 -Z	S	500	47,50 A2
4,5 x 70 -Z	K	100	54,00 A2
5 x 50 -Z	S	1000	34,50 A2
5 x 50 -Z	K	200	38,50 A2
5 x 60 -Z	S	500	48,50 A2
5 x 60 -Z	K	100	53,00 A2
5 x 70 -Z	S	500	62,00 A2
5 x 70 -Z	K	100	66,00 A2
5 x 80 -Z	S	500	69,00 A2
5 x 80 -Z	K	100	73,00 A2
5 x 90 -Z	S	200	75,00 A2
5 x 90 -Z	K	100	79,00 A2
5 x 100 -Z	S	200	83,00 A2
5 x 100 -Z	K	100	87,00 A2
6 x 60 -Z	S	200	59,00 A2
6 x 60 -Z	K	100	63,00 A2
6 x 70 -Z	S	200	77,00 A2
6 x 70 -Z	K	100	81,00 A2
6 x 80 -Z	S	200	83,00 A2
6 x 80 -Z	K	100	87,00 A2
6 x 90 -Z	S	200	90,00 A2
6 x 90 -Z	K	100	94,00 A2
6 x 100 -Z	S	100	98,00 A2
6 x 110 -Z	S	100	118,00 A2
6 x 120 -Z	S	100	119,00 A2
6 x 130 -Z	S	100	142,00 A2
6 x 140 -Z	S	100	161,00 A2
6 x 150 -Z	S	100	190,00 A2

article	89098.920	815

89098 A 2 CSK-T



Chipboard screws
with thread up to head,
CSK = countersunk head,
T = hexalobular socket

CE acc. EN 14592 starting from a thread length 4 x d

Caution!
Lower tightness compared to hardened steel.

caps ➔ article 88006

Dimensions ➔ TI-52 Material properties ➔ TI-236

Declaration of performance ➔ www.reyher.de

Dimensions	PU	Pieces	€/100/Mat.
3 x 12 -T10	S	1000	17,50 A2
3 x 12 -T10	K	200	24,70 A2
3 x 16 -T10	S	1000	17,50 A2
3 x 16 -T10	K	200	24,70 A2
3 x 20 -T10	S	1000	19,20 A2
3 x 20 -T10	K	200	26,50 A2
3 x 25 -T10	S	1000	19,90 A2
3 x 25 -T10	K	200	27,00 A2
3 x 30 -T10	S	1000	21,20 A2
3 x 30 -T10	K	200	28,00 A2
3 x 35 -T10	S	1000	26,50 A2
3 x 35 -T10	K	200	34,50 A2
3 x 40 -T10	S	1000	35,00 A2
3 x 40 -T10	K	200	40,00 A2

Dimensions	PU	Pieces	€/100/Mat.
3,5 x 16 -T10	S	1000	20,40 A2
3,5 x 16 -T10	K	200	27,50 A2
3,5 x 20 -T10	S	1000	21,20 A2
3,5 x 20 -T10	K	200	28,00 A2
3,5 x 25 -T10	S	1000	22,30 A2
3,5 x 25 -T10	K	200	29,50 A2
3,5 x 30 -T10	S	1000	23,40 A2
3,5 x 30 -T10	K	200	30,50 A2
3,5 x 35 -T10	S	1000	28,00 A2
3,5 x 35 -T10	K	200	35,00 A2
3,5 x 40 -T10	S	1000	28,50 A2
3,5 x 40 -T10	K	200	35,50 A2
4 x 16 -T20	S	1000	24,70 A2
4 x 16 -T20	K	200	31,50 A2
4 x 20 -T20	S	1000	26,50 A2
4 x 20 -T20	K	200	33,50 A2
4 x 25 -T20	S	1000	28,00 A2
4 x 25 -T20	K	200	35,00 A2
4 x 30 -T20	S	1000	31,00 A2
4 x 30 -T20	K	200	38,00 A2
4 x 35 -T20	S	1000	34,00 A2
4 x 35 -T20	K	200	41,50 A2
4 x 40 -T20	S	1000	36,00 A2
4 x 40 -T20	K	200	43,00 A2
4 x 45 -T20	S	1000	38,50 A2
4 x 45 -T20	K	200	45,00 A2
4 x 50 -T20	S	1000	40,50 A2
4 x 50 -T20	K	200	47,50 A2
4,5 x 16 -T20	S	1000	28,50 A2
4,5 x 16 -T20	K	200	42,00 A2
4,5 x 20 -T20	S	1000	22,80 A2
4,5 x 20 -T20	K	200	38,00 A2
4,5 x 25 -T20	S	1000	32,00 A2
4,5 x 25 -T20	K	200	39,50 A2
4,5 x 30 -T20	S	1000	33,50 A2
4,5 x 30 -T20	K	200	40,50 A2
4,5 x 35 -T20	S	500	35,50 A2
4,5 x 35 -T20	K	200	43,00 A2
4,5 x 40 -T20	S	500	38,00 A2
4,5 x 40 -T20	K	200	45,00 A2
4,5 x 45 -T20	S	500	42,00 A2
4,5 x 45 -T20	K	200	48,50 A2
4,5 x 50 -T20	S	500	52,00 A2
4,5 x 50 -T20	K	200	59,00 A2
4,5 x 60 -T20	S	500	71,00 A2
4,5 x 60 -T20	K	100	78,00 A2
4,5 x 70 -T20	S	500	93,00 A2
4,5 x 70 -T20	K	100	106,00 A2
5 x 20 -T25	S	1000	40,00 A2
5 x 20 -T25	K	200	50,00 A2
5 x 25 -T25	S	1000	39,50 A2
5 x 25 -T25	K	200	47,50 A2
5 x 30 -T25	S	1000	39,50 A2
5 x 30 -T25	K	200	47,50 A2
5 x 35 -T25	S	1000	49,50 A2
5 x 35 -T25	K	200	57,00 A2
5 x 40 -T25	S	1000	50,00 A2
5 x 40 -T25	K	200	57,00 A2
5 x 50 -T25	S	1000	61,00 A2
5 x 50 -T25	K	200	68,00 A2
5 x 60 -T25	S	500	85,00 A2
5 x 60 -T25	K	100	92,00 A2
5 x 70 -T25	S	500	108,00 A2
5 x 70 -T25	K	100	115,00 A2
5 x 80 -T25	S	500	121,00 A2
5 x 80 -T25	K	100	129,00 A2
6 x 40 -T25	S	500	64,00 A2
6 x 40 -T25	K	200	71,00 A2
6 x 50 -T25	S	200	89,00 A2
6 x 50 -T25	K	100	97,00 A2
6 x 60 -T25	S	200	104,00 A2
6 x 60 -T25	K	100	111,00 A2
6 x 70 -T25	S	200	134,00 A2
6 x 70 -T25	K	100	141,00 A2

Dimensions	PU	Pieces	€/100/Mat.
article	89098.929		815

89098 A 2 CSK-T P



Chipboard screws,
CSK = countersunk head,
P = partially threaded,
T = hexalobular socket

CE acc. EN 14592 starting from a thread length 4 x d

Caution!
Lower tightness compared to hardened steel.

caps ➔ article 88006

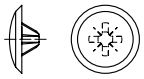
Dimensions ➔ TI-52 Material properties ➔ TI-236

Declaration of performance ➔ www.reyher.de

3,5	x	30	-T10	S	1000	23,40 A 2
3,5	x	30	-T10	K	200	30,50 A 2
3,5	x	35	-T10	S	1000	28,00 A 2
3,5	x	35	-T10	K	200	35,00 A 2
3,5	x	40	-T10	S	1000	28,50 A 2
3,5	x	40	-T10	K	200	35,50 A 2
4	x	30	-T20	S	1000	31,00 A 2
4	x	30	-T20	K	200	38,00 A 2
4	x	35	-T20	S	1000	34,00 A 2
4	x	35	-T20	K	200	41,50 A 2
4	x	40	-T20	S	1000	36,00 A 2
4	x	40	-T20	K	200	43,00 A 2
4	x	45	-T20	S	1000	38,50 A 2
4	x	45	-T20	K	200	45,00 A 2
4	x	50	-T20	S	1000	40,50 A 2
4	x	50	-T20	K	200	47,50 A 2
4	x	60	-T20	S	500	49,00 A 2
4	x	60	-T20	K	100	57,00 A 2
4	x	70	-T20	S	500	61,00 A 2
4	x	70	-T20	K	100	69,00 A 2
4	x	80	-T20	S	500	80,00 A 2
4	x	80	-T20	K	100	92,00 A 2
4,5	x	40	-T20	S	500	38,00 A 2
4,5	x	40	-T20	K	200	45,00 A 2
4,5	x	45	-T20	S	500	42,00 A 2
4,5	x	45	-T20	K	200	48,50 A 2
4,5	x	50	-T20	S	500	52,00 A 2
4,5	x	50	-T20	K	200	59,00 A 2
4,5	x	60	-T20	S	500	71,00 A 2
4,5	x	60	-T20	K	100	78,00 A 2
4,5	x	70	-T20	S	500	93,00 A 2
4,5	x	70	-T20	K	100	106,00 A 2
5	x	40	-T25	S	1000	50,00 A 2
5	x	40	-T25	K	200	57,00 A 2
5	x	45	-T25	S	1000	58,00 A 2
5	x	45	-T25	K	200	63,00 A 2
5	x	50	-T25	S	1000	61,00 A 2
5	x	50	-T25	K	200	68,00 A 2
5	x	60	-T25	S	500	85,00 A 2
5	x	60	-T25	K	100	92,00 A 2
5	x	70	-T25	S	500	108,00 A 2
5	x	70	-T25	K	100	115,00 A 2
5	x	80	-T25	S	500	121,00 A 2
5	x	80	-T25	K	100	129,00 A 2
5	x	90	-T25	S	200	132,00 A 2
5	x	90	-T25	K	100	139,00 A 2
5	x	100	-T25	S	200	144,00 A 2
5	x	100	-T25	K	100	152,00 A 2
5	x	120	-T25	S	200	165,00 A 2
5	x	120	-T25	K	100	173,00 A 2
6	x	60	-T25	S	200	104,00 A 2
6	x	60	-T25	K	100	111,00 A 2
6	x	70	-T25	S	200	134,00 A 2
6	x	70	-T25	K	100	141,00 A 2
6	x	80	-T25	S	200	152,00 A 2
6	x	80	-T25	K	100	152,00 A 2
6	x	90	-T25	S	200	157,00 A 2
6	x	90	-T25	K	100	164,00 A 2
6	x	100	-T25	S	100	171,00 A 2
6	x	110	-T25	S	100	206,00 A 2
6	x	120	-T25	S	100	237,00 A 2
6	x	130	-T25	S	100	250,00 A 2
6	x	140	-T25	S	100	285,00 A 2
6	x	150	-T25	S	100	335,00 A 2
6	x	160	-T25	S	100	260,00 A 2
6	x	180	-T25	S	100	335,00 A 2
6	x	200	-T25	S	100	430,00 A 2
8	x	70	-T40	S	50	201,00 A 2
8	x	80	-T40	S	50	228,00 A 2
8	x	90	-T40	S	50	237,00 A 2
8	x	100	-T40	S	50	260,00 A 2
8	x	120	-T40	S	50	345,00 A 2
8	x	140	-T40	S	50	475,00 A 2

article	88002.(*)	800

88002 Plastic Z



Caps for countersunk head screws with Pozidriv cross recess Z

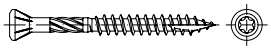
white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

REACH ➔ TI-262

cross recess no.	x caps ∅ / for screws ∅			
1	x 8 / 3	S	1000	2,10 plastic
2	x 12 / 3,5-5	S	1000	2,10 plastic
3	x 13 / 5,5-6	S	1000	2,25 plastic

Dimensions	PU	Pieces	€/100/Mat.
article	89192.902		818

89192 Stainless steel C1 ISR



Terraces screws,
countersunk head with cutting ribs,
ISR = hexalobular socket

nominal ∅ x nominal length / thread length approx. - Bit-size

5	x	40/26	-T25	S	200	65,00
5	x	50/30	-T25	S	200	79,00
5	x	60/36	-T25	S	200	111,00
5	x	70/42	-T25	S	200	141,00

E-Business

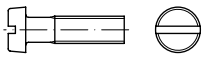
Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML


REYHER

Dimensions	PU	Pieces	€/100/Mat.
DIN 00084.704			30

84 Brass turned bare



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 65
Stainless ➔ pg. 455

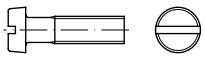
DIN 84 ➔ replaced by ISO 1207 (compatible)

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 1	x	2	S	100	52,00 brass turned
M 1	x	3	S	100	53,00 brass turned
M 1	x	4	S	100	53,00 brass turned
M 1	x	5	S	100	56,00 brass turned
M 1	x	6	S	100	61,00 brass turned
M 1	x	8	S	100	68,00 brass turned
M 1	x	10	S	100	77,00 brass turned
M 1,4	x	3	S	100	50,00 brass turned
M 1,4	x	4	S	100	52,00 brass turned
M 1,4	x	5	S	100	53,00 brass turned
M 1,4	x	6	S	100	58,00 brass turned
M 1,4	x	8	S	100	67,00 brass turned
M 1,4	x	10	S	100	75,00 brass turned
M 1,4	x	12	S	100	93,00 brass turned
M 1,4	x	16	S	100	98,00 brass turned
M 1,6	x	4	S	100	46,50 brass turned
M 1,6	x	5	S	100	47,50 brass turned
M 1,6	x	6	S	100	49,00 brass turned
M 1,6	x	8	S	100	56,00 brass turned
M 1,6	x	10	S	100	58,00 brass turned
M 1,6	x	12	S	100	65,00 brass turned
M 1,6	x	16	S	100	73,00 brass turned

DIN	00084.700	30

84 Brass



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

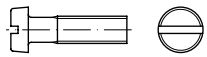
Steel ➔ pg. 65
Stainless ➔ pg. 455

DIN 84 ➔ replaced by ISO 1207 (compatible)

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
M 2	x	4	K	200	14,10 brass
M 2	x	5	K	200	13,30 brass
M 2	x	6	K	200	12,40 brass
M 2	x	8	K	200	11,00 brass
M 2	x	10	K	200	11,40 brass
M 2	x	12	K	200	12,00 brass
M 2	x	16	K	200	13,30 brass
M 2	x	20	K	200	14,60 brass
M 2,5	x	3	K	200	27,00 brass
M 2,5	x	4	K	200	11,20 brass
M 2,5	x	5	K	200	11,70 brass
M 2,5	x	6	K	200	11,60 brass
M 2,5	x	8	K	200	11,00 brass
M 2,5	x	10	K	200	11,40 brass
M 2,5	x	12	K	200	12,00 brass
M 2,5	x	16	K	200	13,30 brass
M 2,5	x	20	K	200	14,60 brass
M 3	x	4	S	1000	9,30 brass
M 3	x	4	K	200	12,00 brass
M 3	x	5	S	1000	8,70 brass
M 3	x	5	K	200	11,30 brass
M 3	x	6	S	1000	6,90 brass
M 3	x	6	K	200	9,60 brass
M 3	x	8	S	1000	7,10 brass
M 3	x	8	K	200	9,70 brass
M 3	x	10	S	1000	7,30 brass
M 3	x	10	K	200	10,00 brass
M 3	x	12	S	1000	7,70 brass
M 3	x	12	K	200	10,40 brass
M 3	x	16	S	1000	8,80 brass
M 3	x	16	K	200	11,40 brass
M 3	x	18	K	200	12,80 brass
M 3	x	20	S	1000	10,10 brass
M 3	x	20	K	200	13,10 brass
M 3	x	25	S	1000	11,30 brass
M 3	x	25	K	200	14,00 brass
M 3	x	30	S	1000	13,80 brass
M 3	x	30	K	200	16,50 brass
M 3	x	35	K	200	17,30 brass
M 3	x	40	K	200	23,40 brass
M 3	x	45	K	200	31,00 brass
M 3	x	50	K	200	37,00 brass
M 3,5	x	8	K	200	13,80 brass
M 3,5	x	10	K	200	14,40 brass
M 3,5	x	12	K	200	14,60 brass
M 3,5	x	16	K	200	17,00 brass
M 3,5	x	20	K	200	19,40 brass
M 4	x	5	S	1000	10,70 brass
M 4	x	5	K	200	13,30 brass
M 4	x	6	S	1000	9,50 brass
M 4	x	6	K	200	12,10 brass
M 4	x	8	S	1000	10,30 brass
M 4	x	8	K	200	12,90 brass
M 4	x	10	S	1000	10,70 brass
M 4	x	10	K	200	13,30 brass
M 4	x	12	S	1000	10,90 brass
M 4	x	12	K	200	13,60 brass
M 4	x	16	S	1000	13,00 brass
M 4	x	16	K	200	15,70 brass
M 4	x	20	S	1000	15,20 brass
M 4	x	20	K	200	17,80 brass
M 4	x	25	S	1000	16,00 brass
M 4	x	25	K	200	18,60 brass
M 4	x	30	S	1000	18,90 brass
M 4	x	30	K	200	21,50 brass
M 4	x	35	S	1000	21,00 brass
M 4	x	35	K	200	23,60 brass
M 4	x	40	S	1000	22,80 brass
M 4	x	40	K	200	25,50 brass
M 4	x	45	K	200	31,00 brass
M 4	x	50	K	200	33,00 brass
M 4	x	60	K	200	56,00 brass
M 5	x	6	K	200	20,50 brass
M 5	x	8	K	200	18,30 brass
M 5	x	10	S	1000	16,00 brass
M 5	x	10	K	200	18,60 brass
M 5	x	12	S	1000	16,50 brass
M 5	x	12	K	200	19,10 brass
M 5	x	16	S	1000	18,90 brass
M 5	x	16	K	200	21,50 brass
M 5	x	20	S	1000	20,70 brass
M 5	x	20	K	200	23,40 brass
M 5	x	22	K	200	25,50 brass
M 5	x	25	S	1000	23,10 brass
M 5	x	25	K	200	26,00 brass
M 5	x	30	S	1000	27,00 brass
M 5	x	30	K	200	29,50 brass
M 5	x	35	S	1000	34,50 brass
M 5	x	35	K	200	37,50 brass
M 5	x	40	S	500	37,00 brass
M 5	x	40	K	200	39,50 brass
M 5	x	45	K	200	43,00 brass
M 5	x	50	K	200	45,50 brass
M 5	x	60	K	200	56,00 brass
M 5	x	70	K	200	69,00 brass
M 6	x	8	K	200	29,50 brass
M 6	x	10	S	1000	21,50 brass
M 6	x	10	K	200	24,20 brass
M 6	x	12	S	1000	24,20 brass
M 6	x	12	K	200	27,00 brass
M 6	x	16	S	1000	28,00 brass
M 6	x	16	K	200	30,50 brass
M 6	x	18	K	200	32,00 brass
M 6	x	20	S	1000	30,50 brass
M 6	x	20	K	200	33,50 brass
M 6	x	25	S	1000	33,00 brass
M 6	x	25	K	200	35,50 brass
M 6	x	30	S	500	37,50 brass
M 6	x	30	K	200	40,50 brass
M 6	x	35	K	200	45,50 brass
M 6	x	40	K	200	49,00 brass
M 6	x	45	K	200	56,00 brass
M 6	x	50	K	200	59,00 brass
M 6	x	60	K	100	75,00 brass
M 6	x	70	K	100	85,00 brass
M 6	x	80	K	100	92,00 brass
M 8	x	10	K	100	73,00 brass
M 8	x	12	K	100	71,00 brass
M 8	x	16	K	100	64,00 brass
M 8	x	20	K	100	68,00 brass
M 8	x	25	K	100	71,00 brass
M 8	x	30	K	100	81,00 brass
M 8	x	35	K	100	87,00 brass
M 8	x	40	K	100	92,00 brass
M 8	x	45	K	100	107,00 brass
M 8	x	50	K	100	113,00 brass
M 8	x	60	K	100	134,00 brass
M 10	x	16	K	100	101,00 brass
M 10	x	20	K	100	99,00 brass
M 10	x	25	K	100	112,00 brass
M 10	x	30	K	100	121,00 brass
M 10	x	35	K	100	134,00 brass
M 10	x	40	K	100	149,00 brass
M 10	x	45	K	100	160,00 brass
M 10	x	50	K	100	170,00 brass

Dimensions	PU Pieces	€/100/Mat.
DIN	00084.730	30
84	**Brass nickel plated**	



Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 65
Stainless ➔ pg. 455

DIN 84 ➔ replaced by ISO 1207 (compatible)

RoHS ✓

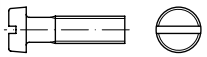
M 2,5	x	6	K	200	10,30 brass Ni
M 2,5	x	8	K	200	9,50 brass Ni
M 2,5	x	10	K	200	9,90 brass Ni
M 2,5	x	16	K	200	11,80 brass Ni
M 3	x	6	K	200	8,10 brass Ni
M 3	x	8	K	200	8,10 brass Ni
M 3	x	10	K	200	8,40 brass Ni
M 3	x	12	K	200	8,90 brass Ni
M 3	x	16	K	200	10,00 brass Ni
M 3	x	20	K	200	11,20 brass Ni
M 3	x	25	K	200	12,40 brass Ni
M 3	x	30	K	200	15,20 brass Ni
M 4	x	6	K	200	10,70 brass Ni
M 4	x	8	K	200	11,30 brass Ni
M 4	x	10	K	200	11,80 brass Ni
M 4	x	12	K	200	12,10 brass Ni
M 4	x	16	K	200	14,40 brass Ni
M 4	x	20	K	200	16,70 brass Ni
M 4	x	25	K	200	17,80 brass Ni
M 4	x	30	K	200	21,00 brass Ni
M 4	x	40	K	200	25,50 brass Ni
M 5	x	10	K	200	17,80 brass Ni
M 5	x	16	K	200	21,30 brass Ni
M 5	x	20	K	200	23,40 brass Ni
M 5	x	30	K	200	30,50 brass Ni
M 6	x	10	K	200	24,40 brass Ni
M 6	x	16	K	200	31,50 brass Ni
M 6	x	20	K	200	33,50 brass Ni

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Dimensions	PU Pieces	€/100/Mat.
DIN	00084.600	30
84	**Plastic PA**	



Slotted cheese head screws

Caution! Rough tolerances as per VDI 2544.

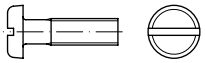
nuts ➔ DIN 555

Dimensions ➔ TI-37
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 65
Stainless ➔ pg. 455

M 2,5	x	6	S	200	8,20 plastic
M 2,5	x	8	S	200	8,30 plastic
M 2,5	x	10	S	200	8,40 plastic
M 2,5	x	16	S	200	8,50 plastic
M 3	x	4	S	200	5,80 plastic
M 3	x	5	S	200	5,90 plastic
M 3	x	6	S	200	6,00 plastic
M 3	x	8	S	200	6,10 plastic
M 3	x	10	S	200	6,20 plastic
M 3	x	12	S	200	6,30 plastic
M 3	x	16	S	200	6,40 plastic
M 3	x	20	S	200	6,50 plastic
M 3	x	25	S	200	6,60 plastic
M 3	x	30	S	200	6,80 plastic
M 4	x	6	S	200	6,00 plastic
M 4	x	8	S	200	6,10 plastic
M 4	x	10	S	200	6,30 plastic
M 4	x	12	S	200	6,50 plastic
M 4	x	16	S	200	6,60 plastic
M 4	x	20	S	200	6,90 plastic
M 4	x	25	S	200	7,20 plastic
M 4	x	30	S	200	7,70 plastic
M 4	x	35	S	200	8,10 plastic
M 4	x	40	S	200	8,30 plastic
M 5	x	6	S	200	6,80 plastic
M 5	x	8	S	200	6,90 plastic
M 5	x	10	S	200	7,20 plastic
M 5	x	12	S	200	7,40 plastic
M 5	x	16	S	200	7,90 plastic
M 5	x	20	S	200	9,20 plastic
M 5	x	25	S	200	9,60 plastic
M 5	x	30	S	200	10,30 plastic
M 5	x	35	S	200	11,00 plastic
M 5	x	40	S	200	11,60 plastic
M 5	x	50	S	200	12,90 plastic
M 6	x	8	S	200	18,60 plastic
M 6	x	10	S	200	8,20 plastic
M 6	x	12	S	200	8,30 plastic
M 6	x	16	S	200	8,70 plastic
M 6	x	20	S	200	9,60 plastic
M 6	x	25	S	200	10,40 plastic
M 6	x	30	S	200	12,60 plastic
M 6	x	35	S	200	13,20 plastic
M 6	x	40	S	200	13,60 plastic
M 6	x	45	S	200	14,00 plastic
M 6	x	50	S	200	14,40 plastic
M 6	x	60	S	100	15,70 plastic
M 6	x	70	S	100	16,60 plastic
M 8	x	16	S	200	17,30 plastic
M 8	x	20	S	200	18,90 plastic
M 8	x	25	S	200	20,10 plastic
M 8	x	30	S	200	21,60 plastic
M 8	x	40	S	100	23,90 plastic
M 8	x	50	S	100	25,50 plastic

Dimensions	PU Pieces	€/100/Mat.
DIN	00085.700	30
85	**Brass**	



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

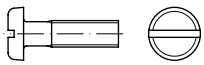
Steel ➔ pg. 67
Stainless ➔ pg. 457

DIN 85 ➔ replaced by ISO 1580 (compatible)

RoHS ✓

M 3	x	4	K	200	10,00 brass
M 3	x	5	K	200	9,20 brass
M 3	x	6	K	200	7,50 brass
M 3	x	8	K	200	7,60 brass
M 3	x	10	K	200	7,90 brass
M 3	x	12	K	200	8,40 brass
M 3	x	16	K	200	9,60 brass
M 3	x	20	K	200	10,90 brass
M 3	x	25	K	200	12,40 brass
M 3	x	30	K	200	15,20 brass
M 4	x	6	K	200	10,40 brass
M 4	x	8	K	200	11,00 brass
M 4	x	10	K	200	11,60 brass
M 4	x	12	K	200	11,80 brass
M 4	x	16	K	200	14,10 brass
M 4	x	20	K	200	16,50 brass
M 4	x	25	K	200	17,30 brass
M 4	x	30	K	200	20,50 brass
M 4	x	35	K	200	23,10 brass
M 4	x	40	K	200	25,00 brass
M 5	x	6	K	200	19,40 brass
M 5	x	8	K	200	17,00 brass
M 5	x	10	K	200	17,30 brass
M 5	x	12	K	200	17,80 brass
M 5	x	16	K	200	20,50 brass
M 5	x	20	K	200	22,60 brass
M 5	x	25	K	200	25,50 brass
M 5	x	30	K	200	29,50 brass
M 5	x	35	K	200	38,00 brass
M 5	x	40	K	200	40,00 brass
M 6	x	10	K	200	23,60 brass
M 6	x	12	K	200	27,00 brass
M 6	x	16	K	200	30,50 brass
M 6	x	20	K	200	34,00 brass
M 6	x	25	K	200	36,00 brass
M 6	x	30	K	200	41,50 brass
M 6	x	35	K	200	47,00 brass
M 6	x	40	K	200	51,00 brass

Dimensions			PU	Pieces	€/100/Mat.
DIN	00085.600				30
85	**Plastic PA**				
M 3	x	6	S	200	6,40 plastic
M 3	x	8	S	200	6,50 plastic
M 3	x	10	S	200	6,90 plastic
M 3	x	12	S	200	7,20 plastic
M 4	x	5	S	200	10,00 plastic
M 4	x	6	S	200	10,50 plastic
M 4	x	8	S	200	12,00 plastic
M 4	x	10	S	200	7,00 plastic
M 4	x	12	S	200	7,10 plastic
M 4	x	16	S	200	7,30 plastic
M 4	x	20	S	200	7,60 plastic
M 5	x	8	S	200	7,70 plastic
M 5	x	10	S	200	7,90 plastic
M 5	x	12	S	200	8,30 plastic
M 5	x	16	S	200	8,70 plastic
M 5	x	20	S	200	10,10 plastic
M 6	x	10	S	200	9,00 plastic
M 6	x	16	S	200	9,60 plastic
M 6	x	20	S	200	10,60 plastic
M 6	x	25	S	200	12,50 plastic
M 6	x	30	S	200	13,80 plastic



Slotted pan head screws

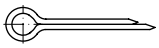
Caution! Rough tolerances as per VDI 2544.

nuts ➔ DIN 555

Dimensions ➔ TI-37 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 67
Stainless ➔ pg. 457

DIN	00094.700				40
94	**Brass**				
1,6	x	10	S	200	12,80 brass
1,6	x	12	S	200	12,90 brass
1,6	x	16	S	200	13,00 brass
1,6	x	20	S	200	13,20 brass
1,6	x	25	S	200	14,10 brass
2	x	10	S	100	15,40 brass
2	x	12	S	100	15,60 brass
2	x	16	S	100	15,80 brass
2	x	20	S	100	16,00 brass
2	x	25	S	100	17,00 brass



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 69
Stainless ➔ pg. 458

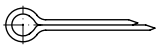
DIN 94 ➔ replaced by ISO 1234

RoHS ✓

nominal ∅ = drilling ∅ x length

Dimensions			PU	Pieces	€/100/Mat.
2	x	32	S	100	18,90 brass
2	x	40	S	100	20,70 brass
2	x	50	S	100	30,00 brass
3,2	x	16	S	100	22,30 brass
3,2	x	20	S	100	23,40 brass
3,2	x	25	S	100	26,00 brass
3,2	x	32	S	100	30,00 brass
3,2	x	36	S	100	32,00 brass
3,2	x	40	S	100	34,00 brass
3,2	x	50	S	100	39,00 brass
3,2	x	63	S	100	46,00 brass
4	x	20	S	100	33,00 brass
4	x	25	S	100	37,50 brass
4	x	32	S	100	43,00 brass
4	x	36	S	100	46,50 brass
4	x	40	S	100	50,00 brass
4	x	50	S	100	59,00 brass
4	x	63	S	100	69,00 brass
5	x	32	S	100	62,00 brass
5	x	36	S	100	66,00 brass
5	x	40	S	100	72,00 brass
5	x	50	S	100	84,00 brass
5	x	63	S	100	103,00 brass
6,3	x	50	S	100	124,00 brass
6,3	x	63	S	50	154,00 brass
6,3	x	100	S	50	223,00 brass

DIN	00094.301				40
94	**Copper**				
2	x	16	S	100	15,40 Cu
2	x	20	S	100	16,00 Cu
2	x	25	S	100	17,30 Cu
2	x	40	S	100	20,70 Cu
3,2	x	20	S	100	23,90 Cu
3,2	x	25	S	100	27,00 Cu
3,2	x	32	S	100	30,50 Cu
3,2	x	36	S	100	32,50 Cu
3,2	x	40	S	100	34,50 Cu
3,2	x	50	S	100	40,50 Cu
4	x	25	S	100	38,50 Cu
4	x	32	S	100	45,00 Cu
4	x	36	S	100	48,00 Cu
4	x	40	S	100	52,00 Cu
4	x	50	S	100	61,00 Cu
4	x	63	S	100	73,00 Cu
5	x	32	S	100	65,00 Cu
5	x	36	S	100	71,00 Cu
5	x	40	S	100	76,00 Cu
5	x	50	S	100	89,00 Cu
5	x	63	S	100	108,00 Cu
5	x	71	S	100	118,00 Cu
5	x	80	S	100	129,00 Cu
6,3	x	50	S	100	122,00 Cu
6,3	x	63	S	50	149,00 Cu
6,3	x	80	S	50	181,00 Cu



Split pins

Dimensions ➔ TI-22 Standard conversion ➔ TI-10
Material properties ➔ TI-239

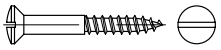
Steel ➔ pg. 69
Stainless ➔ pg. 458

DIN 94 ➔ replaced by ISO 1234

RoHS ✓ REACh SVHC free

nominal ∅ = drilling ∅ x length

Dimensions			PU	Pieces	€/100/Mat.
DIN	00095.700				50
95	**Brass**				
1,6	x	10	S	500	5,90 brass
1,6	x	12	S	500	6,00 brass
2	x	8	S	500	6,10 brass
2	x	10	S	500	6,20 brass
2	x	12	S	500	6,40 brass
2	x	16	S	500	6,80 brass
2	x	20	S	500	7,10 brass
2,5	x	10	S	500	5,60 brass
2,5	x	12	S	500	5,70 brass
2,5	x	16	S	500	5,80 brass
2,5	x	20	S	500	6,30 brass
2,5	x	25	S	500	8,40 brass
3	x	10	S	200	5,50 brass
3	x	12	S	200	5,60 brass
3	x	16	S	200	5,80 brass
3	x	20	S	200	6,20 brass
3	x	25	S	200	6,60 brass
3	x	30	S	200	6,90 brass
3	x	35	S	200	9,30 brass
3	x	40	S	200	12,40 brass
3,5	x	10	S	200	8,10 brass
3,5	x	12	S	200	7,90 brass
3,5	x	16	S	200	5,10 brass
3,5	x	20	S	200	5,60 brass
3,5	x	25	S	200	6,80 brass
3,5	x	30	S	200	8,10 brass
3,5	x	35	S	200	9,30 brass
3,5	x	40	S	200	12,40 brass
3,5	x	45	S	200	14,90 brass
3,5	x	50	S	200	18,10 brass
4	x	12	S	200	10,70 brass
4	x	16	S	200	7,70 brass
4	x	20	S	200	7,50 brass
4	x	25	S	200	8,30 brass
4	x	30	S	200	9,50 brass
4	x	35	S	200	10,70 brass
4	x	40	S	200	12,00 brass
4	x	45	S	200	13,80 brass
4	x	50	S	200	16,40 brass
4	x	55	S	200	27,50 brass
4	x	60	S	200	30,50 brass
4,5	x	16	S	200	15,30 brass
4,5	x	20	S	200	11,00 brass
4,5	x	25	S	200	11,50 brass
4,5	x	30	S	200	13,60 brass
4,5	x	35	S	200	14,10 brass
4,5	x	40	S	200	14,60 brass
4,5	x	45	S	200	16,50 brass
4,5	x	50	S	200	18,90 brass
4,5	x	60	S	200	24,60 brass
4,5	x	70	S	200	53,00 brass
5	x	16	S	200	23,40 brass
5	x	20	S	200	16,70 brass



Slotted raised countersunk head wood screws

Dimensions ➔ TI-50 REACH ➔ TI-262
Material properties ➔ TI-239

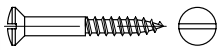
Steel ➔ pg. 70
Stainless ➔ pg. 459

RoHS ✓

Dimensions			PU	Pieces	€/100/Mat.
5	x	25	S	200	16,90 brass
5	x	30	S	200	17,20 brass
5	x	35	S	200	18,60 brass
5	x	40	S	200	19,70 brass
5	x	45	S	200	20,20 brass
5	x	50	S	200	22,30 brass
5	x	55	S	200	29,50 brass
5	x	60	S	200	31,00 brass
5	x	70	S	200	34,00 brass
5	x	80	S	200	53,00 brass
5	x	90	S	200	72,00 brass
5	x	100	S	200	75,00 brass
6	x	20	S	200	35,50 brass
6	x	25	S	200	36,00 brass
6	x	30	S	200	36,50 brass
6	x	35	S	200	37,00 brass
6	x	40	S	200	37,50 brass
6	x	50	S	200	38,00 brass
6	x	60	S	100	38,50 brass
6	x	70	S	100	53,00 brass
6	x	80	S	100	60,00 brass
6	x	90	S	100	66,00 brass
6	x	100	S	100	70,00 brass
8	x	50	S	100	112,00 brass

DIN 00095.730 50

95 Brass nickel plated



Slotted raised countersunk head wood screws

Dimensions → TI-50 REACH → TI-262
Material properties → TI-239

Steel → pg. 70
Stainless → pg. 459

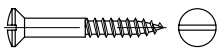
RoHS ✓

1,6	x	10	S	500	7,10 brass Ni
1,6	x	12	S	500	7,00 brass Ni
2	x	10	S	500	6,80 brass Ni
2	x	12	S	500	6,70 brass Ni
2	x	16	S	500	8,10 brass Ni
2,5	x	10	S	500	7,10 brass Ni
2,5	x	12	S	500	6,90 brass Ni
2,5	x	16	S	500	7,20 brass Ni
2,5	x	20	S	500	8,10 brass Ni
2,5	x	25	S	500	10,00 brass Ni
3	x	10	S	200	6,40 brass Ni
3	x	12	S	200	6,30 brass Ni
3	x	16	S	200	5,70 brass Ni
3	x	20	S	200	6,40 brass Ni
3	x	25	S	200	7,50 brass Ni
3	x	30	S	200	9,50 brass Ni
3	x	35	S	200	11,40 brass Ni
3	x	40	S	200	14,90 brass Ni
3,5	x	12	S	200	8,90 brass Ni
3,5	x	16	S	200	6,30 brass Ni
3,5	x	20	S	200	6,90 brass Ni
3,5	x	25	S	200	8,50 brass Ni
3,5	x	30	S	200	10,00 brass Ni
3,5	x	35	S	200	11,60 brass Ni
3,5	x	40	S	200	15,00 brass Ni
4	x	12	S	200	12,10 brass Ni
4	x	16	S	200	8,90 brass Ni
4	x	20	S	200	9,10 brass Ni

Dimensions			PU	Pieces	€/100/Mat.
4	x	25	S	200	10,10 brass Ni
4	x	30	S	200	11,60 brass Ni
4	x	35	S	200	13,00 brass Ni
4	x	40	S	200	14,60 brass Ni
4	x	45	S	200	16,70 brass Ni
4	x	50	S	200	19,70 brass Ni
4	x	60	S	200	29,00 brass Ni
4	x	70	S	200	53,00 brass Ni
4,5	x	16	S	200	13,40 brass Ni
4,5	x	20	S	200	12,90 brass Ni
4,5	x	25	S	200	13,20 brass Ni
4,5	x	30	S	200	16,20 brass Ni
4,5	x	35	S	200	17,00 brass Ni
4,5	x	40	S	200	17,80 brass Ni
4,5	x	45	S	200	20,20 brass Ni
4,5	x	50	S	200	23,00 brass Ni
4,5	x	60	S	200	30,00 brass Ni
5	x	20	S	200	19,00 brass Ni
5	x	25	S	200	19,70 brass Ni
5	x	30	S	200	20,10 brass Ni
5	x	35	S	200	22,30 brass Ni
5	x	40	S	200	23,60 brass Ni
5	x	45	S	200	24,60 brass Ni
5	x	50	S	200	27,50 brass Ni
5	x	60	S	200	33,00 brass Ni
5	x	70	S	200	41,50 brass Ni
5	x	80	S	200	72,00 brass Ni
6	x	40	S	200	40,50 brass Ni
6	x	50	S	200	42,50 brass Ni
6	x	60	S	100	47,50 brass Ni
6	x	70	S	100	64,00 brass Ni
6	x	80	S	100	74,00 brass Ni
6	x	90	S	100	79,00 brass Ni
6	x	100	S	100	81,00 brass Ni

DIN 00095.740 50

95 Brass chrome plated



Slotted raised countersunk head wood screws

Dimensions → TI-50 REACH → TI-262
Material properties → TI-239

Steel → pg. 70
Stainless → pg. 459

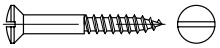
RoHS ✓

3	x	12	S	200	7,50 brass Cr
3	x	16	S	200	6,90 brass Cr
3	x	20	S	200	7,90 brass Cr
3	x	25	S	200	9,10 brass Cr
3	x	30	S	200	11,60 brass Cr
3	x	35	S	200	13,80 brass Cr
3	x	40	S	200	17,50 brass Cr
3,5	x	12	S	200	10,30 brass Cr
3,5	x	16	S	200	7,90 brass Cr
3,5	x	20	S	200	8,90 brass Cr
3,5	x	25	S	200	10,80 brass Cr
3,5	x	30	S	200	12,10 brass Cr
3,5	x	35	S	200	14,80 brass Cr
3,5	x	40	S	200	18,50 brass Cr
3,5	x	45	S	200	21,30 brass Cr
3,5	x	50	S	200	25,50 brass Cr
4	x	16	S	200	11,00 brass Cr
4	x	20	S	200	11,40 brass Cr

Dimensions			PU	Pieces	€/100/Mat.
4	x	25	S	200	12,80 brass Cr
4	x	30	S	200	14,90 brass Cr
4	x	35	S	200	16,90 brass Cr
4	x	40	S	200	18,70 brass Cr
4	x	45	S	200	21,40 brass Cr
4	x	50	S	200	24,70 brass Cr
4	x	60	S	200	35,50 brass Cr
4,5	x	16	S	200	16,00 brass Cr
4,5	x	20	S	200	16,20 brass Cr
4,5	x	25	S	200	16,60 brass Cr
4,5	x	30	S	200	20,30 brass Cr
4,5	x	35	S	200	21,70 brass Cr
4,5	x	40	S	200	23,00 brass Cr
4,5	x	45	S	200	26,00 brass Cr
4,5	x	50	S	200	29,50 brass Cr
4,5	x	60	S	200	37,50 brass Cr
4,5	x	70	S	200	70,00 brass Cr
5	x	20	S	200	23,00 brass Cr
5	x	25	S	200	23,80 brass Cr
5	x	30	S	200	25,50 brass Cr
5	x	35	S	200	28,00 brass Cr
5	x	40	S	200	30,00 brass Cr
5	x	45	S	200	32,00 brass Cr
5	x	50	S	200	35,00 brass Cr
5	x	60	S	200	42,50 brass Cr
5	x	70	S	200	53,00 brass Cr
6	x	30	S	200	49,00 brass Cr
6	x	35	S	200	50,00 brass Cr
6	x	40	S	200	51,00 brass Cr
6	x	45	S	200	52,00 brass Cr
6	x	50	S	200	53,00 brass Cr
6	x	60	S	100	61,00 brass Cr
6	x	70	S	100	80,00 brass Cr
6	x	80	S	100	93,00 brass Cr
6	x	90	S	100	99,00 brass Cr
6	x	100	S	100	102,00 brass Cr

DIN 00095.750 50

95 Brass browned



Slotted raised countersunk head wood screws

Dimensions → TI-50 REACH → TI-262
Material properties → TI-239

Steel → pg. 70
Stainless → pg. 459

RoHS ✓

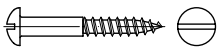
3	x	16	S	200	6,40 brass br
3	x	20	S	200	7,20 brass br
3	x	25	S	200	8,30 brass br
3	x	30	S	200	10,70 brass br
3	x	35	S	200	13,40 brass br
3	x	40	S	200	17,10 brass br
3,5	x	16	S	200	6,90 brass br
3,5	x	20	S	200	7,90 brass br
3,5	x	25	S	200	9,50 brass br
3,5	x	30	S	200	11,30 brass br
3,5	x	35	S	200	12,90 brass br
3,5	x	40	S	200	16,70 brass br
4	x	16	S	200	10,80 brass br
4	x	20	S	200	11,00 brass br
4	x	25	S	200	11,30 brass br
4	x	30	S	200	13,00 brass br

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
4	x	35	S	200	14,80 brass br
4	x	40	S	200	16,50 brass br
4	x	45	S	200	21,80 brass br
4	x	50	S	200	22,00 brass br
4,5	x	45	S	200	26,50 brass br
4,5	x	50	S	200	30,00 brass br
4,5	x	60	S	200	38,00 brass br

DIN 00096.700 50

96 Brass



Slotted round head wood screws

Dimensions ➔ TI-51 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 70
Stainless ➔ pg. 460

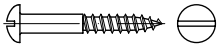
RoHS ✓

1,6	x	8	S	500	6,40 brass
1,6	x	10	S	500	6,60 brass
1,6	x	12	S	500	6,80 brass
1,6	x	16	S	500	7,70 brass
2	x	8	S	500	6,50 brass
2	x	10	S	500	6,60 brass
2	x	12	S	500	6,80 brass
2	x	16	S	500	7,60 brass
2	x	20	S	500	8,50 brass
2,5	x	8	S	500	6,80 brass
2,5	x	10	S	500	7,00 brass
2,5	x	12	S	500	7,20 brass
2,5	x	16	S	500	7,30 brass
2,5	x	20	S	500	8,30 brass
2,5	x	25	S	500	11,00 brass
3	x	8	S	200	6,80 brass
3	x	10	S	200	7,00 brass
3	x	12	S	200	7,20 brass
3	x	16	S	200	7,60 brass
3	x	20	S	200	8,50 brass
3	x	25	S	200	8,70 brass
3	x	30	S	200	8,90 brass
3	x	35	S	200	12,90 brass
3	x	40	S	200	17,80 brass
3,5	x	10	S	200	8,00 brass
3,5	x	12	S	200	8,10 brass
3,5	x	16	S	200	8,30 brass
3,5	x	20	S	200	8,50 brass
3,5	x	25	S	200	8,80 brass
3,5	x	30	S	200	9,20 brass
3,5	x	35	S	200	12,20 brass
3,5	x	40	S	200	13,70 brass
3,5	x	45	S	200	30,50 brass
3,5	x	50	S	200	33,50 brass
4	x	10	S	200	9,60 brass
4	x	12	S	200	9,80 brass
4	x	16	S	200	10,00 brass
4	x	20	S	200	10,20 brass
4	x	25	S	200	10,40 brass
4	x	30	S	200	10,50 brass
4	x	35	S	200	14,20 brass
4	x	40	S	200	15,80 brass
4	x	45	S	200	18,20 brass
4	x	50	S	200	19,70 brass
4	x	60	S	200	38,00 brass
4,5	x	16	S	200	16,60 brass

Dimensions			PU	Pieces	€/100/Mat.
4,5	x	20	S	200	16,20 brass
4,5	x	25	S	200	12,10 brass
4,5	x	30	S	200	14,80 brass
4,5	x	35	S	200	15,60 brass
4,5	x	40	S	200	19,00 brass
4,5	x	45	S	200	20,20 brass
4,5	x	50	S	200	25,50 brass
4,5	x	60	S	200	39,50 brass
5	x	12	S	200	18,50 brass
5	x	16	S	200	19,00 brass
5	x	20	S	200	19,50 brass
5	x	25	S	200	20,00 brass
5	x	30	S	200	20,50 brass
5	x	35	S	200	21,00 brass
5	x	40	S	200	22,00 brass
5	x	45	S	200	25,50 brass
5	x	50	S	200	27,50 brass
5	x	60	S	200	36,00 brass
5	x	70	S	200	38,50 brass
5	x	80	S	200	65,00 brass
6	x	20	S	200	35,00 brass
6	x	25	S	200	36,00 brass
6	x	30	S	200	37,00 brass
6	x	35	S	200	38,00 brass
6	x	40	S	200	39,00 brass
6	x	45	S	200	40,00 brass
6	x	50	S	200	42,00 brass
6	x	60	S	100	51,00 brass
6	x	70	S	100	60,00 brass
6	x	80	S	100	70,00 brass
6	x	100	S	100	117,00 brass

DIN 00096.730 50

96 Brass nickel plated



Slotted round head wood screws

Dimensions ➔ TI-51 REACH ➔ TI-262
Material properties ➔ TI-239

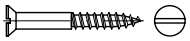
Steel ➔ pg. 70
Stainless ➔ pg. 460

RoHS ✓

2	x	10	S	500	8,10 brass Ni
2,5	x	12	S	500	8,50 brass Ni
2,5	x	16	S	500	8,80 brass Ni
3	x	16	S	200	9,10 brass Ni
3	x	20	S	200	9,50 brass Ni
3	x	25	S	200	9,80 brass Ni
3,5	x	16	S	200	10,20 brass Ni
3,5	x	20	S	200	10,50 brass Ni
3,5	x	25	S	200	10,90 brass Ni
4	x	16	S	200	11,10 brass Ni
4	x	20	S	200	11,40 brass Ni
4	x	25	S	200	12,90 brass Ni
4	x	30	S	200	15,00 brass Ni
4	x	35	S	200	19,10 brass Ni
4	x	40	S	200	21,40 brass Ni

Dimensions		PU	Pieces	€/100/Mat.
DIN	00097.700			50

97 Brass



Slotted countersunk head wood screws

Dimensions ➔ TI-51 REACH ➔ TI-262
Material properties ➔ TI-239

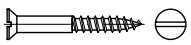
Steel ➔ pg. 70
Stainless ➔ pg. 460

RoHS ✓

1,6	x	8	S	500	5,90 brass
1,6	x	10	S	500	5,90 brass
1,6	x	12	S	500	5,90 brass
1,6	x	16	S	500	7,10 brass
2	x	8	S	500	5,90 brass
2	x	10	S	500	5,90 brass
2	x	12	S	500	5,70 brass
2	x	16	S	500	6,80 brass
2	x	20	S	500	7,10 brass
2,5	x	8	S	500	5,50 brass
2,5	x	10	S	500	5,60 brass
2,5	x	12	S	500	5,60 brass
2,5	x	16	S	500	5,70 brass
2,5	x	20	S	500	6,30 brass
2,5	x	25	S	500	8,40 brass
2,5	x	30	S	500	9,70 brass
3	x	8	S	200	7,90 brass
3	x	10	S	200	5,50 brass
3	x	12	S	200	5,50 brass
3	x	16	S	200	4,65 brass
3	x	20	S	200	5,20 brass
3	x	25	S	200	5,90 brass
3	x	30	S	200	6,90 brass
3	x	35	S	200	9,30 brass
3	x	40	S	200	12,40 brass
3	x	45	S	200	14,60 brass
3	x	50	S	200	17,80 brass
3,5	x	10	S	200	7,60 brass
3,5	x	12	S	200	7,90 brass
3,5	x	16	S	200	5,10 brass
3,5	x	20	S	200	5,60 brass
3,5	x	25	S	200	6,80 brass
3,5	x	30	S	200	8,10 brass
3,5	x	35	S	200	9,30 brass
3,5	x	40	S	200	12,40 brass
3,5	x	45	S	200	14,90 brass
3,5	x	50	S	200	18,10 brass
4	x	10	S	200	10,70 brass
4	x	12	S	200	10,80 brass
4	x	16	S	200	7,70 brass
4	x	20	S	200	7,50 brass
4	x	25	S	200	8,30 brass
4	x	30	S	200	9,50 brass
4	x	35	S	200	10,80 brass
4	x	40	S	200	12,00 brass
4	x	45	S	200	13,80 brass
4	x	50	S	200	16,40 brass
4	x	60	S	200	24,60 brass
4,5	x	16	S	200	15,30 brass
4,5	x	20	S	200	11,00 brass
4,5	x	25	S	200	11,00 brass
4,5	x	30	S	200	13,60 brass
4,5	x	35	S	200	14,10 brass
4,5	x	40	S	200	14,60 brass

Dimensions			PU	Pieces	€/100/Mat.
4,5	x	45	S	200	16,50 brass
4,5	x	50	S	200	18,90 brass
4,5	x	60	S	200	24,60 brass
5	x	16	S	200	23,40 brass
5	x	20	S	200	16,70 brass
5	x	25	S	200	16,90 brass
5	x	30	S	200	16,90 brass
5	x	35	S	200	18,60 brass
5	x	40	S	200	19,70 brass
5	x	45	S	200	20,20 brass
5	x	50	S	200	22,30 brass
5	x	55	S	200	29,00 brass
5	x	60	S	200	27,00 brass
5	x	70	S	200	34,00 brass
5	x	80	S	200	53,00 brass
5	x	90	S	200	72,00 brass
5	x	100	S	200	75,00 brass
5,5	x	35	S	200	27,50 brass
5,5	x	40	S	200	27,00 brass
5,5	x	45	S	200	27,50 brass
5,5	x	50	S	200	28,50 brass
5,5	x	60	S	100	32,50 brass
6	x	20	S	200	35,50 brass
6	x	25	S	200	34,50 brass
6	x	30	S	200	35,00 brass
6	x	35	S	200	36,00 brass
6	x	40	S	200	34,00 brass
6	x	45	S	200	34,50 brass
6	x	50	S	200	34,50 brass
6	x	60	S	100	38,50 brass
6	x	70	S	100	53,00 brass
6	x	80	S	100	60,00 brass
6	x	90	S	100	66,00 brass
6	x	100	S	100	66,00 brass
8	x	50	S	100	112,00 brass
8	x	60	S	100	116,00 brass
8	x	70	S	100	123,00 brass
8	x	80	S	100	169,00 brass
8	x	100	S	100	211,00 brass

DIN	00097.730	50
97	**Brass nickel plated**	



Slotted countersunk head wood screws

Dimensions ➔ TI-51
Material properties ➔ TI-239
REACH ➔ TI-262

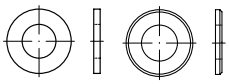
Steel ➔ pg. 70
Stainless ➔ pg. 460

RoHS ✓

2,5	x	12	S	200	7,30 brass Ni
2,5	x	16	S	200	7,60 brass Ni
2,5	x	20	S	200	8,40 brass Ni
3	x	10	S	200	6,40 brass Ni
3	x	12	S	200	6,50 brass Ni
3	x	16	S	200	5,70 brass Ni
3	x	20	S	200	6,40 brass Ni
3	x	25	S	200	7,30 brass Ni
3	x	30	S	200	9,50 brass Ni
3,5	x	16	S	200	6,10 brass Ni
3,5	x	20	S	200	6,90 brass Ni
3,5	x	25	S	200	8,40 brass Ni
3,5	x	30	S	200	10,00 brass Ni
4	x	20	S	200	9,10 brass Ni

Dimensions			PU	Pieces	€/100/Mat.
4	x	25	S	200	10,50 brass Ni
4	x	30	S	200	12,10 brass Ni
4	x	35	S	200	13,70 brass Ni
4	x	40	S	200	15,30 brass Ni
4	x	50	S	200	20,50 brass Ni
5	x	40	S	200	24,70 brass Ni
5	x	50	S	200	28,50 brass Ni

DIN	00125.701	90
125-1	**Brass**	**type A**



Plain washers, A = without chamfer*

*from 10,5 ∅ type B with chamfers

Dimensions ➔ TI-84
Material properties ➔ TI-239
Standard conversion ➔ TI-84
REACH ➔ TI-262

Steel ➔ pg. 70
Stainless ➔ pg. 461

DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓

inside ∅ x outside ∅ x thickness

2,2	x	5	x	0,3	S	1000	2,65 brass
2,2	x	5	x	0,3	K	100	8,30 brass
2,5	x	6	x	0,5	S	1000	2,65 brass
2,5	x	6	x	0,5	K	100	8,30 brass
2,7	x	6	x	0,5	S	1000	2,65 brass
2,7	x	6	x	0,5	K	100	8,30 brass
2,8	x	7	x	0,5	S	1000	2,65 brass
3,2	x	7	x	0,5	S	1000	1,85 brass
3,2	x	7	x	0,5	K	100	7,50 brass
3,7	x	8	x	0,5	K	100	9,10 brass
4,3	x	9	x	0,8	S	1000	3,45 brass
4,3	x	9	x	0,8	K	100	9,10 brass
5,3	x	10	x	1	S	1000	4,15 brass
5,3	x	10	x	1	K	100	9,60 brass
6,4	x	12	x	1,6	S	1000	8,90 brass
6,4	x	12	x	1,6	K	100	14,40 brass
8,4	x	16	x	1,6	S	1000	17,00 brass
8,4	x	16	x	1,6	K	100	25,00 brass
10,5	x	20	x	2	S	500	41,50 brass
10,5	x	20	x	2	K	100	54,00 brass
13	x	24	x	2,5	S	500	47,50 brass
13	x	24	x	2,5	K	100	56,00 brass
15	x	28	x	2,5	S	250	66,00 brass
15	x	28	x	2,5	K	100	76,00 brass
17	x	30	x	3	S	250	85,00 brass
17	x	30	x	3	K	100	93,00 brass
19	x	34	x	3	S	50	136,00 brass
21	x	37	x	3	S	50	141,00 brass
23	x	39	x	3	S	25	290,00 brass
25	x	44	x	4	S	25	390,00 brass
28	x	50	x	4	S	25	465,00 brass
31	x	56	x	4	S	25	580,00 brass
33	x	60	x	5	S	25	830,00 brass
37	x	66	x	5	S	1	1330,00 brass
40	x	72	x	6	S	1	2050,00 brass
43	x	78	x	7	S	1	2750,00 brass
46	x	85	x	7	S	1	3600,00 brass
50	x	92	x	8	S	1	3700,00 brass

Dimensions		PU	Pieces	€/100/Mat.
DIN	00125.731			90
125-1	**Brass nickel plated**			**type A**

Plain washers, A = without chamfer

Dimensions ➔ TI-84
Material properties ➔ TI-239
Standard conversion ➔ TI-84
REACH ➔ TI-262

Steel ➔ pg. 70
Stainless ➔ pg. 461

DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓

inside ∅ x outside ∅ x thickness

3,2	x	7	x	0,5	S	1000	2,75 brass Ni
4,3	x	9	x	0,8	S	1000	5,40 brass Ni
5,3	x	10	x	1	S	1000	6,40 brass Ni
6,4	x	12	x	1,6	S	1000	14,10 brass Ni
8,4	x	16	x	1,6	S	1000	27,00 brass Ni

DIN	00125.704	90
125-1	**Brass turned**	**type B**

Plain washers, B = with chamfers

Dimensions ➔ TI-84
Material properties ➔ TI-239
Standard conversion ➔ TI-84
REACH ➔ TI-262

Steel ➔ pg. 72
Stainless ➔ pg. 461

DIN 125-1 type B ➔ replaced by ISO 7090

RoHS ✓

inside ∅ x outside ∅ x thickness

1,1	x	3	x	0,3	S	100	46,50 brass turned
1,3	x	3,5	x	0,3	S	100	46,50 brass turned
1,5	x	4	x	0,3	S	100	46,50 brass turned
1,7	x	4	x	0,3	S	100	45,00 brass turned
2,2	x	5	x	0,3	S	100	45,00 brass turned
2,7	x	6	x	0,5	S	100	45,00 brass turned
3,2	x	7	x	0,5	S	100	48,00 brass turned
4,3	x	9	x	0,8	S	100	58,00 brass turned
5,3	x	10	x	1	S	100	63,00 brass turned
6,4	x	12	x	1,6	S	100	84,00 brass turned
8,4	x	16	x	1,6	S	100	103,00 brass turned
10,5	x	20	x	2	S	100	120,00 brass turned

Dimensions					PU	Pieces	€/100/Mat.
DIN	00125.300						90
125-1	**Copper**						**type A**



Plain washers, A = without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-239

Steel ➔ pg. 70
Stainless ➔ pg. 461

DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓ REACh SVHC free

inside ∅ x outside ∅ x thickness

5,3	x	10	x	1	S	100	38,50 Cu
6,4	x	12	x	1,6	S	100	61,00 Cu
8,4	x	16	x	1,6	S	100	91,00 Cu
10,5	x	20	x	2	S	100	152,00 Cu
13	x	24	x	2,5	S	100	223,00 Cu
17	x	30	x	3	S	100	405,00 Cu

DIN	00125.301	90
125-1	**Aluminium**	**type A**



Plain washers, A = without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 70
Stainless ➔ pg. 461

DIN 125-1 type A ➔ replaced by ISO 7089

RoHS ✓

inside ∅ x outside ∅ x thickness

3,2	x	7	x	0,5	K	500	2,90 Al
4,3	x	9	x	0,8	S	1000	3,00 Al
4,3	x	9	x	0,8	K	100	5,30 Al
5,3	x	10	x	1	S	1000	3,35 Al
5,3	x	10	x	1	K	100	4,70 Al
6,4	x	12	x	1,6	S	1000	5,20 Al
6,4	x	12	x	1,6	K	100	6,70 Al
8,4	x	16	x	1,6	S	500	6,50 Al
8,4	x	16	x	1,6	K	100	7,90 Al
10,5	x	20	x	2	S	500	10,30 Al
10,5	x	20	x	2	K	100	12,20 Al
13	x	24	x	2,5	S	100	19,90 Al
17	x	30	x	3	S	50	44,50 Al

Dimensions					PU	Pieces	€/100/Mat.
DIN	00125.601						90
125-1	**Plastic PA**						**type A**



Plain washers, A = without chamfer

product grade C acc. to ISO 4759-3

Dimensions ➔ TI-84 REACH ➔ TI-262
Material properties ➔ TI-239

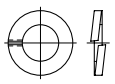
Steel ➔ pg. 70
Stainless ➔ pg. 461

mostly identical to DIN 34815

inside ∅ x outside ∅ x thickness

2,2	x	5	x	0,3	S	1000	7,50 plastic
2,7	x	6	x	0,5	S	1000	6,10 plastic
3,2	x	7	x	0,5	S	1000	2,55 plastic
3,2	x	7	x	0,5	K	200	4,20 plastic
4,3	x	9	x	0,8	S	1000	2,55 plastic
4,3	x	9	x	0,8	K	200	4,20 plastic
5,3	x	10	x	1	S	1000	3,25 plastic
5,3	x	10	x	1	K	200	5,00 plastic
6,4	x	12	x	1,6	S	1000	4,00 plastic
6,4	x	12	x	1,6	K	200	5,80 plastic
8,4	x	16	x	1,6	S	1000	5,30 plastic
8,4	x	16	x	1,6	K	200	7,30 plastic
10,5	x	20	x	2	S	500	8,20 plastic
10,5	x	20	x	2	K	200	10,60 plastic
13	x	24	x	2,5	S	500	11,50 plastic
13	x	24	x	2,5	K	100	13,40 plastic
15	x	28	x	2,5	S	100	14,90 plastic
17	x	30	x	3	S	250	15,20 plastic
17	x	30	x	3	K	100	17,20 plastic
21	x	37	x	3	S	100	24,00 plastic
23	x	39	x	3	S	100	60,00 plastic
25	x	44	x	4	S	100	65,00 plastic
28	x	50	x	4	S	50	114,00 plastic
31	x	56	x	4	S	50	130,00 plastic
34	x	60	x	5	S	50	150,00 plastic

DIN	00127.702	110
127	**Bronze**	**type B**



Spring lock washers, B = flat end

Caution! Reduced spring load.

Dimensions ➔ TI-88 REACH ➔ TI-262
Material properties ➔ TI-239

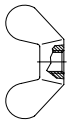
Spring steel ➔ pg. 74
Stainless ➔ pg. 462

RoHS ✓

B 3	S	1000	5,50 bronze
B 4	S	1000	7,10 bronze
B 5	S	1000	10,10 bronze
B 6	S	1000	16,50 bronze

Dimensions	PU	Pieces	€/100/Mat.
B 8	S	500	41,00 bronze
B 10	S	500	44,00 bronze
B 12	S	500	67,00 bronze

DIN	00315.700	130
315	**Brass**	



Wing nuts, rounded wings, product grade C (g)

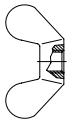
Dimensions ➔ TI-72 REACH ➔ TI-262
Material properties ➔ TI-239

malleable cast iron ➔ pg. 77
Stainless ➔ pg. 464

RoHS ✓

M 3	S	100	44,00 brass
M 4	S	100	44,00 brass
M 5	S	100	55,00 brass
M 6	S	100	83,00 brass
M 8	S	100	144,00 brass
M 10	S	100	239,00 brass
M 12	S	50	425,00 brass
M 16	S	10	730,00 brass
M 20	S	1	1750,00 brass

DIN	00315.730	130
315	**Brass nickel plated**	



Wing nuts, rounded wings, product grade C (g)

Dimensions ➔ TI-72 REACH ➔ TI-262
Material properties ➔ TI-239

malleable cast iron ➔ pg. 77
Stainless ➔ pg. 464

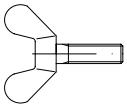
RoHS ✓

M 6	S	100	95,00 NP
M 8	S	100	167,00 NP
M 10	S	100	290,00 NP

Dimensions | PU Pieces | €/100/Mat.

DIN 00316.700 130

316 Brass



Wing screws, rounded wings, product grade C (g)

Dimensions → TI-29 REACH → TI-262
Material properties → TI-239

malleable cast iron → pg. 78
Stainless → pg. 464

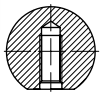
RoHS ✓

M 4	x	10	S	100	99,00	brass
M 4	x	12	S	100	103,00	brass
M 4	x	16	S	100	113,00	brass
M 4	x	20	S	100	121,00	brass
M 5	x	10	S	100	109,00	brass
M 5	x	16	S	100	125,00	brass
M 5	x	20	S	100	152,00	brass
M 5	x	25	S	100	160,00	brass
M 5	x	30	S	100	173,00	brass
M 6	x	10	S	100	167,00	brass
M 6	x	12	S	100	175,00	brass
M 6	x	16	S	100	189,00	brass
M 6	x	20	S	100	210,00	brass
M 6	x	25	S	100	220,00	brass
M 6	x	30	S	100	244,00	brass
M 6	x	40	S	100	285,00	brass
M 8	x	10	S	50	255,00	brass
M 8	x	12	S	50	270,00	brass
M 8	x	16	S	50	275,00	brass
M 8	x	20	S	50	310,00	brass
M 8	x	25	S	50	335,00	brass
M 8	x	30	S	50	350,00	brass
M 8	x	40	S	50	415,00	brass
M 8	x	50	S	50	480,00	brass
M 10	x	16	S	25	500,00	brass
M 10	x	20	S	25	530,00	brass
M 10	x	25	S	25	550,00	brass
M 10	x	30	S	25	560,00	brass
M 10	x	35	S	25	590,00	brass
M 10	x	40	S	25	620,00	brass
M 10	x	50	S	25	720,00	brass
M 12	x	30	S	10	990,00	brass
M 12	x	40	S	10	1050,00	brass
M 12	x	50	S	10	1100,00	brass

Dimensions | PU Pieces | €/100/Mat.

DIN 00319.633 131

319 Plastic black type C



Ball knobs, C = with internal thread (without bush insert)

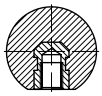
Dimensions → TI-125 REACH → TI-262

ball ∅ – internal thread

16	M 4	S	25	77,00	plastic
20	M 5	S	25	83,00	plastic
25	M 6	S	25	97,00	plastic
32	M 8	S	10	142,00	plastic
40	M 10	S	10	226,00	plastic
50	M 12	S	10	385,00	plastic

DIN 00319.644 131

319 Plastic black type E-St



Ball knobs, E = with threaded bush steel, ZP

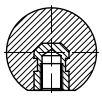
Dimensions → TI-125 REACH → TI-262

ball ∅ – internal thread

20	M 5	S	25	122,00	plastic
25	M 6	S	25	154,00	plastic
32	M 8	S	10	260,00	plastic
40	M 10	S	10	360,00	plastic
50	M 12	S	10	590,00	plastic

DIN 00319.634 131

319 Plastic black type E-Ms



Ball knobs, E = with threaded bush brass

Dimensions → TI-125 REACH → TI-262

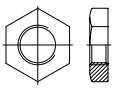
ball ∅ – internal thread

16	M 4	S	25	120,00	plastic
20	M 5	S	25	139,00	plastic
25	M 6	S	25	164,00	plastic
32	M 8	S	10	290,00	plastic
40	M 10	S	10	385,00	plastic
50	M 12	S	10	650,00	plastic

Dimensions | PU Pieces | €/100/Mat.

DIN 00431.702 140

431 Brass type B



Pipe nuts with inch pipe thread G, B = thread one-sided countersunk

Dimensions → TI-60 REACH → TI-262
Material properties → TI-239

Steel → pg. 80
Stainless → pg. 465

nuts with wrench sizes acc. to ISO on request

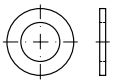
RoHS ✓

nominal size – wrench size

BG	1/4 s = 22	S	50	236,00	brass
BG	3/8	S	50	290,00	brass
BG	1/2 s = 32	S	50	425,00	brass
BG	3/4	S	25	680,00	brass
BG	1	S	10	1160,00	brass
BG	1 1/4	S	10	1890,00	brass
BG	1 1/2	S	10	2500,00	brass

DIN 00433.700 140

433-1 Brass



Washers

primarily for cheese head cap screws

Dimensions → TI-84 Standard conversion → TI-84
Material properties → TI-239 REACH → TI-262

Steel → pg. 80
Stainless → pg. 466

DIN 433 → replaced by ISO 7092

RoHS ✓

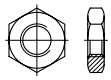
inside ∅ x outside ∅ x thickness

2,2	x	4,5	x	0,3	S 5000	1,15	brass
2,2	x	4,5	x	0,3	K 500	1,95	brass
2,7	x	5	x	0,5	S 5000	1,40	brass
2,7	x	5	x	0,5	K 500	2,35	brass
3,2	x	6	x	0,5	S 5000	1,15	brass
3,2	x	6	x	0,5	K 500	1,80	brass
4,3	x	8	x	0,5	S 5000	1,45	brass
4,3	x	8	x	0,5	K 500	2,30	brass
5,3	x	9	x	1	S 1000	4,15	brass
5,3	x	9	x	1	K 100	8,40	brass
6,4	x	11	x	1,6	S 1000	7,20	brass
6,4	x	11	x	1,6	K 100	11,60	brass
8,4	x	15	x	1,6	S 1000	13,80	brass
8,4	x	15	x	1,6	K 100	20,20	brass
10,5	x	18	x	1,6	S 1000	18,10	brass
10,5	x	18	x	1,6	K 100	27,50	brass
13	x	20	x	2	S 500	30,50	brass
13	x	20	x	2	K 100	37,00	brass

Dimensions					PU	Pieces	€/100/Mat.
15	x	24	x	2,5	S	100	55,00 brass
17	x	28	x	2,5	S	100	64,00 brass
21	x	34	x	3	S	50	194,00 brass

DIN 00439.702 170

439 Brass type B



Hexagon thin nuts, B = with chamfers

Dimensions ➔ TI-61
Material properties ➔ TI-239
Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 82
Stainless ➔ pg. 467

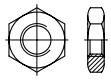
DIN 439 ➔ replaced by ISO 4035

RoHS ✓

BM 2	S	1000	3,85 brass
BM 2	K	100	7,90 brass
BM 2,5	K	100	7,70 brass
BM 3	S	1000	3,75 brass
BM 3	K	100	7,70 brass
BM 4	S	1000	4,65 brass
BM 4	K	100	8,70 brass
BM 5	S	1000	6,00 brass
BM 5	K	100	10,10 brass
BM 6	S	1000	8,70 brass
BM 6	K	100	14,60 brass
BM 8	S	500	18,60 brass
BM 8	K	100	23,90 brass
BM 10	S	500	31,50 brass
BM 10	K	100	40,50 brass
BM 12	S	100	75,00 brass
BM 16	S	50	160,00 brass
BM 20	S	50	295,00 brass

DIN 00439.732 170

439 Brass nickel plated type B



Hexagon thin nuts, B = with chamfers

Dimensions ➔ TI-61
Material properties ➔ TI-239
Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 82
Stainless ➔ pg. 467

DIN 439 ➔ replaced by ISO 4035

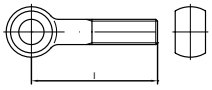
RoHS ✓

BM 3	S	100	10,70 NP
BM 4	S	100	16,00 NP
BM 5	S	100	19,90 NP
BM 6	S	100	27,00 NP
BM 8	S	100	40,00 NP
BM 10	S	100	61,00 NP

Dimensions	PU	Pieces	€/100/Mat.
BM 12	S	100	112,00 NP
BM 16	S	50	226,00 NP
BM 20	S	50	400,00 NP

DIN 00444.702 180

444 Brass type B



Eye bolts, B = product grade B (mg)

Dimensions ➔ TI-30
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 85
Stainless ➔ pg. 468

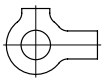
RoHS ✓

thread M x length l

BM 6	x	40	S	25	410,00 brass
BM 6	x	50	S	25	430,00 brass
BM 6	x	60	S	25	460,00 brass
BM 8	x	40	S	25	530,00 brass
BM 8	x	50	S	25	560,00 brass
BM 8	x	60	S	25	600,00 brass
BM 8	x	70	S	25	640,00 brass
BM 8	x	80	S	25	710,00 brass
BM 10	x	50	S	10	720,00 brass
BM 10	x	60	S	10	770,00 brass
BM 10	x	70	S	10	840,00 brass
BM 10	x	80	S	10	910,00 brass
BM 10	x	90	S	10	960,00 brass
BM 10	x	100	S	10	1030,00 brass
BM 12	x	60	S	10	960,00 brass
BM 12	x	70	S	10	1010,00 brass
BM 12	x	80	S	10	1120,00 brass
BM 12	x	90	S	10	1170,00 brass
BM 12	x	100	S	10	1300,00 brass
BM 16	x	70	S	10	1750,00 brass
BM 16	x	80	S	10	1860,00 brass
BM 16	x	90	S	10	1970,00 brass
BM 16	x	100	S	1	2050,00 brass
BM 16	x	110	S	1	2200,00 brass
BM 16	x	120	S	1	2310,00 brass
BM 16	x	130	S	1	2500,00 brass
BM 16	x	140	S	1	2750,00 brass
BM 20	x	80	S	1	3050,00 brass
BM 20	x	90	S	1	3150,00 brass
BM 20	x	100	S	1	3350,00 brass
BM 20	x	110	S	1	3550,00 brass
BM 20	x	120	S	1	3950,00 brass
BM 20	x	130	S	1	4100,00 brass
BM 20	x	140	S	1	4250,00 brass

Dimensions	PU	Pieces	€/100/Mat.
~DIN 00463.700			180

463 Brass



Washers with 2 taps

Dimensions ➔ TI-91
Material properties ➔ TI-239
REACH ➔ TI-262

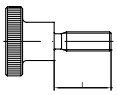
Steel ➔ pg. 87
Stainless ➔ pg. 469

RoHS ✓

13	S	50	370,00 brass
17	S	50	750,00 brass
21	S	25	950,00 brass
23	S	25	1180,00 brass
25	S	25	1220,00 brass

DIN 00464.700 190

464 Brass



Knurled thumb screws, high type

Dimensions ➔ TI-30
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 87
Stainless ➔ pg. 469

RoHS ✓

thread M x length l

M 3	x	6	S	50	152,00 brass
M 3	x	8	S	50	152,00 brass
M 3	x	10	S	50	162,00 brass
M 3	x	12	S	50	178,00 brass
M 3	x	16	S	50	199,00 brass
M 4	x	8	S	50	199,00 brass
M 4	x	10	S	50	202,00 brass
M 4	x	12	S	25	215,00 brass
M 4	x	16	S	25	226,00 brass
M 4	x	20	S	25	247,00 brass
M 4	x	25	S	25	280,00 brass
M 5	x	8	S	50	315,00 brass
M 5	x	10	S	50	315,00 brass
M 5	x	12	S	25	325,00 brass
M 5	x	16	S	25	345,00 brass
M 5	x	20	S	25	375,00 brass
M 5	x	25	S	25	420,00 brass
M 5	x	30	S	25	475,00 brass
M 6	x	8	S	25	480,00 brass
M 6	x	10	S	25	480,00 brass
M 6	x	12	S	25	500,00 brass
M 6	x	16	S	25	530,00 brass
M 6	x	20	S	25	600,00 brass
M 6	x	25	S	25	650,00 brass
M 6	x	30	S	25	760,00 brass
M 8	x	30	S	10	1040,00 brass

Dimensions	PU	Pieces	€/100/Mat.
DIN	00466.700		190

466 Brass



Knurled nuts, high type

Dimensions → TI-72 REACH → TI-262
Material properties → TI-239

Steel → pg. 88
Stainless → pg. 469

RoHS ✓

M 3	S	100	62,00 brass
M 4	S	100	97,00 brass
M 5	S	50	160,00 brass
M 6	S	50	275,00 brass
M 8	S	25	495,00 brass
M 10	S	10	800,00 brass

DIN	00467.700	190

467 Brass



Knurled nuts, low type

Dimensions → TI-72 REACH → TI-262
Material properties → TI-239

Steel → pg. 88
Stainless → pg. 469

RoHS ✓

M 3	S	100	48,50 brass
M 4	S	100	72,00 brass
M 5	S	50	101,00 brass
M 6	S	50	173,00 brass
M 8	S	25	365,00 brass
M 10	S	10	560,00 brass

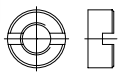
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Dimensions	PU	Pieces	€/100/Mat.
DIN	00546.700		230

546 Brass



Slotted round nuts

Dimensions → TI-72 REACH → TI-262
Material properties → TI-239

Steel → pg. 92
Stainless → pg. 470

RoHS ✓

M 3	S	100	24,20 brass
M 4	S	100	32,00 brass
M 5	S	100	45,00 brass

DIN	00551.700	230

551 Brass



Slotted grub screws with flat point

Dimensions → TI-19 Standard conversion → TI-6
Material properties → TI-239 REACH → TI-262

Steel → pg. 93
Stainless → pg. 470

DIN 551 → replaced by ISO 4766 (compatible)

RoHS ✓

M 3	x	3	S	100	13,60 brass
M 3	x	4	S	100	13,60 brass
M 3	x	5	S	100	13,80 brass
M 3	x	6	S	100	14,40 brass
M 3	x	8	S	100	14,90 brass
M 3	x	10	S	100	15,20 brass
M 3	x	12	S	100	16,00 brass
M 3	x	16	S	100	17,00 brass
M 4	x	4	S	100	13,80 brass
M 4	x	5	S	100	14,10 brass
M 4	x	6	S	100	14,40 brass
M 4	x	8	S	100	14,60 brass
M 4	x	10	S	100	16,20 brass
M 4	x	12	S	100	17,00 brass
M 4	x	16	S	100	17,80 brass
M 5	x	5	S	100	14,60 brass
M 5	x	6	S	100	15,70 brass
M 5	x	8	S	100	16,00 brass
M 5	x	10	S	100	17,00 brass
M 5	x	12	S	100	18,30 brass
M 5	x	16	S	100	20,50 brass
M 6	x	6	S	100	16,50 brass
M 6	x	8	S	100	18,30 brass
M 6	x	10	S	100	18,90 brass
M 6	x	12	S	100	21,80 brass
M 6	x	16	S	100	23,40 brass
M 6	x	20	S	100	28,50 brass
M 6	x	25	S	100	31,00 brass
M 6	x	30	S	100	40,00 brass
M 8	x	10	S	100	54,00 brass
M 8	x	12	S	100	61,00 brass
M 8	x	16	S	100	67,00 brass
M 8	x	20	S	100	72,00 brass
M 8	x	25	S	100	77,00 brass
M 8	x	35	S	100	77,00 brass
M 8	x	40	S	100	84,00 brass
M 8	x	45	S	100	88,00 brass
M 8	x	50	S	100	88,00 brass
M 10	x	8	S	100	146,00 brass
M 10	x	12	S	100	149,00 brass
M 10	x	16	S	100	112,00 brass
M 10	x	20	S	100	154,00 brass

DIN	00551.600	230

551 Plastic PA



Slotted grub screws with flat point

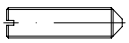
Dimensions → TI-19 REACH → TI-262
Material properties → TI-239

Steel → pg. 93
Stainless → pg. 470

M 4	x	6	S	100	22,00 plastic
M 4	x	8	S	100	23,00 plastic
M 4	x	10	S	100	23,00 plastic
M 4	x	12	S	100	24,00 plastic
M 4	x	16	S	100	26,00 plastic
M 4	x	20	S	100	28,00 plastic
M 4	x	25	S	100	30,00 plastic
M 5	x	6	S	100	24,00 plastic
M 5	x	8	S	100	25,00 plastic
M 5	x	10	S	100	26,00 plastic
M 5	x	12	S	100	28,00 plastic
M 5	x	16	S	100	30,00 plastic
M 6	x	6	S	100	5,70 plastic
M 6	x	8	S	100	27,00 plastic
M 6	x	10	S	100	28,00 plastic
M 6	x	12	S	100	29,00 plastic
M 6	x	16	S	100	30,00 plastic
M 6	x	20	S	100	32,00 plastic
M 6	x	25	S	100	34,00 plastic
M 8	x	8	S	100	30,00 plastic
M 8	x	10	S	100	32,00 plastic
M 8	x	12	S	100	35,00 plastic
M 8	x	16	S	100	38,00 plastic
M 10	x	16	S	100	40,00 plastic
M 10	x	20	S	100	45,00 plastic
M 10	x	30	S	100	50,00 plastic
M 10	x	40	S	100	55,00 plastic

Dimensions	PU Pieces	€/100/Mat.
DIN	00553.700	230

553 Brass



Slotted grub screws with cone point

Dimensions ➔ TI-19
Material properties ➔ TI-239
Standard conversion ➔ TI-6
REACH ➔ TI-262

Steel ➔ pg. 94
Stainless ➔ pg. 471

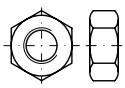
DIN 553 ➔ replaced by ISO 7434 (compatible)

RoHS ✓

M 3	x	4	S	100	13,60 brass
M 3	x	5	S	100	13,80 brass
M 3	x	6	S	100	14,40 brass
M 4	x	4	S	100	13,80 brass
M 4	x	5	S	100	14,10 brass
M 4	x	6	S	100	14,40 brass
M 4	x	8	S	100	14,60 brass
M 5	x	5	S	100	14,60 brass
M 5	x	6	S	100	15,70 brass
M 5	x	8	S	100	16,00 brass
M 5	x	10	S	100	17,00 brass
M 5	x	12	S	100	18,30 brass
M 5	x	16	S	100	20,50 brass
M 6	x	6	S	100	16,50 brass
M 6	x	8	S	100	18,30 brass
M 6	x	10	S	100	18,90 brass
M 6	x	20	S	100	28,50 brass

DIN	00555.600	240

555 Plastic PA



Hexagon nuts

wrench sizes acc. to DIN

Caution! Rough tolerance as per VDI 2544.

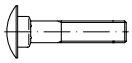
Dimensions ➔ (TI-62 ~ ISO 4032) REACH ➔ TI-262
Material properties ➔ TI-239

mostly identical to DIN 34814

M 3	S	1000	6,50 plastic
M 3	K	200	8,20 plastic
M 4	S	1000	7,10 plastic
M 4	K	200	8,90 plastic
M 5	S	1000	8,10 plastic
M 5	K	200	10,10 plastic
M 6	S	1000	8,70 plastic
M 6	K	100	10,80 plastic
M 8	S	100	13,50 plastic
M 10	S	100	23,60 plastic
M 12	S	100	28,50 plastic
M 16	S	100	50,00 plastic
M 20	S	100	85,00 plastic

Dimensions	PU Pieces	€/100/Mat.
DIN	00603.704	300

603 Brass



Cup head square neck bolts

nuts ➔ DIN 934/ISO 4032

Dimensions ➔ TI-32
Material properties ➔ TI-239
REACH ➔ TI-262

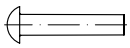
Steel ➔ pg. 103
Stainless ➔ pg. 473

RoHS ✓

M 5	x	16	S	100	78,00 brass
M 5	x	20	S	100	53,00 brass
M 5	x	25	S	100	110,00 brass
M 5	x	30	S	100	62,00 brass
M 5	x	35	S	100	71,00 brass
M 5	x	40	S	100	75,00 brass
M 5	x	45	S	100	82,00 brass
M 5	x	50	S	100	85,00 brass
M 5	x	60	S	100	116,00 brass
M 5	x	70	S	100	144,00 brass
M 6	x	16	S	100	71,00 brass
M 6	x	20	S	100	80,00 brass
M 6	x	25	S	100	84,00 brass
M 6	x	30	S	100	92,00 brass
M 6	x	35	S	100	110,00 brass
M 6	x	40	S	100	121,00 brass
M 6	x	45	S	100	130,00 brass
M 6	x	50	S	100	125,00 brass
M 6	x	60	S	100	154,00 brass
M 6	x	65	S	100	210,00 brass
M 6	x	70	S	100	191,00 brass
M 6	x	80	S	100	202,00 brass
M 8	x	25	S	50	186,00 brass
M 8	x	30	S	50	178,00 brass
M 8	x	40	S	50	236,00 brass
M 8	x	45	S	50	295,00 brass
M 8	x	50	S	50	270,00 brass
M 8	x	55	S	50	345,00 brass
M 8	x	60	S	50	315,00 brass
M 8	x	70	S	50	385,00 brass
M 8	x	80	S	50	415,00 brass

Dimensions	PU Pieces	€/100/Mat.
DIN	00660.700	330

660 Brass



Round head rivets

Dimensions ➔ TI-134
Material properties ➔ TI-239
REACH ➔ TI-262

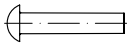
Steel ➔ pg. 109
Stainless ➔ pg. 474
Copper, Aluminium ➔ pg. 621

RoHS ✓

2	x	4	S	1000	4,55 brass
2	x	6	S	1000	4,65 brass
2	x	8	S	1000	4,95 brass
2	x	10	S	1000	5,20 brass
3	x	4	S	1000	6,50 brass
3	x	5	S	1000	6,70 brass
3	x	6	S	1000	6,90 brass
3	x	8	S	1000	7,90 brass
3	x	10	S	1000	9,10 brass
3	x	12	S	1000	9,90 brass
3	x	20	S	1000	14,40 brass
3	x	25	S	1000	17,80 brass
4	x	6	S	1000	11,60 brass
4	x	8	S	1000	12,60 brass
4	x	10	S	1000	14,90 brass
4	x	12	S	1000	16,70 brass
4	x	16	S	1000	19,90 brass
4	x	20	S	1000	24,20 brass
4	x	25	S	500	29,50 brass
4	x	30	S	500	36,50 brass
5	x	8	S	1000	22,30 brass
5	x	12	S	1000	27,00 brass
5	x	16	S	1000	32,00 brass
5	x	20	S	500	39,00 brass
6	x	10	S	500	38,00 brass
6	x	30	S	250	80,00 brass

DIN	00660.300	330

660 Copper



Round head rivets

Dimensions ➔ TI-134
Material properties ➔ TI-239

Steel ➔ pg. 109
Stainless ➔ pg. 474
Brass, Aluminium ➔ pg. 621

RoHS ✓ REACh SVHC free

2	x	3	S	1000	4,55 Cu
2	x	4	S	1000	4,55 Cu
2	x	5	S	1000	4,55 Cu
2	x	6	S	1000	4,65 Cu
2	x	8	S	1000	4,95 Cu

Dimensions			PU	Pieces	€/100/Mat.
2	x	10	S	1000	5,20 Cu
2	x	12	S	1000	5,90 Cu
2	x	16	S	1000	7,10 Cu
2,5	x	5	S	1000	4,95 Cu
2,5	x	6	S	1000	5,20 Cu
2,5	x	8	S	1000	5,90 Cu
2,5	x	12	S	1000	7,70 Cu
2,5	x	16	S	1000	9,30 Cu
3	x	4	S	1000	6,50 Cu
3	x	5	S	1000	6,70 Cu
3	x	6	S	1000	6,90 Cu
3	x	8	S	1000	7,90 Cu
3	x	10	S	1000	9,10 Cu
3	x	12	S	1000	9,90 Cu
3	x	16	S	1000	11,80 Cu
3	x	20	S	1000	14,40 Cu
3	x	25	S	1000	17,80 Cu
3	x	30	S	1000	22,60 Cu
4	x	6	S	1000	11,60 Cu
4	x	8	S	1000	12,60 Cu
4	x	10	S	1000	14,90 Cu
4	x	12	S	1000	16,70 Cu
4	x	16	S	1000	19,90 Cu
4	x	20	S	1000	24,20 Cu
4	x	25	S	500	29,50 Cu
4	x	30	S	500	36,50 Cu
4	x	40	S	250	50,00 Cu
5	x	6	S	1000	22,30 Cu
5	x	8	S	1000	22,30 Cu
5	x	10	S	1000	24,20 Cu
5	x	12	S	1000	27,00 Cu
5	x	16	S	1000	32,00 Cu
5	x	20	S	500	39,00 Cu
5	x	25	S	500	46,50 Cu
5	x	30	S	500	54,00 Cu
5	x	40	S	250	72,00 Cu
6	x	10	S	500	38,00 Cu
6	x	12	S	500	41,00 Cu
6	x	16	S	500	48,00 Cu
6	x	18	S	500	60,00 Cu
6	x	20	S	500	60,00 Cu
6	x	25	S	250	69,00 Cu
6	x	30	S	250	80,00 Cu
6	x	40	S	250	100,00 Cu
6	x	45	S	250	110,00 Cu
6	x	50	S	250	121,00 Cu
8	x	12	S	250	83,00 Cu
8	x	16	S	250	93,00 Cu
8	x	20	S	250	108,00 Cu
8	x	25	S	250	125,00 Cu
8	x	30	S	250	144,00 Cu
8	x	40	S	100	178,00 Cu

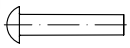
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Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions			PU	Pieces	€/100/Mat.
DIN	00660.301				330

660 Aluminium 99.5



Round head rivets

Dimensions ➔ TI-134 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 109
Stainless ➔ pg. 474
Brass, Copper ➔ pg. 621

∅ ≤ 9 = DIN 660
∅ 10 = DIN 124

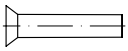
RoHS ✓

1	x	4	S	1000	4,50 Al
2	x	3	S	1000	1,80 Al
2	x	4	S	1000	1,80 Al
2	x	5	S	1000	1,80 Al
2	x	6	S	1000	1,85 Al
2	x	8	S	1000	1,85 Al
2	x	10	S	1000	1,90 Al
2	x	12	S	1000	1,95 Al
2	x	16	S	1000	2,15 Al
2,5	x	3	S	1000	1,80 Al
2,5	x	4	S	1000	1,80 Al
2,5	x	5	S	1000	1,85 Al
2,5	x	6	S	1000	1,85 Al
2,5	x	8	S	1000	1,90 Al
2,5	x	10	S	1000	1,90 Al
2,5	x	16	S	1000	2,40 Al
3	x	4	S	1000	1,90 Al
3	x	5	S	1000	1,90 Al
3	x	6	S	1000	1,90 Al
3	x	8	S	1000	2,00 Al
3	x	10	S	1000	2,20 Al
3	x	12	S	1000	2,30 Al
3	x	16	S	1000	2,75 Al
3	x	20	S	1000	3,50 Al
3	x	25	S	1000	4,30 Al
3	x	30	S	1000	5,10 Al
3	x	40	S	500	7,00 Al
4	x	6	S	1000	2,95 Al
4	x	8	S	1000	3,05 Al
4	x	10	S	1000	3,45 Al
4	x	12	S	1000	3,90 Al
4	x	16	S	1000	4,65 Al
4	x	18	S	1000	5,40 Al
4	x	20	S	1000	5,70 Al
4	x	25	S	500	7,10 Al
4	x	30	S	500	8,40 Al
4	x	35	S	500	9,70 Al
4	x	40	S	250	10,90 Al
4	x	50	S	250	13,80 Al
5	x	8	S	1000	5,00 Al
5	x	10	S	1000	5,10 Al
5	x	12	S	1000	5,70 Al
5	x	16	S	1000	6,70 Al
5	x	18	S	500	7,70 Al
5	x	20	S	500	8,30 Al
5	x	25	S	500	9,90 Al
5	x	30	S	500	11,20 Al
5	x	35	S	250	13,20 Al
5	x	40	S	250	14,60 Al
5	x	50	S	250	18,20 Al
5	x	60	S	100	21,70 Al

Dimensions			PU	Pieces	€/100/Mat.
6	x	10	S	500	8,00 Al
6	x	12	S	500	8,60 Al
6	x	16	S	500	9,60 Al
6	x	18	S	500	10,90 Al
6	x	20	S	500	11,60 Al
6	x	25	S	250	14,00 Al
6	x	30	S	250	15,80 Al
6	x	35	S	250	18,20 Al
6	x	40	S	250	20,20 Al
6	x	50	S	250	24,70 Al
6	x	60	S	100	29,50 Al
8	x	12	S	250	17,90 Al
8	x	16	S	250	18,70 Al
8	x	20	S	250	21,80 Al
8	x	25	S	250	25,50 Al
8	x	30	S	250	28,50 Al
8	x	35	S	100	32,00 Al
8	x	40	S	100	35,50 Al
8	x	50	S	100	42,50 Al
8	x	55	S	100	47,00 Al
10	x	20	S	100	34,00 Al
10	x	25	S	100	39,00 Al
10	x	30	S	100	44,00 Al

DIN	00661.700	330

661 Brass



Countersunk head rivets

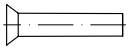
Dimensions ➔ TI-134 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 109
Stainless ➔ pg. 475
Copper, Aluminium ➔ pg. 623

RoHS ✓

3	x	6	S	1000	6,90 brass
3	x	8	S	1000	7,90 brass
3	x	10	S	1000	9,10 brass
3	x	12	S	1000	9,90 brass
4	x	10	S	1000	14,90 brass
4	x	12	S	1000	16,70 brass
4	x	16	S	1000	19,90 brass
4	x	20	S	1000	24,20 brass
4	x	30	S	500	36,50 brass

Dimensions			PU	Pieces	€/100/Mat.
DIN	00661.300				330
661	**Copper**				



Countersunk head rivets

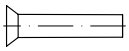
Dimensions ➔ TI-134 Material properties ➔ TI-239

Steel ➔ pg. 109
Stainless ➔ pg. 475
Brass, Aluminium ➔ pg. 622

RoHS ✓ | REACh SVHC free

2	x	4	S	1000	4,55 Cu
2	x	5	S	1000	4,55 Cu
2	x	6	S	1000	4,65 Cu
2	x	10	S	1000	5,20 Cu
2	x	12	S	1000	5,90 Cu
2	x	16	S	1000	7,10 Cu
2,5	x	6	S	1000	5,20 Cu
2,5	x	8	S	1000	5,90 Cu
2,5	x	10	S	1000	6,70 Cu
3	x	5	S	1000	6,70 Cu
3	x	6	S	1000	6,90 Cu
3	x	8	S	1000	7,90 Cu
3	x	10	S	1000	9,10 Cu
3	x	12	S	1000	9,90 Cu
3	x	16	S	1000	11,80 Cu
3	x	20	S	1000	14,40 Cu
3	x	25	S	1000	17,80 Cu
3	x	30	S	1000	22,60 Cu
3	x	40	S	500	31,50 Cu
4	x	6	S	1000	11,60 Cu
4	x	8	S	1000	12,60 Cu
4	x	10	S	1000	14,90 Cu
4	x	12	S	1000	16,70 Cu
4	x	16	S	1000	19,90 Cu
4	x	18	S	1000	24,20 Cu
4	x	20	S	1000	24,20 Cu
4	x	25	S	500	29,50 Cu
4	x	30	S	500	36,50 Cu
4	x	40	S	250	50,00 Cu
5	x	10	S	1000	24,20 Cu
5	x	12	S	1000	27,00 Cu
5	x	16	S	1000	32,00 Cu
5	x	20	S	500	39,00 Cu
5	x	25	S	500	46,50 Cu
5	x	30	S	500	54,00 Cu
5	x	35	S	250	61,00 Cu
5	x	40	S	250	72,00 Cu
5	x	50	S	250	91,00 Cu
6	x	10	S	500	38,00 Cu
6	x	12	S	500	41,00 Cu
6	x	16	S	500	48,00 Cu
6	x	18	S	500	60,00 Cu
6	x	20	S	500	60,00 Cu
6	x	25	S	250	69,00 Cu
6	x	30	S	250	80,00 Cu
6	x	35	S	250	89,00 Cu
6	x	40	S	250	100,00 Cu
6	x	45	S	250	110,00 Cu
6	x	50	S	250	121,00 Cu
8	x	12	S	250	83,00 Cu
8	x	16	S	250	93,00 Cu
8	x	20	S	250	108,00 Cu
8	x	25	S	250	125,00 Cu
8	x	30	S	250	144,00 Cu
8	x	35	S	100	160,00 Cu
8	x	40	S	100	178,00 Cu
8	x	45	S	100	197,00 Cu
8	x	50	S	100	215,00 Cu
8	x	60	S	100	270,00 Cu

DIN	00661.301				330
661	**Aluminium 99.5**				



Countersunk head rivets

Dimensions ➔ TI-134 REACH ➔ TI-262
Material properties ➔ TI-239

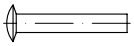
Steel ➔ pg. 109
Stainless ➔ pg. 475
Brass, Copper ➔ pg. 622

∅ ≤ 9 = DIN 661
∅ 10 = DIN 124

RoHS ✓

2	x	4	S	1000	1,80 Al
2	x	5	S	1000	1,80 Al
2	x	6	S	1000	1,85 Al
2	x	8	S	1000	1,85 Al
2	x	10	S	1000	1,90 Al
2	x	16	S	1000	2,15 Al
2,5	x	6	S	1000	1,85 Al
2,5	x	8	S	1000	1,90 Al
2,5	x	10	S	1000	1,90 Al
2,5	x	12	S	1000	2,00 Al
3	x	6	S	1000	1,90 Al
3	x	8	S	1000	2,00 Al
3	x	10	S	1000	2,20 Al
3	x	12	S	1000	2,30 Al
3	x	16	S	1000	2,75 Al
3	x	18	S	1000	3,15 Al
3	x	20	S	1000	3,50 Al
3	x	25	S	1000	4,30 Al
3	x	30	S	1000	5,10 Al
4	x	6	S	1000	2,95 Al
4	x	8	S	1000	3,05 Al
4	x	10	S	1000	3,45 Al
4	x	12	S	1000	3,90 Al
4	x	14	S	1000	4,35 Al
4	x	16	S	1000	4,65 Al
4	x	18	S	1000	5,40 Al
4	x	20	S	1000	5,70 Al
4	x	25	S	500	7,10 Al
4	x	30	S	500	8,40 Al
4	x	40	S	250	10,90 Al
5	x	8	S	1000	5,00 Al
5	x	10	S	1000	5,10 Al
5	x	12	S	1000	5,70 Al
5	x	16	S	1000	6,70 Al
5	x	20	S	500	8,30 Al
5	x	25	S	500	9,90 Al
5	x	30	S	500	11,20 Al
5	x	35	S	250	13,20 Al
5	x	40	S	250	14,60 Al
5	x	50	S	250	18,20 Al
6	x	10	S	500	8,00 Al
6	x	12	S	500	8,60 Al
6	x	16	S	500	9,60 Al
6	x	18	S	500	10,90 Al
6	x	20	S	500	11,60 Al
6	x	25	S	250	14,00 Al
6	x	30	S	250	15,80 Al
6	x	35	S	250	18,20 Al
6	x	40	S	250	20,20 Al
6	x	50	S	250	24,70 Al
6	x	60	S	100	29,50 Al
8	x	16	S	250	18,70 Al
8	x	20	S	250	21,80 Al
8	x	25	S	250	25,50 Al
8	x	30	S	250	28,50 Al
8	x	35	S	100	32,00 Al
8	x	40	S	100	35,50 Al
8	x	45	S	100	39,00 Al
8	x	50	S	100	42,50 Al
8	x	60	S	100	51,00 Al

DIN	00662.700				330
662	**Copper**				



Mushroom head rivets

Dimensions ➔ TI-134 Material properties ➔ TI-239

Steel ➔ pg. 110
Aluminium ➔ pg. 623

RoHS ✓ | REACh SVHC free

2	x	4	S	2000	4,55 Cu
2,5	x	5	S	1000	4,95 Cu
3	x	6	S	1000	6,90 Cu
3,5	x	8	S	1000	10,30 Cu
4	x	8	S	1000	12,60 Cu
5	x	12	S	500	27,00 Cu

DIN	00662.300				330
662	**Aluminium 99.5**				



Mushroom head rivets

Dimensions ➔ TI-134 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 110
Copper ➔ pg. 623

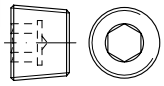
RoHS ✓

3	x	6	S	1000	1,90 Al
3,5	x	8	S	1000	6,20 Al
4	x	8	S	1000	3,05 Al
5	x	12	S	500	5,70 Al
6	x	16	S	500	9,60 Al

Dimensions | PU Pieces | €/100/Mat.

DIN 00906.700 350

906 Brass taper fine



Hexagon socket pipe plugs with taper fine pitch thread

Dimensions → TI-22 REACH → TI-262
Material properties → TI-239

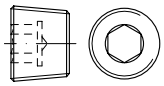
Steel → pg. 112
Stainless → pg. 476

RoHS ✓

M 10	x	1	S	100	93,00 brass
M 12	x	1,5	S	50	138,00 brass
M 14	x	1,5	S	50	146,00 brass
M 16	x	1,5	S	25	181,00 brass
M 20	x	1,5	S	25	315,00 brass
M 22	x	1,5	S	25	330,00 brass
M 24	x	1,5	S	25	490,00 brass
M 30	x	1,5	S	10	610,00 brass

DIN 00906.704 350

906 Brass taper pipe R



Hexagon socket pipe plugs, R = with taper pipe thread

Dimensions → TI-22 REACH → TI-262
Material properties → TI-239

Steel → pg. 112
Stainless → pg. 476

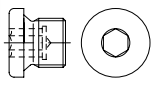
RoHS ✓

R 1/8	S	100	103,00 brass
R 1/4	S	100	129,00 brass
R 3/8	S	50	191,00 brass
R 1/2	S	50	295,00 brass
R 3/4	S	25	930,00 brass
R 1	S	10	1170,00 brass

Dimensions | PU Pieces | €/100/Mat.

DIN 00908.704 350

908 Brass cyl. pipe G



Hexagon socket screw plugs, G = with cylindrical pipe thread

Dimensions → TI-22 REACH → TI-262
Material properties → TI-239

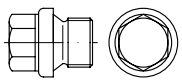
Steel → pg. 113
Stainless → pg. 476

RoHS ✓

G 1/8 A	S	100	450,00 brass
G 1/4 A	S	100	170,00 brass
G 3/8 A	S	50	305,00 brass
G 1/2 A	S	50	410,00 brass
G 3/4 A	S	25	610,00 brass

DIN 00910.700 350

910 Brass cyl. fine



Hexagon head screw plugs, heavy type, cylindrical fine pitch thread

Dimensions → TI-23 REACH → TI-262
Material properties → TI-239

Steel → pg. 114
Stainless → pg. 476

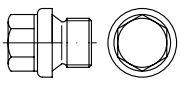
RoHS ✓

M 10	x	1	S	100	165,00 brass
M 12	x	1,5	S	50	300,00 brass
M 14	x	1,5	S	50	320,00 brass
M 16	x	1,5	S	25	340,00 brass
M 18	x	1,5	S	25	410,00 brass
M 20	x	1,5	S	25	490,00 brass
M 22	x	1,5	S	25	640,00 brass
M 24	x	1,5	S	25	830,00 brass
M 30	x	1,5	S	10	1210,00 brass

Dimensions | PU Pieces | €/100/Mat.

DIN 00910.704 350

910 Brass cyl. pipe G



Hexagon head screw plugs, heavy type, G = cylindrical pipe thread

Dimensions → TI-23 REACH → TI-262
Material properties → TI-239

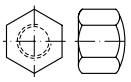
Steel → pg. 114
Stainless → pg. 477

RoHS ✓

G 1/8 A	S	100	152,00 brass
G 1/4 A	S	100	199,00 brass
G 3/8 A	S	50	280,00 brass
G 1/2 A	S	50	430,00 brass
G 5/8 A	S	25	970,00 brass
G 3/4 A	S	25	960,00 brass
G 1 A	S	10	1260,00 brass
G 1 1/4 A	S	1	2180,00 brass
G 1 1/2 A	S	1	2650,00 brass
G 2 A	S	1	5300,00 brass

DIN 00917.700 380

917 Brass



Hexagon cap nuts, low type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions → TI-62 REACH → TI-262
Material properties → TI-239

Steel → pg. 141
Stainless → pg. 485

RoHS ✓

SW = wrench size

M 4	S	1000	19,40 brass
M 4	K	100	29,00 brass
M 5	S	1000	24,40 brass
M 5	K	100	34,00 brass
M 6	S	1000	36,00 brass
M 6	K	100	48,50 brass
M 8	S	500	88,00 brass
M 8	K	100	104,00 brass
M 10 s = 17	S	100	132,00 brass
M 12 s = 19	S	50	194,00 brass
M 16	S	25	350,00 brass
M 20	S	25	590,00 brass

Dimensions	PU	Pieces	€/100/Mat.
DIN 00931.700			400

931 Brass



Hexagon head bolts

Dimensions ➔ TI-15
Material properties ➔ TI-239
Tightening torque ➔ TI-250

Standard conversion ➔ TI-6
REACH ➔ TI-262

Steel ➔ pg. 143
Stainless ➔ pg. 486

DIN 931 ➔ replaced by ISO 4014

RoHS ✓

M 8	x	40	S	100	270,00	brass
M 8	x	50	S	100	320,00	brass
M 8	x	60	S	100	370,00	brass
M 10	x	50	S	100	680,00	brass
M 10	x	60	S	100	870,00	brass
M 12	x	50	S	50	830,00	brass
M 12	x	60	S	50	1050,00	brass
M 12	x	70	S	50	1210,00	brass

DIN	00933.700	400

933 Brass



hexagon head screws

Dimensions ➔ TI-15
Material properties ➔ TI-239
Tightening torque ➔ TI-250

Standard conversion ➔ TI-6
REACH ➔ TI-262

Steel ➔ pg. 156
Stainless ➔ pg. 490

DIN 933 ➔ replaced by ISO 4017

RoHS ✓

M 4	x	6	S	100	25,50	brass
M 4	x	8	S	100	12,80	brass
M 4	x	10	S	100	12,80	brass
M 4	x	12	S	100	14,10	brass
M 4	x	16	S	100	15,20	brass
M 4	x	20	S	100	16,70	brass
M 4	x	25	S	100	19,10	brass
M 4	x	30	S	100	21,80	brass
M 4	x	35	S	100	24,40	brass
M 4	x	40	S	100	27,00	brass
M 4	x	50	S	100	42,50	brass
M 4	x	60	S	100	48,00	brass
M 5	x	8	S	100	17,50	brass
M 5	x	10	S	100	17,50	brass
M 5	x	12	S	100	19,40	brass
M 5	x	16	S	100	21,00	brass
M 5	x	20	S	100	23,90	brass
M 5	x	25	S	100	27,50	brass
M 5	x	30	S	100	30,00	brass
M 5	x	35	S	100	33,50	brass
M 5	x	40	S	100	34,50	brass
M 5	x	45	S	100	47,50	brass
M 5	x	50	S	100	43,00	brass
M 5	x	60	S	100	56,00	brass
M 6	x	8	S	100	27,00	brass
M 6	x	10	S	100	27,00	brass
M 6	x	12	S	100	27,50	brass
M 6	x	16	S	100	30,00	brass
M 6	x	20	S	100	33,00	brass
M 6	x	25	S	100	37,00	brass
M 6	x	30	S	100	41,00	brass
M 6	x	35	S	100	45,00	brass
M 6	x	40	S	100	49,50	brass
M 6	x	45	S	100	59,00	brass
M 6	x	50	S	100	59,00	brass
M 6	x	60	S	100	76,00	brass
M 8	x	10	S	100	59,00	brass
M 8	x	12	S	100	61,00	brass
M 8	x	16	S	100	65,00	brass
M 8	x	20	S	100	71,00	brass
M 8	x	25	S	100	80,00	brass
M 8	x	30	S	100	88,00	brass
M 8	x	35	S	100	95,00	brass
M 8	x	40	S	100	103,00	brass
M 8	x	45	S	100	118,00	brass
M 8	x	50	S	100	118,00	brass
M 8	x	55	S	100	130,00	brass
M 8	x	60	S	100	130,00	brass
M 8	x	65	S	100	157,00	brass
M 8	x	70	S	100	157,00	brass
M 8	x	80	S	100	173,00	brass
M 8	x	90	S	100	191,00	brass
M 10	x	10	S	100	395,00	brass
M 10	x	12	S	100	132,00	brass
M 10	x	16	S	100	120,00	brass
M 10	x	20	S	100	113,00	brass
M 10	x	25	S	100	141,00	brass
M 10	x	30	S	100	149,00	brass
M 10	x	35	S	100	162,00	brass
M 10	x	40	S	100	173,00	brass
M 10	x	45	S	100	197,00	brass
M 10	x	50	S	100	197,00	brass
M 10	x	60	S	100	220,00	brass
M 10	x	65	S	100	255,00	brass
M 10	x	70	S	100	255,00	brass
M 10	x	80	S	100	295,00	brass
M 10	x	100	S	50	400,00	brass
M 12	x	16	S	50	183,00	brass
M 12	x	20	S	50	194,00	brass
M 12	x	25	S	50	215,00	brass
M 12	x	30	S	50	223,00	brass
M 12	x	35	S	50	247,00	brass
M 12	x	40	S	50	260,00	brass
M 12	x	45	S	50	280,00	brass
M 12	x	50	S	50	280,00	brass
M 12	x	55	S	50	295,00	brass
M 12	x	60	S	50	290,00	brass
M 12	x	70	S	50	340,00	brass
M 12	x	80	S	50	455,00	brass
M 12	x	90	S	50	460,00	brass
M 12	x	100	S	50	530,00	brass
M 16	x	20	S	50	660,00	brass
M 16	x	25	S	50	720,00	brass
M 16	x	30	S	50	790,00	brass
M 16	x	35	S	50	870,00	brass
M 16	x	40	S	50	970,00	brass
M 16	x	45	S	25	1040,00	brass
M 16	x	50	S	25	1100,00	brass
M 16	x	55	S	25	1170,00	brass
M 16	x	60	S	10	1260,00	brass
M 16	x	65	S	10	1360,00	brass
M 16	x	70	S	10	1440,00	brass
M 16	x	80	S	10	1570,00	brass
M 16	x	90	S	10	1780,00	brass
M 16	x	100	S	10	1910,00	brass
M 20	x	30	S	10	1360,00	brass
M 20	x	40	S	10	1490,00	brass
M 20	x	50	S	10	1730,00	brass
M 20	x	60	S	10	2020,00	brass
M 20	x	80	S	1	2600,00	brass
M 20	x	100	S	1	3200,00	brass

DIN	00933.600	400

933 Plastic PA



hexagon head screws

thread length max. 50 mm

Caution! Rough tolerances, possible cavity formationas per VDI 2544/Abs. 8.

nuts ➔ DIN 555

Dimensions ➔ TI-15
Material properties ➔ TI-239

REACH ➔ TI-262

Steel ➔ pg. 156
Stainless ➔ pg. 490

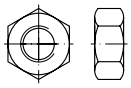
mostly identical to DIN 34810

M 3	x	8	S	200	7,50	plastic
M 3	x	10	S	200	7,70	plastic
M 3	x	12	S	200	7,70	plastic
M 3	x	16	S	200	7,90	plastic
M 3	x	20	S	200	8,40	plastic
M 3	x	25	S	200	8,60	plastic
M 3	x	30	S	200	8,80	plastic
M 4	x	8	S	200	7,90	plastic
M 4	x	10	S	200	8,20	plastic
M 4	x	12	S	200	8,30	plastic
M 4	x	16	S	200	8,50	plastic
M 4	x	20	S	200	9,10	plastic
M 4	x	25	S	200	9,50	plastic
M 4	x	30	S	200	10,00	plastic
M 5	x	10	S	200	9,20	plastic
M 5	x	12	S	200	9,50	plastic
M 5	x	16	S	200	10,10	plastic
M 5	x	20	S	200	11,80	plastic
M 5	x	25	S	200	12,40	plastic
M 5	x	30	S	200	13,20	plastic
M 5	x	40	S	200	14,50	plastic
M 6	x	10	S	200	10,50	plastic
M 6	x	12	S	200	10,70	plastic
M 6	x	16	S	200	11,20	plastic
M 6	x	20	S	200	12,30	plastic
M 6	x	25	S	200	13,40	plastic
M 6	x	30	S	200	16,10	plastic
M 6	x	35	S	200	16,80	plastic
M 6	x	40	S	200	17,40	plastic
M 6	x	50	S	200	18,40	plastic
M 8	x	10	S	200	20,10	plastic
M 8	x	12	S	200	21,00	plastic
M 8	x	16	S	200	22,10	plastic
M 8	x	20	S	200	24,00	plastic
M 8	x	25	S	200	26,00	plastic
M 8	x	30	S	200	27,50	plastic
M 8	x	35	S	200	28,50	plastic
M 8	x	40	S	200	30,00	plastic
M 8	x	50	S	200	32,00	plastic
M 8	x	60	S	200	41,50	plastic
M 8	x	70	S	200	45,50	plastic
M 10	x	20	S	200	44,50	plastic

Dimensions			PU	Pieces	€/100/Mat.
M 10	x	25	S	200	49,00 plastic
M 10	x	30	S	200	54,00 plastic
M 10	x	35	S	200	58,00 plastic
M 10	x	40	S	200	62,00 plastic
M 10	x	45	S	200	65,00 plastic
M 10	x	50	S	200	67,00 plastic
M 10	x	60	S	100	85,00 plastic
M 12	x	20	S	100	56,00 plastic
M 12	x	25	S	100	62,00 plastic
M 12	x	30	S	100	67,00 plastic
M 12	x	35	S	100	70,00 plastic
M 12	x	40	S	100	73,00 plastic
M 12	x	50	S	100	81,00 plastic
M 12	x	60	S	100	84,00 plastic

DIN 00934.700 410

934 Brass



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-239
Tightening torque ➔ TI-250

Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 168
Stainless ➔ pg. 495

DIN 934 ➔ replaced by ISO 4032

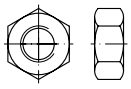
RoHS ✓

M 1	K	100	68,00 brass
M 1,2	K	100	45,00 brass
M 1,4	K	100	43,00 brass
M 1,6	K	100	30,50 brass
M 1,7	K	100	29,50 brass
M 2	S	1000	3,85 brass
M 2	K	100	8,00 brass
M 2,3	S	1000	3,85 brass
M 2,3	K	100	8,00 brass
M 2,5	S	1000	3,85 brass
M 2,5	K	100	8,00 brass
M 2,6	S	1000	3,85 brass
M 2,6	K	100	8,00 brass
M 3	S	1000	3,85 brass
M 3	K	100	8,00 brass
M 3,5	K	100	9,20 brass
M 4	S	1000	5,70 brass
M 4	K	100	9,70 brass
M 5	S	1000	7,20 brass
M 5	K	100	11,20 brass
M 6	S	1000	10,90 brass
M 6	K	100	17,00 brass
M 7	K	100	17,50 brass
M 8	S	1000	21,50 brass
M 8	K	100	27,50 brass
M 10	S	500	41,50 brass
M 10	K	100	51,00 brass
M 12	S	250	66,00 brass
M 12	K	100	75,00 brass
M 14	S	250	107,00 brass
M 14	K	50	125,00 brass
M 16	S	250	125,00 brass
M 16	K	50	141,00 brass
M 18	S	25	247,00 brass
M 20	S	25	310,00 brass
M 22	S	10	510,00 brass
M 24	S	10	570,00 brass

Dimensions	PU	Pieces	€/100/Mat.
M 27	S	1	880,00 brass
M 30	S	1	1070,00 brass
M 33	S	1	2440,00 brass
M 36	S	1	2440,00 brass
M 42	S	1	6600,00 brass

DIN 00934.730 410

934 Brass nickel plated



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-239
Tightening torque ➔ TI-250

Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 168
Stainless ➔ pg. 495626

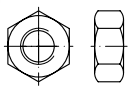
DIN 934 ➔ replaced by ISO 4032

RoHS ✓

M 2	S	1000	4,55 brass Ni
M 2,5	S	1000	4,65 brass Ni
M 3	S	1000	4,65 brass Ni
M 3,5	S	1000	4,80 brass Ni
M 4	S	1000	6,90 brass Ni
M 5	S	1000	8,80 brass Ni
M 6	S	1000	16,00 brass Ni
M 8	S	100	34,50 brass Ni
M 10	S	100	67,00 brass Ni
M 12	S	100	120,00 brass Ni
M 16	S	100	239,00 brass Ni

DIN 00934.740 410

934 Brass chrome plated



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-239
Tightening torque ➔ TI-250

Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 168
Stainless ➔ pg. 495

DIN 934 ➔ replaced by ISO 4032

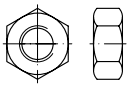
RoHS ✓

M 3	S	100	16,70 brass Cr
M 4	S	100	20,70 brass Cr
M 5	S	100	30,50 brass Cr
M 6	S	100	37,00 brass Cr
M 8	S	100	63,00 brass Cr

Dimensions	PU	Pieces	€/100/Mat.

DIN 00934.705 410

934 Brass fine



Hexagon nuts with metric fine pitch thread

Dimensions ➔ TI-62
Material properties ➔ TI-239
Tightening torque ➔ TI-250

Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 168
Stainless ➔ pg. 496

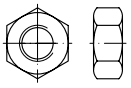
DIN 934 fine thread ➔ replaced by ISO 8673

RoHS ✓

M 8	x	1	S	100	47,00 brass
M 10	x	1	S	100	65,00 brass
M 14	x	1,5	S	50	141,00 brass
M 16	x	1,5	S	25	205,00 brass
M 20	x	1,5	S	10	410,00 brass
M 22	x	1,5	S	10	580,00 brass

DIN 00934.302 410

934 CuNiSi



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-239

Standard conversion ➔ TI-7

Steel ➔ pg. 168
Stainless ➔ pg. 495
Brass, Aluminium, Titanium ➔ pg. 626

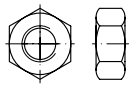
DIN 934 ➔ replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 6	S	100	71,00 CuNiSi
M 8	S	100	138,00 CuNiSi
M 10	S	100	228,00 CuNiSi
M 12	S	100	360,00 CuNiSi
M 16	S	100	710,00 CuNiSi
M 20	S	1	3300,00 CuNiSi
M 24	S	1	5400,00 CuNiSi

Dimensions	PU	Pieces	€/100/Mat.
DIN	00934.303		410

934 Aluminium



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-239
Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 168
Stainless ➔ pg. 495
Brass, Copper, Titanium ➔ pg. 626

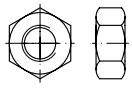
DIN 934 ➔ replaced by ISO 4032

RoHS ✓

M 4	S	100	6,50 Al
M 5	S	100	8,40 Al
M 6	S	100	10,00 Al
M 8	S	100	20,30 Al
M 10	S	100	38,50 Al
M 12	S	50	53,00 Al
M 16	S	50	104,00 Al

DIN	00934.308	410

934 Titanium (grade 2)



Hexagon nuts

Dimensions ➔ TI-62
Material properties ➔ TI-239
Standard conversion ➔ TI-7

Steel ➔ pg. 168
Stainless ➔ pg. 495
Brass, Copper, Aluminium ➔ pg. 626

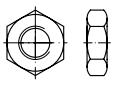
DIN 934 ➔ replaced by ISO 4032

RoHS ✓ REACh SVHC free

M 6	S	50	490,00 Ti
M 8	S	50	660,00 Ti
M 10	S	50	1010,00 Ti
M 12	S	25	1300,00 Ti
M 16	S	25	4300,00 Ti

Dimensions	PU	Pieces	€/100/Mat.
DIN	00936.700		420

936 Brass



Hexagon thin nuts

Dimensions ➔ TI-63
Material properties ➔ TI-239
Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 174
Stainless ➔ pg. 497

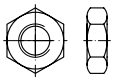
nuts acc. to ISO ➔ ISO 4035 (DIN 439)

RoHS ✓

M 12	S	100	69,00 brass
M 14	S	50	121,00 brass
M 16	S	50	141,00 brass
M 20	S	25	265,00 brass
M 24	S	25	500,00 brass
M 36	S	1	2420,00 brass

DIN	00936.705	420

936 Brass fine



Hexagon thin nuts with metric fine pitch thread

Dimensions ➔ TI-63
Material properties ➔ TI-239
Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 175
Stainless ➔ pg. 498

nuts acc. to ISO ➔ ISO 8675 (DIN 439)

RoHS ✓

M 10	x	1	S	100	52,00 brass
M 12	x	1,5	S	100	76,00 brass
M 14	x	1,5	S	50	132,00 brass
M 16	x	1,5	S	50	154,00 brass
M 18	x	1,5	S	25	265,00 brass
M 20	x	1,5	S	25	290,00 brass
M 24	x	1,5	S	25	550,00 brass
M 30	x	1,5	S	10	1290,00 brass

Dimensions	PU	Pieces	€/100/Mat.
DIN	00963.704		450

963 Brass turned bare



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 187
Stainless ➔ pg. 3100000

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

M 1,6	x	4	S	100	27,00 brass turned
M 1,6	x	6	S	100	28,00 brass turned
M 1,6	x	10	S	100	36,00 brass turned

DIN	00963.700	450

963 Brass



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 187
Stainless ➔ pg. 500

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

M 2	x	4	K	200	11,30 brass
M 2	x	5	K	200	10,40 brass
M 2	x	6	K	200	9,50 brass
M 2	x	8	K	200	8,40 brass
M 2	x	10	K	200	8,80 brass
M 2	x	12	K	200	9,30 brass
M 2	x	16	K	200	10,70 brass
M 2	x	20	K	200	12,00 brass
M 2,5	x	4	K	200	11,60 brass
M 2,5	x	5	K	200	10,10 brass
M 2,5	x	6	K	200	8,70 brass
M 2,5	x	8	K	200	8,40 brass
M 2,5	x	10	K	200	8,80 brass
M 2,5	x	12	K	200	9,30 brass
M 2,5	x	16	K	200	10,70 brass
M 2,5	x	18	K	200	18,10 brass
M 2,5	x	20	K	200	12,00 brass
M 3	x	4	S	1000	8,70 brass
M 3	x	4	K	200	8,70 brass
M 3	x	5	K	200	8,10 brass
M 3	x	6	S	1000	6,90 brass
M 3	x	6	K	200	6,90 brass
M 3	x	8	S	1000	7,10 brass
M 3	x	8	K	200	7,10 brass
M 3	x	10	S	1000	7,30 brass
M 3	x	10	K	200	7,30 brass
M 3	x	12	S	1000	7,70 brass

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	12	K	200	7,70 brass
M 3	x	16	S	1000	8,80 brass
M 3	x	16	K	200	8,80 brass
M 3	x	18	K	200	15,20 brass
M 3	x	20	S	1000	10,10 brass
M 3	x	20	K	200	10,10 brass
M 3	x	25	K	200	11,30 brass
M 3	x	30	K	200	13,80 brass
M 3	x	35	K	200	14,60 brass
M 3	x	40	K	200	20,70 brass
M 4	x	5	K	200	10,70 brass
M 4	x	6	S	1000	9,50 brass
M 4	x	6	K	200	9,50 brass
M 4	x	8	S	1000	10,30 brass
M 4	x	8	K	200	10,30 brass
M 4	x	10	S	1000	10,70 brass
M 4	x	10	K	200	10,70 brass
M 4	x	12	S	1000	10,90 brass
M 4	x	12	K	200	10,90 brass
M 4	x	16	S	1000	13,00 brass
M 4	x	16	K	200	13,00 brass
M 4	x	18	K	200	22,60 brass
M 4	x	20	S	1000	15,20 brass
M 4	x	20	K	200	15,20 brass
M 4	x	25	S	1000	16,00 brass
M 4	x	25	K	200	16,00 brass
M 4	x	30	S	1000	18,90 brass
M 4	x	30	K	200	18,90 brass
M 4	x	35	K	200	21,00 brass
M 4	x	40	K	200	22,80 brass
M 4	x	45	K	200	28,50 brass
M 4	x	50	K	200	30,50 brass
M 5	x	8	K	200	15,70 brass
M 5	x	10	S	1000	16,00 brass
M 5	x	10	K	200	16,00 brass
M 5	x	12	S	1000	16,50 brass
M 5	x	12	K	200	16,50 brass
M 5	x	16	S	1000	18,90 brass
M 5	x	16	K	200	18,90 brass
M 5	x	18	K	200	30,50 brass
M 5	x	20	S	1000	20,50 brass
M 5	x	20	K	200	20,50 brass
M 5	x	25	S	1000	23,10 brass
M 5	x	25	K	200	23,10 brass
M 5	x	30	S	1000	27,00 brass
M 5	x	30	K	200	27,00 brass
M 5	x	35	K	200	34,50 brass
M 5	x	40	K	200	36,50 brass
M 5	x	45	K	200	39,50 brass
M 5	x	50	K	200	42,00 brass
M 5	x	60	K	200	54,00 brass
M 6	x	10	S	1000	21,50 brass
M 6	x	10	K	200	21,50 brass
M 6	x	12	S	1000	24,20 brass
M 6	x	12	K	200	24,20 brass
M 6	x	16	S	1000	28,00 brass
M 6	x	16	K	200	28,00 brass
M 6	x	20	S	1000	30,50 brass
M 6	x	20	K	200	30,50 brass
M 6	x	25	S	1000	32,50 brass
M 6	x	25	K	200	32,50 brass
M 6	x	30	K	200	37,50 brass
M 6	x	35	K	200	43,00 brass
M 6	x	40	K	200	46,50 brass
M 6	x	45	K	200	54,00 brass
M 6	x	50	K	200	56,00 brass
M 6	x	60	K	100	72,00 brass
M 6	x	70	K	100	83,00 brass
M 6	x	80	K	100	89,00 brass
M 8	x	12	K	100	71,00 brass
M 8	x	16	K	100	61,00 brass
M 8	x	20	K	100	65,00 brass
M 8	x	25	K	100	68,00 brass
M 8	x	30	K	100	79,00 brass
M 8	x	35	K	100	84,00 brass

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	40	K	100	89,00 brass
M 8	x	45	K	100	104,00 brass
M 8	x	50	K	100	110,00 brass
M 8	x	60	K	100	132,00 brass
M 8	x	70	K	100	162,00 brass
M 8	x	80	K	100	173,00 brass
M 10	x	16	K	100	99,00 brass
M 10	x	20	K	100	96,00 brass
M 10	x	25	K	100	109,00 brass
M 10	x	30	K	100	118,00 brass
M 10	x	35	K	100	132,00 brass
M 10	x	40	K	100	146,00 brass
M 10	x	45	K	100	157,00 brass
M 10	x	50	K	100	167,00 brass
M 10	x	60	K	100	189,00 brass
M 10	x	70	K	100	244,00 brass
M 10	x	80	K	100	270,00 brass
M 12	x	20	K	50	290,00 brass
M 12	x	25	K	50	295,00 brass
M 12	x	30	K	50	330,00 brass
M 12	x	35	K	50	360,00 brass
M 12	x	40	K	50	390,00 brass
M 12	x	45	K	50	420,00 brass
M 12	x	50	K	50	455,00 brass
M 12	x	70	K	50	590,00 brass
M 16	x	25	K	25	1170,00 brass
M 16	x	30	K	25	1170,00 brass
M 16	x	35	K	25	1260,00 brass
M 16	x	40	K	25	1360,00 brass
M 16	x	45	K	25	1460,00 brass
M 16	x	50	K	25	1570,00 brass

DIN	00963.730	450
963	**Brass nickel plated**	



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 187
Stainless ➔ pg. 500

DIN 963 ➔ replaced by ISO 2009

RoHS ✓

M 3	x	10	K	200	8,40 NP
M 3	x	16	K	200	10,00 NP
M 3	x	20	K	200	11,20 NP
M 3	x	30	K	200	14,90 NP
M 4	x	10	K	200	11,80 NP
M 4	x	16	K	200	14,10 NP
M 4	x	20	K	200	16,50 NP
M 4	x	30	K	200	20,70 NP
M 5	x	10	K	200	17,00 NP
M 5	x	16	K	200	20,50 NP
M 5	x	20	K	200	22,60 NP
M 6	x	10	K	200	23,40 NP
M 6	x	16	K	200	30,50 NP
M 6	x	20	K	200	34,00 NP

Dimensions			PU	Pieces	€/100/Mat.
DIN	00963.600				450
963	**Plastic PA**				



Slotted countersunk head screws

Caution! Rough tolerances as per VDI 2544.

nuts ➔ DIN 555

Dimensions ➔ TI-27
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 187
Stainless ➔ pg. 500

M 3	x	6	S	200	5,50 plastic
M 3	x	8	S	200	5,70 plastic
M 3	x	10	S	200	5,90 plastic
M 3	x	12	S	200	6,00 plastic
M 3	x	16	S	200	6,10 plastic
M 3	x	20	S	200	6,40 plastic
M 4	x	10	S	200	6,80 plastic
M 4	x	12	S	200	7,10 plastic
M 4	x	16	S	200	7,20 plastic
M 4	x	20	S	200	7,50 plastic
M 4	x	25	S	200	7,80 plastic
M 4	x	30	S	200	8,20 plastic
M 5	x	10	S	200	7,30 plastic
M 5	x	12	S	200	7,80 plastic
M 5	x	16	S	200	8,50 plastic
M 5	x	20	S	200	9,40 plastic
M 5	x	25	S	200	10,00 plastic
M 6	x	10	S	200	8,20 plastic
M 6	x	12	S	200	9,00 plastic
M 6	x	16	S	200	9,50 plastic
M 6	x	20	S	200	10,50 plastic
M 6	x	25	S	200	12,00 plastic
M 6	x	30	S	200	13,00 plastic
M 8	x	16	S	200	17,40 plastic
M 8	x	20	S	200	18,50 plastic
M 8	x	25	S	200	20,60 plastic
M 8	x	30	S	200	23,50 plastic
M 8	x	40	S	200	27,50 plastic

DIN	00964.700	450
964	**Brass**	



Slotted raised countersunk head screws

Dimensions ➔ TI-39
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 189
Stainless ➔ pg. 502

DIN 964 ➔ replaced by ISO 2010

RoHS ✓

M 3	x	5	K	200	8,10 brass
M 3	x	6	K	200	6,90 brass
M 3	x	8	K	200	7,10 brass

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	10	K	200	7,30 brass
M 3	x	12	K	200	7,70 brass
M 3	x	16	K	200	8,80 brass
M 3	x	20	K	200	10,10 brass
M 3	x	25	K	200	11,30 brass
M 3	x	30	K	200	13,80 brass
M 3	x	35	K	200	14,60 brass
M 3	x	40	K	200	20,70 brass
M 4	x	5	K	200	10,70 brass
M 4	x	6	K	200	9,50 brass
M 4	x	8	K	200	10,30 brass
M 4	x	10	K	200	10,70 brass
M 4	x	12	K	200	10,90 brass
M 4	x	16	K	200	13,00 brass
M 4	x	20	K	200	15,20 brass
M 4	x	25	K	200	16,00 brass
M 4	x	30	K	200	18,90 brass
M 4	x	35	K	200	21,00 brass
M 4	x	40	K	200	22,80 brass
M 4	x	45	K	200	28,50 brass
M 4	x	50	K	200	29,50 brass
M 4	x	60	K	200	54,00 brass
M 5	x	8	K	200	15,70 brass
M 5	x	10	K	200	16,00 brass
M 5	x	12	K	200	16,50 brass
M 5	x	16	K	200	18,90 brass
M 5	x	20	K	200	20,70 brass
M 5	x	25	K	200	23,10 brass
M 5	x	30	K	200	27,00 brass
M 5	x	35	K	200	34,50 brass
M 5	x	40	K	200	36,50 brass
M 5	x	45	K	200	39,50 brass
M 5	x	50	K	200	42,00 brass
M 5	x	60	K	200	54,00 brass
M 5	x	70	K	200	66,00 brass
M 5	x	80	K	200	83,00 brass
M 5	x	100	K	200	136,00 brass
M 6	x	8	K	200	27,00 brass
M 6	x	10	K	200	21,50 brass
M 6	x	12	K	200	24,20 brass
M 6	x	16	K	200	28,00 brass
M 6	x	20	K	200	30,50 brass
M 6	x	25	K	200	32,50 brass
M 6	x	30	K	200	37,50 brass
M 6	x	35	K	200	43,00 brass
M 6	x	40	K	200	46,50 brass
M 6	x	45	K	200	54,00 brass
M 6	x	50	K	200	56,00 brass
M 6	x	60	K	100	72,00 brass
M 6	x	70	K	100	83,00 brass
M 6	x	80	K	100	89,00 brass
M 6	x	100	S	100	100,00 brass
M 8	x	16	K	100	61,00 brass
M 8	x	20	K	100	65,00 brass
M 8	x	25	K	100	68,00 brass
M 8	x	30	K	100	79,00 brass
M 8	x	35	K	100	84,00 brass
M 8	x	40	K	100	89,00 brass
M 8	x	50	K	100	110,00 brass
M 8	x	60	K	100	132,00 brass

Dimensions	PU	Pieces	€/100/Mat.
DIN	00964.730		450

964 **Brass nickel plated**



Slotted raised countersunk head screws

Dimensions → TI-39
Material properties → TI-239
Standard conversion → TI-11
REACH → TI-262

Steel → pg. 189
Stainless → pg. 502

DIN 964 → replaced by ISO 2010

RoHS ✓

M 3	x	8	K	200	8,10 brass Ni
M 3	x	10	K	200	8,40 brass Ni
M 3	x	12	K	200	8,90 brass Ni
M 3	x	16	K	200	10,00 brass Ni
M 3	x	20	K	200	11,20 brass Ni
M 3	x	25	K	200	12,40 brass Ni
M 4	x	8	K	200	11,30 brass Ni
M 4	x	10	K	200	11,80 brass Ni
M 4	x	12	K	200	12,00 brass Ni
M 4	x	16	K	200	14,40 brass Ni
M 4	x	20	K	200	16,50 brass Ni
M 4	x	25	K	200	17,50 brass Ni
M 4	x	30	K	200	20,70 brass Ni
M 4	x	35	K	200	23,40 brass Ni
M 4	x	40	K	200	25,50 brass Ni
M 4	x	45	K	200	29,50 brass Ni
M 4	x	50	K	200	33,50 brass Ni
M 4	x	60	K	200	59,00 brass Ni
M 5	x	10	K	200	17,30 brass Ni
M 5	x	12	K	200	18,10 brass Ni
M 5	x	16	K	200	20,70 brass Ni
M 5	x	20	K	200	22,80 brass Ni
M 5	x	25	K	200	26,00 brass Ni
M 5	x	30	K	200	30,00 brass Ni
M 5	x	35	K	200	38,00 brass Ni
M 5	x	40	K	200	40,50 brass Ni
M 5	x	45	K	200	44,00 brass Ni
M 5	x	50	K	200	47,00 brass Ni
M 5	x	60	K	200	59,00 brass Ni
M 5	x	70	K	200	73,00 brass Ni
M 5	x	80	K	200	91,00 brass Ni
M 6	x	10	K	200	23,60 brass Ni
M 6	x	12	K	200	27,00 brass Ni
M 6	x	16	K	200	30,50 brass Ni
M 6	x	20	K	200	34,00 brass Ni
M 6	x	25	K	200	35,00 brass Ni
M 6	x	30	K	200	42,50 brass Ni
M 6	x	35	K	200	48,00 brass Ni
M 6	x	40	K	200	53,00 brass Ni
M 6	x	45	K	200	60,00 brass Ni
M 6	x	50	K	200	63,00 brass Ni
M 6	x	60	K	100	80,00 brass Ni
M 6	x	70	K	100	92,00 brass Ni
M 6	x	80	K	100	101,00 brass Ni

Dimensions	PU	Pieces	€/100/Mat.
DIN	00964.740		450

964 **Brass chrome plated**



Slotted raised countersunk head screws

Dimensions → TI-39
Material properties → TI-239
Standard conversion → TI-11
REACH → TI-262

Steel → pg. 189
Stainless → pg. 502

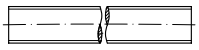
DIN 964 → replaced by ISO 2010

RoHS ✓

M 3	x	8	K	200	13,80 brass Cr
M 3	x	10	K	200	15,20 brass Cr
M 3	x	12	K	200	16,50 brass Cr
M 3	x	16	K	200	19,40 brass Cr
M 3	x	20	K	200	22,80 brass Cr
M 3	x	25	K	200	17,50 brass Cr
M 3	x	30	K	200	31,50 brass Cr
M 4	x	8	K	200	17,30 brass Cr
M 4	x	10	K	200	18,30 brass Cr
M 4	x	12	K	200	19,40 brass Cr
M 4	x	16	K	200	23,40 brass Cr
M 4	x	20	K	200	27,50 brass Cr
M 4	x	25	K	200	30,50 brass Cr
M 4	x	30	K	200	36,00 brass Cr
M 4	x	35	K	200	40,50 brass Cr
M 4	x	40	K	200	44,50 brass Cr
M 4	x	45	K	200	52,00 brass Cr
M 4	x	50	K	200	57,00 brass Cr
M 4	x	60	K	200	85,00 brass Cr
M 5	x	10	K	200	28,00 brass Cr
M 5	x	12	K	200	30,00 brass Cr
M 5	x	16	K	200	36,00 brass Cr
M 5	x	20	K	200	40,50 brass Cr
M 5	x	25	K	200	47,00 brass Cr
M 5	x	30	K	200	54,00 brass Cr
M 5	x	35	K	200	65,00 brass Cr
M 5	x	40	K	200	72,00 brass Cr
M 5	x	45	K	200	53,00 brass Cr
M 5	x	50	K	200	85,00 brass Cr
M 5	x	60	K	200	104,00 brass Cr
M 5	x	70	K	200	125,00 brass Cr
M 6	x	10	K	200	40,00 brass Cr
M 6	x	16	K	200	54,00 brass Cr
M 6	x	20	K	200	60,00 brass Cr
M 6	x	25	K	200	69,00 brass Cr
M 6	x	30	K	200	79,00 brass Cr
M 6	x	35	K	200	89,00 brass Cr
M 6	x	40	K	200	99,00 brass Cr
M 6	x	50	K	200	118,00 brass Cr
M 6	x	60	K	100	146,00 brass Cr
M 6	x	80	K	100	186,00 brass Cr
M 8	x	20	K	100	112,00 brass Cr
M 8	x	25	K	100	122,00 brass Cr

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00975.700		470

975* Brass



Threaded rods, length 1000 mm

(as per DIN 976-1, type A)

Material properties ➔ TI-239 REACH ➔ TI-262

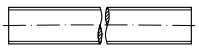
Steel ➔ pg. 192
Stainless ➔ pg. 507

RoHS ✓

M 2	S	1	1940,00	brass
M 3	S	1	960,00	brass
M 4	S	1	850,00	brass
M 5	S	1	1300,00	brass
M 6	S	1	1520,00	brass
M 8	S	1	2340,00	brass
M 10	S	1	3450,00	brass
M 12	S	1	4600,00	brass
M 14	S	1	6600,00	brass
M 16	S	1	8700,00	brass
M 18	S	1	12900,00	brass
M 20	S	1	13700,00	brass
M 24	S	1	17400,00	brass

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00975.600		470

975* Plastic PA



Threaded rods, length 1000 mm

(as per DIN 976-1, type A)

Caution! Rough tolerances as per VDI 2544.

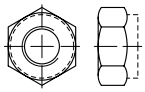
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 192
Stainless ➔ pg. 507

M 5	S	1	1080,00	plastic
M 6	S	1	1100,00	plastic
M 8	S	1	1350,00	plastic
M 10	S	1	1730,00	plastic
M 12	S	1	2190,00	plastic
M 16	S	1	3000,00	plastic
M 20	S	1	4500,00	plastic

Dimensions	PU	Pieces	€/100/Mat.
~DIN	00985.700		480

985 Brass



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use at temperatures from -50 to +120 °C

Dimensions ➔ TI-9 Standard conversion ➔ TI-9
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 201
Stainless ➔ pg. 512

DIN 985 ➔ replaced by ISO 10511

M 4	S	100	30,00	brass
M 5	S	100	33,00	brass
M 6	S	100	34,00	brass
M 8	S	100	58,00	brass
M 10	S	100	110,00	brass
M 12	S	50	170,00	brass

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

ISO	01207.705		30

1207 Brass turned bare



Slotted cheese head screws

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 205
Stainless ➔ pg. 513

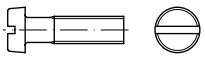
ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓

M 1	x	2	S	100	52,00	brass turned
M 1	x	3	S	100	53,00	brass turned
M 1	x	4	S	100	53,00	brass turned
M 1	x	5	S	100	56,00	brass turned
M 1	x	6	S	100	61,00	brass turned
M 1	x	8	S	100	68,00	brass turned
M 1	x	10	S	100	77,00	brass turned
M 1,4	x	3	S	100	50,00	brass turned
M 1,4	x	4	S	100	52,00	brass turned
M 1,4	x	5	S	100	53,00	brass turned
M 1,4	x	6	S	100	58,00	brass turned
M 1,4	x	8	S	100	67,00	brass turned
M 1,4	x	10	S	100	75,00	brass turned
M 1,4	x	12	S	100	93,00	brass turned
M 1,4	x	16	S	100	98,00	brass turned
M 1,6	x	4	S	100	46,50	brass turned
M 1,6	x	5	S	100	47,50	brass turned
M 1,6	x	6	S	100	49,00	brass turned
M 1,6	x	8	S	100	56,00	brass turned
M 1,6	x	10	S	100	58,00	brass turned
M 1,6	x	12	S	100	65,00	brass turned
M 1,6	x	16	S	100	73,00	brass turned

ISO	01207.700		30

1207 Brass



Slotted cheese head screws

Dimensions ➔ TI-37 Standard conversion ➔ TI-11
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 205
Stainless ➔ pg. 513

ISO 1207 ➔ replaces DIN 84 (compatible)

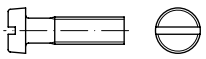
RoHS ✓

M 2	x	4	K	200	14,10	brass
M 2	x	5	K	200	13,30	brass
M 2	x	6	K	200	12,40	brass
M 2	x	8	K	200	11,00	brass
M 2	x	10	K	200	11,40	brass
M 2	x	12	K	200	12,00	brass
M 2	x	16	K	200	13,30	brass
M 2	x	20	K	200	14,60	brass
M 2,5	x	3	K	200	27,00	brass
M 2,5	x	4	K	200	11,20	brass
M 2,5	x	5	K	200	11,70	brass
M 2,5	x	6	K	200	11,60	brass
M 2,5	x	8	K	200	11,00	brass
M 2,5	x	10	K	200	11,40	brass
M 2,5	x	12	K	200	12,00	brass
M 2,5	x	16	K	200	13,30	brass
M 2,5	x	20	K	200	14,60	brass
M 3	x	4	S	1000	9,30	brass
M 3	x	4	K	200	12,00	brass
M 3	x	5	S	1000	8,70	brass
M 3	x	5	K	200	11,30	brass
M 3	x	6	S	1000	6,90	brass
M 3	x	6	K	200	9,60	brass
M 3	x	8	S	1000	7,10	brass
M 3	x	8	K	200	9,70	brass
M 3	x	10	S	1000	7,30	brass
M 3	x	10	K	200	10,00	brass
M 3	x	12	S	1000	7,70	brass
M 3	x	12	K	200	10,40	brass
M 3	x	16	S	1000	8,80	brass
M 3	x	16	K	200	11,40	brass
M 3	x	18	K	200	12,80	brass

Dimensions			PU	Pieces	€/100/Mat.
M 3	x	20	S	1000	10,10 brass
M 3	x	20	K	200	13,10 brass
M 3	x	25	S	1000	11,30 brass
M 3	x	25	K	200	14,00 brass
M 3	x	30	S	1000	13,80 brass
M 3	x	30	K	200	16,50 brass
M 3	x	35	K	200	17,30 brass
M 3	x	40	K	200	23,40 brass
M 3	x	45	K	200	31,00 brass
M 3	x	50	K	200	37,00 brass
M 3,5	x	8	K	200	13,80 brass
M 3,5	x	10	K	200	14,40 brass
M 3,5	x	12	K	200	14,60 brass
M 3,5	x	16	K	200	17,00 brass
M 3,5	x	20	K	200	19,40 brass
M 4	x	5	S	1000	10,70 brass
M 4	x	5	K	200	13,30 brass
M 4	x	6	S	1000	9,50 brass
M 4	x	6	K	200	12,10 brass
M 4	x	8	S	1000	10,30 brass
M 4	x	8	K	200	12,90 brass
M 4	x	10	S	1000	10,70 brass
M 4	x	10	K	200	13,30 brass
M 4	x	12	S	1000	10,90 brass
M 4	x	12	K	200	13,60 brass
M 4	x	16	S	1000	13,00 brass
M 4	x	16	K	200	15,70 brass
M 4	x	20	S	1000	15,20 brass
M 4	x	20	K	200	17,80 brass
M 4	x	25	S	1000	16,00 brass
M 4	x	25	K	200	18,60 brass
M 4	x	30	S	1000	18,90 brass
M 4	x	30	K	200	21,50 brass
M 4	x	35	S	1000	21,00 brass
M 4	x	35	K	200	23,60 brass
M 4	x	40	S	1000	22,80 brass
M 4	x	40	K	200	25,50 brass
M 4	x	45	K	200	31,00 brass
M 4	x	50	K	200	33,00 brass
M 4	x	60	K	200	56,00 brass
M 5	x	6	K	200	20,50 brass
M 5	x	8	K	200	18,30 brass
M 5	x	10	S	1000	16,00 brass
M 5	x	10	K	200	18,60 brass
M 5	x	12	S	1000	16,50 brass
M 5	x	12	K	200	19,10 brass
M 5	x	16	S	1000	18,90 brass
M 5	x	16	K	200	21,50 brass
M 5	x	20	S	1000	20,70 brass
M 5	x	20	K	200	23,40 brass
M 5	x	22	K	200	25,50 brass
M 5	x	25	S	1000	23,10 brass
M 5	x	25	K	200	26,00 brass
M 5	x	30	S	1000	27,00 brass
M 5	x	30	K	200	29,50 brass
M 5	x	35	S	1000	34,50 brass
M 5	x	35	K	200	37,50 brass
M 5	x	40	S	500	37,00 brass
M 5	x	40	K	200	39,50 brass
M 5	x	45	K	200	43,00 brass
M 5	x	50	K	200	45,50 brass
M 5	x	60	K	200	56,00 brass
M 5	x	70	K	200	69,00 brass
M 6	x	8	K	200	29,50 brass
M 6	x	10	S	1000	21,50 brass
M 6	x	10	K	200	24,20 brass
M 6	x	12	S	1000	24,20 brass
M 6	x	12	K	200	27,00 brass
M 6	x	16	S	1000	28,00 brass
M 6	x	16	K	200	30,50 brass
M 6	x	18	K	200	32,00 brass
M 6	x	20	S	1000	30,50 brass
M 6	x	20	K	200	33,50 brass
M 6	x	25	S	1000	33,00 brass
M 6	x	25	K	200	35,50 brass

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	30	S	500	37,50 brass
M 6	x	30	K	200	40,50 brass
M 6	x	35	K	200	45,50 brass
M 6	x	40	K	200	49,00 brass
M 6	x	45	K	200	56,00 brass
M 6	x	50	K	200	59,00 brass
M 6	x	60	K	100	75,00 brass
M 6	x	70	K	100	85,00 brass
M 6	x	80	K	100	92,00 brass
M 8	x	10	K	100	73,00 brass
M 8	x	12	K	100	71,00 brass
M 8	x	16	K	100	64,00 brass
M 8	x	20	K	100	68,00 brass
M 8	x	25	K	100	71,00 brass
M 8	x	30	K	100	81,00 brass
M 8	x	35	K	100	87,00 brass
M 8	x	40	K	100	92,00 brass
M 8	x	45	K	100	107,00 brass
M 8	x	50	K	100	113,00 brass
M 8	x	60	K	100	134,00 brass
M 10	x	16	K	100	101,00 brass
M 10	x	20	K	100	99,00 brass
M 10	x	25	K	100	112,00 brass
M 10	x	30	K	100	121,00 brass
M 10	x	35	K	100	134,00 brass
M 10	x	40	K	100	149,00 brass
M 10	x	45	K	100	160,00 brass
M 10	x	50	K	100	170,00 brass

ISO	01207.730	30
1207	**Brass nickel plated**	





Slotted cheese head screws

Dimensions ➔ TI-37
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 205
Stainless ➔ pg. 513

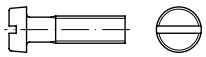
ISO 1207 ➔ replaces DIN 84 (compatible)

RoHS ✓

M 2,5	x	6	K	200	10,30 brass Ni
M 2,5	x	8	K	200	9,50 brass Ni
M 2,5	x	10	K	200	9,90 brass Ni
M 2,5	x	16	K	200	11,80 brass Ni
M 3	x	6	K	200	8,10 brass Ni
M 3	x	8	K	200	8,10 brass Ni
M 3	x	10	K	200	8,40 brass Ni
M 3	x	12	K	200	8,90 brass Ni
M 3	x	16	K	200	10,00 brass Ni
M 3	x	20	K	200	11,20 brass Ni
M 3	x	25	K	200	12,40 brass Ni
M 3	x	30	K	200	15,20 brass Ni
M 4	x	6	K	200	10,70 brass Ni
M 4	x	8	K	200	11,30 brass Ni
M 4	x	10	K	200	11,80 brass Ni
M 4	x	12	K	200	12,10 brass Ni
M 4	x	16	K	200	14,40 brass Ni
M 4	x	20	K	200	16,70 brass Ni
M 4	x	25	K	200	17,80 brass Ni
M 4	x	30	K	200	21,00 brass Ni
M 4	x	40	K	200	25,50 brass Ni
M 5	x	10	K	200	17,80 brass Ni
M 5	x	16	K	200	21,30 brass Ni
M 5	x	20	K	200	23,40 brass Ni

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	30	K	200	30,50 brass Ni
M 6	x	10	K	200	24,40 brass Ni
M 6	x	16	K	200	31,50 brass Ni
M 6	x	20	K	200	33,50 brass Ni

ISO	01207.600	30
1207	**Plastic PA**	



Slotted cheese head screws

Caution! Rough tolerances as per VDI 2544.

nuts ➔ DIN 555

Dimensions ➔ TI-37
Material properties ➔ TI-239
REACH ➔ TI-262

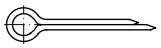
Steel ➔ pg. 205
Stainless ➔ pg. 513

M 2,5	x	6	S	200	8,20 plastic
M 2,5	x	10	S	200	8,40 plastic
M 2,5	x	16	S	200	8,50 plastic
M 3	x	4	S	200	5,80 plastic
M 3	x	5	S	200	5,90 plastic
M 3	x	6	S	200	6,00 plastic
M 3	x	8	S	200	6,10 plastic
M 3	x	10	S	200	6,20 plastic
M 3	x	12	S	200	6,30 plastic
M 3	x	16	S	200	6,40 plastic
M 3	x	20	S	200	6,50 plastic
M 3	x	25	S	200	6,60 plastic
M 3	x	30	S	200	6,80 plastic
M 4	x	6	S	200	6,00 plastic
M 4	x	8	S	200	6,10 plastic
M 4	x	10	S	200	6,30 plastic
M 4	x	12	S	200	6,50 plastic
M 4	x	16	S	200	6,60 plastic
M 4	x	20	S	200	6,90 plastic
M 4	x	25	S	200	7,20 plastic
M 4	x	30	S	200	7,70 plastic
M 4	x	35	S	200	8,10 plastic
M 4	x	40	S	200	8,30 plastic
M 5	x	6	S	200	6,80 plastic
M 5	x	8	S	200	6,90 plastic
M 5	x	10	S	200	7,20 plastic
M 5	x	12	S	200	7,40 plastic
M 5	x	16	S	200	7,90 plastic
M 5	x	20	S	200	9,20 plastic
M 5	x	25	S	200	9,60 plastic
M 5	x	30	S	200	10,30 plastic
M 5	x	35	S	200	11,00 plastic
M 5	x	40	S	200	11,60 plastic
M 5	x	50	S	200	12,90 plastic
M 6	x	8	S	200	18,60 plastic
M 6	x	10	S	200	8,20 plastic
M 6	x	12	S	200	8,30 plastic
M 6	x	16	S	200	8,70 plastic
M 6	x	20	S	200	9,60 plastic
M 6	x	25	S	200	10,40 plastic
M 6	x	30	S	200	12,60 plastic
M 6	x	35	S	200	13,20 plastic
M 6	x	40	S	200	13,60 plastic
M 6	x	45	S	200	14,00 plastic
M 6	x	50	S	200	14,40 plastic
M 6	x	60	S	100	15,70 plastic
M 6	x	70	S	100	16,60 plastic
M 8	x	16	S	200	17,30 plastic
M 8	x	20	S	200	18,90 plastic

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	25	S	200	20,10 plastic
M 8	x	30	S	200	21,60 plastic
M 8	x	40	S	100	23,90 plastic
M 8	x	50	S	100	25,50 plastic

ISO 01234.700 40

1234 Brass



Split pins

Dimensions ➔ TI-22
Material properties ➔ TI-239
Standard conversion ➔ TI-10
REACH ➔ TI-262

Steel ➔ pg. 205
Stainless ➔ pg. 513

ISO 1234 ➔ replaces DIN 94 (compatible)

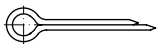
RoHS ✓

nominal ∅ = drilling ∅ x length

1,6	x	10	S	200	12,80 brass
1,6	x	12	S	200	12,90 brass
1,6	x	16	S	200	13,00 brass
1,6	x	20	S	200	13,20 brass
1,6	x	25	S	200	14,10 brass
2	x	10	S	100	15,40 brass
2	x	12	S	100	15,60 brass
2	x	16	S	100	15,80 brass
2	x	20	S	100	16,00 brass
2	x	25	S	100	17,00 brass
2	x	32	S	100	18,90 brass
2	x	40	S	100	20,70 brass
2	x	50	S	100	30,00 brass
3,2	x	16	S	100	22,30 brass
3,2	x	20	S	100	23,40 brass
3,2	x	25	S	100	26,00 brass
3,2	x	32	S	100	30,00 brass
3,2	x	36	S	100	32,00 brass
3,2	x	40	S	100	34,00 brass
3,2	x	50	S	100	39,00 brass
3,2	x	63	S	100	46,00 brass
4	x	20	S	100	33,00 brass
4	x	25	S	100	37,50 brass
4	x	32	S	100	43,00 brass
4	x	36	S	100	46,50 brass
4	x	40	S	100	50,00 brass
4	x	50	S	100	59,00 brass
4	x	63	S	100	69,00 brass
5	x	32	S	100	62,00 brass
5	x	36	S	100	66,00 brass
5	x	40	S	100	72,00 brass
5	x	50	S	100	84,00 brass
5	x	63	S	100	103,00 brass
6,3	x	50	S	100	124,00 brass
6,3	x	63	S	50	154,00 brass
6,3	x	100	S	50	223,00 brass

Dimensions			PU	Pieces	€/100/Mat.
ISO		01234.301			40

1234 Copper



Split pins

Dimensions ➔ TI-22
Material properties ➔ TI-239
Standard conversion ➔ TI-10

Steel ➔ pg. 208
Stainless ➔ pg. 516

ISO 1234 ➔ replaces DIN 94 (compatible)

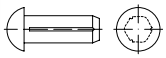
RoHS ✓ REACh SVHC free

nominal ∅ = drilling ∅ x length

2	x	16	S	100	15,40 Cu
2	x	20	S	100	16,00 Cu
2	x	25	S	100	17,30 Cu
2	x	40	S	100	20,70 Cu
3,2	x	20	S	100	23,90 Cu
3,2	x	25	S	100	27,00 Cu
3,2	x	32	S	100	30,50 Cu
3,2	x	36	S	100	32,50 Cu
3,2	x	40	S	100	34,50 Cu
3,2	x	50	S	100	40,50 Cu
4	x	25	S	100	38,50 Cu
4	x	32	S	100	45,00 Cu
4	x	36	S	100	48,00 Cu
4	x	40	S	100	52,00 Cu
4	x	50	S	100	61,00 Cu
4	x	63	S	100	73,00 Cu
5	x	32	S	100	65,00 Cu
5	x	36	S	100	71,00 Cu
5	x	40	S	100	76,00 Cu
5	x	50	S	100	89,00 Cu
5	x	63	S	100	108,00 Cu
5	x	71	S	100	118,00 Cu
5	x	80	S	100	129,00 Cu
6,3	x	50	S	100	122,00 Cu
6,3	x	63	S	50	149,00 Cu
6,3	x	80	S	50	181,00 Cu

DIN 01476.700 500

1476 Brass



Grooved pins with round head

Dimensions ➔ TI-120
Material properties ➔ TI-239
Standard conversion ➔ TI-10
REACH ➔ TI-262

Steel ➔ pg. 213
Stainless ➔ pg. 518

DIN 1476 ➔ replaced by ISO 8746 (compatible)

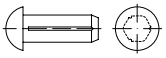
RoHS ✓

2	x	3	K	200	16,00 brass
2	x	4	S	1000	11,80 brass
2	x	4	K	200	16,20 brass

Dimensions			PU	Pieces	€/100/Mat.
2	x	5	S	1000	12,10 brass
2	x	5	K	200	16,50 brass
2	x	6	S	1000	12,40 brass
2	x	6	K	200	16,70 brass
2	x	8	K	200	18,10 brass
3	x	5	K	200	21,80 brass
3	x	6	S	1000	18,30 brass
3	x	6	K	200	22,60 brass
3	x	8	S	1000	19,70 brass
3	x	8	K	200	24,20 brass
3	x	10	S	1000	22,00 brass
3	x	10	K	200	27,00 brass
3	x	12	S	1000	24,70 brass

DIN 01476.300 500

1476 Aluminium



Grooved pins with round head

Dimensions ➔ TI-120
Material properties ➔ TI-239
Standard conversion ➔ TI-10
REACH ➔ TI-262

Steel ➔ pg. 213
Stainless ➔ pg. 518

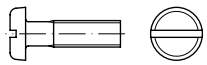
DIN 1476 ➔ replaced by ISO 8746 (compatible)

RoHS ✓

1,4	x	4	S	500	2,20 Al
1,6	x	4	S	500	2,40 Al
1,6	x	5	S	500	2,40 Al
1,6	x	6	S	500	2,55 Al
2	x	3	S	500	2,45 Al
2	x	4	S	500	2,45 Al
2	x	5	S	500	2,45 Al
2	x	6	S	500	2,45 Al
2	x	8	S	500	2,55 Al
2	x	10	S	500	2,70 Al
2,3	x	5	S	500	2,70 Al
2,5	x	5	S	500	2,75 Al
2,5	x	6	S	500	2,75 Al
2,5	x	8	S	500	2,75 Al
3	x	4	S	500	3,15 Al
3	x	5	S	500	3,15 Al
3	x	6	S	500	3,15 Al
3	x	8	S	500	3,20 Al
3	x	10	S	500	3,45 Al
3	x	12	S	500	3,45 Al
4	x	6	S	500	5,10 Al
4	x	8	S	500	5,20 Al
4	x	10	S	500	5,20 Al
5	x	12	S	500	8,70 Al

Dimensions	PU	Pieces	€/100/Mat.
ISO	01580.700		30

1580 Brass



Slotted pan head screws

Dimensions ➔ TI-37
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 220
Stainless ➔ pg. 520

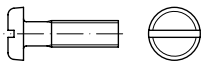
ISO 1580 ➔ replaces DIN 85 (compatible)

RoHS ✓

M	3	x	4	K	200	10,00 brass
M	3	x	5	K	200	9,20 brass
M	3	x	6	K	200	7,50 brass
M	3	x	8	K	200	7,60 brass
M	3	x	10	K	200	7,90 brass
M	3	x	12	K	200	8,40 brass
M	3	x	16	K	200	9,60 brass
M	3	x	20	K	200	10,90 brass
M	3	x	25	K	200	12,40 brass
M	3	x	30	K	200	15,20 brass
M	4	x	6	K	200	10,40 brass
M	4	x	8	K	200	11,00 brass
M	4	x	10	K	200	11,60 brass
M	4	x	12	K	200	11,80 brass
M	4	x	16	K	200	14,10 brass
M	4	x	20	K	200	16,50 brass
M	4	x	25	K	200	17,30 brass
M	4	x	30	K	200	20,50 brass
M	4	x	35	K	200	23,10 brass
M	4	x	40	K	200	25,00 brass
M	5	x	6	K	200	19,40 brass
M	5	x	8	K	200	17,00 brass
M	5	x	10	K	200	17,30 brass
M	5	x	12	K	200	17,80 brass
M	5	x	16	K	200	20,50 brass
M	5	x	20	K	200	22,60 brass
M	5	x	25	K	200	25,50 brass
M	5	x	30	K	200	29,50 brass
M	5	x	35	K	200	38,00 brass
M	5	x	40	K	200	40,00 brass
M	6	x	10	K	200	23,60 brass
M	6	x	12	K	200	27,00 brass
M	6	x	16	K	200	30,50 brass
M	6	x	20	K	200	34,00 brass
M	6	x	25	K	200	36,00 brass
M	6	x	30	K	200	41,50 brass
M	6	x	35	K	200	47,00 brass
M	6	x	40	K	200	51,00 brass

Dimensions	PU	Pieces	€/100/Mat.
ISO	01580.600		30

1580 Plastic PA



Slotted pan head screws

Caution! Rough tolerances as per VDI 2544.

nuts ➔ DIN 555

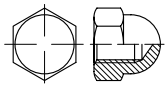
Dimensions ➔ TI-37
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 220
Stainless ➔ pg. 520

M	3	x	6	S	200	6,40 plastic
M	3	x	8	S	200	6,50 plastic
M	3	x	10	S	200	6,90 plastic
M	3	x	12	S	200	7,20 plastic
M	4	x	5	S	200	10,00 plastic
M	4	x	6	S	200	10,50 plastic
M	4	x	8	S	200	12,00 plastic
M	4	x	10	S	200	7,00 plastic
M	4	x	12	S	200	7,10 plastic
M	4	x	16	S	200	7,30 plastic
M	4	x	20	S	200	7,60 plastic
M	5	x	8	S	200	7,70 plastic
M	5	x	10	S	200	7,90 plastic
M	5	x	12	S	200	8,30 plastic
M	5	x	16	S	200	8,70 plastic
M	5	x	20	S	200	10,10 plastic
M	6	x	10	S	200	9,00 plastic
M	6	x	16	S	200	9,60 plastic
M	6	x	20	S	200	10,60 plastic
M	6	x	25	S	200	12,50 plastic
M	6	x	30	S	200	13,80 plastic

DIN	01587.700	530

1587 Brass



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 221
Stainless ➔ pg. 521

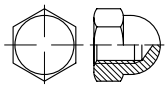
RoHS ✓

M	3	S	1000	17,50 brass
M	3	K	100	26,50 brass
M	4	S	1000	19,10 brass
M	4	K	100	28,00 brass
M	5	S	500	24,20 brass
M	5	K	100	33,00 brass
M	6	S	500	35,00 brass
M	6	K	100	44,50 brass
M	8	S	250	79,00 brass

Dimensions		PU	Pieces	€/100/Mat.
M	8	K	100	93,00 brass
M	10 s = 17	S	100	149,00 brass
M	12 s = 19	S	50	202,00 brass
M	14 s = 22	S	50	365,00 brass
M	16	S	25	425,00 brass
M	18	S	25	1030,00 brass
M	20	S	25	710,00 brass
M	24	S	1	1460,00 brass

DIN	01587.730	530

1587 Brass nickel plated



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63
Material properties ➔ TI-239
REACH ➔ TI-262

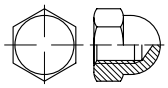
Steel ➔ pg. 221
Stainless ➔ pg. 521

RoHS ✓

M	3	S	100	28,00 NP
M	4	S	100	29,00 NP
M	5	S	100	34,50 NP
M	6	S	100	48,00 NP
M	8	S	100	100,00 NP
M	10 s = 17	S	100	162,00 NP
M	12 s = 19	S	50	215,00 NP

DIN	01587.740	530

1587 Brass chrome plated



Hexagon domed cap nuts, high type

from M 12 with groove or appropriate screw-in depth t min.

Dimensions ➔ TI-63
Material properties ➔ TI-239
REACH ➔ TI-262

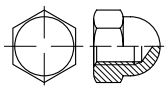
Steel ➔ pg. 221
Stainless ➔ pg. 521

RoHS ✓

M	3	K	100	37,50 brass Cr
M	4	S	1000	38,00 brass Cr
M	4	K	100	45,50 brass Cr
M	5	S	500	42,00 brass Cr
M	5	K	100	49,00 brass Cr
M	6	S	500	54,00 brass Cr
M	6	K	100	65,00 brass Cr
M	8	S	250	112,00 brass Cr
M	8	K	100	128,00 brass Cr
M	10 s = 17	S	100	207,00 brass Cr
M	12 s = 19	S	50	300,00 brass Cr

Dimensions	PU	Pieces	€/100/Mat.
M 14	S	50	400,00 brass Cr
M 16	S	25	730,00 brass Cr
M 20	S	25	1000,00 brass Cr

DIN	01587.600	530
1587	**Plastic PA**	



Hexagon domed cap nuts, high type

Caution! Rough tolerances as per VDI 2544.

Dimensions → TI-63
Material properties → TI-239
REACH → TI-262

Steel → pg. 221
Stainless → pg. 521

M 3		S	100	12,50 plastic
M 4		S	100	15,00 plastic
M 5		S	100	17,00 plastic
M 6		S	100	18,50 plastic
M 8		S	100	23,00 plastic
M 10	s = 17	S	100	42,00 plastic
M 12	s = 19	S	100	47,50 plastic
M 16		S	100	285,00 plastic

ISO	02009.704	450
2009	**Brass turned bare**	



Slotted countersunk head screws

Dimensions → TI-27
Material properties → TI-239
Standard conversion → TI-11
REACH → TI-262

Steel → pg. 225
Stainless → pg. 522

ISO 2009 → replaces DIN 963

RoHS ✓

M 1,6	x	4	S	100	27,00 brass turned
M 1,6	x	6	S	100	28,00 brass turned
M 1,6	x	10	S	100	36,00 brass turned

Dimensions	PU	Pieces	€/100/Mat.
ISO	02009.700	450	
2009	**Brass**		



Slotted countersunk head screws

Dimensions → TI-27
Material properties → TI-239
Standard conversion → TI-11
REACH → TI-262

Steel → pg. 225
Stainless → pg. 522

ISO 2009 → replaces DIN 963

RoHS ✓

M 2	x	4	K	200	11,30 brass
M 2	x	5	K	200	10,40 brass
M 2	x	6	K	200	9,50 brass
M 2	x	8	K	200	8,40 brass
M 2	x	10	K	200	8,80 brass
M 2	x	12	K	200	9,30 brass
M 2	x	16	K	200	10,70 brass
M 2	x	20	K	200	12,00 brass
M 2,5	x	4	K	200	11,60 brass
M 2,5	x	5	K	200	10,10 brass
M 2,5	x	6	K	200	8,70 brass
M 2,5	x	8	K	200	8,40 brass
M 2,5	x	10	K	200	8,80 brass
M 2,5	x	12	K	200	9,30 brass
M 2,5	x	16	K	200	10,70 brass
M 2,5	x	18	K	200	18,10 brass
M 2,5	x	20	K	200	12,00 brass
M 3	x	4	S	1000	8,70 brass
M 3	x	4	K	200	8,70 brass
M 3	x	5	K	200	8,10 brass
M 3	x	6	S	1000	6,90 brass
M 3	x	6	K	200	6,90 brass
M 3	x	8	S	1000	7,10 brass
M 3	x	8	K	200	7,10 brass
M 3	x	10	S	1000	7,30 brass
M 3	x	10	K	200	7,30 brass
M 3	x	12	S	1000	7,70 brass
M 3	x	12	K	200	7,70 brass
M 3	x	16	S	1000	8,80 brass
M 3	x	16	K	200	8,80 brass
M 3	x	18	K	200	15,20 brass
M 3	x	20	S	1000	10,10 brass
M 3	x	20	K	200	10,10 brass
M 3	x	25	K	200	11,30 brass
M 3	x	30	K	200	13,80 brass
M 3	x	35	K	200	14,60 brass
M 3	x	40	K	200	20,70 brass
M 4	x	5	K	200	10,70 brass
M 4	x	6	S	1000	9,50 brass
M 4	x	6	K	200	9,50 brass
M 4	x	8	S	1000	10,30 brass
M 4	x	8	K	200	10,30 brass
M 4	x	10	S	1000	10,70 brass
M 4	x	10	K	200	10,70 brass
M 4	x	12	S	1000	10,90 brass
M 4	x	12	K	200	10,90 brass
M 4	x	16	S	1000	13,00 brass
M 4	x	16	K	200	13,00 brass
M 4	x	18	K	200	22,60 brass
M 4	x	20	S	1000	15,20 brass
M 4	x	20	K	200	15,20 brass
M 4	x	25	S	1000	16,00 brass
M 4	x	25	K	200	16,00 brass

Dimensions			PU	Pieces	€/100/Mat.
M 4	x	30	S	1000	18,90 brass
M 4	x	30	K	200	18,90 brass
M 4	x	35	K	200	21,00 brass
M 4	x	40	K	200	22,80 brass
M 4	x	45	K	200	28,50 brass
M 4	x	50	K	200	30,50 brass
M 5	x	8	K	200	15,70 brass
M 5	x	10	S	1000	16,00 brass
M 5	x	10	K	200	16,00 brass
M 5	x	12	S	1000	16,50 brass
M 5	x	12	K	200	16,50 brass
M 5	x	16	S	1000	18,90 brass
M 5	x	16	K	200	18,90 brass
M 5	x	18	K	200	30,50 brass
M 5	x	20	S	1000	20,50 brass
M 5	x	20	K	200	20,50 brass
M 5	x	25	S	1000	23,10 brass
M 5	x	25	K	200	23,10 brass
M 5	x	30	S	1000	27,00 brass
M 5	x	30	K	200	27,00 brass
M 5	x	35	K	200	34,50 brass
M 5	x	40	K	200	36,50 brass
M 5	x	45	K	200	39,50 brass
M 5	x	50	K	200	42,00 brass
M 5	x	60	K	200	54,00 brass
M 6	x	10	S	1000	21,50 brass
M 6	x	10	K	200	21,50 brass
M 6	x	12	S	1000	24,20 brass
M 6	x	12	K	200	24,20 brass
M 6	x	16	S	1000	28,00 brass
M 6	x	16	K	200	28,00 brass
M 6	x	20	S	1000	30,50 brass
M 6	x	20	K	200	30,50 brass
M 6	x	25	S	1000	32,50 brass
M 6	x	25	K	200	32,50 brass
M 6	x	30	K	200	37,50 brass
M 6	x	35	K	200	43,00 brass
M 6	x	40	K	200	46,50 brass
M 6	x	45	K	200	54,00 brass
M 6	x	50	K	200	56,00 brass
M 6	x	60	K	100	72,00 brass
M 6	x	70	K	100	83,00 brass
M 6	x	80	K	100	89,00 brass
M 8	x	12	K	100	71,00 brass
M 8	x	16	K	100	61,00 brass
M 8	x	20	K	100	65,00 brass
M 8	x	25	K	100	68,00 brass
M 8	x	30	K	100	79,00 brass
M 8	x	35	K	100	84,00 brass
M 8	x	40	K	100	89,00 brass
M 8	x	45	K	100	104,00 brass
M 8	x	50	K	100	110,00 brass
M 8	x	60	K	100	132,00 brass
M 8	x	70	K	100	162,00 brass
M 8	x	80	K	100	173,00 brass
M 10	x	16	K	100	99,00 brass
M 10	x	20	K	100	96,00 brass
M 10	x	25	K	100	109,00 brass
M 10	x	30	K	100	118,00 brass
M 10	x	35	K	100	132,00 brass
M 10	x	40	K	100	146,00 brass
M 10	x	45	K	100	157,00 brass
M 10	x	50	K	100	167,00 brass
M 10	x	60	K	100	189,00 brass
M 10	x	70	K	100	244,00 brass
M 10	x	80	K	100	270,00 brass
M 12	x	20	K	50	290,00 brass
M 12	x	25	K	50	295,00 brass
M 12	x	30	K	50	330,00 brass
M 12	x	35	K	50	360,00 brass
M 12	x	40	K	50	390,00 brass
M 12	x	45	K	50	420,00 brass
M 12	x	50	K	50	455,00 brass
M 12	x	70	K	50	590,00 brass
M 16	x	25	K	25	1170,00 brass

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	30	K	25	1170,00 brass
M 16	x	35	K	25	1260,00 brass
M 16	x	40	K	25	1360,00 brass
M 16	x	45	K	25	1460,00 brass
M 16	x	50	K	25	1570,00 brass

ISO 02009.730 450

2009 Brass nickel plated



Slotted countersunk head screws

Dimensions ➔ TI-27
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 225
Stainless ➔ pg. 522

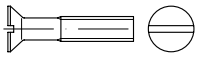
ISO 2009 ➔ replaces DIN 963

RoHS ✓

M 3	x	10	K	200	8,40 NP
M 3	x	16	K	200	10,00 NP
M 3	x	20	K	200	11,20 NP
M 3	x	30	K	200	14,90 NP
M 4	x	10	K	200	11,80 NP
M 4	x	16	K	200	14,10 NP
M 4	x	20	K	200	16,50 NP
M 4	x	30	K	200	20,70 NP
M 5	x	10	K	200	17,00 NP
M 5	x	16	K	200	20,50 NP
M 5	x	20	K	200	22,60 NP
M 6	x	10	K	200	23,40 NP
M 6	x	16	K	200	30,50 NP
M 6	x	20	K	200	34,00 NP

ISO 02009.600 450

2009 Plastic PA



Slotted countersunk head screws

Caution! Rough tolerances as per VDI 2544.

nuts ➔ DIN 555

Dimensions ➔ TI-27
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 225
Stainless ➔ pg. 522

M 3	x	6	S	200	5,50 plastic
M 3	x	8	S	200	5,70 plastic
M 3	x	10	S	200	5,90 plastic
M 3	x	12	S	200	6,00 plastic
M 3	x	16	S	200	6,10 plastic
M 3	x	20	S	200	6,40 plastic
M 4	x	10	S	200	6,80 plastic
M 4	x	12	S	200	7,10 plastic
M 4	x	16	S	200	7,20 plastic
M 4	x	20	S	200	7,50 plastic
M 4	x	25	S	200	7,80 plastic
M 4	x	30	S	200	8,20 plastic
M 5	x	10	S	200	7,30 plastic
M 5	x	12	S	200	7,80 plastic
M 5	x	16	S	200	8,50 plastic
M 5	x	20	S	200	9,40 plastic
M 5	x	25	S	200	10,00 plastic
M 6	x	10	S	200	8,20 plastic
M 6	x	12	S	200	9,00 plastic
M 6	x	16	S	200	9,50 plastic
M 6	x	20	S	200	10,50 plastic
M 6	x	25	S	200	12,00 plastic
M 6	x	30	S	200	13,00 plastic
M 8	x	16	S	200	17,40 plastic
M 8	x	20	S	200	18,50 plastic
M 8	x	25	S	200	20,60 plastic
M 8	x	30	S	200	23,50 plastic
M 8	x	40	S	200	27,50 plastic

ISO 02010.700 450

2010 Brass



Slotted raised countersunk head screws

Dimensions ➔ TI-39
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 227
Stainless ➔ pg. 524

ISO 2010 ➔ replaces DIN 964

RoHS ✓

M 3	x	5	K	200	8,10 brass
M 3	x	6	K	200	6,90 brass
M 3	x	8	K	200	7,10 brass
M 3	x	10	K	200	7,30 brass
M 3	x	12	K	200	7,70 brass
M 3	x	16	K	200	8,80 brass
M 3	x	20	K	200	10,10 brass
M 3	x	25	K	200	11,30 brass
M 3	x	30	K	200	13,80 brass
M 3	x	35	K	200	14,60 brass
M 3	x	40	K	200	20,70 brass
M 4	x	5	K	200	10,70 brass
M 4	x	6	K	200	9,50 brass
M 4	x	8	K	200	10,30 brass
M 4	x	10	K	200	10,70 brass
M 4	x	12	K	200	10,90 brass
M 4	x	16	K	200	13,00 brass
M 4	x	20	K	200	15,20 brass
M 4	x	25	K	200	16,00 brass
M 4	x	30	K	200	18,90 brass
M 4	x	35	K	200	21,00 brass
M 4	x	40	K	200	22,80 brass
M 4	x	45	K	200	28,50 brass
M 4	x	50	K	200	29,50 brass
M 4	x	60	K	200	54,00 brass
M 5	x	8	K	200	15,70 brass
M 5	x	10	K	200	16,00 brass
M 5	x	12	K	200	16,50 brass
M 5	x	16	K	200	18,90 brass
M 5	x	20	K	200	20,70 brass
M 5	x	25	K	200	23,10 brass
M 5	x	30	K	200	27,00 brass
M 5	x	35	K	200	34,50 brass
M 5	x	40	K	200	36,50 brass
M 5	x	45	K	200	39,50 brass
M 5	x	50	K	200	42,00 brass
M 5	x	60	K	200	54,00 brass
M 5	x	70	K	200	66,00 brass
M 5	x	80	K	200	83,00 brass
M 5	x	100	K	200	136,00 brass
M 6	x	8	K	200	27,00 brass
M 6	x	10	K	200	21,50 brass
M 6	x	12	K	200	24,20 brass
M 6	x	16	K	200	28,00 brass
M 6	x	20	K	200	30,50 brass
M 6	x	25	K	200	32,50 brass
M 6	x	30	K	200	37,50 brass
M 6	x	35	K	200	43,00 brass
M 6	x	40	K	200	46,50 brass
M 6	x	45	K	200	54,00 brass
M 6	x	50	K	200	56,00 brass
M 6	x	60	K	100	72,00 brass
M 6	x	70	K	100	83,00 brass
M 6	x	80	K	100	89,00 brass
M 6	x	100	S	100	100,00 brass
M 8	x	16	K	100	61,00 brass
M 8	x	20	K	100	65,00 brass
M 8	x	25	K	100	68,00 brass
M 8	x	30	K	100	79,00 brass
M 8	x	35	K	100	84,00 brass
M 8	x	40	K	100	89,00 brass
M 8	x	50	K	100	110,00 brass
M 8	x	60	K	100	132,00 brass

ISO 02010.730 450

2010 Brass nickel plated



Slotted raised countersunk head screws

Dimensions ➔ TI-39
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 227
Stainless ➔ pg. 524

ISO 2010 ➔ replaces DIN 964

RoHS ✓

M 3	x	8	K	200	8,10 brass Ni
M 3	x	10	K	200	8,40 brass Ni
M 3	x	12	K	200	8,90 brass Ni
M 3	x	16	K	200	10,00 brass Ni
M 3	x	20	K	200	11,20 brass Ni
M 3	x	25	K	200	12,40 brass Ni
M 4	x	8	K	200	11,30 brass Ni
M 4	x	10	K	200	11,80 brass Ni
M 4	x	12	K	200	12,00 brass Ni
M 4	x	16	K	200	14,40 brass Ni
M 4	x	20	K	200	16,50 brass Ni
M 4	x	25	K	200	17,50 brass Ni
M 4	x	30	K	200	20,70 brass Ni
M 4	x	35	K	200	23,40 brass Ni
M 4	x	40	K	200	25,50 brass Ni
M 4	x	45	K	200	29,50 brass Ni
M 4	x	50	K	200	33,50 brass Ni
M 4	x	60	K	200	59,00 brass Ni
M 5	x	10	K	200	17,30 brass Ni
M 5	x	12	K	200	18,10 brass Ni
M 5	x	16	K	200	20,70 brass Ni
M 5	x	20	K	200	22,80 brass Ni
M 5	x	25	K	200	26,00 brass Ni
M 5	x	30	K	200	30,00 brass Ni

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	35	K	200	38,00 brass Ni
M 5	x	40	K	200	40,50 brass Ni
M 5	x	45	K	200	44,00 brass Ni
M 5	x	50	K	200	47,00 brass Ni
M 5	x	60	K	200	59,00 brass Ni
M 5	x	70	K	200	73,00 brass Ni
M 5	x	80	K	200	91,00 brass Ni
M 6	x	10	K	200	23,60 brass Ni
M 6	x	12	K	200	27,00 brass Ni
M 6	x	16	K	200	30,50 brass Ni
M 6	x	20	K	200	34,00 brass Ni
M 6	x	25	K	200	35,00 brass Ni
M 6	x	30	K	200	42,50 brass Ni
M 6	x	35	K	200	48,00 brass Ni
M 6	x	40	K	200	53,00 brass Ni
M 6	x	45	K	200	60,00 brass Ni
M 6	x	50	K	200	63,00 brass Ni
M 6	x	60	K	100	80,00 brass Ni
M 6	x	70	K	100	92,00 brass Ni
M 6	x	80	K	100	101,00 brass Ni

ISO | 02010.740 | 450

2010

Brass
chrome plated



Slotted raised countersunk head screws

Dimensions ➔ TI-39
Material properties ➔ TI-239
Standard conversion ➔ TI-11
REACH ➔ TI-262

Steel ➔ pg. 227
Stainless ➔ pg. 524

ISO 2010 ➔ replaces DIN 964

RoHS ✓

M 3	x	8	K	200	13,80 brass Cr
M 3	x	10	K	200	15,20 brass Cr
M 3	x	12	K	200	16,50 brass Cr
M 3	x	16	K	200	19,40 brass Cr
M 3	x	20	K	200	22,80 brass Cr
M 3	x	30	K	200	31,50 brass Cr
M 4	x	8	K	200	17,30 brass Cr
M 4	x	10	K	200	18,30 brass Cr
M 4	x	12	K	200	19,40 brass Cr
M 4	x	16	K	200	23,40 brass Cr
M 4	x	20	K	200	27,50 brass Cr
M 4	x	25	K	200	30,50 brass Cr
M 4	x	30	K	200	36,00 brass Cr
M 4	x	35	K	200	40,50 brass Cr
M 4	x	40	K	200	44,50 brass Cr
M 4	x	45	K	200	52,00 brass Cr
M 4	x	50	K	200	57,00 brass Cr
M 4	x	60	K	200	85,00 brass Cr
M 5	x	10	K	200	28,00 brass Cr
M 5	x	12	K	200	30,00 brass Cr
M 5	x	16	K	200	36,00 brass Cr
M 5	x	20	K	200	40,50 brass Cr
M 5	x	25	K	200	47,00 brass Cr
M 5	x	30	K	200	54,00 brass Cr
M 5	x	35	K	200	65,00 brass Cr
M 5	x	40	K	200	72,00 brass Cr
M 5	x	50	K	200	85,00 brass Cr
M 5	x	60	K	200	104,00 brass Cr
M 5	x	70	K	200	125,00 brass Cr
M 6	x	10	K	200	40,00 brass Cr
M 6	x	16	K	200	54,00 brass Cr
M 6	x	20	K	200	60,00 brass Cr

Dimensions			PU	Pieces	€/100/Mat.
M 6	x	25	K	200	69,00 brass Cr
M 6	x	30	K	200	79,00 brass Cr
M 6	x	35	K	200	89,00 brass Cr
M 6	x	40	K	200	99,00 brass Cr
M 6	x	50	K	200	118,00 brass Cr
M 6	x	60	K	100	146,00 brass Cr
M 6	x	80	K	100	186,00 brass Cr
M 8	x	20	K	100	112,00 brass Cr
M 8	x	25	K	100	122,00 brass Cr

DIN | 03404.700 | 556

3404

Brass **MF**



Lubricating nipples, button head, with round head, hexagon drive, MF = with metric fine pitch thread

Dimensions ➔ TI-25
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 234

RoHS ✓

thread M x thread pitch - wrench size

M 10	x 1	s = 17	S	100	930,00 brass

ISO | 04014.700 | *

4014

Brass



Hexagon head bolts

*M 10/12/14/22= RAZ 3210 other ∅ = RAZ 400

Dimensions ➔ TI-15
Material properties ➔ TI-239
Tightening torque ➔ TI-250
Standard conversion ➔ TI-6
REACH ➔ TI-262

Steel ➔ pg. 236
Stainless ➔ pg. 529

ISO 4014 ➔ replaces DIN 931

RoHS ✓

M 8	x	40	S	100	270,00 brass
M 8	x	50	S	100	320,00 brass
M 8	x	60	S	100	370,00 brass
M 10	x	50	S	100	680,00 brass
M 10	x	60	S	100	870,00 brass
M 12	x	50	S	50	830,00 brass
M 12	x	60	S	50	1050,00 brass
M 12	x	70	S	50	1210,00 brass

Dimensions	PU	Pieces	€/100/Mat.
ISO	04017.700		*

4017

Brass



Hexagon head screws

*M 10/12/14/22= RAZ 3210 other ∅ = RAZ 400

Dimensions ➔ TI-15
Material properties ➔ TI-239
Tightening torque ➔ TI-250
Standard conversion ➔ TI-6
REACH ➔ TI-262

Steel ➔ pg. 254
Stainless ➔ pg. 534

ISO 4017 ➔ replaces DIN 933

RoHS ✓

M 4	x	6	S	100	25,50 brass
M 4	x	8	S	100	12,80 brass
M 4	x	10	S	100	12,80 brass
M 4	x	12	S	100	14,10 brass
M 4	x	16	S	100	15,20 brass
M 4	x	20	S	100	16,70 brass
M 4	x	25	S	100	19,10 brass
M 4	x	30	S	100	21,80 brass
M 4	x	35	S	100	24,40 brass
M 4	x	40	S	100	27,00 brass
M 4	x	50	S	100	42,50 brass
M 4	x	60	S	100	48,00 brass
M 5	x	8	S	100	17,50 brass
M 5	x	10	S	100	17,50 brass
M 5	x	12	S	100	19,40 brass
M 5	x	16	S	100	21,00 brass
M 5	x	20	S	100	23,90 brass
M 5	x	25	S	100	27,50 brass
M 5	x	30	S	100	30,00 brass
M 5	x	35	S	100	33,50 brass
M 5	x	40	S	100	34,50 brass
M 5	x	45	S	100	47,50 brass
M 5	x	50	S	100	43,00 brass
M 5	x	60	S	100	56,00 brass
M 6	x	8	S	100	27,00 brass
M 6	x	10	S	100	27,00 brass
M 6	x	12	S	100	27,50 brass
M 6	x	16	S	100	30,00 brass
M 6	x	20	S	100	33,00 brass
M 6	x	25	S	100	37,00 brass
M 6	x	30	S	100	41,00 brass
M 6	x	35	S	100	45,00 brass
M 6	x	40	S	100	49,50 brass
M 6	x	45	S	100	59,00 brass
M 6	x	50	S	100	59,00 brass
M 6	x	60	S	100	76,00 brass
M 8	x	10	S	100	59,00 brass
M 8	x	12	S	100	61,00 brass
M 8	x	16	S	100	65,00 brass
M 8	x	20	S	100	71,00 brass
M 8	x	25	S	100	80,00 brass
M 8	x	30	S	100	88,00 brass
M 8	x	35	S	100	95,00 brass
M 8	x	40	S	100	103,00 brass
M 8	x	45	S	100	118,00 brass
M 8	x	50	S	100	118,00 brass
M 8	x	55	S	100	130,00 brass
M 8	x	60	S	100	130,00 brass
M 8	x	65	S	100	157,00 brass

Dimensions			PU	Pieces	€/100/Mat.
M 8	x	70	S	100	157,00 brass
M 8	x	80	S	100	173,00 brass
M 8	x	90	S	100	191,00 brass
M 10	x	10	S	100	395,00 brass
M 10	x	12	S	100	132,00 brass
M 10	x	16	S	100	120,00 brass
M 10	x	20	S	100	113,00 brass
M 10	x	25	S	100	141,00 brass
M 10	x	30	S	100	149,00 brass
M 10	x	35	S	100	162,00 brass
M 10	x	40	S	100	173,00 brass
M 10	x	45	S	100	197,00 brass
M 10	x	50	S	100	197,00 brass
M 10	x	60	S	100	220,00 brass
M 10	x	65	S	100	255,00 brass
M 10	x	70	S	100	255,00 brass
M 10	x	80	S	100	295,00 brass
M 10	x	100	S	50	400,00 brass
M 12	x	16	S	50	183,00 brass
M 12	x	20	S	50	194,00 brass
M 12	x	25	S	50	215,00 brass
M 12	x	30	S	50	223,00 brass
M 12	x	35	S	50	247,00 brass
M 12	x	40	S	50	260,00 brass
M 12	x	45	S	50	280,00 brass
M 12	x	50	S	50	280,00 brass
M 12	x	55	S	50	290,00 brass
M 12	x	60	S	50	290,00 brass
M 12	x	70	S	50	340,00 brass
M 12	x	80	S	50	405,00 brass
M 12	x	90	S	50	460,00 brass
M 12	x	100	S	50	530,00 brass
M 16	x	20	S	50	660,00 brass
M 16	x	25	S	50	720,00 brass
M 16	x	30	S	50	790,00 brass
M 16	x	35	S	50	870,00 brass
M 16	x	40	S	50	970,00 brass
M 16	x	45	S	25	1040,00 brass
M 16	x	50	S	25	1100,00 brass
M 16	x	55	S	25	1170,00 brass
M 16	x	60	S	10	1260,00 brass
M 16	x	65	S	10	1360,00 brass
M 16	x	70	S	10	1440,00 brass
M 16	x	80	S	10	1570,00 brass
M 16	x	90	S	10	1780,00 brass
M 16	x	100	S	10	1910,00 brass
M 20	x	30	S	10	1360,00 brass
M 20	x	40	S	10	1490,00 brass
M 20	x	50	S	10	1730,00 brass
M 20	x	60	S	10	2020,00 brass
M 20	x	80	S	1	2600,00 brass
M 20	x	100	S	1	3200,00 brass

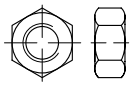
RIO® REYHER INTERNET ORDER

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ISO 04032.700 *

4032 Brass



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62
Material properties → TI-239
Tightening torque → TI-250
Standard conversion → TI-7
REACH → TI-262

Steel → pg. 278
Stainless → pg. 544

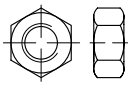
ISO 4032 → replaces DIN 934

RoHS ✓

Dimensions		PU	Pieces	€/100/Mat.
M 1		K	100	68,00 brass
M 1,2		K	100	45,00 brass
M 1,4		K	100	43,00 brass
M 1,6		K	100	30,50 brass
M 1,7		K	100	29,50 brass
M 2		S	1000	3,85 brass
M 2		K	100	8,00 brass
M 2,3		S	1000	3,85 brass
M 2,3		K	100	8,00 brass
M 2,5		S	1000	3,85 brass
M 2,5		K	100	8,00 brass
M 2,6		S	1000	3,85 brass
M 2,6		K	100	8,00 brass
M 3		S	1000	3,85 brass
M 3		K	100	8,00 brass
M 3,5		K	100	9,20 brass
M 4		S	1000	5,70 brass
M 4		K	100	9,70 brass
M 5		S	1000	7,20 brass
M 6		S	1000	10,90 brass
M 8		S	1000	21,50 brass
M 10		S	500	41,50 brass
M 12		S	250	66,00 brass
M 14		S	100	107,00 brass
M 16		S	100	125,00 brass
M 18		S	25	247,00 brass
M 20		S	25	310,00 brass
M 22		S	10	510,00 brass
M 24		S	10	570,00 brass
M 27		S	10	880,00 brass
M 30		S	10	1070,00 brass
M 33		S	5	2440,00 brass
M 36		S	5	2440,00 brass
M 42		S	1	6600,00 brass

ISO 04032.730 *

4032 Brass nickel plated



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62
Material properties → TI-239
Tightening torque → TI-250
Standard conversion → TI-7
REACH → TI-262

Steel → pg. 278
Stainless → pg. 544

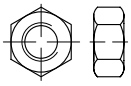
ISO 4032 → replaces DIN 934

RoHS ✓

Dimensions		PU	Pieces	€/100/Mat.
M 2		S	1000	4,55 brass Ni
M 2,5		S	1000	4,65 brass Ni
M 3		S	1000	4,65 brass Ni
M 3,5		S	1000	4,80 brass Ni
M 4		S	1000	6,90 brass Ni
M 5		S	1000	8,80 brass Ni
M 6		S	1000	16,00 brass Ni
M 8		S	100	34,50 brass Ni
M 10		S	100	67,00 brass Ni
M 12		S	100	120,00 brass Ni
M 16		S	250	170,00 brass Ni

ISO 04032.740 *

4032 Brass chrome plated



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62
Material properties → TI-239
Tightening torque → TI-250
Standard conversion → TI-7
REACH → TI-262

Steel → pg. 278
Stainless → pg. 544

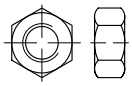
ISO 4032 → replaces DIN 934

RoHS ✓

Dimensions		PU	Pieces	€/100/Mat.
M 3		S	100	16,70 brass Cr
M 4		S	100	20,70 brass Cr
M 5		S	100	30,50 brass Cr
M 6		S	100	37,00 brass Cr
M 8		S	100	63,00 brass Cr

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.302	*

4032 CuNiSi



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62 Standard conversion → TI-7
Material properties → TI-239

Steel → pg. 278
Stainless → pg. 544

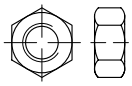
ISO 4032 → replaces DIN 934

RoHS ✓ REACh SVHC free

M 6	S	100	71,00 CuNiSi
M 8	S	100	138,00 CuNiSi
M 10	S	100	228,00 CuNiSi
M 12	S	100	360,00 CuNiSi
M 16	S	100	710,00 CuNiSi
M 20	S	25	1750,00 CuNiSi
M 24	S	25	3350,00 CuNiSi

ISO	04032.303	*

4032 Aluminium



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62 Standard conversion → TI-7
Material properties → TI-239 REACH → TI-262

Steel → pg. 278
Stainless → pg. 544

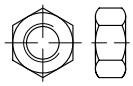
ISO 4032 → replaces DIN 934

RoHS ✓

M 4	S	100	6,50 Al
M 5	S	100	8,40 Al
M 6	S	100	10,00 Al
M 8	S	100	20,30 Al
M 10	S	100	38,50 Al
M 12	S	50	53,00 Al
M 16	S	50	104,00 Al

Dimensions	PU Pieces	€/100/Mat.
ISO	04032.305	3310

4032 Titanium (grade 2)



Hexagon nuts, ISO type 1

*M 5 – M 39 = RAZ 3310 other ∅ = RAZ 410

Dimensions → TI-62 Standard conversion → TI-7
Material properties → TI-239

Steel → pg. 278
Stainless → pg. 544

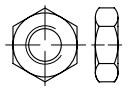
ISO 4032 → replaces DIN 934

RoHS ✓ REACh SVHC free

M 6	S	50	490,00 Ti
M 8	S	50	660,00 Ti
M 10	S	50	1010,00 Ti
M 12	S	25	1300,00 Ti
M 16	S	25	4300,00 Ti

ISO	04035.700	*

4035 Brass



Hexagon nuts, shallow pattern, with chamfers

*M 5 – M 39 = RAZ 3370 other ∅ = RAZ 170

Dimensions → TI-61 Standard conversion → TI-7
Material properties → TI-239 REACH → TI-262

Steel → pg. 284
Stainless → pg. 547

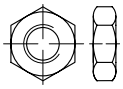
ISO 4035 → replaces DIN 439 type B

RoHS ✓

M 2	S	1000	3,85 brass
M 2	K	100	7,90 brass
M 2,5	K	100	7,70 brass
M 3	S	1000	3,75 brass
M 3	K	100	7,70 brass
M 4	S	1000	4,65 brass
M 4	K	100	8,70 brass
M 5	S	1000	6,00 brass
M 5	K	100	10,10 brass
M 6	S	1000	8,70 brass
M 6	K	100	14,60 brass
M 8	S	500	18,60 brass
M 8	K	100	23,90 brass
M 10	S	500	31,50 brass
M 12	S	100	69,00 brass
M 14	S	50	121,00 brass
M 16	S	50	160,00 brass
M 20	S	50	295,00 brass

Dimensions	PU Pieces	€/100/Mat.
ISO	04035.730	170*

4035 Brass nickel plated



Hexagon thin nuts chamfered

*M 10, 12 = RAZ 3370

Dimensions → TI-61 Standard conversion → TI-7
Material properties → TI-239 REACH → TI-262

Steel → pg. 284
Stainless → pg. 547

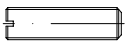
ISO 4035 → replaces DIN 439 type B

RoHS ✓

M 3	S	100	10,70 NP
M 4	S	100	16,00 NP
M 5	S	100	19,90 NP
M 6	S	100	27,00 NP
M 8	S	100	40,00 NP
M 10	S	100	61,00 NP
M 12	S	100	112,00 NP
M 16	S	50	226,00 NP
M 20	S	50	400,00 NP

ISO	04766.700	230

4766 Brass



Slotted grub screws with flat point

Dimensions → TI-19 Standard conversion → TI-6
Material properties → TI-239 REACH → TI-262

Steel → pg. 305
Stainless → pg. 552

ISO 4766 → replaces DIN 551 (compatible)

RoHS ✓

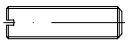
M 3	x	3	S	100	13,60 brass
M 3	x	4	S	100	13,60 brass
M 3	x	5	S	100	13,80 brass
M 3	x	6	S	100	14,40 brass
M 3	x	8	S	100	14,90 brass
M 3	x	10	S	100	15,20 brass
M 3	x	12	S	100	16,00 brass
M 3	x	16	S	100	17,00 brass
M 4	x	4	S	100	13,80 brass
M 4	x	5	S	100	14,10 brass
M 4	x	6	S	100	14,40 brass
M 4	x	8	S	100	14,60 brass
M 4	x	10	S	100	16,20 brass
M 4	x	12	S	100	17,00 brass
M 4	x	16	S	100	17,80 brass
M 5	x	5	S	100	14,60 brass
M 5	x	6	S	100	15,70 brass

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 5	x	8	S	100	16,00 brass
M 5	x	10	S	100	17,00 brass
M 5	x	12	S	100	18,30 brass
M 5	x	16	S	100	20,50 brass
M 6	x	6	S	100	16,50 brass
M 6	x	8	S	100	18,30 brass
M 6	x	10	S	100	18,90 brass
M 6	x	12	S	100	21,80 brass
M 6	x	16	S	100	23,40 brass
M 6	x	20	S	100	28,50 brass
M 6	x	25	S	100	31,00 brass
M 6	x	30	S	100	40,00 brass
M 8	x	10	S	100	54,00 brass
M 8	x	12	S	100	61,00 brass
M 8	x	16	S	100	67,00 brass
M 8	x	20	S	100	72,00 brass
M 8	x	25	S	100	77,00 brass
M 8	x	35	S	100	77,00 brass
M 8	x	40	S	100	84,00 brass
M 8	x	45	S	100	88,00 brass
M 8	x	50	S	100	88,00 brass
M 10	x	8	S	100	146,00 brass
M 10	x	12	S	100	149,00 brass
M 10	x	16	S	100	112,00 brass
M 10	x	20	S	100	154,00 brass

ISO | 04766.600 | 230

4766 Plastic PA



Slotted grub screws with flat point

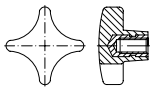
Dimensions ➔ TI-19 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 305
Stainless ➔ pg. 552

M 4	x	6	S	100	22,00 plastic
M 4	x	8	S	100	23,00 plastic
M 4	x	10	S	100	23,00 plastic
M 4	x	12	S	100	24,00 plastic
M 4	x	16	S	100	26,00 plastic
M 4	x	20	S	100	28,00 plastic
M 4	x	25	S	100	30,00 plastic
M 5	x	6	S	100	24,00 plastic
M 5	x	8	S	100	25,00 plastic
M 5	x	10	S	100	26,00 plastic
M 5	x	12	S	100	28,00 plastic
M 5	x	16	S	100	30,00 plastic
M 6	x	6	S	100	5,70 plastic
M 6	x	8	S	100	27,00 plastic
M 6	x	10	S	100	28,00 plastic
M 6	x	12	S	100	29,00 plastic
M 6	x	16	S	100	30,00 plastic
M 6	x	20	S	100	32,00 plastic
M 6	x	25	S	100	34,00 plastic
M 8	x	8	S	100	30,00 plastic
M 8	x	10	S	100	32,00 plastic
M 8	x	12	S	100	35,00 plastic
M 8	x	16	S	100	38,00 plastic
M 10	x	16	S	100	40,00 plastic
M 10	x	20	S	100	45,00 plastic
M 10	x	30	S	100	50,00 plastic
M 10	x	40	S	100	55,00 plastic

DIN | 06335.634 | 575

6335 Plastic black type K-St



Palm grips, K = with threaded bush*

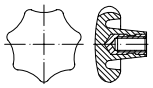
*steel, zinc plated

Dimensions ➔ TI-126 REACH ➔ TI-262

grip ∅ - internal thread				
K 25	M 5	S	10	187,00 plast-st
K 32	M 6	S	10	204,00 plast-st
K 40	M 8	S	10	265,00 plast-st
K 50	M 10	S	10	350,00 plast-st
K 63	M 12	S	10	500,00 plast-st
K 80	M 16	S	10	970,00 plast-st
K 100	M 20	S	5	2300,00 plast-st

DIN | 06336.644 | 575

6336 Plastic black type K-St



Star grips, K = with threaded bush*

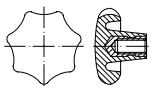
*steel, zinc plated

Dimensions ➔ TI-126 REACH ➔ TI-262

grip ∅ - internal thread				
K 25	M 5	S	10	255,00 plast-st
K 32	M 6	S	10	270,00 plast-st
K 40	M 6	S	10	325,00 plast-st
K 40	M 8	S	10	340,00 plast-st
K 50	M 8	S	10	460,00 plast-st
K 50	M 10	S	10	490,00 plast-st
K 63	M 10	S	10	690,00 plast-st
K 63	M 12	S	10	780,00 plast-st
K 80	M 12	S	10	1440,00 plast-st
K 80	M 16	S	10	1620,00 plast-st

DIN | 06336.634 | 575

6336 Plastic black type K-Ms



Star grips, K = with threaded bush*

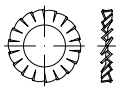
*brass

Dimensions ➔ TI-126 REACH ➔ TI-262

grip ∅ - internal thread				
K 20	M 4	S	10	248,00 plast-br
K 25	M 5	S	10	255,00 plast-br
K 32	M 6	S	10	270,00 plast-br
K 40	M 8	S	10	350,00 plast-br
K 50	M 8	S	10	450,00 plast-br
K 50	M 10	S	10	620,00 plast-br
K 63	M 10	S	10	740,00 plast-br
K 63	M 12	S	10	1000,00 plast-br
K 80	M 12	S	5	1550,00 plast-br
K 80	M 16	S	5	2080,00 plast-br

~DIN | 06798.701 | 580

6798 CuSn8 (bronze) type A



Serrated lock washers, A = external teeth

Caution! Reduced spring load.

Dimensions ➔ TI-99 REACH ➔ TI-262
Material properties ➔ TI-239

Spring steel ➔ pg. 313
Stainless ➔ pg. 554

RoHS ✓

A 3,2	S	2000	9,60 bronze
A 3,2	K	100	16,20 bronze
A 4,3	S	1000	12,60 bronze
A 4,3	K	100	19,70 bronze
A 5,3	S	1000	21,50 bronze
A 5,3	K	100	29,50 bronze
A 6,4	S	1000	28,00 bronze
A 6,4	K	100	36,00 bronze
A 8,4	S	1000	52,00 bronze
A 8,4	K	100	63,00 bronze
A 10,5	S	1000	92,00 bronze
A 10,5	K	100	105,00 bronze

ISO | 07089.700 | 90

7089 Brass



Plain washers, normal series, product grade A, without chamfer

Dimensions ➔ TI-84 Standard conversion ➔ TI-84
Material properties ➔ TI-239 REACH ➔ TI-262

Steel ➔ pg. 333
Stainless ➔ pg. 568

ISO 7089 ➔ replaces DIN 125 type A

RoHS ✓

for screws M			
2	S	1000	2,65 brass
2	K	100	8,30 brass
2,3	S	1000	2,65 brass
2,3	K	100	8,30 brass
2,5	S	1000	2,65 brass
2,5	K	100	8,30 brass
2,6	S	1000	2,65 brass
3	S	1000	1,85 brass
3	K	100	7,50 brass
3,5	K	100	9,10 brass

Dimensions	PU	Pieces	€/100/Mat.
4	K	100	9,10 brass
4	S	1000	3,45 brass
5	K	100	9,60 brass
5	S	1000	4,15 brass
6	K	100	14,40 brass
6	S	1000	8,90 brass
8	K	100	25,00 brass
8	S	1000	17,00 brass

ISO 07089.730 90

7089 Brass nickel plated



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84
Material properties → TI-239
Standard conversion → TI-84
REACH → TI-262

Steel → pg. 333
Stainless → pg. 568

ISO 7089 → replaces DIN 125 type A

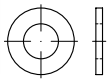
RoHS ✓

for screws M

3	S	1000	2,75 brass Ni
4	S	1000	5,40 brass Ni
5	S	1000	6,40 brass Ni
6	S	1000	14,10 brass Ni
8	S	1000	27,00 brass Ni

ISO 07089.310 90

7089 Copper



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84
Material properties → TI-239
Standard conversion → TI-84

Steel → pg. 333
Stainless → pg. 568

ISO 7089 → replaces DIN 125 type A

RoHS ✓ REACh SVHC free

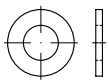
for screws M

5	S	100	38,50 Cu
6	S	100	61,00 Cu
8	S	100	91,00 Cu
10	S	100	152,00 Cu
12	S	100	223,00 Cu
16	S	100	405,00 Cu

Dimensions	PU	Pieces	€/100/Mat.

ISO 07089.311 90

7089 Aluminium



Plain washers, normal series, product grade A, without chamfer

Dimensions → TI-84
Material properties → TI-239
Standard conversion → TI-84
REACH → TI-262

Steel → pg. 333
Stainless → pg. 568

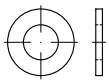
RoHS ✓

for screws M

3	K	500	2,90 Al
4	S	1000	3,00 Al
4	K	100	5,30 Al
5	S	1000	3,35 Al
5	K	100	4,70 Al
6	S	1000	5,20 Al
6	K	100	6,70 Al
8	S	500	6,50 Al
8	K	100	7,90 Al
10	S	500	10,30 Al
10	K	100	12,20 Al
12	S	100	19,90 Al
16	S	50	44,50 Al

ISO 07089.600 90

7089 Plastic PA



Plain washers, normal series, product grade C*, without chamfer

*acc. to ISO 4759-3

Dimensions → TI-84
Material properties → TI-239
REACH → TI-262

Steel → pg. 333
Stainless → pg. 568

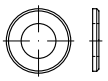
for screws M

2	S	1000	7,50 plastic
2,5	S	1000	6,10 plastic
3	S	1000	2,55 plastic
3,2	K	200	4,20 plastic
4	S	1000	2,55 plastic
4	K	200	4,20 plastic
5	K	200	5,00 plastic
6	S	1000	4,00 plastic
6	K	200	5,80 plastic
8	S	1000	5,30 plastic
8	K	200	7,30 plastic
10	S	500	8,20 plastic
10	K	200	10,60 plastic
12	S	500	11,50 plastic
12	K	100	13,40 plastic
16	S	250	15,20 plastic
16	K	100	17,20 plastic
20	S	100	24,00 plastic

Dimensions	PU	Pieces	€/100/Mat.
22	S	100	60,00 plastic
24	S	100	65,00 plastic
27	S	50	114,00 plastic
30	S	50	130,00 plastic
33	S	50	150,00 plastic

ISO 07090.707 90

7090 Brass turned



Plain washers, normal series, with chamfer, product grade A

Dimensions → TI-84
Material properties → TI-239
Standard conversion → TI-84
REACH → TI-262

Steel → pg. 335
Stainless → pg. 569

ISO 7090 → replaces DIN 125 type B

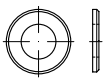
RoHS ✓

for screws M

1	S	100	46,50 brass
1,2	S	100	46,50 brass
1,4	S	100	46,50 brass
1,6	S	100	45,00 brass
2	S	100	45,00 brass
2,5	S	100	45,00 brass
3	S	100	48,00 brass
4	S	100	58,00 brass
5	S	100	63,00 brass
6	S	100	84,00 brass
8	S	100	103,00 brass
10	S	100	120,00 brass

ISO 07090.700 90*

7090 Brass



Plain washers, normal series, with chamfer, product grade A

*from ∅ 39 RAZ = 3380

Dimensions → TI-84
Material properties → TI-239
Standard conversion → TI-84
REACH → TI-262

Steel → pg. 335
Stainless → pg. 569

ISO 7090 → replaces DIN 125 type B

RoHS ✓

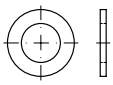
inside ∅ x outside ∅ x thickness

10	S	500	41,50 brass
10	K	100	54,00 brass
12	S	500	47,50 brass
12	K	100	56,00 brass
14	S	250	66,00 brass
14	K	100	76,00 brass
16	S	250	85,00 brass
16	K	100	93,00 brass

Dimensions	PU	Pieces	€/100/Mat.
18	S	50	136,00 brass
20	S	50	141,00 brass
22	S	25	290,00 brass
24	S	25	390,00 brass
27	S	25	465,00 brass
30	S	25	580,00 brass
36	S	1	1330,00 brass
39	S	1	2050,00 brass
42	S	1	2750,00 brass
45	S	1	3600,00 brass
48	S	1	3700,00 brass

ISO | 07092.700 | 140

7092 Brass



Plain washers, small series, product grade A

primarily for cap screws

Dimensions ➔ TI-84
Material properties ➔ TI-239
Standard conversion ➔ TI-84
REACH ➔ TI-262

Steel ➔ pg. 338
Stainless ➔ pg. 569

ISO 7092 ➔ replaces DIN 433

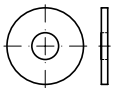
RoHS ✓

for screws M

2	S	5000	1,15 brass
2	K	500	1,95 brass
2,5	S	5000	1,40 brass
2,5	K	500	2,35 brass
3	S	5000	1,15 brass
3	K	500	1,80 brass
4	S	5000	1,45 brass
4	K	500	2,30 brass
5	S	1000	4,15 brass
5	K	100	8,40 brass
6	S	1000	7,20 brass
6	K	100	11,60 brass
8	S	1000	13,80 brass
8	K	100	20,20 brass
10	S	1000	18,10 brass
10	K	100	27,50 brass
12	S	500	30,50 brass
12	K	100	37,00 brass
14	S	100	55,00 brass
16	S	100	64,00 brass
20	S	50	194,00 brass

Dimensions	PU	Pieces	€/100/Mat.
ISO	07093.702		750

7093-2 Brass



Plain washers, large series, product grade C

Dimensions ➔ TI-85
Material properties ➔ TI-239
Standard conversion ➔ TI-84
REACH ➔ TI-262

Steel ➔ pg. 338
Stainless ➔ pg. 570

ISO 7093 ➔ replaces DIN 9021

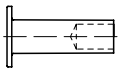
RoHS ✓

for screws M

3	S	1000	4,80 brass
3	K	100	8,50 brass
4	S	1000	6,70 brass
4	K	100	10,30 brass
5	S	1000	11,30 brass
5	K	100	16,70 brass
6	S	1000	16,00 brass
6	K	100	21,50 brass
8	S	500	38,50 brass
8	K	100	45,00 brass
10	S	100	80,00 brass
12	S	100	157,00 brass
14	S	50	218,00 brass
16	S	50	265,00 brass

DIN | 07338.702 | 620

7338 Copper type B



Rivets for brake linings and clutch linings, B = semi-tubular rivet

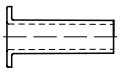
Dimensions ➔ TI-135
Material properties ➔ TI-239

RoHS ✓ REACh SVHC free

B 3	x	8	S	100	10,90 Cu
B 3	x	10	S	100	11,80 Cu
B 3	x	12	S	100	26,50 Cu
B 3	x	18	S	100	28,00 Cu
B 4	x	8	S	100	13,80 Cu
B 4	x	10	S	100	16,50 Cu
B 4	x	12	S	100	20,50 Cu
B 5	x	10	S	100	24,70 Cu
B 5	x	12	S	100	29,00 Cu
B 5	x	15	S	100	34,50 Cu
B 6	x	12	S	100	37,50 Cu
B 6	x	15	S	100	44,50 Cu
B 8	x	20	S	100	80,00 Cu
B 8	x	25	S	100	178,00 Cu
B 8	x	30	S	100	226,00 Cu

Dimensions	PU	Pieces	€/100/Mat.
DIN	07338.703		620

7338 Copper type C



Rivets for brake linings and clutch linings, C = tubular rivet

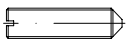
Dimensions ➔ TI-135
Material properties ➔ TI-239

RoHS ✓ REACh SVHC free

C 4	x	8	S	100	18,90 Cu
C 4	x	10	S	100	20,20 Cu
C 4	x	12	S	100	26,00 Cu
C 4	x	15	S	100	38,00 Cu
C 5	x	10	S	100	26,00 Cu
C 5	x	12	S	100	30,00 Cu
C 5	x	15	S	100	40,00 Cu
C 5	x	20	S	100	56,00 Cu
C 6	x	15	S	100	42,50 Cu
C 6	x	20	S	100	75,00 Cu
C 6	x	25	S	100	100,00 Cu
C 8	x	20	S	100	76,00 Cu
C 8	x	25	S	100	141,00 Cu
C 8	x	30	S	100	194,00 Cu

ISO | 07434.700 | 230

7434 Brass



Slotted grub screws with cone point

Dimensions ➔ TI-19
Material properties ➔ TI-239
REACH ➔ TI-262

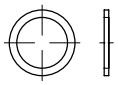
Steel ➔ pg. 345
Stainless ➔ pg. 573

ISO 7434 ➔ replaces DIN 553 (compatible)

RoHS ✓

M 3	x	4	S	100	13,60 brass
M 3	x	5	S	100	13,80 brass
M 3	x	6	S	100	14,40 brass
M 4	x	4	S	100	13,80 brass
M 4	x	5	S	100	14,10 brass
M 4	x	6	S	100	14,40 brass
M 4	x	8	S	100	14,60 brass
M 5	x	5	S	100	14,60 brass
M 5	x	6	S	100	15,70 brass
M 5	x	8	S	100	16,00 brass
M 5	x	10	S	100	17,00 brass
M 5	x	12	S	100	18,30 brass
M 5	x	16	S	100	20,50 brass
M 6	x	6	S	100	16,50 brass
M 6	x	8	S	100	18,30 brass
M 6	x	10	S	100	18,90 brass
M 6	x	20	S	100	28,50 brass

Dimensions					PU	Pieces	€/100/Mat.
DIN	07603.701						640
7603	**Copper**						**type A**



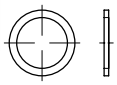
Sealing rings
A = flat sealing rings

Dimensions ➔ TI-87 Material properties ➔ TI-239

RoHS ✓ REACh SVHC free

4	x 8	x 1	S	100	33,00 Cu
5	x 7,5	x 1	S	100	35,50 Cu
5	x 9	x 1	S	100	37,50 Cu
6	x 10	x 1	S	100	38,00 Cu
6	x 12	x 1	S	100	41,00 Cu
6,5	x 9,5	x 1	S	100	39,00 Cu
6,5	x 11	x 1	S	100	66,00 Cu
8	x 11,5	x 1	S	100	66,00 Cu
8	x 12	x 1	S	100	44,50 Cu
8	x 12	x 1,5	S	100	45,50 Cu
8	x 14	x 1	S	100	69,00 Cu
8	x 14	x 1,5	S	100	47,00 Cu
10	x 13,5	x 1	S	100	68,00 Cu
10	x 13,5	x 1,5	S	100	46,00 Cu
10	x 14	x 1	S	100	46,00 Cu
10	x 14	x 1,5	S	100	47,00 Cu
10	x 15	x 1	S	100	49,50 Cu
10	x 16	x 1	S	100	81,00 Cu
10	x 16	x 1,5	S	100	57,00 Cu
10	x 18	x 1,5	S	100	57,00 Cu
12	x 15,5	x 1,5	S	100	89,00 Cu
12	x 16	x 1,5	S	100	93,00 Cu
12	x 17	x 1,5	S	100	114,00 Cu
12	x 18	x 1,5	S	100	75,00 Cu
12	x 19	x 1,5	S	100	136,00 Cu
13	x 18	x 1,5	S	100	114,00 Cu
14	x 18	x 1,5	S	100	78,00 Cu
14	x 18	x 1	S	100	77,00 Cu
14	x 20	x 1,5	S	100	82,00 Cu
15	x 19	x 1,5	S	100	154,00 Cu
16	x 20	x 1,5	S	100	152,00 Cu
16	x 22	x 1,5	S	100	101,00 Cu
16	x 27	x 2,5	S	100	141,00 Cu
16	x 30	x 1,5	S	100	144,00 Cu
17	x 21	x 1,5	S	100	152,00 Cu
17	x 22	x 1,5	S	100	160,00 Cu
17	x 23	x 1,5	S	100	107,00 Cu
17	x 22	x 2	S	100	178,00 Cu
18	x 22	x 1,5	S	100	110,00 Cu
18	x 24	x 1,5	S	100	114,00 Cu
20	x 24	x 1,5	S	100	181,00 Cu
20	x 26	x 1,5	S	100	121,00 Cu
21	x 26	x 1,5	S	100	181,00 Cu
22	x 27	x 1,5	S	100	131,00 Cu
22	x 29	x 1,5	S	100	239,00 Cu
23	x 28	x 2	S	100	160,00 Cu
24	x 29	x 2	S	100	242,00 Cu
24	x 32	x 2	S	100	170,00 Cu
26	x 31	x 2	S	100	270,00 Cu
26	x 32	x 2	S	100	295,00 Cu
26	x 34	x 2	S	100	198,00 Cu
27	x 32	x 2	S	100	184,00 Cu
28	x 33	x 2	S	100	280,00 Cu
30	x 36	x 2	S	100	280,00 Cu
32	x 38	x 2	S	100	195,00 Cu
33	x 39	x 2	S	100	345,00 Cu
33	x 41	x 2	S	100	213,00 Cu
36	x 42	x 2	S	50	390,00 Cu
38	x 44	x 2	S	50	270,00 Cu
42	x 49	x 2	S	50	495,00 Cu
45	x 52	x 2	S	50	510,00 Cu
48	x 55	x 2	S	50	600,00 Cu
60	x 68	x 2,5	S	25	1170,00 Cu

DIN	07603.300	640
7603	**Aluminium**	**type A**



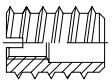
Sealing rings
A = flat sealing rings

Dimensions ➔ TI-87 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

5	x 9	x 1	S	100	9,30 Al
6	x 10	x 1	S	100	10,30 Al
6,5	x 9,5	x 1	S	100	12,00 Al
8	x 11,5	x 1	S	100	13,70 Al
10	x 13,5	x 1	S	100	14,50 Al
10	x 14	x 1	S	100	14,90 Al
10	x 15	x 1	S	1	15,10 Al
12	x 15,5	x 1,5	S	100	15,40 Al
14	x 18	x 1,5	S	100	18,30 Al
16	x 20	x 1,5	S	100	26,50 Al
17	x 21	x 1,5	S	100	28,00 Al
18	x 22	x 1,5	S	100	28,50 Al
18	x 24	x 1,5	S	100	30,50 Al
20	x 24	x 1,5	S	100	32,00 Al
21	x 26	x 1,5	S	100	32,50 Al
22	x 27	x 1,5	S	100	33,50 Al
24	x 29	x 2	S	100	34,00 Al
27	x 32	x 2	S	100	34,50 Al
30	x 36	x 2	S	100	46,00 Al
33	x 39	x 2	S	100	142,00 Al
42	x 49	x 2	S	100	171,00 Al
48	x 55	x 2	S	50	214,00 Al

Dimensions					PU	Pieces	€/100/Mat.
DIN	07965.700						640
7965	**Brass**						



Screwed inserts "RAMPA"

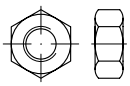
Dimensions ➔ TI-79 REACH ➔ TI-262
Material properties ➔ TI-239

Steel ➔ pg. 2205000

RoHS ✓

internal thread x length					
M 3	x 8	S	100	83,00 brass
M 3	x 10	S	100	87,00 brass
M 4	x 8	S	100	77,00 brass
M 4	x 10	S	100	84,00 brass
M 4	x 12	S	100	100,00 brass
M 4	x 15	S	100	114,00 brass
M 5	x 12	S	100	121,00 brass
M 5	x 15	S	100	141,00 brass
M 5	x 20	S	100	199,00 brass
M 6	x 12	S	100	146,00 brass
M 6	x 20	S	100	220,00 brass
M 8	x 18	S	100	365,00 brass
M 8	x 30	S	100	630,00 brass
M 10	x 20	S	100	510,00 brass
M 10	x 30	S	100	730,00 brass
M 12	x 25	S	100	970,00 brass
M 12	x 30	S	50	1170,00 brass

ISO	08673.700	3310
8673	**Brass**	



Hexagon nuts, ISO type 1, with metric fine pitch thread

Dimensions ➔ TI-62 Standard conversion ➔ TI-7
Material properties ➔ TI-239 REACH ➔ TI-262
Tightening torque ➔ TI-250

Steel ➔ pg. 369
Stainless ➔ pg. 582

ISO 8673 ➔ replaces DIN 934 fine thread

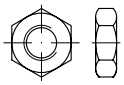
RoHS ✓

M 8	x 1	S	100	47,00 brass
M 10	x 1	S	100	65,00 brass
M 14	x 1,5	S	50	141,00 brass
M 16	x 1,5	S	25	205,00 brass
M 20	x 1,5	S	10	410,00 brass
M 22	x 1,5	S	10	580,00 brass

€/100 = price in € plus VAT when ordering full package unit

Dimensions	PU	Pieces	€/100/Mat.
ISO	08675.700		3370

8675 Brass



Hexagon thin nuts, chamfered, with metric fine pitch thread

Dimensions ➔ TI-61
Material properties ➔ TI-239
Standard conversion ➔ TI-7
REACH ➔ TI-262

Steel ➔ pg. 371
Stainless ➔ pg. 582

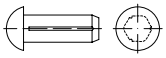
ISO 8675 ➔ replaces DIN 439 fine thread

RoHS ✓

M 10	x	1	S	100	52,00 brass
M 12	x	1,5	S	100	76,00 brass
M 14	x	1,5	S	50	132,00 brass

ISO	08746.700	500

8746 Brass type A



Grooved pins with round head, A = with chamfer

Dimensions ➔ TI-120
Material properties ➔ TI-239
Standard conversion ➔ TI-10
REACH ➔ TI-262

Steel ➔ pg. 380
Stainless ➔ pg. 584

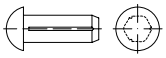
ISO 8746 ➔ replaces DIN 1476 (compatible)

RoHS ✓

2	x	3	K	200	16,00 brass
2	x	4	S	1000	11,80 brass
2	x	4	K	200	16,20 brass
2	x	5	S	1000	12,10 brass
2	x	5	K	200	16,50 brass
2	x	6	S	1000	12,40 brass
2	x	6	K	200	16,70 brass
2	x	8	K	200	18,10 brass
3	x	5	K	200	21,80 brass
3	x	6	S	1000	18,30 brass
3	x	6	K	200	22,60 brass
3	x	8	S	1000	19,70 brass
3	x	8	K	200	24,20 brass
3	x	10	S	1000	22,00 brass
3	x	10	K	200	27,00 brass
3	x	12	S	1000	24,70 brass

Dimensions	PU	Pieces	€/100/Mat.
ISO	08746.300		500

8746 Aluminium type A



Grooved pins with round head, A = with chamfer

Dimensions ➔ TI-120
Material properties ➔ TI-239
Standard conversion ➔ TI-10
REACH ➔ TI-262

Steel ➔ pg. 380
Stainless ➔ pg. 584

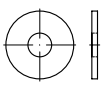
ISO 8746 ➔ replaces DIN 1476 (compatible)

RoHS ✓

1,4	x	4	S	500	2,20 Al
1,6	x	4	S	500	2,40 Al
1,6	x	5	S	500	2,40 Al
1,6	x	6	S	500	2,55 Al
2	x	3	S	500	2,45 Al
2	x	4	S	500	2,45 Al
2	x	5	S	500	2,45 Al
2	x	6	S	500	2,45 Al
2	x	8	S	500	2,55 Al
2	x	10	S	500	2,70 Al
2,3	x	5	S	500	2,70 Al
2,5	x	5	S	500	2,75 Al
2,5	x	6	S	500	2,75 Al
2,5	x	8	S	500	2,75 Al
3	x	4	S	500	3,15 Al
3	x	5	S	500	3,15 Al
3	x	6	S	500	3,15 Al
3	x	8	S	500	3,20 Al
3	x	10	S	500	3,45 Al
3	x	12	S	500	3,45 Al
4	x	6	S	500	5,10 Al
4	x	8	S	500	5,20 Al
4	x	10	S	500	5,20 Al
5	x	12	S	500	8,70 Al

DIN	09021.700	750

9021 Brass



Washers, outside Ø ≈ 3 x nom. thread Ø

Dimensions ➔ TI-85
Material properties ➔ TI-239
Standard conversion ➔ TI-84
REACH ➔ TI-262

Steel ➔ pg. 387
Stainless ➔ pg. 586

DIN 9021 ➔ replaced by ISO 7093

RoHS ✓

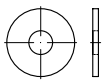
inside Ø x outside Ø x thickness

3,2	x	9	x	0,8	S	1000	4,80 brass
3,2	x	9	x	0,8	K	100	8,50 brass
4,3	x	12	x	1	S	1000	6,70 brass
4,3	x	12	x	1	K	100	10,30 brass

Dimensions	PU	Pieces	€/100/Mat.
5,3 x 15 x 1,2	S	1000	11,30 brass
5,3 x 15 x 1,2	K	100	16,70 brass
6,4 x 18 x 1,6	S	1000	16,00 brass
6,4 x 18 x 1,6	K	100	21,50 brass
8,4 x 24 x 2	S	500	38,50 brass
8,4 x 24 x 2	K	100	45,00 brass
10,5 x 30 x 2,5	S	100	80,00 brass
13 x 37 x 3	S	100	157,00 brass
15 x 44 x 3	S	50	218,00 brass
17 x 50 x 3	S	50	265,00 brass

DIN	09021.600	750

9021 Plastic PA



Washers, outside Ø ≈ 3 x nom. thread Ø

product grade C acc. to ISO 4759-3

Dimensions ➔ TI-85
Material properties ➔ TI-239
REACH ➔ TI-262

Steel ➔ pg. 387
Stainless ➔ pg. 586

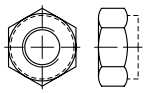
mostly identical to DIN 34816

inside Ø x outside Ø x thickness

3,2	x	9	x	0,8	S	200	5,20 plastic
4,3	x	12	x	1	S	1000	6,60 plastic
4,3	x	12	x	1	K	100	9,10 plastic
5,3	x	15	x	1,2	S	1000	6,90 plastic
5,3	x	15	x	1,2	K	100	9,40 plastic
6,4	x	18	x	1,6	S	1000	7,60 plastic
6,4	x	18	x	1,6	K	100	10,10 plastic
8,4	x	24	x	2	S	500	13,60 plastic
8,4	x	24	x	2	K	100	16,10 plastic
10,5	x	30	x	2,5	S	250	21,40 plastic
10,5	x	30	x	2,5	K	100	23,90 plastic
13	x	37	x	3	S	100	49,50 plastic
17	x	50	x	3	S	100	58,00 plastic
22	x	60	x	4	S	100	85,00 plastic

~ISO	10511.700	3395

10511 Brass



Prevailing torque type hexagon nuts with non-metallic insert, low type

for use under temperatures from -50 to +120 °C

Dimensions ➔ TI-9
Material properties ➔ TI-239
Standard conversion ➔ TI-9
REACH ➔ TI-262

Steel ➔ pg. 388
Stainless ➔ pg. 587

ISO 10511 ➔ replaces DIN 985

M 4	S	100	30,00
M 5	S	100	33,00
M 6	S	100	34,00

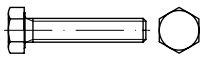
Dimensions	PU	Pieces	€/100/Mat.
M 8	S	100	58,00
M 10	S	100	110,00
M 12	S	50	170,00

Important Note!

The current standards for prevailing torque type hexagon nuts apply for steel in the property classes 5, (6), 8, 10 and 12. The use of nuts from other materials (e. g. stainless steel, brass, aluminium) is carried out at your own risk. Nuts made from these softer materials sometimes tend to seize up because of the high flank pressure during forming of the bolt thread in the locking ring. The use of lubricant usually helps in such cases. The changes of the friction coefficient when tightening the fastener must be taken into account.

DIN 34810.600 400

34810 Plastic PA



Hexagon head screws with thread up to head*

*thread length max. 50 mm

Caution! Rough tolerances, possible cavity formationas per VDI 2544/Abs. 8.

nuts ➔ DIN 555

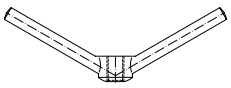
Dimensions ➔ TI-15 REACH ➔ TI-262
Material properties ➔ TI-239

mostly identical to DIN 933

Dimensions	PU	Pieces	€/100/Mat.
M 3 x 8	S	200	7,50 plastic
M 3 x 10	S	200	7,70 plastic
M 3 x 12	S	200	7,70 plastic
M 3 x 16	S	200	7,90 plastic
M 3 x 20	S	200	8,40 plastic
M 3 x 25	S	200	8,60 plastic
M 3 x 30	S	200	8,80 plastic
M 4 x 8	S	200	7,90 plastic
M 4 x 10	S	200	8,20 plastic
M 4 x 12	S	200	8,30 plastic
M 4 x 16	S	200	8,50 plastic
M 4 x 20	S	200	9,10 plastic
M 4 x 25	S	200	9,50 plastic
M 4 x 30	S	200	10,00 plastic
M 5 x 10	S	200	9,20 plastic
M 5 x 12	S	200	9,50 plastic
M 5 x 16	S	200	10,10 plastic
M 5 x 20	S	200	11,80 plastic
M 5 x 25	S	200	12,40 plastic
M 5 x 30	S	200	13,20 plastic
M 5 x 40	S	200	14,50 plastic
M 6 x 10	S	200	10,50 plastic
M 6 x 12	S	200	10,70 plastic
M 6 x 16	S	200	11,20 plastic
M 6 x 20	S	200	12,30 plastic
M 6 x 25	S	200	13,40 plastic
M 6 x 30	S	200	16,10 plastic
M 6 x 35	S	200	16,80 plastic
M 6 x 40	S	200	17,40 plastic
M 6 x 50	S	200	18,40 plastic
M 8 x 10	S	200	20,10 plastic
M 8 x 12	S	200	21,00 plastic
M 8 x 16	S	200	22,10 plastic
M 8 x 20	S	200	24,00 plastic
M 8 x 25	S	200	26,00 plastic
M 8 x 30	S	200	27,50 plastic
M 8 x 35	S	200	28,50 plastic
M 8 x 40	S	200	30,00 plastic
M 8 x 50	S	200	32,00 plastic
M 8 x 60	S	200	41,50 plastic
M 8 x 70	S	200	45,50 plastic
M 10 x 20	S	200	44,50 plastic
M 10 x 25	S	200	49,00 plastic
M 10 x 30	S	200	54,00 plastic
M 10 x 35	S	200	58,00 plastic
M 10 x 40	S	200	62,00 plastic
M 10 x 45	S	200	65,00 plastic
M 10 x 50	S	200	67,00 plastic
M 10 x 60	S	100	85,00 plastic
M 12 x 20	S	100	56,00 plastic
M 12 x 25	S	100	62,00 plastic
M 12 x 30	S	100	67,00 plastic
M 12 x 35	S	100	70,00 plastic
M 12 x 40	S	100	73,00 plastic
M 12 x 50	S	100	81,00 plastic
M 12 x 60	S	100	84,00 plastic

DIN 80701.700 790

80701 Brass



Butterfly nuts

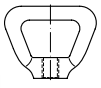
Dimensions ➔ TI-129 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

Dimensions	PU	Pieces	€/100/Mat.
M 16	S	1	8300,00 brass
M 20	S	1	9200,00 brass
M 24	S	1	16000,00 brass

DIN 80704.700 790

80704 Brass



Bow nuts

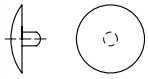
Dimensions ➔ TI-129 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

Dimensions	PU	Pieces	€/100/Mat.
M 6	S	10	810,00 brass
M 8	S	10	1080,00 brass
M 10	S	10	1080,00 brass
M 12	S	10	1380,00 brass
M 16	S	10	1990,00 brass
M 20	S	1	3050,00 brass
M 22	S	1	4850,00 brass
M 24	S	1	5600,00 brass

article 88001.(*) 800

88001 Plastic IL



Caps with pin for chipboard screws/ SPAX screws with inner hole

white RAL 9010 (*630),
light brown RAL 8001 (*640),
ark brown RAL 8014 (*650)

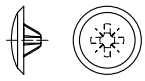
REACH ➔ TI-262

matching for screws ∅ 4,5 - 6,0

pin ∅ x caps ∅					
2,5	x	12	S	1000	2,40 plastic
2,5	x	15	S	1000	2,40 plastic

article 88002.(*) 800

88002 Plastic Z



Caps for countersunk head screws with Pozidriv cross recess Z

white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

REACH ➔ TI-262

cross recess no. x caps ∅ / for screws ∅					
1	x	8 / 3	S	1000	2,10
2	x	12 / 3,5-5	S	1000	2,10
3	x	13 / 5,5-6	S	1000	2,25

article 88003.* 800

88003 Plastic



Decorative caps for cap screws article 88981 Ø 3.9

white RAL 9010 (*630), grey RAL 7001 (*640),
black RAL 9005 (*650)

REACH ➔ TI-262

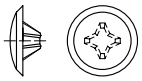
F. 3,9	S	1000	8,60

€/100 = price in € plus VAT when ordering full package unit

Dimensions | PU Pieces | €/100/Mat.

article 88004.(*) 800

88004 Plastic KS-H



Caps for countersunk head screws with Phillips cross recess H

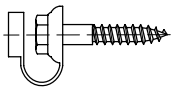
white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650)

REACH ➔ TI-262

cross recess no. x caps ∅ / for screws ∅			
2 x 12 / 3,5-5	S	1000	3,10

article 88005.630 802

88005 Plastic black



Plastic sealings and caps for hexagon wood screws

for corrugated roof panels

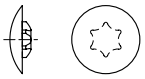
DIN 571 ∅ 7 mm

REACH ➔ TI-262

KD	S	100	6,40

article 88006.(*) 800

88006 Plastic ISR



Caps for countersunk head screws with hexalobular socket

white RAL 9010 (*630),
light brown RAL 8001 (*640),
dark brown RAL 8014 (*650),
fawn brown RAL 8007 (*660)

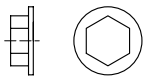
REACH ➔ TI-262

ISR no. x caps ∅ / for screws				
15	x 12 /3,5	S	1000	3,45
20	x 12 /4-4,5	S	1000	3,45
25	x 13,5/5	S	1000	3,45
30	x 16,5/6	S	1000	3,45

Dimensions | PU Pieces | €/100/Mat.

article 88008.(*) 800

88008 Plastic



Caps for tapping screws for facing

white RAL 9010 (*630),
light grey RAL 9002 (*640),
light ivory RAL 1015 (*670),
red brown RAL 8012 (*650)

REACH ➔ TI-262

for articles 88176, 88276 with wrench size SW 3/8"

F. s = 3/8	S	200	7,00 plastic

article 88095.700 815

88095 Brass RCSK-Z



Chipboard screws, RCSK = raised countersunk head, Z = Pozidriv cross recess

Caution!
Lower tightness compared to hardened steel.

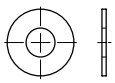
Dimensions ➔ TI-52 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

3,5	x 16 -Z	S	1000	16,00 brass
3,5	x 20 -Z	S	1000	15,40 brass
3,5	x 25 -Z	S	1000	13,60 brass
3,5	x 30 -Z	S	1000	14,40 brass
4	x 20 -Z	S	1000	16,50 brass
4	x 25 -Z	S	1000	16,70 brass
4	x 30 -Z	S	1000	16,70 brass
4	x 35 -Z	S	1000	17,50 brass
4	x 40 -Z	S	1000	18,30 brass

article 88101.700 830

88101 CuAl* „Cupal“



Plain washers / „Cupal“ washers

*approx. 70 % Cu/30 % Al

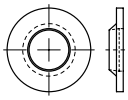
RoHS ✓ REACh SVHC free

nominal size / inside ∅ x outside ∅ x thickness						
4 / 4,5	x	10	x	1	S	200	167,00 Cu-Al
6 / 6,5	x	15	x	1	S	200	189,00 Cu-Al

Dimensions | PU Pieces | €/100/Mat.

article 88152.601 857

88152 Plastic RUV - A



REYHER captivity washers RUV for screws with metric thread

for usage acc. to EC machinery directive

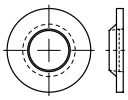
matching screws ➔ DIN 7964 A 2

Rules ➔ TI-263 REACH ➔ TI-262

for thread M x inside ∅ x outside ∅ x thickness						
4/4,2	x	9	x	1,2	S	100	3,45
5/5,0	x	10,1	x	1,6	S	100	4,30
6/6,3	x	12,5	x	1,3	S	100	5,90
8/8,2	x	16,2	x	1,6	S	100	8,00
10/10,5	x	15	x	2,1	S	100	10,80

article 88152.602 857

88152 Plastic RUV - B



REYHER captivity washers for tapping screws

for usage acc. to EC machinery directive

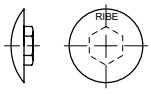
Rules ➔ TI-263 REACH ➔ TI-262

identical to R 88152 type A

for thread ST x inside ∅ x outside ∅ x thickness						
4,2/4,2	x	9	x	1,2	S	100	3,45
4,8/5	x	10,1	x	1,6	S	100	4,30

article 88251.630 880

88251 Plastic grey



Caps

for hexagon socket head screws
DIN 912, 6912, ISO 4762

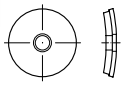
REACH ➔ TI-262

nominal size / for screws			
4 M 5	S	500	12,10 plastic
5 M 6	S	500	14,60 plastic
6 M 8	S	500	15,30 plastic
8 M 10	S	500	19,60 plastic
10 M 12	S	200	21,40 plastic
12 M 14	S	200	26,50 plastic
14 M 16, M 18	S	200	30,00 plastic
17 M 20, M 22	S	200	37,50 plastic

Dimensions | PU Pieces | €/100/Mat.

article 88277.700 890

88277 Aluminium



Sealing washers, convex metal washers with vulcanised sealing

thickness of sealing ~ 1,5 mm

Material properties ➔ TI-239 REACH ➔ TI-262

Stainless ➔ pg. 603

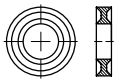
RoHS ✓

outside ∅ x inside ∅ x thickness

16	x	6,8	x	1	S 1000	7,90 Al

article 88494.600 930

88494 Plastic PA 6 natural colour



DUBO profile washers for hexagon head screws

Dimensions ➔ TI-109 REACH ➔ TI-262
Material properties ➔ TI-239

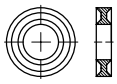
nominal no. - for screws x height

198 - M 3	x	2,2	S	100	22,60
199 - M 4	x	2,6	S	100	24,90
200 - M 5	x	3	S	100	26,50
201 - M 6	x	3,5	S	100	30,00
203 - M 8	x	4	S	100	38,50
205 - M10	x	4,7	S	100	48,00
207 - M12	x	5	S	100	71,00
209 - M14	x	5,5	S	50	141,00
211 - M16	x	6	S	50	114,00
213 - M18	x	6,5	S	50	231,00
215 - M20	x	7	S	50	179,00
217 - M22	x	7,5	S	25	295,00
219 - M24	x	8	S	25	295,00
222 - M27	x	8,5	S	25	395,00
225 - M30	x	8,5	S	25	400,00
231 - M36	x	10	S	1	720,00
243 - M48	x	17	S	1	1400,00

Dimensions | PU Pieces | €/100/Mat.

article 88495.600 930

88495 Plastic PA 6 natural colour



DUBO profile washers hexagon socket cap screws

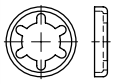
Dimensions ➔ TI-110 REACH ➔ TI-262
Material properties ➔ TI-239

nominal no. - for screws x height

299 - M 4	x	2	S	100	22,30
300 - M 5	x	3	S	100	23,60
301 - M 6	x	2,5	S	100	22,90
303 - M 8	x	3,3	S	100	31,00
305 - M 10	x	3,8	S	100	38,50
307 - M 12	x	4,4	S	100	48,50
311 - M 16	x	5,6	S	50	90,00
315 - M 20	x	6,5	S	50	111,00

article 88496.010 930

88496 Steel zinc plated



DUBO lock washers for DUBO profile washers

Dimensions ➔ TI-110 Corrosion protection ➔ TI-228

RoHS ✓ REACh SVHC free

nominal no. - inner width x hole ∅

404-11,2	x	6,8	S	100	45,50 ZP
406-13,2	x	9	S	100	48,50 ZP
408-17,2	x	12	S	100	59,00 ZP
410-21,3	x	13,5	S	100	75,00 ZP
412-24,5	x	15,5	S	100	85,00 ZP
414-27	x	17,5	S	50	95,00 ZP
416-31,25	x	21	S	50	128,00 ZP
417-33	x	23	S	50	128,00 ZP
418-37,5	x	26	S	50	148,00 ZP
419-39,5	x	27	S	50	630,00 ZP
422-44	x	30,5	S	25	217,00 ZP
427-50,5	x	35	S	25	247,00 ZP
430-56	x	40	S	25	510,00 ZP
433-61	x	45	S	1	580,00 ZP
436-67	x	50	S	1	640,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 88497.(*) 930

88497 Plastic



KORREX protection caps for hexagon nuts

white (*630), grey (*640), black (*650)

REACH ➔ TI-262

temperature resistance: -50 up to +110 °C

for nuts / width across flats

f. M 4 / s = 7	S	100	12,20 plastic
f. M 5 / s = 8	S	100	17,40 plastic
f. M 6 / s = 10	S	100	15,00 plastic
f. M 7 / s = 11	S	100	20,20 plastic
f. M 8 / s = 13	S	100	16,30 plastic
f. M 10 / s = 17	S	100	19,70 plastic
f. M 12 / s = 19	S	100	30,00 plastic
f. M 16 / s = 24	S	50	49,50 plastic
f. M 20 / s = 30	S	50	77,00 plastic
f. M 24 / s = 36	S	50	450,00 plastic

article 88498.630 930

88498 Plastic PA 6 white



KORREX insulating tubes

Caution!
Larger throughput drilling required.

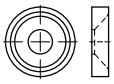
Dimensions ➔ TI-114 REACH ➔ TI-262
Material properties ➔ TI-239

for screws x rivet length

M 4	x	10	S	100	18,80
M 4	x	15	S	100	19,60
M 4	x	20	S	100	20,40
M 5	x	10	S	100	21,90
M 5	x	15	S	100	22,70
M 5	x	20	S	100	23,50
M 6	x	10	S	100	28,00
M 6	x	15	S	100	29,00
M 6	x	20	S	100	30,50
M 8	x	10	S	100	32,00
M 8	x	15	S	100	33,50
M 8	x	22	S	100	35,00
M 10	x	10	S	100	41,00
M 10	x	20	S	100	43,50
M 10	x	25	S	100	46,00
M 12	x	15	S	100	57,00
M 12	x	25	S	100	64,00
M 16	x	10	S	100	75,00
M 16	x	15	S	100	81,00
M 16	x	20	S	100	85,00
M 16	x	25	S	100	88,00
M 20	x	15	S	100	95,00
M 20	x	20	S	100	100,00
M 20	x	25	S	100	103,00

Dimensions	PU	Pieces	€/100/Mat.
article	88499.630		930

88499 Plastic PA 6 white



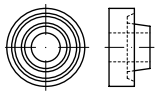
KORREX rosettes for countersunk heads

Dimensions ➔ TI-114 REACH ➔ TI-262
Material properties ➔ TI-239

nominal no. - for screws ∅ x height					
803 - M 3	x	2,0	S	100	9,00
804 - M 4	x	3,1	S	100	12,70
805 - M 5	x	3,5	S	100	16,40
806 - M 6	x	4,6	S	100	23,30
808 - M 8	x	6,0	S	100	36,50

article	88917.334	803

88917 EPDM black



EPDM sealing for hangerbolts, for solar plants

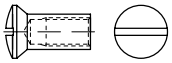
for thread ∅ M 10 and M 12

REACH ➔ TI-262

for M 10/ M 12	S	5000	275,00 EPDM

Dimensions	PU	Pieces	€/100/Mat.
article	88964.730		996

88964 Brass nickel plated



Sleeve nuts with raised countersunk head, with internal thread

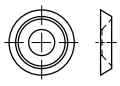
Dimensions ➔ TI-79 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

internal thread M x length					
M 4	x	7	S	200	57,00 brass Ni
M 4	x	12	S	200	34,00 brass Ni
M 4	x	20	S	200	97,00 brass Ni
M 5	x	15	S	100	55,00 brass Ni
M 6	x	15	S	100	59,00 brass Ni
M 6	x	20	S	100	96,00 brass Ni
M 8	x	20	S	100	154,00 brass Ni

article	88965.730	997

88965 Brass nickel plated type R 1



Rosettes / finishing washers open connecting surface

for 90° countersunk head screws

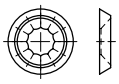
Dimensions ➔ TI-115 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

hole ∅ x for head up to ∅ x height							
3,0	x	7,0	x	2,1	S	1000	35,00 brass Ni
4,1	x	6,5	x	1,8	S	1000	40,50 brass Ni
5,0	x	9,0	x	2,3	S	1000	45,50 brass Ni
6,0	x	10,0	x	2,3	S	1000	47,00 brass Ni
7,0	x	12,5	x	3,2	S	100	119,00 brass Ni
8,6	x	13,0	x	3	S	100	181,00 brass Ni

Dimensions	PU	Pieces	€/100/Mat.
article	88966.730		997

88966 Brass nickel plated type R 4



Rosettes / finishing washers close connecting surface

for 90° countersunk head screws

Dimensions ➔ TI-115 REACH ➔ TI-262
Material properties ➔ TI-239

RoHS ✓

hole ∅ x for head up to ∅ x height							
4,8	x	8,8	x	2,7	S	200	59,00 brass Ni
5,0	x	8,0	x	2,4	S	200	64,00 brass Ni
6,0	x	10,5	x	3	S	100	80,00 brass Ni
7,0	x	12,0	x	3,4	S	100	96,00 brass Ni

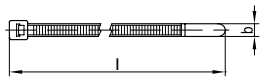
E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML



Dimensions			PU	Pieces	€/100/Mat.
article		82500.604			4050
82500	**PA 6.6 natural (NA)**				**T**



Cable ties, inside serrated,
T = standard

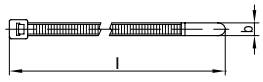
Product information ➔ TI-144

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

2,3	x	83 / 16	S	1000	6,40
2,5	x	100 / 22	S	100	5,80
2,5	x	145 / 35	S	100	8,90
2,5	x	200 / 50	S	100	10,70
2,8	x	240 / 65	S	100	16,80
3,3	x	260 / 65	S	100	23,50
3,5	x	150 / 35	S	100	10,20
3,5	x	200 / 50	S	100	14,40
3,5	x	285 / 80	S	100	28,00
4,0	x	175 / 40	S	100	13,10
4,6	x	150 / 35	S	100	13,80
4,6	x	390 / 108	S	100	37,00
4,7	x	210 / 55	S	100	13,50
4,7	x	300 / 85	S	100	37,00
7,6	x	225 / 55	S	50	63,00
7,6	x	365 / 100	S	100	49,00
7,6	x	390 / 108	S	100	55,00
7,6	x	460 / 125	S	100	78,00
7,6	x	760 / 220	S	50	136,00
8,9	x	530 / 150	S	25	104,00
8,8	x	820 / 245	S	25	153,00
8,9	x	1095 / 330	S	25	280,00

article		82505.600			4050
82505	**PA 6.6 HS natural (NA)**				**T-HS**



Cable ties, inside serrated,
T = standard
HS = heat stabilised

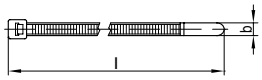
Product information ➔ TI-144

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

2,5	x	100 / 22	S	100	6,80
2,5	x	145 / 35	S	1000	10,70
2,5	x	200 / 50	S	100	12,70
3,3	x	260 / 65	S	100	29,00
3,5	x	150 / 35	S	100	12,30
3,5	x	200 / 50	S	100	17,50
3,5	x	300 / 75	S	100	49,50
4,0	x	180 / 42	S	100	15,70
4,6	x	150 / 35	S	100	16,50
4,6	x	300 / 81	S	100	34,00
4,7	x	210 / 55	S	100	16,20
4,7	x	390 / 110	S	100	44,00
7,5	x	360 / 100	S	100	59,00
7,5	x	390 / 108	S	100	67,00

article		82505.630			4050
82505	**PA 6.6 HS black (BK)**				**T-HS**



Cable ties, inside serrated,
T = standard
HS = heat stabilised

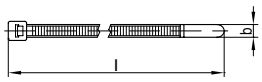
Product information ➔ TI-144

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

2,5	x	100 / 22	S	100	6,50
3,5	x	150 / 35	S	100	11,80
4,6	x	150 / 35	S	100	15,80
4,6	x	300 / 81*	S	1000	53,00
7,6	x	365 / 100	S	100	57,00
7,6	x	760 / 220	S	50	145,00

article		82510.630			4050
82510	**PA 6.6 W black (BK)**				**T-W**



Cable ties, inside serrated,
T = standard
W = UV stabilised

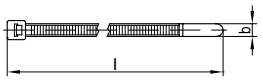
Product information ➔ TI-144

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

2,5	x	100 / 22	S	100	6,80
2,5	x	145 / 35	S	100	10,70
2,5	x	200 / 50	S	100	12,70
2,8	x	330 / 95	S	100	40,50
3,3	x	260 / 65	S	100	29,00
3,5	x	150 / 35	S	100	12,30
3,5	x	190 / 50	S	100	17,50
3,5	x	285 / 80	S	100	39,50
4,0	x	180 / 42	S	100	15,70
4,6	x	150 / 35	S	100	16,50
4,7	x	210 / 55	S	100	16,20
4,7	x	300 / 85	S	100	44,50
4,7	x	390 / 110	S	100	44,00
7,6	x	225 / 55	S	50	73,00
7,6	x	365 / 100	S	100	59,00
7,6	x	390 / 108	S	100	67,00
7,6	x	465 / 130	S	100	69,00
7,6	x	760 / 220	S	50	151,00
8,8	x	813 / 222	S	25	197,00
8,9	x	525 / 150	S	25	166,00

article		82515.600			4050
82515	**PA 4.6 HR/N46 natural (NA)**				**T-HR**



Cable ties, inside serrated,
T = standard
HR = for high temperatures

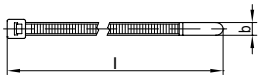
Product information ➔ TI-144

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

2,5	x	100 / 22	S	1000	32,50
3,5	x	150 / 35	S	100	65,00
4,6	x	200 / 50	S	100	129,00
4,6	x	390 / 110	S	100	320,00
7,6	x	390 / 108	S	100	420,00

article		82520.600			4050
82520	**PA 6.6 natural (NA)**				**LK 2/LK 5**



Cable ties, internal serrated,
LK = higher tensile strength
LK 2: 4,8 ∅ / LK 5: width = 13,2

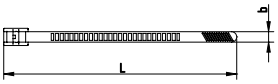
Product information ➔ TI-145

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

4,8	x	120 / 28	S	200	17,50
13,0	x	535 / 150	S	50	207,00

article		82516.630			4050
82516	**PA11 black (BK)**				**Robusto**



Cable ties, outside serrated,
Robusto series,
with flat head

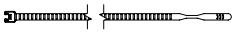
Product information ➔ TI-145

HF halogen free | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.

9,0	x	180 / 42	S	100	71,00
9,0	x	260 / 62	S	100	104,00
9,0	x	355 / 92	S	100	148,00

Dimensions	PU Pieces	€/100/Mat.
article	82517.630	4050
82517	**PA66W* black (BK)**	**Q-tie**



Cable ties, inside serrated,
Q-tie = with open head
and pre-locking functionality

*W = UV-stabilised

Product information ➔ TI-145

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
3,6	x 160 / 38	S	100	13,50
4,7	x 210 / 50	S	100	20,30
7,7	x 420 /110	S	100	89,00

article	82518.630	4050
82518	**PA66HIR* black (BK)**	**Coupler**



2-piece fixing ties
for parallel separation

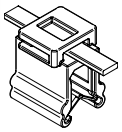
*HIR = impact resistant

Product information ➔ TI-145

HF halogen free | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
4,6	x 200 / 50	S	500	172,00
7,6	x 380 /100	S	250	265,00

article	82521.634	4050
82521	**PA66W* black (BK)**	**EdgeCl. O-A**



Fixing ties for edges, 2-pieces,
edge width 1 - 3 mm,
O = tie channel top
A = tie channel axial

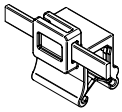
*W = UV-stabilised

Product information ➔ TI-146

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
4,6	x 200 / 45	S	500	161,00

Dimensions	PU Pieces	€/100/Mat.
article	82522.635	4050
82522	**PA66HS* black (BK)**	**EdgeCl. S-A**



Fixing ties for edges, 2-pieces,
edge width 1 - 3 mm,
S = tie channel lateral
A = tie channel axial

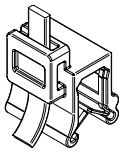
*HS = heat stabilised

Product information ➔ TI-146

HF halogen free | fire protection UL94 V2 | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
4,6	x 150 / 31	S	500	128,00
4,6	x 200 / 45	S	500	135,00

article	82522.634	4050
82522	**PA66HS* black (BK)**	**EdgeCl. S-Q**



Fixing ties for edges, 2-pieces,
edge width 1 - 3 mm,
S = tie channel lateral
Q = tie channel cross

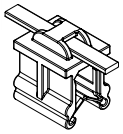
*HS = heat stabilised

Product information ➔ TI-146

HF halogen free | fire protection UL94 V2 | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
3,6	x 150 / 33	S	500	127,00
4,6	x 200 / 45	S	500	132,00

Dimensions	PU Pieces	€/100/Mat.
article	82523.634	4050
82523	**PA66HS* black (BK)**	**EdgeCl. O-A**



Fixing ties for edges, 2-pieces,
edge width 3 - 6 mm,
O = tie channel top
A = tie channel axial

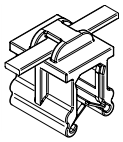
*HS = heat stabilised

Product information ➔ TI-147

HF halogen free | fire protection UL94 V2 | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
4,6	x 200 / 45	S	500	207,00

article	82523.635	4050
82523	**PA66HS* black (BK)**	**EdgeCl. O-Q**



Fixing ties for edges, 2-pieces,
edge width 3 - 6 mm,
O = tie channel top
Q = tie channel cross

*HS = heat stabilised

Product information ➔ TI-147

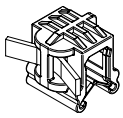
HF halogen free | fire protection UL94 V2 | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed	/ bundle ∅ max.			
4,6	x 150 / 35	S	500	204,00
4,6	x 200 / 45	S	500	207,00

€/100 = price in € plus VAT when ordering full package unit

Dimensions | PU Pieces | €/100/Mat.

article	82523.637	4050
82523	**PA66HS* black (BK)**	**EdgeCl. S-A**



Fixing ties for edges, 2-pieces, edge width 3 - 6 mm, S = tie channel lateral A = tie channel axial

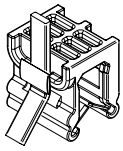
*HS = heat stabilised

Product information ➔ TI-147

HF halogen free | fire protection UL94 V2 | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.				
4,6	x 200/45	S	500	232,00

article	82523.636	4050
82523	**PA66HS* black (BK)**	**EdgeCl. S-Q**



Fixing ties for edges, 2-pieces, edge width 3 - 6 mm, S = tie channel lateral Q = tie channel cross

*HS = heat stabilised

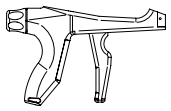
Product information ➔ TI-147

HF halogen free | fire protection UL94 V2 | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

width B x length l closed / bundle ∅ max.				
4,6	x 200	S	500	232,00

Dimensions | PU Pieces | €/100/Mat.

article	82535.000	4060
82535	**Plastic**	**EV07**



Manual application tools for cable ties with cutting device

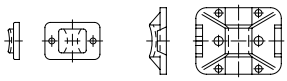
strap width max. 4,8 mm
strap thickness max. 1,5 mm
weight 0,28 kg

Product information ➔ TI-147

REACh SVHC free

EV07		S	1	61900,00

article	82540.600	4050
82540	**PA 6.6 natural (NA)**	**TY-G1/SK**



Cable tie mounts, type TY-G1, SK = self adhesive*

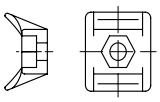
*acrylate

Product information ➔ TI-148

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max.			
4	S	100	106,00
8	S	100	137,00

article	82543.600	4050
82543	**PA 6.6 natural (NA)**	**NY/SB**



Cable tie mounts, type NY, SB = install with screw

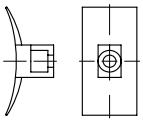
Product information ➔ TI-148

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max.			
8	S	1000	20,70

Dimensions | PU Pieces | €/100/Mat.

article	82546.600	4050
82546	**PA 6.6 natural**	**LKC/SB**



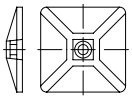
Cable tie mounts, type LKC, SB = install with screw

Product information ➔ TI-148

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max.			
8	S	100	37,00

article	82550.600	4050
82550	**PA 6.6 natural (NA)**	**MB-CA/SK**



Cable tie mounts, type MB-CA, SK = self adhesive*

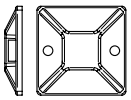
*synthetic rubber

Product information ➔ TI-148

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max.			
5,4	S	100	127,00

article	82553.600	4050
82553	**PA 6.6 natural (NA)**	**MB-A/SK**



Cable tie mounts, type MB-A, SK = self adhesive*

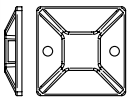
*synthetic rubber

Product information ➔ TI-148

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max.			
5,4	S	100	137,00

Dimensions	PU Pieces	€/100/Mat.
article	82554.600	4050
82554	**PA 6.6 natural (NA)**	**MB-AT**



**Cable tie mounts, type MB-AT,
SolidTack-Series
with special glue***

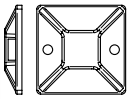
*mod. acrylat

Product information ➔ TI-149

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max. - L x W				
4,1 - 19 x 19	S	100	199,00
5,4 - 28 x 28	S	100	265,00

article	82554.630	4050
82554	**PA 6.6 black (BK)**	**MB-AT**



**Cable tie mounts, type MB-AT,
SolidTack-Series
with special glue***

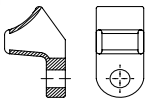
*mod. acrylat

Product information ➔ TI-149

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max. - L x W				
4,1 -19 x 19	S	100	199,00
5,4 -28 x 28	S	100	265,00
10 -38 x 38	S	100	530,00

article	82560.600	4050
82560	**PA 6.6 natural (NA)**	**CL 8/SB**



**Cable tie mounts, type CL 8,
SB = install with screw**

Product information ➔ TI-149

HF halogen free | fire protection UL94 V2 | RoHS ✓ | REACh SVHC free

for cable tie width max.			
8	S	100	23,10

Dimensions	PU Pieces	€/100/Mat.
article	82580.640	4050
82580	**PP grey**	**HWPP**



**Cable conduit Helawrap,
length = 2 m,
inclusive tool kit**

operating temperature -60 to +110 °C
temporary +140 °C

HF halogen free | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

for bundle ∅			
16	S	1	3100,00
27	S	1	4050,00

article	82580.630	4050
82580	**PP black**	**HWPP**



**Cable conduit Helawrap,
length = 2 m,
inclusive tool kit**

operating temperature -60 to +110 °C
temporary +140 °C

HF halogen free | fire protection UL94 HB | RoHS ✓ | REACh SVHC free

for bundle ∅			
16	S	1	3100,00
27	S	1	4050,00

article	82565.000	4050
82565	**PA 6.6 natural black (NA/BK)**	**BMS-100**



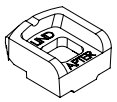
**Assortment box "BMS - 100",
assortment of cable tie mounts,
17 types/192 pieces,
mounts, clips, snappers**

setting tools on request

RoHS ✓ | REACh SVHC free

BMS - 100	S	1	12000,00

Dimensions	PU Pieces	€/100/Mat.
article	82001.014	4150
82001	**Malleable iron zinc plated**	**A-K**



**LINDAPTER clamps A-K,
A = with recess (head twist-lock)
K = short tail length**

Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

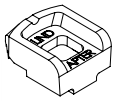
Product information ➔ TI-156

high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

ETA CE | Lloyd's Register | DNV | TÜV NORD | RoHS ✓ | REACh SVHC free

for screws ∅ / tail length			
KM 10 / 4,0**	S	1	194,00
KM 12 / 4,5	S	1	270,00
KM 16 / 5,5	S	1	373,00
KM 20 / 7,0	S	1	524,00
KM 24 / 9,0	S	1	1426,00

article	82001.016	4150
82001	**Malleable iron zinc plated**	**A-M**



**LINDAPTER clamps A-M,
A = with recess (head twist-lock)
M = medium tail length**

Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

Product information ➔ TI-156

high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

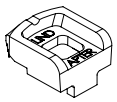
ETA CE | Lloyd's Register | DNV | TÜV NORD | RoHS ✓ | REACh SVHC free

for screws ∅ / tail length			
MM 8 / 4,0**	S	1	98,00
MM 10 / 5,0**	S	1	194,00
MM 12 / 6,0	S	1	270,00
MM 16 / 8,0	S	1	373,00
MM 20 / 10,0	S	1	524,00
MM 24 / 12,0	S	1	1426,00

Dimensions | PU Pieces | €/100/Mat.

article 82001.015 4150

82001 Malleable iron zinc plated A-L



LINDAPTER clamps A-L,
A = with recess (head twist-lock)
L = long tail length

Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Location plate T ➔ 82018, Recess filling plate W ➔ 82021

Product information ➔ TI-156

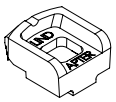
high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

for screws ∅ / tail length			
LM 10 / 7,0**	S	1	194,00
LM 12 / 9,5	S	1	270,00
LM 16 / 11,0	S	1	373,00
LM 20 / 12,5	S	1	524,00
LM 24 / 16,0	S	1	1426,00

Dimensions | PU Pieces | €/100/Mat.

article 82001.026 4150

82001 Malleable iron hot dip galvanized A-M



LINDAPTER clamps A-M,
A = with recess (head twist-lock)
M = medium tail length

Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

Product information ➔ TI-156

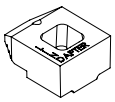
high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

for screws ∅ / tail length			
MM 10 / 5,0**	S	1	233,00
MM 12 / 6,0	S	1	323,00
MM 16 / 8,0	S	1	448,00
MM 20 /10,0	S	1	630,00
MM 24 /12,0	S	1	1711,00

Dimensions | PU Pieces | €/100/Mat.

article 82002.014 4150

82002 Malleable iron zinc plated B-K



LINDAPTER clamps B-K,
B = with flat top
K = short tail length

Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

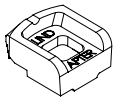
Product information ➔ TI-156

high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

for screws ∅ / tail length			
KM 10 / 4,0**	S	1	263,00
KM 12 / 4,5	S	1	353,00
KM 16 / 5,5	S	1	533,00
KM 20 / 7,0	S	1	876,00
KM 24 / 9,0	S	1	1858,00

article 82001.024 4150

82001 Malleable iron hot dip galvanized A-K



LINDAPTER clamps A-K,
A = with recess (head twist-lock)
K = short tail length

Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

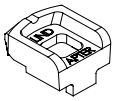
Product information ➔ TI-156

high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

for screws ∅ / tail length			
KM 10 / 4,0	S	1	233,00
KM 12 / 4,5	S	1	323,00
KM 16 / 5,5	S	1	448,00
KM 20 / 7,0	S	1	630,00
KM 24 / 9,0	S	1	1711,00

article 82001.025 4150

82001 Malleable iron hot dip galvanized A-L



LINDAPTER clamps A-L,
A = with recess (head twist-lock)
L = long tail length

Equipment: Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

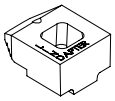
Product information ➔ TI-156

high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

for screws ∅ / tail length			
LM 10 / 7,0**	S	1	233,00
LM 12 / 9,5	S	1	323,00
LM 16 / 11,0	S	1	448,00
LM 20 / 12,5	S	1	630,00
LM 24 / 16,0	S	1	1711,00

article 82002.016 4150

82002 Malleable iron zinc plated B-M



LINDAPTER clamps B-M,
B = with flat top
M = medium tail length

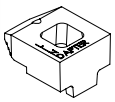
Clipped washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013
Recess filling plate W ➔ 82021

Product information ➔ TI-156

high friction clamp
➔ type AF ➔ Article 82040-82044
ETA-13/0300, DoP003

for screws ∅ / tail length			
MM 8 / 4,0**	S	1	138,00
MM 10 / 5,0**	S	1	263,00
MM 12 / 6,0	S	1	353,00
MM 16 / 8,0	S	1	533,00
MM 20 /10,0	S	1	876,00
MM 24 /12,0	S	1	1858,00

Dimensions	PU	Pieces	€/100/Mat.
article	82002.015		4150
82002	**Malleable iron zinc plated**		**B-L**



LINDAPTER clamps B-L, B = with flat top L = long tail length

Clipped washer CW → 82011
Location plate P1K → 82012
Location plate P2K → 82013
Recess filling plate W → 82021

Product information → TI-156

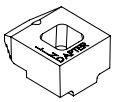
high friction clamp
→ type AF → Article 82040-82044
ETA-13/0300, DoP003

ETA CE · Lloyd's Register · DNV · TÜV NORD · RoHS ✓ · REACh SVHC free

for screws ∅ / tail length

LM 10 / 7,0**	S	1	263,00
LM 12 / 9,5	S	1	353,00
LM 16 / 11,0	S	1	533,00
LM 20 / 12,5	S	1	876,00
LM 24 / 16,0	S	1	1858,00

Dimensions	PU	Pieces	€/100/Mat.
article	82002.026		4150
82002	**Malleable iron hot dip galvanized**		**B-M**



LINDAPTER clamps B-M, B = with flat top M = medium tail length

Clipped washer CW → 82011
Location plate P1K → 82012
Location plate P2K → 82013
Recess filling plate W → 82021

Product information → TI-156

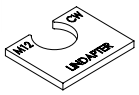
high friction clamp
→ type AF → Article 82040-82044
ETA-13/0300, DoP003

ETA CE · Lloyd's Register · DNV · TÜV NORD · RoHS ✓ · REACh SVHC free

for screws ∅ / tail length

MM 10 / 5,0**	S	1	315,00
MM 12 / 6,0	S	1	424,00
MM 16 / 8,0	S	1	639,00
MM 20 / 10,0	S	1	1052,00
MM 24 / 12,0	S	1	2230,00

Dimensions	PU	Pieces	€/100/Mat.
article	82011.010		4150
82011	**Steel zinc plated**		**CW**



LINDAPTER location plates CW

for clamps A, B, BS

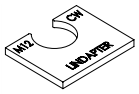
Product information → TI-156

RoHS ✓ · REACh SVHC free

for screws ∅ / thickness t

M 8 / 2,0	S	1	49,00
M 10 / 2,0 **	S	1	49,00
M 12 / 2,5	S	1	57,00
M 16 / 3,0	S	1	93,00
M 20 / 4,0	S	1	111,00
M 24 / 4,0	S	1	256,00

article	82011.020	4150
82011	**Steel hot dip galvanized**	**CW**



LINDAPTER location plates CW

for clamps A, B, BS

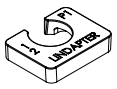
Product information → TI-156

RoHS ✓ · REACh SVHC free

for screws ∅ / thickness t

M 12 / 2,5	S	1	69,00
M 16 / 3,0	S	1	112,00
M 20 / 4,0	S	1	134,00
M 24 / 4,0	S	1	308,00

article	82012.014	4150
82012	**Malleable iron zinc plated**	**P 1-K**



LINDAPTER location plates P 1, K = short

for clamps A, B, BS

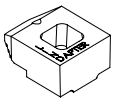
Product information → TI-156

RoHS ✓ · REACh SVHC free

for screws ∅ / thickness t

M 8 / 4,0 **	S	1	122,00
M 10 / 5,0 **	S	1	93,00
M 12 / 6,0	S	1	104,00
M 16 / 8,0	S	1	133,00

Dimensions	PU	Pieces	€/100/Mat.
article	82002.024		4150
82002	**Malleable iron hot dip galvanized**		**B-K**



LINDAPTER clamps B-K, B = with flat top K = short tail length

Clipped washer CW → 82011
Location plate P1K → 82012
Location plate P2K → 82013
Recess filling plate W → 82021

Product information → TI-156

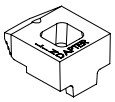
high friction clamp
→ type AF → Article 82040-82044
ETA-13/0300, DoP0032

ETA CE · Lloyd's Register · DNV · TÜV NORD · RoHS ✓ · REACh SVHC free

for screws ∅ / tail length

KM 10 / 4,0**	S	1	315,00
KM 12 / 4,5	S	1	424,00
KM 16 / 5,5	S	1	639,00
KM 20 / 7,0	S	1	1052,00
KM 24 / 9,0	S	1	2230,00

Dimensions	PU	Pieces	€/100/Mat.
article	82002.025		4150
82002	**Malleable iron hot dip galvanized**		**B-L**



LINDAPTER clamps B-L, B = with flat top L = long tail length

Clipped washer CW → 82011
Location plate P1K → 82012
Location plate P2K → 82013
Recess filling plate W → 82021

Product information → TI-156

high friction clamp
→ type AF → Article 82040-82044
ETA-13/0300, DoP003

ETA CE · Lloyd's Register · DNV · TÜV NORD · RoHS ✓ · REACh SVHC free

for screws ∅ / tail length

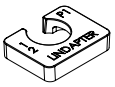
LM 10 / 7,0**	S	1	315,00
LM 12 / 9,5	S	1	424,00
LM 16 / 11,0	S	1	639,00
LM 20 / 12,5	S	1	1052,00
LM 24 / 16,0	S	1	2230,00

€/100 = price in € plus VAT when ordering full package unit

R/2019.10/EN/MTI

Dimensions	PU	Pieces	€/100/Mat.
M 20 / 10,0	S	1	235,00
M 24 / 12,0	S	1	533,00

article	82012.024	4150
82012	**Malleable iron hot dip galvanized**	**P 1-K**



LINDAPTER location plates P 1, K = short

for clamps A, B, BS

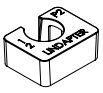
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

M 12 / 6,0	S	1	126,00
M 16 / 8,0	S	1	160,00
M 20 / 10,0	S	1	282,00
M 24 / 12,0	S	1	639,00

article	82013.014	4150
82013	**Malleable iron zinc plated**	**P 2-K**



LINDAPTER location plates P 2, K = short

for clamps A, B, BS

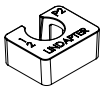
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

M 10 / 10,0 **	S	1	138,00
M 12 / 12,0	S	1	153,00
M 16 / 16,0	S	1	235,00
M 20 / 20,0	S	1	421,00
M 24 / 24,0	S	1	1295,00

Dimensions	PU	Pieces	€/100/Mat.
article	82013.024		4150
82013	**Malleable iron hot dip galvanized**		**P 2-K**



LINDAPTER location plates P 2, K = short

for clamps A, B, BS

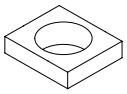
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

M 10 / 10,0 **	S	1	166,00
M 12 / 12,0	S	1	184,00
M 16 / 16,0	S	1	282,00
M 20 / 20,0	S	1	507,00
M 24 / 24,0	S	1	1554,00

article	82021.010	4150
82021	**Steel zinc plated**	**W**



LINDAPTER recess filling plates W

for clamps A, C1, D2

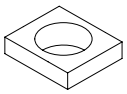
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

W 10 / 5,5	S	1	202,00
W 12 / 6,5	S	1	250,00
W 16 / 8,0	S	1	345,00

article	82021.020	4150
82021	**Steel hot dip galvanized**	**W**



LINDAPTER recess filling plates W

for clamps A, C1, D2

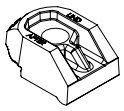
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

W 10 / 5,5	S	1	242,00

Dimensions	PU	Pieces	€/100/Mat.
article	82040.024		4150
82040	**SG iron hot dip galvanized**		**AF-K**



LINDAPTER clamps AF for high friction, K = short tail length

Location plates AFCW ➔ 82042
Location plates AFP1 ➔ 82043
Location plates AFP2 ➔ 82044
Recess filling plates AFW ➔ 82041

Product information ➔ TI-156

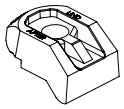
for use with screws of property class 8.8 and 10.9 (HV-bolts acc. to EN 14399-4) ETA-15/0537, DoP004

ETA CE | RoHS ✓ | REACh SVHC free

for screws ∅

KM 12	S	1	888,00
KM 16	S	1	1240,00
KM 20	S	1	1572,00

article	82040.025	4150
82040	**SG iron hot dip galvanized**	**AF-M**



LINDAPTER clamps AF for high friction, M = medium tail length

Location plate AFCW ➔ 82042
Location plate AFP1 ➔ 82043
Location plate AFP2 ➔ 82044
Recess filling plate AFW ➔ 82041

Product information ➔ TI-156

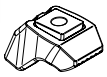
for use with screws of property class 8.8 and 10.9 (HV-bolts acc. to EN 14399-4) ETA-15/0537, DoP004

ETA CE | RoHS ✓ | REACh SVHC free

for screws ∅

MM 12	S	1	888,00
MM 16	S	1	1240,00
MM 20	S	1	1572,00

Dimensions	PU	Pieces	€/100/Mat.
article	82049.020		4150
82049	**SG iron hot dip galvanized**		**AAF**



LINDAPTER clamps AF for high friction

Location plate AFCW ➔ 82042
Location plate AFP1 ➔ 82043
Location plate AFP2 ➔ 82044
Recess filling plate AFW ➔ 82041

Product information ➔ TI-156

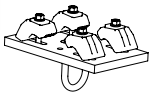
for use with screws of property class 8.8 and 10.9 (HV-bolts acc. to EN 14399-4)
ETA-15/0537, DoP005

ETA CE · RoHS · REACh SVHC free

for screws ∅

M 12	S	1	1320,00
M 16	S	1	2120,00
M 20	S	1	4433,00

Dimensions	PU	Pieces	€/100/Mat.
article	82051.000		4150
82051			**ALP**



LINDAPTER-lifting eye ALP

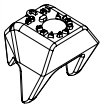
designed to support up to 3 tonne loads with a +/- 18 degree lift angle

Product information ➔ TI-156

RoHS · REACh SVHC free

ALP 3T-1	S	1	51800,00

Dimensions	PU	Pieces	€/100/Mat.
article	82045.020		4150
82045	**SG iron hot dip galvanized**		**CF**



LINDAPTER clamps CF with nose

for I-beams, angles and channels

Product information ➔ TI-156

ETA-15/0857, DoP011

ETA CE · RoHS · REACh SVHC free

for screws ∅

M 12	S	1	579,00
M 16	S	1	1169,00
M 20	S	1	1499,00

Dimensions	PU	Pieces	€/100/Mat.
article	82042.020		4150
82042	**Steel hot dip galvanized**		**AF-CW**



LINDAPTER location plates AF-CW, thickness = 2 mm

for clamps AF

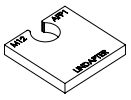
Product information ➔ TI-156

RoHS · REACh SVHC free

for screws ∅

AF M 12 CW	S	1	70,00
AF M 16 CW	S	1	84,00
AF M 20 CW	S	1	91,00

Dimensions	PU	Pieces	€/100/Mat.
article	82043.020		4150
82043	**Steel hot dip galvanized**		**AF-P 1**



LINDAPTER location plates AF-P 1, thickness = 5 mm

for clamps AF

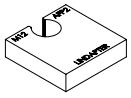
Product information ➔ TI-156

RoHS · REACh SVHC free

for screws ∅

AF M 12 P1	S	1	132,00
AF M 16 P1	S	1	167,00
AF M 20 P1	S	1	181,00
AF M 24 P1	S	1	750,00

Dimensions	PU	Pieces	€/100/Mat.
article	82044.020		4150
82044	**Steel hot dip galvanized**		**AF-P 2**



LINDAPTER location plates AF-P 2, thickness = 10 mm

for clamps AF

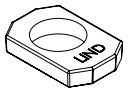
Product information ➔ TI-156

RoHS · REACh SVHC free

for screws ∅

AF M 12 P2	S	1	368,00
AF M 16 P2	S	1	373,00
AF M 20 P2	S	1	448,00
AF M 24 P2	S	1	1000,00

Dimensions	PU	Pieces	€/100/Mat.
article	82041.020		4150
82041	**Steel hot dip galvanized**		**AF-W**



LINDAPTER recess filling plates AF-W

for clamps AF

Product information ➔ TI-156

- required for assembly about nut
- Inverted to use as captivate HV-bolts acc. to EN 14399-4 M12 - M20

RoHS · REACh SVHC free

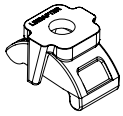
for screws ∅

AFW M 12	S	1	367,00
AFW M 16	S	1	255,00
AFW M 20	S	1	420,00
AFW M 24	S	1	602,00

Dimensions | PU | Pieces | €/100/Mat.

article 82010.010 4150

82010 Malleable iron zinc plated LR



LINDAPTER clamps LR, two-parts, clamp with slot and saddle with leg

Location plate P1L → 82015
Location plate P2L → 82016
Recess filling plate W → 82021

Product information → TI-156

ETA-15/0857, DoP006

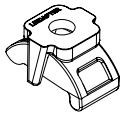
ETA CE | RoHS ✓ | REACh SVHC free

for screws ∅ / clamping range min - max.

M 10 / 3 - 10	S	1	359,00
M 12 / 3 - 12	S	1	484,00
M 16 / 3 - 16	S	1	883,00
M 20 / 3 - 20	S	1	1598,00
M 24 / 3 - 24	S	1	2534,00

article 82010.020 4150

82010 Malleable iron hot dip galvanized LR



LINDAPTER clamps LR, two-parts, clamp with slot and saddle with leg

Location plate P1L → 82015
Location plate P2L → 82016
Recess filling plate W → 82021

Product information → TI-156

ETA-15/0857, DoP006

ETA CE | RoHS ✓ | REACh SVHC free

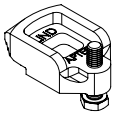
for screws ∅ / clamping range min - max.

M 10 / 3 - 10	S	1	432,00
M 12 / 3 - 12	S	1	581,00
M 16 / 3 - 16	S	1	1059,00
M 20 / 3 - 20	S	1	1918,00
M 24 / 3 - 24	S	1	3042,00

Dimensions | PU | Pieces | €/100/Mat.

article 82007.010 4150

82007 Malleable iron zinc plated D 2



LINDAPTER clamps D 2 with set screw = variable tail, with recess (head twist-lock)

Location plate P1L → 82015
Location plate P2L → 82016
Recess filling plate W → 82021

Product information → TI-156

ETA-15/0857, DoP007

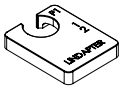
ETA CE | RoHS ✓ | REACh SVHC free

for screws ∅ / clamping range min - max.

M 10 / 10 - 20	S	1	620,00
M 12 / 10 - 22	S	1	636,00
M 16 / 13 - 20	S	1	896,00
M 20 / 17 - 24	S	1	1225,00

article 82015.014 4150

82015 Steel zinc plated P 1-L



LINDAPTER location plates P 1-L, L = long

for clamps D2, D3, LR

Product information → TI-156

RoHS ✓ | REACh SVHC free

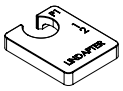
for screws ∅ / thickness t

M 10 / 5,0	S	1	235,00
M 12 / 6,0	S	1	284,00
M 16 / 8,0	S	1	333,00
M 20 / 10,0	S	1	785,00
M 24 / 12,0	S	1	952,00

Dimensions | PU | Pieces | €/100/Mat.

article 82015.024 4150

82015 Steel hot dip galvanized P 1-L



LINDAPTER location plates P 1-L, L = long

for clamps D2, D3, LR

Product information → TI-156

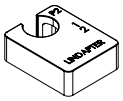
RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

M 10 / 5,0	S	1	282,00
M 12 / 6,0	S	1	342,00
M 16 / 8,0	S	1	400,00
M 20 / 10,0	S	1	941,00
M 24 / 12,0	S	1	1142,00

article 82016.014 4150

82016 Steel zinc plated P 2-L



LINDAPTER location plates P 2-L, L = long

for clamps D2, D3, LR

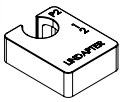
Product information → TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

M 10 / 10,0	S	1	242,00
M 12 / 12,0	S	1	310,00
M 16 / 16,0	S	1	457,00
M 20 / 20,0	S	1	883,00
M 24 / 24,0	S	1	1750,00

Dimensions	PU	Pieces	€/100/Mat.
article	82016.024		4150
82016	**Steel hot dip galvanized**		**P 2-L**



LINDAPTER location plates P 2-L, L = long

for clamps D2, D3, LR

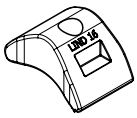
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / thickness t

M 10 / 10,0	S	1	290,00
M 12 / 12,0	S	1	373,00
M 16 / 16,0	S	1	548,00
M 20 / 20,0	S	1	1059,00
M 24 / 24,0	S	1	2100,00

article	82046.940	4150
82046	**A 4**	**LS**



LINDAPTER clamps LS for various flange thickness

Location plates LSP2 ➔ 82047

Product information ➔ TI-156

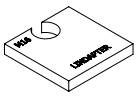
ETA-15/0857, DoP008

ETA CE | RoHS ✓ | REACh SVHC free

for screws ∅ / clamping range

LS 10/3 - 15	S	1	1603,00
LS 12/3 - 20	S	1	1783,00
LS 16/3 - 25	S	1	2490,00
LS 20/3 - 30	S	1	3612,00

Dimensions	PU	Pieces	€/100/Mat.
article	82047.940		4150
82047	**A 4**		**LS-P2**



LINDAPTER washers LS-P2, thickness = 10 mm

for clamps LS

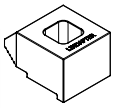
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅

LS 10 P2	S	1	1354,00
LS 12 P2	S	1	1372,00
LS 16 P2	S	1	1513,00
LS 20 P2	S	1	2273,00

article	82048.014	4150
82048	**Malleable iron zinc plated**	**BR-K**



LINDAPTER clamps BR for steel beams or rails, K = short tail length

Clipped Washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013

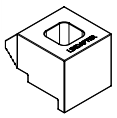
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / tail length

BR 12 / 4,0	S	1	353,00
BR 16 / 6,0	S	1	533,00
BR 20 / 7,0	S	1	876,00

Dimensions	PU	Pieces	€/100/Mat.
article	82048.015		4150
82048	**Malleable iron zinc plated**		**BR-M**



LINDAPTER clamps BR for steel beams or rails, M = medium tail length

Clipped Washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013

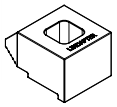
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / tail length

BR 12 / 6,0	S	1	353,00
BR 16 / 8,0	S	1	533,00
BR 20 / 10,0	S	1	876,00

article	82048.024	4150
82048	**Malleable iron hot dip galvanized**	**BR-K**



LINDAPTER clamps BR for steel beams or rails, K = short tail length

Clipped Washer CW ➔ 82011
Location plate P1K ➔ 82012
Location plate P2K ➔ 82013

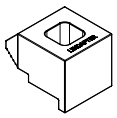
Product information ➔ TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / tail length

BR 12 / 4,0	S	1	424,00
BR 16 / 6,0	S	1	639,00
BR 20 / 7,0	S	1	1052,00

Dimensions	PU	Pieces	€/100/Mat.
article	82048.025		4150
82048	**Malleable iron hot dip galvanized**		**BR-M**



LINDAPTER clamps BR for steel beams or rails, M = medium tail length

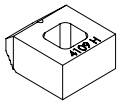
Clipped Washer CW → 82011
Location plate P1K → 82012
Location plate P2K → 82013

Product information → TI-156

RoHS ✓ | REACh SVHC free

for screws ∅ / tail length			
BR 12 / 6,0	S	1	424,00
BR 16 / 8,0	S	1	639,00
BR 20 / 10,0	S	1	1052,00

article	82003.010	4150
82003	**Malleable iron zinc plated**	**BSNT**



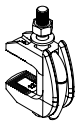
LINDAPTER clamps BSNT with flat top, without tail

Product information → TI-156

RoHS ✓ | REACh SVHC free

for screws ∅			
M 12	S	1	580,00

article	82009.010	4150
82009	**Malleable iron zinc plated**	**F 9**



LINDAPTER clamps F 9, two parts with zinc plated screws, nuts and washers

Product information → TI-156

ETA-15/0857, DoP010

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ / clamping range min - max.			
M 10 / 19 - 42	S	1	1158,00
M 12 / 26 - 60	S	1	2286,00
M 16 / 29 - 69	S	1	3290,00
M 20 / 32 - 82	S	1	4694,00

article	82009.020	4150
82009	**Malleable iron hot dip galvanized**	**F 9**



LINDAPTER clamps F 9, two parts with zinc plated screws, nuts and washers

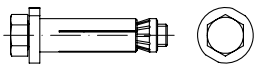
Product information → TI-156

ETA-15/0857, DoP010

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ / clamping range min - max.			
M 10 / 19 - 42	S	1	1389,00
M 12 / 26 - 60	S	1	2743,00
M 16 / 29 - 69	S	1	3949,00
M 20 / 32 - 82	S	1	5634,00
M 24 / 45 - 95	S	1	15116,00

article	82031.010	4150
82031	**Steel zinc plated***	**HB**



LINDAPTER HOLLO-BOLT HB for fixing onto hollow sections, with hexagon head screws 8.8

*with sealing JS500 (400h SS test)

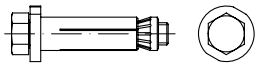
Product information → TI-156

ETA-10/0416, DoP001

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)			
HB 08-1 (50/22)	S	1	535,00
HB 08-2 (70/41)	S	1	1099,00
HB 08-3 (90/60)	S	1	1197,00
HB 10-1 (55/22)	S	1	658,00
HB 10-2 (70/41)	S	1	1355,00
HB 10-3 (90/60)	S	1	1482,00
HB 12-1 (60/25)	S	1	756,00
HB 12-2 (80/47)	S	1	1630,00
HB 12-3 (100/69)	S	1	1795,00
HB 16-1 (75/29)	S	1	1037,00
HB 16-2 (100/50)	S	1	1747,00
HB 16-3 (120/71)	S	1	2019,00
HB 20-1 (90/34)	S	1	2276,00
HB 20-2 (120/60)	S	1	3531,00
HB 20-3 (150/86)	S	1	3779,00

article	82031.020	4150
82031	**Steel hot dip galvanized**	**HB**



LINDAPTER HOLLO-BOLT HB for fixing onto hollow sections, with hexagon head screws 8.8

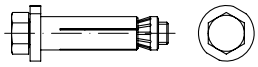
Product information → TI-156

ETA-10/0416, DoP001

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)			
HB 08-1 (50/22)	S	1	616,00
HB 08-2 (70/41)	S	1	1286,00
HB 08-3 (90/60)	S	1	1411,00
HB 10-1 (55/22)	S	1	773,00
HB 10-2 (70/41)	S	1	1580,00
HB 10-3 (90/60)	S	1	1724,00
HB 12-1 (60/25)	S	1	904,00
HB 12-2 (80/47)	S	1	1901,00
HB 12-3 (100/69)	S	1	2101,00
HB 16-1 (75/29)	S	1	1224,00
HB 16-2 (100/50)	S	1	2129,00
HB 16-3 (120/71)	S	1	2461,00
HB 20-1 (90/34)	S	1	2540,00
HB 20-2 (120/60)	S	1	4116,00
HB 20-3 (150/86)	S	1	4423,00

article	82031.940	4150
82031	**A 4**	**HB**



LINDAPTER HOLLO-BOLT HB for fixing onto hollow sections, with hexagon head screws

Product information → TI-156

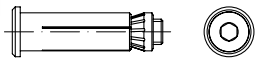
ETA-10/0416, DoP001

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)			
HB 08-1 (50/22)	S	1	1630,00
HB 08-2 (70/41)	S	1	2475,00
HB 08-3 (90/60)	S	1	2989,00
HB 10-1 (55/22)	S	1	2210,00
HB 10-2 (70/41)	S	1	2877,00
HB 10-3 (90/60)	S	1	3405,00
HB 12-1 (60/25)	S	1	3002,00
HB 12-2 (80/47)	S	1	4507,00
HB 12-3 (100/69)	S	1	4960,00
HB 16-1 (75/29)	S	1	4851,00
HB 16-2 (100/50)	S	1	6044,00
HB 16-3 (120/71)	S	1	7025,00
HB 20-1 (90/34)	S	1	7068,00
HB 20-2 (120/60)	S	1	8224,00
HB 20-3 (150/86)	S	1	9112,00

Dimensions | PU Pieces | €/100/Mat.

article	82031.013	4150
82031	**Steel zinc plated***	**HBCSK**



LINDAPTER HOLLO-BOLT HBCSK for fixing onto hollow sections, with countersunk head screws 10.9

*with sealing JS500 (400h SS test)

Product information ➔ TI-156

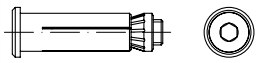
ETA-10/0416, DoP001

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)

HBCSK 08-1 (50/22)	S	1	862,00
HBCSK 10-1 (50/22)	S	1	1078,00
HBCSK 12-1 (55/25)	S	1	1248,00
HBCSK 16-1 (70/29)	S	1	1643,00

article	82031.943	4150
82031	**A 4**	**HBCSK**



LINDAPTER HOLLO-BOLT HBCSK for fixing onto hollow sections, with countersunk head screws

Product information ➔ TI-156

ETA-10/0416, DoP001

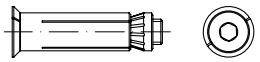
ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)

HBCSK 08-1 (50/22)	S	1	2137,00
HBCSK 10-1 (50/22)	S	1	3094,00
HBCSK 12-1 (55/25)	S	1	3726,00
HBCSK 16-1 (70/29)	S	1	5921,00

Dimensions | PU Pieces | €/100/Mat.

article	82031.014	4150
82031	**Steel zinc plated***	**HBFF**



LINDAPTER-HOLLO-BOLT Flush Fit, for fixing onto hollow sections, fully sunk, with countersunk head screw 10.9

*with sealing JS500 (400h SS test)

mounting nut ➔ article 82033

Product information ➔ TI-156

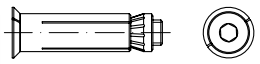
ETA-10/0416, DoP001

ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)

HBFF 08-1 (50/27)	S	1	762,00
HBFF 08-2 (70/45)	S	1	2476,00
HBFF 08-3 (90/64)	S	1	2883,00
HBFF 10-1 (50/27)	S	1	1138,00
HBFF 10-2 (70/45)	S	1	3387,00
HBFF 10-3 (90/64)	S	1	4152,00
HBFF 12-1 (55/30)	S	1	1309,00
HBFF 12-2 (80/52)	S	1	3998,00
HBFF 12-3 (100/74)	S	1	4574,00

article	82031.944	4150
82031	**A 4**	**HBFF**



LINDAPTER HOLLO-BOLT Flush Fit for fixing onto hollow sections, fully sunk, with countersunk head screw

mounting nut ➔ 82033

Product information ➔ TI-156

ETA-10/0416, DoP001

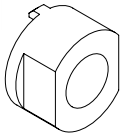
ETA CE | RoHS ✓ | REACh SVHC free

screws ∅ - length no. (length / max. clamp range)

HBFF 08-1 (50/27)	S	1	2234,00
HBFF 08-2 (70/45)	S	1	3140,00
HBFF 08-3 (90/64)	S	1	3411,00
HBFF 10-1 (50/27)	S	1	3367,00
HBFF 10-2 (70/45)	S	1	3570,00
HBFF 10-3 (90/64)	S	1	4420,00
HBFF 12-1 (55/30)	S	1	3900,00
HBFF 12-2 (80/52)	S	1	5338,00
HBFF 12-3 (100/74)	S	1	6850,00

Dimensions | PU Pieces | €/100/Mat.

article	82033.000	4150
82033	**Steel zinc plated**	



LINDAPTER Installation nut for HOLLO-BOLT FlushFit HBFF

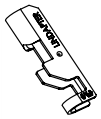
Product information ➔ TI-156 REACH ➔ TI-262

RoHS ✓

for bolt ∅

HBFF08	S	1	2017,00
HBFF10	S	1	2017,00
HBFF12	S	1	2017,00

article	82024.010	4150
82024	**Malleable iron zinc plated**	**TC**



LINDAPTER toggle clamps TC with internal thread M for decking fixing

Product information ➔ TI-156

- drill hole ∅:
  M8 ➔ ∅ 22
  M10 ➔ ∅ 25
- cavity depth min. 75

FM approval | RoHS ✓ | REACh SVHC free

for screws ∅

TC 8	S	1	215,00
TC 10	S	1	215,00

Dimensions | PU Pieces | €/100/Mat.

article 82008.010 4150

82008 Malleable iron zinc plated FL-D



LINDAPTER clamps FL-D with set screw and lock nut, D = with clear rear hole

Product information ➔ TI-156

clamping range:
FL 1 = 3 – 17 mm
FL 2 = 3 – 19 mm
FL 3 = 3 – 23 mm
FL 4 = 3 – 28 mm

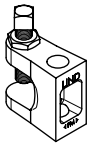
VdS approval | FM approval | RoHS ✓ | REACh SVHC free

type no. – hole ∅

FL 1 – D 9	S	1	319,00
FL 1 – D 7	S	1	319,00
FL 2 – D 11	S	1	380,00
FL 3 – D 13	S	1	387,00
FL 4 – D 13	S	1	428,00

article 82058.010 4150

82058 Malleable iron zinc plated FL-M



LINDAPTER clamps FL-M with set screw and lock nut, M = with tapped rear hole

Product information ➔ TI-156

clamping range:
FL 1 = 3 – 17 mm
FL 2 = 3 – 19 mm
FL 3 = 3 – 23 mm
FL 4 = 3 – 28 mm

VdS approval | FM approval | RoHS ✓ | REACh SVHC free

type no. – connection thread M

FL 1 – M 6	S	1	333,00
FL 1 – M 8	S	1	333,00
FL 2 – M 10	S	1	393,00
FL 3 – M 12	S	1	400,00
FL 4 – M 10	S	1	484,00

Dimensions | PU Pieces | €/100/Mat.

article 82025.010 4150

82025 Malleable iron zinc plated LC



LINDAPTER clamps LC with 2 connection threads, with set screw and lock nut M 6

connection threads sidewise and bottom

Product information ➔ TI-156

clamping range = 0 to 20 mm

RoHS ✓ | REACh SVHC free

connection thread M

M 6	S	1	235,00
M 8	S	1	263,00

article 82022.020 4150

82022 Malleable iron hot dip galvanized* F 3



LINDAPTER flange clamps F 3, two-part, without screws / nuts**

*M6 = zinc plated
**DIN 603 + 934/ISO 4032

Product information ➔ TI-156

FM approval | RoHS ✓ | REACh SVHC free

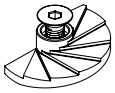
for screws ∅ / clamping range 0 – max.

M 8 / 25	S	1	551,00
M 10 / 30	S	1	794,00
M 12 / 40	S	1	1212,00
M 16 / 55	S	1	2437,00
M 20 / 70	S	1	4336,00

Dimensions | PU Pieces | €/100/Mat.

article 82019.010 4150

82019 Malleable iron zinc plated FF



LINDAPTER FLOOR-FAST-FF for floor plate fixings, with hexagon socket countersunk head screws

Product information ➔ TI-156

ETA-15/0538, DoP013

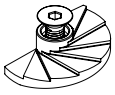
ETA CE | Lloyd's Register | RoHS ✓ | REACh SVHC free

nominal size = screws ∅

M 8	S	1	491,00
M 10	S	1	491,00
M 12	S	1	491,00

article 82019.940 4150

82019 A 4 (1.4408) zinc plated FF



LINDAPTER FLOOR-FAST-FF for floor plate fixings, with hexagon socket countersunk head screws

Product information ➔ TI-156

ETA-15/0538, DoP013

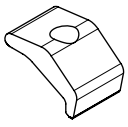
ETA CE | Lloyd's Register | RoHS ✓ | REACh SVHC free

nominal size = screws ∅

FF 08	S	1	2714,00
FF 10	S	1	2714,00
FF 12	S	1	2714,00

article 82400.010 4150

82400 C45+N zinc plated



MTH-clamping plates Nova Grip

general technical approval: Z-14.4-493

RoHS ✓ | REACh SVHC free

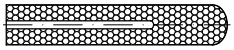
For screws ∅

M 10	S	200	116,00 ZP
M 12	S	200	144,00 ZP
M 16	S	80	221,00 ZP
M 20	S	40	580,00 ZP

Dimensions | PU Pieces | €/100/Mat.

article 88579.008 04403

88579 Resin FHB II-PF-L



FISCHER resin capsules FHB II-PF-L

particularly fast hardening

L = for use with highbond anchor FHB II-A L

Product information ➔ TI-164

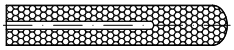
ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

for anchor ∅ x anchorage depth

FHBII-PF 24	x	170	S	10	257,95
FHBII-PF 10	x	95	S	10	328,60
FHBII-PF 12	x	100	S	10	377,65
FHBII-PF 12	x	120	S	10	405,85
FHBII-PF 16	x	125	S	10	528,55
FHBII-PF 16	x	145	S	10	569,65
FHBII-PF 16	x	160	S	10	583,60
FHBII-PF 20	x	210	S	4	1176,65
FHBII-PF 24	x	210	S	4	1204,85

article 88579.007 04403

88579 Resin FHB II -PF-S



FISCHER resin capsules FHB II-PF-S

particularly fast hardening

S = for use with highbond anchor FHB II-A S

Product information ➔ TI-164

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

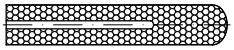
for anchor ∅ x anchorage depth

FHBII-PF 10	x	60	S	10	293,05
FHBII-PF 10	x	75	S	10	305,15
FHBII-PF 12	x	75	S	10	330,60
FHBII-PF 16	x	95	S	10	471,30
FHBII-PF 20	x	170	S	4	1037,60
FHBII-PF 24	x	170	S	4	1103,40

Dimensions | PU Pieces | €/100/Mat.

article 88579.004 4403

88579 Resin FHB II-P-L



FISCHER resin capsules FHB II-P-L

L = for use with highbond anchor FHB II-A L

Product information ➔ TI-164

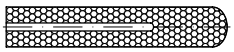
ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

for anchor ∅ x anchorage depth

FHBII-P 8	x	60	S	10	257,95
FHBII-P 10	x	95	S	10	328,60
FHBII-P 12	x	100	S	10	377,65
FHBII-P 12	x	120	S	10	405,85
FHBII-P 16	x	125	S	10	528,55
FHBII-P 16	x	145	S	10	569,65
FHBII-P 16	x	160	S	10	583,60
FHBII-P 20	x	210	S	4	1176,65
FHBII-P 24	x	210	S	4	1204,85

article 88579.005 4403

88579 Resin FHB II-P-S



FISCHER resin capsules FHB II-P-S

S = for use with highbond anchor FHB II-A S

Product information ➔ TI-164

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

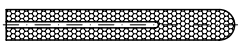
for anchor ∅ x anchorage depth

FHBII-P 10	x	60	S	10	293,05
FHBII-P 12	x	75	S	10	330,60
FHBII-P 16	x	95	S	10	471,30
FHBII-P 20	x	170	S	4	1037,60
FHBII-P 24	x	170	S	4	1103,40

Dimensions | PU Pieces | €/100/Mat.

article 88687.001 04403

88687 Resin RSB



FISCHER resin capsules RSB

for use with threaded rod RG M

Product information ➔ TI-166

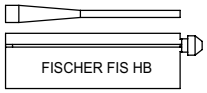
ETA CE | R120 fire resistance classification | Z suitable for tensil zone

for thread anchor RG M

RSB 8	S	10	252,75
RSB 10 mini	S	10	259,00
RSB 10	S	10	264,25
RSB 12 mini	S	10	275,60
RSB 12	S	10	287,70
RSB 16 mini	S	10	410,55
RSB 16	S	10	427,80
RSB 16 E	S	10	527,40
RSB 20	S	10	522,85
RSB 20 E / 24	S	5	736,75
RSB 30	S	5	1151,45

article 88578.000 4403

88578 Mortar FIS HB



FISCHER injection mortar FIS HB

incl. 2 static mixer / cartridge
sale only complete package unit

for use with highbond anchor FHB II

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

contents per cartridge (ml)

FIS HB 150 C	S	6	2900,00
FIS HB 345	S	1	6200,00

RIO® REYHER INTERNET ORDER

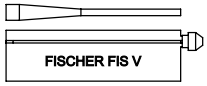
User-friendly webshop for efficient order processing

- 24/7 availability of catalog items – always up to date
- Diverse search functions e.g. feature search, full-text search, product group structures
- Price and availability check

Dimensions | PU Pieces | €/100/Mat.

article 88522.000 4403

88522 Mortar FIS V



FISCHER injection mortar FIS V

incl. 2 static mixer / cartridge
sale only complete package unit

for use with threaded rod FIS A, RG M and internal threaded rod RG MI

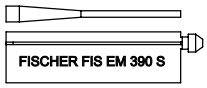
ETA CE R120 fire resistance classification

contents per cartridge (ml)

FIS V 360 S	S	6	5285,00
FIS V 300 T	S	12	4405,00

article 88522.005 4403

88522 Mortar FIS EM 390 S



FISCHER injection mortar FIS EM 390 S

incl. 2 static mixer / cartridge
sale only complete package unit

for use with rebar anchors and stand-off installation

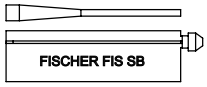
ETA CE R120 fire resistance classification Z suitable for tenell zone

contents per cartridge (ml)

FIS EM 390 S	S	6	5370,00

article 88686.000 4403

88686 Mortar FIS SB



FISCHER Superbond mortar FIS SB

incl. 2 static mixer / cartridge
sale only complete package unit

for use with threaded rod FIS A, RG M and internal threaded anchor RG M I

ETA CE R120 fire resistance classification Z suitable for tenell zone

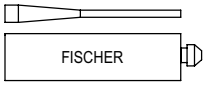
contents per cartridge (ml)

FIS SB 390 S	S	6	5285,00
FIS SB 1500 S	S	4	13550,00

Dimensions | PU Pieces | €/100/Mat.

article 88527.(*) 4403

88527 Mortar



FISCHER injection mortar

incl. 2 static mixer / cartridge
sale only complete package unit
(*): 150 C (D) = (003), 300 T (D) = (004)

for use with threaded rod FIS A and internal threaded rod RG MI

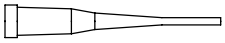
ETA CE R120 fire resistance classification

contents per cartridge (ml)

150 C(D)	S	10	2285,00
300 T	S	1	2685,00

article 88525.602 4403

88525 Plastic FIS MR



FISCHER static mixer FIS Mixer Red

for use with all FISCHER injection mortar cartridges

REACh SVHC free

FIS Mixer Red	S	10	221,35

article 88579.006 4403

88579 Steel BS



FISCHER cleaning brushes BS, for drill hole cleaning

REACh SVHC free

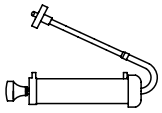
for drill hole ∅

FHB-BS 10	S	1	1540,00
FHB-BS 12	S	1	1590,00
FHB-BS 14	S	1	1645,00
FHB-BS 16/18	S	1	1715,00
FHB-BS 24	S	1	1835,00
FHB-BS 25	S	1	1850,00
FHB-BS 28	S	1	1875,00

Dimensions | PU Pieces | €/100/Mat.

article 88685.600 4403

88685 Plastic ABG



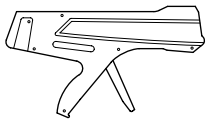
FISCHER blow-out pumps ABG, large

REACh SVHC free

AGB big	S	1	3100,00

article 88524.002 4403

88524 Plastic FIS DMS



FISCHER dispenser FIS DMS

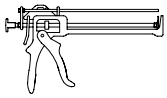
for use with all FISCHER injection mortar cartridges

REACh SVHC free

FIS DMS	S	1	18840,00

article 88524.004 4403

88524 Metal FIS AM



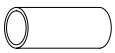
FISCHER dispenser FIS AM

for use with all FISCHER injection mortar cartridges

REACh SVHC free

FIS - AM	S	1	8085,00

Dimensions	PU Pieces	€/100/Mat.
article	88684.000	4403
88684	**Plastic**	**FIS VLS**

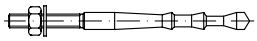


FISCHER extension tubes FIS VLS, length 1000 mm

REACh SVHC free

FIS-VLS	S	1	229,70

Dimensions	PU Pieces	€/100/Mat.
article	88579.014	4403
88579	**Steel zinc plated**	**FHB II-A L**



FISCHER highbond-anchors FHB II-A L, L = large anchorage depth with max. load values

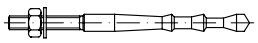
for use with injection mortar FIS HB, resin capsules FHB II-P and FHB II-PF

Product information → TI-164

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock-approval | REACh SVHC free

anchor ∅ x anchor length / usable length			
M 8 x 60 / 10	S	10	487,40
M 8 x 60 / 30	S	10	561,75
M 8 x 60 / 50	S	10	707,70
M 10 x 95 / 10	S	10	710,90
M 10 x 95 / 20	S	10	808,75
M 10 x 95 / 60	S	10	1002,60
M 10 x 95 / 100	S	10	1349,15
M 12 x 100 / 10	S	10	838,60
M 12 x 100 / 25	S	10	908,95
M 12 x 100 / 60	S	10	1042,00
M 12 x 100 / 100	S	10	1365,60
M 12 x 120 / 10	S	10	1035,40
M 12 x 120 / 25	S	10	1160,30
M 12 x 120 / 60	S	10	1344,65
M 12 x 120 / 100	S	10	1647,65
M 16 x 125 / 30	S	10	1220,80
M 16 x 125 / 60	S	10	1426,10
M 16 x 125 / 100	S	10	1851,80
M 16 x 160 / 30	S	10	1614,65
M 16 x 160 / 60	S	10	1885,40
M 16 x 160 / 100	S	10	2395,75
M 20 x 210 / 50	S	4	2865,55
M 20 x 210 / 150	S	8	4833,65
M 24 x 210 / 50	S	4	3497,10

Dimensions	PU Pieces	€/100/Mat.
article	88579.944	4403
88579	**A 4**	**FHB II-A L**



FISCHER highbond-anchors FHB II-A L, L = large anchorage depth with max. load values

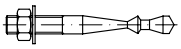
for use with injection mortar FIS HB, resin capsules FHB II-P and FHB II-PF

Product information → TI-164

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock-approval | REACh SVHC free

anchor ∅ x anchor length / usable length			
M 8 x 60 / 10	S	10	828,35
M 8 x 60 / 30	S	10	938,60
M 8 x 60 / 50	S	10	1035,30
M 10 x 95 / 10	S	10	1381,05
M 10 x 95 / 20	S	10	1573,55
M 10 x 95 / 40	S	10	1780,15
M 10 x 95 / 60	S	10	1846,70
M 10 x 95 / 100	S	10	2359,65
M 12 x 100 / 10	S	10	1556,10
M 12 x 100 / 25	S	10	1675,95
M 12 x 100 / 40	S	10	1790,35
M 12 x 100 / 60	S	10	2002,65
M 12 x 100 / 100	S	10	2551,05
M 12 x 120 / 10	S	10	2001,00
M 12 x 120 / 25	S	10	2174,65
M 12 x 120 / 40	S	10	2412,90
M 12 x 120 / 60	S	10	2713,70
M 12 x 120 / 100	S	10	3469,60
M 16 x 125 / 30	S	10	2750,25
M 16 x 125 / 60	S	10	3020,85
M 16 x 125 / 100	S	10	3577,75
M 16 x 145 / 30	S	10	3269,00
M 16 x 145 / 60	S	10	3609,55
M 16 x 145 / 100	S	10	4202,95
M 16 x 160 / 30	S	10	3687,85
M 16 x 160 / 60	S	10	3916,40
M 16 x 160 / 100	S	10	4578,00
M 20 x 210 / 50	S	4	5841,50
M 24 x 210 / 50	S	4	7274,20

Dimensions	PU Pieces	€/100/Mat.
article	88579.015	4403
88579	**Steel zinc plated**	**FHB II-A S**



FISCHER highbond-anchors FHB II-A S, S = reduced anchorage depth for optimized installation effort

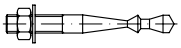
for use with injection mortar FIS HB, resin capsules FHB II-P and FHB II-PF

Product information → TI-164

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock-approval | REACh SVHC free

anchor ∅ x anchor length / usable length			
M 10 x 60 / 10	S	10	494,40
M 10 x 60 / 20	S	10	547,75
M 10 x 60 / 60	S	10	701,40
M 10 x 60 / 100	S	10	905,55
M 10 x 75 / 10	S	10	519,35
M 10 x 75 / 20	S	10	587,95
M 10 x 75 / 60	S	10	730,85
M 10 x 75 / 100	S	10	960,50
M 12 x 75 / 10	S	10	612,95
M 12 x 75 / 25	S	10	673,45
M 12 x 75 / 60	S	10	740,15
M 12 x 75 / 100	S	10	980,75
M 12 x 75 / 165	S	10	1307,90
M 16 x 95 / 30	S	10	889,30
M 16 x 95 / 60	S	10	1058,80
M 16 x 95 / 100	S	10	1337,35
M 16 x 95 / 165	S	10	1697,60
M 20 x 170 / 50	S	4	2410,40
M 24 x 170 / 50	S	4	2660,05

Dimensions	PU Pieces	€/100/Mat.
article	88579.946	4403
88579	**A 4**	**FHB II-A S**



FISCHER highbond-anchors FHB II-A S, S = reduced anchorage depth for optimized installation effort

for use with injection mortar FIS HB, resin capsules FHB II-P and FHB II-PF

Product information → TI-164

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock-approval | REACh SVHC free

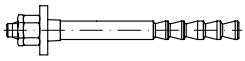
anchor ∅ x anchor length / usable length			
M 10 x 60 / 10	S	10	820,00
M 10 x 60 / 20	S	10	909,75
M 10 x 60 / 40	S	10	1017,35
M 10 x 60 / 60	S	10	1171,90
M 10 x 60 / 100	S	10	1556,55
M 12 x 75 / 10	S	10	1114,25
M 12 x 75 / 25	S	10	1201,75
M 12 x 75 / 40	S	10	1276,95
M 12 x 75 / 60	S	10	1418,75
M 12 x 75 / 100	S	10	1819,90
M 12 x 75 / 165	S	10	2525,20

€/100 = price in € plus VAT when ordering full package unit

Dimensions			PU	Pieces	€/100/Mat.
M 16	x	95 / 165	S	10	3022,15
M 16	x	95 / 30	S	10	1995,05
M 16	x	95 / 60	S	10	2211,35
M 16	x	95 / 100	S	10	2578,85
M 20	x	170 / 50	S	4	4507,50
M 24	x	170 / 50	S	4	4892,30

article 88579.300 4403

88579 Steel zinc plated FHB-A dyn



FISCHER highbond anchor FHB-A dyn, for dynamic loadings

for use with injection mortar FIS HB

Product information ➔ TI-164

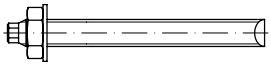
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | dynamic | REACh SVHC free

anchor ∅ x anchor length / usable length

dyn 12	x	100/25	S	10	1307,90
dyn 12	x	100/50	S	10	1567,20
dyn 16	x	125/25	S	10	1711,30
dyn 16	x	125/50	S	10	1990,30
dyn 20	x	170/50	S	10	3165,35
dyn 24	x	220/50	S	5	4934,90

article 88534.010 4403

88534 Steel zinc plated RG M



FISCHER anchor rods RG M, with nut and washer

for use with cartridge RM and RSB

Product information ➔ TI-166

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | REACh SVHC free

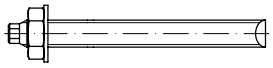
∅ M x length

RG M 8	x	110	S	10	132,45
RG M 10	x	130	S	10	181,65
RG M 10	x	165	S	10	223,65
RG M 10	x	190	S	10	253,70
RG M 10	x	250	S	10	393,55
RG M 10	x	350	S	10	622,15
RG M 12	x	160	S	10	256,05
RG M 12	x	220	S	10	320,00
RG M 12	x	250	S	10	364,70
RG M 12	x	300	S	10	447,95
RG M 12	x	380	S	10	684,40
RG M 16	x	190	S	10	486,60
RG M 16	x	165	S	10	411,05
RG M 16	x	250	S	10	565,90
RG M 16	x	300	S	10	621,05
RG M 16	x	380	S	10	897,45
RG M 16	x	500	S	10	1316,40
RG M 20	x	260	S	10	982,95
RG M 20	x	350	S	10	1483,80
RG M 20	x	500	S	10	2119,50
RG M 24	x	300	S	10	1514,90

Dimensions			PU	Pieces	€/100/Mat.
RG M 24	x	400	S	10	2393,55
RG M 24	x	600	S	10	3407,90
RG M 30	x	380	S	5	3436,70
RG M 30	x	500	S	5	4141,45

article 88534.020 4403

88534 Steel hot dip galvanized RG M



FISCHER anchor rods RG M, with nut and washer

for use with cartridge RM and RSB

Product information ➔ TI-166

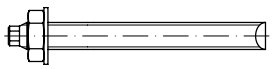
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | REACh SVHC free

∅ M x length

RG M 12	x	160	S	10	310,45
RG M 16	x	190	S	10	595,75

article 88534.810 4403

88534 8.8 zinc plated RG M



FISCHER anchor rods RG M, with nut and washer

for use with cartridge RM and RSB

Product information ➔ TI-166

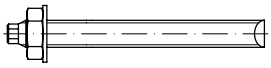
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | REACh SVHC free

∅ M x length

RG M 8	x	150	S	10	272,30
RG M 10	x	220	S	10	345,95
RG M 12	x	220	S	10	364,25
RG M 16	x	270	S	10	645,40
RG M 20	x	290	S	10	1251,25
RG M 24	x	295	S	10	1718,50

Dimensions			PU	Pieces	€/100/Mat.
article		88534.940			4403

88534 A 4 RG M



FISCHER anchor rods RG M, with nut and washer

for use with cartridge RM and RSB

Product information ➔ TI-166

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | REACh SVHC free

∅ M x length

RG M 8	x	110	S	10	416,85
RG M 8	x	150	S	10	587,65
RG M 10	x	130	S	10	700,10
RG M 10	x	165	S	10	866,15
RG M 10	x	190	S	10	1010,20
RG M 10	x	250	S	10	1284,00
RG M 10	x	350	S	10	1846,85
RG M 12	x	160	S	10	916,40
RG M 12	x	220	S	10	1200,90
RG M 12	x	250	S	10	1539,55
RG M 12	x	300	S	10	1819,85
RG M 12	x	380	S	10	2429,55
RG M 16	x	190	S	10	1635,65
RG M 16	x	165	S	10	1469,15
RG M 16	x	250	S	10	2222,60
RG M 16	x	300	S	10	2617,40
RG M 16	x	380	S	10	3498,15
RG M 16	x	500	S	10	4845,90
RG M 20	x	260	S	10	4102,55
RG M 20	x	350	S	10	5703,50
RG M 24	x	300	S	10	6999,20
RG M 24	x	400	S	10	9342,35

article 88523.011 4403

88523 Steel zinc plated FIS A



FISCHER threaded rods FIS A, with nut and washer

for use with injection mortar, FIS V and FIS SB

Product information ➔ TI-167

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | REACh SVHC free

∅ M x length

FIS A M 6	x	75	S	20	101,75
FIS A M 6	x	85	S	20	111,95
FIS A M 6	x	110	S	20	126,60
FIS A M 8	x	90	S	10	115,15
FIS A M 8	x	110	S	10	129,80
FIS A M 8	x	130	S	10	176,65
FIS A M 10	x	110	S	10	164,90
FIS A M 10	x	130	S	10	177,80
FIS A M 10	x	150	S	10	202,05
FIS A M 10	x	200	S	10	271,80
FIS A M 10	x	170	S	10	225,85

Dimensions	PU	Pieces	€/100/Mat.
FIS A M 12 x 140	S	10	236,20
FIS A M 12 x 160	S	10	250,10
FIS A M 12 x 180	S	10	275,65
FIS A M 12 x 210	S	10	304,10
FIS A M 12 x 260	S	10	371,20
FIS A M 16 x 175	S	10	450,60
FIS A M 16 x 200	S	10	500,10
FIS A M 16 x 250	S	10	553,10
FIS A M 16 x 300	S	10	607,65
FIS A M 20 x 245	S	10	894,75
FIS A M 20 x 290	S	10	1094,75
FIS A M 24 x 290	S	5	1418,80
FIS A M 24 x 380	S	5	1873,40
FIS A M 30 x 430	S	5	2876,15

article 88523.941 4403

88523 A 4 FIS A



FISCHER threaded rods FIS A, with nut and washer

for use with injection mortar, FIS V and FIS SB

Product information → TI-167

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

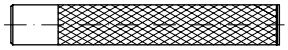
∅ M x length

FIS A M 6 x 75	S	20	324,15
FIS A M 6 x 110	S	20	403,60
FIS A M 8 x 90	S	10	365,60
FIS A M 8 x 110	S	10	407,85
FIS A M 8 x 130	S	10	504,90
FIS A M 10 x 110	S	10	631,25
FIS A M 10 x 130	S	10	684,25
FIS A M 10 x 150	S	10	798,05
FIS A M 10 x 200	S	10	1076,60
FIS A M 12 x 120	S	10	766,05
FIS A M 12 x 140	S	10	823,20
FIS A M 12 x 160	S	10	895,55
FIS A M 12 x 180	S	10	983,15
FIS A M 12 x 210	S	10	1174,70
FIS A M 12 x 260	S	10	1579,30
FIS A M 16 x 130	S	10	1348,25
FIS A M 16 x 175	S	10	1563,55
FIS A M 16 x 200	S	10	1756,55
FIS A M 16 x 250	S	10	2177,50
FIS A M 16 x 300	S	10	2615,50
FIS A M 20 x 245	S	10	3893,30
FIS A M 20 x 290	S	10	4622,80
FIS A M 24 x 290	S	5	6428,45
FIS A M 24 x 380	S	5	8238,55
FIS A M 30 x 430	S	5	14467,90

Dimensions	PU	Pieces	€/100/Mat.

article 88529.010 4403

88529 Steel zinc plated FIS E



FISCHER internal threaded sockets FIS E

Product information → TI-168

ETA CE | R120 fire resistance classification | REACh SVHC free

matches FIS-HM sleeve / internal thread M

FIS E11 x 85 M 6	S	10	264,50
FIS E11 x 85 M 8	S	10	285,70
FIS E15 x 85 M10	S	10	343,75
FIS E15 x 85 M12	S	10	370,15

article 88562.600 4403

88562 Plastic FIS H K



FISCHER injection anchor sleeves FIS H K

for use with threaded rod FIS A and internal thread sockets FIS E

Product information → TI-168

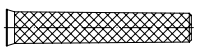
ETA CE | R120 fire resistance classification | REACh SVHC free

drilling ∅ x anchorage depth

FIS H 12 x 50 K	S	50	60,25
FIS H 12 x 85 K	S	50	71,65
FIS H 16 x 85 K	S	50	88,60
FIS H 16 x 130 K	S	20	121,95
FIS H 20 x 85 K	S	20	96,45
FIS H 20 x 130 K	S	20	216,00
FIS H 20 x 200 K	S	20	291,90

article 88526.600 4403

88526 Plastic FIS H N



FISCHER injection anchor sleeves with net FIS H N

Product information → TI-169

REACh SVHC free

drill ∅ x anchor length = anchorage depth

FIS H 16 x 85 N	S	20	172,85
FIS H 18 x 85 N	S	20	181,45
FIS H 20 x 85 N	S	20	216,40

Dimensions	PU	Pieces	€/100/Mat.

article 88526.000 4403

88526 Metal FIS H L



FISCHER injection anchor sleeves FIS H L, meter-long units

Product information → TI-169

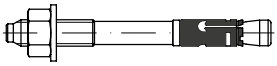
REACh SVHC free

drill ∅ x length

FIS H 12 x 1000 L	S	1	1351,25
FIS H 16 x 1000 L	S	1	1436,50
FIS H 22 x 1000 L	S	1	1570,45

article 88561.010 4403

88561 Steel zinc plated FAZ II



FISCHER bolt anchors FAZ II with nut and washer

Product information → TI-170

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | FM approval | VdS approval | REACh SVHC free

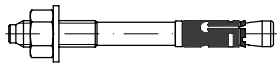
anchor / drill ∅ x clamp length

FAZ II 8/ 10	S	50	108,80
FAZ II 8/ 30	S	50	131,00
FAZ II 8/ 50	S	50	161,00
FAZ II 10/ 10	S	50	135,60
FAZ II 10/ 20	S	25	149,60
FAZ II 10/ 30	S	25	164,30
FAZ II 10/ 50	S	20	183,65
FAZ II 10/ 80	S	20	223,70
FAZ II 10/ 100	S	20	256,10
FAZ II 10/ 160	S	20	369,70
FAZ II 12/ 10	S	20	204,95
FAZ II 12/ 20	S	20	221,45
FAZ II 12/ 30	S	20	240,50
FAZ II 12/ 50	S	20	288,60
FAZ II 12/ 80	S	20	387,80
FAZ II 12/ 100	S	20	447,25
FAZ II 12/ 160	S	10	539,35
FAZ II 12/ 200	S	10	669,35
FAZ II 16/ 5	S	10	402,75
FAZ II 16/ 25	S	10	487,75
FAZ II 16/ 50	S	10	587,75
FAZ II 16/ 100	S	10	797,75
FAZ II 16/ 160	S	10	1053,30
FAZ II 16/ 200	S	10	1156,45
FAZ II 16/ 250	S	10	1247,50
FAZ II 20/ 30	S	5	1020,75
FAZ II 20/ 60	S	5	1316,15
FAZ II 20/ 160	S	5	1992,05
FAZ II 24/ 30	S	5	2390,90
FAZ II 24/ 60	S	5	2676,60

Dimensions | PU Pieces | €/100/Mat.

article 88561.940 4403

88561 A 4 FAZ II



FISCHER bolt anchors FAZ II with nut and washer

Product information → TI-170

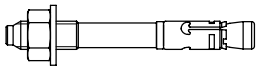
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x usable length

FAZ II 8 / 10	S	50	481,35
FAZ II 8 / 30	S	50	573,45
FAZ II 8 / 50	S	50	697,25
FAZ II 10/ 10	S	50	535,55
FAZ II 10/ 20	S	50	552,90
FAZ II 10/ 30	S	50	606,70
FAZ II 10/ 50	S	20	748,65
FAZ II 10/ 70	S	20	906,90
FAZ II 10/ 100	S	20	1074,15
FAZ II 10/ 160	S	20	1398,65
FAZ II 12/ 10	S	20	805,65
FAZ II 12/ 20	S	20	828,95
FAZ II 12/ 30	S	20	899,95
FAZ II 12/ 50	S	20	1136,20
FAZ II 12/ 60	S	20	1326,45
FAZ II 12/ 100	S	20	1598,00
FAZ II 12/ 160	S	20	1757,15
FAZ II 16/ 5	S	20	1527,90
FAZ II 16/ 25	S	20	1819,40
FAZ II 16/ 50	S	20	2183,90
FAZ II 16/ 60	S	20	2335,90
FAZ II 16/ 100	S	10	2563,70
FAZ II 20/ 30	S	4	3995,25
FAZ II 20/ 60	S	4	4488,10
FAZ II 24/ 30	S	4	6242,70
FAZ II 24/ 60	S	4	7009,60

article 88561.015 4403

88561 Steel zinc plated FAZ II K



FISCHER bolt anchors FAZ II K with nut and washer, K = short format

Product information → TI-170

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

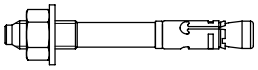
anchor / drill ∅ x clamp length

FAZ II 10/ 10K	S	50	122,10
FAZ II 10/ 20K	S	25	134,45
FAZ II 12/ 10K	S	20	184,30
FAZ II 12/ 20K	S	20	199,35

Dimensions | PU Pieces | €/100/Mat.

article 88561.945 4403

88561 A 4 FAZ II K



FISCHER bolt anchors FAZ II K with nut and washer, K = short format

Product information → TI-170

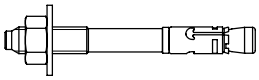
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x clamp length

FAZ II 10/ 10K	S	50	482,05
FAZ II 10/ 20K	S	50	497,50
FAZ II 12/ 10K	S	20	725,05
FAZ II 12/ 20K	S	20	746,15

article 88561.014 4403

88561 Steel zinc plated FAZ II GS



FISCHER bolt anchors FAZ II GS with nut and big washer (GS)

Product information → TI-170

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

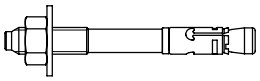
anchor / drill ∅ x clamp length

FAZ II 8 / 10 GS	S	50	119,55
FAZ II 8 / 30 GS	S	50	145,05
FAZ II 10/ 10 GS	S	50	161,80
FAZ II 10/ 30 GS	S	25	195,50
FAZ II 12/ 10 GS	S	20	235,95
FAZ II 12/ 20 GS	S	20	252,65
FAZ II 12/ 30 GS	S	20	271,60
FAZ II 12/ 50 GS	S	20	319,70
FAZ II 12/100 GS	S	20	476,35
FAZ II 12/120 GS	S	20	519,75
FAZ II 16/160 GS	S	10	1086,65
FAZ II 16/200 GS	S	10	1224,65

Dimensions | PU Pieces | €/100/Mat.

article 88561.944 4403

88561 A 4 FAZ II GS



FISCHER bolt anchors FAZ II GS with nut and big washer (GS)

Product information → TI-170

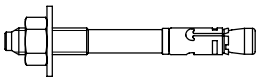
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x clamp length

FAZ II 8 / 10 GS	S	50	540,05
FAZ II 8 / 30 GS	S	50	630,20
FAZ II 10/ 10 GS	S	50	591,60
FAZ II 10/ 30 GS	S	50	662,60
FAZ II 12/ 10 GS	S	20	861,60
FAZ II 12/ 30 GS	S	20	955,95
FAZ II 12/ 160 GS	S	20	1813,15
FAZ II 16/ 160 GS	S	4	3848,45

article 88561.016 4403

88561 Steel zinc plated FAZ II K GS



FISCHER bolt anchors FAZ II K GS with nut and big washer (GS), K = short format

Product information → TI-170

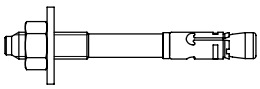
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x clamp length

FAZ II 10/ 10K GS	S	50	145,55
FAZ II 12/ 10K GS	S	20	212,35

article 88561.017 4403

88561 Steel zinc plated FAZ II HBS



FISCHER bolt anchors FAZ II HBS with nut and extra large washer (HBS) according to DIN 1052

Product information → TI-170

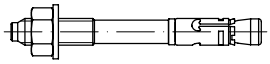
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x clamp length

FAZ II 12/100HBS	S	20	476,35
FAZ II 12/120HBS	S	20	519,75
FAZ II 16/160HBS	S	10	1086,65
FAZ II 16/200HBS	S	10	1224,65

Dimensions | PU Pieces | €/100/Mat.

article	88694.010	4403
88694	**Steel zinc plated**	**FBZ**



FISCHER bolt anchors FBZ with nut and washer

Product information ➔ TI-171

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x clamp length

FBZ 8/10	S	50	91,60
FBZ 10/10	S	50	115,60
FBZ 10/20	S	25	126,60
FBZ 10/30	S	25	137,45
FBZ 12/10	S	20	176,05
FBZ 12/20	S	20	189,05
FBZ 12/30	S	20	204,70
FBZ 16/25	S	10	409,15

article	88694.940	4403
88694	**A 4**	**FBZ**



FISCHER bolt anchors FBZ with nut and washer

Product information ➔ TI-171

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x clamp length

FBZ 8/10	S	50	417,30
FBZ 10/10	S	50	452,70
FBZ 10/20	S	50	466,80
FBZ 10/30	S	50	513,20
FBZ 12/10	S	20	687,45
FBZ 12/20	S	20	699,50
FBZ 12/30	S	20	759,35
FBZ 16/25	S	20	1535,65

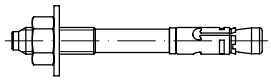
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Dimensions | PU Pieces | €/100/Mat.

article	88694.014	4403
88694	**Steel zinc plated**	**FBZ GS**



FISCHER bolt anchors FBZ GS with nut and big washer (GS)

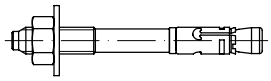
Product information ➔ TI-171

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x clamp length

FBZ 8/10 GS	S	50	106,30
FBZ 10/10 GS	S	50	139,60
FBZ 12/10 GS	S	20	205,80

article	88694.944	4403
88694	**A 4**	**FBZ GS**



FISCHER bolt anchors FBZ GS with nut and big washer (GS)

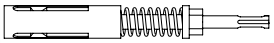
Product information ➔ TI-171

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x clamp length

FBZ 8/10 GS	S	50	473,00
FBZ 10/10 GS	S	50	519,05
FBZ 10/20 GS	S	50	547,45

article	88693.000	4403
88693	**Steel**	**FA-ST**



FISCHER bolt anchor setting tool FA-ST

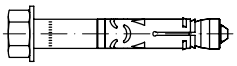
suitable for the dowel variants:
FAZ II, FBZ and FBN II

REACh SVHC free

FA-ST M 10	S	1	23000,00
FA-ST M 12	S	1	23000,00

Dimensions | PU Pieces | €/100/Mat.

article	88593.012	4403
88593	**Steel zinc plated**	**FH II-S**



FISCHER high performance anchors FH II-S with hexagon head

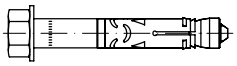
Product information ➔ TI-171

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / usable length

FH II 10/ 10 S	S	50	241,50
FH II 10/ 25 S	S	50	262,15
FH II 10/ 50 S	S	50	294,85
FH II 12/ 10 S	S	50	366,45
FH II 12/ 25 S	S	50	403,30
FH II 12/ 50 S	S	25	461,85
FH II 15/ 10 S	S	25	488,70
FH II 15/ 25 S	S	25	552,55
FH II 15/ 50 S	S	25	631,20
FH II 18/ 25 S	S	20	813,90
FH II 18/ 50 S	S	20	960,75
FH II 24/ 25 S	S	10	1808,60
FH II 24/ 50 S	S	10	2014,85
FH II 28/ 30 S	S	4	3070,65
FH II 28/ 60 S	S	4	3585,25
FH II 32/ 30 S	S	4	4629,55
FH II 32/ 60 S	S	4	5535,25

article	88593.942	4403
88593	**A 4**	**FH II-S**



FISCHER high performance anchors FH II-S with hexagon head

Product information ➔ TI-171

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | FM approval | VdS approval | REACh SVHC free

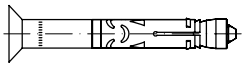
anchor / drill ∅ x installation depth / usable length

FH II 10/ 10 S	S	50	770,05
FH II 10/ 25 S	S	50	938,45
FH II 12/ 10 S	S	50	1128,55
FH II 12/ 25 S	S	20	1260,80
FH II 15/ 10 S	S	50	1473,90
FH II 15/ 25 S	S	20	1730,65
FH II 18/ 25 S	S	10	2536,85
FH II 24/ 25 S	S	8	6885,30

Dimensions | PU Pieces | €/100/Mat.

article 88594.012 4403

88594 Steel zinc plated FH II-SK



FISCHER high performance anchors FH II-SK with countersunk head

Product information → TI-172

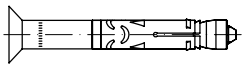
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / usable length

FH II 10/ 15 SK	S	50	262,25
FH II 10/ 25 SK	S	50	289,60
FH II 10/ 50 SK	S	50	322,80
FH II 12/ 15 SK	S	25	397,95
FH II 12/ 25 SK	S	25	453,80
FH II 12/ 50 SK	S	25	466,50
FH II 15/ 15 SK	S	25	597,20
FH II 15/ 25 SK	S	25	656,90
FH II 15/ 50 SK	S	25	679,25
FH II 18/ 15 SK	S	20	1153,80
FH II 18/ 25 SK	S	20	1206,40
FH II 18/ 50 SK	S	20	1404,65

article 88594.942 4403

88594 A 4 FH II-SK



FISCHER high performance anchors FH II-SK with countersunk head

Product information → TI-172

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

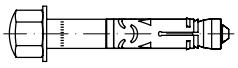
anchor / drill ∅ x installation depth / usable length

FH II 12/ 15 SK	S	25	1375,50
FH II 12/ 30 SK	S	25	1662,60
FH II 12/ 50 SK	S	25	1849,10
FH II 15/ 15 SK	S	25	1881,15
FH II 18/ 30 SK	S	20	3686,35

Dimensions | PU Pieces | €/100/Mat.

article 88590.012 4403

88590 Steel zinc plated FH II-H



FISCHER high performance anchors FH II-H with hexagon cap nut

Product information → TI-172

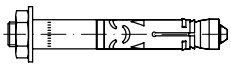
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / usable length

FH II 10/ 10 H	S	50	272,25
FH II 10/ 25 H	S	50	301,55
FH II 10/ 50 H	S	50	336,10
FH II 12/ 10 H	S	50	431,10
FH II 12/ 25 H	S	50	467,90
FH II 12/ 50 H	S	25	527,35
FH II 15/ 10 H	S	25	597,60
FH II 15/ 25 H	S	25	641,45
FH II 15/ 50 H	S	25	728,20
FH II 18/ 25 H	S	20	951,80
FH II 18/ 50 H	S	20	1101,60

article 88592.012 4403

88592 Steel zinc plated FH II-B



FISCHER high performance anchors FH II-B with nut and threaded bolt

Product information → TI-178

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

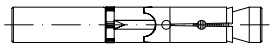
anchor / drill ∅ x installation depth / usable length

FH II 10/ 10 B	S	50	252,05
FH II 10/ 25 B	S	50	273,35
FH II 10/ 50 B	S	50	307,45
FH II 12/ 10 B	S	50	379,15
FH II 12/ 25 B	S	50	420,10
FH II 12/ 50 B	S	25	480,85
FH II 12/ 100 B	S	25	586,40
FH II 15/ 10 B	S	25	542,05
FH II 15/ 25 B	S	25	566,40
FH II 15/ 50 B	S	25	650,40
FH II 15/ 100 B	S	20	786,45
FH II 18/ 25 B	S	20	834,90
FH II 18/ 50 B	S	20	1012,35
FH II 18/ 100 B	S	10	1209,35
FH II 24/ 25 B	S	10	1935,65
FH II 24/ 50 B	S	10	2114,80
FH II 24/ 100 B	S	5	2630,10
FH II 28/ 30 B	S	4	3140,05
FH II 28/ 60 B	S	4	3640,50
FH II 32/ 30 B	S	4	4645,55
FH II 32/ 60 B	S	4	5530,50

Dimensions | PU Pieces | €/100/Mat.

article 88689.012 4403

88689 Steel zinc plated FH II-I



FISCHER high performance anchor FH II-I with internal thread M

Product information → TI-173

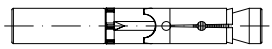
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval | REACh SVHC free

Dübel- / Bohr ∅ / Anschluss-Gew. M

FH II 12/M 6 I	S	25	449,30
FH II 12/M 8 I	S	25	449,30
FH II 15/M 10 I	S	25	580,05
FH II 15/M 12 I	S	20	580,05

article 88689.942 4403

88689 A 4 FH II-I



FISCHER high performance anchors FH II-I with internal thread M

Product information → TI-173

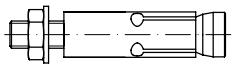
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval | REACh SVHC free

anchor / drill ∅ / installation depth

FH II 12/M 6 I	S	25	757,50
FH II 12/M 8 I	S	25	757,50
FH II 15/M 10 I	S	25	1073,25
FH II 15/M 12 I	S	20	1073,25

article 88583.010 4403

88583 Steel zinc plated FZA



FISCHER ZYKON bolt anchors FZA with nut and washer for pre-positioned installation

Product information → TI-174

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval | REACh SVHC free

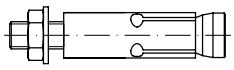
anchor / drill ∅ x installation depth / thread M / usable length

10	x 40	M 6/10	S	25	210,85
12	x 40	M 8/15	S	25	356,85
12	x 50	M 8/15	S	20	469,65
14	x 40	M 10/25	S	25	415,00
14	x 60	M 10/25	S	10	612,25

Dimensions	PU	Pieces	€/100/Mat.
18 x 80 M 12/25	S	10	896,00
22 x 100 M 16/60	S	10	2141,50
22 x 125 M 16/60	S	6	2615,45

article 88583.940 4403

88583 A 4 FZA



FISCHER ZYKON bolt anchors FZA with nut and washer for pre-positioned installation

Product information → TI-174

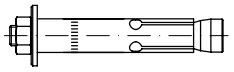
ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / thread M / usable length

10 x 40 M 6/10	S	25	728,80
12 x 40 M 8/15	S	25	1117,25
12 x 50 M 8/15	S	20	1191,25
12 x 50 M 8/50	S	20	1302,70
14 x 40 M 10/25	S	20	1257,50
14 x 60 M 10/25	S	10	2147,30
14 x 60 M 10/50	S	10	2357,20
18 x 80 M 12/25	S	10	3255,70
18 x 80 M 12/55	S	10	3492,05
22 x 100 M 16/60	S	10	5201,30
22 x 125 M 16/60	S	6	6217,05

article 88584.010 4403

88584 Steel zinc plated FZA-D



FISCHER ZYKON through anchors FZA-D with nut and washer, for push-through installation

Product information → TI-174

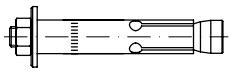
ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / thread M / usable length

12 x 50 M 8D/10	S	25	479,90
12 x 60 M 8D/10	S	25	502,45
12 x 80 M 8D/30	S	25	552,85
14 x 80 M 10D/20	S	10	743,55
14 x 100 M 10D/40	S	10	816,90
18 x 100 M 12D/20	S	10	1053,15
18 x 130 M 12D/50	S	10	1223,00
22 x 125 M 16D/25	S	10	2598,60

Dimensions	PU	Pieces	€/100/Mat.
article 88584.940			4403

88584 A 4 FZA-D



FISCHER ZYKON through anchors FZA-D with nut and washer, for push-through installation

Product information → TI-174

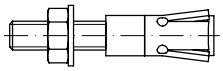
ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / thread M / usable length

12 x 50 M 8D/10	S	25	1194,00
12 x 60 M 8D/10	S	25	1232,05
12 x 80 M 8D/30	S	25	1390,80
14 x 80 M 10D/20	S	10	2211,90
14 x 100 M 10D/40	S	10	2880,80
18 x 100 M 12D/20	S	10	3388,20
18 x 130 M 12D/50	S	10	4477,25
22 x 125 M 16D/25	S	10	6092,70

article 88589.940 4402

88589 A 4 FZA ST



FISCHER ZYKON anchor for fixing step irons FZA ST

Product information → TI-174

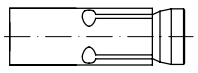
REACh SVHC free

anchor / drill ∅ / installation depth

FZA 14 / 40 ST	S	20	1487,55
FZA 14 / 60 ST	S	20	2244,20

article 88585.010 4403

88585 Steel zinc plated FZA-I



FISCHER ZYKON internally threaded anchor FZA-I for pre-positioned installation

Product information → TI-175

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval | REACh SVHC free

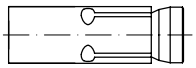
anchor / drill ∅ x installation depth / thread M

12 x 40 M 6 I	S	25	362,05
14 x 60 M 8 I	S	20	614,40
18 x 80 M 10 I	S	10	907,90

Dimensions	PU	Pieces	€/100/Mat.
22 x 100 M 12 I	S	10	2156,60
22 x 125 M12 I	S	10	2616,75

article 88585.940 4403

88585 A 4 FZA-I



FISCHER ZYKON undercut anchor FZA-I, internally threaded for pre-positioned installation

Product information → TI-175

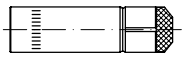
ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / thread M

12 x 40 M 6 I	S	25	1128,45
12 x 50 M 6 I	S	25	1185,05
14 x 60 M 8 I	S	20	2140,20
18 x 80 M10 I	S	10	2812,10
22 x 100 M12 I	S	10	5100,80
22 x 125 M12 I	S	10	6122,25

article 88597.012 4402

88597 Steel zinc plated FZEA II



FISCHER ZYKON hammerset anchors FZEA II with internal metric thread, for pre-positioned installation

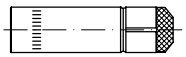
Product information → TI-175

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / thread M

10 x 40 M 8	S	100	91,10
12 x 40 M 10	S	100	102,65
14 x 40 M 12	S	50	154,05

Dimensions	PU	Pieces	€/100/Mat.
article	88597.942		4402
88597	**A 4**		**FZEA II**



FISCHER ZYKON hammerset anchors FZEA II with internal metric thread, for pre-positioned installation

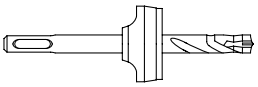
Product information ➔ TI-175

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

anchor / drill ∅ x installation depth / thread M

10	x 40	M 8	S	100	703,15
12	x 40	M 10	S	100	884,35
14	x 40	M 12	S	50	1273,15

article	88587.000	4403
88587	**Steel**	**FZUB**



FISCHER drill bits FZUB

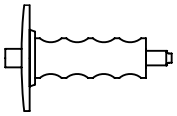
for FISCHER ZYKON anchors

REACh SVHC free

anchor ∅ x installation depth

FZUB 10	x	40	S	1	5595,00
FZUB 12	x	40	S	1	5755,00
FZUB 12	x	50	S	1	6385,00
FZUB 12	x	60	S	1	6960,00
FZUB 12	x	80	S	1	7965,00
FZUB 14	x	40	S	1	6090,00
FZUB 14	x	60	S	1	7090,00
FZUB 14	x	80	S	1	8315,00
FZUB 14	x	100	S	1	9145,00
FZUB 18	x	80	S	1	13300,00
FZUB 18	x	100	S	1	14865,00
FZUB 18	x	130	S	1	17170,00
FZUB 22	x	100	S	1	15625,00
FZUB 22	x	125	S	1	17620,00

Dimensions	PU	Pieces	€/100/Mat.
article	88588.002		4403
88588	**Steel**		**FZE plus**



FISCHER setting tools FZE plus with centring pin

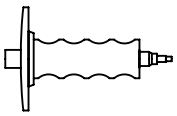
for manual hammer installation of FISCHER ZYKON anchors FZA

REACh SVHC free

for anchor ∅

FZE 10 plus	S	1	1945,00
FZE 12 plus	S	1	1950,00
FZE 14 plus	S	1	1955,00
FZE 18 plus	S	1	2185,00
FZE 22 plus	S	1	2540,00

article	88595.000	4401
88595	**Steel**	**FZED plus**



FISCHER setting tools FZED plus with centring pin

for manual hammer installation of FISCHER ZYKON anchors FZEA II

REACh SVHC free

for anchor ∅

FZED 10 plus	S	1	2480,00
FZED 12 plus	S	1	2510,00
FZED 14 plus	S	1	2540,00

article	88567.010	4402
88567	**Steel zinc plated**	**EA II**



FISCHER hammerset anchors EA II with expansion cone, for pre-positioned installation

Product information ➔ TI-176

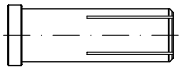
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

internal thread M

EA II M 6	x	30	S	100	36,50
EA II M 8	x	30	S	100	48,50
EA II M 8	x	40	S	50	66,45
EA II M10	x	40	S	50	75,30

Dimensions	PU	Pieces	€/100/Mat.
EA II M12 x 50	S	25	113,20
EA II M16 x 65	S	20	194,60
EA II M20 x 80	S	10	353,90

article	88567.940	4402
88567	**A 4**	**EA II**



FISCHER hammerset anchors EA II with expansion cone, for pre-positioned installation

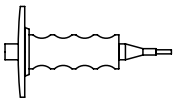
Product information ➔ TI-176

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | FM approval | VdS approval | REACh SVHC free

internal thread M

EA II M 6	x	30	S	100	320,95
EA II M 8	x	30	S	100	370,95
EA II M10	x	40	S	50	477,95
EA II M12	x	50	S	25	832,45
EA II M16	x	65	S	20	2258,70

article	88568.002	4402
88568	**Steel**	**EAW H plus**



FISCHER setting tools EAW H plus with hand protection

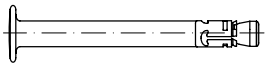
for hammerset anchor EA II

REACh SVHC free

for nominal size EA II

EAW H 6 plus	S	1	2720,00
EAW H 8 x 30 plus	S	1	2730,00
EAW H 8 x 40 plus	S	1	2740,00
EAW H 10 plus	S	1	2760,00
EAW H 12 plus	S	1	2780,00
EAW H 16 plus	S	1	2880,00
EAW H 20 plus	S	1	3665,00

Dimensions	PU	Pieces	€/100/Mat.
article	88546.010		4401
88546	Steel zinc plated		**FNA II**



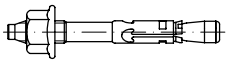
FISCHER nail anchors FNA II with nail head

Product information → TI-176

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x anchoring depth / usable length			
FNAII 6 x 25/ 5	S	100	54,30
FNAII 6 x 30/ 5	S	100	55,90
FNAII 6 x 30/ 30	S	50	71,40
FNAII 6 x 30/ 50	S	50	82,55
FNAII 6 x 30/ 75	S	50	95,55
FNAII 6 x 30/100	S	50	161,20
FNA I 6 x 30/120	S	50	187,55

Dimensions	PU	Pieces	€/100/Mat.
article	88547.010		4401
88547	Steel zinc plated		**FNA II M**



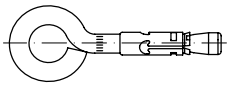
FISCHER nail anchors FNA II M with thread and flange nut

Product information → TI-177

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x anchoring depth - thread / usable length			
FNAII 6 x 30M6/5	S	100	71,15

Dimensions	PU	Pieces	€/100/Mat.
article	88548.010		4401
88548	Steel zinc plated		**FNA II-OE**



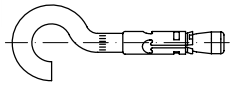
FISCHER nail anchors FNA II-OE, OE = with eye

Product information → TI-177

ETA CE | R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x anchoring depth			
FNA II 6 x 25 OE	S	50	79,80

Dimensions	PU	Pieces	€/100/Mat.
article	88549.010		4401
88549	Steel zinc plated		**FNA II-H**



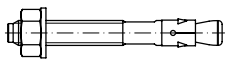
FISCHER nail anchors FNA II-H, H = with hook

Product information → TI-178

R120 fire resistance classification | Z suitable for tensil zone | REACh SVHC free

anchor / drill ∅ x anchoring depth			
FNA II 6 x 25 H	S	50	79,80

Dimensions	PU	Pieces	€/100/Mat.
article	88582.012		4403
88582	Steel zinc plated		**FBN II**



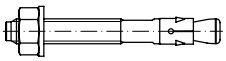
FISCHER bolt anchor FBN II with expanding cone, nut and washer

Product information → TI-178

ETA CE | R120 fire resistance classification | REACh SVHC free

anchor / drill ∅ / usable length			
FBN II 6/ 5	S	100	75,80
FBN II 6/ 10	S	100	79,50
FBN II 6/ 30	S	100	90,75
FBN II 8/ 5	S	50	82,70
FBN II 8/ 10	S	50	83,40
FBN II 8/ 20	S	50	94,95
FBN II 8/ 30	S	50	102,95
FBN II 8/ 50	S	50	118,90
FBN II 8/ 70	S	20	135,35
FBN II 8/100	S	20	162,75
FBN II 10/ 10	S	50	106,15
FBN II 10/ 20	S	50	116,80
FBN II 10/ 30	S	50	125,95
FBN II 10/ 50	S	20	145,20
FBN II 10/ 70	S	20	178,35
FBN II 10/100	S	20	196,05
FBN II 10/140	S	20	253,85
FBN II 10/160	S	20	279,60
FBN II 12/ 10	S	20	161,30
FBN II 12/ 20	S	20	175,30
FBN II 12/ 30	S	20	189,25
FBN II 12/ 50	S	20	236,65
FBN II 12/ 80	S	20	306,70
FBN II 12/100	S	20	335,90
FBN II 12/120	S	20	362,15
FBN II 12/140	S	20	380,05
FBN II 12/160	S	20	410,80
FBN II 16/ 25	S	10	359,15
FBN II 16/ 50	S	10	493,85
FBN II 16/ 80	S	10	599,45
FBN II 16/100	S	10	620,70
FBN II 16/140	S	10	754,00
FBN II 16/160	S	10	805,55
FBN II 16/200	S	10	964,15
FBN II 20/ 30	S	10	835,10
FBN II 20/ 60	S	10	1084,90
FBN II 20/ 80	S	10	1296,50
FBN II 20/120	S	10	1579,80

Dimensions	PU	Pieces	€/100/Mat.
article	88582.022		4403
88582	Steel hot dip galvanized		**FBN II**



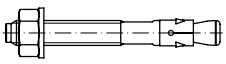
FISCHER bolt anchors FBN II with expanding cone, nut and washer

Product information → TI-178

ETA CE | R120 fire resistance classification | REACh SVHC free

anchor / drill ∅ / usable length			
FBN II 8/ 10	S	50	198,60
FBN II 8/ 30	S	50	230,80
FBN II 8/ 50	S	50	259,95
FBN II 8/ 70	S	20	296,70
FBN II 10/ 10	S	50	303,00
FBN II 10/ 30	S	50	319,35
FBN II 10/ 50	S	20	348,35
FBN II 10/ 100	S	20	404,05
FBN II 12/ 10	S	20	382,90
FBN 12/ 30	S	20	424,60

Dimensions	PU	Pieces	€/100/Mat.
article	88582.942		4403
88582	A 4		**FBN II**



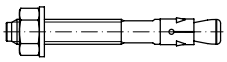
FISCHER bolt anchors FBN II with expanding cone, nut and washer

Product information → TI-178

ETA CE | R120 fire resistance classification | REACh SVHC free

plug / drill ∅ / clamp length			
FBN II 6/ 10	S	100	265,90 A4
FBN II 6/ 30	S	100	286,80 A4
FBN II 8/ 10	S	50	332,85 A4
FBN II 8/ 30	S	50	370,45 A4
FBN II 8/ 50	S	50	447,80 A4
FBN II 10/ 10	S	50	385,45 A4
FBN II 10/ 20	S	50	398,60 A4
FBN II 10/ 30	S	50	438,60 A4
FBN II 10/ 50	S	20	547,25 A4
FBN II 10/100	S	20	787,05 A4
FBN II 12/ 10	S	20	582,55 A4
FBN II 12/ 20	S	20	599,50 A4
FBN II 12/ 30	S	20	651,80 A4
FBN II 12/ 50	S	20	802,25 A4
FBN II 12/100	S	20	1166,25 A4
FBN II 16/ 10	S	10	1262,25 A4
FBN II 16/ 25	S	10	1232,80 A4
FBN II 16/ 50	S	10	1592,75 A4
FBN II 20/ 30	S	10	2956,05 A4

Dimensions		PU	Pieces	€/100/Mat.
article	88582.014			4403
88582	**Steel zinc plated**			**FBN II K**



FISCHER bolt anchors FBN II K with expanding cone, nut and washer, K = short type

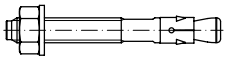
Product information → TI-178

ETA CE | R120 fire resistance classification | REACh SVHC free

plug / drill ∅ / clamp length

FBN II 8/ 5K	S	50	81,20
FBN II 8/ 10K	S	50	83,25
FBN II 10/ 5K	S	50	99,90
FBN II 10/ 10K	S	50	103,45
FBN II 12/ 5K	S	20	153,40
FBN II 12/ 10K	S	20	157,90
FBN II 12/ 30K	S	20	185,15
FBN II 16/ 15K	S	10	320,50
FBN II 16/ 25K	S	10	350,30
FBN II 20/ 10K	S	10	802,75

article	88582.944			4403
88582	**A 4**			**FBN II K**



FISCHER bolt anchors FBN II K with expanding cone, nut and washer, K = short type

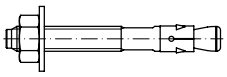
Product information → TI-178

ETA CE | R120 fire resistance classification | REACh SVHC free

plug / drill ∅ / clamp length

FBN II 8/ 5K	S	50	296,55 A4
FBN II 10/ 5K	S	50	382,55 A4
FBN II 12/ 5K	S	20	577,35 A4
FBN II 16/15K	S	10	1225,60 A4

Dimensions		PU	Pieces	€/100/Mat.
article	88582.016			4403
88582	**Steel zinc plated**			**FBN II GS**



FISCHER bolt anchors FBN II with expanding cone, nut and big washer

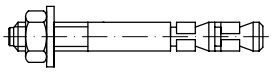
Product information → TI-178

ETA CE | R120 fire resistance classification | REACh SVHC free

anchor / drill ∅ / usable length

FBN II 12/ 80 GS	S	20	351,25
FBN II 12/100 GS	S	20	372,40
FBN II 12/120 GS	S	20	398,70
FBN II 12/140 GS	S	10	416,55
FBN II 12/160 GS	S	10	447,30
FBN II 12/180 GS	S	10	511,15
FBN II 12/200 GS	S	10	543,70
FBN II 12/250 GS	S	10	712,40
FBN II 16/100 GS	S	10	676,15
FBN II 16/140 GS	S	10	821,25
FBN II 16/160 GS	S	10	872,80
FBN II 16/200 GS	S	10	1031,45
FBN II 16/250 GS	S	10	1279,25
FBN II 16/300 GS	S	10	1399,55

article	88715.310			4422
88715	**Steel, ZP expanding clips A 2**			**EXA**



FISCHER bolt anchors EXA with 2 expanding clips, nut and washer

*not with ETA approval

Product information → TI-181

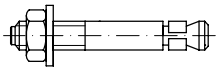
ETA CE | REACh SVHC free

anchor / drill ∅ (usable length 5)

EXA 6/ 05 *	S	100	121,00
EXA 6/ 10 *	S	100	129,00
EXA 6/ 40 *	S	100	155,00
EXA 8/ 05	S	50	145,00
EXA 8/ 15	S	50	146,00
EXA 8/ 28	S	50	171,00
EXA 8/ 55	S	50	189,00
EXA 10/ 05	S	50	206,00
EXA 10/ 15	S	50	210,00
EXA 10/ 45	S	50	248,00
EXA 10/ 90	S	50	320,00
EXA 10/140	S	25	425,00
EXA 10/160	S	25	460,00
EXA 12/ 05	S	25	315,00
EXA 12/ 15	S	25	325,00
EXA 12/ 35	S	25	375,00
EXA 12/ 55	S	25	400,00
EXA 12/ 85	S	25	550,00
EXA 12/105	S	25	580,00
EXA 16/ 10	S	20	550,00

Dimensions	PU	Pieces	€/100/Mat.
EXA 16/ 30	S	10	610,00
EXA 16/ 75	S	20	990,00
EXA 20/ 10	S	10	1260,00
EXA 20/ 25	S	10	1340,00
EXA 20/ 80	S	10	1870,00
EXA 20/220	S	10	3300,00
EXA 24/ 40 *	S	10	3400,00

article	88715.314			4422
88715	**Steel, ZP expanding clip A 2**			**EXA-K**



FISCHER bolt anchors EXA-K with 1 expanding clip, nut and washer, for reduced anchorage depths, K = short type

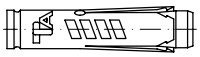
Product information → TI-181

R120 fire resistance classification | REACh SVHC free

anchor / drill ∅ (usable length 5)

EXA M 8 K	S	100	110,00
EXA M 10 K	S	50	162,00

article	88683.010			4403
88683	**Steel zinc plated**			**TA M**



FISCHER heavy-duty anchors TA M for screws with metric thread

Product information → TI-179

ETA CE | R120 fire resistance classification | REACh SVHC free

for screws M

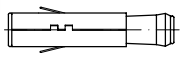
TA M 6	S	50	199,30
TA M 8	S	50	258,35
TA M 10	S	25	376,65
TA M 12	S	25	695,10

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Dimensions	PU	Pieces	€/100/Mat.
article	88530.010		4403
88530	**Steel zinc plated**		**SL M**



FISCHER heavy-duty anchors SL M for screws with metric thread

Product information ➔ TI-179

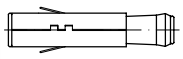
M6–M12 ➔ TA M ➔ article 88683

R120 fire resistance classification | REACh SVHC free

for screws M

SL M 16 *	S	10	1493,45
SL M 20 *	S	5	2308,25
SL M 24 *	S	5	3701,90

Dimensions	PU	Pieces	€/100/Mat.
article	88530.940		4403
88530	**A 4**		**SL M-N**



FISCHER heavy-duty anchors SL M-N for screws with metric thread

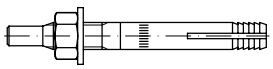
Product information ➔ TI-179

R120 fire resistance classification | REACh SVHC free

for screws M

SL M 8 N	S	25	1019,20
SL M 10 N	S	20	1606,45

Dimensions	PU	Pieces	€/100/Mat.
article	88531.010		4403
88531	**Steel zinc plated**		**MR**



FISCHER wall screws MR with nut and washer

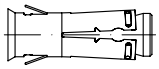
Product information ➔ TI-180

REACh SVHC free

plug- / drill ∅ x plug length

MR 8	x	70	S	25	604,00
MR 10	x	85	S	20	894,60
MR 12	x	100	S	10	1192,15

Dimensions	PU	Pieces	€/100/Mat.
article	88513.010		4403
88513	**Steel zinc plated**		**FHY**



FISCHER hollow ceiling anc. FHY for screws with metric thread

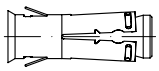
Product information ➔ TI-180

R120 fire resistance classification | VdS approval | REACh SVHC free

internal thread M

FHY M 6	S	50	200,50
FHY M 8	S	25	301,70
FHY M 10	S	20	410,15

Dimensions	PU	Pieces	€/100/Mat.
article	88513.940		4403
88513	**A 4**		**FHY**



FISCHER hollow ceiling anc. FHY for screws with metric thread

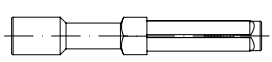
Product information ➔ TI-180

R120 fire resistance classification | VdS approval | REACh SVHC free

internal thread M

FHY M 6	S	50	638,90
FHY M 8	S	50	828,15
FHY M 10	S	20	1046,15

Dimensions	PU	Pieces	€/100/Mat.
article	88688.010		4403
88688	**Steel zinc plated**		**FPX-I**



FISCHER aircrete anchors FPX-I with internal thread M, with square expansion sleeve

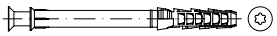
Product information ➔ TI-181

ETA CE | R120 fire resistance classification | VdS approval | REACh SVHC free

internal thread M

FPX M 6 -I	S	25	307,45
FPX M 8 -I	S	25	313,20
FPX M 10 -I	S	25	319,00
FPX M 12 -I	S	25	324,80

Dimensions	PU	Pieces	€/100/Mat.
article	88542.014		4401
88542	**Plug plug nylon screw steel, ZP**		**SXR-T**



FISCHER frame fixings SXR-T with countersunk head screw, with hexalobular socket

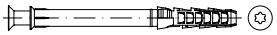
Product information ➔ TI-182

ETA CE | R90 fire resistance classification | REACh SVHC free

plug- / drill ∅ x plug length

SXR 10	x	80 T	S	50	94,15
SXR 10	x	100 T	S	50	103,35
SXR 10	x	120 T	S	50	115,90
SXR 10	x	140 T	S	50	132,00
SXR 10	x	160 T	S	50	178,75
SXR 10	x	180 T	S	50	245,90
SXR 10	x	200 T	S	50	342,75
SXR 10	x	230 T	S	50	417,90
SXR 10	x	260 T	S	50	529,05

Dimensions	PU	Pieces	€/100/Mat.
article	88542.944		4401
88542	**Plug plug nylon screw A 4**		**SXR-T**



FISCHER frame fixings SXR-T with countersunk head screw, with hexalobular socket

Product information ➔ TI-182

ETA CE | R90 fire resistance classification | REACh SVHC free

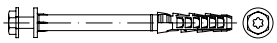
plug- / drill ∅ x plug length

SXR 10	x	80 T	S	50	281,05
SXR 10	x	100 T	S	50	334,10
SXR 10	x	120 T	S	50	390,85
SXR 10	x	140 T	S	50	454,50
SXR 10	x	160 T	S	50	600,95
SXR 10	x	180 T	S	50	730,55
SXR 10	x	200 T	S	50	890,10
SXR 10	x	230 T	S	50	1073,25
SXR 10	x	260 T	S	50	1472,60

Dimensions | PU Pieces | €/100/Mat.

article 88542.012 4401

88542 Plug plug nylon screw steel, ZP SXR-FUS



FISCHER frame fixings SXR-FUS with hexagon head (wrench size 13) and hexalobular socket T40

Product information → TI-182

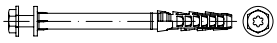
ETA CE | R90 fire resistance classification | REACh SVHC free

plug- / drill ∅ x plug length

SXR 10	x 60 FUS	S	50	88,70
SXR 10	x 80 FUS	S	50	99,00
SXR 10	x 100 FUS	S	50	108,75
SXR 10	x 120 FUS	S	50	122,55
SXR 10	x 140 FUS	S	50	138,40
SXR 10	x 160 FUS	S	50	188,95
SXR 10	x 180 FUS	S	50	260,15
SXR 10	x 200 FUS	S	50	362,15
SXR 10	x 230 FUS	S	50	435,45
SXR 10	x 260 FUS	S	50	558,45

article 88542.942 4401

88542 Plug plug nylon screw A 4 SXR-FUS



FISCHER frame fixings SXR-FUS with hexagon head (wrench size 13) and hexalobular socket T40

Product information → TI-182

ETA CE | R90 fire resistance classification | REACh SVHC free

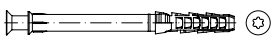
plug- / drill ∅ x plug length

SXR 10	x 60 FUS	S	50	264,00
SXR 10	x 80 FUS	S	50	292,25
SXR 10	x 100 FUS	S	50	348,90
SXR 10	x 120 FUS	S	50	410,00
SXR 10	x 140 FUS	S	50	473,65
SXR 10	x 160 FUS	S	50	630,55
SXR 10	x 180 FUS	S	50	767,65
SXR 10	x 200 FUS	S	50	929,85
SXR 10	x 230 FUS	S	50	1119,85
SXR 10	x 260 FUS	S	50	1534,20

Dimensions | PU Pieces | €/100/Mat.

article 88551.014 4401

88551 Plug plug nylon screw steel, ZP SXRL-T



FISCHER frame fixings SXRL-T with countersunk head screw, with hexalobular socket, with long expansion part

Product information → TI-182

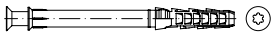
ETA CE | R90 fire resistance classification | REACh SVHC free

plug- / drill ∅ x plug length

SXRL 8	x 80 T	S	50	63,35
SXRL 8	x 100 T	S	50	80,55
SXRL 8	x 120 T	S	50	98,65
SXRL 10	x 80 T	S	50	94,15
SXRL 10	x 100 T	S	50	103,35
SXRL 10	x 120 T	S	50	115,90
SXRL 10	x 140 T	S	50	132,00
SXRL 10	x 160 T	S	50	178,75
SXRL 10	x 180 T	S	50	245,90
SXRL 10	x 200 T	S	50	342,75
SXRL 10	x 230 T	S	50	417,90
SXRL 10	x 260 T	S	50	529,05
SXRL 10	x 290 T	S	50	651,20

article 88551.944 4401

88551 Plug plug nylon screw A 4 SXRL-T



FISCHER frame fixings SXRL-T with countersunk head screw, with hexalobular socket, with long expansion part

Product information → TI-182

ETA CE | R90 fire resistance classification | REACh SVHC free

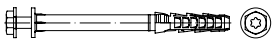
plug- / drill ∅ x plug length

SXRL 8	x 80 T	S	50	216,20
SXRL 8	x 100 T	S	50	264,75
SXRL 8	x 120 T	S	50	313,95
SXRL 10	x 80 T	S	50	281,05
SXRL 10	x 100 T	S	50	334,10
SXRL 10	x 120 T	S	50	390,85
SXRL 10	x 140 T	S	50	454,50
SXRL 10	x 160 T	S	50	600,95
SXRL 10	x 180 T	S	50	730,55
SXRL 10	x 200 T	S	50	890,10
SXRL 10	x 230 T	S	50	1073,25
SXRL 10	x 260 T	S	50	1472,60
SXRL 10	x 290 T	S	50	1756,65

Dimensions | PU Pieces | €/100/Mat.

article 88551.015 4401

88551 Plug plug nylon screw steel, ZP SXRL-FUS



FISCHER frame fixings SXRL-FUS with hexagon head (wrench size 13) and hexalobular socket T40, with long expansion part

Product information → TI-182

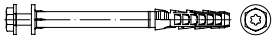
ETA CE | R90 fire resistance classification | REACh SVHC free

plug- / drill ∅ x plug length

SXRL 8	x 80 FUS	S	50	66,85
SXRL 8	x 100 FUS	S	50	85,40
SXRL 8	x 120 FUS	S	50	101,85
SXRL 10	x 80 FUS	S	50	99,00
SXRL 10	x 100 FUS	S	50	108,75
SXRL 10	x 120 FUS	S	50	122,55
SXRL 10	x 140 FUS	S	50	138,40
SXRL 10	x 160 FUS	S	50	188,95
SXRL 10	x 180 FUS	S	50	260,15
SXRL 10	x 200 FUS	S	50	362,15
SXRL 10	x 230 FUS	S	50	435,45
SXRL 10	x 260 FUS	S	50	558,45
SXRL 10	x 290 FUS	S	50	688,85

article 88551.945 4401

88551 Plug plug nylon screw A 4 SXRL-FUS



FISCHER frame fixings SXRL-FUS with hexagon head (wrench size 13) and hexalobular socket T40, with long expansion part

Product information → TI-182

ETA CE | F90 fire resistance classification | REACh SVHC free

plug- / drill ∅ x plug length

SXRL 8	x 80 FUS	S	50	237,40
SXRL 8	x 100 FUS	S	50	282,55
SXRL 10	x 80 FUS	S	50	292,25
SXRL 10	x 100 FUS	S	50	348,90
SXRL 10	x 120 FUS	S	50	410,00
SXRL 10	x 140 FUS	S	50	473,65
SXRL 10	x 160 FUS	S	50	630,55
SXRL 10	x 180 FUS	S	50	767,65
SXRL 10	x 200 FUS	S	50	929,85
SXRL 10	x 230 FUS	S	50	1119,85
SXRL 10	x 260 FUS	S	50	1534,20
SXRL 10	x 290 FUS	S	50	1830,50

Dimensions	PU Pieces	€/100/Mat.
article	88563.010	4401

88563 Plug plug nylon screw steel, ZP FUR-T



FISCHER frame fixings FUR-T with countersunk head screw, with hexalobular socket T40

Product information ➔ TI-184

caps ➔ ADT ➔ article 88528

ETA CE | R90 fire resistance classification | HF halogen free | REACh SVHC free

plug- / drill ∅ x plug length

FUR 10	x 80 T	S	50	108,85
FUR 10	x 100 T	S	50	115,90
FUR 10	x 115 T	S	50	127,55
FUR 10	x 135 T	S	50	145,70
FUR 10	x 160 T	S	50	214,90
FUR 10	x 185 T	S	50	341,70
FUR 10	x 200 T	S	50	393,40
FUR 10	x 230 T	S	50	458,95

article	88563.940	4401

88563 Plug plug nylon screw A 4 FUR-T



FISCHER frame fixings FUR-T with countersunk head screw, with hexalobular socket T40

Product information ➔ TI-184

caps ➔ ADT ➔ article 88528

ETA CE | R90 fire resistance classification | HF halogen free | REACh SVHC free

plug- / drill ∅ x plug length

FUR 10	x 80 T	S	50	306,70
FUR 10	x 100 T	S	50	366,35
FUR 10	x 115 T	S	50	428,25
FUR 10	x 135 T	S	50	530,00
FUR 10	x 160 T	S	50	728,45
FUR 10	x 185 T	S	50	853,60
FUR 10	x 200 T	S	50	959,90
FUR 10	x 230 T	S	50	1079,25

Dimensions	PU Pieces	€/100/Mat.
article	88564.010	4401

88564 Plug plug nylon screw steel, ZP FUR-SS



FISCHER frame fixings FUR-SS with hexagon head (wrench size 13)

Product information ➔ TI-184

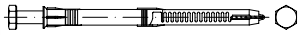
ETA CE | R90 fire resistance classification | HF halogen free | REACh SVHC free

plug- / drill ∅ x plug length

FUR 10	x 80 SS	S	50	113,80
FUR 10	x 100 SS	S	50	122,50
FUR 10	x 115 SS	S	50	134,90
FUR 10	x 135 SS	S	50	154,90
FUR 10	x 160 SS	S	50	228,85
FUR 10	x 185 SS	S	50	363,20
FUR 10	x 200 SS	S	50	418,45
FUR 10	x 230 SS	S	50	483,50

article	88564.940	4401

88564 Plug plug nylon screw A 4 FUR-SS



FISCHER frame fixings FUR-SS with hexagon head (wrench size 13)

Product information ➔ TI-184

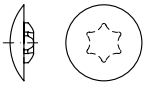
ETA CE | R90 fire resistance classification | HF halogen free | REACh SVHC free

plug- / drill ∅ x plug length

FUR 10	x 80 SS	S	50	318,85
FUR 10	x 100 SS	S	50	381,95
FUR 10	x 115 SS	S	50	445,85
FUR 10	x 135 SS	S	50	548,65
FUR 10	x 160 SS	S	50	760,70
FUR 10	x 185 SS	S	50	888,20
FUR 10	x 200 SS	S	50	999,90
FUR 10	x 230 SS	S	50	1125,85

Dimensions	PU Pieces	€/100/Mat.
article	88528.630	4401

88528 Plastic white ADT



FISCHER caps ADT for countersunk head screw, with hexalobular socket

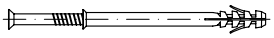
caps ∅ ➔ for screw ∅:
- 15 ➔ 7
- 18 ➔ 10

REACh SVHC free

ADT 15	S	100	7,85
ADT 18	S	100	7,85

article	88503.010	4401

88503 Plug plug nylon zinc plated N-S



FISCHER nail plugs N-S with self-piercing screw, with Pozidriv cross recess Z

assembled and ready for installation (for < ∅ 10)

Product information ➔ TI-185

HF halogen free | REACh SVHC free

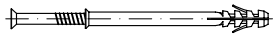
plug- / drill ∅ x plug length / usable length

N-S 5	x 30/ 5	S	100	15,30
N-S 5	x 40/ 15	S	100	16,25
N-S 5	x 50/ 25	S	100	16,70
N-S 6	x 40/ 10	S	50	20,20
N-S 6	x 60/ 30	S	50	24,25
N-S 6	x 80/ 50	S	50	29,70
N-S 8	x 60/ 20	S	50	28,90
N-S 8	x 80/ 40	S	50	32,45
N-S 8	x 100/ 60	S	50	40,70
N-S 8	x 120/ 80	S	50	54,05
N-S 10	x 100/ 50	S	50	85,20
N-S 10	x 135/ 85	S	50	104,95
N-S 10	x 160/110	S	50	156,75
N-S 10	x 230/180	S	50	360,20

Dimensions | PU Pieces | €/100/Mat.

article 88503.920 4401

88503 Plug plug nylon A 2 N-S



FISCHER nail plugs N-S with self-piercing screw, with Pozidriv cross recess Z

assembled and ready for installation (for < ∅ 10)

Product information ➔ TI-185

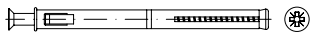
HF halogen free | REACh SVHC free

plug- / drill ∅ x plug length / usable length

N-S 5	x 30/ 5	S	100	36,25
N-S 6	x 40/10	S	50	43,30
N-S 6	x 60/30	S	50	46,90
N-S 8	x 60/20	S	50	67,75
N-S 8	x 80/40	S	50	85,50
N-S 8	x 100/60	S	50	111,55

article 88516.010 4401

88516 Plug plug nylon screw steel, ZP F-S



FISCHER frame fixings F-S with Pozidriv cross recess Z 3, with countersunk head screw

Product information ➔ TI-185

caps ➔ ADF ➔ article 88556

HF halogen free | REACh SVHC free

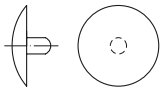
plug-/ drill ∅ x plug length

F 8 S 100	S	50	127,55
F 8 S 120	S	50	137,25
F 8 S 140	S	50	152,50
F 10 S 75	S	50	125,95
F 10 S 100	S	50	131,55
F 10 S 120	S	50	144,50
F 10 S 140	S	50	158,75
F 10 S 165	S	50	211,20

Dimensions | PU Pieces | €/100/Mat.

article 88556.630 4401

88556 Plastic white ADF



FISCHER caps ADF for window frame fixings F-S

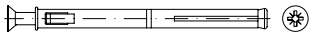
REACh SVHC free

caps ∅ (matched for F-S 8 and 10 ∅)

ADF 12	S	100	7,60

article 88680.010 4401

88680 Plug steel* screw steel, ZP F-M



FISCHER metal frame fixings F-M with countersunk head screw, with expanding cone, with Pozidriv cross recess Z 3

*aluminium-zinc plated

Product information ➔ TI-186

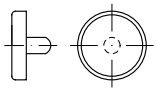
F120 fire resistance classification | REACh SVHC free

plug / drill ∅ / plug length

F 10 M 72	S	100	73,30
F 10 M 92	S	100	82,65
F 10 M 112	S	100	92,25
F 10 M 132	S	100	101,95
F 10 M 152	S	100	112,50
F 10 M 182	S	50	129,50
F 10 M 202	S	50	149,05

article 88681.(*) 4401

88681 Plastic ADM



FISCHER caps ADM for metal frame fixings F-M

white (*630) / brown (*640)

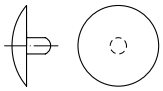
REACh SVHC free

10	S	100	8,40

Dimensions | PU Pieces | €/100/Mat.

article 88682.(*) 4401

88682 Plastic ASM



FISCHER caps ASM for metal frame fixings F-M

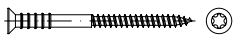
white (*630) / brown (*640)

REACh SVHC free

10	S	100	7,65

article 88515.010 4401

88515 Steel zinc plated JUSS



FISCHER adjustment screws JUSS self-drilling, for wooden panels, with hexalobular socket T25

Product information ➔ TI-186

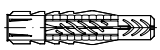
REACh SVHC free

∅ x length (installation depth 30 mm)

JUSS 6	x 60/T25	S	100	28,50
JUSS 6	x 70/T25	S	100	31,50
JUSS 6	x 80/T25	S	100	34,90
JUSS 6	x 90/T25	S	100	38,55
JUSS 6	x 100/T25	S	100	42,60
JUSS 6	x 110/T25	S	100	47,85
JUSS 6	x 120/T25	S	100	53,35
JUSS 6	x 145/T25	S	100	64,20

article 88520.600 4400

88520 Nylon UX



FISCHER universal plugs UX for all walls, for wood and chipboard screws

Product information ➔ TI-188

HF halogen free | REACh SVHC free

plug / drill ∅ x length

UX 5	x 30	S	100	5,80
UX 6	x 35	S	100	9,35
UX 8	x 50	S	100	12,65

Dimensions			PU	Pieces	€/100/Mat.
UX 10	x	60	S	50	22,55
UX 12	x	70	S	25	35,45
UX 14	x	75	S	20	56,20

article	88520.608	4400
88520	**Nylon**	**UX R**



FISCHER universal plugs UX R for all walls, for wood and chipboard screws, R = with collar

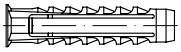
Product information ➔ TI-188

HF halogen free | REACh SVHC free

plug / drill ∅ x length

UX 5	x	30 R	S	100	5,80
UX 6	x	35 R	S	100	9,35
UX 8	x	50 R	S	100	12,65
UX 10	x	60 R	S	50	22,55

article	88554.600	4403
88554	**Nylon**	**SX**



FISCHER expansion plugs SX, for wood and chipboard screws

Product information ➔ TI-188

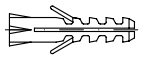
HF halogen free | REACh SVHC free

plug / drill ∅ x plug length / for screws ∅ max.

SX 4	x 20	/ 3	S	200	3,90
SX 5	x 25	/ 4	S	100	4,05
SX 6	x 30	/ 5	S	100	5,65
SX 6	x 30	S/10	S	50	18,45
SX 6	x 50		S	100	9,60
SX 8	x 40	/ 6	S	100	8,20
SX 8	x 40	S/20	S	50	27,05
SX 8	x 65	/ 6	S	50	14,65
SX 10	x 50	/ 8	S	50	15,65
SX 10	x 80		S	50	26,80
SX 12	x 60	/10	S	25	23,60
SX 14	x 70	/12	S	20	43,70
SX 16	x 80	/12	S	10	64,70

Dimensions			PU	Pieces	€/100/Mat.
S 4	x 20/	3	S	200	3,85
S 5	x 25/	4	S	200	3,90
S 5	x 25/	4	K	100	4,00
S 6	x 30/	5	S	200	5,45
S 6	x 30/	5	K	100	5,60
S 8	x 40/	6	S	200	7,85
S 8	x 40/	6	K	100	8,15
S 10	x 50/	8	S	100	14,80
S 10	x 50/	8	K	50	15,45
S 12	x 60/	10	S	25	23,40
S 14	x 75/	12	S	20	43,30
S 16	x 80/	12	S	10	64,05
S 20	x 90/	16	S	5	149,90

article	88500.604	4400
88500	**Nylon**	**S**



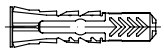
FISCHER expansion plugs S for wood and chipboard screws

Product information ➔ TI-189

HF halogen free | REACh SVHC free

plug / drill ∅ x length / for screws ∅ max.

article	88690.600	4401
88690	**Nylon**	**DUOPOWER**



FISCHER universal plugs DUOPOWER consists of 2 components for all walls, for wood screws, chipboard screws and hanger bolts

Product information ➔ TI-187

HF halogen free | REACh SVHC free

plug / drill ∅ x plug length

DUOPOWER 5	x	25	S	100	4,50
DUOPOWER 6	x	30	S	100	6,25
DUOPOWER 6	x	50	S	100	10,95
DUOPOWER 8	x	40	S	100	9,10
DUOPOWER 8	x	65	S	50	16,20
DUOPOWER 10	x	50	S	50	17,30
DUOPOWER 10	x	80	S	25	30,65
DUOPOWER 12	x	60	S	25	26,25
DUOPOWER 14	x	70	S	20	48,65

Dimensions			PU	Pieces	€/100/Mat.
DUOPOWER 10	x	50 S	S	25	61,45

article	88690.015	4401
88690	**Plug nyl. screw steel, ZP**	**DUOPOWER**



FISCHER universal plugs DUOPOWER with hexagon flange head screw (wrench size 13) and hexalobular socket T40

Product information ➔ TI-187

HF halogen free | REACh SVHC free

plug / drill ∅ x plug length

article	88690.014	4401
88690	**Plug nyl. screw steel, ZP**	**DUOPOWER**



FISCHER universal plugs DUOPOWER with countersunk head screw, with cross recess Pozidriv Z2

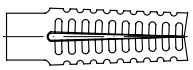
Product information ➔ TI-187

HF halogen free | REACh SVHC free

plug / drill ∅ x plug length

DUOPOWER 5	x	25 S	S	50	18,50
DUOPOWER 6	x	30 S	S	50	20,30
DUOPOWER 8	x	40 S	S	50	29,95

article	88545.010	4403
88545	**Steel zinc plated**	**FMD**



FISCHER steel expansion plugs FMD for wood screws

Product information ➔ TI-189

REACh SVHC free

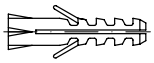
for max. screws ∅ x plug length

FMD 6	x	32	S	100	53,75
FMD 8	x	38	S	100	64,65
FMD 8	x	60	S	50	74,30
FMD 10	x	60	S	50	83,35

Dimensions | PU Pieces | €/100/Mat.

article 88506.600 4403

88506 Nylon M-S



FISCHER expansion plugs M-S for screws with metric thread

Product information ➔ TI-190

HF halogen free | REACh SVHC free

plug- / screw ∅ x plug length

M 6 S / 40	S	100	18,15
M 8 S / 50	S	50	34,85
M10 S / 70	S	20	94,50
M12 S / 80	S	10	125,55

article 88510.700 4403

88510 Nylon brass taper M



FISCHER anchors M with expantion brass unit for screws with metric thread

Product information ➔ TI-190 REACH ➔ TI-262

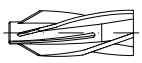
HF halogen free

internal thread ∅ x plug length / drill ∅

M 5	x	35 / 10	S	50	107,35
M 6	x	40 / 12	S	50	122,05
M 8	x	50 / 16	S	20	211,35
M 10	x	60 / 20	S	10	379,80
M 12	x	65 / 24	S	5	649,50

article 88507.600 4403

88507 Nylon GB



FISCHER aircrete anchors GB for assembly in aircrete, for FISCHER safety screws

Product information ➔ TI-191

HF halogen free | REACh SVHC free

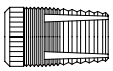
drill ∅ x anchor length / for screws ∅

GB 8	x	50 / 5	S	25	71,40
GB 10	x	55 / 7	S	20	85,20
GB 14	x	75 /10	S	10	133,20

Dimensions | PU Pieces | €/100/Mat.

article 88521.700 4403

88521 Brass PA 4



FISCHER brass fixings PA 4 for screws with metric thread

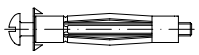
Product information ➔ TI-191 REACH ➔ TI-262

internal thread x anchor length

PA 4 M 6/ 7,5	S	200	68,55
PA 4 M 6/10,5	S	100	85,10
PA 4 M 6/13,5	S	100	102,15
PA 4 M 8/ 25	S	50	133,20
PA 4 M10/ 25	S	25	161,80

article 88512.010 4403

88512 Steel zinc plated HM-S



FISCHER cavity metal fixings HM-S for cavity assemblies, S = with metric screw

Product information ➔ TI-192

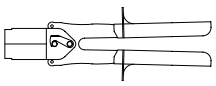
REACh SVHC free

for screws ∅ x anchor length

HM 4	x	32 S	S	50	60,90
HM 4	x	46 S	S	50	63,40
HM 5	x	37 S	S	50	69,35
HM 5	x	52 S	S	50	74,15
HM 5	x	65 S	S	50	90,05
HM 6	x	37 S	S	50	75,80
HM 6	x	52 S	S	50	80,20
HM 6	x	65 S	S	50	95,90
HM 6	x	80 S	S	50	108,80

article 88511.000 4403

88511 Steel HM-Z 1



FISCHER professional tools HM-Z 1 for cavity fixing plugs HM-S

cavity metal fixing HM-S ➔ article 88512

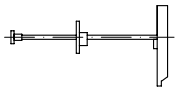
REACh SVHC free

HMZ 1	S	1	6285,00

Dimensions | PU Pieces | €/100/Mat.

article 88509.600 4403

88509 Nylon K



FISCHER toggle fixings K for cavity assembly, for wood screws Ø 4

Product information ➔ TI-192

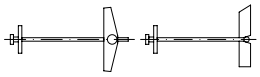
REACh SVHC free

hole ∅

K 54	S	25	74,50

article 88518.010 4403

88518 Steel zinc plated KD



FISCHER spring toggles KD with screw for assembly in cavities

Product information ➔ TI-193

KD 3 - 4 = spring toggle
KD 5 - 8 = gravity toggle

REACh SVHC free

screws ∅ x length

KD 3	x	95	S	50	95,95
KD 4	x	105	S	25	128,50
KD 5	x	100	S	25	172,05
KD 6	x	100	S	25	225,35
KD 8	x	100	S	20	325,30

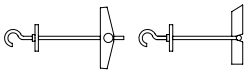
E-Business

Electronically supported processes make c-part sourcing easier

- RIO – REYHER Internet Order Webshop
- RIO | SCAN – barcodes from the Internet
- Electronic catalogue – BMEcat, DATANORM, Excel, OCI; also with classification data according to eCl@ss, UNSPSC
- EDI – Electronic data interchange, e.g. EDIFACT, openTRANS, IDoc-XML

Dimensions	PU Pieces	€/100/Mat.
article	88519.010	4403

88519 Steel zinc plated KDH



FISCHER spring toggles KDH with hook screw for assembly in cavities

Product information ➔ TI-193

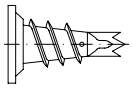
KDH 3 - 4 = spring toggle
KDH 5 - 8 = gravity toggle

REACh SVHC free

screws ∅ x length					
KDH 3	x	105	S	25	120,45
KDH 4	x	95	S	25	150,35
KDH 5	x	130	S	20	230,35
KDH 6	x	130	S	20	271,50
KDH 8	x	130	S	20	349,30

article	88598.010	4403

88598 Metal zinc plated GKM



FISCHER plasterboard fixings GKM self-tapping thread, with Pozidriv cross recess Z2

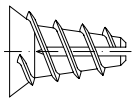
Product information ➔ TI-194

REACh SVHC free

for screws ∅ max. x length / thickness of component					
5,0	x	31 / -	S	100	32,15

article	88598.600	4403

88598 Plastic GK



FISCHER plasterboard fixings GK with setting tool

Product information ➔ TI-194

HF halogen free | REACh SVHC free

for screws ∅ max. x length					
5,0	x	22	S	100	20,40

Dimensions	PU Pieces	€/100/Mat.
article	88558.630	4403

88558 Nylon grey FC



FISCHER pipe clips FC for conduits and pipes

Product information ➔ TI-195

further FISCHER electrical fixing on request

HF halogen free | REACh SVHC free

for pipe ∅ from up - to			
FC 6 - 9	S	100	20,75
FC 9 - 12	S	100	26,25
FC 12 - 16	S	50	31,10
FC 16 - 20	S	25	39,85

article	88559.630	4403

88559 Nylon transparent SCH



FISCHER saddle clips SCH, single/series clamps for conduits and plastic pipes

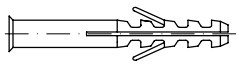
Product information ➔ TI-195

REACh SVHC free

for pipe ∅ up to (e.g. 812 = 8-12)			
SCH 812	S	100	30,80
SCH 1216	S	50	39,10
SCH 1619	S	50	70,45
SCH 1623	S	50	71,85
SCH 2332	S	25	115,85
SCH 3242	S	25	156,45

Dimensions	PU Pieces	€/100/Mat.
article	88536.600	4403

88536 Nylon S 14 ROE



FISCHER plugs S 14 ROE for scaffold anchorage with GS 12, for use in solid bricks

Product information ➔ TI-196

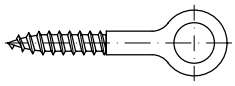
for use in perforated bricks / cellular concrete
➔ type S 16 on request

REACh SVHC free

plug- / drill ∅ x plug length			
S 14 ROE 70	S	25	64,25
S 14 ROE 100	S	25	76,60
S 14 ROE 135	S	25	98,85
S 14 ROE 185	S	25	147,80

article	88536.010	4403

88536 Steel zinc plated GS 12



FISCHER scaffold eyebolts GS 12, welded eyes, inside Ø 23

for FISCHER plugs S 14 ROE/S 16 H R

Product information ➔ TI-196

REACh SVHC free

screws ∅ x length					
GS 12	x	90	S	25	332,70
GS 12	x	120	S	25	363,45
GS 12	x	160	S	25	398,10
GS 12	x	190	S	25	467,30
GS 12	x	230	S	25	541,35
GS 12	x	300	S	25	623,65
GS 12	x	350	S	25	782,60

RKP® REYHER KITTING & PACKAGING

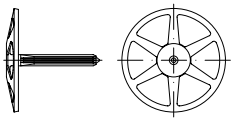
Sets and assembly kits compiled for individual requirements

- Items combined individually from small kits up to complex assembly sets
- Needs-based packing and labelling on all levels
- Special parts, pre-assembly and specific pack sequencing possible

Dimensions | PU Pieces | €/100/Mat.

article 88514.600 4403

88514 Plastic DHK



FISCHER insulation supports DHK, plate Ø 90

Product information → TI-197

REACh SVHC free

for plate thickness

DHK 40	S	250	32,45
DHK 60	S	250	34,80
DHK 80	S	250	38,00
DHK 100	S	250	42,80
DHK 120	S	200	48,55
DHK 140	S	200	63,00
DHK 160	S	100	70,35
DHK 180	S	100	77,70
DHK 200	S	100	85,05
DHK 220	S	100	97,70

article 88580.600 4403

88580 Plastic DT



FISCHER insulation discs DT

for combining with nail anchors N-S or wall-ties VB

Product information → TI-197

REACh SVHC free

disc Ø / through hole Ø

DT 90 / 4	S	250	30,65
DT 90 / 8	S	250	32,05

article 88696.600 04403

88696 Nylon FID



FISCHER insulation fixing FID

Product information → TI-197

REACh SVHC free

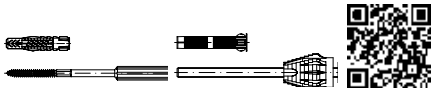
plug length

FID 50	S	50	81,35
FID 90	S	25	108,55

Dimensions | PU Pieces | €/100/Mat.

article 88695.010 4403

88695 Thermax



8 / 10 12 / 16

FISCHER stand-off installation system Thermax

Z suitable for tenell zone

REACh SVHC free

Product information → TI-198

8/ 80 M 6	S	20	417,35
8/100 M 6	S	20	424,70
8/120 M 6	S	20	432,00
8/140 M 6	S	20	439,25
8/160 M 6	S	20	453,85
10/120 M 8	S	20	490,60
10/140 M 10	S	20	497,85
10/160 M 8	S	20	512,50
10/160 M 10	S	20	512,50
10/180 M 6	S	20	519,75
10/200 M 8	S	20	534,65
10/200 M 10	S	20	534,65
10/240 M 8	S	20	653,65
12/110 M 12	S	20	5605,00
16/170 M 12	S	20	2165,00

article 88565.000 4403

88565 Polyurethane 1-comp. foam 1 K-PU



FISCHER rapid installation foam PU for filling, insulation, sealing, cart. with closure and dosage valve

content per cartridge / max. foam yield
500 ml ~ 28 l

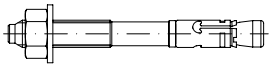
content / ml

PU 1 500	S	12	1445,00

Dimensions | PU Pieces | €/100/Mat.

article 88741.010 4422

88741 Steel zinc plated MAX



UPAT express anchors MAX with expanding cone, nut and washer

Product information → TI-198

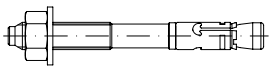
ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval | REACh SVHC free

anchor / drill Ø / clamp length / anchor length

MAX 8/ 10/ 75	S	100	91,00
MAX 8/ 30/ 95	S	100	116,00
MAX 8/ 50/ 115	S	100	140,00
MAX 10/ 10/ 95	S	50	130,00
MAX 10/ 20/ 105	S	50	147,00
MAX 10/ 30/ 115	S	50	154,00
MAX 10/ 50/ 135	S	50	169,00
MAX 10/ 80/ 165	S	40	209,00
MAX 10/ 100/ 185	S	50	216,00
MAX 12/ 10/ 110	S	20	188,00
MAX 12/ 20/ 120	S	20	197,00
MAX 12/ 30/ 130	S	20	209,00
MAX 12/ 50/ 150	S	20	270,00
MAX 12/ 80/ 180	S	20	350,00
MAX 12/ 100/ 200	S	20	375,00
MAX 12/ 120/ 220	S	20	430,00
MAX 12/ 160/ 260	S	10	460,00
MAX 12/ 200/ 300	S	10	570,00
MAX 16/ 25/ 148	S	20	410,00
MAX 16/ 50/ 173	S	20	520,00
MAX 16/ 100/ 223	S	10	710,00
MAX 16/ 160/ 283	S	10	920,00
MAX 16/ 200/ 323	S	10	1020,00
MAX 16/ 250/ 373	S	10	1100,00
MAX 16/ 300/ 423	S	10	1250,00
MAX 20/ 30/ 172	S	10	850,00
MAX 20/ 60/ 202	S	10	860,00

article 88741.940 4422

88741 A 4 MAX



UPAT express anchors MAX with expanding cone, nut and washer

Product information → TI-198

ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval | REACh SVHC free

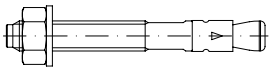
anchor / drill Ø / clamp length / anchor length

MAX 8/ 10/ 75	S	50	395,00
MAX 8/ 30/ 95	S	50	485,00
MAX 8/ 50/ 115	S	50	520,00
MAX 10/ 10/ 95	S	50	560,00
MAX 10/ 20/ 105	S	50	580,00
MAX 10/ 30/ 115	S	50	650,00
MAX 10/ 50/ 135	S	50	720,00

Dimensions	PU	Pieces	€/100/Mat.
MAX 10/100/185	S	50	890,00
MAX 12/ 10/110	S	20	770,00
MAX 12/ 20/120	S	20	770,00
MAX 12/ 30/130	S	20	870,00
MAX 12/ 50/150	S	20	990,00
MAX 12/100/200	S	20	1340,00
MAX 16/ 25/148	S	20	1610,00
MAX 16/ 50/173	S	20	1870,00
MAX 16/100/223	S	10	2140,00
MAX 20/ 30/172	S	10	3300,00
MAX 20/ 60/202	S	10	3650,00

article 88764.010 4422

88764 Steel zinc plated IMC



UPAT express anchors IMC with expanding cone, nut and washer

Product information ➔ TI-198

ETA CE | F120 fire resistance classification | REACh SVHC free

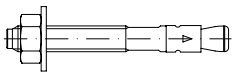
anchor / drill ∅ / clamp length / anchor length

6/ 05/ 40	S	100	45,00
8/ 05/ 56 K	S	100	64,00
8/ 05/ 66	S	100	65,00
8/ 10/ 71	S	100	65,00
8/ 20/ 81	S	100	73,00
8/ 30/ 91	S	100	81,00
8/ 50/111	S	100	93,00
8/100/161	S	50	128,00
10/ 05/ 71 K	S	50	96,00
10/ 10/ 86	S	50	95,00
10/ 20/ 96	S	50	102,00
10/ 30/106	S	50	106,00
10/ 50/126	S	50	114,00
10/100/176	S	50	153,00
12/ 05/ 86 K	S	20	143,00
12/ 10/106	S	20	144,00
12/ 20/116	S	20	155,00
12/ 30/126	S	20	167,00
12/ 50/146	S	20	187,00
12/100/196	S	20	265,00
12/120/216	S	20	285,00
12/140/236	S	20	300,00
12/160/256	S	20	325,00
12/180/276	S	10	315,00
12/200/296	S	10	360,00
12/250/346	S	10	530,00
16/ 15/120 K	S	20	255,00
16/ 25/145	S	20	280,00
16/ 50/170	S	20	390,00
16/100/220	S	10	475,00
16/140/260	S	10	590,00
16/160/280	S	10	640,00
16/200/321	S	10	750,00
16/250/371	S	10	1020,00
16/300/421	S	10	1010,00
20/ 30/184	S	10	650,00
20/ 60/214	S	10	850,00

Dimensions	PU	Pieces	€/100/Mat.

article 88764.014 4422

88764 Steel zinc plated IMC-GS



UPAT express anchors IMC with expanding cone, nut and big washer

Product information ➔ TI-198

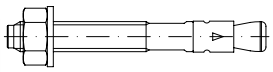
ETA CE | F120 fire resistance classification | REACh SVHC free

anchor / drill ∅ / clamp length / anchor length

12/ 80/176 GS	S	20	275,00
12/100/196 GS	S	20	290,00
12/120/216 GS	S	20	310,00
12/140/236 GS	S	10	330,00
12/160/256 GS	S	10	350,00
12/180/276 GS	S	10	405,00
12/200/296 GS	S	10	425,00
12/250/346 GS	S	10	550,00
16/100/220 GS	S	10	520,00
16/140/260 GS	S	10	650,00
16/160/280 GS	S	10	690,00
16/200/320 GS	S	10	810,00
16/250/370 GS	S	10	1150,00
16/300/420 GS	S	10	1050,00

article 88764.940 4422

88764 A 4 IMC



UPAT express anchors IMC with expanding cone, nut and washer

Product information ➔ TI-198

ETA CE | F120 fire resistance classification | REACh SVHC free

anchor / drill ∅ / clamp length / anchor length

6/ 10/ 55	S	100	209,00
8/ 05/ 56	S	100	229,00
8/ 10/ 71	S	100	260,00
8/ 30/ 91	S	100	290,00
8/ 50/111	S	100	350,00
10/ 05/ 71 K	S	50	335,00
10/ 10/ 86	S	50	350,00
10/ 20/ 96	S	50	365,00
10/ 30/106	S	50	390,00
10/ 50/126	S	50	430,00
10/100/176	S	50	610,00
12/ 05/ 86 K	S	20	500,00
12/ 10/106	S	20	530,00
12/ 20/116	S	20	540,00
12/ 50/146	S	20	630,00
12/100/196	S	20	900,00
16/ 50/170	S	10	1250,00

Dimensions	PU	Pieces	€/100/Mat.

article 88716.010 4422

88716 Steel zinc plated USA



UPAT impact anchors USA with internal thread M

Product information ➔ TI-199

ETA CE | R120 fire resistance classification | VdS approval | REACh SVHC free

Internal thread M

USA M 6	S	100	22,20
USA M 8	S	100	28,50
USA M 8 x 40	S	100	60,00
USA M 10	S	50	43,00
USA M 12	S	50	60,00
USA M 16	S	20	121,00
USA M 20	S	20	214,00

article 88716.940 4422

88716 A 4 USA



UPAT impact anchors USA with internal thread M

Product information ➔ TI-199

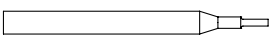
ETA CE | R120 fire resistance classification | VdS approval | REACh SVHC free

Internal thread M

USA M 6	S	100	186,00
USA M 8	S	100	270,00
USA M 10	S	50	385,00
USA M 12	S	50	590,00

article 88717.000 4422

88717 Steel USA-SWZ



UPAT setting tools USA-SWZ

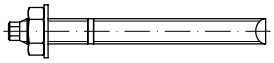
for use with USA hammerset anchors

REACh SVHC free

USA-SWZ M 6	S	1	980,00
USA-SWZ M 8	S	1	1020,00
USA-SWZ M 8 x 40	S	1	2250,00
USA-SWZ M 10	S	1	1220,00

Dimensions	PU	Pieces	€/100/Mat.
USA-SWZ M 12	S	1	1360,00
USA-SWZ M 16	S	1	2000,00
USA-SWZ M 20	S	1	2100,00

article	88722.010	4424
88722	**Steel zinc plated**	**UKA 3-ASTA**



UPAT threaded rods UKA 3-ASTA with nut and washer

for use with UKA 3 PLUS-cartridges
and injection mortar UPM 55, UPM 44, UPM 33

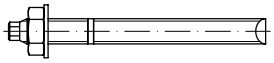
Product information ➔ TI-199

REACh SVHC free

∅ M x length

ASTA M 8	x	110	S	10	112,00
ASTA M 8	x	150	S	10	205,00
ASTA M 8	x	190	S	10	240,00
ASTA M 10	x	130	S	10	156,00
ASTA M 10	x	165	S	10	193,00
ASTA M 10	x	190	S	10	215,00
ASTA M 12	x	160	S	10	220,00
ASTA M 12	x	180	S	10	240,00
ASTA M 12	x	220	S	10	280,00
ASTA M 12	x	250	S	10	315,00
ASTA M 12	x	300	S	10	385,00
ASTA M 14	x	170	S	10	360,00
ASTA M 16	x	190	S	10	445,00
ASTA M 16	x	165	S	10	345,00
ASTA M 16	x	250	S	10	485,00
ASTA M 16	x	300	S	10	530,00
ASTA M 20	x	260	S	10	860,00
ASTA M 20	x	220	S	10	760,00
ASTA M 20	x	300	S	10	1030,00
ASTA M 20	x	350	S	10	1220,00
ASTA M 22	x	280	S	5	840,00
ASTA M 24	x	300	S	5	1310,00
ASTA M 27	x	340	S	5	2130,00
ASTA M 30	x	380	S	5	2850,00

article	88722.020	4424
88722	**Steel zinc plated**	**UKA 3-ASTA**



UPAT threaded rods UKA 3-ASTA with nut and washer

for use with UKA 3 PLUS-cartridges
and injection mortar UPM 55, UPM 44, UPM 33

Product information ➔ TI-199

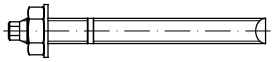
REACh SVHC free

∅ M x length

ASTA M 8	x	110	S	10	168,00
ASTA M 10	x	130	S	10	227,00
ASTA M 12	x	160	S	10	255,00

Dimensions	PU	Pieces	€/100/Mat.
ASTA M 16 x 190	S	10	495,00
ASTA M 20 x 260	S	5	1290,00

article	88722.940	4424
88722	**A 4**	**UKA 3-ASTA**



UPAT threaded rods UKA 3-ASTA with nut and washer

for use with UKA 3 PLUS-cartridges
and injection mortar UPM 55, UPM 44, UPM 33

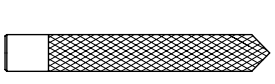
Product information ➔ TI-199

REACh SVHC free

∅ M x length

ASTA M 8	x	110	S	10	335,00
ASTA M 8	x	170	S	10	610,00
ASTA M 8	x	190	S	10	580,00
ASTA M 10	x	130	S	10	570,00
ASTA M 10	x	150	S	10	550,00
ASTA M 10	x	165	S	10	730,00
ASTA M 10	x	190	S	10	840,00
ASTA M 10	x	250	S	10	1070,00
ASTA M 10	x	300	S	10	1170,00
ASTA M 12	x	160	S	10	740,00
ASTA M 12	x	180	S	10	710,00
ASTA M 12	x	190	S	10	820,00
ASTA M 12	x	220	S	10	1020,00
ASTA M 12	x	250	S	10	1330,00
ASTA M 12	x	300	S	10	1520,00
ASTA M 14	x	170	S	10	990,00
ASTA M 16	x	190	S	10	1390,00
ASTA M 16	x	165	S	10	1240,00
ASTA M 16	x	215	S	10	1360,00
ASTA M 16	x	250	S	10	1860,00
ASTA M 16	x	300	S	10	2230,00
ASTA M 20	x	260	S	10	3450,00
ASTA M 20	x	350	S	10	4900,00
ASTA M 22	x	280	S	5	3750,00
ASTA M 24	x	300	S	5	5800,00
ASTA M 27	x	340	S	5	6600,00
ASTA M 30	x	380	S	5	11600,00

article	88714.010	4424
88714	**Steel zinc plated**	**UKA 3-IST**



UPAT internal thread bushes UKA 3-IST

Product information ➔ TI-200

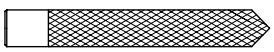
REACh SVHC free

Internal thread M

IST M 5	x	75	S	10	152,00
IST M 6	x	75	S	10	182,00
IST M 8	x	90	S	10	245,00
IST M 10	x	90	S	10	310,00

Dimensions	PU	Pieces	€/100/Mat.
IST M 12 x 100	S	10	375,00
IST M 16 x 120	S	10	580,00
IST M 16 x 120	S	5	1310,00

article	88714.940	4424
88714	**A 4**	**UKA 3-IST**



UPAT internal thread bushes UKA 3-IST

Product information ➔ TI-200

REACh SVHC free

internal thread M

IST M 8	S	10	1030,00
IST M 10	S	10	1120,00
IST M 12	S	10	1070,00
IST M 16	S	5	4200,00

article	88734.010	4423
88734	**Steel zinc plated**	**UPM-A**



UPAT threaded rods UPM-A with nut and washer

for use with UKA 3 PLUS-cartridges
and injection mortar UPM 55, UPM 44, UPM 33, UPM 11

REACh SVHC free

∅ M x length

UPM-A M 6/ 75	S	20	86,00
UPM-A M 8/110	S	20	108,00
UPM-A M 8/130	S	20	145,00
UPM-A M 10/110	S	20	128,00
UPM-A M 10/130	S	20	144,00
UPM-A M 10/170	S	20	198,00
UPM-A M 12/120	S	20	182,00
UPM-A M 12/140	S	20	193,00
UPM-A M 16/130	S	10	350,00
UPM-A M 16/175	S	10	375,00
UPM-A M 16/200	S	10	415,00

Dimensions	PU	Pieces	€/100/Mat.
article	88734.940		4423
88734	**A 4**		**UPM-A**



UPAT threaded rods UPM-A with nut and washer

for use with UKA 3 PLUS-cartridges
and injection mortar UPM 55, UPM 44, UPM 33, UPM 11

REACh SVHC free

∅ M x length

UPM-A M 8/110	S	20	340,00
UPM-A M 8/130	S	10	415,00
UPM-A M 10/110	S	20	395,00
UPM-A M 10/170	S	20	730,00
UPM-A M 12/140	S	20	680,00
UPM-A M 16/130	S	10	1140,00
UPM-A M 16/175	S	10	1300,00

article	88770.010	4423
88770	**Steel zinc plated**	**UPM-I**



UPAT internal thread anchors UPM-I

Product information ➔ TI-200

REACh SVHC free

Internal thread ∅

UPM-I 6	S	10	215,00
UPM-I 8	S	10	235,00
UPM-I 10	S	10	280,00
UPM-I 12	S	10	300,00

article	88735.600	4423
88735	**Plastic**	**UPM-SH-K**



UPAT mesh bushes UPM-SH-K

Product information ➔ TI-201

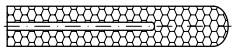
REACh SVHC free

drilling ∅ x anchorage depth

UPM-SH 12/ 50	S	50	49,50
UPM-SH 12/ 85	S	50	60,00
UPM-SH 16/ 85	S	50	73,00
UPM-SH 16/ 130	S	20	136,00

Dimensions	PU	Pieces	€/100/Mat.
UPM-SH 20/ 85	S	20	86,00
UPM-SH 20/ 130	S	20	216,00
UPM-SH 20/ 200	S	20	247,00

article	88720.002	4424
88720	**Resin**	



UPAT resin capsules UKA 3 PLUS

for use with threaded rod UKA 3-ASTA
and internal thread bush UKA 3-IST

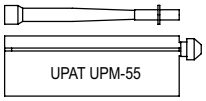
Product information ➔ TI-201

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

for ASTA anchors

UKA 3 PLUS M 8	S	10	227,00
UKA 3 PLUS M 10	S	10	240,00
UKA 3 PLUS M 12	S	10	265,00
UKA 3 PLUS M 14	S	10	330,00
UKA 3 PLUS M 16	S	10	390,00
UKA 3 PLUS M 20/22	S	10	530,00
UKA 3 PLUS M 24	S	5	660,00

article	88772.000	4422
88772	**Mortar**	**UPM 55**



UPAT injection mortar UPM 55

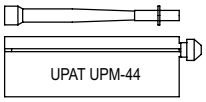
incl. 2 static mixer / cartridge
sale only complete package unit

ETA CE | Z suitable for tensil zone

contents per cartridge (ml)

UPM 55-390	S	6	4550,00

article	88733.000	4423
88733	**Mortar**	**UPM 44-360**



UPAT injection mortar UPM 44

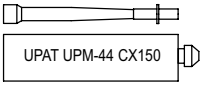
incl. 2 static mixer / cartridge
sale only complete package unit

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

contents per cartridges (ml)

UPM 44 - 360	S	6	4850,00

Dimensions	PU	Pieces	€/100/Mat.
article	88733.004		4423
88733	**Mortar UPM 44 CX 150**		



UPAT injection mortar UPM 44 CX 150

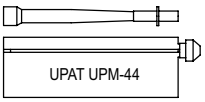
incl. 2 static mixer and 1 plunger / cartridge
sale only complete package unit

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

contents per cartridges (ml)

UPM 44 CX150	S	1	2140,00

article	88733.006	4422
88733	**Mortar UPM 44 Profi-Box**	



UPAT injection mortar UPM 44 in a professional box

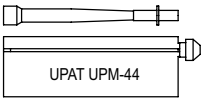
5 pieces / unit, complete with 10 static mixer,
1 blow-out pump, 1 brushes set ∅ 14/20,
1 application gun

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

contents per cartridges (ml)

UPM 44 Profi-Box	S	1	37400,00

article	88733.007	4422
88733	**Mortar**	**UPM 44 HWK**



UPAT injection mortar UPM 44 in craftsman box

20 pieces and 40 static mixer per box

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

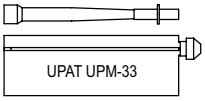
contents per cartridges (ml)

UPM 44 im Hwk	S	1	85400,00

Dimensions | PU Pieces | €/100/Mat.

article 88774.000 4423

88774 Mortar UPM 33



UPAT injection mortar UPM 33

incl. 2 static mixer / cartridge
sale only complete package unit

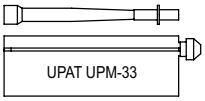
ETA CE | R120 fire resistance classification

contents per cartridge (ml)

UPM 33-300	S	12	2250,00
UPM 33-360	S	6	2600,00

article 88774.004 4423

88774 Mortar UPM 33 HWK



UPAT injection mortar UPM 33 in craftmans box

20 pieces and 40 static mixer per box

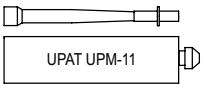
ETA CE | F120 fire resistance classification

contents per cartridge (ml)

UPM 33-360	S	1	51500,00

article 88775.000 4423

88775 Mortar UPM 11



UPAT injection mortar UPM 11

incl. 2 static mixer / cartridge
sale only complete package unit

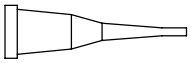
contents per cartridge (ml)

UPM 11-300	S	12	1540,00
UPM 11-360	S	6	1890,00

Dimensions | PU Pieces | €/100/Mat.

article 88738.600 4423

88738 Plastic



UPAT static mixers

package unit = 10 pieces

REACh SVHC free

UPM 44 - SM	S	10	192,00

article 88769.000 4423

88769 Steel BS



UPAT cleaning brushes BS for cement

REACh SVHC free

diameter

BS 8 - F. M 6	S	1	1510,00
BS 10 - F. M 8	S	1	1560,00
BS 12 - F. M10	S	1	1040,00
BS 14 - F. M12	S	1	1180,00
BS 18 - F. M16	S	1	1400,00
BS 24 - F. M20	S	1	1800,00
BS 28 - F. M24	S	1	2080,00
BS 35 - F. M30	S	1	2800,00

article 88769.001 4423

88769 Steel



UPAT brushing sets for masonry

REACh SVHC free

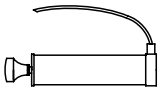
diameter

14/20	S	1	1520,00
20/30	S	1	1870,00

Dimensions | PU Pieces | €/100/Mat.

article 88718.600 4422

88718 Plastic



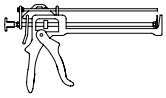
UPAT blow-out pumps for drilled hole

REACh SVHC free

Blow-out pump	S	1	1640,00

article 88771.000 4423

88771 Steel metal



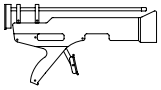
UPAT application guns metal

REACh SVHC free

.	S	1	6700,00

article 88771.600 4423

88771 Plastic



UPAT application guns

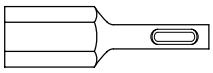
REACh SVHC free

.	S	1	15400,00

Dimensions | PU Pieces | €/100/Mat.

article 88760.000 4422

88760 Steel MW-SDS



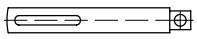
UPAT setting tools MW-SDS for UKA 3 and UMW anchors, with hexagon, shaft with SDS pick-up

REACh SVHC free

for UKA 3 / UMV nominal ∅			
MW-SDS M 8-M16	S	1	3000,00

article 88765.000 4423

88765 Steel SDS plus



UPAT adapter with SDS plus pick up

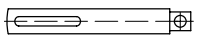
for use with nut setters 1/2",
for installation of anchor studs with hexagon

REACh SVHC free

SDS-PLUS 1/2VK	S	1	2250,00

article 88766.000 4422

88766 Steel SDS max



UPAT adapter with SDS max pick-up

for installation of anchor stud with hexagon

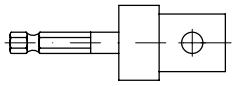
REACh SVHC free

SDS-MAX 3/4VK	S	1	4050,00

Dimensions | PU Pieces | €/100/Mat.

article 88776.000 4422

88776 Steel SK SW



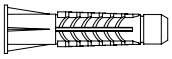
UPAT adapter SK SW

REACh SVHC free

SW 8 1/2	S	1	2000,00

article 88381.600 4300

88381 Plastic 4 AS-K



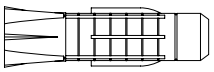
TOX hook plugs 4 AS-K with collar

drill hole ∅ x plug length / for screws ∅ max.

6	x 28 / 5,0	S	100	7,90
8	x 49 / 7,0	S	100	11,50

article 88382.600 4300

88382 Plastic TRI



TOX all-purpose plugs TRI

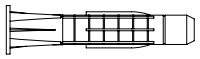
drill hole ∅ x plug length / for screws ∅ max.

5	x 31 / 4,0	S	100	4,30
6	x 36 / 5,0	S	100	6,70
6	x 51 / 5,0	S	100	7,20
7	x 36 / 6,0	S	100	7,60
7	x 51 / 6,0	S	100	8,20
8	x 51 / 7,0	S	100	9,70
10	x 61 / 8,0	S	50	17,70
12	x 71 / 10,0	S	25	26,50
14	x 75 / 12,0	S	20	47,00

Dimensions | PU Pieces | €/100/Mat.

article 88383.600 4300

88383 Plastic TRIKA



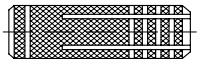
TOX all-purpose plugs TRIKA with collar

drill hole ∅ x plug length / for screws ∅ max.

5	x 32 / 4,0	S	100	4,70
6	x 37 / 5,0	S	100	7,30
7	x 37 / 6,0	S	100	8,10
7	x 52 / 6,0	S	100	8,70
8	x 52 / 7,0	S	100	10,70
10	x 62 / 8,0	S	50	19,60
12	x 72 / 10,0	S	25	28,50
14	x 76 / 12,0	S	20	50,00

article 88910.700 4472

88910 Brass



Brass explanding plugs with internal thread, outer surface knurled

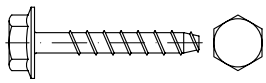
REACH ➔ TI-262

RoHS ✓

internal thread M / drill ∅ x approx. length

M 4 / 5	x	16	S	100	12,90
M 5 / 6,5	x	21	S	100	15,40
M 6 / 8	x	23	S	100	18,80
M 8 / 10	x	28	S	100	31,00
M 10 / 12	x	34	S	100	46,00
M 12 / 15	x	38	S	50	86,00
M 14 / 18	x	43	S	25	166,00
M 16 / 20	x	46	S	25	188,00

Dimensions			PU	Pieces	€/100/Mat.
article				88902.012	4472
88902				**Steel, hardened zinc plated**	**SS**



MULTI-MONTI
screw-in-anchors MMSplus-SS,
SS = hexagon head
with pressed washer

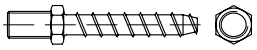
Product information ➔ TI-202

ETA-15/0754

Anker ∅ x Länge

6	x	40	S	100	33,50
6	x	50	S	100	35,50
6	x	60	S	100	38,00
6	x	80	S	50	63,00
7,5	x	35	S	100	37,50
7,5	x	40	S	100	39,50
7,5	x	50	S	50	44,50
7,5	x	60	S	50	46,50
7,5	x	80	S	50	77,00
7,5	x	100	S	50	83,00
7,5	x	120	S	50	89,00
7,5	x	140	S	50	111,00
10	x	60	S	25	99,00
10	x	70	S	25	110,00
10	x	80	S	25	116,00
10	x	100	S	25	120,00
10	x	120	S	25	130,00
10	x	140	S	25	141,00
10	x	160	S	25	155,00
12	x	80	S	25	135,00
12	x	90	S	25	145,00
12	x	100	S	25	150,00
12	x	120	S	25	163,00
12	x	140	S	25	178,00
12	x	160	S	25	195,00
16	x	120	S	10	680,00
16	x	130	S	10	750,00

Dimensions			PU	Pieces	€/100/Mat.
article				88903.012	4472
88903				**Steel, hardened zinc plated**	**St**



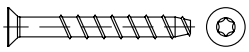
MULTI-MONTI
screw-in-anchors MMSplus-St,
ST = with external metric stud

Product information ➔ TI-203

ETA-15/0754

6	x	55	S	100	30,50
6	x	65	S	50	32,50
7,5	x	60	S	50	38,50
7,5	x	70	S	100	41,50
7,5	x	80	S	100	44,00
7,5	x	100	S	50	67,00
7,5	x	120	S	50	72,00
10	x	75	S	25	81,00
10	x	85	S	25	86,00

			PU	Pieces	€/100/Mat.
article				88905.012	4472
88905				**Steel, hardened zinc plated**	**F**



MULTI-MONTI
screw-in-anchors MMSplus-F
with hexalobular socket,
F = countersunk head

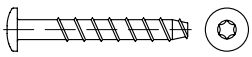
Product information ➔ TI-204

ETA-15/0754

6	x	40	S	200	16,40
6	x	50	S	200	17,30
6	x	60	S	200	28,00
6	x	70	S	100	36,50
6	x	80	S	50	44,50
6	x	100	S	100	49,00
6	x	120	S	50	68,00
6	x	140	S	50	85,00
7,5	x	45	S	200	26,00
7,5	x	50	S	200	27,00
7,5	x	60	S	50	34,00
7,5	x	70	S	50	43,50
7,5	x	80	S	50	53,00
7,5	x	100	S	100	59,00
7,5	x	120	S	50	74,00
7,5	x	140	S	50	92,00
7,5	x	160	S	50	99,00
10	x	60	S	25	80,00
10	x	70	S	25	92,00

Dimensions			PU	Pieces	€/100/Mat.
10	x	80	S	25	97,00
12	x	90	S	25	124,00
12	x	100	S	25	130,00
12	x	120	S	25	145,00

article				88908.012	4472
88908				**Steel, hardened zinc plated**	**P**



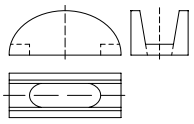
MULTI-MONTI
screw-in-anchors MMSplus-P
with hexalobular socket,
P = pan head

Product information ➔ TI-203

ETA-15/0754

6	x	35	S	100	16,90
6	x	40	S	100	18,20
6	x	50	S	100	19,10
6	x	60	S	100	33,50
7,5	x	35	S	100	32,50
7,5	x	40	S	100	36,00
7,5	x	50	S	100	37,50
7,5	x	60	S	50	43,00
10	x	60	S	25	76,00
10	x	70	S	25	79,00

article				88060.000	810
88060				**Malleable iron****	



Cam segments for tension anchors*,
for diagonal pull tensioning

**can be welded

Dimensions ➔ TI-136

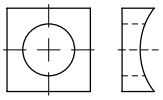
*only to be used with adjusting washers ➔ article 88061

for screws M / tension anchor ∅

M 12/M 16	S	1	880,00
M 20	S	1	910,00
M 24/M 27/M 30	S	1	1110,00

Dimensions	PU	Pieces	€/100/Mat.
article	88061.020		810

88061 Malleable iron hot dip galvanized



Adjusting washers for cam segments*, screw head / nut face for diagonal pull tensioning

Dimensions ➔ TI-136

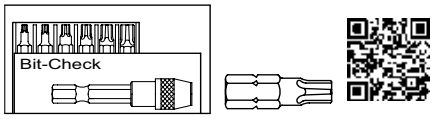
*only to be used with cam segments ➔ article 88060

RoHS ✓ | REACh SVHC free

for screws M / tension anchor ∅			
M 12	S	1	335,00 HDG
M 16	S	1	335,00 HDG
M 20	S	1	430,00 HDG
M 24	S	1	1090,00 HDG
M 27	S	1	1090,00 HDG
M 30	S	1	1090,00 HDG

article	88663.000	4540

88663 Steel, hardened T



SPAX BITcheck assortments

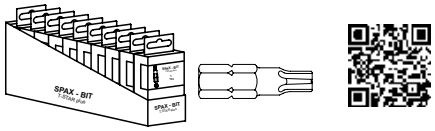
Content: 1 Rapidaptor BIT holder 50 mm
each 1 bit T10; T15; T20; T30; T40

REACh SVHC free | RoHS ✓

+6 T-Star plus	S	1	95500,00

Dimensions	PU	Pieces	€/100/Mat.
article	88654.000		4540

88654 Steel, hardened T/25



SPAX CUT-CASE, hexalobular bits T-STAR plus

bit length = 25 mm

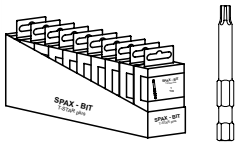
packing unit = quantity of bits in one CUT-CASE,
1 CUT-CASE = 10 cans

REACh SVHC free | RoHS ✓

SW 1/4	x	25 T 10	K	50	166,00
SW 1/4	x	25 T 15	K	50	166,00
SW 1/4	x	25 T 20	K	50	166,00
SW 1/4	x	25 T 25	K	50	166,00
SW 1/4	x	25 T 30	K	50	166,00
SW 1/4	x	25 T 40	K	50	166,00

article	88654.002	4540

88654 Steel, hardened T/50



SPAX CUT-CASE, hexalobular bits T-STAR plus

bit length = 50 mm

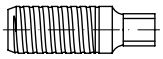
packing unit = quantity of bits in one CUT-CASE,
1 CUT-CASE = 10 cans

REACh SVHC free | RoHS ✓

SW 1/4	x	50 T 15	S	50	255,00
SW 1/4	x	50 T 20	S	50	255,00
SW 1/4	x	50 T 25	S	50	255,00
SW 1/4	x	50 T 30	S	50	255,00

Dimensions	PU	Pieces	€/100/Mat.
article	89017.000		816

89017 Steel



SPAX assembly tools for SPAX threaded rods without head

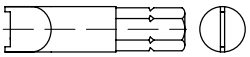
(article 89017)
wrench size 11 mm

RoHS ✓ | REACh SVHC free

.	S	1	30600,00

article	88665.000	855

88665 Steel hardened snake eyes



Special bits for theft resistant screws with snake eyes drive (article 88111, 88112)

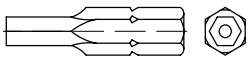
drive: 1/4" hexagon C

REACh SVHC free | RoHS ✓

for thread ∅			
M 3	S	1	3350,00
M 4	S	1	3350,00
M 5	S	1	3350,00
M 6	S	1	3350,00

article	88666.000	855

88666 Steel hardened Pin-hex



Special bits for theft resistant screws with hexagon socket and pin (article 88113)

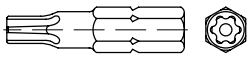
drive: 1/4" hexagon C

REACh SVHC free | RoHS ✓

wrench size / for thread ∅			
s = 2 / M 3+M3,5	S	1	2010,00
s = 2,5 / M 4	S	1	2010,00
s = 3 / M 5	S	1	2010,00
s = 4 / M 6	S	1	2010,00
s = 5 / M 8	S	1	2010,00
s = 6 / M10	S	1	2850,00

Dimensions	PU	Pieces	€/100/Mat.
article	88667.000		855

88667 Steel hardened PIN-ISR



Special bits for theft resistant screws with hexalobular socket and pin (article 88114 to 88117)

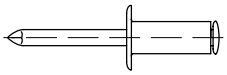
drive: 1/4" hexagon C

REACh SVHC free | RoHS ✓

T 10	S	1	1740,00
T 15	S	1	1740,00
T 20	S	1	1740,00
T 25	S	1	1740,00
T 27	S	1	2130,00
T 30	S	1	3250,00
T 40	S	1	3250,00
T 45	S	1	3250,00

article	88401.000	4950

88401 Rivet steel, ZP mandrel steel, ZP A



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15979, A = protruding head

Product information ➔ TI-206

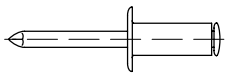
RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length

3	x	5	S	500	4,95
3	x	6	S	500	5,30
3	x	8	S	500	6,10
3	x	10	S	500	7,50
3	x	12	S	500	8,70
3	x	16	S	500	12,70
3	x	18	S	500	14,70
3	x	20	S	500	18,40
3,2	x	6	S	500	5,40
3,2	x	8	S	500	6,20
3,2	x	10	S	500	7,80
3,2	x	12	S	500	8,90
3,2	x	16	S	500	13,00
3,2	x	18	S	500	15,00
3,2	x	20	S	500	16,00
4	x	6	S	500	6,50
4	x	8	S	500	7,20
4	x	10	S	500	8,70
4	x	12	S	500	9,90
4	x	16	S	500	12,80
4	x	18	S	500	15,40
4	x	20	S	500	16,20
4	x	25	S	500	20,50
4,8	x	8	S	500	9,00
4,8	x	10	S	500	10,70
4,8	x	12	S	500	11,70
4,8	x	16	S	500	14,20
4,8	x	20	S	250	16,80
4,8	x	25	S	250	20,70
5	x	8	S	500	9,40
5	x	10	S	500	10,90
5	x	12	S	500	12,30
5	x	14	S	500	13,20
5	x	16	S	500	14,70
5	x	18	S	500	16,00
5	x	20	S	250	17,40
5	x	25	S	250	21,00
5	x	30	S	100	25,50
5	x	35	S	100	31,00
5	x	40	S	100	39,50
5	x	45	S	100	47,50
5	x	50	S	100	54,00
6	x	10	S	250	16,00
6	x	12	S	250	16,70
6	x	14	S	250	17,40
6	x	16	S	250	18,80
6	x	20	S	250	21,50
6	x	25	S	250	25,50
6,4	x	12	S	250	17,20
6,4	x	16	S	250	19,30
6,4	x	18	S	250	20,20
6,4	x	20	S	250	21,90
6,4	x	25	S	250	26,00

article	88402.000	4950

88402 Rivet Al mandrel steel, ZP A



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15977, A = protruding head

Product information ➔ TI-206 REACH ➔ TI-262

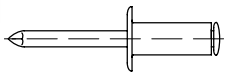
RoHS ✓

rivet ∅ x rivet length

2,4	x	4	S	1000	3,75
2,4	x	6	S	1000	4,15
2,4	x	8	S	1000	4,60
3	x	4	S	500	3,75
3	x	5	S	500	3,85
3	x	6	S	500	3,85
3	x	7	S	500	3,90
3	x	8	S	500	4,25
3	x	10	S	500	4,60
3	x	12	S	500	5,00
3	x	14	S	500	5,90
3	x	16	S	500	6,80
3	x	18	S	250	7,80
3	x	20	S	250	8,70
3	x	25	S	250	10,50
3	x	30	S	250	12,40
3,2	x	4	S	500	3,85
3,2	x	6	S	500	3,90
3,2	x	8	S	500	4,40
3,2	x	10	S	500	4,65
3,2	x	12	S	500	5,50
3,2	x	14	S	500	6,20
3,2	x	16	S	500	7,30
3,2	x	18	S	500	8,00
3,2	x	20	S	500	9,00
3,2	x	25	S	500	11,00
4	x	5	S	500	4,40
4	x	6	S	500	4,40
4	x	7	S	500	4,50
4	x	8	S	500	4,65
4	x	10	S	500	5,40
4	x	12	S	500	5,90
4	x	14	S	500	6,80
4	x	16	S	500	7,50
4	x	18	S	500	8,20
4	x	20	S	500	8,90
4	x	25	S	500	10,80
4	x	30	S	250	13,80
4	x	35	S	250	18,00
4	x	40	S	250	22,40
4,8	x	6	S	500	6,30
4,8	x	8	S	500	6,40
4,8	x	10	S	500	6,80
4,8	x	12	S	500	7,70
4,8	x	14	S	500	8,40
4,8	x	16	S	500	9,40
4,8	x	18	S	500	11,30
4,8	x	20	S	250	12,70
4,8	x	25	S	250	14,00
4,8	x	30	S	100	16,00
5	x	6	S	500	6,40
5	x	8	S	500	6,80
5	x	10	S	500	7,30
5	x	12	S	500	7,80
5	x	14	S	500	8,70
5	x	16	S	500	9,50
5	x	18	S	500	11,50
5	x	20	S	250	12,90
5	x	25	S	250	14,50
5	x	30	S	100	16,50
5	x	35	S	100	19,40
5	x	40	S	100	22,20
5	x	45	S	100	26,50
5	x	50	S	100	29,00
5	x	60	S	100	42,50
5	x	70	S	100	47,00
6	x	8	S	250	9,90
6	x	10	S	250	10,70
6	x	12	S	250	11,20
6	x	16	S	250	12,80
6	x	18	S	250	13,40
6	x	20	S	250	14,30
6	x	25	S	200	17,70
6	x	30	S	200	21,00
6	x	35	S	100	24,50
6	x	40	S	100	29,50
6,4	x	12	S	250	13,00
6,4	x	16	S	250	14,80
6,4	x	18	S	250	15,80
6,4	x	20	S	250	17,70
6,4	x	25	S	250	20,00
6,4	x	30	S	100	21,90

Dimensions	PU	Pieces	€/100/Mat.
article	88403.000		4950

88403 Rivet Al mandrel A 2 A



Open-end blind rivets with break pull mandrel, ~DIN 7337, A = protruding head

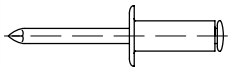
Product information → TI-206 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3	x	4	S	500	6,40
3	x	6	S	500	6,70
3	x	8	S	500	7,20
3	x	10	S	500	7,40
3	x	12	S	500	7,90
3	x	16	S	500	9,20
4	x	6	S	500	7,90
4	x	8	S	500	8,30
4	x	10	S	500	8,90
4	x	12	S	500	9,70
4	x	14	S	500	10,50
4	x	16	S	500	11,20
4	x	18	S	500	12,20
4	x	20	S	500	13,00
4	x	25	S	500	16,20
5	x	6	S	500	12,40
5	x	8	S	500	12,80
5	x	10	S	500	13,20
5	x	12	S	500	14,30
5	x	14	S	500	14,70
5	x	16	S	500	15,20
5	x	18	S	500	17,40
5	x	20	S	250	20,20
5	x	25	S	250	23,30
5	x	30	S	100	25,50
5	x	35	S	100	29,00
5	x	40	S	100	31,00

article	88410.000	4950

88410 Rivet Al mandrel Al A



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15981, A = protruding head

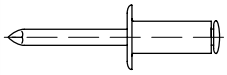
Product information → TI-206 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3,2	x	6,1	S	500	5,40
3,2	x	7,6	S	500	6,00
3,2	x	9,2	S	500	14,80
3,2	x	12,3	S	500	9,20
3,2	x	15,5	S	500	10,00
4	x	6,6	S	500	10,20
4	x	9,8	S	500	10,50
4	x	12,9	S	500	15,20
4	x	16,1	S	500	14,70
4,8	x	7,2	S	500	16,50
4,8	x	10,3	S	500	12,90
4,8	x	13,5	S	500	24,90
4,8	x	16,7	S	500	17,20

article	88404.000	4950

88404 Rivet A 2 mandrel A 2 A



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15983, A = protruding head

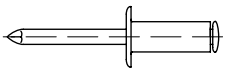
Product information → TI-206

RoHS ✓ REACh SVHC free

rivet ∅ x rivet length					
3	x	6	S	500	13,30
3	x	8	S	500	14,70
3	x	10	S	500	16,80
3	x	12	S	500	21,40
3	x	14	S	500	22,90
3	x	16	S	500	24,40
3,2	x	6	S	500	13,50
3,2	x	8	S	500	14,90
3,2	x	10	S	500	17,30
3,2	x	12	S	500	21,70
3,2	x	14	S	500	23,30
3,2	x	16	S	500	24,80
4	x	6	S	500	17,70
4	x	8	S	500	19,70
4	x	10	S	500	21,40
4	x	12	S	500	23,90
4	x	14	S	500	27,00
4	x	16	S	500	30,00
4	x	20	S	500	38,50
4	x	25	S	500	47,00
4,8	x	8	S	500	29,50
4,8	x	10	S	500	31,50
4,8	x	12	S	500	35,00
4,8	x	14	S	500	37,00
4,8	x	16	S	500	39,50
4,8	x	20	S	250	46,00
5	x	8	S	500	30,50
5	x	10	S	500	32,50
5	x	12	S	500	36,00
5	x	14	S	500	37,50
5	x	16	S	500	39,50
5	x	20	S	250	46,50
5	x	25	S	250	54,00
5	x	30	S	100	62,00
5	x	35	S	100	68,00
5	x	40	S	100	77,00

article	88415.000	4950

88415 Rivet A 4 mandrel A 4 A



Open-end blind rivets with break pull mandrel, ~DIN 7337, A = protruding head

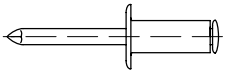
Product information → TI-206

RoHS ✓ REACh SVHC free

rivet ∅ x rivet length					
3	x	6	S	500	15,80
3	x	8	S	500	17,50
3	x	10	S	500	20,20
3	x	12	S	500	26,00
4	x	6	S	500	21,70
4	x	8	S	500	23,40
4	x	10	S	500	26,00
4	x	12	S	500	28,50
4	x	16	S	500	36,50
5	x	8	S	500	36,00
5	x	10	S	500	37,50
5	x	12	S	500	41,00
5	x	16	S	500	46,00
5	x	20	S	250	54,00

article	88493.000	4950

88493 Rivet Monel* mandrel A 4 A



Open-end blind rivets with break pull mandrel, ISO 16584, A = protruding head

*Nickel-Copper-Alloy

Product information → TI-206

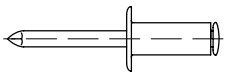
RoHS ✓ REACh SVHC free

rivet ∅ x rivet length					
3,2	x	6	S	500	25,00
3,2	x	8	S	500	26,50
3,2	x	10	S	500	27,00
4	x	6	S	500	32,50
4	x	8	S	500	34,00
4	x	10	S	500	37,00
4	x	12	S	500	39,00
4,8	x	8	S	500	53,00
4,8	x	10	S	500	56,00
4,8	x	12	S	500	59,00
4,8	x	16	S	500	67,00
4,8	x	20	S	500	76,00
6,4	x	12	S	250	93,00
6,4	x	16	S	250	112,00
6,4	x	18	S	250	118,00

Dimensions | PU Pieces | €/100/Mat.

article 88405.000 4950

88405 Rivet A 2 mandrel steel, ZP A



Open-end blind rivets with break pull mandrel, ~DIN 7337, A = protruding head

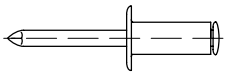
Product information → TI-206

RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length					
3	x	6	S	500	11,20
3	x	8	S	500	12,50
3	x	10	S	500	13,80
3,2	x	6	S	500	11,50
3,2	x	8	S	500	12,90
4	x	6	S	500	13,40
4	x	8	S	500	15,20
4	x	10	S	500	16,70
4	x	12	S	500	18,20
4	x	16	S	500	22,40
5	x	8	S	500	22,40
5	x	10	S	500	24,40
5	x	12	S	500	26,50

article 88406.000 4950

88406 Rivet copper mandrel steel, ZP A



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 16582, A = protruding head

Product information → TI-206

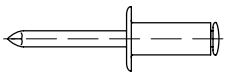
RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length					
3	x	4	S	500	5,00
3	x	6	S	500	5,10
3	x	8	S	500	6,10
3	x	10	S	500	6,50
3	x	12	S	500	6,70
4	x	6	S	500	8,20
4	x	8	S	500	9,00
4	x	10	S	500	9,80
4	x	12	S	500	10,70

Dimensions | PU Pieces | €/100/Mat.

article 88407.000 4950

88407 Rivet copper mandrel bronze A



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 16582, A = protruding head

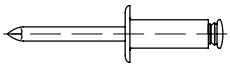
Product information → TI-206 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3	x	4	S	500	9,70
3	x	6	S	500	9,90
3	x	8	S	500	10,90
3	x	10	S	500	11,30
3	x	12	S	500	18,70
4	x	6	S	500	14,90
4	x	8	S	500	15,80
4	x	10	S	500	16,70
4	x	12	S	500	17,50

article 88408.000 4950

88408 Rivet plastic* mandrel plastic* A



Open-end blind rivets with break pull mandrel, A = protruding head

*plastic PA 6.6

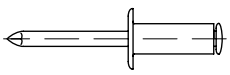
Product information → TI-207

rivet ∅ x rivet length					
4	x	8	S	500	16,30
4	x	12	S	500	16,30
5	x	8	S	500	20,70
5	x	12	S	500	20,70
6	x	12	S	250	24,80

Dimensions | PU Pieces | €/100/Mat.

article 88417.004 4950

88417 Rivet Al mandrel steel, ZP A white



Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15977, A = protruding head, painted white

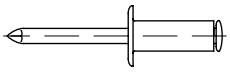
Product information → TI-206 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3	x	8	S	500	6,70
4	x	8	S	500	8,00
4	x	10	S	500	8,30
4	x	12	S	500	9,30
5	x	12	S	500	11,40

article 88417.006 4950

88417 Rivet Al mandrel steel, ZP A black



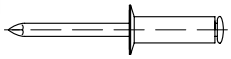
Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15977, A = protruding head, painted black

Product information → TI-206 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3	x	6	S	500	6,20
3	x	8	S	500	6,70
4	x	6	S	500	7,70
4	x	8	S	500	8,00
4	x	10	S	500	8,30
4	x	12	S	500	9,30
5	x	10	S	500	10,80
5	x	12	S	500	11,40

Dimensions			PU	Pieces	€/100/Mat.
article	88411.000				4950
88411	**Rivet steel, ZP** **mandrel steel, ZP**				**B**



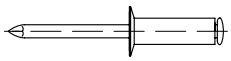
Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15980, B = countersunk head 120°

Product information → TI-208

RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length					
3	x	6	S	500	5,30
3	x	8	S	500	6,20
3	x	10	S	500	7,70
3	x	12	S	500	8,90
4	x	6	S	500	6,70
4	x	8	S	500	7,30
4	x	10	S	500	8,90
4	x	12	S	500	10,00
4	x	16	S	500	12,90
5	x	8	S	500	9,50
5	x	10	S	500	11,20
5	x	12	S	500	12,40
5	x	14	S	500	13,40
5	x	16	S	500	14,90
5	x	20	S	250	17,70
5	x	25	S	250	21,50

Dimensions			PU	Pieces	€/100/Mat.
article	88412.000				4950
88412	**Rivet Al** **mandrel steel, ZP**				**B**



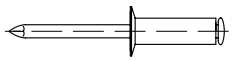
Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15978, B = countersunk head 120°

Product information → TI-208 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3	x	6	S	500	3,95
3	x	8	S	500	4,45
3	x	10	S	500	4,75
3	x	12	S	500	5,40
3	x	16	S	500	7,00
4	x	6	S	500	4,50
4	x	8	S	500	4,85
4	x	10	S	500	5,50
4	x	12	S	500	6,10
4	x	16	S	500	7,80
4	x	18	S	500	8,40
4	x	20	S	500	9,20
5	x	8	S	500	7,00
5	x	10	S	500	7,40
5	x	12	S	500	7,90
5	x	16	S	500	9,80
5	x	18	S	500	11,50
5	x	20	S	250	13,00
5	x	25	S	250	14,70
5	x	30	S	100	16,70
5	x	35	S	100	19,50

Dimensions			PU	Pieces	€/100/Mat.
article	88411.920				4950
88411	**Rivet A 2** **mandrel A 2**				**B**



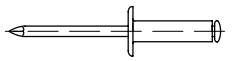
Open-end blind rivets with break pull mandrel, ~DIN 7337/ISO 15984, B = countersunk head 120°

Product information → TI-208

RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length					
B 4	x	8	S	500	44,00
B 4	x	10	S	500	47,50
B 4	x	12	S	500	54,00
B 5	x	8	S	500	54,00
B 5	x	10	S	500	57,00
B 5	x	12	S	500	63,00
B 5	x	16	S	500	68,00

Dimensions			PU	Pieces	€/100/Mat.
article	88409.004				4950
88409	**Rivet Al** **mandrel steel, ZP**				**C-K 9,5**



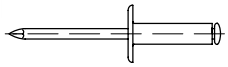
Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (∅ = 9,5)

Product information → TI-207 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
3,2	x	6	S	500	5,40
3,2	x	8	S	500	5,70
3,2	x	10	S	500	6,70
3,2	x	12	S	500	7,20
3,2	x	16	S	500	7,90

Dimensions			PU	Pieces	€/100/Mat.
article	88409.005				4950
88409	**Rivet Al** **mandrel steel, ZP**				**C-K 11**



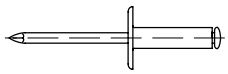
Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (∅ = 11)

Product information → TI-207 REACH → TI-262

RoHS ✓

rivet ∅ x rivet length					
5	x	8	S	500	7,00
5	x	10	S	500	7,40
5	x	12	S	500	7,90
5	x	14	S	500	8,90
5	x	16	S	500	9,90
5	x	18	S	500	11,80
5	x	20	S	250	13,30
5	x	25	S	250	14,90
5	x	30	S	100	16,90

Dimensions			PU	Pieces	€/100/Mat.
article	88409.006				4950
88409	**Rivet Al** **mandrel steel, ZP**				**C-K 12**



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (∅ = 12)

Product information → TI-207 REACH → TI-262

RoHS ✓

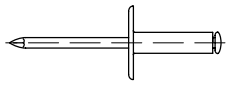
rivet ∅ x rivet length					
4	x	6	S	500	6,50
4	x	8	S	500	7,30
4	x	10	S	500	8,00
4	x	12	S	500	8,40
4	x	16	S	500	9,90
4	x	20	S	500	11,40

€/100 = price in € plus VAT when ordering full package unit

Dimensions | PU Pieces | €/100/Mat.

article 88409.007 4950

88409 Rivet Al mandrel steel, ZP C-K 14



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 14)

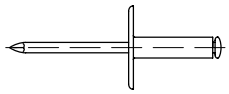
Product information → TI-207 REACH → TI-262

RoHS ✓

rivet Ø x rivet length					
5	x	8	S	250	8,30
5	x	10	S	250	9,20
5	x	12	S	250	10,00
5	x	14	S	250	10,70
5	x	16	S	250	11,40
5	x	18	S	250	12,50
5	x	20	S	250	13,90
5	x	25	S	250	16,70
5	x	30	S	100	18,30

article 88409.008 4950

88409 Rivet Al mandrel steel, ZP C-K 16



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 16)

Product information → TI-207 REACH → TI-262

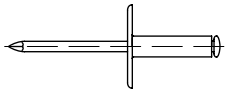
RoHS ✓

rivet Ø x rivet length					
4,8	x	8	S	250	9,50
4,8	x	10	S	250	10,20
4,8	x	12	S	250	11,20
4,8	x	16	S	250	12,70
4,8	x	20	S	250	14,80
4,8	x	25	S	250	17,20

Dimensions | PU Pieces | €/100/Mat.

article 88413.005 4950

88413 Rivet steel, ZP mandrel steel, ZP C-K 16



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 16)

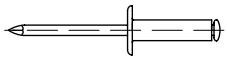
Product information → TI-207

RoHS ✓

rivet Ø x rivet length					
4,8	x	10,3	S	250	18,30
4,8	x	13,5	S	250	19,80
4,8	x	16,7	S	250	22,50
4,8	x	19,9	S	250	27,50

article 88414.004 4950

88414 Rivet Al mandrel Al C-K 9,5



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 9,5)

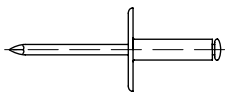
Product information → TI-207 REACH → TI-262

RoHS ✓

rivet Ø x rivet length					
3,2	x	6,1	S	500	9,30
3,2	x	9,2	S	500	9,40
3,2	x	12,3	S	500	11,50

article 88414.005 4950

88414 Rivet Al mandrel Al C-K 16



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 16)

Product information → TI-207 REACH → TI-262

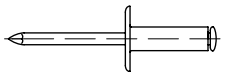
RoHS ✓

rivet Ø x rivet length					
4,8	x	10,3	S	250	19,00
4,8	x	13,5	S	250	20,70
4,8	x	19,9	S	250	38,00
4,8	x	23	S	250	44,00

Dimensions | PU Pieces | €/100/Mat.

article 88416.004 4950

88416 Rivet Al mandrel A 2 C-K 11



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 11)

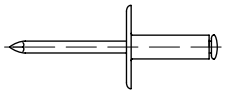
Product information → TI-207 REACH → TI-262

RoHS ✓

rivet Ø x rivet length					
5	x	10	S	500	13,50
5	x	12	S	500	14,50
5	x	16	S	500	15,80
5	x	20	S	250	20,80

article 88416.005 4950

88416 Rivet Al mandrel A 2 C-K 14



Open-end blind rivets with break pull mandrel, ~DIN 7337, C = large protruding head (Ø = 14)

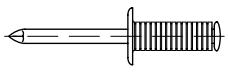
Product information → TI-207 REACH → TI-262

RoHS ✓

rivet Ø x rivet length					
5	x	10	S	250	15,70
5	x	12	S	250	16,70
5	x	16	S	250	18,50
5	x	20	S	250	21,90

article 88419.000 4950

88419 Rivet Al mandrel steel, ZP G-F



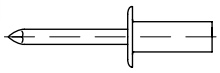
Open-end blind rivets with break pull mandrel, F = protruding head G = grooved for blind hole rivetting

Product information → TI-208 REACH → TI-262

RoHS ✓

rivet Ø x rivet length					
3,2	x	10	S	500	5,70
3,2	x	16	S	500	7,90
4	x	8	S	500	5,70
4	x	12	S	500	7,00
4	x	16	S	500	8,40

Dimensions	PU	Pieces	€/100/Mat.
article	88420.004		4950
88420	**Rivet Al mandrel steel***		**CAP- F**



Closed-end blind rivets with break pull mandrel, ISO 15973, F = protruding head

CAP = closed for air- and water-tight riveting
*phosphated

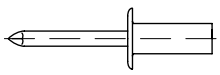
Product information ➔ TI-208 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length

3,2	x	6,5	S	500	6,70
3,2	x	8	S	500	6,80
3,2	x	9,5	S	500	6,80
3,2	x	10,5	S	500	7,40
3,2	x	12,5	S	500	7,80
4	x	8	S	500	8,20
4	x	9,5	S	500	8,30
4	x	11	S	500	9,00
4	x	12,5	S	500	9,40
4,8	x	8	S	500	9,40
4,8	x	9,5	S	500	9,50
4,8	x	11	S	500	9,80
4,8	x	12,5	S	500	9,80
4,8	x	14	S	500	10,70
4,8	x	16	S	500	10,90
4,8	x	18	S	500	11,40
4,8	x	21	S	250	14,50

article	88420.005	4950
88420	**Rivet Al mandrel A 2**	**CAP- F**



Closed-end blind rivets with break pull mandrel, F = protruding head

CAP = closed for air- and water-tight rivetting

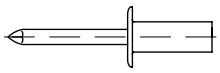
Product information ➔ TI-208 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length

3,2	x	6,5	S	500	11,00
3,2	x	8	S	500	11,30
3,2	x	9,5	S	500	11,80
3,2	x	10,5	S	500	12,00
3,2	x	12,5	S	500	12,50
4	x	8	S	500	15,40
4	x	9,5	S	500	15,80
4	x	11	S	500	16,00
4	x	12,5	S	500	17,50
4,8	x	8	S	500	16,30
4,8	x	9,5	S	500	17,70
4,8	x	11	S	500	18,80
4,8	x	12,5	S	500	19,30
4,8	x	14	S	500	20,50
4,8	x	16	S	500	21,70
4,8	x	18	S	500	22,30
4,8	x	21	S	250	24,00

article	88420.007	4950
88420	**Rivet copper mandrel A 2**	**CAP- F**



Closed-end blind rivets with break pull mandrel, F = protruding head

CAP = closed for air- and water-tight rivetting

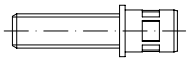
Product information ➔ TI-208 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length

3,2	x	6	S	500	14,90
3,2	x	9	S	500	16,30

article	88421.000	4950
88421	**Rivet steel, ZP mandrel steel, ZP**	**M**



Open-end blind rivet with break pull mandrel, M = with connection thread M

property class bolt = 8.8

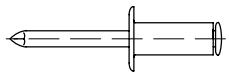
Product information ➔ TI-209

RoHS ✓ REACh SVHC free

thread M x length / rivet ∅ x length

M 4	x 10	/ 6	x 11	S	200	58,00
M 5	x 11,5	/ 7	x 11,5	S	150	63,00
M 6	x 13	/ 9	x 15,5	S	150	73,00
M 8	x 15,5	/ 11	x 17	S	100	92,00

Dimensions	PU	Pieces	€/100/Mat.
article	88422.000		4950
88422	**Rivet Al mandrel steel, ZP**		**SS-F**



Open-end blind rivet with break pull mandrel, F = protruding head, SS = with peel rivet body

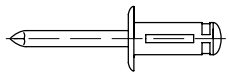
Product information ➔ TI-209 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length

3,2	x	10	S	500	5,90
3,2	x	12	S	500	7,70
3,2	x	16	S	500	9,40
4	x	8	S	500	5,90
4	x	10	S	500	6,20
4	x	12	S	500	7,50
4	x	14	S	500	7,80
4	x	16	S	500	8,30
4	x	18	S	500	9,50
4	x	20	S	500	12,80
4,8	x	10	S	500	9,30
4,8	x	12	S	500	9,70
4,8	x	14	S	250	10,00
4,8	x	16	S	250	10,70
4,8	x	18	S	250	11,40
4,8	x	20	S	250	14,00
4,8	x	25	S	250	16,90

article	88488.700	4950
88488	**Rivet Al mandrel Al**	**TRI-FOLD**



Open-end blind rivets with break pull mandrel, F = protruding head
TRI-FOLD = recessed crown for soft materials

press plate rivet for soft materials

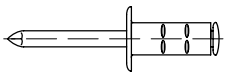
Product information ➔ TI-211 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length

4,8	x	22,2	S	250	33,50
4,8	x	25,4	S	250	35,50

Dimensions	PU	Pieces	€/100/Mat.
article	88474.010		4950
88474	**Rivet steel, ZP mandrel steel, ZP**		**MG-A**



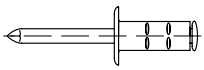
Open-end blind rivets with break pull mandrel, A = protruding head MG = multigrip rivet body

Product information ➔ TI-209

RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length				
3,2	x 8	S	1000	6,50
3,2	x 9,5	S	1000	7,70
3,2	x 11	S	1000	8,70
4	x 10	S	500	8,80
4	x 13	S	500	10,90
4	x 17	S	500	14,40
4,8	x 10	S	500	10,90
4,8	x 15	S	500	13,80
4,8	x 17	S	500	15,00

Dimensions	PU	Pieces	€/100/Mat.
article	88474.004		4950
88474	**Rivet Al mandrel steel, ZP**		**MG-A**



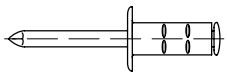
Open-end blind rivets with break pull mandrel, A = protruding head MG = multigrip rivet body

Product information ➔ TI-209 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length				
3,2	x 8	S	1000	4,65
3,2	x 9,5	S	1000	4,90
3,2	x 11	S	1000	5,40
4	x 10	S	500	5,90
4	x 13	S	500	6,80
4	x 17	S	500	8,30
4,8	x 10	S	500	7,30
4,8	x 15	S	500	9,40
4,8	x 17	S	500	10,80

Dimensions	PU	Pieces	€/100/Mat.
article	88474.704		4950
88474	**Rivet Al mandrel A 2**		**MG-A**



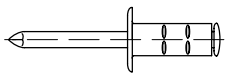
Open-end blind rivets with break pull mandrel, A = protruding head MG = multigrip rivet body

Product information ➔ TI-209 REACH ➔ TI-262

RoHS ✓

rivet ∅ x rivet length				
3,2	x 8	S	1000	7,70
3,2	x 9,5	S	1000	7,90
3,2	x 11	S	1000	8,40
4	x 10	S	500	9,50
4	x 13	S	500	10,90
4	x 17	S	500	12,40
4,8	x 10	S	500	14,20
4,8	x 15	S	500	16,00
4,8	x 17	S	500	17,70
4,8	x 25	S	250	24,50
4,8	x 30	S	250	27,00

Dimensions	PU	Pieces	€/100/Mat.
article	88474.920		4950
88474	**Rivet A 2 mandrel A 2**		**MG-A**



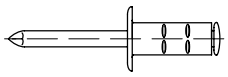
Open-end blind rivets with break pull mandrel, A = protruding head MG = multigrip rivet body

Product information ➔ TI-209

RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length				
3,2	x 8	S	1000	21,30
3,2	x 9,5	S	1000	24,40
3,2	x 11	S	1000	30,50
4	x 10	S	500	31,00
4	x 13	S	500	39,00
4	x 17	S	500	44,00
4,8	x 10	S	500	45,00
4,8	x 15	S	500	52,00
4,8	x 17	S	500	56,00
6,4	x 13	S	250	64,00
6,4	x 15	S	250	67,00
6,4	x 20	S	200	74,00

Dimensions	PU	Pieces	€/100/Mat.
article	88474.940		4950
88474	**Rivet A 4 mandrel A 4**		**MG-A**



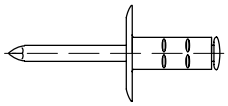
Open-end blind rivets with break pull mandrel, A = protruding head MG = multigrip rivet body

Product information ➔ TI-209

RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length				
3,2	x 11	S	1000	37,00
4	x 10	S	500	37,00
4,8	x 10	S	500	50,00
4,8	x 15	S	500	59,00

Dimensions	PU	Pieces	€/100/Mat.
article	88475.010		4950
88475	**Rivet steel, ZP mandrel steel**		**MG-CK**



Open-end blind rivets with break pull mandrel, CK = large protruding head MG = multigrip rivet body

Product information ➔ TI-210

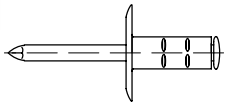
RoHS ✓ | REACh SVHC free

rivet ∅ x rivet length - head ∅					
3,2	x 8	K 9,5	S	1000	7,50
3,2	x 9,5	K 9,5	S	1000	9,20
3,2	x 11	K 9,5	S	1000	10,20
4	x 10	K 12	S	500	10,50
4	x 13	K 12	S	500	13,00
4	x 17	K 12	S	500	17,20
4,8	x 10	K 16	S	250	13,00
4,8	x 15	K 16	S	250	16,50
4,8	x 17	K 16	S	250	18,50

Dimensions | PU Pieces | €/100/Mat.

article 88475.004 | 4950

88475 Rivet Al mandrel steel, ZP MG-CK



Open-end blind rivets with break pull mandrel, CK = large protruding head MG = multigrip rivet body

Product information → TI-210 REACH → TI-262

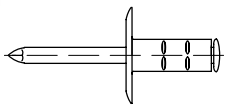
RoHS ✓

rivet ∅ x rivet length - head ∅

3,2	x 8	K 9,5	S	1000	6,20
3,2	x 9,5	K 9,5	S	1000	6,80
3,2	x 11	K 9,5	S	1000	7,40
4	x 10	K12	S	500	8,70
4	x 13	K12	S	500	9,40
4	x 17	K12	S	500	11,00
4,8	x 10	K16	S	250	10,70
4,8	x 15	K16	S	250	13,00
4,8	x 17	K16	S	250	13,80

article 88475.704 | 4950

88475 Rivet Al mandrel A 2 MG-CK



Open-end blind rivets with break pull mandrel, CK = large protruding head MG = multigrip rivet body

Product information → TI-210 REACH → TI-262

RoHS ✓

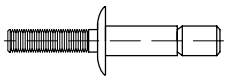
rivet ∅ x rivet length - head ∅

3,2	x 8	K 9,5	S	1000	9,30
3,2	x 9,5	K 9,5	S	1000	10,00
3,2	x 11	K 9,5	S	1000	10,80
4	x 13	K12	S	500	14,20
4	x 17	K12	S	500	15,70
4,8	x 10	K16	S	250	16,50
4,8	x 15	K16	S	250	19,20
4,8	x 17	K16	S	250	20,90
4,8	x 25	K16	S	100	26,00
4,8	x 30	K16	S	100	29,50

Dimensions | PU Pieces | €/100/Mat.

article 88476.010 | 4950

88476 Rivet steel, ZP mandrel steel , YZP MEGA-F



Open-end blind rivets with break pull mandrel, F = protruding head MEGA = for high strength rivet ass.

Product information → TI-210

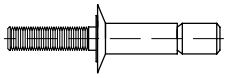
RoHS ✓ REACh SVHC free

rivet ∅ x rivet length

4,8	x 10,5	S	500	35,00
4,8	x 14	S	250	37,00
6,4	x 14,1	S	200	48,00
6,4	x 20,5	S	100	63,00

article 88477.010 | 4950

88477 Rivet steel, ZP mandrel steel, YZP MEGA-S



Open-end blind rivets with break pull mandrel, S = countersunk head 97° MEGA = for high strength rivet ass.

Product information → TI-210

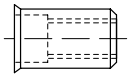
RoHS ✓ REACh SVHC free

rivet ∅ x rivet length

4,8	x 10,5	S	5000	46,00
4,8	x 14,5	S	2500	47,50
6,4	x 14,1	S	2000	63,00

article 88418.010 | 4950

88418 Steel zinc plated S small



Blind rivet nuts, round, open-end, S small = small countersunk head 90°

Product information → TI-212

RoHS ✓ REACh SVHC free

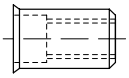
internal thread M / min.-max. clamping range

M 4 / 0,25-3,0	S	500	33,50
M 5 / 0,25-3,0	S	500	34,00
M 6 / 0,25-3,5	S	250	45,00
M 8 / 0,25-3,5	S	100	63,00

Dimensions | PU Pieces | €/100/Mat.

article 88418.700 | 4950

88418 Aluminium S small



Blind rivet nuts, round, open-end, S small = small countersunk head 90°

Product information → TI-212 REACH → TI-262

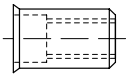
RoHS ✓

internal thread M / min.-max. clamping range

M 4 / 0,5 -3,0	S	500	24,80
M 5 / 0,5 -3,0	S	500	27,50
M 6 / 0,5 -3,5	S	250	40,00
M 8 / 0,5 -3,5	S	100	57,00

article 88418.920 | 4950

88418 A 2 (1.4567) S small



Blind rivet nuts, round, open-end, S small = small countersunk head 90°

Product information → TI-212

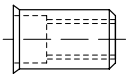
RoHS ✓ REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,25-3,0	S	500	128,00
M 5 / 0,25-3,0	S	500	138,00
M 6 / 0,25-3,5	S	250	211,00
M 8 / 0,25-3,5	S	100	280,00

article 88418.940 | 4950

88418 A 4 S small



Blind rivet nuts, round, open-end, S small = small countersunk head 90°

Product information → TI-212

RoHS ✓ REACh SVHC free

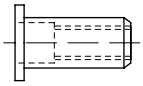
internal thread M / min.-max. clamping range

M 4 / 0,25 - 3,0	S	500	39,50
M 5 / 0,25 - 3,0	S	500	42,00
M 6 / 0,25 - 3,5	S	250	53,00
M 8 / 0,25 - 3,5	S	100	76,00

Dimensions | PU Pieces | €/100/Mat.

article 88423.010 4950

88423 Steel zinc plated F



Blind rivet nuts, round, open-end, F = protruding head

Product information → TI-213

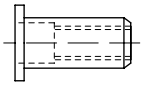
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,25-3,0	S	500	30,00
M 4 / 2,5 -4,5	S	500	32,00
M 5 / 0,25-3,0	S	500	34,00
M 5 / 2,5 -5,0	S	500	37,00
M 6 / 0,25-3,5	S	250	47,50
M 6 / 3,0 -5,5	S	250	51,00
M 8 / 0,25-3,5	S	100	64,00
M 8 / 3,0 -6,0	S	100	67,00
M10 / 0,25-3,5	S	100	77,00
M10 / 3,0 -6,0	S	100	78,00

article 88423.700 4950

88423 Aluminium F



Blind rivet nuts, round, open-end, F = protruding head

Product information → TI-213 REACH → TI-262

RoHS ✓

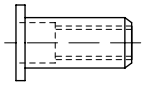
internal thread M / min.-max. clamping range

M 4 / 0,25-3,0	S	500	16,80
M 4 / 2,5 -4,5	S	500	17,80
M 5 / 0,25-3,0	S	500	18,90
M 5 / 2,5 -5,0	S	500	19,80
M 6 / 0,25-3,5	S	250	30,50
M 6 / 3,0 -5,5	S	250	32,50
M 8 / 0,25-3,5	S	100	40,00
M 8 / 3,0 -6,0	S	100	41,00
M 10 / 0,25-3,5	S	100	57,00
M 10 / 3,0 -6,0	S	100	58,00

Dimensions | PU Pieces | €/100/Mat.

article 88423.920 4950

88423 A 2 (1.4567) F



Blind rivet nuts, round, open-end, F = protruding head

Product information → TI-213

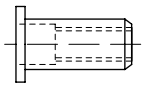
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,25-3,0	S	500	128,00
M 4 / 2,5 -4,0	S	500	131,00
M 5 / 0,25-3,0	S	500	138,00
M 5 / 2,5 -4,5	S	500	142,00
M 6 / 0,25-3,5	S	250	211,00
M 6 / 3,0 -5,5	S	250	217,00
M 8 / 0,25-3,5	S	100	280,00
M 8 / 3,0 -6,0	S	100	290,00

article 88423.940 4950

88423 A 4 F



Blind rivet nuts, round, open-end, F = protruding head

Product information → TI-213

RoHS ✓ | REACh SVHC free

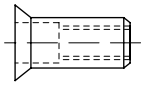
internal thread M / min.-max. clamping range

M 4 / 0,25 - 3,0	S	500	41,00
M 4 / 2,5 - 4,0	S	500	41,50
M 5 / 0,25 - 3,0	S	500	43,50
M 5 / 2,5 - 4,5	S	500	46,00
M 6 / 0,25 - 3,5	S	250	58,00
M 6 / 3,0 - 5,5	S	250	59,00
M 8 / 0,25 - 3,5	S	100	82,00
M 8 / 3,0 - 6,0	S	100	87,00

Dimensions | PU Pieces | €/100/Mat.

article 88424.010 4950

88424 Steel zinc plated S



Blind rivet nuts, round, open-end, S = countersunk head 90°

Product information → TI-213

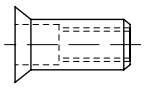
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 1,5 -3,5	S	500	33,50
M 5 / 1,5 -3,5	S	500	39,00
M 5 / 3,5 -6,0	S	500	41,00
M 6 / 1,5 -4,5	S	250	54,00
M 6 / 4,0 -6,5	S	250	57,00
M 8 / 1,5 -4,5	S	100	68,00
M 8 / 4,0 -6,5	S	100	76,00
M10 / 1,5 -4,5	S	100	87,00
M10 / 4,0 -6,5	S	100	88,00

article 88424.700 4950

88424 Aluminium S



Blind rivet nuts, round, open-end, S = countersunk head 90°

Product information → TI-213 REACH → TI-262

RoHS ✓

internal thread M / min.-max. clamping range

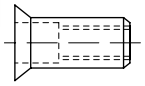
M 4 / 1,5 -3,5	S	500	19,20
M 5 / 1,5 -4,0	S	500	21,70
M 5 / 3,5 -6,0	S	500	23,00
M 6 / 1,5 -4,5	S	250	35,00
M 6 / 4,0 -6,5	S	250	37,00
M 8 / 1,5 -4,5	S	100	45,00
M 8 / 4,0 -6,5	S	100	46,00
M10 / 1,5 -4,5	S	100	64,00
M10 / 4,0 -6,5	S	100	66,00

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Dimensions	PU Pieces	€/100/Mat.
article	88424.920	4950
88424	**A 2 (1.4567)**	**S**



Blind rivet nuts, round, open-end, S = countersunk head 90°

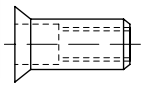
Product information ➔ TI-213

RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 1,5 -3,0	S	500	128,00
M 4 / 2,5 -4,0	S	500	131,00
M 5 / 1,5 -4,0	S	500	138,00
M 5 / 3,5 -6,0	S	500	142,00
M 6 / 1,5 -4,5	S	250	211,00
M 6 / 4,0 -6,0	S	250	217,00
M 8 / 1,5 -4,5	S	100	280,00
M 8 / 4,0 -6,0	S	100	290,00

Dimensions	PU Pieces	€/100/Mat.
article	88424.940	4950
88424	**A 4**	**S**



Blind rivet nuts, round, open-end, S = countersunk head 90°

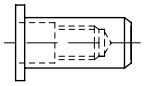
Product information ➔ TI-213

RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 1,5 - 3,0	S	500	41,00
M 4 / 2,5 - 4,0	S	500	41,50
M 5 / 1,5 - 4,0	S	500	44,50
M 5 / 3,5 - 6,0	S	500	46,50
M 6 / 1,5 - 4,5	S	250	56,00
M 6 / 4,0 - 6,0	S	250	57,00
M 8 / 1,5 - 4,5	S	100	81,00
M 8 / 4,0 - 6,0	S	100	82,00

Dimensions	PU Pieces	€/100/Mat.
article	88480.010	4950
88480	**Steel zinc plated**	**F**



Blind rivet nuts, round, closed-end, for air- and water-tight rivetting, F = protruding head

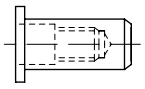
Product information ➔ TI-213

RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 5 / 0,5 -3,0	S	500	42,00
M 5 / 3,0 -5,5	S	500	46,50
M 6 / 0,5 -3,0	S	500	56,00
M 6 / 2,5 -5,5	S	500	59,00
M 8 / 0,5 -3,5	S	200	78,00
M 8 / 3,0 -6,0	S	200	84,00

Dimensions	PU Pieces	€/100/Mat.
article	88480.700	4950
88480	**Aluminium**	**F**



Blind rivet nuts, round, closed-end, for air- and water-tight rivetting, F = protruding head

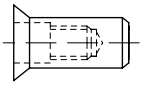
Product information ➔ TI-213 REACH ➔ TI-262

RoHS ✓

internal thread M / min.-max. clamping range

M 5 / 3,0 -4,0	S	500	23,70
M 6 / 0,5 -3,0	S	500	36,00
M 6 / 3,0 -4,5	S	500	37,50
M 8 / 0,3 -3,0	S	250	49,00
M 8 / 3,0 -5,5	S	250	58,00

Dimensions	PU Pieces	€/100/Mat.
article	88481.010	4950
88481	**Steel zinc plated**	**S**



Blind rivet nuts, closed-end, for air- and water-tight rivetting, S = countersunk head 90°

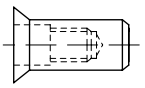
Product information ➔ TI-213

RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 1,5 -3,5	S	500	39,50
M 5 / 1,5 -4,0	S	500	45,00
M 6 / 1,5 -4,5	S	500	59,00
M 8 / 1,5 -4,5	S	250	82,00
M 8 / 4,5 -6,0	S	250	84,00

article	88481.700	4950
88481	**Aluminium**	**S**



Blind rivet nuts, closed-end, for air- and water-tight rivetting, S = countersunk head 90°

Product information ➔ TI-213 REACH ➔ TI-262

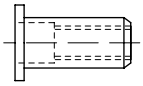
RoHS ✓

internal thread M / min.-max. clamping range

M 5 / 1,5 -4,0	S	500	25,00
M 6 / 1,5 -4,5	S	500	36,00
M 8 / 1,5 -4,5	S	500	51,00

Dimensions	PU	Pieces	€/100/Mat.
article	88490.010		4950

88490 Steel zinc plated **MG-F**



Blind rivet nuts, round, open-end,
MG = with multigrip rivet body
F = protruding head

Product information ➔ TI-213

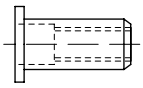
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,5 - 6,0	S	500	26,50
M 5 / 0,5 - 6,0	S	500	32,00
M 6 / 0,5 - 6,0	S	500	43,50
M 8 / 0,5 - 7,5	S	500	57,00

article	88490.700	4950

88490 Al-alloy **MG-F**



Blind rivet nuts, round, open-end,
MG = with multigrip rivet body
F = protruding head

Product information ➔ TI-213 REACH ➔ TI-262

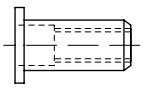
RoHS ✓

internal thread M / min.-max. clamping range

M 4 / 0,5 - 6,0	S	500	15,50
M 5 / 0,5 - 6,0	S	500	17,90
M 6 / 0,5 - 6,0	S	500	28,00
M 8 / 0,5 - 7,5	S	500	36,00

article	88490.920	4950

88490 A 2 **MG-F**



Blind rivet nuts, round, open-end,
MG = with multigrip rivet body
F = protruding head

Product information ➔ TI-213

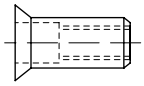
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 5 / 0,5 - 5,0	S	500	49,00
M 6 / 0,5 - 6,0	S	250	64,00
M 8 / 0,5 - 6,5	S	100	79,00

Dimensions	PU	Pieces	€/100/Mat.
article	88491.010		4950

88491 Steel zinc plated **MG-S**



Blind rivet nuts, round, open-end,
MG = with multigrip rivet body
S = countersunk head 90°

Product information ➔ TI-213

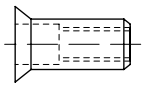
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 1,5 - 6,0	S	500	27,00
M 5 / 1,5 - 6,0	S	500	32,00
M 6 / 1,5 - 6,0	S	500	44,00
M 8 / 1,5 - 7,5	S	500	57,00

article	88491.700	4950

88491 Al-alloy **MG-S**



Blind rivet nuts, round, open-end,
MG = with multigrip rivet body
S = countersunk head 90°

Product information ➔ TI-213 REACH ➔ TI-262

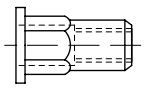
RoHS ✓

internal thread M / min.-max. clamping range

M 4 / 1,5 - 6,0	S	500	16,20
M 5 / 1,5 - 6,0	S	500	18,30
M 6 / 1,5 - 6,0	S	500	28,00
M 8 / 1,5 - 7,5	S	500	36,50

article	88483.010	4950

88483 Steel zinc plated **hex. F**



Blind rivet nuts, hexagon, open-end,
F = protruding head
with partially hexagon

Product information ➔ TI-214

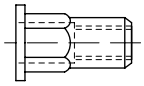
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,5 -2,0	S	500	26,50
M 5 / 0,5 -3,5	S	500	30,50
M 6 / 0,5 -3,5	S	250	44,00
M 8 / 0,5 -3,5	S	100	56,00

Dimensions	PU	Pieces	€/100/Mat.
article	88483.920		4950

88483 A 2 **hex. F**



Blind rivet nuts, hexagon, open-end,
F = protruding head
with partially hexagon

Product information ➔ TI-214

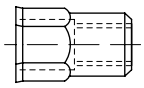
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,5 -2,0	S	500	59,00
M 5 / 0,5 - 3,0	S	500	64,00
M 6 / 0,5 - 3,0	S	500	77,00
M 8 / 0,5 - 3,0	S	250	113,00
M10 / 1,0 - 3,5	S	200	212,00

article	88484.010	4950

88484 Steel zinc plated **hex. S small**



Blind rivet nuts, hexagon, open-end,
S small = small countersunk head
with partially hexagon

Product information ➔ TI-214

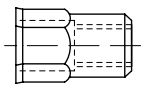
RoHS ✓ | REACh SVHC free

internal thread M / min.-max. clamping range

M 4 / 0,5 -2,0	S	500	27,50
M 5 / 0,5 -3,0	S	500	31,50
M 6 / 0,5 -3,0	S	250	44,00
M 8 / 0,5 -3,0	S	100	56,00

article	88484.920	4950

88484 A 2 **hex. S small**



Blind rivet nuts, hexagon, open-end,
S small = small countersunk head
with partially hexagon

Product information ➔ TI-214

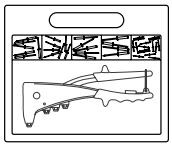
RoHS ✓ | REACh SVHC free

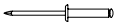
internal thread M / min.-max. clamping range

M 4 / 0,5 -2,0	S	500	57,00
M 5 / 0,5 -3,0	S	500	62,00

Dimensions	PU	Pieces	€/100/Mat.
M 6 / 0,5 -3,0	S	500	74,00
M 8 / 0,5 -3,0	S	250	101,00
M 10 / 1,0 -3,5	S	200	198,00

article	88441.000	4951
88441	**assortment w. hand rivet tool**	**BZ 2**





VVG-blind rivets assortment BZ 2
- **ALFO alu / steel**
- **ALFO alu / stainless steel**
- **OPTO alu / steel**

Content: 1 hand rivet tool incl. jaw wrench, additional clamping jaws, each 1 pc. drill 3,1 mm and 4,1 mm and blind rivets with flat head

* 350 pieces
** 350 pieces
*** 300 pieces

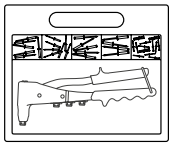
plastic box with accessories and instructions

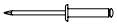
RoHS ✓

available from manufacturer's stock

BZ 2 ALFO alu/steel	S	1	7100,00
BZ 2 ALFO alu/stainless	S	1	7800,00
BZ 2 OPTO alu/steel	S	1	7500,00

article	88441.001	4951
88441	**assortment w. hand rivet tool**	**BZ 44**





VVG-blind rivets assortment BZ 44
- **ALFO alu / steel**
- **light construction**
- **CERTO alu / steel**

Content: 1 hand rivet tool incl. jaw wrench, additional clamping jaws, each 1 pc. drill 3,1 mm and 4,1 mm and 350 blind rivets with flat head

* 350 pieces
** 260 pieces
*** 300 pieces

plastic box with accessories and instructions

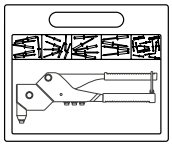
RoHS ✓

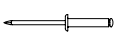
available from manufacturer's stock

BZ 44 ALFO alu/steel	S	1	7900,00
BZ 44 ALFO lightweight	S	1	9000,00
BZ 44 CERTO alu/steel	S	1	8400,00

Dimensions	PU	Pieces	€/100/Mat.

article	88441.002	4951
88441	**assortment w. hand rivet tool**	**BZ 6**





VVG-blind rivets assortment BZ 6
- **OPTO alu / steel***
- **OPTO alu / stainless steel FACADE***
- **stainless steel*****

Content: 1 hand rivet tool incl. jaw wrench and blind rivets with flat head

* 350 pieces
** 170 pieces
*** 350 pieces

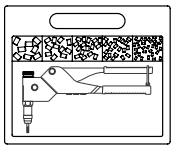
plastic box with accessories and instructions

RoHS ✓

available from manufacturer's stock

BZ 6 OPTO alu/steel	S	1	9700,00
BZ 6 OPTO alu/stainless	S	1	9200,00
BZ 6 stainless	S	1	12900,00

article	88441.003	4951
88441	**assortment w. hand rivet tool**	**VNG255**



VVG-blind rivets assortment VNG 255
- **CLASSIC***
- **BASIC****
- **OPTO*****

Content: 1 hand rivet tool incl. 1 conversation kit, 1 hex head wrench, 1 jaw wrench, blind rivet nuts with flat and countersunk head

* 125/25 pieces blind rivet nuts/ blind rivet bolts
** 450 pieces blind rivet nuts
*** 250 pieces blind rivet nuts

plastic box with accessories and instructions

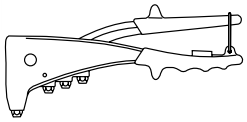
RoHS ✓

available from manufacturer's stock

VNG 255 Classic	S	1	8900,00
VNG 255 Basic	S	1	13600,00
VNG 255 OPTO	S	1	10300,00

Dimensions	PU	Pieces	€/100/Mat.

article	88440.001	4951
88440	**Steel**	**BZ 2**

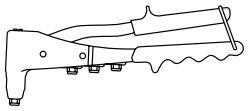


VVG-hand tool BZ 2 for blind rivets

available from manufacturer's stock

BZ 2	S	1	4050,00

article	88440.002	4951
88440	**Steel**	**BZ 44**

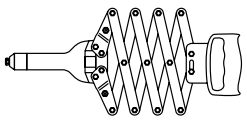


VVG-hand tool BZ 44 for blind rivets

available from manufacturer's stock

BZ 44	S	1	4450,00

article	88440.003	4951
88440	**Steel**	**BZ 58**

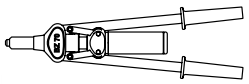


VVG-hand tool BZ 58 for blind rivets

available from manufacturer's stock

BZ 58	S	1	13300,00

article	88440.004	4951
88440	**Steel**	**BZ 70**

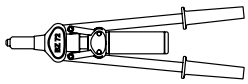


VVG-hand tool BZ 70 for blind rivets

available from manufacturer's stock

BZ 70	S	1	12900,00

Dimensions	PU	Pieces	€/100/Mat.
article	88440.005		4951
88440	**Steel**		**BZ 72**

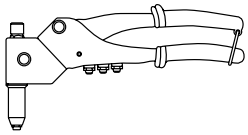


VVG-hand tool BZ 72
for blind rivets

available from manufacturer's stock

BZ 72	S	1	15900,00

Dimensions	PU	Pieces	€/100/Mat.
article	88440.006		4951
88440	**Steel**		**MULTI 1**

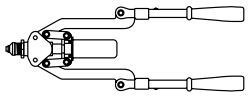


VVG-hand tool MULTI 1
for blind rivets, blind rivet nuts and threaded bolts

available from manufacturer's stock

MULTI 1	S	1	8800,00

Dimensions	PU	Pieces	€/100/Mat.
article	88440.007		4951
88440	**Steel**		**MULTI 5**

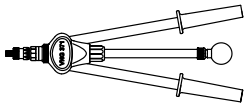


VVG-hand tool MULTI 5
for blind rivets, blind rivet nuts and threaded bolts

available from manufacturer's stock

MULTI 5	S	1	18600,00

Dimensions	PU	Pieces	€/100/Mat.
article	88440.008		4951
88440	**Steel**		**VNG 371**

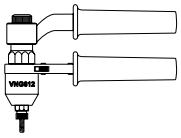


VVG-hand tool VNG 371
for blind rivet nuts and threaded bolts

available from manufacturer's stock

VNG 371	S	1	30300,00

Dimensions	PU	Pieces	€/100/Mat.
article	88440.009		4951
88440	**Steel**		**VNG 612**



VVG-hand tool VNG 612
for blind rivet nuts and threaded bolts

available from manufacturer's stock

VNG 612	S	1	31000,00

article	88443.001	4951
88443	**Battery**	**RivSmart**



VVG-battery-riveter RivSmart
for blind rivets

available from manufacturer's stock

.	S	1	105400,00

article	88443.002	4951
88443	**Battery**	**Rivdom ONE 16V**

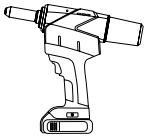


VVG-battery-riveter Rivdom ONE 16V
for blind rivets

available from manufacturer's stock

.	S	1	84300,00

Dimensions	PU	Pieces	€/100/Mat.
article	88443.003		4951
88443	**Battery**	**Rivdom TWO 20V**	



VVG-battery-riveter Rivdom TWO 20V
for blind rivets

available from manufacturer's stock

.	S	1	127500,00

article	88443.004	4951
88443	**Battery**	**Rivdom ZERO**



VVG-battery-riveter Rivdom ZERO
for blind rivets

available from manufacturer's stock

.	S	1	97300,00


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TECHNICAL INFORMATION (TI)



With the following Technical Information, or TI, we are living up to our reputation of supporting you with current information and customised solutions in everyday business.

In the following more than 260 pages, you will find all relevant information related to fastener and fixing technology. This, for example, includes measurement data sheets and tables with locking torque and pre-loading for assembly. Moreover, there is information on current anti-corrosive systems and new standardisation in the field of stainless steels. In addition, there is an overview of guidelines and regulations, as well as changes to standards, as valuable orientation when selecting products.

REYHER's contribution to standards bodies provides a forum for technical observation of the market, supplying information in good time regarding new technologies and customer-specific requirements.

MEMBER OF DIN

Today, REYHER is helping to shape tomorrow's products!

Source:
F. REYHER Nchfg. GmbH & Co. KG, Hamburg, Germany
As of October 2019

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Table of contents TI

STANDARDS CONVERSION 4–11

Standards conversion DIN–EN–ISO/ISO–EN–DIN 4
Standards types, relations 5
Normative changes to screws 6
Normative changes to nuts 7
Normative changes to bolts and pins 10
Normative changes to threads and tapping screws 11

DIMENSIONS FOR FASTENERS 12–135

Dimensions for screws and bolts 12
- Hexagon and hexalobular socket head cap screws 12
- Hexagon head screws/bolts 15
- Studs 18
- Set screws/grub screws 19
- Screw plugs/pipe plugs 22
- Lubricating nipples 25
- Theft resistant screws 26
- Locking screws 28
- Other screws with metric thread 29
- Slotted and cross recessed screws with metric thread 37
- Tapping screws, thread rolling screws and thread cutting screws 41
- Wood screws/chipboard screws 50
- Hooks/special bolts with wood screw thread 54

Dimensions for bolts, nuts and accessories for steel constructions 57
- Bolts, nuts and accessories, system HV 57
- Clamping lengths 60

Dimensions for nuts 60
- Hexagon nuts 60
- Locking nuts 67
- Welding nuts 71
- Special forms 72
- Threaded plates 79
- Turnbuckles 81
- Square nuts 83

Dimensions for washers and rings 84
- Plain washers (round) 84
- Square washers/taper washers 86
- Sealing washers (plain) 87
- Retaining lock washers and rings 88
- Adjusting rings 111
- Special forms 112

Dimensions for pins 116
- Parallel pins/taper pins/grooved pins 116
- Linch pins/spring cotter/split pins 120
- Spring-type straight pins 122

Dimensions for handles 125
- Grips 125
- Tommy screws/tommy nuts 127

Dimensions for brackets, clamps and rope fixings 130
- Hose clamps/pipe clamps 130
- Stirrup bolts 130
- Rope clips/thimble ropes/shackles 133

Dimensions for rivets 134
Dimensions for other products 136
- Cam segments and washers for diagonal pull tension 136
- Axle holders 137
- Hooks 137
- Parallel keys 137

PRODUCT INFORMATION 140–155

Head shapes, drive features and ends of externally threaded fasteners 140
Disc springs 141
Lifting eye bolts and lifting eye nuts 142
Cable ties and accessories 144
Wire thread inserts 150
Self tapping thread inserts 152
Nuts for T-slots 154

lindapter®

STEELWORK FASTENER AND FIXING SYSTEMS 156–159

Product overview: girder clamps, support fixings, cavity fixings and floor fixings 156
Steelwork fixings – girder clamps 157

PLUGS AND ANCHORS 160–163

Plugs and anchors: Selection and assembly aids 160

Table of contents TI

FISCHER – Plugs and anchors 164–197
- Chemical fixings 164
- High performance steel anchors 170
- Long-shaft anchors/frame fixings/adjustment fixings 182
- General fixings 188
- Cavity fixings 192
- Electrical fixings 195
- Scaffold fixings 196
- Insulation supports 197

UPAT – Plugs and anchors 198–201
High performance steel anchors 198
Chemical fixings 200

MULTI-MONTI screw-in anchors 202–204

BLIND RIVET SYSTEMS 205–214
Blind rivets and accessories 205
Blind rivet nuts and accessories 212

TOLERANCES 216–219
Tolerances for screws, nuts and washers 216
Tolerances, ISO deviations 219

SCREW THREAD 220–224
Profile, types, threadability 220
Thread dimensions 222
Overview thread pitches 224

CORROSION PROTECTION 225–231
General information, corrosion types, contact corrosion 225
Electroplated coatings 228
Zinc flake coatings 230
Hot dip galvanized coatings 231

PROPERTIES 232–240
Steel screws, bolts, studs and nuts 232
Fasteners with UN thread 234
Fasteners from corrosion-resistant stainless steel 236
Fasteners from non-ferrous materials 239
Overview special materials 240

ASSEMBLY OF SCREWED FASTENINGS 242–251
General information, tightening methods, friction coefficients 242
Preloads and tightening torque for fasteners of steel 244
Preloads and tightening torque for screwed fastenings with locking elements 247
Assembly instructions, preloads and tightening torque for high-strength structural bolting (system HV) 248
Preloads and tightening torque for fasteners from stainless steel 249
Preloads and tightening torque for fasteners from BUMAX brass and polyamide 250
Assembly instructions for tapping screws 251

INSPECTIONS, ACCEPTANCE TESTINGS, CERTIFICATES 252–255
Certificates 252
Quality inspection 252
Acceptance inspection according to ISO 3269 253
Test method: Hardness measurement, impact test 254

LOCKING OF SCREWED FASTENINGS 256–259
General information, measures 256
Product overview of form-fitting locking elements and adhesive coatings 258
Product overview locking devices 259

DIRECTIVES AND LEGISLATION 260–263
EC Directive 2000/53/EC on end-of-life vehicles 260
EC Directive 2002/95/EC on electrical and electronic equipment (RoHS directive) 260
ZEK 01-08 PAK 260
California Proposition 65 261
SJ/T 11364-2014 (China RoHS 2) 261
Dodd-Frank-Act 261
EC Directive EC 2006/122/EC (PFOS) 261
EC Regulation 1907/2006 – Chemicals regulation (REACh) 262
EC Regulation of construction products 262
EC Directive 2006/42/EC (Machinery directive) 263
Product Safety Act (ProSG) 263
EC Directive 97/23/EG (Pressure equipment directive) 263

Standards conversion DIN → ISO/EN

The conversion of some national DIN standards to ISO or EN standards is (was) done with the aim of deconstructing trade barriers in international goods exchange and harmonising the technical rules in the common single European market.

Table 1 shows the ISO/EN standards for product standards and the most important thread and basic standards according to the corresponding DIN in ascending order (as of: 10/2019).

Table 2 (next page) shows the EN and DIN standards according to the corresponding ISO in ascending order.
The tables also include draft standards and withdrawn standards.

Table 1

Product standards	
DIN	ISO DIN ISO DIN EN ISO
1	2339
7	2338
39	–
84	1207
85	1580
93*	–
94	1234
95, 96, 97	–
98, 99	–
123,124	1051
125-1,2	7089, 7090
126	7091
127*, 128*	–
134*, 137*	–
186, 188	–
258	ISO 8737
261	–
302	1051
314-318	–
319	–
338, 340	–
388, 390	–
404	–
417	7435
427	2342
431	–
432*	–
433-1,2	7092
434-436	–
438	7436
439-1	4036
439-2 RG/FG	4035, 8675
440	7094
442, 443	–
444	–
462, 463*	–
464, 465*	–
466, 467	–
468, 469	–
470	–
471, 472	–
478-480	–
508	–
525, 529	–
546-548	–
551	4766
553	7434
555	4034
557	–
558	4018
561	–
562	–
564	–
571	–
580, 582	–
601	4016
603	–
604-608	–
609, 610*	–
653	–
660-662	1051
674, 675	1051
703*, 705	–
741	–
787	299
792	–
797, 798*	–
830*	–
835	–
906-910	–

Product standards	
DIN	ISO DIN ISO DIN EN ISO
911	2936
912 (RG)	4762
912 (FG)	12474
913	4026
914	4027
915	4028
916	4029
917	–
920-927	–
928, 929	–
931-1	4014
931-2	–
933	4017
934 RG	4032, 4033
934 FG	8673, 8674
935-1	–
935-3	–
936 RG/FG	(4035/8675)
937	–
938-940	–
949-1,2	–
950-959	–
960	8765
961	8676
963	2009
964	2010
965	7046-1, 2
966	7047
967, 968	–
(970)	4032
(971-1,2)	8673,8674
(972)	4034
975	DIN 976
976-1,2	–
977	–
979	–
980 RG	7042 (7719)
980 FG	10513
981	–
982 RG	7040
982 FG	10512
983	–
985	10511
986	–
987*	–
988	–
1052	–
1433-1436	–
1440	8738
1441	–
1443	2340
1444	2341
1445	–
1469	–
1470	8739
1471	8744
1472	8745
1473	8740
1474	8741
1475	8742/8743
1476	8746
1477	8747
1478-1480	–
1481	8752
1587	–
1592-1597	–
1804	–
1816	–
2093	EN 16983
2507	(EN 1515)

Product standards	
DIN	ISO DIN ISO DIN EN ISO
2509*	–
2510-1...8	–
3015-3016	–
3017	–
3220	–
3319	–
3404, 3405	–
3567	–
3568*	–
3570	–
3575	–
3670	–
3870, 3872	–
4109	–
5299	–
5406	–
5417	–
5525, 5526	–
5586	–
5903, 5906	–
5914	–
6303	–
6304-6307	–
6311	–
6319	–
6324	–
6325	8734
6330, 6331	–
6332	–
6334*	–
6335-6337	–
6340	–
6378	–
6379	–
6791, 6792	1051
6796	–
6797*	–
6798*	–
6799	–
6880	–
6881	–
6883, 6884	2492
6885-1, 2	–
6885-3	–
6886, 6887	–
6888	3912
6899	–
6900	10644
6901	10510
6902-6908	10669, 10673
6911	–
6912	–
6913*	–
6914-6915	EN 14399-4
6916	EN 14399-6
6917-6918	–
6921	EN 1665
6922	EN 1665
6923	EN 1661
6924 (RG)	7040
6924 (FG)	10512
6925 (RG)	7042
6925 (FG)	10513
6926 (RG)	EN 1663
6926 (FG)	EN 1666
6927 (RG)	EN 1664
6927 (FG)	EN 1667
6928 (RG)	7053
6928 (FG)	10509
7331	–

Product standards	
DIN	ISO DIN ISO DIN EN ISO
7337	15973-16585
7338-7340	–
7341	1051
7343	8750
7344	8748
7346	13337
7349	–
7500-1	–
7504	15480-15483
7513	–
7516	–
7603	–
7604	–
7642, 7643	–
7964	–
7965	–
7967*	–
7968	–
7969	–
7971	1481
7972	1482
7973	1483
7976	1479
7977	8737
7978	8736
7979	8733, 8735
7980*	–
7981	7049
7982	7050
7983	7051
7984	–
7985	7045
7987*, 7988*	–
7989-1,2	–
7990	–
7991	10642
7992	–
7993	DIN 9925/9926
7995-7997	–
7999	EN 14399-8
8140	–
9021	7093-1,-2
9045*	–
9841	7379
11014	–
11023, 11024	–
15058	–
15237	–
16903	–
18182	–
21346	–
21547	–
22424, 22425	–
25192	–
25193	–
25195	–
25197*	–
25200-25203	–
26020	–
28030	–
28129	–
28152	–
32500, 32501	13918
34800-34802	–
34803, 34804	–
34805	–
34810-34816	–
34817-34819	–
34820	–
46258, 46320	–

Product standards	
DIN	ISO DIN ISO DIN EN ISO
46288	–
58450	–
70613-70618	–
70851*	–
70852	–
70951*	–
70952	–
71412	–
71752	–
71802-71805	–
74361	–
80403	–
80701	–
80704	–
80705	–
81698	–
82006-82010	–
82013	–
82101	–

Thread standards	
13-1...11	724
13-12	261
13-13	262, 965-2
13-14, 15	965-1, -2
13-16...18	1502
13-19	68-1
13-20...26	–
13-27	965-3
13-28	–
13-50...52	–
14	–
103-1	2901
103-2	2902
103-3	2903
103-4	2904
103-5...9	–
202	–
2244	5408
2510-2	–
7952	–
7970	1478
7998	–
8140, 8141	–

Basic/Functional standards	
DIN	ISO DIN ISO DIN EN ISO
78	4753
101	1051
267-1	8992
267-2	4759-1
267-3	898-1
267-4	898-2
267-5	3269 (16426)
267-6	4759-1
267-7	898-1
267-8	898-2
267-9	4042
267-10	10684
267-11	3506-1-4
267-12	2702
267-13	–
267-15	2320
267-18	8839
267-19	6157-1, 3
267-20	6157-2
267-21	10484
267-23	898-6
267-24	–
267-25	898-7
267-26-30	–
475**	272 (EN 1660)
522	4759-3
918	1891
946	16047
962 (34803)	7378, 8991
969	–
974	–
2510-2, 8	–
7150-7152	286
7154-7157	–
7160, 7161	286
7168	2768, 8015
7172, 7182	286
7184	1101
7337	14588-589
7500-2/7504	-/10666
7962	4757
7970	1478
7998	–
8140-1-3	–
9830	–
18800	–
34803, 34804	–
40080	2859-1-3
50049	EN 10204/ ISO 16228

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– ISO/EN standard not yet known (as of 10/2019)

( ) Transitional standards (dimensions identical with ISO)

* withdrawn DIN standard without replacement, because, for example, technically reworked
(On issue of DIN EN-/DIN EN ISO standards the corresponding DIN/DIN ISO are/were withdrawn)

Legend for table 2

HV	high strength steel
Csk.	countersunk
Rcsk.	raised countersunk
CT/FT	coarse pitch thread/fine pitch thread
CH/TC/CD/CP	with flat point/with cone point/with dog point/ with cup point
Hex.	hexagon
CR	cross recess
MP	Mechanical Properties
S/H/L	standard/heavy/light version
Ww	Withworth
TDC	technical delivery conditions

Table 2

Product standards				Product standards				Basic/Functional standards			
ISO DIN ISO DIN EN ISO	EN DIN EN	DIN	Title keyword	ISO DIN ISO DIN EN ISO	EN DIN EN	DIN	Title keyword	ISO DIN ISO DIN EN ISO	EN DIN EN	DIN	Title keyword
-	1515	2507	Flange joints	7379	-	9841	Hex. socket head shoulder screws	225	20225	-	Fasteners: Dimensions
-	1661	6923	Hexagon nuts with flange	7380	-	-	Hex. socket button head screws	272	1660	475-1	Hexagon wrench sizes
-	(1662), 1665	6921, 6922	Hexagon bolts with flange	7434	27434	553	Slotted set screws TC	273	20273	69	Clearance holes for bolts
-	1663, 1664	6926, 6927	Hexagon nuts with flange	7435	27435	417	Slotted set screws CD	286-1, 2	20286	7150-7182	ISO system of limits and fits
-	1666, 1667FG	6926, 6927FG	and prevailing torque type	7436	27436	438	Slotted set screws CP	885	-	-	Radi unnder screw head
-	14218,14219	-	Hex. bolts/nuts with flange FT	7719, 7720	-	980, 6925	Prevailing torque type hex. nuts	887	-	-	Plain washers - general plan
-	14399-4	6914-6915	Hexagon bolts/nuts (HV)	8100, 8102	1665	6921	Hexagon bolts with flange	888	-	-	Nominal lengths screws/threads
-	14399-6	6916	Plain chamfered washers (HV)	8104	1662	6922	Hexagon bolts with flange	898-1	-	267-3, 7	TDC fasteners: bolts
-	14399-8	7999	Hexagon fit bolts (HV)	8673	-	934, 971-1	Hexagon nuts FT	898-2	-	4, 8	TDC fasteners: nuts CT
-	16983	2093	Disc springs	8674	-	934, 972-2	Hexagon nuts FT	898-5	-	267-3	TDC fasteners: set screws
299	-	508/787	Screws/nuts for T-slots	8675	-	439-2, 936	Hexagon thin nuts (chamfered) FT	898-6	-	267-23	TDC fasteners: nuts FT
773	-	6885-1, 2	Parallel keys	8676	-	961	Hexagon head screws FT	898-7	-	267-25	Torsional test M 1-M 10
774	-	6886, 6887	Taper keys with gip head	8733	-	7979	Parallel pins, internal thread	1051	-	101	Rivets: technical specifications
1051	-	660	Rivet, rivet pins	8734	-	6325	Parallel pins, hardened	1101	-	7184	Tolerances of form/position
1207	-	84	Slotted cheese head screws	8735	-	7979	Parallel pins, internal thread	1891	-	918	Fasteners: terminology
1234	-	94	Splint pins	8736	28736	7978	Taper pins, internal thread	2320	-	267-15	TDC fasteners: locking nuts
1479	-	7976	Hexagon head tapping screws	8737	28737	7977, 258	Tape pins, CD thread	2702	-	267-12	TDC fasteners: tapping screws
1481	-	7971	Pan head tapping screws	8738	28738	1440	Washers for clevis pins	2768-1...2	-	7168-1, 2	General tolerances
1482	-	7972	Csk. head tapping screws	8739	-	1470	Grooved pins	2859	-	40080	Sampling plans
1483	-	7973	Rcsk. head tapping screws	8740	-	1473	Grooved pins champfer	3269	-	267-5	TDC fasteners: acceptance inspection
1580	-	85	Pan head screws	8741	-	1474	Grooved pins	3506-1...4	-	267-11	TDC fasteners: stainless steel
2009	-	963	Countersunk head screws	8742	-	1475	Grooved pins	3508	-	76-1	Thread runouts/undercuts
2010	-	964	Rcsk. head screws	8743	28743	1475	Grooved pins	4042	-	267-9	TDC fasteners: electroplated coatings
2338	-	7	Parallel pins	8744	-	1471	Grooved pins	4753	-	78	Thread ends/protrusions
2339	22339	1	Taper pins	8745	-	1472	Grooved pins	4755	-	76-1	Thread runouts/undercuts
2340	22340	1443	Clevis pins without head	8746	-	1476	Round head grooved pins	4757	-	7962	Cross recess for screws
2341	22341	1444	Clevis pins with head	8747	-	1477	Grooved pins with csk. head	4759-1...3	-	267-2, 6, 522	Tolerances for fasteners
2342	-	427	Headless screws	8748	-	7344	Spring-type straight pins H	6157-1...3	-	267-19	Surface discontinuities, bolts
2491	-	6885-3	Parallel keys	8750	-	7343	Spring-type straight pins S	6157-2	(493)	267-20, 21	Surface discontinuities, nuts
2492	-	6883, 6884	Gib head/parallel keys	8751	-	7343	Spring-type straight pins L	7085/7500-1	-	-	Thread rolling screws
2936	-	911	Hexagon socket screw keys	8752	-	1481	Spring pins H	7378	-	962	Split pin holes/wire holes
3912	-	6888	Woodruff keys	8765	-	960	Hexagon head bolts FT	7721	-	-	Csk. head screws: configuration
4014	-	931-1	Hexagon head bolts	10509	-	6928	Hex. flange head tapping screws	8749	-	-	Determ. of shear strength of pins
4016	-	601	Hexagon head bolts	10510	-	6901	Tapping screws	8839	28839	267-18	TDC fasteners: non-ferrous metal
4017	-	933	Hexagon head bolts	10511	-	985	Hexagon thin locking nuts	8991	-	962	Designation system for fasteners
4018	-	558	Hexagon head screws	10512	-	982, 6924	Hexagon locking nuts	8992	-	267-1	TDC fasteners: general requirements
4026	-	913	Hexagon socket set screws CH	10513	-	980, 6925	Hexagon locking nuts	-	10204	50049	Certificates
4027	-	914	Hexagon socket set screws TE	10642	-	7991	Hex. socket csk. head screws	10484	(493)	267-21	Widening test on nuts
4028	-	915	Hexagon socket set screws CD	10644	-	6900	Screws and washer assemblies	10644	-	6900-1	Screw/washer ass. hardness d.
4029	-	916	Hexagon socket set screws CP	10663	1661	6923	Hexagon nuts with flange FT	10664	-	-	Hexalobular socket
4032	-	934	Hexagon nuts I CT	10666	-	7504	Drilling screws with tapping screw thread	10666	-	7504	MP drilling screws
4033	-	934	Hexagon nuts II CT	10669/10673	-	6903/6902	Washers for assemblies	10683	-	-	Zinc flake coatings
4034	-	555	Hexagon nuts	12125	-	6926	Hexagon locking nuts with flange	10684	-	267-10	Hot dip galvanized coatings
4035	-	439-2, 936	Hexagon thin nuts	12126	-	6927	Hexagon locking nuts with flange	12683	-	-	Mechanical zinc coatings
4036	-	439-1	Hexagon thin nuts	12474	-	912 (FG)	Hex. socket head cap screws FT	-	13811	-	Sheradizing
4161	1661	6923	Hexagon nuts with flange	13337	-	7346	Spring-type straight pins L	15065	-	66	Countersinking
4162	1662, 1665	6922	Hexagon bolts with flange	13918	-	32500	Welding studs for stud welding	15330	-	-	Hydrogen embrittlement.
4762	-	912	Hexagon socket head cap screws	14579...587	-	-	Hex. socket head cap screws	16047	-	946	Torque/clamp force testing
4766	24766	551	Set screws CR	14588, 14589	-	7337	Blind rivets, terms	16048	-	-	Passivation of stainless steel
4775	780, 783	6915	Hexagon nuts (HV)	15071...073	-	-	Hex. bolts with flange, small S	16426	-	-	Fasteners QA system
7040, 7041	-	982, 6924	Prevailing torque type hex. nuts	15480...483	-	7504	Drilling screws				
7042	-	980, 6925	Prevailing torque type hex. nuts	15973...986	-	7337	Blind rivets				
7043	1663/1666	6926	Prevailing locking nuts with flange	16582-585	-	7337	Blind rivets				
7044	1664/1667	6927	Hexagon locking nuts with flange	21269	-	-	Hex. socket head cap screws FT				
7045	-	7985	Raised cheese head screws CR	21670	-	977	Hexagon weld nuts with flange				
7046-1, 2	-	965	Countersunk head screws CR	68	-	13 T 19	Metric screw threads - profile				
7047	-	966	Rcsk. head screws CR	228-1...3	-	259-1...3	Ww head cap pipe thread G				
7048	-	-	Slotted cheese head screws CR	261	-	13-12	Selection of pitch threads CT/FT				
7049	-	7981	Pan head tapping screws CR	262	-	13-13	Thread selection series				
7050	-	7982	Csk. head tapping screws CR	724	-	13	ISO thread: Basic dimensions				
7051	-	7983	Raised countersunk head	965-1...5	-	13-13...15,27	Metric threads, data/principles				
7053	-	6928	Hex. washer head tapping screws	1478	-	7970	Tapping screws thread				
7089	-	125-1,2	Washers, grade A	1502	-	13-16...18	Thread gauges				
7090	-	125-1, 2	Washers, grade B	2901-2904	-	103-1...4	Trapezoidal thread				
7091	-	126	Washers, standard design	5408	-	2244	Thread: Terms				
7092	-	433-1, 2	Scheiben, Reihe klein	6410-1...3	-	27	Threads description in drawing				
7093-1, 2	-	9021	Scheiben, Reihe groß								
7094	-	440	Scheiben, extra groß								

Standard types, relations, publishers:

DIN National German standard (Deutsches Institut für Normung). DIN standards shall still be given for the products/services for which there are no ISO/EN standards and no standardisation necessity.

ISO International Standardization Organisation

DIN ISO National German issue of an unmodified, adopted ISO standard

EN **E**uropean **N**orm (CEN = Comité Européen de Normalisation). In general, existing ISO standards should be adopted as EN standards with the ISO standard number → EN ISO. If this does not happen at European standards levels, independent EN standards shall be generated with EN standard numbers which are different to those of the ISO.

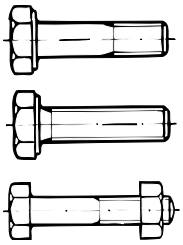
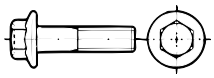
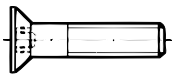
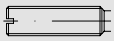
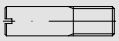
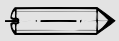
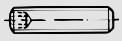
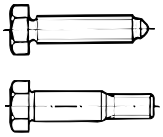
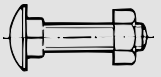
DIN EN National German issue of an unmodified, adopted EN standard.
According to the resolution of the European Council, EN standards are to be adopted unmodified and immediately by the EU member states and the corresponding national standards are to be withdrawn.

EN ISO European standard issue which was adopted unmodified by ISO (EN and ISO standard numbers are identical – the earlier practice of "ISO number + 20,000" has not been in use since Jan. 95. Standards still in use according to this mode are to be converted accordingly). **The description is carried out according to ISO.**

DIN EN ISO National German issue of an unchanged EN standard adopted by ISO. The article naming is done according to ISO.

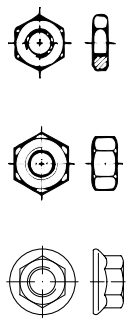
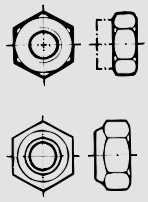
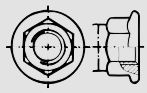
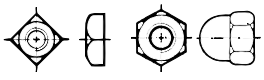
Publisher and author of the standards for "Mechanical fasteners" is the German National Standards Organisation (DIN - Deutsches Institut für Normung e.V.), Berlin, www.fmv.din.de. Reference to the standards sheets from Beuth Verlag GmbH, Burggrafenstrasse 6, 10787 Berlin, www.beuth.de, Fax +030 2601-1260

Table 3: Overview of standards conversion DIN → ISO/EN – Screws/bolts with drive, set screws, screws/bolts without drive

Article group	DIN	→ ISO/EN	Dimension range	Changes	Labelling ①
1. Screws/bolts, with ISO/EN standards 	**558 931 933 960 961**	**ISO 4018 ISO 4014 ISO 4017 ISO 8765 ISO 8676**	M 10, 12, 14, 22	new ISO wrench sizes	ISO standard numbers
			all other ∅	none = DIN and ISO identical	1. ISO standard numbers 2. DIN standard numbers
	601 Mu with nut DIN 555	**ISO 4016 Mu** with nut ISO 4034	M 10, 12, 14, 22	screws: new ISO wrench sizes nuts: new wrench sizes acc. to ISO + ISO heights	ISO standard number
			other ∅ up to M 39	screws: none = DIN and ISO identical nuts: new ISO heights	1. ISO standard numbers 2. DIN standard numbers
			other ∅ greater than M 39	none = DIN and ISO identical	
	6914	**EN 14399-4**	all ∅	modified calculation of clamping length	EN standard number
	7999	**EN 14399-8**	all ∅	lubrication	
	**912**	**ISO 4762 (CT) ISO 12474 (FT)**	all ∅	none	1. ISO standard number 2. DIN standard number
	**6921**	**EN 1665 (EN 1662 – light series)**	all ∅	marginally increased head heights and wrenching height, property class 12.9 discontinued	ISO standard number
			from M 10	new wrench sizes	
	**7991**	**ISO 10642**	M 22, M 24	dimensions discontinued	
			all other ∅	modified head hights + head ∅- adjusted shaft lengths	ISO standard number
2. Set screws with ISO/EN standards					
	**417**	**ISO 7435**	all ∅	none	1. ISO standard number 2. DIN standard number
	**427**	**ISO 2342**	all ∅	slight differences in slot geometry -> no functional impairment	
	**551**	**ISO 4766**			
	**553**	**ISO 7434**	all ∅	none	
	**913**	**ISO 4026**			
	**914**	**ISO 4027**			
	**915**	**ISO 4028**			
	**916**	**ISO 4029**			
3. Hexagon head screws without ISO/EN standards	**561 564**	**– –**	∅ M 12, 16	new ISO wrench sizes	DIN standard numbers + wrench size specifications
			all other ∅	none	DIN standard numbers
	609 ~ 610	**– –**	∅ M 10, 12, 14, 22	new ISO wrench sizes	DIN standard numbers + wrench size specifications
			all other ∅	none	DIN standard numbers
	**7968 Mu 7990 Mu** with nut DIN 555	screw: – with nut ISO 4034	M 12, (22)	screws: new ISO wrench sizes nuts: new ISO WS + ISO heights	DIN standard numbers + wrench size specifications
			all other ∅	screws: none nuts: new ISO heights	DIN standard numbers
4. Screws/bolts without drive and without ISO/EN standards **– with hexagonal nuts with ISO/EN standards** 	**186/261 Mu 525 Mu 529 Mu 603 Mu 604 Mu 605 Mu 607 Mu 608 Mu 7969 Mu 11014 Mu** with nut DIN 555	screw: – with nut ISO 4034	∅ M 10, 12, 14, 22	screws: none nuts: new ISO WS + ISO heights	DIN standard numbers + wrench size specifications
			all other ∅	screws: none nuts: new ISO heights	DIN standard numbers

① Labelling with ISO and DIN standard numbers are valid for the transition period, later only the ISO standard number will apply.

Table 4: Overview standards conversion DIN → ISO/EN – Hexagon/square nuts
– Hexagon nuts with prevailing torque element

Article group	DIN	→ ISO/EN	Dimension range ①	Changes ①	Labelling ②
1. Hexagon nuts with ISO/EN standards ① 	**439-1** (A = without chamfer) **439-2** (B = with chamfer)	**ISO 4036** **ISO 4035** = coarse pitch thread **ISO 8675** = fine pitch thread	∅ M 10, 12, 14, 22	new ISO wrench sizes (no height change)	ISO standard number
			all other ∅	none = DIN and ISO identical (no height change)	1. ISO standard number 2. DIN standard numbers
	555 **934** Property classes 6, 8, 10 Property class 12 Property classes 6, 8, 10	**ISO 4034** (ISO type 1) **ISO 4032** = coarse pitch thread (ISO type 1) **ISO 4033** = coarse pitch thread (ISO type 2) **ISO 8673** = fine pitch thread (ISO type 1)	∅ M 10, 12, 14, 22	new ISO WS + ISO heights	ISO standard numbers
			other ∅ M 5 – M 39	new ISO heights (no wrench sizes change)	
			∅ less than M 5 ∅ over M 39	none = DIN and ISO identical	1. ISO standard numbers 2. DIN standard numbers
	6915	**EN 14399-4**	all ∅	without coating = lubricated	EN standard numbers
	6923	**EN 1661**	∅ M 10	new ISO wrench sizes	EN standard numbers
			other ∅	none = DIN and ISO identical	1. EN standard numbers 2. DIN standard numbers
2. Hexagon nuts with prevailing torque element, with ISO/EN standards ① 	**980** **6925**	**ISO 7042** = coarse pitch thread **ISO 10513** = fine pitch thread	∅ M 10, 12, 14, 22	new ISO wrench sizes (DIN 6925 already includes the new ISO wrench sizes) changed nut heights larger wrenching heights	ISO standard number
			other ∅	changed nut heights larger wrenching heights	ISO standard number
	982	**DIN 6924**	∅ M 10, 12, 14, 22	new ISO wrench sizes changed nut heights	DIN standard number
			other ∅	changed nut heights	DIN standard number
	6924	**ISO 7040** = coarse pitch thread **ISO 10512** = fine pitch thread	all ∅	greater tolerance range for nut heights (DIN ↔ ISO exchangeable)	1. ISO standard numbers 2. DIN standard numbers
	985	**ISO 10511**	∅ M 10, 12, 14	new ISO wrench sizes	ISO standard number
			other ∅	reduced nut heights	ISO standard number
	**6926**	**EN 1663** = coarse pitch thread **EN 1666** = fine pitch thread	∅ M 10	new ISO wrench sizes	EN standard number
			other ∅	none (DIN ↔ EN exchangeable)	1. EN standard numbers 2. DIN standard numbers
	6927	**EN 1664** = coarse pitch thread **EN 1667** = fine pitch thread	∅ M 10	new ISO wrench sizes	EN standard number
			other ∅	none (DIN ↔ EN exchangeable)	1. EN standard numbers 2. DIN standard numbers
3. Nuts without ISO/EN standards 	**557** **917** **935** **986** **1587**	– – – – –	∅ M 10, 12, 14, 22	new ISO wrench sizes	DIN standard numbers + wrench size spezifications
			all other ∅	none	DIN standard numbers

① Comparison of wrench sizes and nut heights DIN : ISO and classification of standards, mechanical properties for steel nuts, see table 5

② Labelling with ISO and DIN standard numbers are valid for the transition period, later only the ISO standard number will apply.

Table 5: Comparison DIN : ISO DIN : ISO – Wrench sizes for screws and nuts with standard wrench sizes – Nut heights

Nominal size d	Wrench size s		Nut height m min. – max.				
(sizes to be avoided as much as possible)	DIN	ISO	DIN 555	DIN 4034 ISO-type 1	DIN 934	ISO 4032 (CT) 8673 (FT) ISO type 1	ISO 4033 (CT) ISO type 2
M 1	2.5		–	–	0.55 – 0.8	–	–
M 1.2	3		–	–	0.75 – 1	–	–
M 1.4	3		–	–	0.95 – 1.2	–	–
M 1.6	3.2		–	–	1.05 – 1.3	1.05 – 1.3	–
M 2	4		–	–	1.35 – 1.6	1.35 – 1.6	–
M 2.5	5		–	–	1.75 – 2	1.75 – 2	–
M 3	5.5		–	–	2.15 – 2.4	2.15 – 2.4	–
(M 3.5)	6		–	–	2.55 – 2.8	2.55 – 2.8	–
M 4	7		–	–	2.9 – 3.2	2.9 – 3.2	–
M 5	8		3.4 – 4.6	4.4 – 5.6	3.7 – 4	4.4 – 4.7	4.8 – 5.1
M 6	10		4.4 – 5.6	4.6 – 6.1	4.7 – 5	4.9 – 5.2	5.4 – 5.7
(M 7)	11		–	–	5.2 – 5.5	–	6.84 – 7.2 *
M 8	13		5.75 – 7.25	6.4 – 7.9	6.14 – 6.5	6.44 – 6.8	7.14 – 7.5
M 10	17	16	7.25 – 8.75	8 – 9.5	7.64 – 8	8.04 – 8.4	8.94 – 9.3
M 12	19	18	9.25 – 10.75	10.4 – 12.2	9.64 – 10	10.37 – 10.8	11.75 – 12
(M 14)	22	21	–	12.1 – 13.9	10.3 – 11	12.1 – 12.8	13.4 – 14.1
M 16	24		12.1 – 13.9	14.1 – 15.9	12.3 – 13	14.1 – 14.8	15.7 – 16.4
(M 18)	27		–	15.1 – 16.9	14.3 – 15	15.1 – 15.8	16.9 – 17.6 *
M 20	30		15.1 – 16.9	16.9 – 19	14.9 – 16	16.9 – 18	19 – 20.3
(M 22)	32	34	17.1 – 18.9	18.1 – 20.2	16.9 – 18	18.1 – 19.4	20.5 – 21.8 *
M 24	36		17.95 – 20.05	20.2 – 22.3	17.7 – 19	20.2 – 21.5	22.6 – 23.9
(M 27)	41		20.95 – 23.05	22.6 – 24.7	20.7 – 22	22.5 – 23.8	25.4 – 26.7 *
M 30	46		22.95 – 25.05	24.3 – 26.4	22.7 – 24	24.3 – 25.6	27.3 – 28.6
(M 33)	50		24.95 – 27.05	27.4 – 29.5	24.7 – 26	27.4 – 28.7	30.9 – 32.5 *
M 36	55		27.95 – 30.05	28 – 31.5	27.4 – 29	29.4 – 31	33.1 – 34.7
(M 39)	60		29.75 – 32.25	31.8 – 34.3	29.4 – 31	31.8 – 33.4	35.9 – 37.5 *
M 42	65		32.75 – 35.25	32.4 – 34.9	32.4 – 34	32.4 – 34	–
(M 45)	70		34.75 – 37.25	34.4 – 36.9	34.4 – 36	34.4 – 36	–
M 48	75		36.75 – 39.25	36.4 – 38.9	36.4 – 38	36.4 – 38	–
(M 52)	80		40.75 – 43.25	40.4 – 42.9	40.4 – 42	40.4 – 42	–
M 56	85		43.75 – 46.25	43.4 – 45.9	43.4 – 45	43.4 – 45	–
(M 60)	90		46.75 – 49.25	46.4 – 48.9	46.4 – 48	46.4 – 48	–
M 64	95		49.5 – 52.5	49.4 – 52.4	49.1 – 51	49.1 – 51	–
Nut height factor		≤ M 4	–	–	0.8	0.8	–
Nut heigth m / Nominal thread diameter M		M 5 – M 39	0.8	0.83 – 1.12	0.8	0.84 – 0.93	0.93 – 1.03
		≥ M 42		~ 0.8		0.8	–
Product class			C (roughly)		≤ M 16 = A (medium) > M 16 = B (medium coarse)		
Thread tolerance			7 H		6 H		
Property class Steel		Core range ~ M 5 – M 39	5 (M 16 < d ≤ M 39 = 4.5)		6, 8, 10 (ISO 8673 = Property classes 10 ≤ M 16)		12 (9 – 12)
		≥ M 39	to be agreed upon		to be agreed upon		–
Mechanical properties according to standard			DIN 267-4	ISO 898-2	DIN 267-4	ISO 898 -2 (CT) -6 (FT)	ISO 898-2

Notes: ISO 4032 = also replacement for DIN 970 – CT = Coarse pitch thread ISO 4034 = also replacement for DIN 972
ISO 8673 = also replacement for DIN 971-1 – FT = Fine pitch thread ISO 4033 = also replacement for DIN 971-2 (Fine pitch thread ➔ ISO 8674)

*Values according to the draft standard ISO 4033:2016-05

Table 6: Comparison DIN : ISO – Nuts with prevailing torque element according to DIN 980, DIN 6925, ISO 7042, ISO 10513

Nominal size d	Wrench size s		Nut heigth h min. – max.		Minimum wrenching height m'/m_w	
(sizes to be avoided as much as possible)	DIN 980	DIN 6925 ISO 7042 ISO 10513	DIN 980 DIN 6925	ISO 7042 ISO 10513	DIN 980 DIN 6925	ISO 7042 ISO 10513
M 3	5.5		3.4 – 3.7	–	1.65	–
M 4	7		3.9 – 4.2	–	2.2	–
M 5	8		4.8 – 5.1	4.8 – 5.1	2.75	3.52
M 6	10		5.7 – 6.0	5.4 – 6.0	3.3	3.92
(M 7)	11		6.5 – 7.0	–	3.85	–
M 8	13		7.5 – 8.0	7.14 – 8.00	4.4	5.15
M 10	17	16	9 – 10	8.94 – 10.0	5.5	6.43
M 12	19	18	11 – 12	11.57 – 12.00	6.6	8.30
(M 14)	22	21	12 – 14	13.4 – 14.1	7.7	9.68
M 16	24		14 – 16	15.7 – 16.4	8.8	11.28
(M 18)	27		16 – 18	–	9.9	–
M 20	30		18 – 20	19.0 – 20.3	11	13.52
(M 22)	32	-	20 – 22	–	12.2	–
M 24	36		22 – 24	22.6 – 23.9	13.2	16.16
(M 27)	41		25 – 27	–	14.8	–
M 30	46		28 – 30	27.3 – 30.0	16.5	19.44
(M 33)	50		31 – 33	–	18.2	–
M 36	55		34 – 36	33.1 – 36.1	19.8	23.52
(M 39)	60		37 – 39	–	21.5	–

Table 7: Comparison DIN : ISO – Nuts with prevailing torque element according to DIN 982, DIN 6924, ISO 7040, ISO 10512

Nominal size d	Wrench size s		Nut heigth h min. – max.			Minimum wrenching height m'/m_w	
(sizes to be avoided as much as possible)	DIN 982	DIN 6924 ISO 7040 ISO 10512	DIN 982	DIN 6924	ISO 7040 ISO 10512	DIN 982 DIN 6924	ISO 7040 ISO 10512
M 3	5.5		–	4.2 – 4.5	4.02 – 4.50	1.72	1.72
M 4	7		–	5.7 – 6.0	5.52 – 6.00	2.32	2.32
M 5	8		6.00 – 6.30	6.44 – 6.80	6.22 – 6.80	3.52	3.52
M 6	10		7.70 – 8.00	7.64 – 8.00	7.42 – 8.00	3.92	3.92
(M 7)	11		8.20 – 8.50	8.64 – 9.00	-	4.91	–
M 8	13		9.14 – 9.50	9.14 – 9.50	8.92 – 9.50	5.15	5.15
M 10	17	16	11.14 – 11.50	11.14 – 11.90	11.2 – 11.9	6.43	6.43
M 12	19	18	13.64 – 14.00	14.47 – 14.90	14.2 – 14.9	8.30	8.30
(M 14)	22	21	15.3 – 16.0	16.3 – 17.0	15.9 – 17.0	9.68	9.68
M 16	24		17.3 – 18.0	18.26 – 19.10	17.8 – 19.1	11.28	11.28
(M 18)	27		19.16 – 20.00	19.76 – 20.60	–	12.08	–
M 20	30		20.7 – 22.0	21.5 – 22.8	20.7 – 22.8	13.52	13.52
(M 22)	32	34	23.7 – 25.0	23.2 – 24.5	–	14.48	–
M 24	36		26.7 – 28.0	25.8 – 27.1	25.0 – 27.1	16.16	16.16
(M 27)	41		–	29.4 – 31.0	–	18.00	–
M 30	46		–	31.0 – 32.6	30.1 – 32.6	19.44	19.44
(M 33)	50		–	33.9 – 35.5	–	21.92	–
M 36	55		–	37.3 – 38.9	36.4 – 38.9	23.52	23.52
(M 39)	60		–	40.4 – 42.0	–	25.44	–
M 42	65		–	43.4 – 45.0	–	27.20	–
(M 45)	70		–	46.4 – 48.0	–	28.80	–
M 48	75		–	48.4 – 50.0	–	30.40	–

Table 8: Comparison DIN : ISO – Nuts with prevailing torque element according to DIN 985, ISO 10511

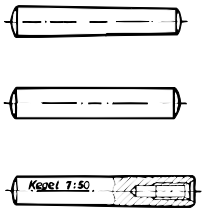
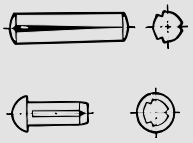
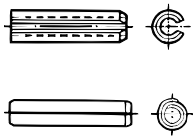
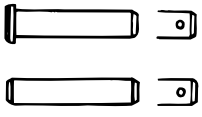
Nominal size d	Wrench size s		Nut heigth h min. – max.		Minimum wrenching height m'/m_w	
(sizes to be avoided as much as possible)	DIN 985	ISO 10511	DIN 985	ISO 10511	DIN 985	ISO 10511
M 3	5.5		3.7 – 4.0	3.42 – 3.90	1.65	1.24
M 4	7		4.7 – 5.0	4.52 – 5.00	2.2	1.56
M 5	8		4.7 – 5.0	4.52 – 5.00	2.75	1.96
M 6	10		5.7 – 6.0	5.52 – 6.00	3.3	2.32
(M 7)	11		7.14 – 7.50	–	3.85	–
M 8	13		7.64 – 8.00	6.18 – 6.76	4.4	2.96
M 10	17	16	9.64 – 10.0	7.98 – 8.56	5.5	3.76
M 12	19	18	11.57 – 12.00	9.53 – 10.23	6.6	4.56
(M 14)	22	21	13.3 – 14.0	10.22 – 11.32	7.7	5.14
M 16	24		15.3 – 16.0	11.32 – 12.42	8.8	5.94
(M 18)	27		17.66 – 18.50	–	9.9	–
M 20	30		18.7 – 20.0	13.1 – 14.9	11	7.28
(M 22)	32	34	20.7 – 22.0	–	12.2	–
M 24	36		22.7 – 24.0	16.0 – 17.8	13.2	8.72
(M 27)	41		25.7 – 27.0	–	14.8	–
M 30	46		28.7 – 30.0	20.1 – 22.2	16.5	11.12
(M 33)	50		31.4 – 33.0	–	18.2	–
M 36	55		34.4 – 36.0	23.4 – 25.5	19.8	13.52
(M 39)	60		37.4 – 39.0	–	21.5	–
M 42	65		40.4 – 42.0	–	23.1	–
(M 45)	70		43.4 – 45.0	–	24.8	–
M 48	75		46.4 – 48.0	–	26.5	–

Overview of standards DIN → ISO: Bolts, pins, washers for bolts

The most important changes are listed in table 9. For some articles, the DIN and ISO versions are identical or the minor changes are hardly relevant to the function at all so that exchangeability is possible.

The conversion is done in an appropriate transition time according to the availability from manufacturing or according to the customer's wishes. Further information on request.

Table 9

Article group	DIN	ISO DIN ISO DIN EN ISO	The most important changes
Taper pins, parallel pins 	1	2339	length l new according to ISO **incl.** round end (previously according to DIN **excl.** round end)
	7	2338	length l new according to ISO **incl.** round end (previously according to DIN **excl.** round end) types A, B, C (type A/tol. m 6 new with chamfer/round end)
	6325	8734	new: type A with chamfer/round end, fully hardened (for the most part identical with DIN 6325) type B with champfer, case hardened
	7977 7978	8737 8736	no serious changes
	7979/D	8733 8735	DIN 7979/C ~ ISO 8733 [unhardened] DIN 7979/D ~ ISO 8735/A [fully hardened], lower hardness for ISO
Grooved pins 	1470 1471 1472 1473 1474 1475	8739 8744 8745 8740 8741 8742	length l new according to ISO **incl.** round end (previously according to DIN **excl.** round end)
	–	8743	new: grooved pins, half-length centre grooved
	1476 1477	8746 8747	type A = no serious changes additional: type B with pilot end
Spring-type straight pin	1481	8752	regular finish to ∅ of m 8 mm with 2 chamfers (previously to a ∅ of m 6 mm)
	7343 7344 7346	8750 8748 13337	no serious changes
	– –	8749 8751	new: pins, grooved pins: shear test new: spring-types straight pin, light duty
Split pin 	94	1234	no serious changes
Clevis pin 	1443 1444	2340 2341	partially other nominal lengths length tolerances changed
	1433 1434 1435 1436	– – – –	these DIN standards were withdrawn ISO standards are not planned
Washers for pins 	1440	8738	Some outer ∅ and thicknesses changed (in general not in danger of being replaced)
	1441	–	no ISO standard planned

Overview of standards conversion DIN → ISO: Thread srews and tapping screws

ISO standards for thread screws and tapping screws include the following changes different to DIN standards:

– new countersunk angle for tapping screws with countersunk/raised countersunk head = 90° according to DIN 66/ISO 7721 (previously 80°)

– tapping screws: cancellation of diameter ST 3.9

– partial changes to the head dimensions

The tables show the standard numbers change DIN : ISO (Tab. 10) and head dimension changes DIN : ISO (Tab. 11–13)

Table 10: Standard numbers change DIN : ISO

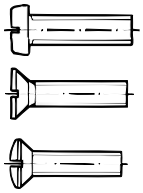
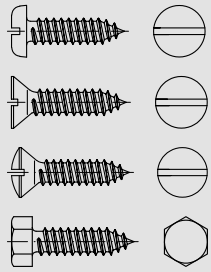
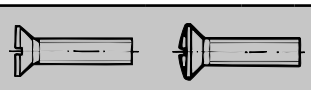
Article group	DIN	ISO	The most important changes
Thread screws 	84	1207	no serious changes
	85	1580	no serious changes
	963	2009	minor differences in head height and head diameter (see Table 11)
	964	2010	
	965	7046-1, -2	
	966	7047	
	7985	7045	no serious changes
Tapping screws 	7971	1481	no serious changes
	7972	1482	changed countersunk angle (DIN = 80° : ISO = 90°) minor differences in head height and head diameter (see Table 12)
	7973	1483	
	7976	1479	minor differences in the head height – no risk of being replaced (see Table 13)
	7981	7049	no serious changes
	7982	7050	changed countersunk angle (DIN = 80° : ISO = 90°) minor differences in head height and head diameter (see Table 12)
	7983	7051	

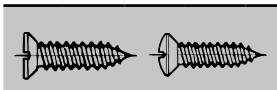
Table 11: Slotted and cross recessed countersunk head screws with metric thread



Metric screws
ISO 2009, 2010, 7046, 7047
DIN 963, 964, 965, 966

	Thread	M 1.6	M 2	M 2.5	M 3	M 3.5	M 4	M 5	M 6	M 8	M 10
max. Diameter of head	ISO (new)	3	3.8	4.7	5.5	7.3	8.4	9.3	11.3	15.8	18.3
	DIN (old)	3	3.8	4.7	5.6	6.5	7.5	9.2	11	14.5	18
max. Head height	ISO (new)	1	1.2	1.5	1.65	2.35	2.7	2.7	3.3	4.65	5
	DIN (old)	0.96	1.2	1.5	1.65	1.93	2.2	2.5	3	4	5

Table 12: Countersunk head tapping screws



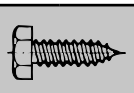
Tapping screws
ISO 1482, 1483, 7050, 7051 (⊰ = 90°)
DIN 7972, 7973, 7982, 7983 (⊰ = 80°)

ST 2.2	ST 2.9	ST 3.5	ST 3.9	ST 4.2	ST 4.8	ST 5.5	ST 6.3	ST 8	ST 9.5
3.8	5.5	7.3	–	8.4	9.3	10.3	11.3	15.8	18.3
4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4	–	–
1.1	1.7	2.35	–	2.6	2.8	3	3.15	4.65	5.25
1.3	1.7	2.1	2.3	2.5	3	3.4	3.8	–	–

Note on countersunk head screws with metric threading

When countersinking according to ISO 15065 (for ISO countersunk heads) screws can also be used according to DIN 963 – 966.
These merely lie a little deeper in the countersink.
If the countersink is executed according to the withdrawn DIN 74-1:1980, a protrusion may, under certain circumstances, be visible when using ISO countersunk heads above the component part (especially with the diameters M 3.5, M 4 and M 8).

Table 13: Hexagon head tapping screws



Tapping screws ISO 1479 DIN 7976

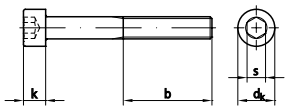
Thread		ST 2.2	ST 2.9	ST 3.5	(ST 3.9)	ST 4.2	ST 4.8	(ST 5.5)	ST 6.3	ST 8	ST 9.5
max. head height	ISO (new)	1.6	2.3	2.6	–	3	3.8	4.1	4.7	6	7.5
	DIN (old)	1.42	1.62	2.42	2.42	2.92	3.12	4.15	4.95	5.95	–

Hexagon and hexalobular socket screws

ISO 4762, 12474

similar DIN 912

Hexagon socket head cap screws
ISO 12474 with metric fine pitch thread



Dimensions	M 1,4	M 1,6	M 2	M 2,5	M 3	M 4	M 5	M 6	M 8
d_k	2,6	3	3,8	4,5	5,5	7	8,5	10	13
k	1,4	1,6	2	2,5	3	4	5	6	8
s	1,3	1,5	1,5	2	2,5	3	4	5	6
b	14	15	16	17	18	20	22	24	28

Dimensions	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27
d_k	16	18	21	24	27	30	33	36	40
k	10	12	14	16	18	20	22	24	27
s	8	10	12	14	14	17	17	19	19
b	32	36	40	44	48	52	56	60	66

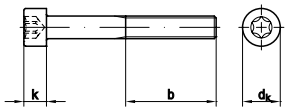
Dimensions	M 30	M 33	M 36	M 39*	M 42	M 48	M 56		
d_k	45	50	54	58	63	72	84		
k	30	33	36	39	42	48	56		
s	22	24	27	27	32	36	41		
b	72	78	84	90	96	108	124		

*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 286, pg. 395, pg. 115 | Stainless steel: pg. 547, pg. 477

ISO 14579

Hexalobular socket head cap screws



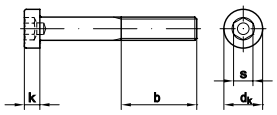
Dimensions	M 2	M 2.5	M 3	M 4	M 5	M 6	M 8
d_k	3.8	4.5	5.5	7	8.5	10	13
k	2	2.5	3	4	5	6	8
ISR	T6	T8	T10	T20	T25	T30	T45
b	16	17	18	20	22	24	28

Dimensions	M 10	M 12	M 14	M 16	M 18	M 20	
d_k	16	18	21	24	27	30	
k	10	12	14	16	18	20	
ISR	T50	T55	T60	T70	T80	T90	
b	32	36	40	44	48	52	

Dimensions in stock:
Steel/Steel coated: pg. 402

DIN 6912

Hexagon socket head cap screws, low head, with centre



Dimensions	M 4	M 5	M 6	M 8	M 10	M 12
d_k	7	8,5	10	13	16	18
k	2,8	3,5	4	5	6,5	7,5
s	3	4	5	6	8	10
b^1	14	16	18	22	26	30
b^2	–	–	–	–	32	36
b^3	–	–	–	–	–	–

Dimensions	M 14	M 16	M 20	M 24	M 30	M 36
d_k	21	24	30	36	45	54
k	8,5	10	12	14	17,5	21,5
s	12	14	17	19	22	27
b^1	34	38	46	54	66	78
b^2	40	44	52	60	72	84
b^3	–	57	65	73	85	97

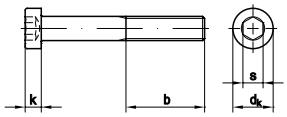
b^1 for l ≤ 125 mm
b^2 for 125 mm
b^3 for l > 200mm

Dimensions in stock:
Steel/Steel coated: pg. 317 | Stainless steel: pg. 555

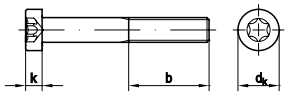
Hexagon and hexalobular socket screws

DIN 7984

Hexagon or hexalobular socket head cap screws with low head



with hexagon socket



with hexalobular socket
~ISO 14580

b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm
b^3 for l > 200 mm

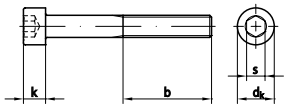
Dimensions	M 3	M 4	M 5	M 6	M 8
d_k	5.5	7	8.5	10	13
k	2	2.5	3.5	4	5
s	2	2.5	3	4	5
ISR size	T10	T20	T25	T30	T40
b^1	12	14	16	18	22
b^2	–	–	–	–	28
b^3	–	–	–	–	–

Dimensions	M 10	M 12	M 16	M 20	M 24
d_k	16	18	24	30	36
k	6	7	9	11	13
s	7	8	12	14	17
ISR size	–	–	–	–	–
b^1	26	30	38	46	54
b^2	32	36	44	52	60
b^3	–	–	57	65	73

Dimensions in stock:
Steel/Steel coated: pg. 362 | Stainless steel: pg. 579

ASME B 18.3

Hexagon socket head cap screws* with unified inch thread



all dimensions in inches
*acc. to ASME B 18.3: 2003 table 1A

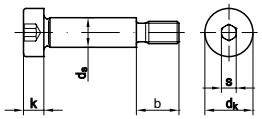
Dimensions	#2	#4	#5	#6	#8	#10	1/4	5/16
d	0.086	0.112	0.125	0.138	0.164	0.190	0.250	0.3125
d_k	0.140	0.183	0.205	0.226	0.270	0.312	0.375	0.469
k	0.086	0.112	0.125	0.138	0.164	0.190	0.250	0.312
s	5/64	3/32	3/32	7/64	9/64	5/32	3/16	1/4
b	0.62	0.75	0.75	0.75	0.88	0.88	1.00	1.12

Dimensions	3/8	1/2	5/8	7/8	1	1 1/4	1 1/2	
d	0.375	0.500	0.625	0.875	1.000	1.250	1.500	
d_k	0.562	0.750	0.938	1.312	1.500	1.875	1.250	
k	0.375	0.500	0.625	0.875	1.000	1.250	1.500	
s	5/16	3/8	1/2	3/4	3/4	7/8	1	
b	1.25	1.50	1.75	2.25	2.50	3.12	3.75	

Dimensions in stock:
Steel/Steel coated: pg. 415

ISO 7379

Hexagon socket head shoulder screws



*adjusting shank tolerance:
• steel h8 or f9
• stainless steel f9
**on stock ∅12, standard value ∅13
***not standardized dimensions

Dimensions	M 5	M 6	M 8
d_k	10	13	16
d_s*	6***	8	10
k	4.5	5.5	7
s	3	4	5
b	9.75	11.25	13.25

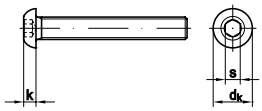
Dimensions	M 10	M 12	M 16
d_k	18	24	30
d_s*	12**/13	16	20
k	9	11	14
s	6	8	10
b	16.4	18.4	22.4

Dimensions in stock:
Steel/Steel coated: pg. 342 | Stainless steel: pg. 572

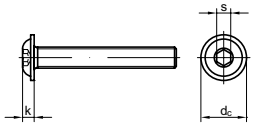
Hexagon and hexalobular socket screws

ISO 7380 -1/-2

Hexagon socket button head screws



ISO 7380-1



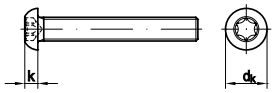
ISO 7380-2

Dimensions	M 3	M 4	M 5	M 6
$d_{k\ max.}$	5.7	7.6	9.5	10.5
$d_{c\ max.}$	6.9	9.4	11.8	13.6
$k_{max.}$	1.65	2.2	2.75	3.3
s	2	2.5	3	4

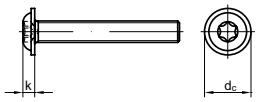
Dimensions	M 8	M 10	M 12	M 16
$d_{k\ max.}$	14	17.5	21	28
$d_{c\ max.}$	17.8	21.9	26	34
$k_{max.}$	4.4	5.5	6.6	8.8
s	5	6	8	10

DIN 34805 -1/-2

Hexalobular socket button head screws



DIN 34805-1



DIN 34805-2

Dimensions	M 3	M 4	M 5	M 6
$d_{k\ max.}$	5.7	7.6	9.5	10.5
$d_{c\ max.}$	6.9	9.4	11.8	13.6
$k_{max.}$	1.8	2.45	3	3.3
ISR	10	20	25	30

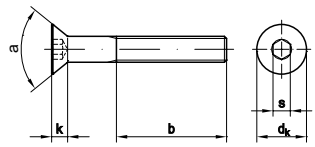
Dimensions	M 8	M 10	M 12	M 16
$d_{k\ max.}$	14	17.5	21	-
$d_{c\ max.}$	17.8	21.9	26	-
$k_{max.}$	4.5	5.5	6.6	-
ISR	45	50	55	-

Dimensions in stock:
Steel/Steel coated: pg. 342 **I Stainless steel:** pg. 572

ISO 10642

replaces DIN 7991

Hexagon socket countersunk head screws



with hexagon

dimensions for countersinks ➔ DIN 74
*dimensions acc. to DIN 7991

Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
d_k	6.72	8.96	11.2	13.44	17.92	22.4
$k_{max.}$	1.86	2.48	3.1	3.72	4.96	6.2
s	2	2,5	3	4	5	6
a	90°	90°	90°	90°	90°	90°
b	18	20	22	24	28	32

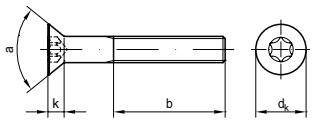
Dimensions	M 12	M 14	M 16	M 20	M 22*	M 24*
d_k	26.88	30.8	33.6	40.32	36	39
$k_{max.}$	7.44	8.4	8.8	10.16	13.1	14
s	8	10	10	12	14	14
a	90°	90°	90°	90°	60°	60°
b	36	40	44	52	56	60

Dimensions on stock:
Steel/Steel coated: pg. 389 **I Stainless steel:** pg. 587

Hexagon and hexalobular socket screws

ISO 14581

Hexalobular socket countersunk head screws



Dimensions	M 2	M 2.5	M 3	M 4	M 5	M 6	M 8
d_k	4.4	5.5	6.3	9.4	10.4	12.6	17.3
$k_{max.}$	1.2	1.5	1.65	2.7	2.7	3.3	4.65
ISR	6	8	10	20	25	30	45
a	90°	90°	90°	90°	90°	90°	90°
b	25	25	25	38	38	38	38

Dimensions for countersinks ➔ DIN 74

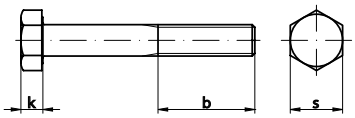
Dimensions in stock:
Steel/Steel coated: pg. 403 | **Stainless steel:** pg. 589

Hexagon screws/bolts

ISO 4014, 8765
Article 89601

replaces DIN 931, 960, 601

Hexagon head bolts with socket
ISO 8765/DIN 960 with fine pitch thread



Dimensions	M 3	M 4	M 5	M 6	M 7	M 8	M 10	M 12	M 14
$s_{ISO/DIN}$	5.5	7	8	10	11	13	16/17	18/19	21/22
k	2	2.8	3.5	4	4.8	5.3	6.4	7.5	8.8
b^1	12	14	16	18	20	22	26	30	34
b^2	–	–	22	24	26	28	32	36	40
b^3	–	–	–	–	–	–	45	49	53

Dimensions	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36
$s_{ISO/DIN}$	24	27	30	34/32	36	41	46	50	55
k	10	11.5	12.5	14	15	17	18.7	21	22.5
b^1	38	42	46	50	54	60	66	72	78
b^2	44	48	52	56	60	66	72	78	84
b^3	57	61	65	69	73	79	85	91	97

Dimensions	M 39	M 42	M 45	M 48	M 52	M 56	M 64		
$s_{ISO/DIN}$	60	65	70	75	80	85	95		
k	25	26	28	30	33	35	40		
b^1	84	90	96	102	–	–	–		
b^2	90	96	102	108	116	124	140		
b^3	103	109	115	121	129	137	153		

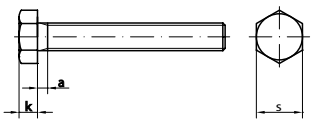
b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm
b^3 for l > 200 mm
Article 89601: CE acc. to EN 14592 (M 12, 16, 20, 24)

Dimensions in stock:
Steel/Steel coated: pg. 236, pg. 384, pg. 143, pg. 182, pg. 100 | **Stainless steel:** pg. 529, pg. 486 | **Non-ferrous materials:** pg. 636, pg. 625

ISO 4017, 8676

replaces DIN 933, 961

Hexagon head screws with thread up to head
ISO 8676/DIN 961 with fine pitch thread



Dimensions	M 3	M 4	M 5	M 6	M 7	M 8	M 10	M 12
$s_{ISO/DIN}$	5.5	7	8	10	11	13	16/17	18/19
k	2	2.8	3.5	4	4.8	5.3	6.4	7.5
$a_{max.}$	1.5	2.1	2.4	3	3	3.75	4.5	5.25

Dimensions	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30
$s_{ISO/DIN}$	21/22	24	27	30	34/32	36	41	46
k	8.8	10	11.5	12.5	14	15	17	18.7
$a_{max.}$	6	6	7.5	7.5	7.5	9	9	10.5

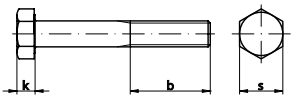
Dimensions	M 33	M 36	M 39	M 42	M 45	M 48		
$s_{ISO/DIN}$	50	55	60	65	70	75		
k	21	22.5	25	26	28	30		
$a_{max.}$	10.5	12	12	13.5	13.5	15		

Dimensions in stock:
Steel/Steel coated: pg. 254, 372, pg. 156, pg. 184 | **Stainless steel:** pg. 534, pg. 490 | **Non-ferrous materials:** pg. 636, pg. 625

Hexagon screws/bolts

ASME B 18.2.1

Hex cap screws*



short dimensions with shank
long dimensions with shank

Dimensions	1/4	5/16	3/8	7/16	1/2	5/8
s	7/16	1/2	9/16	5/8	3/4	15/16
k	5/32	13/64	15/64	9/32	5/16	25/64
b^1	0.750	0.875	1.000	1.125	1.250	1.500
b^2	1.000	1.125	1.250	1.375	1.500	1.750

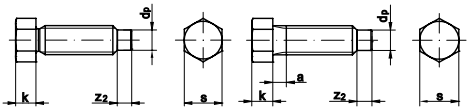
Dimensions	3/4	7/8	1	1 1/4	1 1/2	
s	1 1/8	1 5/16	1 1/2	1 7/8	2 1/4	
k	15/32	35/64	39/64	25/32	15/16	
b^1	1.750	2.000	2.250	2.750	3.250	
b^2	2.000	2.250	2.500	3.000	3.500	

all dimensions in inches
*acc. to ASME B 18.2.1: 2010 table 6,
b^1 for length 2 for length > 6 inch

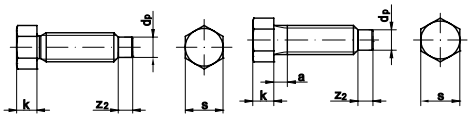
Dimensions in stock:
Steel/Steel coated: pg. 410, pg. 412

DIN 561, 564

Hexagon head set screws with small hexagon and dog point or short dog point



DIN 561 type A = with thread undercut
DIN 561 type B = with thread run-cut



DIN 564 type A = with thread undercut
DIN 564 type B = with thread run-cut

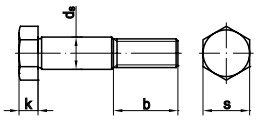
Dimensions	M 6	M 8	M 10	M 12
k	5	6	7	9
s	8	10	13	16
a (type B)	2.5	3	4	4
z_2	3	4	5	6
d_p	4	5.5	7	8.5

Dimensions	M 16	M 20	M 24	M 30
k	11	14	17	21
s	18	24	30	36
a (type B)	4.5	6	7	7.5
z_2	8	10	12	15
d_p	12	15	18	23

Dimensions in stock:
Steel/Steel coated: pg. 95, pg. 97

DIN 609

Hexagon fit bolts with long thread



Dimensions	M 8	M 10	M 12	M 14	M 16
k	5.3	6.4	7.5	8.8	10
s	13	16	18	21	24
d_s*	9	11	13	15	17
b^1	14.5	17.5	20.5	22	25
b^2	16.5	19.5	22.5	24	27
b^3	21.5	24.5	27.5	29	32

Dimensions	M 20	M 24	M 30	M 36	
k	12.5	15	19	22	
s	30	36	46	55	
d_s*	21	25	32	38	
b^1	28.5	-	-	-	
b^2	30.5	36.5	43	49	
b^3	35.5	41.5	48	54	

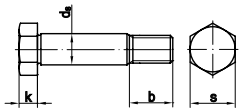
*adjusting shank tol. k6 for drill tol. H7
b^1 for l ≤ 50 mm
b^2 for 50 mm 3 for l > 150mm
b^3 for l > 150 mm

Dimensions in stock:
Steel/Steel coated: pg. 107

Hexagon screws/bolts

DIN 610

Hexagon fit bolts with short thread



*adjusting shank tol. k6 for drill tol. H7
b^1 for l ≤ 50 mm
b^2 for l ≤ 150 mm
b^3 for l > 150 mm

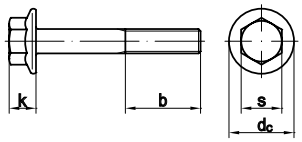
Dimensions	M 8	M 10	M 12	M 14	M 16
k	5.3	6.4	7.5	8.8	10
s	13	16	18	21	24
d_s*	9	11	13	15	17
b^1	11.5	13.5	15.5	17	19
b^2	13.5	15.5	17.5	19	21
b^3	18.5	20.5	22.5	24	26

Dimensions	M 20	M 24	M 30	M 36	
k	12.5	15	19	22	
s	30	36	46	55	
d_s*	21	25	32	38	
b^1	22.5	25.5	-	-	
b^2	24.5	28.5	34	40	
b^3	29.5	33.5	39	45	

Dimensions in stock:
Steel/Steel coated: pg. 108

EN 1665

replaces DIN 6921
Hexagon flange bolts, heavy series



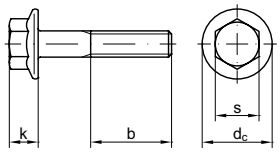
b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm
b^3 for l > 200 mm

Dimensions	M 5	M 6	M 8	M 10	M 12	M 16
$k_{EN/DIN}$	5.8/5.4	6.6/6.6	8.1/8.1	10.4/9.2	11.8/11.5	15.4/14.4
$s_{EN/DIN}$	8/8	10/10	13/13	16/15	18/16	24/21
d_c	11.58	14.2	18	22.3	26.6	35
b^1	16	18	22	26	30	38
b^2	-	-	28	32	36	44
b^3	-	-	-	-	-	57

Dimensions in stock:
Steel/Steel coated: pg. 223, pg. 320 | Stainless steel: pg. 521, pg. 557

Article 10105

Hexagon head bolts with flange acc. to MBN 10105



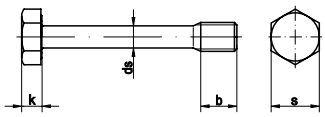
up to length 80 thread to head

Dimensions	M 10	M 12 x 1.5	M 14 x 1.5	M 16 x 1.5
$k_{max.}$	9.2	11.5	12.8	14.4
s	16	18	21	24
$d_{c\ max.}$	21.8	26	29.9	34.5
b	80	80	80	80

Dimensions in stock:
Steel/Steel coated: pg. 388

~DIN 7964

Bolts with waisted shank
type D1 = hexagon head acc. to ISO 4014, with short thread



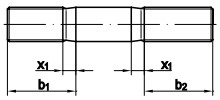
Dimensions	M 8	M 10
s	13	16
k	5.3	6.4
$d_{s\ min.}$	6	7.5
b	10	12.5

Dimensions in stock:
Stainless steel: pg. 574

Studs

DIN 835

Studs



screwed-in end ≈ 2 d
b_1 = screwed-in end
b_2 = nut end

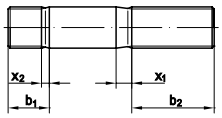
b_2^1 for l ≤ 125 mm
b_2^2 for l ≤ 200 mm
b^3 for l > 200 mm

Dimensions	M 6	M 8	M 10	M 12	M 16
b^1	12	16	20	24	32
x_1	2.5	3.2	3.8	4.3	5.0
b_2^1	18	22	26	30	38
b_2^2	24	28	32	36	44
b_2^3	-	-	45	49	57

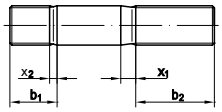
Dimensions in stock:
Steel/Steel coated: pg. 112 | Stainless steel: pg. 476

DIN 938, 939

Studs



DIN 938 = with screwed-in end ≈ 1 d



DIN 939 = with screwed-in end ≈ 1,25 d

b_1 = screwed-in end
b_2 = nut end

b_2^1 for l ≤ 125 mm
b_2^2 for l ≤ 200 mm
b^3 for l > 200 mm

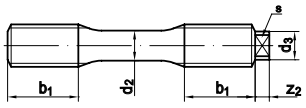
Dimensions	M 5	M 6	M 8	M 10	M 12	M 14
$b_{1\ (DIN\ 938)}$	5	6	8	10	12	14
$b_{1\ (DIN\ 939)}$	6.5	7.5	10	12	15	18
x_1	2	2.5	3.2	3.8	4.3	5
x_2	1	1.25	1.6	1.9	2.2	2.5
b_2^1	16	18	22	26	30	34
b_2^2	22	24	28	32	36	40
b_2^3	-	-	-	45	49	53

Dimensions	M 16	M 20	M 24	M 27	M 30	
$b_{1\ (DIN\ 938)}$	16	20	24	27	30	
$b_{1\ (DIN\ 939)}$	20	25	30	35	38	
x_1	5	6.3	7.5	7.5	9	
x_2	2.5	3.2	3.8	3.8	4.5	
b_2^1	38	46	54	60	66	
b_2^2	44	53	60	66	72	
b_2^3	57	65	73	79	85	

Dimensions in stock:
Steel/Steel coated: pg. 177, pg. 179 | Stainless steel: pg. 498, pg. 499

DIN 2510

Bolts with waisted shank
type L = with long thread



Dimensions	M 12	M 16	M 20	M 22	M 24
d_2	8.5	12	15	16.5	18
d_3	8	12	14	14	14
b^1	20	23	28	30	32
z_2	4	5	6	6	6
s	7	10	11	11	11

Dimensions	M 27	M 30	M 33	M 36	M 39
d_2	20.5	23	25.5	27.5	30.5
d_3	18	18	25	25	28
b^1	35	39	42	45	48
z_2	6	6	9	9	10
s	13	13	22	22	24

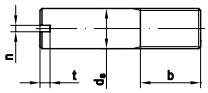
Dimensions in stock:
Steel/Steel coated: pg. 232

Set screws/grub screw

ISO 2342

similar DIN 427

Slotted headless screws with shank



Dimensions	M 3	M 4	M 5	M 6
d_s	3	4	5	6
b*	3.6	4.8	6	7.2
n	0.4	0.6	0.8	1
t	0.8	1.12	1.28	1.6

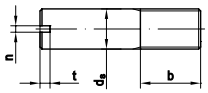
Dimensions	M 8	M 10	M 12	
d_s	8	10	12	
b*	9.6	12	14	
n	1.2	1.6	2	
t	2	2.4	2.8	

Dimensions in stock:
Steel/Steel coated: pg. 232, pg. 79 | Stainless steel: pg. 527, pg. 465

ISO 7435

similar DIN 417

Slotted headless screws with shank



Dimensions	M 3	M 4	M 5	M 6
d_p	2	2.5	3.5	4
z	1.5	2	2.5	3
n	0.4	0.6	0.8	1
t	0.8	0.96	1.12	1.28

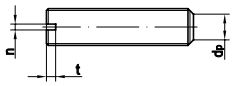
Dimensions	M 8	M 10	M 12	
d_p	5.5	7	8.5	
z	4	5	6	
n	1.2	1.6	2	
t	1.6	2	2.4	

Dimensions in stock:
Steel/Steel coated: pg. 345, pg. 79

ISO 4766

similar DIN 551

Slotted grub screws with flat point



Dimensions	M 1.6	M 2	M 2.5	M 3	M 4
n	0.25	0.25	0.4	0.4	0.6
t	0.56	0.64	0.72	0.8	1.12
d_p	0.8	1	1.5	2	2.5

Dimensions	M 5	M 6	M 8	M 10	M 12*
n	0.8	1	1.2	1.6	2
t	1.28	1.6	2	2.4	2.8
d_p	3.5	4	5.5	7	8.5

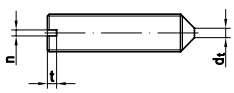
*dimensions acc. to DIN 551: 1956-04

Dimensions in stock:
Steel/Steel coated: pg. 305, pg. 93 | Stainless steel: pg. 552, pg. 470 | Non-ferrous materials: pg. 638, pg. 620

ISO 7434

similar DIN 553

Slotted grub screws with cone point



Dimensions	M 1.6	M 2	M 2.5	M 3	M 4
n	0.25	0.25	0.4	0.4	0.6
t	0.56	0.64	0.72	0.8	1.12
$d_{t\ max.}$	0.16	0.2	0.25	0.3	0.4

Dimensions	M 5	M 6	M 8	M 10	
n	0.8	1	1.2	1.6	
t	1.28	1.6	2	2.4	
$d_{t\ max.}$	0.5	1.5	2	2.5	

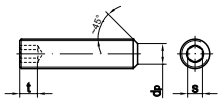
Dimensions in stock:
Steel/Steel coated: pg. 345, pg. 94 | Stainless steel: pg. 573, pg. 471 | Non-ferrous materials: pg. 641, pg. 621

Set screws/grub screw

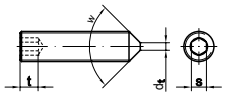
ISO 4026, 4027

similar DIN 913, 914

Hexagon socket set screws, with flat point or cone point
screws only for pressure load, hardness class 45H



ISO 4026, DIN 913 = with flat point



ISO 4027, DIN 914 = with cone point

t_1 for l above the dashed step line with angle $W_{DIN\ 914}$ = 120°
t_2 for below the dashed step line with angle $W_{DIN\ 914}$ = 90°

➔ step line see product standard

Dimensions	M 1.6	M 2	M 2.5	M 3	M 4
s	0.7	0.9	1.3	1.5	2
$d_{p\ max.}/d_{t\ max.}$	0.8	1	1.5	2	2.5
t_1	0.7	0.8	1.2	1.2	1.5
t_2	0.5	0.7	2	2	2.5

Dimensions	M 5	M 6	M 8	M 10	M 12
s	2.5	3	4	5	6
$d_{p\ max.}/d_{t\ max.}$	3.5	4	5.5	7	8.5
t_1	2	2	3	4	4.8
t_2	3	3.5	5	6	8

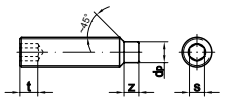
Dimensions	M 14	M 16	M 20	M 24	
s	6	8	10	12	
$d_{p\ max.}/d_{t\ max.}$	10	12	15	18	
t_1	5.6	6.4	8	10	
t_2	9	10	12	15	

Dimensions in stock:
Steel/Steel coated: pg. 272, pg. 274, pg. 134, pg. 137 | Stainless steel: pg. 541, pg. 542, pg. 481, pg. 482

ISO 4028

similar DIN 915

Hexagon socket set screws with full dog point



z_1 and t_1 for above dashed step line
z_2 and t_2 for below the dashed step line

➔ step line see product standard
*dimensions acc. to DIN 915

Dimensions	M 2*	M 3	M 4	M 5	M 6	M 8
s	0.9	1.5	2	2.5	3	4
$z_{1\ max.\ (kurz)}$	0.75	1	1.25	1.5	1.75	2.25
t_1	0.8	1.2	1.5	2	2	3
d_p	1	2	2.5	3.5	4	5.5
$z_{2\ max.\ (lang)}$	1.25	1.75	2.25	2.75	3.25	4.3
t_2	1.7	2	2.5	3	3.5	5

Dimensions	M 10	M 12	M 14	M 16	M 20	M 24
s	5	6	6	8	10	12
$z_{1\ max.\ (kurz)}$	2.75	3.25	3.8	4.3	5.3	6.3
t_1	4	4.8	5.6	6.4	8	10
d_p	7	8.5	10	12	15	18
$z_{2\ max.\ (lang)}$	5.3	6.3	7.36	8.36	10.36	12.43
t_2	6	8	9	10	12	15

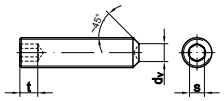
Dimensions in stock:
Steel/Steel coated: pg. 275, pg. 138 | Stainless steel: pg. 543, pg. 483

Set screws/grub screw

ISO 4029

similar DIN 916

Hexagon socket set screws with cup point



t_1 for l above the dashed step line
t_2 for l below the dashed step line

➔ step line see product standard

Dimensions	M 2	M 2.5	M 3	M 4	M 5	M 6	M 8
s	0.9	1.3	1.5	2	2.5	3	4
$d_{v\ max.}$	1	1.2	1.4	2	2.5	3	5
t_1	0.8	1.2	1.2	1.5	2	2	3
t_2	1.7	2	2	2.5	3	3.5	5

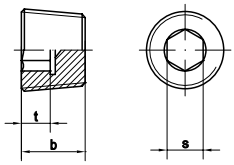
Dimensions	M 10	M 12	M 14	M 16	M 20	M 24	
s	5	6	6	8	10	12	
$d_{v\ max.}$	6	8	9	10	14	16	
t_1	4	4.8	5.6	6.4	8	10	
t_2	6	8	9	10	12	15	

Dimensions in stock:
Steel/Steel coated: pg. 277, pg. 139 | Stainless steel: pg. 543, pg. 484

Screw plugs/pipe plugs

DIN 906

Hexagon socket pipe plugs with taper thread



Dimensions	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
s	4	5	6	7	8	8	10	10	12
$t_{min.}$	4	4	5	5	5	5	5	5	6
b*	8	8	10	10	10	10	10	10	12

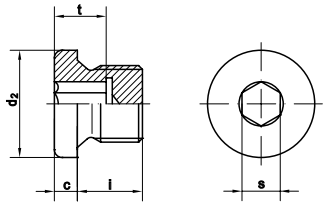
Dimensions	M 26	M 27	M 30	M 33	M 36	M 38	M 42	R 1/8	R 1/4
s	12	12	17	17	19	19	22	5	7
$t_{min.}$	6	6	6	6	7.5	7.5	11.5	4	5
b*	12	12	12	12	15	15	18	8	10

Dimensions	R 3/8	R 1/2	R 3/4	R 1	R 1 1/4	R 1 1/2	R 1 3/4	R 2	
s	8	10	12	17	22	24	32	32	
$t_{min.}$	5	5	6	6	11.5	11.5	13	13	
b*	10	10	12	12	18	20	22	22	

Dimensions in stock:
Steel/Steel coated: pg. 112 | Stainless steel: pg. 476 | Non-ferrous materials: pg. 624

DIN 908

Hexagon socket screw plugs with cylindrical thread



Dimensions	M 8x1*	M 10x1	M 12x1.5	M 14x1.5	M 16x1.5	M 18x1.5	M 20x1.5
s	5	5	6	6	8	8	10
$t_{min.}$	2.4	5	7	7	7.5	7.5	7.5
d_2	12	14	17	19	21	23	25
c	3	3	3	4	3	4	4
i	8	8	12	12	12	12	14

Dimensions	M 22x1.5	M 24x1.5	M 26x1.5	M 27x2	M 30x1.5	M 30x2	M 33x2
s	10	12	12	12	17	17	17
$t_{min.}$	7.5	7.5	9	9	9	9	9
d_2	27	29	31	32	36	36	39
c	4	4	4	4	4	4	5
i	14	14	16	16	16	16	16

Dimensions	M 36x1.5	M 36x2	M 38x1.5	M 42x1.5	M 45x1.5	M 48x1.5	M 52x1.5
s	19	19	19	22	22	24	24
$t_{min.}$	10.5	10.5	10.5	10.5	10.5	10.5	10.5
d_2	42	42	42	49	52	55	60
c	5	5	5	5	5	5	5
i	16	16	16	16	16	16	16

Dimensions	M 52x2	M 56x2	M 64x2	G 1/8 A	G 1/4 A	G 3/8 A	G 1/2 A
s	32	32	32	5	6	8	10
$t_{min.}$	10.5	14	14	5	7	7.5	7.5
d_2	64	72	72	14	12	22	26
c	5	5	5	3	3	3	4
i	16	20	20	8	12	12	14

Dimensions	G 3/4 A	G 1 A	G 1 1/8 A	G 1 1/4 A	G 1 1/2 A	G 1 3/4 A	G 2 A
s	12	17	19	22	24	32	32
$t_{min.}$	9	9	10.5	10.5	10.5	14	14
d_2	32	39	44	49	55	62	68
c	4	5	5	5	5	5	5
i	16	16	16	16	16	20	20

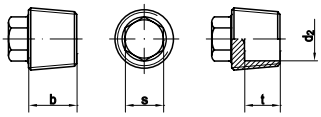
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 113 | Stainless steel: pg. 476 | Non-ferrous materials: pg. 624

Screw plugs/pipe plugs

DIN 909

Hexagon head pipe plugs with taper thread



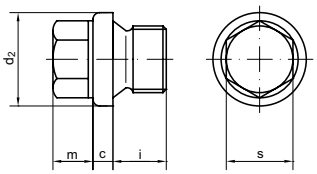
Dimensions	M 16x1,5	M 18x1,5	M 24x1,5	M 30x1,5	R 1/8
b*	10	10	12	12	8
d_2	-	-	16	20	-
s	10	10	17	19	7
t	-	-	7	7	-

Dimensions	R 1/4	R 3/8	R 1/2	R 3/4	R 1
b*	10	10	10	12	12
d_2	-	-	12	16	23
s	9	10	13	17	19
t	-	-	6	7	7

Dimensions in stock:
Steel/Steel coated: pg. 113

DIN 910

Hexagon head screw plugs, heavy type, cylindrical thread



Dimensions	M 8x1*	M 10x1	M 12x1.5	M 14x1.5	M 16x1.5	M 18x1.5	M 20x1.5	M 22x1.5
c	3	3	3	3	3	4	4	4
d_2	14	14	17	19	21	23	25	27
m	6	6	6	6	6	6	8	8
s	10	10	13	13	17	17	19	19
i	8	8	12	12	12	12	14	14

Dimensions	M 24x1.5	M 26x1.5	M 27x2	M 30x1.5	M 30x2	M 33x2	M 36x1.5	M 36x2
c	4	4	4	4	4	5	5	5
d_2	29	31	32	36	36	39	42	42
m	9	10	10	10	10	11	11	11
s	22	24	24	24	24	27	27	27
i	14	16	16	16	16	16	16	16

Dimensions	M 38x1.5	M 42x1.5	M 42x2	M 45x1.5	M 45x2	M 48x1.5	M 48x2	M 52x1.5
c	4	5	5	5	5	5	5	5
d_2	44	49	49	55	52	55	55	60
m	11	12	12	12	12	12	12	12
s	27	30	30	30	30	36	30	30
i	16	16	16	16	16	16	16	16

Dimensions	M 56x2	M 64x2	G 1/8 A	G 1/4 A	G 3/8 A	G 1/2 A	G 5/8 A*	G 3/4 A
c	5	5	3	3	3	4	4	4
d_2	64	72	14	18	22	26	28	32
m	15	15	6	6	6	8	8	10
s	36	36	10	13	17	19	22	24
i	20	20	8	12	12	14	14	16

Dimensions	G 7/8 A*	G 1 A	G 1 1/8 A	G 1 1/4 A	G 1 1/2 A	G 1 3/4 A	G 2 A	
c	4	5	4	5	5	5	5	
d_2	36	39	44	49	55	62	68	
m	10	11	11	12	12	15	15	
s	24	27	27	30	30	36	36	
i	14	16	16	16	16	20	20	

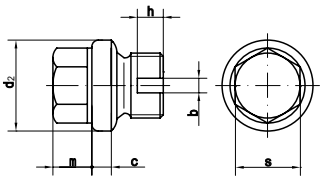
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 114 | Stainless steel: pg. 476 | Non-ferrous materials: pg. 624

Screw plugs/pipe plugs

DIN 5586

Hexagon head screw plugs with collar and vent
type B = with melted sealing

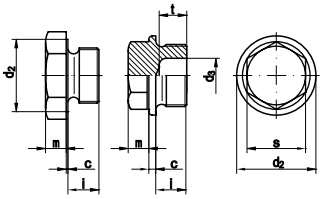


Dimensions	G 1/8 A	G 1/4 A	G 1/2 A	G 3/4 A	G 1 A	G 1 1/2 A	G 2 A
a	4	6	7	7	7	7	7
h	3	3	4	6	6	6	6
h	5	7	8	10	10	10	10
c	3	3	4	4	5	5	5
d_2	14	18	26	32	39	55	68
m	8	6	8	10	11	12	15

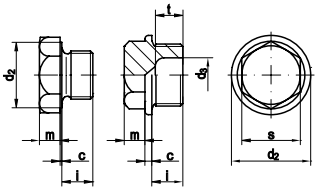
Dimensions in stock:
Steel/Steel coated: pg. 306

DIN 7604

Hexagon head screw plugs with collar, light type, cylindrical fine pitch thread



≤M 16 ≥M 18
type A = short stud end



≤M 16 ≥M 18
type C = long stud end

Dimensions	M 8x1	M 10x1	M 12x1.5	M 14x1.5	M 16x1.5	M 18x1.5
c	0.5	0.5	0.5	0.5	0.5	2
d_2	12	14	17	19	21	23
d_3	–	–	–	–	–	10
$i_{\text{type A/type C}}$	–/8	6/8	9	9/–	9/–	9/–
$l_{\text{type A/type C}}$	–/12.5	10.5/12.5	15.5	15.5/–	15.5/–	17/–
m	4	4	6	6	6	6
s	12	14	17	19	22	17
$t_{\text{type A/type C}}$	–	–	–	–	–	8/–

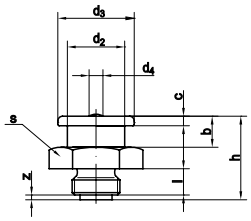
Dimensions	M 22x1.5	M 26x1.5	M 30x1.5	M 38x1.5	M 45x1.5	M 52x1.5
c	2	2.5	2.5	3	3	3
d_2	27	31	36	44	52	60
d_3	14	16	20	26	32	38
$i_{\text{type A/type C}}$	9/–	9/12	9/12	–/12	–/12	–/12
$l_{\text{type A/type C}}$	17/–	19.5/22.5	19.5/22.5	–/23	–/23	–/23
m	6	8	8	8	8	8
s	19	22	22	22	24	27
$t_{\text{type A/type C}}$	8/–	8/10	8/10	–/10	–/10	–/10

Dimensions in stock:
Steel/Steel coated: pg. 351 | Stainless steel: pg. 574

Lubricating nipples

DIN 3404

Lubricating nipples



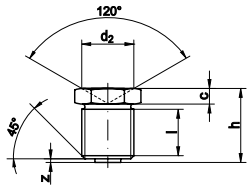
Dimensions	M 6x1	M 6x1	M 8x1	M 8x1	M 10x1
b	4.8	6.5	4.8	6.5	6.5
c	1.7	2.0	1.7	2.0	2.0
d_2	7.2	12	7.2	12	12
d_3	10	16	10	16	16
d_4	1.5	1.5	2.5	2.5	2.9
$h_{max.}$	13	17	13.7	16.7	17.6
l	4.9	5.3	4.9	5.3	5.5
s	11	17	11	17	17
$z_{max.}$	0.6	0.8	0.6	0.8	1.0

Dimensions	M 16x1.5	G 1/4	G 1/4	G 3/8	
b	8.5	6.5	8.5	8.5	
c	3.0	2.0	3.0	3.0	
d_2	18	12	18	18	
d_3	22	16	22	22	
d_4	5.0	2.9	5.0	5.0	
$h_{max.}$	23.1	16	22	22	
l	7.5	5.5	7.5	7.5	
s	22	17	22	22	
$z_{max.}$	1.5	1	1.5	1.5	

Dimensions in stock:
Steel/Steel coated: pg. 234 | Non-ferrous materials: pg. 636

DIN 3405

Lubricating nipples, cupped type
type A = with thread acc. to DIN 13-5

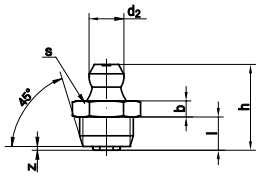


Dimensions	M 6x1	M 8x1
$h_{max.}$	9.5	9.5
l	5.5	5.5
d_2	6	8
c	3	3
s	7	9
$z_{max.}$	0.7	0.7

Dimensions in stock:
Steel/Steel coated: pg. 235

DIN 71412

Lubricating nipples, cone type, with hexagon
type A = cone head straight/axial



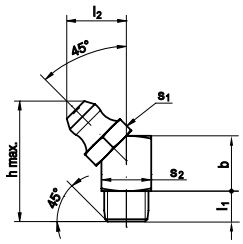
Dimensions	M 6x1	M 6x1	M 8x1	AR 1/8	M 10x1	AR 1/4
$h_{max.}$	16	16	16	16	16	16
l	5.5	5.5	5.5	5.5	5.5	5.5
d_2	6.5	6.5	6.5	6.5	6.5	6.5
b*	3	3	3	3	3	3
s	7	9	9	11	11	14
$z_{max.}$	0.7	0.7	0.7	0.7	0.7	0.7

Dimensions in stock:
Steel/Steel coated: pg. 409 | Stainless steel: pg. 592

Lubricating nipples

DIN 71412

Lubricating nipples, cone type, with hexagon or square
type B = cone head 45° angled

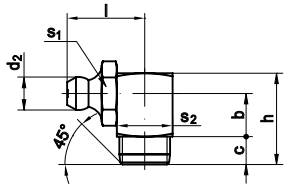


Dimensions	M 6x1	M 8x1	M 10x1
$h_{max.}$	21	21	21
l_1	5.5	5.5	5.5
l_2	10	10	11
b	10	10	10
s_1	7	9	11
$s_{2\ square}$	9	9	11

Dimensions in stock:
Steel/Steel coated: pg. 409

DIN 71412

Lubricating nipples, cone type, with hexagon or square
type C = cone head 90° angled



*intermediate sizes not included in the standard

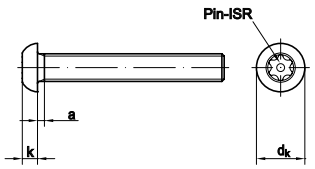
Dimensions	M 6x1	M 8x1	M 8x1.5*	M 10x1
$h_{max.}$	18	18	18	18
c	5.5	5.5	5.5	5.5
d_2	6.5	6.5	6.5	6.5
b	8.5	8.5	8.5	8.5
s_1	9	9	9	11
$s_{2\ square}$	9	9	9	11
l	14.3	14.3	14.3	15.3

Dimensions in stock:
Steel/Steel coated: pg. 409

Theft resistant screw/locking screws

Article 88116

Theft resistant screws with button head, metric thread and pin hex. socket drive
similar to ISO 7380



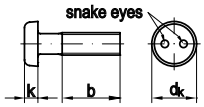
Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
d_k	5.7	7.6	9.5	10.5	14	17.5
$a_{min.}$	0.5	0.7	0.8	1	1.25	1.5
$k_{min.}$	1.4	1.95	2.5	3	4.1	5.2
PIN ISR size	T10	T20	T25	T30	T40	T45

Dimensions in stock:
Stainless steel: pg. 598

Theft resistant screw/locking screws

Article 88111

Theft resistant screws with pan head, metric thread and snake eyes drive
similar to DIN 85

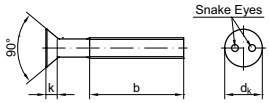


Dimensions	M 3	M 4	M 5	M 6
$b_{min.}$	25	38	38	38
d_k	6	8	10	12
k	1.8	2.4	3	3.6

Dimensions in stock:
Stainless steel: pg. 596

Article 88112

Theft resistant screws with pan head, metric thread and snake eyes drive
similar to DIN 963

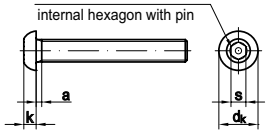


Dimensions	M 3	M 4	M 5	M 6
$b_{min.}$	19	22	25	28
d_k	5.6	7.5	9.2	11
k	1.65	2.2	2.5	3

Dimensions in stock:
Stainless steel: pg. 596

Article 88113

Theft resistant screws with button head, metric thread and hexagon socket with pin
similar to ISO 7380

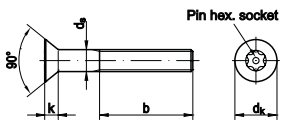


Dimensions	M 3	M 4	M 5	M 6	M 8	M 10	M 12
$a_{min.}$	0.5	0.7	0.8	1	1.25	1.5	1.75
$d_{K\ max.}$	5.7	7.6	9.5	10.5	14	17.5	21
$k_{min.}$	1.4	1.95	2.5	3	4.1	5.2	6.24
s	2	2.5	3	4	5	6	8

Dimensions in stock:
Stainless steel: pg. 597

Article 88117

Theft resistant screws with countersunk head, metric thread and pin hex. socket drive
similar to ISO 10642



b_1 for l ≤ 125 mm
b_2 for l > 125 mm, b_3 for l > 200 mm

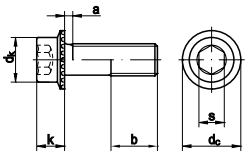
Dimensions	M 3	M 3.5	M 4	M 5	M 6	M 8	M 10
$d_{K\ max.}$	6	7	8	10	12	16	20
$a_{min.}$	0.5	0.6	0.7	0.8	1	1.25	1.5
$k_{max.}$	1.7	2	2.3	2.8	3.3	4.4	5.5
ISR-size	T10	T15	T20	T25	T30	T40	T45
b_1	12	12	14	16	18	22	26
b_2	-	-	-	-	24	28	32
b_3	-	-	-	-	-	-	45

Dimensions in stock:
Stainless steel: pg. 598

Theft resistant screw/locking screws

Article 88912

Hexagon socket cap screws with flange and ribs

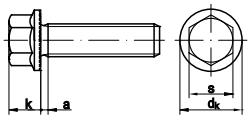


Dimensions	M 5	M 6	M 8	M 10	M 12
$a_{max.}$	2.4	3	3.7	4.5	5.2
b	22	24	28	32	36
d_c	11	13.5	17	19.5	22.5
d_k	9	11	14	17	19
k	5	6	8	10	12
s	4	5	6	8	10
qty. ribs	28	36	48	60	72

Dimensions in stock:
Steel/Steel coated: pg. 438

Article 88913

Hexagon head screws with flange and ribs

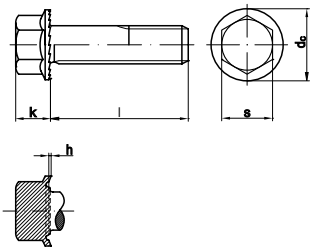


Dimensions	M 5	M 6	M 8	M 10	M 12	M 14	M 16
$a_{max.}$	1.6	2	2.5	3	3.5	4	4
d_k	11.2	14.2	18.2	21	24	27.5	31
k	4.3	5.5	7	8.5	10	12	14
s	8	10	13	15	17	19	22
qty. ribs	28	36	48	48	60	60	72

Dimensions in stock:
Steel/Steel coated: pg. 438

Article 88933

Hexagon head locking screws with flange



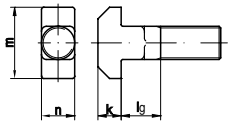
Dimensions	M 5	M 6	M 8	M 10	M 12	M 16
d_c	11.2	14.25	18.25	21	24	31
$h_{min.}$	0.15	0.17	0.2	0.25	0.25	0.28
k	4.3	5.5	7	7.9	8.7	11.2
s	8	10	13	15	17	22
qty. serrations	24	24	24	24	24	24

Dimensions in stock:
Steel/Steel coated: pg. 441

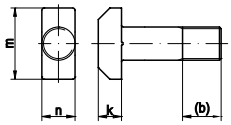
Other screws with metric thread

DIN 186, 261

T-head bolts



DIN 186 type B = with square neck and long thread



DIN 261

b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm

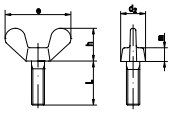
Dimensions	M 6	M 8	M 10	M 12
m	16	18	21	26
n	6	8	10	12
k	4.5	5.5	7	8
$l_{g\ (186\ B)}$	10	13	16	19
b_1	18	22	26	30
b_2	-	-	-	-

Dimensions	M 16	M 20	M 24	
m	30	36	43	
n	16	20	24	
k	10.5	13	15	
$l_{g\ (186\ B)}$	25	31	37	
b_1	38	46	54	
b_2	44	52	60	

Dimensions in stock:
Steel/Steel coated: pg. 77

DIN 316

Wing screws with rounded wings

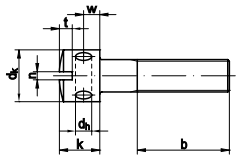


Dimensions	M 4	M 5	M 6	M 8	M 10	M 12	M 16
d_2	7	9.5	11.5	14.5	18.5	21.5	27.5
e	20	25	31.5	37	49.5	63.5	71.5
g	1.5	1.9	1.9	2.4	4	4.5	6
h	9.5	12	16	19	24	32.3	36.3
m	3.9	5.3	6.5	8.3	10	12	15

Dimensions in stock:
Steel/Steel coated: pg. 78 | Stainless steel: pg. 464 | Non-ferrous materials: pg. 618

DIN 404

Slotted capstan screws



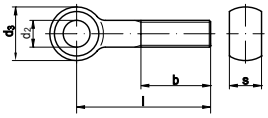
Dimensions	M 3	M 4	M 5	M 6
∅ d_k	5.5	7	8.5	10
k	4	5	6.5	8
n	0.8	1	1.2	1.6
$t_{min.}$	1	1.4	1.7	2.2
∅ d_h	1.5	2	2.5	3
w	1.5	2	2.5	3
b	19	22	25	28

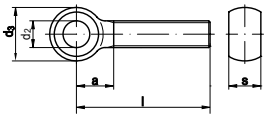
Dimensions in stock:
Steel/Steel coated: pg. 78 | Stainless steel: pg. 465

Other screws with metric thread

DIN 444

Eye bolts
type B = product grade B





with thread near the eye

b¹ for l ≤ 125 mm
b² for l ≤ 200 mm
b³ for l > 200 mm

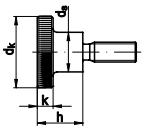
Dimensions	M 5	M 6	M 8	M 10	M 12
d_2	5	6	8	10	12
d_3	12	14	18	20	25
s	6	7	9	12	14
a	11	14	16	18	23
b_1	16	18	22	26	30
b_2	–	–	28	32	36
b_3	–	–	–	–	49

Dimensions	M 16	M 20	M 24	M 30	
d_2	16	18	22	27/28	
d_3	32	40	45	55	
s	17	22	25	30	
a	27	32	40	46	
b_1	38	46	54	66	
b_2	44	52	60	72	
b_3	57	65	73	85	

Dimensions in stock:
Steel/Steel coated: pg. 85 | Stainless steel: pg. 468 | Non-ferrous materials: pg. 619

DIN 464

Knurled thumb screws, high type

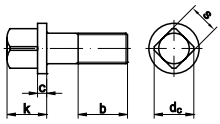


Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
d_k	12	16	20	24	30	36
k	2.5	3.5	4.0	5.0	6.0	8.0
h	5.7	7.64	9.64	11.57	15.57	19.48
d_s	6	8	10	12	16	20

Dimensions in stock:
Steel/Steel coated: pg. 87 | Stainless steel: pg. 469 | Non-ferrous materials: pg. 619

DIN 478

Square head bolts with collar



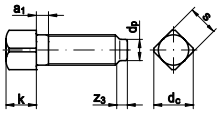
[1] acc. to ISO 272

Dimensions	M 8	M 10	M 12	M 16
k	10	13	15	20
c	2	3	3	4
b	22	26	30	38
d_c	13.5	16.5	19.5	25
s	8	10	13	16¹/17

Dimensions in stock:
Steel/Steel coated: pg. 91

DIN 479

Square head bolts with short dog point



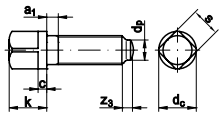
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20
k	6	8	10	12	16	20
a_1	3	4	4.5	5.3	6	7.5
s	6	8	10	13	16¹/17	21¹ /22
d_p	4	5.5	7	8.5	12	15
z_1	1.5	2	2.5	3	4	5

Dimensions in stock:
Steel/Steel coated: pg. 91

Other screws with metric thread

DIN 480

Square head bolts with collar and short dog point with rounded end



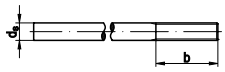
[1]acc. to ISO 272

Dimensions	M 10	M 12	M 16	M 20
k	13	16	20	25
$c_{max.}$	3.12	4.15	4.15	5.15
a_1	4.5	5.3	6	7.5
s	10	13	16[1]/17	21[1]/22
d_c	13	17	21[1]/22	27[1]/28
z_3	2.5	3	4	5

Dimensions in stock:
Steel/Steel coated: pg. 92

DIN 525

Studs for welding



*not standardized, reference values

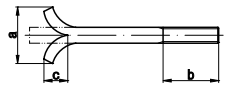
Dimensions	M 6	M 8	M 10	M 12	M 14*	M 16
b	35	40	45	55	60	65
d_s	6	8	10	12	14	16

Dimensions	M 20	M 22*	M 24	M 27*	M 30	M 36
b	75	80	85	95	105	125
d_s	20	22	24	27	30	36

Dimensions in stock:
Steel/Steel coated: pg. 92

DIN 529

Masonry bolts
type C = with split swivel



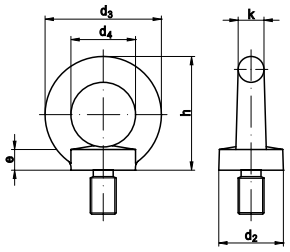
Dimensions	M 8	M 10	M 12	M 16	M 20	M 24	M 30
b	20	25	30	40	50	60	75
a	24	30	36	48	60	75	95
c	12	15	18	24	30	36	45

Dimensions in stock:
Steel/Steel coated: pg. 92

Other screws with metric thread

DIN 580

Lifting eye bolts



Dimensions	M 6	M 8	M 10	M 12	M 14	M 16	M 18
d_2	20	20	25	30	35	35	40
d_3	36	36	45	54	63	63	72
d_4	20	20	25	30	35	35	40
h	36	36	45	53	62	62	71
e	6	6	8	10	12	12	14
k	8	8	10	12	14	14	16

Dimensions	M 20	M 22	M 24	M 27	M 30	M 33	M 36
d_2	40	50	50	65	65	75	75
d_3	72	90	90	108	108	126	126
d_4	40	50	50	60	60	70	70
h	71	90	90	109	109	128	128
e	14	18	18	22	22	26	26
k	16	20	20	24	24	28	28

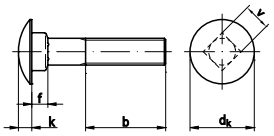
Dimensions	M 39	M 42	M 45	M 48	M 52	M 56	M 64
d_2	85	85	100	100	110	110	120
d_3	144	144	166	166	184	184	206
d_4	80	80	90	90	100	100	110
h	147	147	168	168	187	187	208
e	30	30	35	35	38	38	42
k	32	32	38	38	42	42	48

more information ➔ TI-148

Dimensions in stock:
Steel/Steel coated: pg. 99 | Stainless steel: pg. 472

DIN 603

Cup head square neck bolts



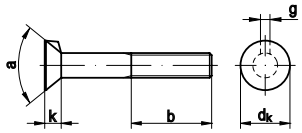
b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm
b^3 for l > 200 mm

Dimensions	M 5	M 6	M 8	M 10	M 12	M 16	M 20
d_k	13.5	16.55	20.65	24.65	30.65	38.8	46.8
k	3.3	3.88	4.88	5.38	6.95	8.95	11.05
f	4.1	4.6	5.6	6.6	8.75	12.9	15.9
v	5.48	6.48	8.58	10.58	12.7	16.7	20.84
b_1	16	18	22	26	30	38	46
b_2	22	24	28	32	36	44	52
b_3	-	-	41	45	49	57	65

Dimensions in stock:
Steel/Steel coated: pg. 103 | Stainless steel: pg. 473 | Non-ferrous materials: pg. 621

DIN 604

Flat countersunk nib bolts



b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm
b^3 for l > 200 mm

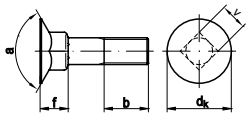
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20	M 24
d_k	12.55	16.55	19.65	24.65	32.8	32.8	38.8
k	4	5	5.5	7	9	11.5	13
a	90°	90°	90°	90°	90°	60°	60°
g	2.5	3	3.2	3.6	4.2	5.4	6.6
b_1	18	22	26	30	38	46	54
b_2	24	28	32	36	44	52	60
b_3	-	41	45	49	57	65	73

Dimensions in stock:
Steel/Steel coated: pg. 106

Other screws with metric thread

DIN 605

Flat countersunk square neck bolts with long square

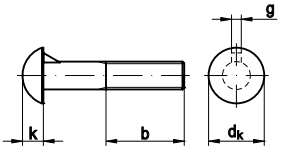


Dimensions	M 6	M 8	M 10
d_k	16.55	20.65	24.65
f	7.45	9.45	11.55
b	18	22	26
v	6.48	8.58	10.58
countersunk angle	120°	120°	120°

Dimensions in stock:
Steel/Steel coated: pg. 106

DIN 607

Cub head nib bolts



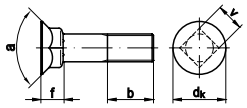
b^1 for l ≤ 125 mm
b^2 for l ≤ 200 mm
b^3 for l > 200 mm

Dimensions	M 8	M 10	M 12	M 16
d_k	16.55	19.65	24.65	30.65
k	6.38	7.45	9.65	11.75
g	3	3.2	3.6	4.2
b_1	22	26	30	38
b_2	28	32	36	44
b_3	–	–	–	57

Dimensions in stock:
Steel/Steel coated: pg. 106

DIN 608

Flat countersunk square neck bolts with short square

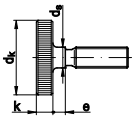


Dimensions	M 8	M 10	M 12	M 16
d_k	16	19.65	24.65	32
f	7	8.45	11.05	13.5
b	22	26	30	38
v	8	10.58	12.7	16
countersunk angle	90°	90°	90°	90°

Dimensions in stock:
Steel/Steel coated: pg. 106

DIN 653

Knurled thumb screws, low type



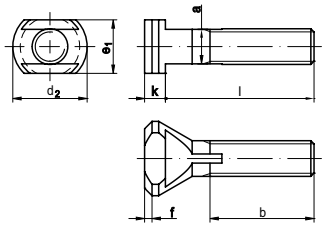
Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
∅ d_k	12	16	20	24	30	36
$k_{max.}$	2.5	3.5	4	5	6	8
∅ d_s	3	4	5	6	8	10
e	2	3	3	4	5	6

Dimensions in stock:
Steel/Steel coated: pg. 108 | Stainless steel: pg. 474

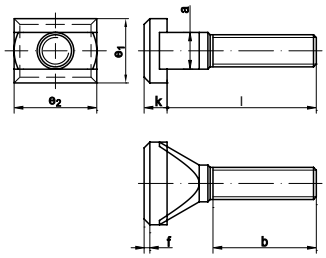
Other screws with metric thread

DIN 787

T-slot screws



head shape up to M 12x12



head shape from M 12x14*

Dimensions	M 8	M 10	M 12	M 16
$a_{max.}$	7.7	9.7	11.7	15.7
e_1/d_2	13/16	15/20	18/25	25
f	1.6	1.6	2.5	2.5
k	6	6	7	9
for T-slots	8	10	12	16

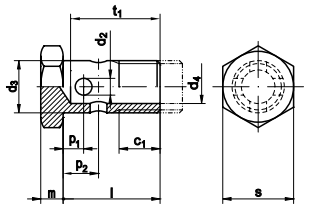
Dimensions	M 16	M 20	M 24	M 24
$a_{max.}$	17.7	19.7	23.7	27.7
e_1/d_2	25	32	40	44
f	2.5	2.5	(4)	4
k	9	12	16	18
for T-slots	18	20	24	28

*$e_2 \geq e_1$

Dimensions in stock:
Steel/Steel coated: pg. 111

DIN 7643

Hollow screws for ring type banjos short thread length



Dimensions	M 8x1	M 10x1	M 12x1.5	M 14x1.5
pipe ∅	4 und 5	5	8	10
c_1	8.5	8.5	11	11
l_1	17	19	24	26
t_1	15	17	22	24
b_2	-	2.8	3.5	4.5
d_3	8	10	12	14
d_4	4	5.5	7	9
m	5	6	6	6
p_1	-	4.5	5	5.5
p_2	-	6.5	8	9.5
s	12	14	17	19

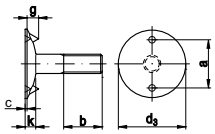
Dimensions	M 16x1.5	M 18x1.5	M 22x1.5	M 26x1.5
pipe ∅	12	15	18	22
c_1	11	11	13	13
l_1	28	32	39	45
t_1	26	29	35.5	41
b_2	5.5	7	9	11
d_3	16	18	22	26
d_4	11	13	16	20
m	6	6	7	7
p_1	6.5	7.5	9	10.5
p_2	11.5	14	18	22.5
s	22	24	27	32

Dimensions in stock:
Steel/Steel coated: pg. 352

Other screws with metric thread

DIN 15237

Seating screws
for the attachment of components

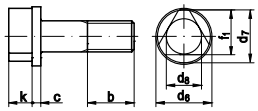


Dimensions	M 6	M 8	M 10	M 12
d_3	20	28	35	42
a	14	20	25	30
$c_{max.}$	1	1	1	1.2
g	3.5	5	6	7
k	2.5	3.5	4.5	5.2
l	20	25/30/35/40	30/35/40/50	35/40/50/60
b	12	15/18/18/20	18/20/20/20	20/25/28/28

Dimensions in stock:
Steel/Steel coated: pg. 407

DIN 22424

Triangle head bolts
type A = with full shank

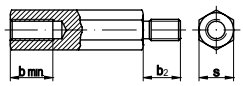


Dimensions	M 8	M 10
$c_{max.}$	1	1
k	3.5	4.5
$d_{6\ max.}$	15.2	18.2
$d_{7\ min.}$	13.9	16.9
$d_{8\ min.}$	9.3	11.8
b	15/18/18/20	18/20/20/20
$f_{1\ min.}$	11.55	14.3

Dimensions in stock:
Steel/Steel coated: pg. 408

Article 88086

Spacers with thread



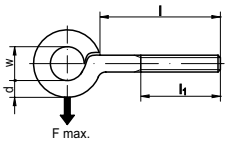
Dimensions	M 3	M 4	M 5	M 6
$b_{min.}$	2.5/3/3.5/ 5/6/7	5/6/8/9	11	10/15/16
b_2	6	8	10	13
s	5.5	7	8	10

Dimensions in stock:
Steel/Steel coated: pg. 416

Other screws with metric thread

Article 88136

Screw eyes
type 48



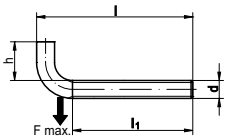
Dimensions	M 3	M 4	M 5	M 6
w	5	6	8	10
d	2.6	3.5	4.4	5.2
l	11/16	11/16/21/26/32/42	16/21/26/32/42/52/62	11/16/21/26/32/42/52/62/72/82
l_1	10/15	10/15/20/25/30/40	15/20/25/30/40/50/60	10/15/20/25/30/40/50/60/70/80
$F_{max.}$	7.50 kg	12.50 kg	20 kg	35 kg

Dimensions	M 8	M 10	M 12	
w	12	14	18	
d	7	8.9	10.6	
l	21/26/32/42/52/62/82/102	32/42/52/62/72/82/102	102	
l_1	20/25/30/40/50/60/80/100	30/40/50/60/80/70/100	100	
$F_{max.}$	50 kg	100 kg	175 kg	

Dimensions in stock:
Steel/Steel coated: pg. 434 | Stainless steel: pg. 601

Article 88138

Straight screw hooks
type 4E

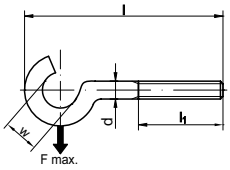


Dimensions	M 4	M 5	M 6	M 8
h	10	12	14	18
d	3.5	4.4	5.2	7
l	40	50	60	60
l_1	25	35	45	45
$F_{max.}$	12.5 kg	20 kg	35 kg	50 kg

Dimensions in stock:
Steel/Steel coated: pg. 435

Article 88142

Cup hooks
type 11E



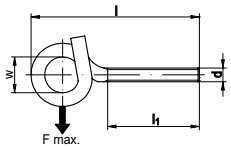
Dimensions	M 4	M 5	M 6	M 8
w	12/16	16	18	22
d	3.5	4.4	5.2	7
l	40/50	50/60	50/60	70/80
l_1	20/25	23/30	20/30	32/42
$F_{max.}$	9 kg	12.50 kg	25 kg	40 kg

Dimensions in stock:
Steel/Steel coated: pg. 435

Other screws with metric thread

Article 88145

Heavy ceiling hooks
type 18E



Dimensions	M 10	M 12	M 12
w	22	22	22
d	8.9	10.6	10.6
l	120/140	160	180
l_1	73	93	115
$F_{max.}$	125 kg	175 kg	175 kg

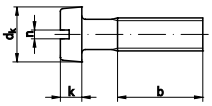
Dimensions in stock:
Steel/Steel coated: pg. 436

Slotted and cross recessed screws with metric thread

ISO 1207

similar DIN 84

Slotted cheese head screws



Dimensions	M 1	M 1.2	M 1.4	M 1.6	M 2	M 2.5	M 3
d_k	2	2.3	2.6	3	3.8	4.5	5.5
k	0.7	0.8	0.9	1.1	1.3	1.6	2
n	0.25	0.3	0.3	0.4	0.5	0.6	0.8
b	25	25	25	25	25	25	25

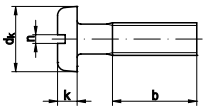
Dimensions	M 3.5	M 4	M 5	M 6	M 8	M 10	
d_k	6	7	8.5	10	13	16	
k	2.4	2.6	3.3	3.9	5	6	
n	1	1.2	1.2	1.6	2	2.5	
b	38	38	38	38	38	38	

Dimensions in stock:
Steel/Steel coated: pg. 205, pg. 65 | Stainless steel: pg. 513, pg. 455 | Non-ferrous materials: pg. 630, pg. 611

ISO 1580

similar DIN 85

Slotted pan head screws

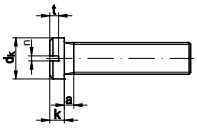


Dimensions	M 2	M 2.5	M 3	M 4	M 5	M 6	M 8
d_k	4	5	6	8	10	12	16
k	1.3	1.5	1.8	2.4	3	3.6	4.8
n	0.5	0.6	0.8	1.2	1.1	1.6	2
b	25	25	25	38	38	38	38

Dimensions in stock:
Steel/Steel coated: pg. 220, pg. 67 | Stainless steel: pg. 520, pg. 457 | Non-ferrous materials: pg. 633, pg. 612

DIN 920

Slotted pan head screws with small head



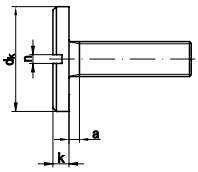
Dimensions	M 3	M 4	M 5
$a_{max.}$	1	1.4	1.6
d_k	4	5.5	6.5
k	1.8	2.4	2.7
n	0.5	0.6	0.8
$t_{max.}$	1.15	1.5	1.6

Dimensions in stock:
Steel/Steel coated: pg. 141

Slotted and cross recessed screws with metric thread

DIN 921

Slotted pan head screws with large head

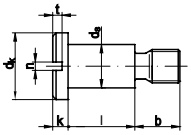


Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
$a_{max.}$	1	1.4	1.6	2	2.5	3
d_k	8	12	16	20	25	30
k	1.8	2.4	2.7	3.1	3.8	4.6
n	0.8	1	1.2	1.6	2	2.5
$t_{max.}$	1.15	1.5	1.6	1.9	2.4	2.8

Dimensions in stock:
Steel/Steel coated: pg. 142

DIN 923

Slotted pan head screws with shoulder

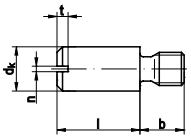


Dimensions	M 3	M 4	M 5	M 6	M 8	M 10
d_k	7	8.5	11	13	16	20
k	1.8	2.4	2.7	3.1	3.8	4.6
b	4.5	6	7	9	11	13.5
d_s	4	5.5	7	8	10	13

Dimensions in stock:
Steel/Steel coated: pg. 142 | Stainless steel: pg. 485

DIN 927

Slotted shoulder screws



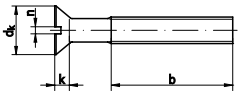
Dimensions	M 3	M 4	M 5	M 6	M 8
d_k	4	5.5	6.5	8	10
b	4.5	6	7	8	11
n	0.5	0.6	0.8	1	1.2
$t_{max.}$	1.05	1.42	1.63	2	1.9

Dimensions in stock:
Steel/Steel coated: pg. 143

ISO 2009

replaces DIN 963

Slotted countersunk head screws



Dimensions	M 1	M 1.2	M 1.4	M 1 ,6	M 2	M 2.5
$d_{k\ ISO/DIN}$	1.9	2.3	2.6	3	3.8	4.7
$k_{\ ISO/DIN}$	0.6	0.72	0.84	1/0.96	1.2	1.5
b*	1)	1)	1)	15	16	18
n	0.25	0.3	0.3	0.4	0.5	0.6

Dimensions	M 3	M 3.5	M 4	M 5	M 6	M 8
$d_{k\ ISO/DIN}$	5.5/5.6	7.3/6.5	8.4/7.5	9.3/9.2	11.3/11	15.8/14.5
$k_{\ ISO/DIN}$	1.65	2.35/1.93	2.7/2.2	2.7/2.5	3.3/3	4.65/4
b*	19	38	22	25	28	34
n	0.8	1	1.2	1.2	1.6	2

Dimensions	M 10	M 12	M 16	M 20		
$d_{k\ ISO/DIN}$	18.3/18	22	29	36		
$k_{\ ISO/DIN}$	5	6	8	10		
b*	40	46	58	70		
n	2.5	3	4	5		

*minimum lengths
1) only with thread up to near the head

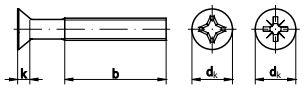
Dimensions in stock:
Steel/Steel coated: pg. 225, pg. 187 | Stainless steel: pg. 522, pg. 500 | Non-ferrous materials: pg. 634, pg. 627

Slotted and cross recessed screws with metric thread

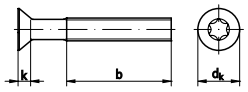
ISO 7046

replaces DIN 965

Countersunk head screws



with Phillips cross recess H
with Pozidriv cross recess Z



with hexalobular socket

*minimum length

Dimensions	M 1 ,6	M 2	M 2.5	M 3	M 4
$d_{k\ ISO/DIN}$	3	3.8	4.7	5.5/5.6	8.4/7.5
$k_{\ ISO/DIN}$	1/0.96	1.2	1.5	1.65	2.7/2.2
b*	15	16	18	19	22
n	0.4	0.5	0.6	0.8	1
cross recess size	0	1	1	1	2
ISR	T5	T6	T8	T10	T20

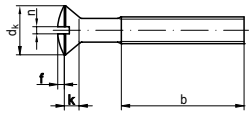
Dimensions	M 5	M 6	M 8	M 10	
$d_{k\ ISO/DIN}$	9.3/9.2	11.3/11	15.8/14.5	18.3/18	
$k_{\ ISO/DIN}$	2.7/2.5	3.3/3	4.65/4	5	
b*	25	28	34	40	
n	1.2	1.6	2	2.5	
cross recess size	2	3	4	4	
ISR	T25	T30	T40	T50	

Dimensions in stock:
Steel/Steel coated: pg. 328, pg. 190 | Stainless steel: pg. 563, pg. 503

ISO 2010

replaces DIN 964

Slotted raised countersunk head screws



Dimensions	M 2	M 2.5	M 3	M 4
$d_{k\ ISO/DIN}$	3.8	4.7	5.6	8.4/7.5
$k_{\ ISO/DIN}$	1.2	1.5	1.65	2.7/2.2
b	16	18	19	22
f	0.5	0.6	0.75	1
n	0.5	0.6	0.8	1

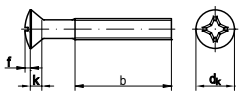
Dimensions	M 5	M 6	M 8	M 10
$d_{k\ ISO/DIN}$	9.3/9.2	11.3/11	15.8/14.5	18.3/18
$k_{\ ISO/DIN}$	2.7/2.5	3.3/3	4.65/4	5
b	25	28	34	40
f	1.25	1.5	2	2.5
n	1.2	1.6	2	2.5

Dimensions in stock:
Steel/Steel coated: pg. 227, pg. 189 | Stainless steel: pg. 524, pg. 502 | Non-ferrous materials: pg. 635, pg. 628

ISO 7047

replaces DIN 966

Raised countersunk head screws with Phillips cross recess H



Dimensions	M 2.5	M 3	M 4	M 5	M 6	M 8
$d_{k\ ISO/DIN}$	4.7	5.6	8.4/7.5	9.3/9.2	11.3/11	15.8/14.5
$k_{\ ISO/DIN}$	1.5	1.65	2.7/2.2	2.7/2.5	3.3/3	4.65/4
b	18	19	22	25	28	34
f	0.6	0.75	1	1.25	1.5	2
n	0.6	0.8	1	1.2	1.6	2
cross recess size	1	1	2	2	3	4

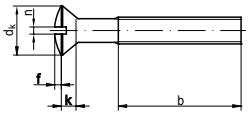
Dimensions in stock:
Steel/Steel coated: pg. 329, pg. 192 | Stainless steel: pg. 565, pg. 506

Slotted and cross recessed screws with metric thread

ISO 2010

replaces DIN 964

Slotted raised countersunk head screws



Dimensions	M 2	M 2.5	M 3	M 4
$d_{k\ ISO/DIN}$	3.8	4.7	5.6	8.4/7.5
$k_{\ ISO/DIN}$	1.2	1.5	1.65	2.7/2.2
b	16	18	19	22
f	0.5	0.6	0.75	1
n	0.5	0.6	0.8	1

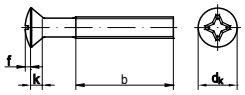
Dimensions	M 5	M 6	M 8	M 10
$d_{k\ ISO/DIN}$	9.3/9.2	11.3/11	15.8/14.5	18.3/18
$k_{\ ISO/DIN}$	2.7/2.5	3.3/3	4.65/4	5
b	25	28	34	40
f	1.25	1.5	2	2.5
n	1.2	1.6	2	2.5

Dimensions in stock:
Steel/Steel coated: pg. 227, pg. 189 | Stainless steel: pg. 524, pg. 502 | Non-ferrous materials: pg. 635, pg. 628

ISO 7047

replaces DIN 966

Raised countersunk head screws with Phillips cross recess H



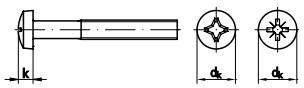
Dimensions	M 2.5	M 3	M 4	M 5	M 6	M 8
$d_{k\ ISO/DIN}$	4.7	5.6	8.4/7.5	9.3/9.2	11.3/11	15.8/14.5
$k_{\ ISO/DIN}$	1.5	1.65	2.7/2.2	2.7/2.5	3.3/3	4.65/4
b	18	19	22	25	28	34
f	0.6	0.75	1	1.25	1.5	2
n	0.6	0.8	1	1.2	1.6	2
cross recess size	1	1	2	2	3	4

Dimensions in stock:
Steel/Steel coated: pg. 329, pg. 192 | Stainless steel: pg. 565, pg. 506

ISO 7045

similar DIN 7985

Pan head screws with cross recess



with Phillips cross recess H
with Pozidriv cross recess Z

Dimensions	M 1.6	M 2	M 2.5	M 3	M 3.5
$d_{k\ ISO/DIN}$	3.2	4	5	5.6/6	7
$k_{ISO/DIN}$	1.3	1.6	2.1/2	2.4	2.6/2.7
KS size	0	1	1	1	2

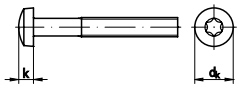
Dimensions	M 4	M 5	M 6	M 8	M 10
$d_{k\ ISO/DIN}$	8	9.5/10	12	16	20
$k_{ISO/DIN}$	3.1	3.7/3.8	4.6	6	7.5
KS size	2	2	3	4	4

Dimensions in stock:
Steel/Steel coated: pg. 326 | Stainless steel: pg. 561

ISO 14583

~DIN 7985

Hexalobular socket pan head screws



Dimensions	M 1.6	M 2	M 2.5	M 3	M 4
d_k	3.2	4	5	6	8
k	1.3	1.6	2	2.4	3.1
ISR	T5	T6	T8	T10	T20

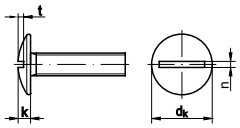
Dimensions	M 5	M 6	M 8	M 10	
d_k	10	12	16	20	
k	3.8	4.6	6	7.5	
ISR	T25	T30	T45	T50	

Dimensions in stock:
Steel/Steel coated: pg. 405, pg. 366 | Stainless steel: pg. 590, pg. 581

Slotted and cross recessed screws with metric thread

Article 88107

Slotted mushroom head screws with thread up to head



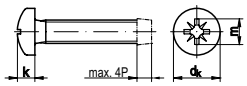
Dimensions	M 5	M 6	M 8
d_k	12	15	19
k	2.8	3.3	4.3
$n_{min.}$	1.3	1.6	1.8
t	1.5	2	2.7

Dimensions in stock:
Steel/Steel coated: pg. 428 | Stainless steel: pg. 596

Tapping screws, thread rolling screws and thread cutting screws

DIN 7500 C

Thread rolling screws with metric thread and Pozidriv cross recess Z
type C = pan head acc. to DIN 7985

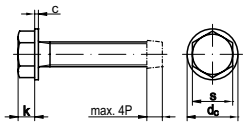


Dimensions	M 2	M 2.5	M 3	M 3.5	M 4	M 5	M 6	M 8
max. groove section	1.6	1.8	2	2.4	2.8	3.2	4	5
cross recess size	1	1	1	2	2	2	3	4
$d_{k\ max.}$	4	5	6	7	8	10	12	16
$k_{max.}$	1.6	2	2.4	2.7	3.1	3.8	4.6	6

Dimensions in stock:
Steel/Steel coated: pg. 346

DIN 7500 ~D

Thread rolling screws with metric thread
~ type D = hexagon head with collar

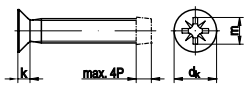


Dimensions	M 4	M 5	M 6	M 8
max. groove section	2.8	3.2	4	5
s	7	8	10	13
d_c	8.1	10.1	12.6	16.4
c	0.55	0.75	0.9	1.2
k	3.1	3.8	4.6	6

Dimensions in stock:
Steel/Steel coated: pg. 346

DIN 7500 M

Thread rolling screws with metric thread and Pozidriv cross recess Z
type M = countersunk head acc. to DIN 965



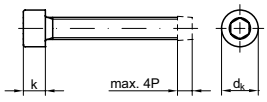
Dimensions	M 2.5	M 3	M 4	M 5	M 6	M 8
max. groove section	1.8	2	2.8	3.2	4	5
cross recess size	1	1	2	2	3	4
$d_{k\ max.}$	4.7	5.6	7.5	9.2	11	14.5
$k_{max.}$	1.5	1.65	2.2	2.5	3	4

Dimensions in stock:
Steel/Steel coated: pg. 347

Tapping screws, thread rolling screws and thread cutting screws

DIN 7500 E

Thread rolling screws with metric thread
type E = hexagon socket head cap
acc. to DIN 912

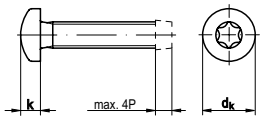


Dimensions	M 4	M 5	M 6	M 8
$d_{K\ max.}$	7	8.5	10	13
$k_{max.}$	4	5	6	8
s	2.5	3	4	5

Dimensions in stock:
Steel/Steel coated: pg. 347

DIN 7500 CE/PE

Drilling screws
with tapping screw thread
type K = hexagon head with collar
acc. to DIN 6928

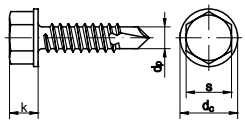


Dimensions	M 3	M 4	M 5	M 6	M 8
$d_{K\ max.}$	5.6	8	9.50	12	16
$d_{p\ max.}$	2.4	3.1	3.7	4.6	6
$d_{c\ max}$	T10	T20	T25	T30	T40

Dimensions in stock:
Steel/Steel coated: pg. 346

DIN 7504 K

Drilling screws
with tapping screw thread
type K = hexagon head with collar acc. to
DIN 6928



Dimensions	ST 3.5	ST 3.9	ST 4.2
f. sheet thicknesses	0.7 to 2.25	0.7 to 2.4	1.75 to 3.0
$d_{p\ max.}$	2.8	3.1	3.6
$d_{c\ max.}$	8.3	8.3	8.8
$k_{max.}$	3.4	3.4	4.1
s	5.5	5.5	7

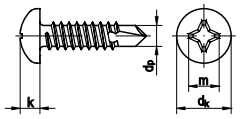
Dimensions	ST 4.8	ST 5.5	ST 6.3
f. sheet thicknesses	1.75 to 4.4	1.75 to 5.25	2.0 to 6.0
$d_{p\ max.}$	4.1	4.8	5.8
$d_{c\ max.}$	10.5	11	13.5
$k_{max.}$	4.3	5.4	5.9
s	8	8	10

Dimensions in stock:
Steel/Steel coated: pg. 347

Tapping screws, thread rolling screws and thread cutting screws

DIN 7504 N

Drilling screws with tapping screw thread and Phillips cross recess H
type N = pan head acc. to DIN 7981



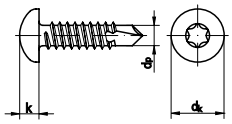
Dimensions	ST 2.9	ST 3.5	ST 3.9	ST 4.2
f. sheet thicknesses	0.7 to 1.9	0.7 to 2.25	0.7 to 2.4	1.75 to 3.0
$d_{p\ max.}$	2.3	2.8	3.1	3.6
$d_{k\ max.}$	5.6	6.9	7.5	8.2
$k_{max.}$	2.2	2.6	2.8	3.05
cross recess size	1	2	2	2

Dimensions	ST 4.8	ST 5.5	ST 6.3	
f. sheet thicknesses	1.75 to 4.4	1.75 to 5.25	2.0 to 6.0	
$d_{p\ max.}$	4.1	4.8	5.8	
$d_{k\ max.}$	9.5	10.8	12.5	
$k_{max.}$	3.7	4	4.6	
cross recess size	2	3	3	

Dimensions in stock:
Steel/Steel coated: pg. 348

DIN 7504 N

Drilling screws with tapping screw thread and hexalobular socket
type N = pan head acc. to ISO 14583



* not standardized, reference values

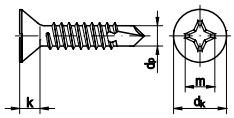
Dimensions	ST 2.9	ST 3.5	ST 3.9*	ST 4.2
f. sheet thicknesses	0.7 to 1.9	0.7 to 2.25	0.7 to 2.4	1.75 to 3.0
$d_{p\ max.}$	2.3	2.8	3.2	3.6
$d_{K\ max.}$	5.6	7	7.5	8
$k_{max.}$	2.4	2.6	2.8	3.1
ISR size	T10	T15	T20	T20

Dimensions	ST 4.8	ST 5.5	ST 6.3	
f. sheet thicknesses	1.75 to 4.4	1.75 to 5.25	2.0 to 6.0	
$d_{p\ max.}$	4.1	4.8	5.8	
$d_{K\ max.}$	9.5	11	12	
$k_{max.}$	3.7	4	4.6	
ISR size	T25	T25	T30	

Dimensions in stock:
Steel/Steel coated: pg. 348

DIN 7504 P

Drilling screws with tapping screw thread and Phillips cross recess H
type P = countersunk head acc. to DIN 7982



countersunk head = 80°

Dimensions	ST 2.9	ST 3.5	ST 3.9	ST 4.2
f. sheet thicknesses	0.7 to 1.9	0.7 to 2.25	0.7 to 2.4	1.75 to 3.0
$d_{p\ max.}$	2.3	2.8	3.2	3.6
$d_{K\ max.}$	5.5	6.8	7.5	8.1
$k_{max.}$	1.7	2.1	2.3	2.5
cross recess size	1	2	2	2

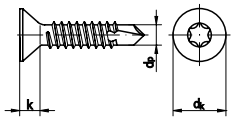
Dimensions	ST 4.8	ST 5.5	ST 6.3	
f. sheet thicknesses	1.75 to 4.4	1.75 to 5.25	2.0 to 6.0	
$d_{p\ max.}$	4.1	4.8	5.8	
$d_{K\ max.}$	9.5	10.8	12.4	
$k_{max.}$	3.0	3.4	3.8	
cross recess size	2	3	3	

Dimensions in stock:
Steel/Steel coated: pg. 349

Tapping screws, thread rolling screws and thread cutting screws

DIN 7504 P

Drilling screws with tapping screw thread and hexalobular socket
type P = countersunk head acc. to DIN 7982



countersunk head = 80°

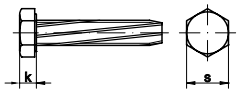
Dimensions	ST 2.9	ST 3.5	ST 3.9	ST 4.2
f. sheet thicknesses	0.7 to 1.9	0.7 to 2.25	0.7 to 2.4	1.75 to 3.0
$d_{p\ max.}$	2.3	2.8	3.2	3.6
$d_{K\ max.}$	5.5	6.8	7.5	8.1
$k_{max.}$	1.7	2.1	2.3	2.5
ISR size	T10	T15	T20	T20

Dimensions	ST 4.8	ST 5.5	ST 6.3	
f. sheet thicknesses	1.75 to 4.4	1.75 to 5.25	2.0 to 6.0	
$d_{p\ max.}$	4.1	4.8	5.8	
$d_{K\ max.}$	9.5	10.8	12.4	
$k_{max.}$	3	3.4	3.8	
ISR size	T25	T25	T30	

Dimensions in stock:
Steel/Steel coated: pg. 349

DIN 7513 A

Thread cutting screws
type A = hexagon head acc. to DIN 933



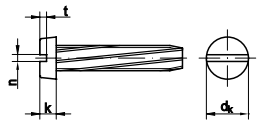
*for materials with medium property classes

Dimensions	M 4	M 5	M 6	M 8
s	7	8	10	13
k	2.8	3.5	4	5.3
core hole ∅*	3.6	4.5	5.5	7.4

Dimensions in stock:
Steel/Steel coated: pg. 349

DIN 7513 B

Thread cutting screws
type B = slotted cheese head acc. to DIN 84



*for materials with medium property classes

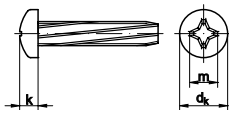
Dimensions	M 3	M 4	M 5	M 6
$d_{k\ max.}$	5.5	7	8.5	10
k	2	2.6	3.3	3.9
n	0.8	1.2	1.2	1.6
$t_{min.}$	0.85	1.1	1.3	1.6
core hole ∅*	2.7	3.6	4.5	5.5

Dimensions in stock:
Steel/Steel coated: pg. 349

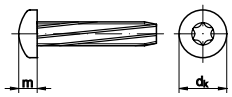
Tapping screws, thread rolling screws and thread cutting screws

DIN 7516 A

Thread cutting screws
type A = pan head acc. to DIN 7985



with Phillips cross recess H



with hexalobular socket

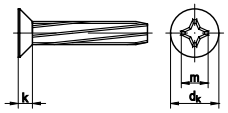
*for materials with medium property classes

Dimensions	M 3	M 4	M 5	M 6	M 8
$d_{k\ max.}$	6	8	10	12	16
$k_{max.}$	2.4	3.1	3.8	4.6	6
cross recess size	1	2	2	3	4
ISR	T10	T20	T25	T30	T40
core hole ∅*	2.7	3.6	4.5	5.5	7.4

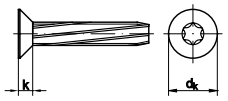
Dimensions in stock:
Steel/Steel coated: pg. 350

DIN 7516 D

Thread cutting screws
type D = countersunk head acc. to DIN 965



with Phillips cross recess H



with hexalobular socket

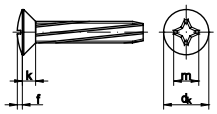
*for materials with medium property classes

Dimensions	M 3	M 4	M 5	M 6	M 8
$d_{k\ max.}$	5.6	7.5	9.2	11	14.5
$k_{max.}$	1.65	2.2	2.5	3	4
cross recess size	1	2	2	3	4
ISR	T10	T20	T25	T30	T40

Dimensions in stock:
Steel/Steel coated: pg. 350

DIN 7516 E

Thread cutting screws
with Phillips cross recess H
type E = raised countersunk head acc. to DIN 966



*for materials with medium property classes

Dimensions	M 3	M 4	M 5	M 6	M 8
$d_{k\ max.}$	5.6	7.5	9.2	11	14.5
f	0.75	1	1.25	1.5	2
$k_{max.}$	1.65	2.2	2.5	3	4
cross recess size	1	2	2	3	4
core hole ∅*	2.7	3.6	4.5	5.5	7.4

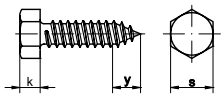
Dimensions in stock:
Steel/Steel coated: pg. 350

Tapping screws, thread rolling screws and thread cutting screws

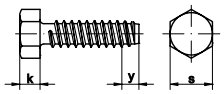
ISO 1479

replaces DIN 7976

Hexagon head tapping screws



type C = with cone end



type F = with flat end

*dimension not ISO standardized, values from DIN 7976
assembly instructions ➔ TI-184

Dimensions	ST 2.9	ST 3.5	ST 3.9*	ST 4.2
$k_{ISO/DIN}$	2.3/1.5	2.6/2.3	2.3	3/2.8
s	5	5.5	7	7
$y_{type\ C}$	2.6	3.2	3.5	3.7
$y_{type\ F}$	–	–	–	2.8

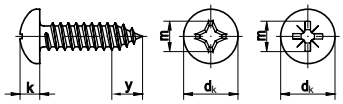
Dimensions	ST 4.8	ST 5.5	ST 6.3	ST 8
$k_{ISO/DIN}$	3.8/3	4.1/4	4.7/4.8	6/5.8
s	7	8	10	13
$y_{type\ C}$	4.2	5	6	7.5
$y_{type\ F}$	3.2	–	3.6	–

Dimensions in stock:
Steel/Steel coated: pg. 214, pg. 354 | Stainless steel: pg. 518, pg. 575

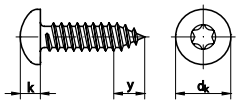
ISO 7049, 14585

replaces DIN 7981

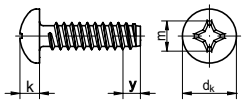
Pan head tapping screws with cross recess or hexalobular socket



type C-H = with cone end and Phillips cross recess H
type C-Z = with cone end and Pozidriv cross recess Z



type C-ISR = with cone end and hexalobular drive



type F-H = with flat end and Phillips cross recess H

*dimension not ISO standardized, values from DIN 7981
assembly instructions ➔ TI-184

Dimensions	ST 2.2	ST 2.9	ST 3.5	ST 3.9*
$d_{k\ ISO/DIN}$	4/4.2	5.6	7/6.9	7.5
$k_{max.\ ISO/DIN}$	1.6/1.8	2.4/2.2	2.6	2.8
cross recess size	1	1	2	2
ISR	T6	T10	T15	T15
$y_{type\ C}$	2	2.6	3.2	3.5
$y_{type\ F}$	1.6	2.1	2.5	2.7

Dimensions	ST 4.2	ST 4.8	ST 5.5	ST 6.3
$d_{k\ ISO/DIN}$	8/8.2	9.5	11/10.8	12/12.5
$k_{max.\ ISO/DIN}$	3.1/3.05	3.7/3.5	4/3.95	4.6/4.55
cross recess size	2	2	3	3
ISR	T20	T25	T25	T30
$y_{type\ C}$	3.7	4.2	5	6
$y_{type\ F}$	2.8	3.2	3.6	3.6

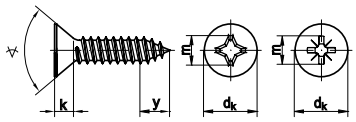
Dimensions in stock:
Steel/Steel coated: pg. 330, pg. 405, pg. 357 | Stainless steel: pg. 566, pg. 590, pg. 575

Tapping screws, thread rolling screws and thread cutting screws

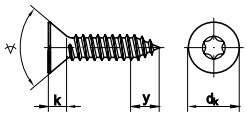
ISO 7050, 14586

replaces DIN 7982

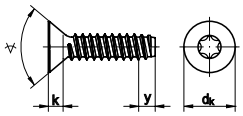
Countersunk head tapping screws with cross recess acc. to ISO 7050 or hexalobular drive acc. to ISO 14586



Type C-H = with cone end and Phillips cross recess H
Type C-Z = with cone end and Pozidriv cross recess Z



Type C-ISR = with cone end and hexalobular drive**



Type F-ISR = with flat end and hexalobular drive

*dimension not ISO standardized
**also available as DIN 7982
assembly instructions ➔ TI-184

Dimensions	ST 2.2	ST 2.9	ST 3.5	ST 3.9*
$d_{k\ ISO/DIN}$	3.8/4.3	5.5	7.3/6.8	-/7.5
$k_{max.\ ISO/DIN}$	1.1/1.3	1.7	2.35/2.1	-/2.3
cross recess size	0	1	2	2
ISR	-	10	15	15
$y_{type\ C}$	2	2.6	3.2	3.2
$y_{type\ F}$	1.6	2.1	2.5	2.7

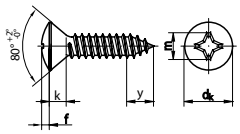
Dimensions	ST 4.2	ST 4.8	ST 5.5	ST 6.3
$d_{k\ ISO/DIN}$	8.4/8.1	9.3/9.5	10.3/10.8	11.3/12.4
$k_{max.\ ISO/DIN}$	2.6/2.5	2.8/3	3/3.4	3.15/3.8
cross recess size	2	2	3	3
ISR	20	25	25	30
$y_{type\ C}$	3.7	4.3	5	6
$y_{type\ F}$	2.8	3.2	3.6	3.6

Dimensions in stock:
Steel/Steel coated: pg. 332, pg. 404, pg. 360 | Stainless steel: pg. 567, pg. 591, pg. 577

ISO 7051

replaces DIN 7983

Countersunk head tapping screws with Phillips cross recess H
type C = with cone end



*dimension not ISO standardized, values from DIN 7983
assembly instructions ➔ TI-184

Dimensions	ST 2.9	ST 3.5	ST 3.9*	ST 4.2
$d_{k\ ISO/DIN}$	5.5	7.3/6.8	-/7.5	8.4/8.1
$k_{max.\ ISO/DIN}$	1.7/1.7	2.35/2.1	-/2.3	2.6/2.5
cross recess size	1	2	2	2
$y_{type\ C}$	2.6	3.2	3.5	3.7

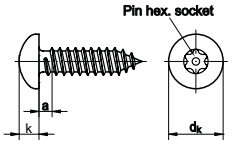
Dimensions	ST 4.8	ST 5.5	ST 6.3	
$d_{k\ ISO/DIN}$	9.3/9.5	10.3/10.8	11.3/12.4	
$k_{max.\ ISO/DIN}$	2.8/3	3/3.4	3.15/3.8	
cross recess size	2	3	3	
$y_{type\ C}$	4.3	5	6	

Dimensions in stock:
Steel/Steel coated: pg. 333, pg. 362 | Stainless steel: pg. 567, pg. 578

Tapping screws, thread rolling screws and thread cutting screws

Article 88114

Theft resistant screws with raised head and hex. socket drive
type C = with cone end



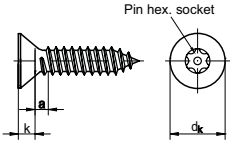
assembly instructions ➔ TI-184

Dimensions	ST 3.5	ST 4.2	ST 4.8	ST 5.5	ST 6.3
d_k	6.9	8.2	9.5	10.8	12.5
k	2.6	3.05	3.55	3.95	4.55
$a_{max.}$	1.3	1.4	1.6	1.8	1.8
Pin-ISR-size	T10	T15	T25	T27	T27

Dimensions in stock:
Stainless steel: pg. 597

Article 88115

Theft resistant screws with countersunk head and hex. socket drive
type C = with cone end



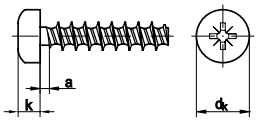
assembly instructions ➔ TI-184

Dimensions	ST 2.9	ST 3.5	ST 4.2	ST 4.8	ST 5.5	ST 6.3
d_k	5.5	6.8	8.1	9.5	10.8	12.4
k	1.7	2.1	2.5	3	3.4	3.8
$a_{max.}$	1.1	1.3	1.4	1.6	1.8	1.8
Pin-ISR-size	T10	T15	T20	T25	T27	T30

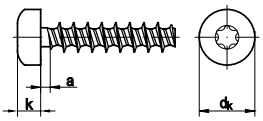
Dimensions in stock:
Stainless steel: pg. 597

Article 88200

Pan head screws with thread for plastic (thermoplastics)



with Pozidriv cross recess Z



with hexalobular socket

a_1 for (L > 3xd)
a_2 for (L > 3xd)

ISR = hexalobular socket
CR = cross recess

Dimensions	2.2	2.5	3	3.5
dk $_{KS\ /ISR}$	3.9/4	4.4/4.2	5.3/5.6	6.1/6.9
k $_{CR/ISR}$	1.5/1.5	1.7/1.6	2/2.1	2.5/2.3
a_1	2.2	2.5	3	3.5
a_2	1.1	1.3	1.5	1.8
cross recess size	1	1	1	1
ISR size	T6	T8	T10	T10

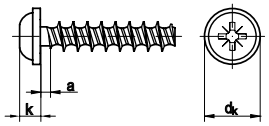
Dimensions	4	5	6	
dk $_{KS\ /ISR}$	7/7.5	8.8/8.2	10.5/10.8	
k $_{CR/ISR}$	2.7/2.6	3.4/2.9	4/3.8	
a_1	4	6	7	
a_2	2	3	3.5	
cross recess size	2	2	2	
ISR size	T20	T20	T25	

Dimensions in stock:
Steel/Steel coated: pg. 436, pg. 436

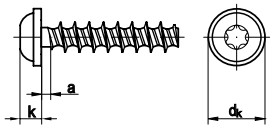
Tapping screws, thread rolling screws and thread cutting screws

Article 88202

Pan head screws with collar with screw thread for plastic (thermoplastics)



with Pozidriv cross recess Z



with hexalobular socket

a_1 for (L > 3xd)
a_2 for (L > 3xd)

ISR = hexalobular socket
CR = cross recess

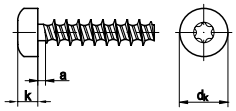
Dimensions	2.2	2.5	3	3.5
$d_{k\ KS/ISR}$	4.4/4.5	5	6	7
$k_{\ CR/ISR}$	1.6/1.4	1.8/1.5	2.1	2.4
a_1	2.2	2.5	3	3.5
a_2	1.1	1.3	1.5	1.8
cross recess size	1	1	1	1
ISR size	T6	T6	T10	T10

Dimensions	4	5	6	
$d_{k\ KS/ISR}$	8	10	12	
$k_{\ CR/ISR}$	2.5/2.6	3.2/3.3	4/3.6	
a_1	4	6	7	
a_2	2	3	3.5	
cross recess size	2	2	2	
ISR size	T20	T20	T25	

Dimensions in stock:
Steel/Steel coated: pg. 437

Article 88203

Pan head screws with screw thread for plastic (thermoplastics), with hexalobular socket
RSTplus = higher preloads



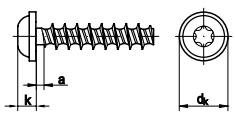
Dimensions	2.2	2.5	3	3.5
d_k	3.9	4.4	5.3	6.1
k	1.6	1.9	2.3	2.7
$a_{max.}$	1.1	1.3	1.5	1.8
ISR size	T6	T8	T10	T15

Dimensions	4	5	6	
d_k	7	8.8	10.5	
k	3.1	3.5	4.2	
$a_{max.}$	2	2.5	3	
ISR size	T20	T25	T30	

Dimensions in stock:
Steel/Steel coated: pg. 437

Article 88204

Pan head screws with collar with screw thread for plastic (thermoplastics), with hexalobular socket
RSTplus = higher preloads



Dimensions	2.2	2.5	3	3.5
d_k	5	5.5	6.5	7.5
k	1.6	1.9	2.3	2.7
$a_{max.}$	1.1	1.3	1.5	1.8
ISR size	T6	T8	T10	T15

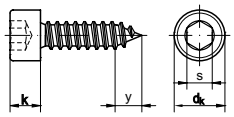
Dimensions	4	5	6	
d_k	9	11	13.5	
k	3.1	3.5	4.2	
$a_{max.}$	2	2.5	3	
ISR size	T20	T25	T30	

Dimensions in stock:
Steel/Steel coated: pg. 437

Tapping screws, thread rolling screws and thread cutting screws

Article 88312

Cylindrical head tapping screws with hexagon socket
type C = with cone end



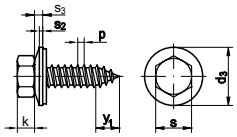
Dimensions	ST 4.8	ST 5.5	ST 6.3
d_k	8.5	10	10
k	5	6	6
s	4	5	5
y~	4.3	5	6

assembly instructions ➔ TI-184

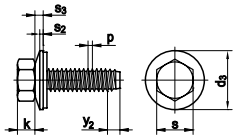
Dimensions in stock:
Stainless steel: pg. 574

Article 88176, 88276

Tapping screws for facing with assembled sealing washer



88176 type A = with cone end



88276 type BZ = with flat end

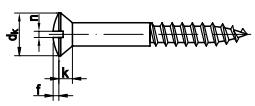
Dimensions	88176 6.5
s	3/8“
k	4
p	2.54
y_1	6
y_2	-
$d_{3\ (washer)}$	16/18*
$s_{2\ (washer)}$	1
$s_{3\ (washer)}$	2
f. sheet thicknesses	0.60 – 1.50
for drilling ∅	4.5

Dimensions in stock:
Stainless steel: pg. 602

Wood screws

DIN 95

Slotted raised countersunk head wood screws



Dimensions	1.6	2	2.5	3	3.5
d_k	3	3.8	4.7	5.6	6.5
k	0.96	1.2	1.5	1.65	1.93
f	0.4	0.5	0.6	0.75	0.9
n	0.4	0.5	0.6	0.8	0.8

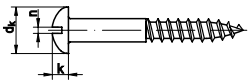
Dimensions	4	4.5	5	6	8
d_k	7.5	8.3	9.2	11	14.5
k	2.2	2.35	2.5	3	4
f	1	1.1	1.25	1.5	2
n	1	1	1.2	1.6	2

Dimensions in stock:
Steel/Steel coated: pg. 70 | Stainless steel: pg. 459 | Non-ferrous materials: pg. 613

Wood screws

DIN 96

Slotted round head wood screws



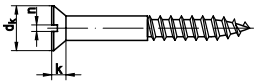
Dimensions	1.6	2	2.5	3	3.5
d_k	3.2	4	5	6	7
k	1.1	1.4	1.7	2.1	2.4
n	0.4	0.5	0.6	0.8	0.8

Dimensions	4	4.5	5	6	
d_k	8	9	10	12	
k	2.8	3.1	3.5	4.2	
n	1	1	1.2	1.6	

Dimensions in stock:
Steel/Steel coated: pg. 70 | Stainless steel: pg. 460 | Non-ferrous materials: pg. 615

DIN 97

Slotted countersunk head wood screws



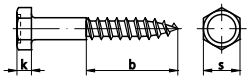
Dimensions	1.6	2	2.5	3	3.5	4
d_k	3	3.8	4.7	5.6	6.5	7.5
k	0.96	1.2	1.5	1.65	1.93	2.2
n	0.4	0.5	0.6	0.8	0.8	1

Dimensions	4.5	5	5.5	6	8	
d_k	8.3	9.2	10.2	11	14.5	
k	2.35	2.5	2.75	3	4	
n	1	1.2	1.2	1.6	2	

Dimensions in stock:
Steel/Steel coated: pg. 70 | Stainless steel: pg. 460 | Non-ferrous materials: pg. 615

DIN 571

Hexagon head wood screws



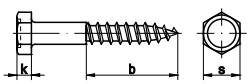
Dimensions	5	6	7	8
b	> 0.6 l	> 0.6 l	> 0.6 l	> 0.6 l
k	3.5	4	5	5.5
s	8	10	12	13

Dimensions	10	12	16	20
b	> 0.6 l	> 0.6 l	> 0.6 l	> 0.6 l
k	7	8	10	13
s	17	19	24	30

Dimensions in stock:
Steel/Steel coated: pg. 98 | Stainless steel: pg. 471

Article 89571

Hexagon wood building screws



EN 14592

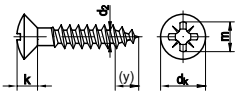
Dimensions	8	12
b	> 0,6 l	> 0,6 l
k	5,5	8
s	13	19

Dimensions in stock:
Steel/Steel coated: 450

Chipboard screws

Article 88095

Chipboard screws with countersunk head and Pozidriv cross recess Z

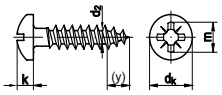


Dimensions	ST 3.5	ST 4
d_k	7	8
$k_{min.}$	2.1	2.4
d_2	2.5	2.67
cross recess size	2	2

Dimensions in stock:
Non-ferrous materials: pg. 645

Article 89096

Chipboard screws with round head and Pozidriv cross recess Z



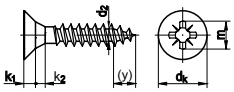
EN 14592

Dimensions	ST 3	ST 3.5	ST 4	ST 4.5	ST 5	ST 6
d_2	1.9	2.5	2.67	2.7	3	3.7
d_k	6	7	8	9	10	12
$k_{1\ max.}$	2.25	2.6	2.8	3	3.5	4.1
y	3	3.4	4	4.3	4.8	5.7
cross recess size	1	2	2	2	2	3

Dimensions in stock:
Steel/Steel coated: pg. 447 | Stainless steel: pg. 607

Article 89097

Chipboard screws with countersunk head and Pozidriv cross recess Z



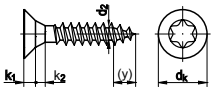
EN 14592

Dimensions	ST 3	ST 3.5	ST 4	ST 4.5	ST 5	ST 6
d_2	1.9	2.5	2.67	2.7	3	3.7
d_k	6	7	8	9	10	12
$k_{1\ max.}$	1.9	2.1	2.5	2.7	3	3.6
$k_{2\ max.}$	1.6	1.8	2	2.2	2.5	3
y	3	3.4	4	4.3	4.8	5.7
cross recess size	1	2	2	2	2	3

Dimensions in stock:
Steel/Steel coated: pg. 448 | Stainless steel: pg. 607

Article 89098

Chipboard screws with countersunk head and hexalobular socket



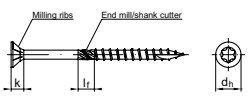
EN 14592

Dimensions	ST 3	ST 3.5	ST 4	ST 4.5	ST 5	ST 6	ST 8
d_2	1.9	2.5	2.67	2.7	3	3.7	5
d_k	6	7	8	9	10	12	15.1
$k_{1\ max.}$	1.9	2.1	2.5	2.7	3	3.6	4.4
$k_{2\ max.}$	1.6	1.8	2	2.2	2.5	3	3.8
y	3	3.4	4	4.3	4.8	5.7	6.5
cross recess size	T10	T15	T20	T20	T25	T30	T40

Dimensions in stock:
Steel/Steel coated: pg. 449 | Stainless steel: pg. 608

Article 89091

Wood building screws with countersunk head



ETA-12/0276

for use with countersunk washer R 89184

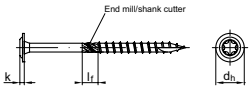
Maße	3.5	4	4.5	5	6	8	10
d_h	6.8	7.8	8.8	9.8	11.8	14.5	18
k	3.4	4.2	4.5	5.1	5.6	7	8.7
l_f	6	6	6	6	12	12	12
ISR	15	20	25	25	30	40	40
Characteristic yield moment $M_{y.Rk}$ [Nm]	2.3	3.3	4.5	5.9	9.5	20	36
Characteristic tensile capacity $f_{tens.k}$ [kN]	4	5	6	8	9.5	19	25
Characteristic breaking torque $f_{tor.k}$ [Nm]	2.2	3.3	4.5	6.1	9	24	40

Dimensions in stock:
Steel/Steel coated: 446

Chipboard screws

Article 89092

Wood building screws with flange head



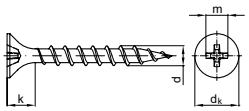
ETA-12/0276

Dimensions	6	8	10
d_h	15.3	22	25
k	3.1	3.4	4
l_f	12	12	12
ISR	30	40	40
Characteristic yield moment $M_{y.Rk}$ [Nm]	9.5	20	36
Characteristic tensile capacity $f_{tens.k}$ [kN]	9.5	19	25
Characteristic breaking torque $f_{tor.k}$ [Nm]	9	24	40

Dimensions in stock:
Steel/Steel coated: 447

Article 89150

Drywall screws
with trumpet head and coarse thread



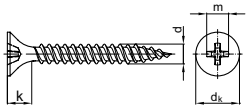
EN 14566

Dimensions	3.9
$d_{max.}$	4.3
$k_{max.}$	5
$d_{k\ max.}$	8.5
m	PH2

Dimensions in stock:
Steel/Steel coated: 450

Article 89151

Drywall screws
with trumpet head and fine pitch thread



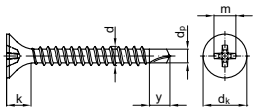
EN 14566

Dimensions	3,9
$d_{max.}$	4
$k_{max.}$	5
$d_{k\ max.}$	8,5
m	PH2

Dimensions in stock:
Steel/Steel coated: 451

Article 89152

Drywall screws
with trumpet head and drilling point



EN 14566

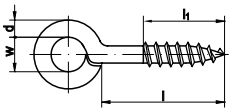
Dimensions	3.5
$d_{max.}$	3.53
$k_{max.}$	6
y~	3.9
d_p~	2.8
$d_{k\ max.}$	8.4
m	PH2

Dimensions in stock:
Steel/Steel coated: 451

Hooks/special bolts with wood screw thread

Article 88133

Screw eyes
with wood screw thread
type 1



Dimensions	6x3	8x3	8x4	10x3	10x4	10x6	12x3	12x4
w	3	8	4	3	4	6	3	4
d	2	2	2.3	2	2.3	2.9	2	2.3
l	6	8	8	10	10	10	12	12
l_1	4	5	5	7	7	7	8	8

Dimensions	12x6	12x8	12x10	16x4	16x6	16x8	16x10	16x12
w	6	8	10	4	6	8	10	12
d	2.9	3.3	3.7	2.3	2.9	3.3	3.7	3.9
l	12	12	12	16	16	16	16	16
l_1	8	8	8	10	10	10	10	10

Dimensions	20x6	20x8	20x10	20x12	25x8	25x10	25x12	25x14
w	6	8	10	12	8	10	12	14
d	2.9	3.3	3.7	3.9	3.3	3.7	3.7	4
l	20	20	20	20	25	25	25	25
l_1	12	12	12	12	15	15	15	15

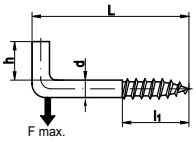
Dimensions	25x16	30x8	30x10	30x12	30x14	30x16	30x18	40x12
w	16	8	10	12	14	16	18	12
d	4.6	3.3	3.7	3.9	4	4.6	5	3.9
l	25	30	30	30	30	30	30	40
l_1	15	18	18	18	20	18	18	22

Dimensions	40x14	40x16	40x18	40x20	50x14	50x16	50x18	50x20
w	14	16	18	20	14	16	18	20
d	4	4.6	5	5.2	4	4.6	5	5.2
l	40	40	40	40	50	50	50	50
l_1	25	22	22	22	25	25	25	25

Dimensions in stock:
Steel/Steel coated: pg. 434

Article 88137

Square bend screw hooks
with wood screw thread
type 4



Dimensions	2.8	2.8	3.3	4.1
h	8	10	11	11
d	2.3	2.3	2.6	3.2
l	20	25	30	40
l_1	8	10	12	15
$F_{max.}$	7.5 kg	7.5 kg	10 kg	12.5 kg
for plugs	4	4	5	6

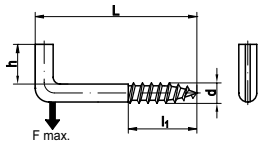
Dimensions	4.8	4.8	5.5	6
h	13	13	18	18
d	3.8	3.8	4.2	4.7
l	50	60	80	100
l_1	22	25	32	38
$F_{max.}$	15 kg	15 kg	20 kg	25 kg
for plugs	6	6	8	8

Dimensions in stock:
Steel/Steel coated: pg. 435

Hooks/special bolts with wood screw thread

Article 88139

Square bend slotted screw hooks with wood screw thread
type 7

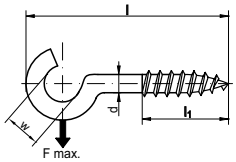


Dimensions	4.4	5.2	5.8
h	9	10	12
d	4.4	5.2	5.8
l	40/50	30/40/50/60	80/100
l_1	18/22	13/18/22/25	30/38
$F_{max.}$	25 kg	40 kg	50 kg
for plugs	6	8	8

Dimensions in stock:
Steel/Steel coated: pg. 435

Article 88140/88141

Screw hooks/Cup hooks with wood screw thread
type 11/type 11 k



Dimensions	2.8	3.3	3.6	4.1
w	6/8	10 – 11	12 – 14	16 – 20
d	2.3	2.6	2.8	3.2
l	20/25	30	40	50/60
l_1	6/8	10	12	15/22
$F_{max.}$	4 kg	4 kg	7.5 kg	9 kg
for plugs	4	5	5	6

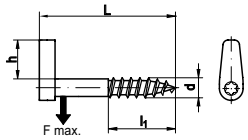
Dimensions	4.8	5.5	6	
w	22 – 23	25 – 26	25 – 30	
d	3.8	4.2	4.7	
l	70	80	100	
l_1	22	26	30	
$F_{max.}$	10 kg	12.5 kg	15 kg	
for plugs	6	8	8	

type 11 k = coated white

Dimensions in stock:
Steel/Steel coated: pg. 435

Article 88143

Right angle screw hooks with hexalobular drive and wood screw thread
type 10



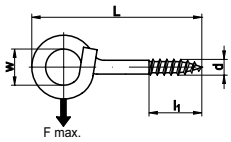
Dimensions	5.2	5.8
h	9	10
d	5.2	5.8
l	50	
l_1	25	30
ISR	T15	T20
$F_{max.}$	40 kg	50 kg
for plugs	8	8

Dimensions in stock:
Steel/Steel coated: pg. 436

Hooks/special bolts with wood screw thread

Article 88144

Heavy duty screw eyes with wood screw thread
type 18



Caution: unfit for swings

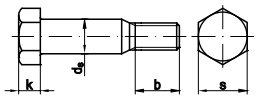
Dimensions	8.2	9	10
w	22	22	22
d	8.2	8.9	9.9
l	100	120/140	140
l_1	40	45/48	48
$F_{max.}$	100 kg	125 kg	150 kg
for plugs	12	12	14

Dimensions in stock:
Steel/Steel coated: pg. 436

Steel constr. bolts, nuts and washers

DIN 7968

Hexagon fit bolts for steel structure



EN 15048

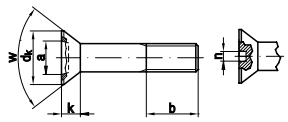
Dimensions	M 12	M 16	M 20	M 24	M 27	M 30
b	20.5	24.5	28.5	33	35.5	38.5
k	8	10	13	15	17	19
$d_{s\ min.}$	12.74	16.74	20.71	24.71	27.71	30.67
s	18	24	30	36	41	46

with nut acc. to ISO 4032 or ISO 4034

Dimensions in stock:
Steel/Steel coated: pg. 352

DIN 7969

Slotted countersunk head bolts for steel structures



EN 15048

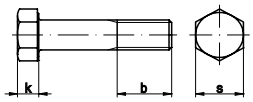
Dimensions	M 12	M 16	M 20	M 24
W	75°	75°	60°	60°
b_1	22	28	32	38
b_2	28	35	40	50
$d_{k\ max.}$	21	28	32	38
k	7	9	11.5	13
n	2.5	2.5	3	3
t	3	3	3.5	3.5
$a_{max.}$	14.7	19.6	22.4	26.6

with nut acc. to ISO 4032 or ISO 4034,
b_1 for l ≤ 60 with M 12 and l ≤ 80 with M 16 – M 24
b_2 for l > 60 with M 12 and l > 80 with M 16 – M 24

Dimensions in stock:
Steel/Steel coated: pg. 354

DIN 7990

Hexagon head bolts with hexagon nut for steel structures



EN 15048

Dimensions	M 12	M 16	M 20	M 24	M 27	M 30
k	8	10	13	15	17	19
s	18	24	30	36	41	46
b	20.5	24.5	28.5	33	35.5	38.5

with nut acc. to ISO 4032 or ISO 4034

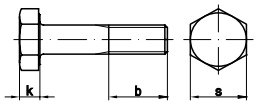
Dimensions in stock:
Steel/Steel coated: pg. 367

Steel constr. bolts, nuts and washers

EN 14399-4

replaces DIN 6914

Hexagon bolts with large head for high-strength structural bolting, system HV



EN 14399

*acc. to DAST directive pg. 021

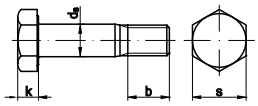
Dimensions	M 12	M 16	M 20	M 22	M 24	M 27	M 30	M 36	M 42*
k	8	10	13	14	15	17	19	23	26
s	22	27	32	36	41	46	50	60	70
b	23	28	33	34	39	41	44	52	74

Dimensions in stock:
Steel/Steel coated: pg. 397

EN 14399-8

replaces DIN 7999

Hexagon fit bolts with large head for high-strength structural bolting, system HV



EN 14399

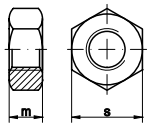
Dimensions	M 16	M 20	M 22	M 24	M 27	M 30
k	10	13	14	15	17	19
d_s	17	21	23	25	28	31
b	28	33	34	39	41	44
s	27	32	36	41	46	50

Dimensions in stock:
Steel/Steel coated: pg. 402

EN 14399-4

replaces DIN 6915

Hexagon nuts for high-strength structural bolting, system HV



EN 14399

*acc. to DAST directive pg. 021

Dimensions	M 12	M 16	M 20	M 22	M 24
m	10	13	16	18	20
s	22	27	32	36	41

Dimensions	M 27	M 30	M 36	M 42*	
m	22	24	29	34	
s	46	50	60	70	

Dimensions in stock:
Steel/Steel coated: pg. 402

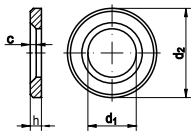
DIN 6917 Square taper washers for friction grip bolts	Dimensions see TI-86 (washers/rings - square washers)
DIN 6918 Square taper washers for friction grip bolts	

Steel constr. bolts, nuts and washers

EN 14399-6

replaces DIN 6916

Plain chamfered washers for high-strength structural bolting, system HV



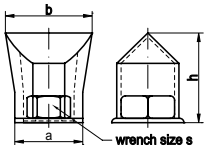
*acc. to DAST directive pg. 021

Dimensions	M 12	M 16	M 20	M 22	M 24	M 27	M 30	M 36	M 42*
$d_{1\ min.}$	13	17	21	23	25	28	31	37	43.4
$d_{2\ max.}$	24	30	37	39	44	50	56	66	78
h	3	4	4	4	4	5	5	6	8
$c_{min.}$	1.6	1.6	2	2	2	2.5	2.5	2.5	3

Dimensions in stock:
Steel/Steel coated: pg. 402

Article 88916

Safety sockets for HV

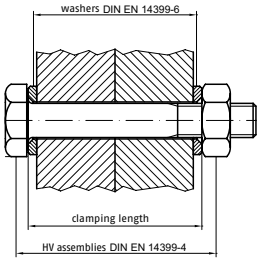


Dimensions	M 12	M 16	M 20	M 24	M 27	M 30	M 36
a	32	40	45	56	61	69	76
b	45	54	61	80	85	89	110
h	39	52	54	64	68	73	86
s	22	27	32	41	46	50	60

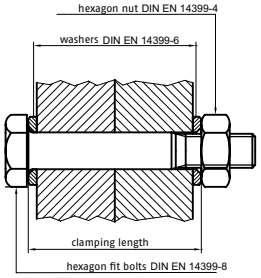
Dimensions in stock:
Steel/Steel coated: pg. 402

Clamping length for bolts for steel constructions

Bolts, system HV acc. to EN 14399 - 4



fit bolts acc. to EN 14399 - 8



Thread	M 12		M 16		M 20		M 22		M 24		M 27		M 30		M 36	
Nominal length	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
30	11	16														
35	16	21	12	17												
40	21	26	17	22	13	18										
45	26	31	22	27	18	23										
50	31	36	27	32	23	28	22	27	19	24						
55	36	41	32	37	28	33	27	32	24	29						
60	41	46	37	42	33	38	32	37	29	34	26	31				
65	46	51	42	47	38	43	37	42	34	39	31	36				
70	51	56	47	52	43	48	42	47	39	44	36	41	34	39		
75	56	61	52	57	48	53	47	52	44	49	41	46	39	44		
80	61	66	57	62	53	58	52	57	49	54	46	51	44	49		
85	66	71	62	67	58	63	57	62	54	59	51	56	49	54	43	48
90	71	76	67	72	63	68	62	67	59	64	56	61	54	59	48	53
95	76	81	72	77	68	73	67	72	64	69	61	66	59	64	53	58
100	81	86	77	82	73	78	72	77	69	74	66	71	64	69	58	63
105	86	91	82	87	78	83	77	82	74	79	71	76	69	74	63	68
110	91	96	87	92	83	88	82	87	79	84	76	81	74	79	68	73
115	96	101	92	97	88	93	87	92	84	89	81	86	79	84	73	78
120	101	106	97	102	93	98	92	97	89	94	86	91	84	89	78	83
125			102	107	98	103	97	102	94	99	91	96	89	94	83	88
130			107	112	103	108	102	107	99	104	96	101	94	99	88	93
135			112	117	108	113	107	112	104	109	101	106	99	104	93	98
140			117	122	113	118	112	117	109	114	106	111	104	109	98	103
145			122	127	118	123	117	122	114	119	111	116	109	114	103	108
150			127	132	123	128	122	127	119	124	116	121	114	119	108	113
155			132	137	128	133	127	132	124	129	121	126	119	124	113	118
160			137	142	133	138	132	137	129	134	126	131	124	129	118	123
165			142	147	138	143	137	142	134	139	131	136	129	134	123	128
170			147	152	143	148	142	147	139	144	136	141	134	139	128	133
175			152	157	148	153	147	152	144	149	141	146	139	144	133	138
180			157	162	153	158	152	157	149	154	146	151	144	149	138	143
185			162	166	158	162	157	161	154	159	151	156	149	154	143	148
190			167	171	163	167	162	166	159	164	156	161	154	159	148	153
195			172	176	168	172	167	171	164	169	161	166	159	164	153	158
200			177	181	173	177	172	176	169	174	166	171	164	169	158	163
210			187	191	183	187	182	186	179	184	176	181	174	179	168	173
220			197	201	193	197	192	196	189	194	186	191	184	189	178	183
230					203	207	202	206	199	204	196	201	194	199	188	193
240					213	217	212	216	209	214	206	211	204	209	198	203
250					223	227	222	226	219	224	216	221	214	219	208	213
260					233	237	232	236	229	233	226	230	224	228	218	222

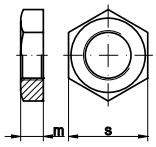
The maximum clamping length values are set in such a way that the bolt thread in preload condition exceeds the nuts by min. 1P. Details on washer thickness EN 14399-6 ➔ TI-58, -85, -86

Design standards and assembly instructions ➔ EN 1090-1/EN 1993-1, -8

Hexagon nuts

DIN 431

Pipe nuts with thread acc. to ISO 228-1
type B = with thread one-sided countersunk



Dimensions	G 1/8	G 1/4	G 3/8	G 1/2	G 3/4
$m_{max.}$	6,48	6,48	7,58	5,58	9,58
$s_{max.}$	19	22	27	32	36

Dimensions	G 1	G 1 1/4	G 1 1/2	G 1 3/4	G 2
$m_{max.}$	10,58	11,7	12,7	13,7	13,7
$s_{max.}$	46	55	60	70	75

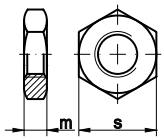
Dimensions in stock:
Steel/Steel coated: pg. 80 | Stainless steel: pg. 465 | Non-ferrous materials: pg. 618

Hexagon nuts

ISO 4035

replaces DIN 439

Hexagon thin nuts
type B = chamfered



Dimensions	M 2	M 2.5	M 3	M 3.5	M 4	M 5	M 6	M 8
$m_{max.}$	1.2	1.6	1.8	2	2.2	2.7	3.2	4
$s_{ISO/DIN}$	4	5	5.5	6	7	8	10	13

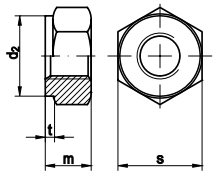
Dimensions	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
$m_{max.}$	5	6	7	8	9	10	11	12
$s_{ISO/DIN}$	16/17	18/19	21/22	24	27	30	34/32	36

Dimensions	M 27	M 30	M 33	M 35	M 36	M 39	M 42	M 48
$m_{max.}$	13.5	15	16.5	17.5	18	19.5	21	24
$s_{ISO/DIN}$	41	46	50	55	55	60	65	75

Dimensions in stock:
Steel/Steel coated: pg. 284, pg. 82 | Stainless steel: pg. 547, pg. 467 | Non-ferrous materials: pg. 638, pg. 619

DIN 2510

Hexagon nuts
for bolted connections with reduced shank
type NF = standard



Dimensions	M 12	M 14*	M 16	M 20	M 24	M 27	M 30
s	22	24	27	32	36	41	46
m	12	14	16	20	24	27	30
d_2	21	23	26	31	35	40	45
t	2	2	2	2	3	3	3

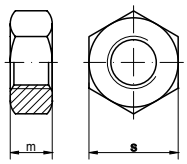
Dimensions	M 33	M 36	M 39	M 42	M 45	M 48	
s	50	55	60	65	70	75	
m	33	36	39	42	45	48	
d_2	49	53.5	58.5	63.5	68.5	73.5	
t	3	3	3	3	3	4	

*not standardized, reference values

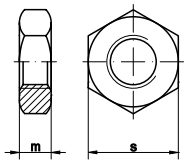
Dimensions in stock:
Steel/Steel coated: pg. 233

ASME B 18.2.2

Nuts with unified inch thread



Hex nuts*



Hex jam nuts*

Dimensions	1/4	5/16	3/8	7/16	1/2	9/16	5/8
s	7/16	1/2	9/16	11/16	3/4	7/8	15/16
m (hex nuts)	0.226	0.273	0.337	0.385	0.448	0.496	0.559
m (jam nuts)	0.163	0.195	0.227	0.26	0.323	0.324	0.387

Dimensions	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4
s	1 1/8	1 5/16	1 1/2	1 11/16	1 7/8	2 1/4	2 5/8
m (hex nuts)	0.665	0.776	0.887	0.999	1.094	1.317	1.540
m (jam nuts)	0.446	0.51	0.575	0.639	0.751	0.88	1.009

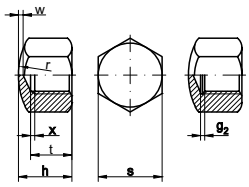
all dimensions in inches
*acc. to ASME B 18.2.2: 2010 table 4

Dimensions in stock:
Steel/Steel coated: pg. 414 | Stainless steel: pg. 592

Hexagon nuts

DIN 917

Hexagon cap nuts, low type



from M 10 thread undercuts acc. to DIN 76-1 (type D short) with the dimension $g_{2\ MAX}$

Dimensions	M 4	M 5	M 6	M 8	M 10	M 12
$x_{max.}/g_{2\ max.}$	1.05	1.2	1.5	1.87	2.25	6.4
h	5.5	7	9	12	14	16
r	8	10	12	15	20	25
$s_{ISO/DIN}$	7	8	10	13	16/17	18/19
$t_{min.}$	4.16	4.96	6.71	9.21	10.65	13.15
$w_{min.}$	1	1	1.5	2	2	2

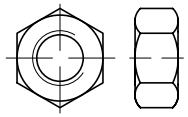
Dimensions	M 14	M 16	M 20	M 24	M 30	M 36
$x_{max.}/g_{2\ max.}$	7.3	7.3	9.3	10.7	12.7	14
h	18	20	25	30	34	44
r	28	30	35	40	60	70
$s_{ISO/DIN}$	21/22	24	30	36	46	55
$t_{min.}$	14.65	16.65	20.58	23.58	27.58	35.5
$w_{min.}$	2	2	2.5	3	3	4

Dimensions in stock:
Steel/Steel coated: pg. 141 | Stainless steel: pg. 485 | Non-ferrous materials: pg. 624

ISO 4032, 8673

replaces DIN 934

Hexagon regular nuts
ISO 8673 with metric fine pitch thread



Dimensions	M 1*	M 1,2*	M 1,4*	M 1,6	M 1,7**	M 2	M 2,3**	M 2,5
$m_{ISO/DIN}$	0,8	1	1,2	1,3	1,4	1,6	1,8	2
$s_{ISO/DIN}$	2,5	3	3	3,2	3,5	4	4,5	5

Dimensions	M 2,6**	M 3	M 3,5	M 4	M 5	M 6	M 7*	M 8
$m_{ISO/DIN}$	2	2,4	2,8	3,2	4,7/4	5,2/5	5,5	6,8/6,5
$s_{ISO/DIN}$	5	5,5	6	7	8	10	11	13

Dimensions	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
$m_{ISO/DIN}$	8,4/8	10,8/10	12,8/11	14,8/13	15,8/15	18/16	19,4/18	21,5/19
$s_{ISO/DIN}$	16/17	18/19	21/22	24	27	30	34/32	36

Dimensions	M 26**	M 27	M 28**	M 30	M 32**	M 33	M 35**	M 36
$m_{ISO/DIN}$	22	23,8/22	22	25,6/24	26	28,7/26	29	31/29
$s_{ISO/DIN}$	41	41	41	46	50	50	55	55

Dimensions	M 38**	M 39	M 40**	M 42	M 45	M 48	M 50**	M 52
$m_{ISO/DIN}$	31	33,4/31	31	34	36	38	38	42
$s_{ISO/DIN}$	60	60	60	65	70	75	75	80

Dimensions	M 56	M 58**	M 60	M 64	M 68*	M 72*	M 76*	M 80*
$m_{ISO/DIN}$	45	48	48	51	54	58	61	64
$s_{ISO/DIN}$	85	90	90	95	100	105	110	115

Dimensions	M 85*	M 90*	M 95**	M 100*	M 105**	M 110*	M 120**	
$m_{ISO/DIN}$	68	72	76	80	84	88	96	
$s_{ISO/DIN}$	120	130	135	145	150	155	170	

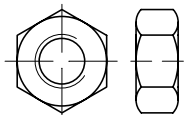
*dimensions acc. to DIN 934
**dimensions acc. to DIN 934:1968

Dimensions in stock:
Steel/Steel coated: pg. 278, pg. 369, pg. 168 | Stainless steel: pg. 544, pg. 582, pg. 495 | Non-ferrous materials: pg. 637, pg. 642, pg. 626

Hexagon nuts

ISO 4033

Hexagon thin nuts type 2



Dimensions	M 6	M 8	M 10	M 12	M 16
m	5.7	7.5	9.3	12	16.4
s	10	13	16	18	24

Dimensions	M 20	M 24	M 27*	M 30	M 36
m	20.3	23.9	26.7	28.6	34.7
s	30	36	41	46	55

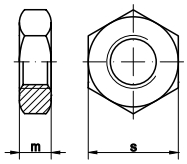
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 284

ISO 4035, 8675

replaces DIN 439-2, 936

Hexagon thin nuts chamfered
ISO 8675 with metric fine pitch thread



*not standardized,
reference values acc. to 936:1963

Dimensions	M 2	M 2.5	M 3	M 3.5	M 4	M 5	M 6	M 8
$m_{ISO/DIN}$	1.2	1.6	1.8	2	2.2	2.7	3.2	4/5
$s_{ISO/DIN}$	4	5	5.5	6	7	8	10	13

Dimensions	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
$m_{ISO/DIN}$	5/6	6/7	7/8	8	9	10/9	11/10	12/10
$s_{ISO/DIN}$	16/17	18/19	21/22	24	27	30	34/32	36

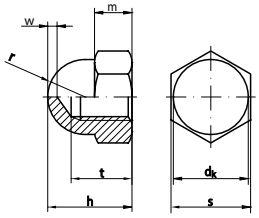
Dimensions	M 26	M 27	M 28*	M 30	M 32*	M 33	M 35*	M 36
$m_{ISO/DIN}$	13/12	13.5/12	14/12	15/12	16/14	16.5/14	17.5/14	18/14
$s_{ISO/DIN}$	41	41	41	46	50	50	55	55

Dimensions	M 38*	M 39	M 40*	M 42	M 45	M 48	M 50*	M 52
$m_{ISO/DIN}$	19/16	19.5/16	20/16	21/16	22.5/18	24/18	25/20	26/20
$s_{ISO/DIN}$	60	60	60	65	70	75	75	80

Dimensions in stock:
Steel/Steel coated: pg. 284, pg. 371, pg. 174 | Stainless steel: pg. 547, pg. 582, pg. 497 | Non-ferrous materials: pg. 638, pg. 643, pg. 627

DIN 1587

Hexagon domed cap nuts, high type



Dimensions	M 3*	M 4	M 5	M 6	M 8	M 10	M 12	M 14
$d_{k\ max.}$	5.8	6.5	7.5	9.5	12.5	15	17	20
$m_{max.}$	2.4	3.2	4	5	6.5	8	10	11
r	2.9	3.25	3.75	4.75	6.25	7.5	8.5	10
$s_{ISO/DIN}$	5.5	7	8	10	13	16/17	18/19	21/22
$t_{min.}$	4.5	5.26	7.21	7.71	10.65	12.65	15.65	17.65
$w_{min.}$	2	2	2	2	2	2	3	4
h	6	8	10	12	15	18	22	25

Dimensions	M 16	M 18	M 20	M 22	M 24	M 27*	M 30*	
$d_{k\ max.}$	23	26	28	33	34	39	44	
$m_{max.}$	13	15	16	18	19	22	24	
r	11.5	13	14	16.5	17	19.5	22	
$s_{ISO/DIN}$	24	27	30	34/32	36	41	46	
$t_{min.}$	20.58	24.58	25.58	28.58	30.5	35	39	
$w_{min.}$	4	5	5	5	6	7	7	
h	28	32	34	39	42	45	50	

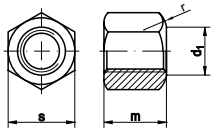
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 221 | Stainless steel: pg. 521 | Non-ferrous materials: pg. 633

Hexagon nuts

DIN 6330

Hexagon nuts with a height of 1,5 d
type B = with one spherical bearing face



Dimensions	M 6	M 8	M 10	M 12	M 14	M 16
d_1	7	9	11.5	14	16	18
m	9	12	15	18	21	24
r	9	11	15	17	20	22
s	10	13	16/17*	18/19*	22	24

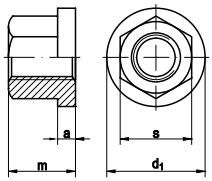
Dimensions	M 18	M 20	M 22	M 24	M 27	M 30
d_1	20	22	25	26	29	32
m	27	30	33	36	40	45
r	25	27	29	32	37	41
s	27	30	32	36	41	46

*wrench sizes acc. to DIN 6330: 1965-03

Dimensions in stock:
Steel/Steel coated: pg. 309 | Stainless steel: pg. 553

DIN 6331

Hexagon nuts with a height of 1.5 d, with collar



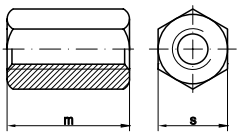
Dimensions	M 6	M 8	M 10	M 12	M 14	M 16	M 18
a	3	3.5	4	4	4	5	5
d_1	14	18	22	25	28	31	34
m	9	12	15	18	21	24	27
s	10	13	16	18	22	24	27

Dimensions	M 20	M 22	M 24	M 27	M 30	M 36	M 42
a	6	6	6	7	8	10	12
d_1	37	40	45	50	58	68	80
m	30	33	36	40	45	54	63
s	30	32	36	41	46	55	65

Dimensions in stock:
Steel/Steel coated: pg. 309 | Stainless steel: pg. 553

~DIN 6334

Hexagon nuts, with a height of 3 d



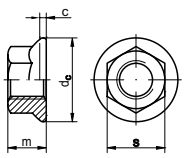
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36
m	18	24	30	36	48	60	72	90	108
s	10	13	17	19	24	30	36	46	55

Dimensions in stock:
Steel/Steel coated: pg. 310 | Stainless steel: pg. 553

EN 1661

replaces DIN 6923

Hexagon flange nuts



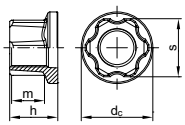
Dimensions	M 4	M 5	M 6	M 8	M 10	M 12	M 16	M 20
$d_{c\ max.}$	10	11.8	14.2	17.9	21.8	26	34.5	42.8
$m_{max.}$	4.65	5	6	8	10	12	16	20
$s_{EN/DIN}$	7	8	10	13	16/15	18	24	30

Dimensions in stock:
Steel/Steel coated: pg. 222, pg. 322 | Stainless steel: pg. 521, pg. 558

Hexagon nuts

EN 13024

Lightweight nuts with flange

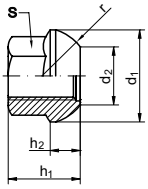


Dimensions	M 16x1.5
$d_{c\ max.}$	30.5
$h_{max.}$	20.5
$m_{min.}$	9.5
s	24

Dimensions in stock:
Steel/Steel coated: 396

DIN 74361

Domed anchor nuts
type A

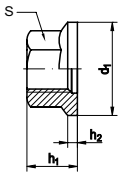


Dimensions	M 14x1.5	M 18x1.5	M 20x1.5
d_1	26	28	33
d_2	17	21	24.5
h_1	20	25	27
h_2	7.5	7.5	9
r	14	16	18
s	19	24	27

Dimensions in stock:
Steel/Steel coated: pg. 410

DIN 74361

Flat collar nuts
type B

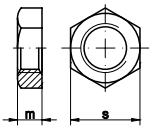


Dimensions	M 14x1.5	M 18x1.5	M 20x1.5	M 22x1.5
d_1	27	29	34	36
h_1	15	18	20	22
h_2	3	4	5	6
s	19	24	27	30

Dimensions in stock:
Steel/Steel coated: pg. 410

DIN 80705

Thin hexagonal nuts with small wrench size



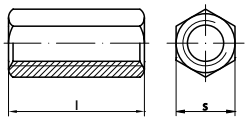
Dimensions	M 14x1.5	M 16x1.5	M 18x1.5	M 20x1.5	M 22x1.5	M 26x1.5	M 30x2
m	6	6	6	6	7	8	8
s	19	22	24	27	30	36	41

Dimensions in stock:
Steel/Steel coated: please refer www.rio.reyher.de

Hexagon nuts

Article 88087

**Hexagon couplings
with continuous metric internal thread**

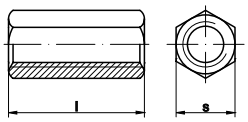


Dimensions	M 6	M 8	M 10	M 12	M 16	M 20	M 24	M 30
s	10	13	17	19	24	30	36	46
l	20/25/ 30/40	30	30	40/50	50	50	50	90

Dimensions in stock:
Steel/Steel coated: pg. 417 | Stainless steel: pg. 592

Article 88090

**Hexagon nuts with trapezoidal thread,
with a height of 1.5 d**



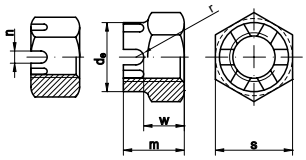
Dimensions	TR 16x4	TR 20x4	TR 24x5	TR 30x6
s	27	30	36	46
m	24	30	36	45

Dimensions in stock:
Steel/Steel coated: pg. 417

Locking nuts

DIN 935-1

Hexagon slotted and castle nuts



≤ M 10 ≥ M 12

Dimensions	M 4	M 5	M 6	M 8	M 10	M 12	M 14	M 16
$d_{e\ max.}$	–	–	–	–	–	16	18	22
m	5	6	7.5	9.5	12	15	16	19
$n_{min.}$	1.2	1.4	2	2.5	2.8	3.5	3.5	4.5
$s_{ISO/DIN}$	7	8	10	13	16/17	18/19	21/22	24
$w_{max.}$	3.2	4	5	6.5	8	10	11	13
split pin	1x10	1.2x12	1.6x14	2x16	2.5x20	3.2x22	3.2x25	4x28

Dimensions	M 18	M 20	M 22	M 24	M 27	M 28*	M 30	M 32*
$d_{e\ max.}$	25	28	32	34	38	38	42	46
m	21	22	26	27	30	30	33	35
$n_{min.}$	4.5	4.5	5.5	5.5	5.5	5.5	7	7
$s_{ISO/DIN}$	27	30	34/32	36	41	41	46	50
$w_{max.}$	15	16	18	19	22	22	24	26
split pin	4x32	4x36	5x36	5x40	5x45	5x50	6.3x50	6.3x56

Dimensions	M 33	M 36	M 38*	M 39	M 40*	M 42	M 45	M 48
$d_{e\ max.}$	46	50	55	55	55	58	62	65
m	35	38	40	40	48	46	48	50
$n_{min.}$	7	7	7	7	7	9	9	9
$s_{ISO/DIN}$	50	55	60	60	60	65	70	75
$w_{max.}$	26	29	31	31	31	34	36	38
split pin	6.3x56	6.3x63	6.3x70	6.3x71	6.3x70	8x71	8x80	8x80

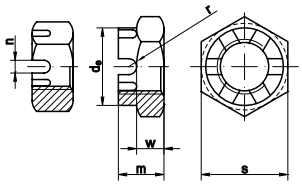
Dimensions	M 52	M 56	M 60	M 64	M 68	M 72	M 76	M 80
$d_{e\ max.}$	70	75	80	85	90	95	100	105
m	54	57	63	66	69	73	76	79
$n_{min.}$	9	9	11	11	11	11	11	11
$s_{ISO/DIN}$	80	85	90	95	100	105	110	115
$w_{max.}$	42	45	48	51	54	58	61	64
split pin	8x90	8x100	10x100	10x100	10x112	10x112	10x125	10x140

*acc. to DIN 935:1963

Dimensions in stock:
Steel/Steel coated: pg. 173 | Stainless steel: pg. 497

DIN 937

Hexagon thin slotted and castle nuts



≤ M 10 ≥ M 12

Dimensions	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20
$d_{e\ max.}$	–	–	–	17	19	22	25	28
m	6	8	9	10	11	12	13	13
$n_{min.}$	2	2.5	2.8	3.5	3.5	4.5	4.5	4.5
s	10	13	17	19	22	24	27	30
$w_{max.}$	3.5	4.5	5	6	7	7	8	8
split pin	1.6x14	2x16	2.5x20	3.2x22	3.2x25	4x28	4x32	4x36

Dimensions	M 22	M 24	M 26*	M 27	M 28*	M 30	M 32*	M 33
$d_{e\ max.}$	30	34	38	38	38	42	46	46
m	15	15	30	17	30	18	20	20
$n_{min.}$	5.5	5.5	5.5	5.5	5.5	7	7	7
s	32	36	41	41	41	46	50	50
$w_{max.}$	9	9	22	11	22	11	13	13
split pin	5x36	5x40	5x50	5x45	5x50	6.3x50	6x60	6.3x56

Dimensions	M 35*	M 36	M 39	M 40*	M 42	M 48	M 52	
$d_{e\ max.}$	50	50	55	55	58	65	70	
m	20	20	22	22	23	25	27	
$n_{min.}$	7	7	7	7	9	9	9	
s	55	55	60	60	65	75	80	
$w_{max.}$	13	13	13	13	14	16	18	
split pin	6x65	6.3x63	6.3x71	6x70	8x71	8x80	8x90	

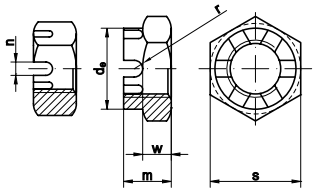
*acc. to DIN 937: 1963

Dimensions in stock:
Steel/Steel coated: pg. 176

Locking nuts

DIN 979

Hexagon thin slotted and castle nuts



≤ M 10 ≥ M 12

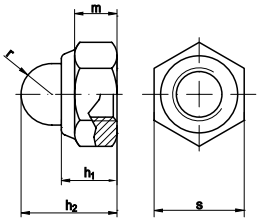
Dimensions	M 16	M 18	M 20	M 24	M 30	M 36	M 42	M 48	M 52
$d_{e\ max.}$	22	25	28	34	42	50	58	65	70
m	13	15	16	19	24	29	33	36	38
$n_{min.}$	4.5	4.5	4.5	5.5	7	7	9	9	9
s	24	27	30	36	46	55	65	75	80
$w_{max.}$	7	9	10	11	15	20	22	24	26
split pin	4x28	4x32	4x36	5x40	6.3x50	6.3x63	8x71	8x80	8x90

Dimensions in stock:
Steel/Steel coated: pg. 198

ISO 7042, 10513 replaces DIN 980, 6925	Standards conversions and dimensions overview ➔ TI-9
ISO 7040, 10512 replaces DIN 982, 6924	
ISO 10511 replaces DIN 985	

DIN 986

Prevailing torque type hexagon domed cap nuts
with non-metallic insert



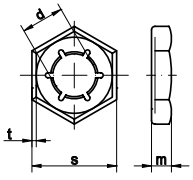
temperature resistance of the insert
see price pages

Dimensions	M 4	M 5	M 6	M 8	M 10	M 12	M 16
h_1	5.6	6	7.5	8.9	10.5	13.5	16.5
h_2	9.6	10.5	12	14	18.1	22.5	27.5
$m_{min.}$	2.9	4.4	4.9	6.44	8.04	10.37	14.1
r	2.5	3	3.5	4.6	5.8	6.8	8.8
s	7	8	10	13	17	19	24

Dimensions in stock:
Steel/Steel coated: pg. 203 | Stainless steel: pg. 512

DIN 7967

Self locking counter nuts



Dimensions	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 22
d	5.3	6.9	8.6	10.4	12	14.1	17.6	19.6
m	3	3.5	4	4.5	5	5	6	6
s	10	13	17	19	22	24	30	32
t	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.8

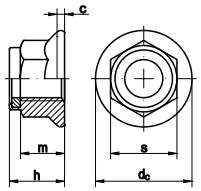
Dimensions	M 24	M 27	M 30	M 33	M 36	M 42	M 48	
d	21	24.2	26.6	29.8	32.2	37.6	43.9	
m	7	7	8	8	9	11	14	
s	36	41	46	50	55	65	75	
t	0.9	1	1.1	1.2	1.3	1.4	1.6	

Dimensions in stock:
Steel/Steel coated: pg. 352 | Stainless steel: pg. 574

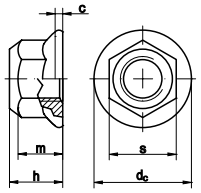
Locking nuts

EN 1663, 1664

Prevailing torque type hexagon nuts with flange



EN 1663 = with non-metallic insert



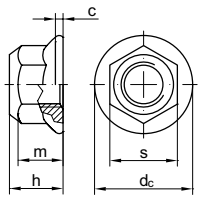
EN 1664 = all-metal hexagon nut

Dimensions	M 5	M 6	M 8	M 10	M 12	M 16
$c_{min.}$	1	1.1	1.2	1.5	1.8	2.4
d_c	11.8	14.2	17.9	21.8	26	34.5
$h_{max.\ (1663)}$	7.1	9.1	11.1	13.5	16.1	20.3
$h_{max.\ (1664)}$	6.2	7.3	9.4	11.4	13.8	18.3
$m_{min.}$	4.7	5.7	7.6	9.6	11.6	15.3
s	8	10	13	16	18	24

Dimensions in stock:
Steel/Steel coated: pg. 223, pg. 223

Article 13023

Hexagon nuts with flange, acc. to MBN 13023 type A

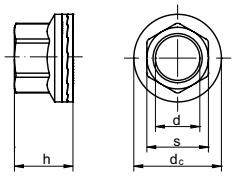


Dimensions	M 12x1.5	M 14x1.5	M 16x1.5
$c_{min.}$	1.8	2.1	2.4
$d_{c\ max.}$	26	29.9	34.5
$h_{max.}$	13.8	15.9	18.3
$m_{min.}$	11.6	13.3	15.3
s	18	21	24

Dimensions in stock:
Steel/Steel coated: 396

Article 88034

HEICO-LOCK wedge lock nuts



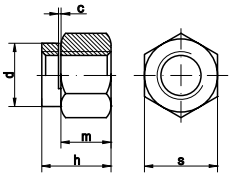
Dimensions	M 6	M 8	M 10	M 12	M 16
type	HLM	HLM	HLM	HLM	HLM
h	9.2	12.2	15.2	17.2	21.2
d_c	14.2	17.9	21.8	26	34.5
s	10	13	16	18	24

Dimensions in stock:
Steel/Steel coated: 434

Locking nuts

Article 88105

Prevailing torque type hexagon nuts, THERMAG nuts
all-metal nut

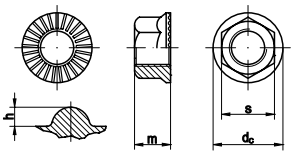


Dimensions	M 8 WS12	M 8 WS13	M 10 WS14	M 10 WS17	M 12 WS17	M 12 WS19
d	11.5	12.5	13.5	16.5	16.5	18.5
s	12	13	14	17	17	19
m	5.5	5.5	6.5	6.5	7.5	7.5
c	0.5	0.5	0.5	0.5	0.5	0.5

Dimensions in stock:
Steel/Steel coated: pg. 199

Article 88914

Hexagon nuts with flange and lock ribs

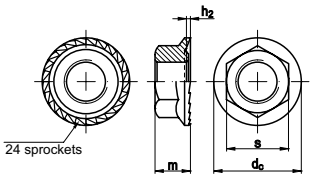


Dimensions	M 5	M 6	M 8	M 10	M 12	M 14	M 16
d_c	11.2	14.2	18.2	21	24	27.5	31
m	4.3	5.5	7	8.5	10	12	14
h	0.1	0.1	0.1	0.1	0.1	0.1	0.1
s	8	10	13	15	17	19	22
qty. ribs	28	36	48	48	60	60	72

Dimensions in stock:
Steel/Steel coated: pg. 440

Article 88934

Hexagon locking nuts with flange

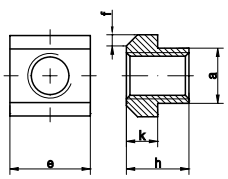


Dimensions	M 5	M 6	M 8	M 10	M 12	M 16
d_c	11.2	14.25	18.25	21	24	31
m	4.3	5.5	7	7.9	8.7	11.2
$h_{2\ min.}$	0.15	0.17	0.2	0.25	0.25	0.28
qty. serrations	24	24	24	24	24	24

Dimensions in stock:
Steel/Steel coated: pg. 442

DIN 508

T-slot nuts



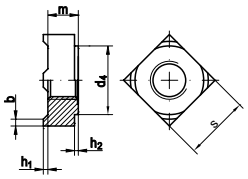
Dimensions	M 4	M 5	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 24
a	5	6	8	10	12	14	16	18	22	28
e	9	10	13	15	18	22	25	28	35	44
f	1	1.6	1.6	1.6	2.5	2.5	2.5	2.5	2.5	4
h	6.5	8	10	12	14	16	18	20	28	36
k	3	4	6	6	7	8	9	10	14	18

Dimensions in stock:
Steel/Steel coated: pg. 92

Welding nuts

DIN 928

Square weld nuts

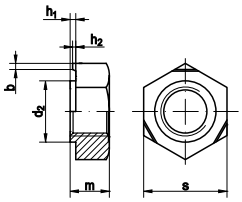


Dimensions	M 4	M 5	M 6	M 8	M 10	M 12
b	0.8	1	1.2	1.5	1.8	2
$d_{4\ min.}$	6.4	8.2	9.1	12.8	15.6	17.4
h_1	0.6	0.8	0.8	1	1.2	1.4
$h_{2\ min.}$	0.4	0.6	0.7	1.1	1.25	1.75
m	3.5	4.2	5	6.5	8	9.5
s	7	9	10	14	17	19

Dimensions in stock:
Steel/Steel coated: pg. 143

DIN 929

Hexagon weld nuts



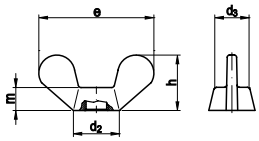
Dimensions	M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 14	M 16
b	0.8	0.8	0.8	0.9	1	1.25	1.25	1.5	1.5
d_2	4.5	6	7	8	10.5	12.5	14.8	16.8	18.8
h_1	0.55	0.65	0.7	0.75	0.9	1.15	1.4	1.8	1.8
h_2	0.25	0.35	0.4	0.4	0.5	0.65	0.8	1	1
m	3	3.5	4	5	6.5	8	10	11	13
s	7.5	9	10	11	14	17	19	22	24

Dimensions in stock:
Steel/Steel coated: pg. 143 | Stainless steel: pg. 486

Special forms

DIN 315

Wing nuts
rounded wings



Dimensions	M 3*	M 4	M 5	M 6	M 8	M 10
$e_{max.}$	19	20	26	33	39	51
$h_{max.}$	9.5	10.5	13	17	20	25
$m_{max.}$	3.9	4.6	6.5	8	10	12
$d_{2\ max.}$	7	8	11	13	16	20
$d_{3\ max.}$	6	7	9	11	12.5	16.5

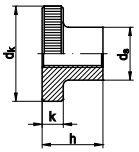
Dimensions	M 12	M 14**	M 16	M 20	M 24	
$e_{max.}$	65	63.5	73	90	110	
$h_{max.}$	33.5	32.3	37.5	46.5	56.5	
$m_{max.}$	14	12	17	21	25	
$d_{2\ max.}$	23	21.5	29	35	44	
$d_{3\ max.}$	19.5	–	23	29	37.5	

*acc. to DIN 315:1956
**not standardized, reference values

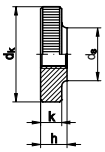
Dimensions in stock:
Steel/Steel coated: pg. 77 | Stainless steel: pg. 464 | Non-ferrous materials: pg. 617

DIN 466, 467

Knurled nuts



DIN 466 = high type



DIN 467 = low type

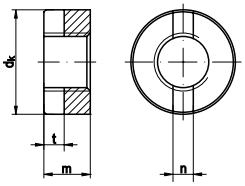
Dimensions	M 3	M 4	M 5	M 6	M 8	M 10	M 12*
d_k	12	16	20	24	30	36	35
d_s	6	8	10	12	16	20	20
k	2.5	3.5	4	5	6	8	8
$h_{DIN\ 466}$	7.5	9.5	11.5	15	18	23	23
$h_{DIN\ 467}$	3	4	5	6	8	10	10

*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 88 | Stainless steel: pg. 469 | Non-ferrous materials: pg. 620

DIN 546

Slotted round nuts



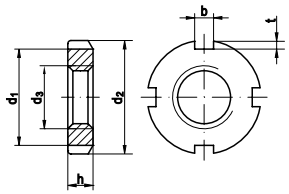
Dimensions	M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 16
$d_{k\ max.}$	6	8	9	11	14	18	21	26
$m_{max.}$	2.5	3.5	4.2	5	6.5	8	10	12
n	1.2	1.4	2	2.5	3	3.5	4	4
t	1	1.2	1.5	2	2.5	3.2	3.8	3.8

Dimensions in stock:
Steel/Steel coated: pg. 92 | Stainless steel: pg. 470 | Non-ferrous materials: pg. 620

Special forms

DIN 981

Locknuts for rolling bearings



Dimensions	KM 0	KM 1	KM 2	KM 3	KM 4	KM 5	KM 6
d_1	M 10x0.75	M 12x1	M 15x1	M 17x1	M 20x1	M 25x1.5	M 30
d_2	18	22	25	28	32	38	45
d_3	13.5	17	21	24	26	32	38
h	4	4	5	5	6	7	7
b	3	3	4	4	4	5	5
t	2	2	2	2	2	2	2
lockwasher*	MB 0	MB 1	MB 2	MB 3	MB 4	MB 5	MB 7

Dimensions	KM 7	KM 8	KM 9	KM 10	KM 11	KM 12	KM 13
d_1	M 35x1.5	M 40x1.5	M 45x1.5	M 50x1.5	M 55x2	M 60x2	M 65x2
d_2	52	58	65	70	75	80	85
d_3	44	50	56	61	67	73	79
h	8	9	10	11	11	11	12
b	5	6	6	6	7	7	7
t	2	2.5	2.5	2.5	3	3	3
lockwasher*	MB 7	MB 8	MB 9	MB 10	MB 11	MB 12	MB 13

Dimensions	KM 14	KM 15	KM 16	KM 17	KM 18	KM 19	KM 20
d_1	M 70x2	M 75x2	M 80x2	M 85x2	M 90x2	M 95x2	M 100x2
d_2	92	98	105	110	120	125	130
d_3	85	90	95	102	108	113	120
h	12	13	15	15	16	17	18
b	8	8	8	8	10	10	10
t	3.5	3.5	3.5	3.5	4	4	4
lockwasher*	MB 14	MB 15	MB 16	MB 17	MB 18	MB 19	MB 20

Dimensions	KM 22	KM 23	KM 24	KM 25	KM 26	KM 27	KM 28
d_1	M 110x2	M 115x2	M 120x2	M 125x2	M 130x2	M 135x2	M 140x2
d_2	145	150	155	160	165	175	180
d_3	133	137	138	148	149	160	160
h	19	19	20	21	21	22	22
b	12	12	12	12	12	14	14
t	5	5	5	5	5	6	6
lockwasher*	MB 22	MB 23	MB 24	MB 25	MB 26	MB 27	MB 28

Dimensions	KM 29	KM 30	KM 31	KM 32	KM 34		
d_1	M 145x2	M 150x2	M 155x3	M 160x3	M 165x3		
d_2	190	195	200	210	210		
d_3	171	171	182	182	193		
h	24	24	25	25	26		
b	14	14	16	16	16		
t	6	6	7	7	7		
lockwasher*	MB 29	MB 30	MB 31	MB 32	MB 33		

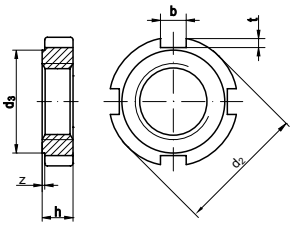
*Lockwashers DIN 5406

Dimensions in stock:
Steel/Steel coated: pg. 200

Special forms

DIN 1804

Slotted round nuts



Dimensions	M 8x1	M 10x1	M 12x1.5	M 14x1.5	M 16x1.5	M 18x1.5	M 20x1.5	M 22x1.5
d_2	20	25	28	30	32	34	36	40
d_3	16	20	23	25	27	28	30	34
b	4	5	5	5	5	6	6	6
h	5	6	6	7	7	8	8	9
t	1.5	2	2	2	2	2.5	2.5	2.5
z	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
qty. slots	4	4	4	4	4	4	4	4

Dimensions	M 24x1.5	M 26x1.5	M 28x1.5	M 30x1.5	M 32x1.5	M 35x1.5	M 38x1.5	M 40x1.5
d_2	42	45	50	50	52	55	58	62
d_3	36	38	43	43	45	48	50	54
b	6	7	7	7	7	7	8	8
h	9	10	10	10	11	11	11	12
t	2.5	3	3	3	3	3	3.5	3.5
z	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
qty. slots	4	4	4	4	4	4	4	4

Dimensions	M 42x1.5	M 45x1.5	M 48x1.5	M 50x1.5	M 52x1.5	M 55x1.5	M 58x1.5	M 60x1.5
d_2	62	68	75	75	80	80	90	90
d_3	54	60	67	67	70	70	80	80
b	8	8	8	8	10	10	10	10
h	12	12	13	13	13	13	13	13
t	3.5	3.5	3.5	3.5	4	4	4	4
z	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
qty. slots	4	6	6	6	6	6	6	6

Dimensions	M 62x1.5	M 65x1.5	M 68x1.5	M 70x1.5	M 72x1.5	M 75x1.5	M 80x2	M 85x2
d_2	95	95	100	100	110	110	115	120
d_3	85	85	90	90	100	100	105	110
b	10	10	10	10	10	10	10	10
h	14	14	14	14	14	14	16	16
t	4	4	4	4	4	4	4	4
z	0.5	0.5	0.5	0.5	0.5	0.5	1	1
qty. slots	6	6	6	6	6	6	6	6

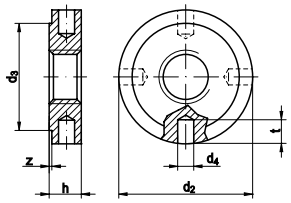
Dimensions	M 90x2	M 95x2	M 100x2	M 110x2	M 120x2			
d_2	130	135	145	155	165			
d_3	120	120	130	140	150			
b	10	12	12	12	12			
h	16	16	16	16	18			
t	4	5	5	5	5			
z	1	1	1	1	1			
qty. slots	6	6	6	6	6			

Dimensions in stock:
Steel/Steel coated: pg. 224 | Stainless steel: pg. 522

Special forms

DIN 1816

Round nuts
with set pin holes inside



Dimensions	M 12x1.5	M 16x1.5	M 18x1.5	M 20x1.5	M 22x1.5	M 24x1.5	M 26x1.5
d_2	28	32	34	36	40	42	45
d_3	23	27	28	30	34	36	38
d_4	3	4	4	4	4	4	5
h	6	7	8	8	9	9	10
t	5	6	6	6	6	6	6
z	0.5	0.5	0.5	0.5	0.5	0.5	0.5
qty. slots	4	4	4	4	4	4	4

Dimensions	M 28x1.5	M 30x1.5	M 35x1.5	M 40x1.5	M 42x1.5	M 45x1.5	M 48x1.5
d_2	50	50	55	62	62	68	75
d_3	43	43	48	54	54	60	67
d_4	5	5	5	6	6	6	6
h	10	10	11	12	12	12	13
t	7	7	7	8	8	8	10
z	0.5	0.5	0.5	0.5	0.5	0.5	0.5
qty. slots	4	4	4	4	4	6	6

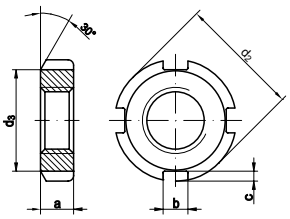
Dimensions	M 50x1.5	M 55x1.5	M 60x1.5	M 70x1.5	M 75x2	M 80x2	
d_2	75	80	90	100	110	115	
d_3	67	70	80	90	100	105	
d_4	6	6	6	8	8	8	
h	13	13	13	14	14	16	
t	10	10	10	12	12	12	
z	0.5	0.5	0.5	0.5	0.5	1	
qty. slots	6	6	6	6	6	6	

Dimensions in stock:
Steel/Steel coated: pg. 225

Special forms

DIN 70852

Locknuts for hook spanners



Dimensions	M 10x1	M 12x1.5	M 14x1.5	M 16x1.5	M 18x1.5	M 20x1.5	M 22x1.5	M 24x1.5
a	5	6	6	6	6	6	7	7
b	4.5	4.5	4.5	5.5	5.5	5.5	6.5	6.5
c	1.8	1.8	1.8	2.3	2.3	2.3	2.8	2.8
d_2	20	22	24	28	30	32	36	38
d_3	18	18	20	23	25	27	30	32
qty. slots	4	4	4	4	4	4	4	4
lockwasher*	10	12	14	16	18	20	22	24

Dimensions	M 26x1.5	M 28x1.5	M 30x1.5	M 32x1.5	M 35x1.5	M 38x1.5	M 40x1.5	M 42x1.5
a	7	7	7	8	8	8	8	8
b	6.5	6.5	6.5	7	7	7	7	8
c	2.8	2.8	2.8	3.3	3.3	3.3	3.3	3.3
d_2	40	42	44	48	50	54	56	60
d_3	34	36	38	41	43	47	49	52
qty. slots	4	4	4	4	4	4	4	4
lockwasher*	26	28	30	32	35	38	40	42

Dimensions	M 45x1.5	M 48x1.5	M 50x1.5	M 52x1.5	M 55x1.5	M 60x1.5	M 65x1.5	M 70x1.5
a	8	8	8	8	8	9	9	9
b	8	8	8	8	8	11	11	11
c	3.3	3.3	3.3	3.3	3.3	4.3	4.3	4.3
d_2	62	65	68	70	75	80	85	90
d_3	54	57	60	62	67	71	76	81
qty. slots	6	6	6	6	6	6	6	6
lockwasher*	45	48	50	52	55	60	65	70

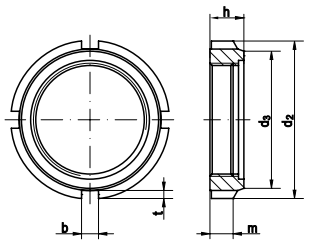
Dimensions	M 75x1.5	M 80x1.5	M 85x1.5	M 90x1.5	M 95x1.5
a	10	10	10	10	10
b	11	11	11	11	11
c	4.3	4.3	4.3	4.3	4.3
d_2	95	100	108	112	118
d_3	86	91	99	103	109
qty. slots	6	6	6	6	6
lockwasher*	75	80	85	90	95

*Lockwashers DIN 70952

Dimensions in stock:
Steel/Steel coated: pg. 408

Article 88081

Locknuts GUK
with non-metallic insert



Dimensions	M 12x1	M 15x1	M 17x1	M 20x1	M 25x1.5	M 30x1.5
d_2	21	24	28	32	38	44
d_3	18	21	24	27	33	38
h	7.6	8.6	8.7	9.6	10.5	10.7
m	4.5	5.5	5.5	6	6.5	6.6
b	3	4	4	4	5	5
t	1.5	1.5	2	2.5	2.5	3
qty. slots	4	4	4	4	4	4

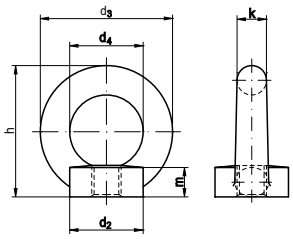
Dimensions	M 35x1.5	M 40x1.5	M 45x1.5	M 50x1.5	M 55x2	M 60x2
d_2	50	56	62	68	75	80
d_3	44	50	55	61	68	73
h	11.3	12.3	12.3	12.9	13.4	13.4
m	7	7.7	7.8	8.1	8.2	8.2
b	5	6	6	6	7	7
t	3	3	3.5	3.5	3.5	3.5
qty. slots	4	4	4	4	6	6

Dimensions in stock:
Steel/Steel coated: pg. 416

Special forms

DIN 582

Lifting eye nuts



Dimensions	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22
d_2	20	20	25	30	35	35	40	40	50
d_3	36	36	45	54	63	63	72	72	90
d_4	20	20	25	30	35	35	40	40	50
m	8,5	8,5	10	11	13	13	16	16	20
h	36	36	45	53	62	62	71	71	90
k	8	8	10	12	14	14	16	16	20

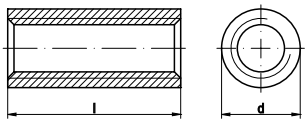
Dimensions	M 24	M 27	M 30	M 33	M 36	M 42	M 48	M 56	
d_2	50	65	65	75	75	85	100	110	
d_3	90	108	108	126	126	144	166	184	
d_4	50	60	60	70	70	80	90	100	
m	20	25	25	30	30	35	40	45	
h	90	109	109	128	128	147	168	187	
k	20	24	24	28	28	32	38	42	

more information ➔ TI-148
*not standardized,
geometry of the next higher dimension

Dimensions in stock:
Steel/Steel coated: pg. 99 | Stainless steel: pg. 473

Article 88088

Round couplings with metric thread



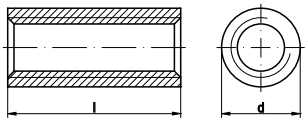
Dimensions	M 6	M 8	M 10
d	10	11	13
l	20/25/30/40	20/25/30/40/45	25/30/40/50

Dimensions	M 12	M 16	M 20
d	15	20	25
l	30/40/50	40	50

Dimensions in stock:
Steel/Steel coated: pg. 417 | Stainless steel: pg. 593

Article 88089

Round nuts with trapezoidal thread



Dimensions	TR 12x3	TR 14x4	TR 16x4	TR 18x4	TR 20x4	TR 22x5	TR 24x5
d	22	36	36	36	36	50	50
l	18	21	24	27	30	33	36

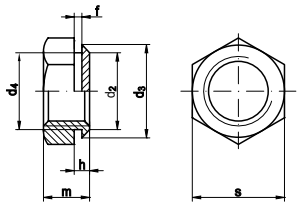
Dimensions	TR 26x5	TR 28x5	TR 30x6	TR 32x6	TR 36x6	TR 40x7	TR 44x7
d	50	60	60	60	75	75	75
l	39	42	45	48	54	60	66

Dimensions in stock:
Steel/Steel coated: pg. 417 | Stainless steel: pg. 593

Special forms

Article 88106

Rivet nuts



Dimensions	M 3	M 4	M 5	M 6
d_2*	4.5	5.5	6.5	8
d_3	4.7	5.7	6.75	8.3
d_4	4.5	5.5	6.5	8
m	3	3.2	4	5
f	0.4	0.4	0.4	0.4
h	0.9	0.9	0.9	0.9
s	5.5	7	8	10

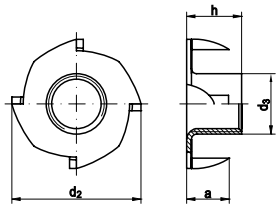
Dimensions	M 8	M 10	M 12	M 16
d_2*	10	12.5	14.5	18.5
d_3	10.3	12.85	14.85	18.85
d_4	10	12.5	14.5	18.5
m	6.5	8	10	13
f	0.9	0.9	1.3	1.5
h	1.9	1.9	2.9	2.4
s	13	15	17	22

*corresponds to drill hole diameter with tol. H11

Dimensions in stock:
Steel/Steel coated: pg. 428 | Stainless steel: pg. 596

Article 88108

Tee nuts with pronge

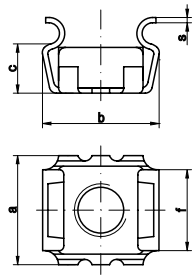


Dimensions	M 4	M 5	M 6	M 8	M 10
d_2	15	17	19	22	25
d_3	5	6.5	7.5	10	11.5
h	6	8	9/12	11/15	13
a	5	7	7	9	11

Dimensions in stock:
Steel/Steel coated: pg. 428

Article 88109

Square caged nuts
type SMG



Dimensions	M 4 - 8/9.5	M 5 - 8/9.5	M 6 - 6/9.5
s	0.5	0.5	0.5
c	4.6	6.3	6.4
b	13.5	13.7	13.9
a	13.1	13.1	13.4
f	8.7	8.8	8.8
f. sheet thicknesses	1.8 - 2.6	1.8 - 2.6	0.7 - 1.7

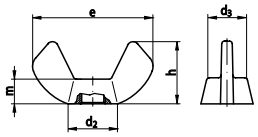
Dimensions	M 6 - 8/9.5	M 8 - 8/12.5	M 10 - 8/12.5
s	0.5	0.6	0.6
c	6.3	7.4	7.4
b	13.7	17.8	17.8
a	13.1	16.6	16.6
f	8.8	11.4	11.4
f. sheet thicknesses	1.8 - 2.6	1.8 - 2.6	1.8 - 2.6

Dimensions in stock:
Steel/Steel coated: pg. 428

Special forms

Article 88215

Wing nuts,
small type, edged wings

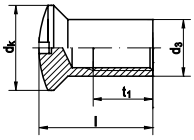


Dimensions	M 3	M 4	M 5	M 6	M 8	M 10	M 12
e	18.5	18.5	22	26.8	30.3	35.3	47.5
h	8.8	8.8	10.5	12.9	14.8	17.3	22.5
m	3	3	4	4.9	5.4	6.3	7.9
D	7.8	7.8	9.5	11.9	13.5	15.3	20.5

Dimensions in stock:
Steel/Steel coated: pg. 78 | Stainless steel: pg. 464

Article 88964

Sleeve nut
with raised countersunk head

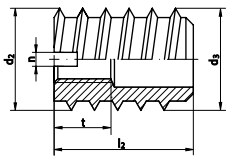


Dimensions	M 4	M 5	M 6	M 8
l	7/12/14/20	15	15/20	15/20
t_1	3/7/8/13	9	9 /13	7/12
d_3	5	6	7.5	10
d_k	7	9	10	15

Dimensions in stock:
Stainless steel: pg. 607 | Non-ferrous materials: pg. 647

DIN 7965

Screwed inserts "RAMPA"



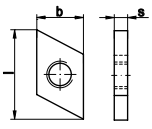
Dimensions	M 3	M 4	M 5	M 6	M 8	M 10	M 12
d_2	6	8	10	12	16	18.5	22
d_3	4.5	5.5	7.5	9.5	12.5	15	18
l_2	5	6	7	9	11	13	16
n	1	1.2	1.6	2	2.5	3	3
t	2	2	3	3	4	5	5
for drilling ∅	5.0	6.5	8.5	10.5	14.5	17	20

Dimensions in stock:
Steel/Steel coated: pg. 352 | Non-ferrous materials: pg. 642

Threaded plates

Article 88951

T-Head thread plates/slide nuts
type 28/15
for profiles 28/15, 28/12,28/28, 26/26, 26/18



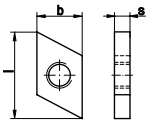
Dimensions	M 6	M 8	M 10
l	27.7	27.7	29.3
b	12.6	12.6	17.4
h	4	4	5

Dimensions in stock:
Steel/Steel coated: pg. 444

Threaded plates

Article 88952

T-Head thread plates/slide nuts type 38/17
for profiles 35/45, 38/17, 36/36, 36/20

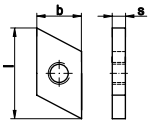


Dimensions	M 6	M 8	M 10	M 12
l	34	34	34	34
b	17.6	17.6	17.6	17.6
h	6.5	6.5	6.5	6.5

Dimensions in stock:
Steel/Steel coated: pg. 444

Article 88953

T-Head thread plates/slide nuts type 50/40
for profiles 50/40, 486

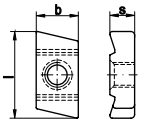


Dimensions	M 6	M 8	M 10	M 12	M 16
l	41.5	41.5	41.5	41.5	41.5
b	20.5	20.5	20.5	20.5	20.5
h	2.2	4	4	4	4

Dimensions in stock:
Steel/Steel coated: pg. 445

Article 88954

T-Head thread plates/slide nuts type 40/22
for profiles 40/22, 40/25, K422

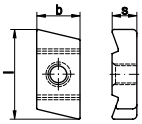


Dimensions	M 5	M 6	M 8	M 10	M 12
l	35	35	35	35	35
b	17	17	17	17	17
h	10	10	10	10	11.5

Dimensions in stock:
Steel/Steel coated: pg. 445

Article 88955

T-Head thread plates/slide nuts type 50/30
for profiles 54/33, 52/34, 50/40, 49/30, 486



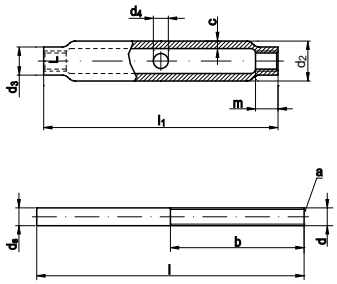
Dimensions	M 8	M 10	M 12	M 16
l	42	42	42	42
b	21	21	21	21
h	12	12	12	13

Dimensions in stock:
Steel/Steel coated: pg. 445

Turnbuckles

DIN 1478

Turnbuckles
made from tubes or bars





Loadability only for turnbuckles with ÜZ

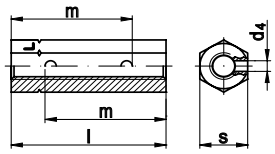
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36
d_2	17.2	17.2	21.3	25	30	33.7	42.4	51	63.5
d_3	9	12	15	18	22.5	27	32	38	47.5
D	6	8	8	10	10	12	12	16	16
c	2.9	3.6	4	4	4.5	5	5.6	6.3	8
l_1	110	110	125	125	170	200	255	255	295
m	7.5	10	12	15	20	24	29	36	43
adjustability	90	85	95	90	120	140	180	160	180
loadability [kN]	3.9	7.2	11	16	30	48	69	110	160

Dimensions in stock:
Steel/Steel coated: pg. 202

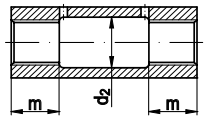
DIN 1479

Hexagon turnbuckles

≤ M 16



≥ M 20





Loadability only for turnbuckles with ÜZ

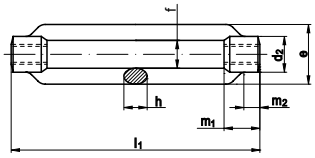
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36
d_2	-	-	-	-	-	21	26	32	38
d_4	4	4	4	4	4	4	4	4	4
l	30	35	45	55	75	95	115	125	145
m	22.5	25	33	40	55	24	29	36	45
s	10	13	17	19	24	30	36	46	55
adjustability	15	15	21	25	35	47	57	53	70
loadability [kN]	3.9	7.2	11	16	30	48	69	110	160

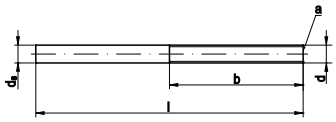
Dimensions in stock:
Steel/Steel coated: pg. 214 | Stainless steel: pg. 518

Turnbuckles

DIN 1480

Forged turnbuckles
with and without welding studs





Welding stud (AE) acc. to DIN 34828
(d_s ~ pitch diameter)



Dimensions	M 6	M 8	M 10	M 12	M 14*	M 16	M 20
d_2	12	15	18	21	25	27	34
e	19	23	30	34	38	42	52
$h_{min.}$	6	8	9	11	10	14	17
l_1	110	110	125	125	140	170	200
m_1	12	15	18	21	24	27	34
m_2	6	8	9	11	9	14	17
l	120	120	150	150	165	200	220
b	65	65	75	75	85	100	120
adjustability with AE**	80	75	85	80	92	110	130
loadability with AE [kN]**	5.7	10	16	24	32	44	69

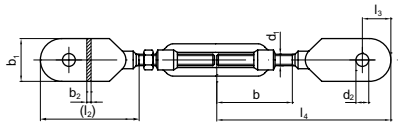
Dimensions	M 22*	M 24	M 27*	M 30	M 36	M 42	M 48
d_2	36	39	43	45	55	63	80
e	57	60	68	74	86	104	135
$h_{min.}$	16	20	23	23	28	32	40
l_1	220	255	255	255	295	330	355
m_1	37	39	45	45	55	63	78
m_2	15	20	23	23	28	32	39
l	220	260	260	260	300	350	380
b	130	150	150	160	180	200	220
adjustability with AE**	146	170	171	160	180	200	195
loadability with AE [kN]**	85	100	129	158	160	-	-

Loadability only for turnbuckles with ÜZ
*not standardized, reference values
**values apply only to products with ÜZ

Dimensions in stock:
Steel/Steel coated: 215 | Stainless steel: 518

DIN 1480 BS-S

Forged turnbuckles
with heavy flat leaf screws





Dimensions for turnbuckle ➔ see DIN 1480
Loadability only for turnbuckles with CE
*not standardized, reference values

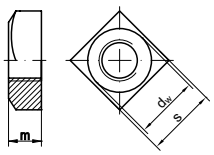
Dimensions	M 6	M 8	M 10	M 12	M 14*	M 16	M 20
d_2	12	15	18	21	25	27	34
e	19	23	30	34	38	42	52
$h_{min.}$	6	8	9	11	10	14	17
l_1	110	110	125	125	140	170	200
m_1	12	15	18	21	24	27	34
m_2	6	8	9	11	9	14	17
l	120	120	150	150	165	200	220
b	65	65	75	75	85	100	120
adjustability	80	75	85	80	92	110	130
loadability [kN]	5.7	10	16	24	32	44	69

Dimensions in stock:
Steel/Steel coated: 217

Square nuts

DIN 557

Square nuts



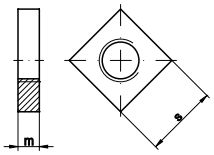
Dimensions	M 5	M 6	M 8	M 10	M 12	M 16
$d_{w\ min.}$	6.7	8.7	11.5	14.5/15.5	16.5/17.2	22
m	4	5	6.5	8	10	13
s	8	10	13	16/17	18/19	24

Dimensions in stock:
Steel/Steel coated: pg. 95 | Stainless steel: pg. 471

Square nuts

DIN 562

Square thin nuts



Dimensions	M 2	M 2.5	M 3	M 4	M 5	M 6	M 8	M 10
m	1.2	1.6	1.8	2.2	2.7	3.2	4	5
s	4	5	5.5	7	8	10	13	16/17*

*former DIN width across flats

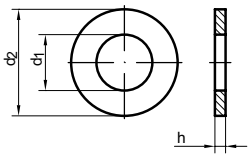
Dimensions in stock:
Steel/Steel coated: pg. 97 | Stainless steel: pg. 471

Plain washers (round)

Pk = product (tolerance) class
A = medium
C = coarse

Tolerances for washers acc. to ISO 4759-3 (DIN 522)

General overview of "plain washers for general use" ➔ ISO 887



Nominal size = for screws		ISO 7089, 7090 (DIN 125-1 Pk A)			ISO 7091 (DIN 126 Pk C)			Art. 1/88100 (C) –			ISO 7092 (DIN 433 Pk A)			ISO 7094 (DIN 440 R Pk C)			DIN 6340 (Pk A) –		
M	Ww	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h
1		1.1	3	0.3	In the ISO standards, the nominal sizes for screw diameters and the dimensions (d1/ d2/n) for some washers have been minimally adjusted.						1.1	2.5	0.3						
1.2		1.3	3.5	0.3							1.3	3	0.3						
1.4		1.5	4	0.3							1.5	3	0.3						
1.6		1.7	4	0.3							1.7	3.5	0.3						
*1.7		1.8	4.5	0.3	The functional compliance/exchangeability DIN:ISO washers are given.														
1.8		2.0	4.5	0.3							2.0	4	0.3						
2		2.2	5	0.3	In this catalogue, the new dimensions are specified in dimension & price tables. Conversion to new dimensions is done according to the production conversion and sale of stock items.						2.2	4.5	0.3						
2.2		2.4	6	0.5							2.4	4.5	0.3						
2.5		2.7	6	0.5							2.7	5	0.5						
*2.6		2.8	7	0.5															
3		3.2	7	0.5				3.2	8	0.5	3.2	6	0.5						
3.5		3.7	8	0.5							3.7	7	0.5						
4	*1/8"	4.3	9	0.8				4.3	10	0.8	4.3	8	0.5						
5	*3/16"	5.3	10	1	5.5	10	1	5.3	12	1	5.3	9	1	5.5	18	2			
6		6.4	12	1.6	6.6	12	1.6	6.5	13	1.25	6.4	11	1.6	6.6	22	2	6.4	17	3
7	*1/4"	7.4	14	1.6	7.6	14	1.6	8	16	1.25	7.4	12	1.6	7.6	24	2			
8	*5/16"	8.4	16	1.6	9	16	1.6	10	20	1.5	8.4	15	1.6	9	28	3	8.4	23	4
10	*3/8"	10.5	20	2	11	20	2	11.5	23	1.5	10.5	18	1.6	11	34	3	10.5	28	4
12	*7/16"	13	24	2.5	13.5	24	2.5	13	26	1.75	13	20	2	13.5	44	4	13	35	5
	*1/2"	13.5	24	2.5	13.5	24	2.5	14.5	29	1.75				13.5	44	4			
14		15	28	2.5	15.5	28	2.5	14.5	29	1.75	15	24	2.5	15.5	50	4			
	*9/16"							16	32	2									
16	*5/8"	17	30	3	17.5	30	3	17.5	35	2	17	28	2.5	17.5	56	5	17	45	6
18		19	34	3	20	34	3	19.5	39	2.5	19	30	3	20	60	5			
20	*3/4"	21	37	3	22	37	3	21	42	2.5	21	34	3	22	72	6	21	50	6
	*13/16"							23	46	3									
22	*7/8"	23	39	3	24	39	3	24.5	49	3	23	37	3	24	80	6			
24		25	44	4	26	44	4	27.5	55	3.5	25	39	4	26	85	6	25	60	8
	*1"	27	50	4	26	44	4	27.5	55	3.5				26	85	6			
27		28	50	4	30	50	4	29	58	3.5	28	44	4	30	98	6			
30	*1 1/8"	31	56	4	33	56	4	31	62	3.5	31	50	4	33	105	6	31	68	10
33	*1 1/4"	34	60	5	36	60	5	34	68	4	34	56	5	36	115	8			
	*1 3/8"							36	72	5									
36	*1 3/8"	37	66	5	39	66	5	40	80	5	37	60	5	39	125	8			
39	*1 1/2"	42 (40)	72	6	42	72	6	40	80	5				42	140	10			
42		45 (43)	78	8	45	78	8	43	85	5				*45	150	8			
45	*1 3/4"	48 (46)	85	8	48	85	8	46	90	5				*48	160	8			
48		52 (50)	92	8	52	92	8	50	97	6				*52	170	10			
52	*2"	56 (54)	98	8	56	98	8	54	105	7				*56	180	10			
56		62 (58)	105	10	62	105	10	58	110	8									
	*2 1/4"	60	110	9	62	105	10												
60		66 (62)	110	10.0	66	110	10												
64	*2 1/2"	70 (66)	115	10	70	115	10												
68		74 (70)	120	10	74	120	10												
72	*2 3/4"	78 (74)	125	10	78	125	10												
76	*3"	82 (78)	135	10	82	135	10												
80		86 (82)	140	12	86	140	12												
90	*3 1/2"	96 (93)	160	12	96	160	12												

Suitable combinations of plain washers for screws/nuts acc. to property and product classes (excerpt from ISO 887 informative Annex). For more exact information, see "Application area" of the corresponding washers product standard

Washers	Hardness class/product class		100 HV/C	200 HV/A	300 HV/A
Screws/nuts	Property class	Product grade	Combination matching?		
Stahl	≤ 6.8/ 6	A, B	yes	yes	yes
	≤ 6.8/ 6	C	yes	no	no
	8.8/ 8	A, B	no	yes	yes
	10.9/10	A, B	no	no	yes
	12.9/12	A, B	no	no	no
A 1 - A 5	-50, -70, -80	A, B	–	yes	–

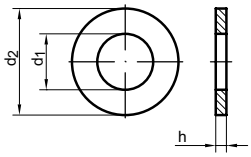
*not included in ISO product standards ➔ ISO 887

Plain washers (round)

Pk = product (tolerance) class
A = medium
C = coarse

Tolerances for washers acc. to ISO 4759-3 (DIN 522)

General overview of "plain washers for general use" ➔ ISO 887



Nominal size = for screws		EN 14399-6 (Pk A) DIN 34820 (Pk A)*			DIN 7349 (Pk A) –			DIN 7989-1 (Pk C) DIN 7989-2 (Pk A)			ISO 7093-1.2 (DIN 9021 Pk A/Pk C)			ANSI B 18.22.1 Typ A N = narrow			ANSI B 18.22.1 Typ A W = wide		
M	Ww	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	$d_1$①	$d_2$①	h①	$d_1$①	$d_2$①	h①
3		* d_1 and d_2 conform to EN 14399-6 and DIN 34820:h dimensions DIN 34820 in			3.2	9	1				3.2	9	0.8						
3.5											3.7	11	0.8						
4	*1/8"				4.3	12	1.6				4.3	12	1						
5	*3/16"				5.3	15	2				5.3	15	1.2						
6					6.4	17	3				6.4	18	1.6						
7	*1/4"										7.4	22	2	0,281	0,625	0,065	0,312	0,734	0,065
8	*5/16"				8.4	21	4				8.4	24	2	0,344	0,688	0,065	0,375	0,875	0,083
10	*3/8"				10.5	25	4	11	20	8	10.5	30	2.5	0,406	0,812	0,065	0,438	1,000	0,083
12	*7/16"	13	24	3 (2.5)	13	30	6	13.5	24	8	13	37	3	0,469	0,922	0,065	0,500	1,250	0,083
	*1/2"													0,531	1,062	0,095	0,562	1,375	0,109
14					15	36	6				15	44	3						
	*9/16"													0,594	1,156	0,095	0,625	1,469	0,109
16	*5/8"	17	30	4 (3)	17	40	6	17.5	30	8	17	50	3	0,656	1,312	0,095	0,688	1,750	0,134
18					19	44	8				20	56	4						
20	*3/4"	21	37	4 (3)	21	44	8	22	37	8	22	60	4	0,812	1,469	0,134	0,812	2,000	0,148
22	*7/8"	23	39	4 (3)	23	50	8	24	39	8	23/24	66	5						
24		25	44	4 (4)	25	50	10	26	44	8	26	72	5						
27	*1"	28	50	5 (4)	28	60	10	30	50	8	30	85	6						
30	*1 1/8"	31	56	5 (4)	31	68	10	33	56	8	33	92	6						
33	*1 1/4"							36	60	8	36	105	6						
36	*1 3/8"	37	66	6 (5)				39	66	8	39	110	8						

① Dimensions in inch

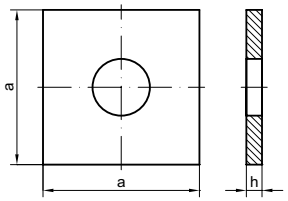
Nominal size = screws/pins		DIN 1052 (Pk C) –			ISO 8738 (Pk A) (DIN 1440 (Pk A)) DIN 1441 (Pk C)			DIN 988 -S (Pk C) –			Art. 88104 (Pk C) –		
M/Ø	Ww	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h
3					d_1-dimensions DIN 1441 ( ) d_2-dimensions DIN 1441 in ( )			3	6	1	3.2	20	1.25
3.5													
4	*1/8"							4	8	1	4.3	15/20/25	1.25
5	*3/16"				5 (5.5)	10 (10)	0.8				5.3	20/25/30	1.5
6					6 (7)	12 (12)	1.6	6	12	1.2	6.4	20/25/30/35	1.5
7	*1/4"				7 (8)	– (14)	1.6						
8	*5/16"				8 (9)	15 (16)	2	8	14	1.2	8.4	20/25/30/35/40	1.5
10	*3/8"				10 (11)	18 (20)	2.5	10	13	1.2	10.5	25/30/35/40	1.5
12	*7/16"	14	58	6	12 (13)	20 (25)	3	12	18	1.2	12.5	30/35/40	1.5
14					14 (15)	22 (28)	3	14	20	1.5			
15								15	21	1.5			
16	*5/8"	18	68	6	16 (17)	24 (28)	3	16	22	1.5			
17								17	24	1.5			
18					18 (19)	– (30)	4	18	25	1.5			
20	*3/4"	23	80	8	20 (21)	30 (32)	4	20	28	2			
22	*7/8"	25	92	8	22 (23)	34 (34)	4	22	30/32	2			
24		27	105	8	24 (25)	37 (38)	4						
25								25	35/36	2			
26								26	37	2			
27	*1"				27 (28)	39 (40)	5						
28								28	40	2			
30	*1 1/8"				30 (31)	44 (45)	5	30	42	2.5			
33	*1 1/4"				33 (34)	47 (50)	5						

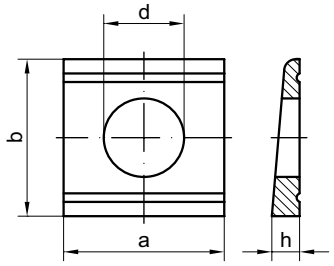
continued ➔ TI-86

Plain washers (round)

Nominal size = screws/pins		DIN 1052 (Pk C) –			DIN 1440 (Pk C) DIN 1441 (Pk C)*			DIN 988 –S (Pk C) –			Note
M/Ø	Ww	d_1	d_2	h	d_1	d_2	h	d_1	d_2	h	
35					35	52	6	35	45	2.5	Washers of special design – punched – turned – burned – in all sizes and materials **on request**
36	*1 3/8“				36 (37)	52	6				
37								37	47	2.5	
40					40 (41)	58	6	40	50	2.5	
45	*1 3/4“				45 (46)	62	7	45	55	3	
50					50 (51)	68	8	50	62/63	3	
55					55 (56)	75	9	55	68	3	
60					60 (62)	80	9	60	75	3	
63								63	80	3	
65					65 (68)	90	9	65	85	3.5	
70					70 (72)	95	10	70	90	3.5	
75					75 (78)	100	10	75	95	3.5	
80					80 (82)	110	12	80	100	3.5	
85					85 (86)	110	12	85	105	3.5	
90					90 (92)	115	12	90	110	3.5	
100					100 (102)	125	14	100	120/125	3.5	

Square washers/taper washers





Nominal size = for screws		DIN 436 (Pk C) 0%			DIN 434 (Pk C) 8%			DIN 435 (Pk C) 14%			DIN 6917 (Pk C) 14%			DIN 6918 (Pk C) 8%		
M	Ww	d	a	h	d	a/b	h	d	a/b	h	d	a/b	h	d	a/b	h
8	5/16“				9	22/22	3.8/2	9	22/22	4.6/1.5						
10	3/8“	11	30	3	11	22/22	3.8/2	11	22/22	4.6/1.5	13	26/30	6.2/2	13	26/30	4.9/2.5
12	7/16“	13.5	40	4	13.5	26/30	4.9/2.5	13.5	26/30	6.2/2						
	1/2“	13.5	40	4	13.5	26/30	4.9/2.5	13.5	26/30	6.2/2						
14																
16	5/8“	17.5	50	5	17.5	32/36	5.9/3	17.5	32/36	7.5/2.5	17	32/36	7.5/2.5	17	32/36	5.9/3
18																
20	3/4“	22	60	5	22	40/44	7/3.5	22	40/44	9.2/3	21	40/44	9.2/3	21	40/44	7/3.5
22	7/8“	24	70	6	24	44/50	8/4	24	44/50	10/3	23	44/50	10/3	23	44/50	8/4
24		26	80	6	26	56/56	8.5/4	26	56/56	10.8/3	25	56/56	10.8/3	25*	56/56	8.5/4
	1“	26	80	6	26	56/56	8.5/4	26	56/56	10.8/3						
27		30	90	6	30	56/56	8.5/4	30	56/56	10.8/3	28	56/56	10.8/3	28*	56/56	8.5/4
30	1 1/8“	33	95	6	33	62/62	9/4	33	62/62	11.7/3	31	62/62	11.7/3	31*	62/62	9/4
33	1 1/4“	36	100	6												
36	1 3/8“	39	110	8							37	68/68	12.5/3	37*	68/68	9.4/4
39	1 1/2“	42	125	8												
42		45	135	8												
45	1 3/4“	48	140	8												
48		52	150	10												
52	2“	56	160	10												

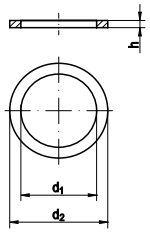
Marking:

DIN	Pitch	Groove qty.
434	8%	2
435	14%	1
6917	14%	1
6918	8%/5%	2/0 – „Form A“

Sealing washers (plain)

DIN 7603

Flat sealing rings



Dimensions	4x8	5x7.5	5x9*	6x10*	6.5x9.5	6.5x11*
d_1	4.2	5.2	5.2	6.2	6.7	6.7
d_2	7.9	7.4	8.9	9.9	9.4	10.9
h	1	1	1	1	1	1

Dimensions	8x11.5	8x12*	8x14	10x13.5	10x14*	10x15*
d_1	8.2	8.2	8.2	10.2	10.2	10.2
d_2	11.4	11.9	13.9	13.4	13.9	14.9
h	1	1/1.5	1	1	1/1.5	1

Dimensions	10x16	10x18	12x15.5	12x16	12x17*	12x18*
d_1	10.2	10.2	12.2	12.2	12.2	12.2
d_2	15.9	17.9	15.4	15.9	16.9	17.9
h	1	1.5	1.5	1.5	1.5	1.5

Dimensions	13x18*	14x18	14x20	15x19	16x20	16x22*
d_1	13.2	14.2	14.2	15.2	16.2	16.2
d_2	17.9	17.9	19.9	18.9	19.9	21.9
h	1.5	1.5	1.5	1.5	1.5	1.5

Dimensions	17x21	17x23*	18x22	18x24	20x24	20x26
d_1	17.2	17.2	18.2	18	20.2	20
d_2	20.9	22.9	21.9	24	23.9	26
h	1.5	1.5	1.5	1.5	1.5	1.5

Dimensions	21x26	22x27	22x29*	23x28	24x29	24x32
d_1	21.2	22.2	22.2	23.3	24.3	24.3
d_2	25.9	26.9	28.9	27.9	28.9	31.9
h	1.5	1.5	1.5	2	2	2

Dimensions	26x31	26x34*	27x32	28x33	30x36	32x38
d_1	26.3	26.3	27.3	28.3	30.3	32.3
d_2	30.9	33.9	31.9	32.9	35.9	37.9
h	2	2	2	2	2	2

Dimensions	33x38	33x41*	36x42	38x44	42x49	45x52
d_1	33.3	33.3	36.3	38.3	42.3	45.3
d_2	37.9	40.9	41.9	43.9	48.9	51.9
h	2	2	2	2	2	2

Dimensions	48x55*	60x68*				
d_1	48.3	60.5				
d_2	54.9	67.8				
h	2	2.5				

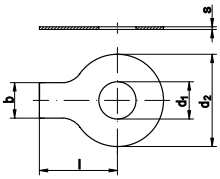
material: Al operating temperature: max. 200 °C
material: Cu operating temperature: max. 300 °C
*not standardized, reference values

Dimensions in stock:
Non-ferrous materials: pg. 642

Retaining/lock washers and rings

DIN 93

Tap washers with a long tap



Dimensions	3.2	4.3	4.3	5.3	6.4	8.4	10.5	13
d_2	12	14	14	17	19	22	26	30
b	4	5	5	6	7	8	10	12
l	13	14	14	16	18	20	22	28
s	0.38	0.38	0.38	0.5	0.5	0.75	0.75	1
for thread ∅	3	4	4	5	6	8	10	12

Dimensions	15	17	19	21	23	25	28	31
d_2	33	36	40	42	50	50	58	63
b	12	15	18	18	20	20	23	26
l	28	32	36	36	42	42	48	52
s	1	1	1	1	1	1	1.6	1.6
for thread ∅	14	16	18	20	22	24	27	30

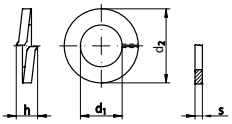
Dimensions	34	37	40	43	46	50	54
d_2	68	75	82	88	95	100	105
b	28	30	32	35	38	40	44
l	56	60	64	70	75	80	85
s	1.6	1.6	1.6	1.6	1.6	1.6	1.6
for thread ∅	33	36	39	42	45	48	52

d_1 = nominal size

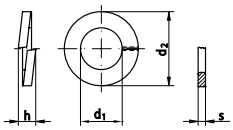
Dimensions in stock:
Steel/Steel coated: pg. 68 | Stainless steel: pg. 458

DIN 127

Spring lock washers with bent end or flat end



type A = bent end



type B = flat end

Dimensions	2	2.3	2.5	2.6 *	3	3.5	4	5	6
d_1	2.1	2.3	2.6	3	3.1	3.6	4.1	5.1	6.1
d_2	4.4	4.8	5.1	5.2	6.2	6.7	7.6	9.2	11.8
s	0.5	0.6	0.6	0.6	0.8	0.8	0.9	1.2	1.6
$h_{tpye\ A}$	–	–	–	–	1.9	1.9	2.1	2.7	3.6
$h_{tpye\ B}$	1.2	1.4	1.4	1.4	1.6	1.6	1.8	2.4	3.2

Dimensions	7	8	10	12	14	16	18	20	22
d_1	7.1	8.1	10.2	12.2	14.2	16.2	18.2	20.2	22.5
d_2	12.8	14.8	18.1	21.1	24.1	27.4	29.4	33.6	35.9
s	1.6	2	2.2	2.5	3	3.5	3.5	4	4
$h_{tpye\ A}$	3.6	4.6	5	5.8	6.8	7.8	7.8	8.8	8.8
$h_{tpye\ B}$	3.2	4	4.4	5	6	7	7	8	8

Dimensions	24	27	30	33	36	39	42	45	48
d_1	24.5	27.5	30.5	33.5	36.5	39.5	42.5	45.5	49
d_2	40	43	48.2	53.2	58.2	61.2	68.2	71.2	75
s	5	5	6	6	6	6	7	7	7
$h_{tpye\ A}$	11	11	13.6	13.6	13.6	13.6	15.6	15.6	15.6
$h_{tpye\ B}$	10	10	12	12	12	12	14	14	14

Dimensions	52	56	64	80	90	100			
d_1	53	57	65	81	91	101			
d_2	82	87	95	111	121	131			
s	8	8	8	8	8	8			
$h_{tpye\ A}$	18	18	18	18	18	18			
$h_{tpye\ B}$	16	16	16	16	16	16			

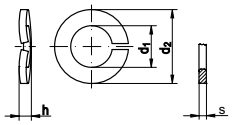
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 73 | Stainless steel: pg. 462 | Non-ferrous materials: pg. 617

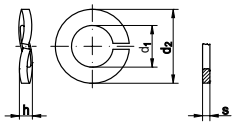
Retaining/lock washers and rings

DIN 128

Curved or waved spring lock washers



type A = curved



type B = waved

*not standardized, reference values

Dimensions	2.2 *	2.5	3	4	5	6
d_1	2.4	2.6	3.1	4.1	5.1	6.1
d_2	4.8	5.1	6.2	7.6	9.2	11.8
s	0.6	0.6	0.7	0.8	1	1.3
h	1	1.1	1.3	1.4	1.7	2.2

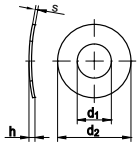
Dimensions	8	10	12	14	16	18
d_1	8.1	10.2	12.2	14.2	16.2	18.2
d_2	14.8	18.1	21.1	24.1	27.4	29.4
s	1.6	1.8	2.1	2.4	2.8	2.8
h	2.75	3.15	3.65	4.3	5.1	5.1

Dimensions	20	22	24	27	30	36
d_1	20.2	22.5	24.5	27.5	30.5	35.5
d_2	33.6	35.9	40	43	30.5	58.2
s	3.2	3.2	4	4	6	3
h	5.9	5.9	7.5	7.5	10.5	11.3

Dimensions in stock:
Steel/Steel coated: pg. 75 | Stainless steel: pg. 463

DIN 137

Spring washers
type A = curved



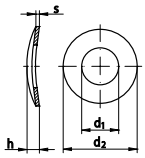
Dimensions	2	2.3	2.6	3	3.5	4
d_1	2.2	2.5	2.8	3.2	3.7	4.3
d_2	4.5	5	5.5	6	7	8
s	0.3	0.3	0.3	0.4	0.4	0.5
h	1	1	1.1	1.3	1.4	1.6

Dimensions	5	6	7	8	10	
d_1	5.3	6.4	7.4	8.4	10.5	
d_2	10	11	12	15	18	
s	0.5	0.5	0.5	0.5	0.8	
h	1.8	2.2	2.4	3.4	4	

Dimensions in stock:
Steel/Steel coated: pg. 76 | Stainless steel: pg. 463

DIN 137

Spring washers
type B = waved



Dimensions	3	3.5	4	5	6	7	8
d_1	3.2	3.7	4.3	5.3	6.4	7.4	8.4
d_2	8	8	9	11	12	14	15
s	0.5	0.5	0.5	0.5	0.5	0.8	0.8
h	1.6	1.8	2	2.2	2.6	3	3

Dimensions	10	12	14	16	18	20	22
d_1	10.5	13	15	17	19	21	23
d_2	21	24	28	30	34	36	40
s	1	1.2	1.6	1.6	1.6	1.6	1.8
h	4.2	5	6	6.4	6.6	7.4	7.8

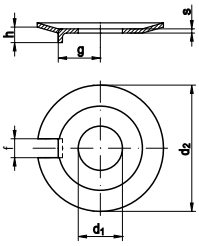
Dimensions	24	27	30	33	36		
d_1	25	28	31	34	37		
d_2	44	50	56	60	68		
s	1.8	2	2.2	2.2	2.5		
h	8.2	9.4	10	10.6	11.6		

Dimensions in stock:
Steel/Steel coated: pg. 76 | Stainless steel: pg. 463

Retaining/lock washers and rings

DIN 432

Washers with external tap



Dimensions	4.3	5.3	6.4	8.4	10.5	13	15	17
d_2	14	17	19	22	26	30	33	36
f	2.5	3.5	3.5	3.5	4.5	4.5	4.5	5.5
g	5.5	7	7.5	8.5	10	12	13	15
h ≈	2	2.5	3	4	4	4.5	4.5	4.5
s	0.4	0.75	0.75	1	1	1.2	1.2	1.2

Dimensions	19	21	23	25	28	31	34	37
d_2	40	42	50	50	58	63	68	75
f	6.5	6.5	7.5	7.5	8.5	8.5	9.5	11
g	18	18	20	21	23	25	28	31
h ≈	4.5	4.5	6.5	6.5	9.5	9.5	9.5	9.5
s	1.2	1.6	1.6	1.6	1.6	1.6	1.6	2

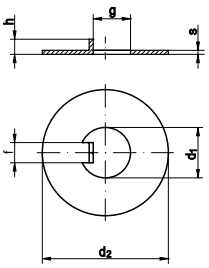
Dimensions	40	43	46	50	54	58	66	
d_2	82	88	95	100	105	112	125	
f	11	11	13	13	13	16	18	
g	33	36	38	40	42	45	52	
h ≈	11	11	12	13	13	14	13.5	
s	2	2	2	2	2	2.5	2.5	

d_1 = nominal size

Dimensions in stock:
Steel/Steel coated: pg. 80 | Stainless steel: pg. 465

DIN 462

Internal tap washers



Dimensions	8	10	14	16	18	20	22	24
d_2	20	25	30	32	34	36	40	42
s	0.8	0.8	0.8	11	1	1	1	1
f	3	4	5	5	6	6	6	6
g	5.9	7.4	11.4	13.5	15.4	17.5	19.5	21.6
h	2.5	3	3	3	4	4	4	4

Dimensions	28	30	32	35	38	40	42	45
d_2	50	50	52	55	58	62	62	68
s	1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
f	7	7	7	7	8	8	8	8
g	25.5	27.5	29.6	32.6	35.3	37.3	39.3	42.4
h	5	5	5	5	5	5	5	5

Dimensions	48	50	52	55	58	60	62	65
d_2	75	75	80	80	90	90	95	95
s	1.2	1.2	1.2	1.2	1.5	1.5	1.5	1.5
f	8	8	10	10	10	10	10	10
g	45.4	47.4	49.3	52.3	55.3	57.3	59.3	62.4
h	5	5	6	6	6	6	6	6

Dimensions	70	72	75	80	85	95	100	
d_2	100	110	110	115	120	135	145	
s	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
f	10	10	10	10	10	12	12	
g	67.4	68.9	71.9	76.9	81.9	91.8	96.9	
h	6	7	7	7	7	8	8	

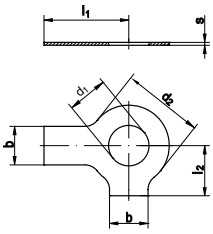
d_1 = nominal size

Dimensions in stock:
Steel/Steel coated: pg. 87

Retaining/lock washers and rings

DIN 463

Washers with 2 taps



Dimensions	3.2	4.3	5.3	6.4	8.4	10.5	13
d_2	7	9	10	12.5	17	21	24
b	4	5	6	7	8	10	12
l_1	13	14	16	18	20	22	28
l_2	5	6.5	8	9	11	13	15
s	0.38	0.38	0.5	0.5	0.75	0.75	1
for thread ∅	3	4	5	6	8	10	12

Dimensions	15	17	19	21	23	25	28
d_2	28	30	34	37	39	44	50
b	12	15	18	18	20	20	23
l_1	28	32	36	36	42	42	48
l_2	16	18	20	21	23	25	29
s	1	1	1	1	1	1	1.6
for thread ∅	14	16	18	20	22	24	27

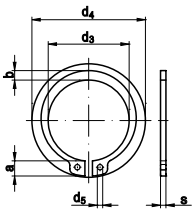
Dimensions	31	34	37	40	43	50	54
d_2	56	60	66	72	78	92	98
b	26	28	30	32	35	40	44
l_1	52	56	60	64	70	80	85
l_2	32	34	38	41	44	50	53
s	1.6	1.6	1.6	1.6	1.6	1.6	1.6
for thread ∅	30	33	36	39	42	48	52

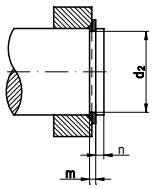
d_1 = nominal size

Dimensions in stock:
Steel/Steel coated: pg. 87 | Stainless steel: pg. 469 | Non-ferrous materials: pg. 619

DIN 471

Retaining rings for shafts
normal type





Dimensions	3	4	5	6	7	8	9	10	11	12
s	0.4	0.4	0.6	0.7	0.8	0.8	1	1	1	1
d_3	2.7	3.7	4.7	5.6	6.5	7.4	8.4	9.3	10.2	11
a	1.9	2.2	2.5	2.7	3.1	3.2	3.3	3.3	3.3	3.3
b	0.8	0.9	1.1	1.3	1.4	1.5	1.7	1.8	1.8	1.8
d_5	1	1	1	1.2	1.2	1.2	1.2	1.5	1.5	1.7
d_2	2.8	3.8	4.8	5.7	6.7	7.6	8.6	9.6	10.5	11.5
m	0.5	0.5	0.7	0.8	0.9	0.9	1.1	1.1	1.1	1.1
n	0.3	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.8	0.8
d_4	7	8.6	10.3	11.7	13.5	14.7	16	17	18	19

Dimensions	13	14	15	16	17	18	19	20	21	22
s	1	1	1	1	1	1.2	1.2	1.2	1.2	1.2
d_3	11.9	12.9	13.8	14.7	15.7	16.5	17.5	18.5	19.5	20.5
a	3.4	3.5	3.6	3.7	3.8	3.9	3.9	4	4.1	4.2
b	2	2.1	2.2	2.2	2.3	2.4	2.5	2.6	2.7	2.8
d_5	1.7	1.7	1.7	1.7	1.7	2	2	2	2	2
d_2	12.4	13.4	14.3	15.2	16.2	17	18	19	20	21
m	1.1	1.1	1.1	1.1	1.1	1.3	1.3	1.3	1.3	1.3
n	0.9	0.9	1.1	1.2	1.2	1.5	1.5	1.5	1.5	1.5
d_4	20.2	21.4	22.6	23.8	25	26.2	27.2	28.4	29.6	30.8

nominal size = for shafts ∅

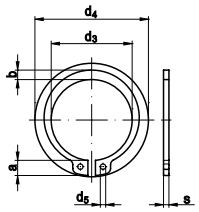
*intermediate size not included in the standard

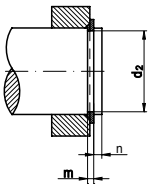
Dimensions in stock:
Steel/Steel coated: pg. 89 | Stainless steel: pg. 469

Retaining/lock washers and rings

DIN 471

Retaining rings for shafts
normal type





Dimensions	23*	24	25	26	27*	28	29	30	31*	32
s	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
d_3	21.5	22.2	23.2	24.2	24.9	25.9	26.9	27.9	28.6	29.6
a	4.3	4.4	4.4	4.5	4.6	4.7	4.8	5	5.1	5.2
b	2.9	3	3	3.1	3.1	3.2	3.4	3.5	3.5	3.6
d_5	2	2	2	2	2	2	2	2	2.5	2.5
d_2	22	22.9	23.9	24.9	25.6	26.6	27.6	28.6	29.3	30.3
m	1.3	1.3	1.3	1.3	1.3	1.6	1.6	1.6	1.6	1.6
n	1.5	1.7	1.7	1.7	2.1	2.1	2.1	2.1	2.6	2.6
d_4	–	33.2	34.2	35.5	–	37.9	39.1	40.5	–	43

Dimensions	33*	34	35	36	37*	38	39*	40	41*	42
s	1.5	1.5	1.5	1.75	1.75	1.75	1.75	1.75	1.75	1.75
d_3	30.5	31.5	32.2	33.2	34.2	35.2	36	36.5	37.5	38.5
a	5.2	5.4	5.6	5.6	5.7	5.8	5.9	6	6.2	6.5
b	3.7	3.8	3.9	4	4.1	4.2	4.3	4.4	4.5	4.5
d_5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
d_2	31.3	32.3	33	34	35	36	37	37.5	38.5	39.5
m	1.6	1.6	1.6	1.85	1.85	1.85	1.85	1.85	1.85	1.85
n	2.6	2.6	3	3	3	3	3	3.8	3.8	3.8
d_4	–	45.4	46.8	47.8	–	50.2	–	52.6	–	55.7

Dimensions	44*	45	46*	47*	48	50	52	54*	55	56
s	1.75	1.75	1.75	1.75	1.75	2	2	2	2	2
d_3	40.5	41.5	42.5	43.5	44.5	45.8	47.8	49.8	50.8	51.8
a	6.6	6.7	6.7	6.8	6.9	6.9	7	7.1	7.2	7.3
b	4.6	4.7	4.8	4.9	5	5.1	5.2	5.3	5.4	5.5
d_5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
d_2	41.5	42.5	43.5	44.5	45.5	47	49	51	52	53
m	1.85	1.85	1.85	1.85	1.85	2.15	2.15	2.15	2.15	2.15
n	3.8	3.8	3.8	3.8	3.8	4.5	4.5	4.5	4.5	4.5
d_4	–	59.1	–	–	62.5	64.5	66.7	–	70.2	71.6

Dimensions	57*	58	60	62	63	65	67*	68	70	72
s	2	2	2	2	2	2.5	2.5	2.5	2.5	2.5
d_3	52.8	53.8	55.8	57.8	58.8	60.8	62.5	63.5	65.5	67.5
a	7.3	7.3	7.4	7.5	7.6	7.8	7.9	8	8.1	8.2
b	5.5	5.6	5.8	6	6.2	6.3	6.4	6.5	6.6	6.8
d_5	2.5	2.5	2.5	2.5	2.5	3	3	3	3	3
d_2	54	55	57	59	60	62	64	65	67	69
m	2.15	2.15	2.15	2.15	2.15	2.65	2.65	2.65	2.65	2.65
n	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
d_4	–	73.6	75.6	77.8	79	81.4	–	84.8	87	89.2

Dimensions	75	77*	78	80	82	85	87*	88	90	92*
s	2.5	2.5	2.5	2.5	2.5	3	3	3	3	3
d_3	70.5	72.5	73.5	74.5	76.5	79.5	81.5	82.5	84.5	86.5
a	8.4	8.5	8.6	8.6	8.7	8.7	8.8	8.8	8.8	9
b	7	7.2	7.3	7.4	7.6	7.8	7.9	8	8.2	8.4
d_5	3	3	3	3	3	3.5	3.5	3.5	3.5	3.5
d_2	72	74	75	76.5	78.5	81.5	83.5	84.5	86.5	88.5
m	2.65	2.65	2.65	2.65	2.65	3.15	3.15	3.15	3.15	3.15
n	4.5	4.5	4.5	5.3	5.3	5.3	5.3	5.3	5.3	5.3
d_4	92.7	–	96.1	98.1	100.3	103.3	–	106.5	108.5	–

nominal size = for shafts ∅

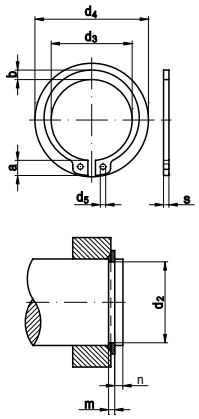
*intermediate size not included in the standard

Dimensions in stock:
Steel/Steel coated: pg. 89 | Stainless steel: pg. 469

Retaining/lock washers and rings

DIN 471

Retaining rings for shafts
normal type



Dimensions	95	97*	98*	100	102*	105	107*	108*	110	112*	115
s	3	3	3	3	4	4	4	4	4	4	4
d_3	89,5	91,5	91,5	94,5	95	98	100	100	103	105	108
a	9,4	9,4	9,4	9,6	9,7	9,9	10	10	10,1	103	10,6
b	8,6	8,8	8,8	9	9,2	9,3	9,5	9,5	9,6	9,7	9,8
d_5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5	3,5
d_2	91,5	93,5	94,5	96,5	98	101	103	104	106	108	111
m	3,15	3,15	3,15	3,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15
n	5,3	5,3	5,3	5,3	6	6	6	6	6	6	6
d_4	114,8	–	–	120,2	–	125,8	–	–	131,2	–	137,3

Dimensions	117*	118*	120	122*	125	127*	128*	130	132*	135	137*
s	4	4	4	4	4	4	4	4	4	4	4
d_3	110	110	113	115	118	120	120	123	125	128	130
a	10,8	10,8	11	11,2	11,4	11,4	11,4	11,6	11,7	11,8	11,9
b	10	10	10,2	10,3	10,4	10,5	10,5	10,7	10,8	11	11
d_5	3,5	3,5	3,5	4	4	4	4	4	4	4	4
d_2	113	114	116	118	121	123	124	126	128	131	133
m	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15
n	6	6	6	6	6	6	6	6	6	6	6
d_4	–	–	143,1	–	149	–	–	154,4	–	159,8	–

Dimensions	138*	140	145	147*	148*	150	155	160	165	168*	170
s	4	4	4	4	4	4	4	4	4	4	4
d_3	130	133	138	140	140	142	146	151	155,5	157,5	160,5
a	11,9	12	12,2	12,3	12,3	13	13	13,3	13,5	13,5	13,5
b	11	11,2	11,5	11,6	11,6	11,8	12	12,2	12,5	12,9	12,9
d_5	4	4	4	4	4	4	4	4	4	4	4
d_2	134	136	141	143	144	145	150	155	160	163	165
m	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15	4,15
n	6	6	6	6	6	7,5	7,5	7,5	7,5	7,5	7,5
d_4	–	165,2	170,6	–	–	177,3	182,3	188	193,4	–	198,4

Dimensions	175	180	185	190	195	200	210	215*	220	230	240
s	4	4	4	4	4	4	5	5	5	5	5
d_3	165,5	170,5	175,5	180,5	185,5	190,5	198	203	208	218	228
a	13,5	14,2	14,2	14,2	14,2	14,2	14,2	14,2	14,2	14,2	14,2
b	12,9	13,5	13,5	14	14	14	14	14	14	14	14
d_5	4	4	4	4	4	4	4	4	4	4	4
d_2	170	175	180	185	190	195	204	209	214	224	234
m	4,15	4,15	4,15	4,15	4,15	4,15	5,15	5,15	5,15	5,15	5,15
n	7,5	7,5	7,5	7,5	7,5	7,5	9	9	9	9	9
d_4	203,4	210	215	220	225	230	240	–	250	260	270

Dimensions	250	255*	260	270	280	290	300	400*			
s	5	5	5	5	5	5	5	6			
d_3	238	240	245	255	265	275	285	283			
a	14,2	16,2	16,2	16,2	16,2	16,2	16,2	–			
b	14	16	16	16	16	16	16	20			
d_5	4	5	5	5	5	5	5	6			
d_2	244	247	252	262	272	282	292	390			
m	5,15	5,15	5,15	5,15	5,15	5,15	5,15	6,2			
n	9	12	12	12	12	12	12	15			
d_4	280	–	294	304	314	324	334	–			

nominal size = for shafts ∅

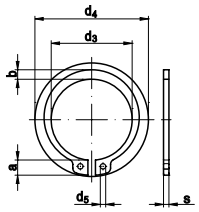
*intermediate size not included in the standard

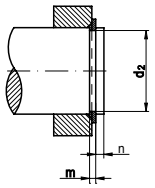
Dimensions in stock:
Steel/Steel coated: pg. 89 | Stainless steel: pg. 469

Retaining/lock washers and rings

DIN 471

Retaining rings for shafts
heavy type





nominal size = for shafts ∅

Dimensions	15	16	20	25	30	35
s	1.5	1.5	1.75	2	2	2.5
d_3	13.8	14.7	18.5	23.2	27.9	32.2
a	4.8	5	5.5	6.4	6.5	6.7
b	2.4	2.5	3	3.4	4.1	4.2
d_5	2	2	2	2	2	2.5
d_2	14.3	15.2	19	23.9	28.6	33
m	1.6	1.6	1.85	2.15	2.15	2.65
n	1.1	1.2	1.5	1.7	2.1	3
d_4	25.1	26.5	31.6	38.5	43.7	49.1

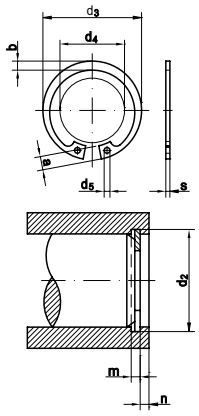
Dimensions	40	45	50	55	60	
s	2.5	2.5	3	3	3	
d_3	36.5	41.5	45.8	50.8	55.8	
a	7	7.5	8	8.5	9	
b	4.4	4.7	5.1	5.4	5.8	
d_5	2.5	2.5	2.5	2.5	2.5	
d_2	37.5	42.5	47	52	57	
m	2.65	2.65	3.15	3.15	3.15	
n	3.8	3.8	4.5	4.5	4.5	
d_4	54.7	60.8	66.8	72.9	78.9	

Dimensions in stock:
Steel/Steel coated: pg. 89

Retaining/lock washers and rings

DIN 472

Retaining rings for bores
normal type



Dimensions	8	9	10	11	12	13	14	15
s	0.8	0.8	1	1	1	1	1	1
d_3	8.7	9.8	10.8	11.8	13	14.1	15.1	16.2
a	2.4	2.5	3.2	3.3	3.4	3.6	3.7	3.7
b	1.1	1.3	1.4	1.5	1.7	1.8	1.9	2
d_5	1	1	1.2	1.2	1.5	1.5	1.7	1.7
d_2	8.4	9.4	10.4	11.4	12.5	13.6	14.6	15.7
m	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1
n	0.6	0.6	0.6	0.6	0.8	0.9	0.9	1.1
d_4	3	3.7	3.3	4.1	4.9	5.4	6.2	7.2

Dimensions	16	17	18	19	20	21	22	23*
s	1	1	1	1	1	1	1	1.2
d_3	17.3	18.3	19.5	20.5	21.5	22.5	23.5	24.6
a	3.8	3.9	4.1	4.1	4.2	4.2	4.2	4.2
b	2	2.1	2.2	2.2	2.3	2.4	2.5	2.5
d_5	1.7	1.7	2	2	2	2	2	2
d_2	16.8	17.8	19	20	21	22	23	24.1
m	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.3
n	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.7
d_4	8	8.8	9.4	10.4	11.2	12.2	13.2	-

Dimensions	24	25	26	27*	28	29*	30	31
s	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
d_3	25.9	26.9	27.9	29.1	30.1	31.1	32.1	33.4
a	4.4	4.5	4.7	4.7	4.8	4.8	4.8	5.2
b	2.6	2.7	2.8	2.9	2.9	3	3	3.2
d_5	2	2	2	2	2	2	2	2.5
d_2	25.2	26.2	27.2	28.4	29.4	30.4	31.4	32.7
m	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
n	1.8	1.8	1.8	2.1	2.1	2.1	2.1	2.6
d_4	14.8	15.5	16.1	-	17.9	-	19.9	20

Dimensions	32	33*	34	35	36	37	38	39*
s	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
d_3	34.4	35.5	36.5	37.8	38.8	39.8	40.8	42
a	5.4	5.4	5.4	5.4	5.4	5.5	5.5	5.6
b	3.2	3.3	3.3	3.4	3.5	3.6	3.7	3.8
d_5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
d_2	33.7	34.7	35.7	37	38	39	40	41
m	1.3	1.3	1.6	1.6	1.6	1.6	1.6	1.6
n	2.6	2.6	2.6	3	3	3	3	3
d_4	20.6	-	22.6	23.6	24.6	25.4	26.4	-

Dimensions	40	41*	42	44*	45	46*	47	48
s	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
d_3	43.5	44.5	45.5	47.5	48.5	49.5	50.5	51.5
a	5.8	5.9	5.9	6	6.2	6.3	6.4	6.4
b	3.9	4	4.1	4.2	4.3	4.4	4.4	4.5
d_5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
d_2	42.5	43.5	44.5	46.5	47.5	48.5	49.5	50.5
m	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85
n	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
d_4	27.8	-	29.6	-	32	-	33.5	34.5

nominal size = for shafts ∅

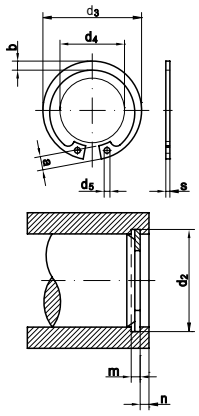
*intermediate size not included in the standard

Dimensions in stock:
Steel/Steel coated: pg. 90 | Stainless steel: pg. 470

Retaining/lock washers and rings

DIN 472

Retaining rings for bores
normal type



Dimensions	50	51*	52	53*	54*	55	56	57*
s	2	2	2	2	2	2	2	2
d_3	54.2	55.2	56.2	57.2	58.2	59.2	60.2	61.2
a	6.5	6.5	6.7	6.7	6.7	6.8	6.8	6.8
b	4.6	4.7	4.7	4.9	5	5	5.1	5.1
d_5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
d_2	53	54	55	56	57	58	59	60
m	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
n	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
d_4	36.3	–	37.9	–	–	40.7	41.7	–

Dimensions	58	60	62	63	64*	65	67*	68
s	2	2	2	2	2	2.5	2.5	2.5
d_3	62.2	64.2	66.2	67.2	68.2	69.2	71.5	72.5
a	6.9	7.3	7.3	7.3	7.4	7.6	7.7	7.8
b	5.2	5.4	5.5	5.6	5.7	5.8	6	6.1
d_5	2.5	2.5	2.5	2.5	2.5	3	3	3
d_2	61	63	65	66	67	68	70	71
m	2.15	2.15	2.15	2.15	2.15	2.65	2.65	2.65
n	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
d_4	43.5	44.7	46.7	47.7	–	49	–	51.6

Dimensions	70	72	75	77*	78	80	82	85
s	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3
d_3	74.5	76.5	79.5	82.5	82.5	85.5	87.5	90.5
a	7.8	7.8	7.8	8.5	8.5	8.5	8.5	8.6
b	6.2	6.4	6.6	6.8	6.8	7	7	7.2
d_5	3	3	3	3	3	3	3	3.5
d_2	73	75	78	80	81	83.5	85.5	88.5
m	2.65	2.65	2.65	2.65	2.65	2.65	2.65	3.15
n	4.5	4.5	4.5	4.5	4.5	5.3	5.3	5.3
d_4	53.6	55.6	58.6	–	60.1	62.1	64.1	66.9

Dimensions	88	90	92	95	97*	98	100	102
s	3	3	3	3	3	3	3	4
d_3	93.5	95.5	97.5	100.5	103.5	103.5	105.5	108
a	8.6	8.6	8.7	8.8	9	9	9.2	9.5
b	7.4	7.6	7.8	8.1	8.3	8.3	8.4	8.5
d_5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
d_2	91.5	93.5	95.5	98.5	100.5	101.5	103.5	106
m	3.15	3.15	3.15	3.15	3.15	3.15	3.15	4.15
n	5.3	5.3	5.3	5.3	5.3	5.3	5.3	6
d_4	69.9	71.9	73.7	76.5	–	79	80.6	82

Dimensions	105	108	110	112	115	118*	120	122*
s	4	4	4	4	4	4	4	4
d_3	112	115	117	119	122	125	127	129
a	9.5	9.5	10.4	10.5	10.5	10.7	11	11
b	8.7	8.9	9	9.1	9.3	9.6	9.7	9.8
d_5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4
d_2	109	112	114	116	119	122	124	126
m	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
n	6	6	6	6	6	6	6	6
d_4	85	88	88.2	90	93	–	96.9	–

nominal size = for shafts ∅

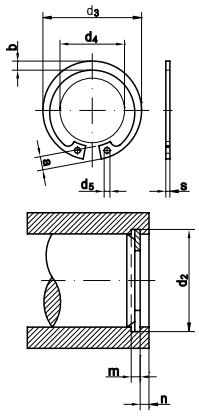
*intermediate size not included in the standard

Dimensions in stock:
Steel/Steel coated: pg. 90 | Stainless steel: pg. 470

Retaining/lock washers and rings

DIN 472

Retaining rings for bores
normal type



Dimensions	125	128*	130	132*	135	138*	140	142*	145	148*
s	4	4	4	4	4	4	4	4	4	4
d_3	132	135	137	139	142	145	147	149	152	155
a	11	11	11	11	11.2	11.2	11.2	11.3	11.4	11.8
b	10	10.2	10.2	10.3	10.5	10.6	10.7	10.8	10.9	11.1
d_5	4	4	4	4	4	4	4	4	4	4
d_2	129	132	134	136	139	142	144	146	149	152
m	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
n	6	6	6	6	6	6	6	6	6	6
d_4	101.9	–	106.9	–	111.5	–	116.5	–	121	–

Dimensions	150	152*	155	160	165	168*	170	175	180	185
s	4	4	4	4	4	4	4	4	4	4
d_3	158	161	164	169	174.5	177.5	179.5	184.5	189.5	194.5
a	12	12	12	13	13	13.5	13.5	13.5	14.2	14.2
b	11.2	11.3	11.4	11.6	11.8	12.1	12.2	12.7	13.2	13.7
d_5	4	4	4	4	4	4	4	4	4	4
d_2	155	157	160	165	170	173	175	180	185	190
m	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15	4.15
n	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
d_4	124.8	–	129.8	132.7	137.7	–	141.6	146.6	150.2	155.2

Dimensions	190	195	200	205*	210	215*	220	225*	230	240
s	4	4	4	5	5	5	5	5	5	5
d_3	199.5	204.5	209.5	217	222	227	232	237	242	252
a	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
b	13.8	13.8	14	14	14	14	14	14	14	14
d_5	4	4	4	4	4	4	4	4	4	4
d_2	195	200	205	211	216	221	226	231	236	246
m	4.15	4.15	4.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15
n	7.5	7.5	7.5	9	9	9	9	9	9	9
d_4	160.2	165.2	170.2	–	180.2	–	190.2	–	200.2	210.2

Dimensions	245*	250	255*	260	265*	270	275*	280	285*	290
s	5	5	5	5	5	5	5	5	5	5
d_3	257	262	270	275	280	285	290	295	300	305
a	14.2	14.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
b	14	14	16	16	16	16	16	16	16	16
d_5	4	4	5	5	5	5	5	5	5	5
d_2	251	256	263	268	273	278	283	288	293	298
m	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15	5.15
n	9	9	12	12	12	12	12	12	12	12
d_4	–	220.2	–	226	–	236	–	246	–	256

Dimensions	295*	300	310*	320*	340*	360*				
s	5	5	6	6	6	6				
d_3	310	315	327	337	357	377				
a	16.2	16.2	–	–	–	–				
b	16	16	20	20	20	20				
d_5	5	5	6	6	6	6				
d_2	303	308	320	330	350	370				
m	5.15	5.15	3.2	6.2	6.2	6.2				
n	12	12	15	15	15	15				
d_4	–	266	–	–	–	–				

nominal size = for shafts ∅

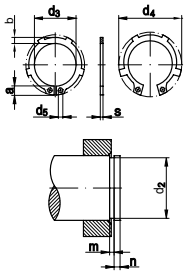
*intermediate size not included in the standard

Dimensions in stock:
Steel/Steel coated: pg. 90 | Stainless steel: pg. 470

Retaining/lock washers and rings

DIN 983

Retaining rings with lugs for shafts (retainer rings)



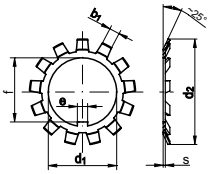
nominal size = for shafts ∅

Dimensions	20	25	30	35	40	45	50
s	1.2	1.2	1.5	1.5	1.75	1.75	2
d_3	18.5	23.2	27.9	32.2	36.5	41.5	45.8
a	3.8	4.3	4.7	5.2	7.2	7.2	8.2
b	2.6	3	3.5	3.9	4.4	4.7	5.1
d_5	2	2	2	2.5	2.5	2.5	2.5
d_2	19	23.9	28.6	33	37.5	42.5	47
m	1.3	1.3	1.6	1.6	1.85	1.85	2.15
n	1.5	1.7	2.1	3	3.8	3.8	4.5
d_4	28	34	39.9	45.9	55.1	60.1	67.2

Dimensions in stock:
Steel/Steel coated: pg. 201

DIN 5406

Lockwashers/safety plates
for locknuts acc. to DIN 981



Dimensions	MB 0	MB 1	MB 2	MB 3	MB 4	MB 5	MB 6	MB 7
d_1	10	12	15	17	20	25	30	35
d_2	21	25	28	32	36	42	49	57
e	3	3	4	4	4	5	5	6
f	8.5	10.5	13.5	15.5	18.5	23	27.5	32.5
b_1	3	3	4	4	4	5	5	5
s	1	1	1	1	1	1.25	1.25	1.25
for locknut DIN 981	KM 0	KM 1	KM 2	KM 3	KM 4	KM 5	KM 6	KM 7

Dimensions	MB 8	MB 9	MB 10	MB 11	MB 12	MB 13	MB 14	MB 15
d_1	40	45	50	55	60	65	70	75
d_2	62	69	74	81	864	92	98	104
e	6	6	6	8	8	8	8	8
f	37.5	42.5	47.5	52.5	57.5	62.5	66.5	71.5
b_1	6	6	6	7	7	7	8	8
s	1.25	1.25	1.25	1.5	1.5	1.5	1.5	1.5
for locknut DIN 981	KM 8	KM 9	KM 10	KM 11	KM 12	KM 13	KM 14	KM 15

Dimensions	MB 16	MB 17	MB 18	MB 19	MB 20	MB 21	MB 22	MB 23
d_1	80	85	90	95	100	105	110	115
d_2	112	119	126	133	142	145	154	159
e	10	10	10	10	12	12	12	12
f	76.5	81.5	86.5	91.5	96.5	100.5	105.5	110.5
b_1	8	8	10	10	10	12	12	12
s	1.75	1.75	1.75	1.75	1.75	1.75	1.75	2
for locknut DIN 981	KM 16	KM 17	KM 18	KM 19	KM 20	KM 21	KM 22	KM 23

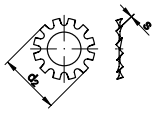
Dimensions	MB 24	MB 25	MB 26	MB 27	MB 28	MB 29	MB 30	
d_1	120	125	130	135	140	145	150	
d_2	164	170	175	185	192	202	205	
e	14	14	14	14	16	16	16	
f	115	120	125	130	135	140	145	
b_1	12	12	12	14	14	14	14	
s	2	2	2	2	2	2	2	
for locknut DIN 981	KM 24	KM 25	KM 26	KM 27	KM 28	KM 29	KM 30	

Dimensions in stock:
Steel/Steel coated: pg. 306

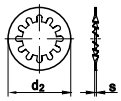
Retaining/lock washers and rings

DIN 6797

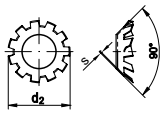
Toothed lock washers



type A = external teeth



type I = internal teeth



Type V = countersunk

*acc. to DIN 6797:1971

Dimensions	3.2	3.7	4.3	5.3	6.4	7.4
$d_{2\ form\ A/I}$	6	7	8	10	11	12.5
$d_{2\ type\ V}$	6	7	8	9.8	11.8	–
$s_{type\ A/I}$	0.4	0.5	0.5	0.6	0.7	0.8
$s_{type\ V}$	0.2	0.25	0.25	0.3	0.4	–
for thread ∅	3	3.5	4	5	6	7

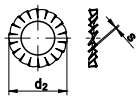
Dimensions	8.4	10.5	12.5*	13	15	17
$d_{2\ form\ A/I}$	15	18	20.5	20.5	24	26
$d_{2\ type\ V}$	15.3	19	23	23	–	–
$s_{type\ A/I}$	0.8	0.9	1	1	1	1.2
$s_{type\ V}$	0.4	0.5	0.5	0.5	–	–
for thread ∅	8	10	12	12	14	16

Dimensions	19	21	23	25	28	31
$d_{2\ form\ A/I}$	30	33	36	38	44	48
$d_{2\ type\ V}$	–	–	–	–	–	–
$s_{type\ A/I}$	1.4	1.4	1.5	1.5	1.6	1.6
$s_{type\ V}$	–	–	–	–	–	–
for thread ∅	18	20	22	24	27	30

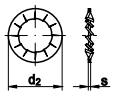
Dimensions in stock:
Steel/Steel coated: pg. 311 | Stainless steel: pg. 553

DIN 6798

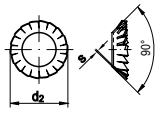
Serrated lock washers



type A = external teeth



type I = internal teeth



type V = countersunk

*acc. to DIN 6798:1971

Dimensions	2.2	2.5*	2.7	3.2	3.7	4.3	5.3
$d_{2\ form\ A/I}$	4.5	5	5.5	6	7	8	10
$d_{2\ type\ V}$	–	–	–	6	7	8	9.8
$s_{type\ A/I}$	0.3	0.4	0.4	0.4	0.5	0.5	0.6
$s_{type\ V}$	–	–	–	0.2	0.25	0.25	0.3
for thread ∅	2	2.3	2.5	3	3.5	4	5

Dimensions	6.4	7.4	8.4	10.5	13	15	17
$d_{2\ form\ A/I}$	11	12.5	15	18	20.5	24	26
$d_{2\ type\ V}$	11.8	–	15.3	19	23	–	–
$s_{type\ A/I}$	0.7	0.8	0.8	0.9	1	1	1.2
$s_{type\ V}$	0.4	–	0.4	0.5	0.5	–	–
for thread ∅	6	7	8	10	12	14	16

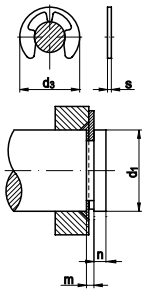
Dimensions	19	21	23	25	28	31	
$d_{2\ form\ A/I}$	30	33	36	38	44	48	
$d_{2\ type\ V}$	–	–	–	–	–	–	
$s_{type\ A/I}$	1.4	1.4	1.5	1.5	1.6	1.6	
$s_{type\ V}$	–	–	–	–	–	–	
for thread ∅	18	20	22	24	27	30	

Dimensions in stock:
Steel/Steel coated: pg. 313 | Stainless steel: pg. 554 | Non-ferrous materials: pg. 639

Retaining/lock washers and rings

DIN 6799

Retaining rings for shafts



Dimensions	0.8	1.2	1.5	1.9	2.3	3.2
d_3	2.25	3.25	4.25	4.8	6.3	7.3
s	0.2	0.3	0.4	0.5	0.6	0.6
for shafts ∅ d_1	1 – 1.4	1.4 – 2	2 – 2.5	2.5 – 3	3 – 4	4 – 5
m	0.24	0.34	0.44	0.54	0.64	0.64
n	0.4	0.6	0.8	1	1	1

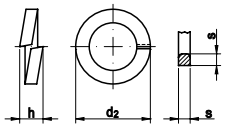
Dimensions	4	5	6	7	8	9
d_3	9.3	11.3	12.3	14.3	16.3	18.8
s	0.7	0.7	0.7	0.9	1	1.1
for shafts ∅ d_1	5 – 7	6 – 8	7 – 9	8 – 11	9 – 12	10 – 14
m	0.74	0.74	0.74	0.94	1.05	1.15
n	1.2	1.2	1.2	1.5	1.8	2

Dimensions	10	12	15	19	24	
d_3	20.4	23.4	29.4	37.6	44.6	
s	1.2	1.3	1.5	1.75	2	
for shafts ∅ d_1	11 – 15	13 – 18	16 – 24	20 – 31	25 – 38	
m	1.25	1.35	1.55	1.80	2.05	
n	2	2.5	3	3.5	4	

Dimensions in stock:
Steel/Steel coated: pg. 314 | Stainless steel: pg. 554

DIN 7980

Spring lock washers for cheese head screws



Dimensions	3	4	5	6	8	10	12
d_2	5.6	7	8.8	9.9	12.7	16	18
s	1	1.2	1.6	1.6	2	2.5	2.5
h	2	2.4	3.2	3.2	4	5	5
for thread ∅	3	4	5	6	8	10	12

Dimensions	14	16	18	20	22	24	27
d_2	21.1	24.4	26.4	30.6	32.9	35.9	38.9
s	3	3.5	3.5	4.5	4.5	5	5
h	6	7	7	9	9	10	10
for thread ∅	14	16	18	20	22	24	27

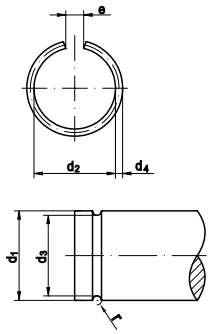
Dimensions	30	33	36	42	48		
d_2	44.1	47.1	52.2	60.2	67		
s	6	6	7	8	8		
h	12	12	14	16	16		
for thread ∅	30	33	36	42	48		

Dimensions in stock:
Steel/Steel coated: pg. 357 | Stainless steel: pg. 575

Retaining/lock washers and rings

DIN 7993, 9925

Snap rings
type A = for shafts



Dimensions	4	5	6	7	8	10	12
$d_{2\ max.\ 7993/9925}$	3.1/3.4	4.1/4.4	5.1/5.3	6.1/6.3	7.1	9.1	10.8
$d_{4\ 7993/9925}$	0.8/0.5	0.8/0.5	0.8/0.6	0.8/0.6	0.8	0.8	1
e	1	1	1	2	2	2	3
for shafts ∅ d_1	4	5	6	7	8	10	12
for shaft slot ∅ $d_{3\ 7993/9925}$	3.2/3.5	4.2/4.5	5.2/5.4	6.2/6.4	7.2	9.2	11
Slot crossover $r_{\ 7993/9925}$	0.5/0.3	0.5/0.3	0.5/0.4	0.5/0.4	0.5	0.5	0.6

Dimensions	16	18	20	22	25	26	28
$d_{2\ max.\ 7993/9925}$	14.2	16.2	17.7	19.7	22.7	23.7	25.7
$d_{4\ 7993/9925}$	1.6	1.6	2	2	2	2	2
e	3	3	3	3	3	3	3
for shafts ∅ d_1	16	19	20	22	25	26	28
for shaft slot ∅ $d_{3\ 7993/9925}$	14.4	16.4	18	20	23	24	26
Slot crossover $r_{\ 7993/9925}$	0.9	0.9	1.1	1.1	1.1	1.1	1.1

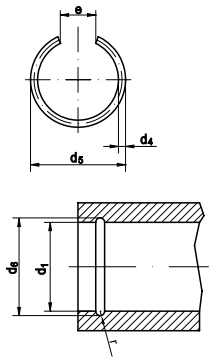
Dimensions	30	32	35	38	40	45	48
$d_{2\ max.\ 7993/9925}$	27.7	29.1	32.1	35.1	37.1	42	45
$d_{4\ 7993/9925}$	2	2.5	2.5	2.5	2.5	2.5	2.5
e	3	4	4	4	4	4	4
for shafts ∅ d_1	30	32	35	38	40	45	48
for shaft slot ∅ $d_{3\ 7993/9925}$	28	29.5	32.5	35.5	37.5	42.5	45.5
Slot crossover $r_{\ 7993/9925}$	1.1	1.4	1.4	1.4	1.4	1.4	1.4

Dimensions	50	55	60	65	70		
$d_{2\ max.\ 7993/9925}$	47	51.1	56.1	61.1	66		
$d_{4\ 7993/9925}$	2.5	3.2	3.2	3.2	3.2		
e	4	4	4	4	5		
for shafts ∅ d_1	50	55	60	65	70		
for shaft slot ∅ $d_{3\ 7993/9925}$	47.5	51.8	56.8	61.8	66.8		
Slot crossover $r_{\ 7993/9925}$	1.4	1.8	1.8	1.8	1.8		

Dimensions in stock:
Steel/Steel coated: pg. 369, pg. 388

DIN 7993, 9926

Snap rings
type B = for bores



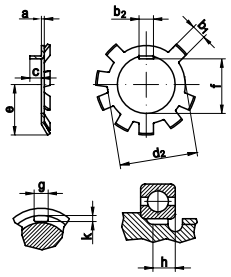
Dimensions	7	8	10	12	16	18
$d_{4\ max.\ 7993/9926}$	0.8/0.6	0.8/0.6	0.8	1	1.6	1.6
$d_{5\ 7993/9926}$	8.2/8	9.2/9	11.2	13.6	18.2	20.2
e	4	4	4	6	8	8
for drilling ∅ d_1	7	8	10	12	16	18
for shaft slot ∅ $d_{6\ 7993/9926}$	7.8/7.6	8.8/8.6	10.8	13	17.6	19.6
Slot crossover $r_{\ 7993/9926}$	0.5/0.4	0.5/0.4	0.5	0.6	0.9	0.9

Dimensions in stock:
Steel/Steel coated: pg. 369, pg. 388

Retaining/lock washers and rings

DIN 70952

Safety plates
for locknuts acc. to DIN 70852



Dimensions	10	12	14	16	18	20	22	24	26
a	0.75	0.75	0.75	1	1	1	1	1	1
b_1	4	4	4	5	5	5	6	6	6
b_2	4	4	5	5	5	5	6	6	6
c	3	3	3	3	4	4	4	4	5
d_2	16	18	20	23	25	27	30	32	34
e	11	12	13	14.5	16.5	17.5	19	20	22
f	8.9	10.9	12.9	14.9	16.9	18.9	20.9	22.9	24.9
g_{shaft}*	4	4	5	5	5	5	6	6	6
h_{shaft}	3	3	3	3	4	4	4	4	5
k_{shaft}	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Dimensions	28	30	32	35	38	40	42	45	48
a	1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
b_1	6	6	6	6	6	6	7	7	7
b_2	7	7	7	7	8	8	8	8	8
c	5	5	5	5	5	5	5	5	5
d_2	36	38	41	43	47	49	52	54	57
e	23	24	25.5	26.5	28.5	29.5	31	32	33.5
f	26.9	28.9	30.9	33.9	36.6	38.6	40.6	43.6	46.7
g_{shaft}*	7	7	7	7	8	8	8	8	8
h_{shaft}	5	5	5	5	5	5	5	5	5
k_{shaft}	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

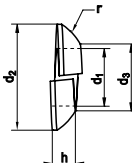
Dimensions	50	52	55	60	65	70	75	80	90
a	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
b_1	7	7	7	10	10	10	10	10	10
b_2	8	8	10	10	10	10	10	10	10
c	5	6	6	6	6	6	7	7	7
d_2	60	62	67	71	76	81	86	91	103
e	35	37	39.5	41.5	44	46.5	50	52.5	58.5
f	48.7	50.7	53.7	58.7	63.7	68.7	73.2	78.2	88.2
g_{shaft}*	8	8	10	10	10	10	10	10	10
h_{shaft}	5	6	6	6	6	6	7	7	7
k_{shaft}	1.5	1.5	1.5	2	2	2	2	2	2

*tolerance C11 on the shaft

Dimensions in stock:
Steel/Steel coated: pg. 409

DIN 74361

Spherical springwashers
type C



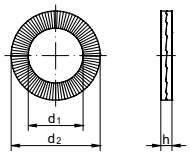
Dimensions	12.5	14.5	16.5	18.5	20.5	22.5
d_2	23	26	26.5	29	34	34
d_3	14.5	17	18	20	24	24
h	5	6	6.5	7	8	8
r	12	14	15	16	18	18

Dimensions in stock:
Steel/Steel coated: pg. 410

Retaining/lock washers and rings

Article 88032

HEICO-LOCK-wedge lock washers



Dimensions	M 3	M 3.5	M 3.5	M 4	M 4	M 5	M 5
type	HLS	HLS	HLB	HLS	HLB	HLS	HLB
d_1	3.4	3.9	3.9	4.4	4.4	5.4	5.4
d_2	7	7.6	9	7.6	9	9	10.8
h steel/stainless steel	1.7/1.6	1.7/1.6	1.7/1.6	1.7/1.6	1.7/1.6	1.7/1.6	1.7/1.6

Dimensions	M 6	M 6	M 8	M 8	M 10	M 10	M 12
type	HLS	HLB	HLS	HLB	HLS	HLB	HLS
d_1	6.5	6.5	8.6	8.6	10.7	10.7	13
d_2	10.8	13.5	13.5	16.6	16.6	21	19.5
h steel/stainless steel	1.7/1.6	2.7/2.6	2.7/2.6	2.7/2.6	2.7/2.6	2.7/2.6	2.7/2.6

Dimensions	M 12	M 12	M 14	M 14	M 16	M 16	M 16
type	HLB	HLK	HLS	HLB	HLS	HLB	HLK
d_1	13	13	15.2	15.2	17	17	17
d_2	25.4	24	23	30.7	25.4	30.7	30
h steel/stainless steel	3.7/3.6	3.7/–	3.7/3.6	3.7/3.6	3.7/3.6	3.7/3.6	3.7/–

Dimensions	M 18	M 18	M 20	M 20	M 20	M 22	M 22
type	HLS	HLB	HLS	HLB	HLK	HLS	HLB
d_1	19.5	19.5	21.4	21.4	21	23.4	23.4
d_2	29	34.5	30.7	39	37	34.5	42
h steel/stainless steel	3.7/3.6	3.7/3.6	3.7/3.6	3.8	3.7/–	3.7/3.6	4.7/4.6

Dimensions	M 22	M 24	M 24	M 24	M 27	M 27	M 27
type	HLK	HLS	HLB	HLK	HLS	HLB	HLK
d_1	23	25.3	25.3	25	28.4	28.4	28
d_2	39	39	48.5	44	42	48.5	50
h steel/stainless steel	4.7/–	3.7/3.6	4.7/4.6	4.7/–	5.4/5.3	6.7/6.6	6.7/–

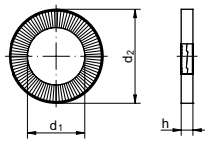
Dimensions	M 30	M 30	M 33	M 36	M 36	M 39	M 42
type	HLS	HLK	HLS	HLS	HLK	HLS	HLS
d_1	31.4	31	34.4	37.4	37	40.4	43.2
d_2	47	56	48.5	55	66	58.5	63
h steel/stainless steel	5.7/5.6	6.7/–	5.5/5.6	6.2/6.1	6.7/–	6.2/6	6.3/6.2

Typen: HLS = standard
HLB = enlarged outer diameter
HLK = for HV screws

Dimensions in stock:
Steel/Steel coated: 433 I Stainless steel: 600

Article 88033

HEICO-LOCK-ring lock washers



Dimensions	M 4	M 5	M 5	M 6	M 6	M 8	M 8
type	HLRB	HLRS	HLRB	HLRS	HLRB	HLRS	HLRB
d_1	4.4	5.4	5.4	6.5	6.5	8.6	8.6
d_2	9	9	10.8	10.8	13.5	13.5	16.6
h	1.5	1.5	1.5	1.5	2.5	2.5	2.5

Dimensions	M 10	M 10	M 12	M 12	M 14	M 16	M 16
type	HLRS	HLRB	HLRS	HLRB	HLRB	HLRS	HLRB
d_1	10.7	10.7	13	13	15.2	17	17
d_2	16.6	19.5	19.5	25.4	30.7	25.4	30.7
h	2.5	2.5	2.5	3.8	3.8	3.5	3.8

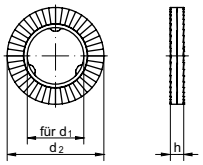
Typen: HLRS = standard
HLRB = enlarged outer diameter

Dimensions in stock:
Steel/Steel coated: 433

Retaining/lock washers and rings

Article 88035

HEICO-LOCK-combi-washers



Typen: HKS = standard
HKB = enlarged outer diameter

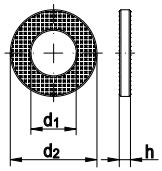
Dimensions	M 8	M 8	M 10	M 10
type	HKS	HKB	HKS	HKB
d_2	13.5	16.6	16.6	21
h	2.4	2.7	2.4	2.7

Dimensions	M 12	M 12	M 16	M 16
type	HKS	HKB	HKS	HKB
d_2	19.5	25.4	25.4	30.7
h	2.5	2.7	3.6	3.7

Dimensions in stock:
Steel/Steel coated: 434 | Stainless steel: 601

Article 88119

Locktix-washers



for screws with property class 8.8/10.9/12.9

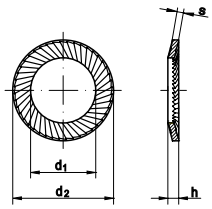
Dimensions	8	10	12	14
$d_{1\ min.}$	8.4	10.5	13	14.2
$d_{2\ max.}$	16	20	24	28
h	2.5	2.5	3	3

Dimensions	16	18	20	24
$d_{1\ min.}$	16.5	18.2	20.2	24.2
$d_{2\ max.}$	30	34	37	44
h	4	4	4	4

Dimensions in stock:
Steel/Steel coated: pg. 432

Article 88120

SCHNORR safety washers
type S = standard



Dimensions	2	2.5	3	3.5	4	5	6
d_1	2.2	2.7	3.2	3.7	4.3	5.3	6.4
d_2	4	4.8	5.5	6	7	9	10
s	0.35	0.45	0.45	0.45	0.5	0.6	0.7
h	0.6	0.9	0.9	0.9	1	1.1	1.2
for inch thread ∅	–	–	1/8"	–	5/32"	3/16"	–

Dimensions	7	8	10	12	14	16	18
d_1	7.4	8.4	10.5	13	15	17	19
d_2	12	13	16	18	22	24	27
s	0.7	0.8	1	1.1	1.2	1.3	1.5
h	1.3	1.4	1.6	1.7	2	2.1	2.3
for inch thread ∅	–	5/16"	3/8"	–	9/16"	5/8"	–

Dimensions	20	22	24	27	30	36	
d_1	21	23	25.6	28.6	31.6	38	
d_2	30	33	36	39	45	54	
s	1.5	1.5	1.8	2	2	2.5	
h	2.5	2.7	2.9	3.1	3.6	4.2	
for inch thread ∅	–	7/8"	–	–	1 1/8"	1 3/8"	

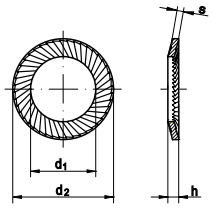
for screws with property class ≤ 5.8

Dimensions in stock:
Steel/Steel coated: pg. 429 | Stainless steel: pg. 598

Retaining/lock washers and rings

Article 88121

SCHNORR safety washers
type VS = extra strong



for screws with property class 8.8/10.9

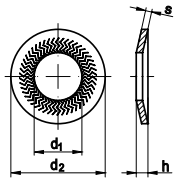
Dimensions	5	6	8	10	12	14	16
d_1 [1]	5.3	6.4	8.4	10.5	13	15	17
d_2 [2]	9	10	13	16	18	22	24
s	1	1	1.2	1.5	1.5	1.5	2
h	1.3	1.4	1.7	2	2.1	2.2	2.6
for inch thread ∅	3/16"	–	5/16"	3/8"	–	9/16"	5/8"

Dimensions	18	20	22	24	27	30	
d_1 [1]	19	21	23	25.6	28.6	31.6	
d_2 [2]	27	30	33	36	39	45	
s	2	2	2	2.5	2.5	2.5	
h	2.7	2.8	3	3.4	3.5	3.8	
for inch thread ∅	–	–	7/8"	–	–	1 1/8"	

Dimensions in stock:
Steel/Steel coated: pg. 429 | Stainless steel: pg. 599

Article 88123

TECKENTRUP-lock washers SK-S/NSK-S
type S = standard



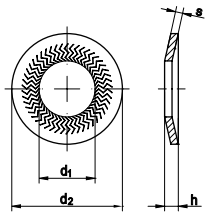
Dimensions	4	5	6	8	10	12
d_1	4.1	5.1	6.1	8.2	10.2	12.4
d_2	8.2	10.2	12.2	16.2	20.25	24.25
s	1	1	1.2	1.4	1.6	1.6
$h_{SK-S/NSK-S}$	1.35/1.3	1.5	1.8/1.75	2.4	2.4/2.75	2.6/3

for screws with property class ≤ 5.8

Dimensions in stock:
Steel/Steel coated: pg. 430 | Stainless steel: pg. 599

Article 88124

TECKENTRUP-lock washers SK-M/NSK-M
type M = medium



Dimensions	4	5	6	8	10	12
d_1	4.1	5.1	6.1	8.2	10.2	12.4
d_2	10.2	12.2	14.2	18.2	22.25	27.25
s	1	1.2	1.4	1.4	1.6	1.8
$h_{SK-M/NSK-M}$	1.5/1.45	1.8/1.75	2.2/2.15	2.4/2.7	2.75/3.1	3.05/3.65

Dimensions	14	16	18	20	24	
d_1	14.4	16.4	18	21	25	
d_2	30.25	32.5	35	40	50	
s	2.4	2.5	3	3	3.5	
$h_{SK-M/NSK-M}$	3.5/3.9	3.95/4.6	4.8	4.7/5	5.8	

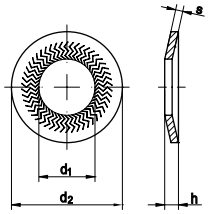
for screws with property class ≤ 10.9

Dimensions in stock:
Steel/Steel coated: pg. 430 | Stainless steel: pg. 599

Retaining/lock washers and rings

Article 88125

TECKENTRUP-lock washers SK-B/NSK-B
type B = width



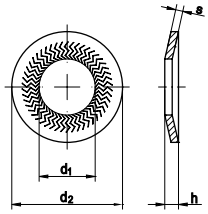
Dimensions	6	8	10	12
d_1	6.1	8.2	10.2	12.4
d_2	18.2	22.25	27.25	32.3
s	1.4	1.9	2.4	2.8
$h_{SK-B/NSK-B}$	2.55/2.6	2.9/3.1	3.65/3.6	4.5/4.8

for screws with property class ≤ 10.9

Dimensions in stock:
Steel/Steel coated: pg. 430 | Stainless steel: pg. 599

Article 88126

TECKENTRUP-lock washers SK-Z
type Z = for cheese head screws



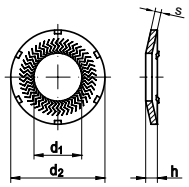
Dimensions	6	8	10	12	16
d_1	6.1	8.2	10.2	12.4	16.4
d_2	9.9	12.7	16.1	18.3	24.6
s	1.4	1.4	1.6	1.8	2.5
h	1.6	1.7	2	2.2	3.1

for cap screws with property class ≤ 10.9

Dimensions in stock:
Steel/Steel coated: pg. 431

Article 88129

TECKENTRUP-lock washers SK-K/NSK-K
type K = for contact serrations



Dimensions	4	5	6	8	10	12
d_1	4.1	5.1	6.1	8.2	10.2	12.4
d_2	8.2	10.2	12.2	16.2	20.25	24.25
s	1	1	1.2	1.4	1.6	1.6
$h_{SK-K/NSK-K}$	1.35/1.3	1.5	1.8/1.9	2.4	2.6/2.75	2.6/3

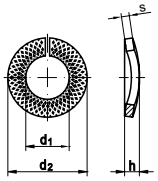
for screws with property class ≤ 5.8

Dimensions in stock:
Steel/Steel coated: pg. 431 | Stainless steel: pg. 600

Retaining/lock washers and rings

Article 88130

Lock rings
type VSK = standard type



for screws with property class ≤ 8.8

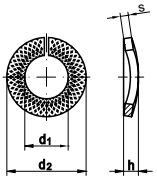
Dimensions	4	5	6	8	10	12	14
d_1	4.1	5.1	6.1	8.1	10.2	12.2	14.2
d_2	7.6	9.2	11.8	14.8	18.1	21.1	24.1
s	0.8	1	1.3	1.6	1.8	2.1	2.4
$h_{max.}$	1.4	1.7	2.2	2.75	3.15	3.15	4.3

Dimensions	16	18	20	22	24	27	30
d_1	16.2	18.2	20.2	22.5	24.5	27.5	30.5
d_2	27.4	29.4	33.6	35.9	40	43	48.2
s	2.8	2.8	3.2	3.2	4	4	6
$h_{max.}$	5.1	5.1	5.9	5.9	7.5	7.5	10.5

Dimensions in stock:
Steel/Steel coated: pg. 431 | Stainless steel: pg. 600

Article 88131

Lock rings
type VSK-Z = for cylindrical head screws



for cap screws with property class ≤ 8.8

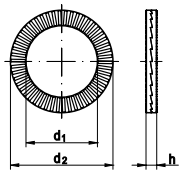
Dimensions	4	5	6	8
d_1	4.1	5.1	6.1	8.1
d_2	7	8.8	9.9	12.7
s	1.2	1.6	1.6	2
h	1.7	2.1	2.1	2.8

Dimensions	10	12	16	20
d_1	10.2	12.2	16.2	20.2
d_2	16.1	18.3	24.6	30.6
s	2.5	2.5	3.5	4.5
h	3.7	3.7	5.2	6.4

Dimensions in stock:
Steel/Steel coated: pg. 431

Article 88132

NORD-LOCK washers
standard type



for screws with property class ≤ 12.9

Dimensions	5	6	8	10	12	14	16	18
d_1	5.4	6.5	8.7	10.7	13	15.2	17	19.5
d_2	9	10.8	13.5	16.6	19.5	23	25.4	29
h	1.8	1.8	2.5	2.5	2.5	3.4	3.4	3.4
for inch thread ∅	No. 10	-	5/16"	-	-	9/16"	5/8"	-

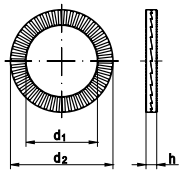
Dimensions	20	22	24	27	30	33	36	
d_1	21.4	23.4	25.3	28.4	31.4	34.4	37.4	
d_2	30.7	34.5	39	42	47	48.5	55	
h	3.4	3.4	3.4	6.6	6.6	6.6	6.6	
for inch thread ∅	-	7/8"	-	-	1 1/8"	1 1/4"	1 3/8"	

Dimensions in stock:
Steel/Steel coated: pg. 432 | Stainless steel: pg. 600

Retaining/lock washers and rings

Article 88132

NORD-LOCK washers
type SP = with enlarged outer diameter



Dimensions	3	3,5	4	5	6	8
d_1	3,4	3,9	4,4	5,4	6,5	8,7
d_2	7	9	9	10,8	13,5	16,6
h	1,8	2,2	2,2	1,8	2,5	2,5
for inch thread ∅	5	6	8	No. 10	–	5/16"

Dimensions	10	12	14	16	18	20
d_1	10,7	13	15,2	17	19,5	21,4
d_2	21	25,4	30,7	30,7	34,5	39
h	2,5	3,4	3,4	3,4	3,4	3,4
for inch thread ∅	–	–	9/16"	5/8"	–	–

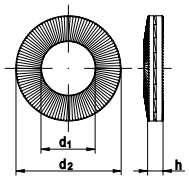
Dimensions	22	24	27	30	33	36
d_1	23,4	25,3	28,4	32,4	34,4	37,4
d_2	42	48,5	48,5	58,5	58,5	63
h	4,6	4,6	6,6	6,6	6,6	6,6
for inch thread ∅	7/8"	–	–	1 1/8"	1 1/4"	1 3/8"

for screws with property class ≤ 12.9

Dimensions in stock:
Steel/Steel coated: pg. 432

Article 88132

NORD-LOCK washers X-series
standard type



Dimensions	6	8	10	11	12	14	16
d_1	6.3	8.4	10.5	11.5	12.5	14.6	16.6
d_2	10.8	13.5	16.6	18.5	19.5	23	25.4
h	1.77	2.29	2.95	3.24	3.5	4.03	4.74
for inch thread ∅	–	5/16"	–	7/16"	–	9/16"	5/8"

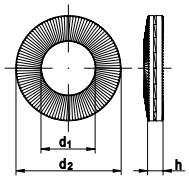
Dimensions	18	20	22	24	27	30	
d_1	18.7	20.7	22.8	24.8	27.9	31	
d_2	29	30.7	34.5	39	42	47	
h	5.36	6.01	6.8	7.19	8.28	9.06	
for inch thread ∅	–	–	7/8"	–	–	1 1/8"	

for screws with property class ≤ 12.9

Dimensions in stock:
Steel/Steel coated: pg. 432

Article 88132

NORD-LOCK washers X-series
type SP = with enlarged outer diameter



Dimensions	6	8	10	12	14	16
d_1	6.3	8.4	10.5	12.5	14.6	16.6
d_2	13.5	16.6	21	25.4	29	30.7
h	1.77	2.29	2.95	3.5	4.03	4.74
for inch thread ∅	–	5/16"	–	–	9/16"	5/8"

Dimensions	18	20	22	24	27	30
d_1	18.7	20.7	22.8	24.8	27.9	31
d_2	34.5	39	42	47	51	55
h	5.36	6.01	6.8	7.19	8.28	9.06
for inch thread ∅	–	–	7/8"	–	–	1 1/8"

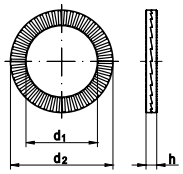
for screws with property class ≤ 12.9

Dimensions in stock:
Steel/Steel coated: pg. 432

Retaining/lock washers and rings

Article 88132

NORD-LOCK washers
type SC = for usage with HV assemblies
acc. to EN 14399-4



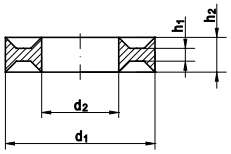
Dimensions	12	16	20	22
d_1	13.1	17.1	21.4	23.4
d_2	23.7	29.7	36.7	38.7
h	4.64	4.6	4.6	4.6

Dimensions	24	27	30	36
d_1	25.3	28.4	31.4	37.4
d_2	43.7	49.5	55.4	65.4
h	4.6	5.8	5.8	6

Dimensions in stock:
Steel/Steel coated: pg. 432

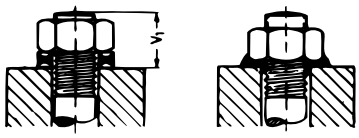
Article 88494

DUBO profile washers
for hexagon head screws

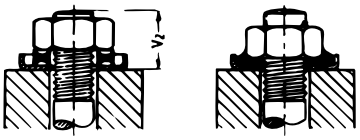


Examples:

without plate ring (V_1)
before tightening after tightening



with plate ring (V_2)
before tightening after tightening



Dimensions	198	199	200	201	203	205
for thread	M 3	M 4	M 5	M 6	M 8	M 10
d_1	8	9.5	10.6	12.7	16.2	19.6
d_2	3.2	4.15	5.15	6.2/6.5	8.1	10.2
h_2	2.2	2.6	3	3.5	4	4.5
h_1	0.8	1	1.2	1.4	1.6	1.8
V_1	5	6	7	8.5	10.5	12.5
V_2	–	–	–	9.25	11.5	13.5

Dimensions	207	209	211	213	215	217
for thread	M 12	M 14	M 16	M 18	M 20	M 22
d_1	23.6	25.4	29.4	35.1	35.7	41.6
d_2	12.2	14.2	16.2	18.2	20.3	22.5
h_2	5	5.5	6	6.5	7	7.5
h_1	2	2.1	2.2	2.3	2.4	2.5
V_1	14.5	16.5	19	21.5	23	24.5
V_2	16	18	20.75	23.25	24.75	26.5

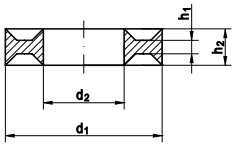
Dimensions	219	222	225	231	243	
for thread	M 24	M 27	M 30	M 36	M 48	
d_1	41.6	47.3	53.1	63.5	86.5	
d_2	24.3	27.3	30.2	36.2	48.2	
h_2	8	8.5	8.5	10	17	
h_1	2.6	2.7	2.8	3.2	4.5	
V_1	26	28.5	30.5	38	55	
V_2	28	30.5	–	–	–	

Dimensions in stock:
Non-ferrous materials: pg. 646

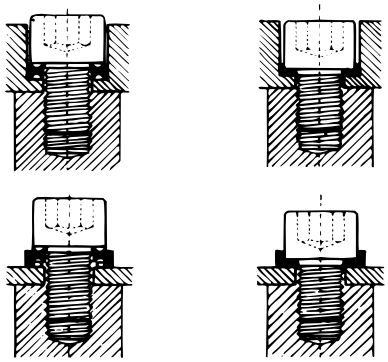
Retaining/lock washers and rings

Article 88495

DUBO profile washers
for hexagon socket cap screws



Examples:



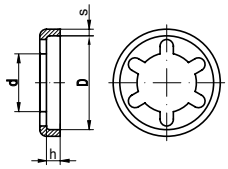
Dimensions	299	300	301	303
for thread	M 4	M 5	M 6	M 8
d_1	7.7	9.8	10.5	14
d_2	4.1	5.15	6.1	8.1
h_2	2	3	2.5	3.3
h_1	0.8	2	1	1.5

Dimensions	305	307	311	315
for thread	M 10	M 12	M 16	M 20
d_1	17	19	25	31.5
d_2	10.2	12.2	16.2	20.2
h_2	3.8	4.4	5.6	6.5
h_1	1.5	2	2	2.5

Dimensions in stock:
Non-ferrous materials: pg. 646

Article 88496

DUBO lock washers,
for DUBO profile washers



Dimensions	404	406	408	410	412
D	11.2	13.2	17.2	21.3	24.5
d	6.8	9	12	13.5	15.5
h	2.5	3.4	3.8	4.2	4.5
s	0.65	0.75	1	1.5	1.5
f. hexagon head screws	M 4/5 3/16"	M 6 1/4"	M 8 5/16"	M 10 3/8"	M 12 7/16"
f. cheese head screws	M 6 1/4"	–	M 10 3/8"	M 12 1/2"	M 14

Dimensions	414	416	417	418	419
D	27	31.25	33	37.5	39.5
d	17.5	21	23	26	27
h	4.8	5	5	5.5	5.5
s	1.5	1.75	1.75	1.75	2
f. hexagon head screws	1/2"	M 16	5/8"	M 18/20	3/4"
f. cheese head screws	M 16 5/8"	M 18	M 20	M 22 7/8"	M 24

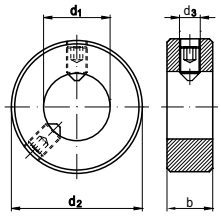
Dimensions	422	427	430	433	436
D	44	50.5	56	61	67
d	30.5	35	40	45	50
h	6	7	7.5	8	8.3
s	2	2	2.5	2.5	2.75
f. hexagon head screws	7/8"	M 27 1"	M 30 1 1/8"	M 33 1 1/4"	M 36 1 3/8"
f. cheese head screws	–	–	–	–	–

Dimensions in stock:
Steel/Steel coated: pg. 646

Retaining/lock washers and rings

DIN 703

Adjusting rings



*d_1 ≤ 65: one set screw with slot
d_1 ≥ 68: two set screws with hexagon socket

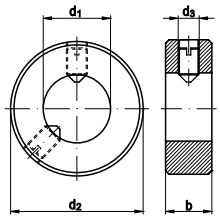
Dimensions	20	25	30	35	40	45
d_2	40	56	63	70	80	80
d_3	M 10	M 10	M 10	M 10	M 12	M 12
b	20	22	22	22	28	28
grub screw*	M 10x15	M 10x15	M 10x15	M 10x15	M 12x20	M 12x20

Dimensions	50	60	70	80	90	100
d_2	90	100	110	125	125	140
d_3	M 12	M 12	M 16	M 16	M 16	M 16
b	28	28	32	32	32	32
grub screw*	M 12x20	M 12x20	M 16x20	M 16x20	M 16x20	M 16x25

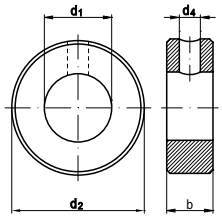
Dimensions in stock:
Steel/Steel coated: pg. 110

DIN 705

Adjusting rings



type A = with set screws



type B = with drilling for grooved or taper pins

Dimensions	4	5	6	8	9	10	12	13	14
b	5	6	8	8	10	10	12	12	12
d_2	8	10	12	16	18	20	22	22	25
d_3	M 2.5	M 3	M 4	M 4	M 4	M 5	M 6	M 6	M 6
d_4	1	1.5	1.5	2	2	3	4	4	4
A with pins[1]	M 2.5x4	M 3x4	M 4x5	M 4x6	M 4x6	M 5x8	M 6x8	M 6x8	M 6x8
B for pins[2]	1x8	1.5x10	1.5x12	2x16	2x16	3x20	4x22	4x22	4x24

Dimensions	15	16	17	18	20	22	24	25	26
b	12	12	12	14	14	14	16	16	16
d_2	25	28	28	32	32	36	40	40	40
d_3	M 6	M 6	M 6	M 6	M 6	M 6	M 8	M 8	M 8
d_4	4	4	4	5	5	5	6	6	6
A with pins[1]	M 6x8	M 6x8	M 6x8	M 6x8	M 6x8	M 6x10	M 8x12	M 10x16	M 10x16
B for pins[2]	4x24	4x28	4x28	5x32	5x32	5x36	6x40	6x40	6x40

Dimensions	28	30	32	34	35	36	38	40	42
b	16	16	16	16	16	16	16	18	18
d_2	45	45	50	50	56	56	56	63	63
d_3	M 8	M 8	M 8	M 8	M 8	M 8	M 8	M 10	M 10
d_4	6	6	8	8	8	8	8	8	8
A with pins[1]	M 8x12	M 8x10	M 8x12	M 8x12	M 8x12	M 8x12	M 8x12	M 10x16	M 10x16
B for pins[2]	6x45	6x45	8x50	8x50	8x55	8x55	8x55	8x60	8x60

Dimensions	45	50	55	60	65	70	75	80	85
b	18	18	18	20	20	20	22	22	22
d_2	70	80	80	90	100	100	110	110	125
d_3	M 10	M 10	M 10	M 10	M 10	M 10	M 12	M 12	M 12
d_4	8	10	10	10	10	10	10	10	12
A with pins[1]	M 10x16	M 10x16	M 10x16	M 10x16	M 10x20	M 10x20	M 12x20	M 12x20	M 12x25
B for pins[2]	8x70	10x80	10x80	10x90	10x100	10x100	10x100	10x110	12x120

Dimensions	90	100	110	120	125	130	140		
b	22	25	25	25	28	28	28		
d_2	125	140	160	160	180	180	200		
d_3	M 12	M 12	M 12	M 12	M 16	M 16	M 16		
d_4	12	12	12	12	16	16	16		
A with pins[1]	M 12x20	M 12x25	M 12x30	M 12x25	M 16x35	M 16x35	M 16x35		
B for pins[2]	12x120	12x140	12x160	12x160	16x180	16x180	16x200		

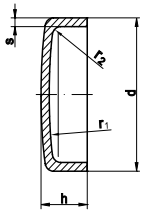
[1] d_1 ≤ 70 one set screw with slot
[2] d_2 ≥ 75 one set screw with hexagon socket

Dimensions in stock:
Steel/Steel coated: pg. 110 | Stainless steel: pg. 475

Special forms

DIN 443

Sealing push-in caps



d = nominal size

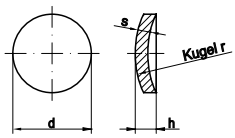
Dimensions	8	10	12	14	16	18	20	22	25	28
h	3	3	4	5	5	6	6	7	8	9
r_1	20	25	30	35	40	45	50	55	60	70
r_2	1	1	1	1	1	1	1	1.6	1.6	1.6
s	0.75	0.75	1	1	1	1	1	1.6	1.6	1.6

Dimensions	30	32	36	38	40	42	45	50	56	
h	9	10	11	12	12	13	14	15	17	
r_1	75	80	90	95	100	105	110	125	140	
r_2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.5	
s	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2	

Dimensions in stock:
Steel/Steel coated: pg. 85

DIN 470

Sealing discs



d = nominal size

Dimensions	6	8	10	12	14	16	18	20	22	25
h	1.67	1.94	2.67	2.77	2.94	3.11	3.28	3.45	4.09	4.38
r	7	9	12	16	19	22	25	28	30	34
s	1	1	1.6	1.6	1.6	1.6	1.6	1.6	2	2

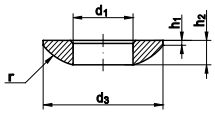
Dimensions	28	30	32	34	36	38	40	42	45	48
h	4.53	4.77	4.95	5.11	5.36	5.6	5.7	5.8	6.15	6.38
r	40	42	45	48	50	52	56	60	63	68
s	2	2	2	2	2	2	2	2	2	2

Dimensions	50	52	56	60	63	80	100	125		
h	6.62	6.66	7.06	7.47	7.7	10.41	12.23	14.2		
r	70	75	80	85	90	112	140	180		
s	2	2	2	2	2	3	3	3		

Dimensions in stock:
Steel/Steel coated: pg. 89

DIN 6319

Spherical washers
type C



d_1 = nominal size

Dimensions	6.4	8.4	10.5	13	17	21
d_3	12	17	21	24	30	36
h_1	0.7	0.6	0.8	1.1	1.3	2
h_2	2.3	3.2	4	4.6	5.3	6.3
r_{1b}	9	12	15	17	22	27

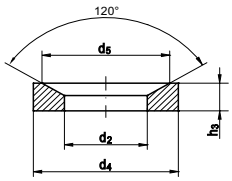
Dimensions	25	31	37	43	50
d_3	44	56	68	78	92
h_1	2.4	3.6	4.6	6.5	8
h_2	8.2	11.2	14	17	21
r_{1b}	32	41	50	58	67

Dimensions in stock:
Steel/Steel coated: pg. 307

Special forms

DIN 6319

Conical seats
type D



d_2 = nominal size

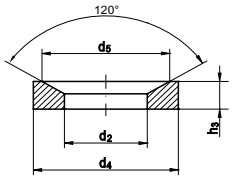
Dimensions	7.1	9.6	12	14.2	19	23.2
d_4	12	17	21	24	30	36
d_5	11	14.5	18.5	20	26	31
h_3	2.8	3.5	4.2	5	6.2	7.5

Dimensions	28	35	42	49	56	
d_4	44	56	68	78	92	
d_5	37	49	60	70	82	
h_3	9.5	12	15	18	22	

Dimensions in stock:
Steel/Steel coated: pg. 307

DIN 6319

Conical seats
type G



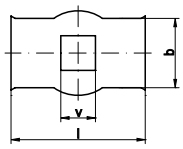
d_2 = nominal size

Dimensions	12	14.2	19	23.2	28	35
d_4	30	36	44	50	60	68
d_5	18.5	20	26	31	37	49
h_3	5	6	7	8	10	12

Dimensions in stock:
Steel/Steel coated: pg. 308

Article 88102

Joint washers
to use with DIN 603



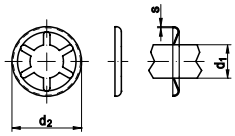
Dimensions	9	11
b	22	22
l	40	40
v	9	11
for screw	M 8	M 10

Dimensions in stock:
Steel/Steel coated: pg. 427

Special forms

Article 88122

Axle locking rings
quick fixing elements for shafts



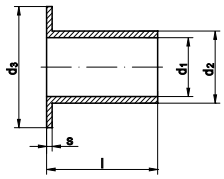
d_1 = nominal size

Dimensions	3	4	5	6	8	10	12
d_2	11	11	11	15	15	18	21
d_3	1.3	1.3	1.3	1.6	1.6	2.1	3
s	0.2	0.2	0.2	0.25	0.25	0.3	0.4
F_a	200 N	400 N	600 N	800 N	1000 N	1100 N	2500 N

Dimensions in stock:
Steel/Steel coated: pg. 430

Article 88498

KORREX Insulating tubes



Dimensions	M 4/10	M 4/15	M 4/20	M 5/10	M 5/15	M 5/20	M 6/10	M 6/15
for screw	M 4	M 4	M 4	M 5	M 5	M 5	M 6	M 6
l	10	15	20	10	15	20	10	15
d_1	4.3	4.3	4.3	5.3	5.3	5.3	6.5	6.5
d_2	5.8	5.8	5.8	6.8	6.8	6.8	8	8
d_3	9.5	9.5	9.5	12	12	12	13	13
s	1	1	1	1	1	1	1	1

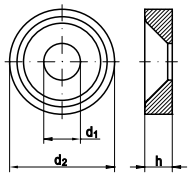
Dimensions	M 6/20	M 8/10	M 8/15	M 8/22	M 10/10	M 10/20	M 10/25	M 12/15
for screw	M 6	M 8	M 8	M 8	M 10	M 10	M 10	M 12
l	20	10	15	22	10	20	25	15
d_1	6.5	8.2	8.2	8.2	10.2	10.2	10.2	12.3
d_2	8	10.4	10.4	10.4	12.5	12.5	12.5	15
d_3	13	18	18	18	21	21	21	24
s	1	1	1	1	1	1	1	1

Dimensions	M 12/25	M 16/10	M 16/15	M 16/20	M 16/25	M 20/15	M 20/20	M 20/25
for screw	M 12	M 16	M 16	M 16	M 16	M 20	M 20	M 20
l	25	10	15	20	25	15	20	25
d_1	12.3	16.3	16.3	16.3	16.3	20.3	20.3	20.3
d_2	15	19.3	19.3	19.3	19.3	23.3	23.3	23.3
d_3	24	30	30	30	30	36	36	36
s	1	2	2	2	2	2	2	2

Dimensions in stock:
Non-ferrous materials: pg. 646

Article 88499

KORREX rosettes
for countersunk heads



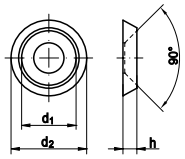
Dimensions	803	804	805	806	808
d_1	3.1	4.1	5.2	6.3	8.2
d_2	8.1	7.6	11.3	13.4	18
h	2.2	2	2.4	2.6	4
for screw	M 3	M 4	M 5	M 6	M 8

Dimensions in stock:
Non-ferrous materials: pg. 647

Special forms

Article 88965

Rosettes/finishing washers, open connecting surface
for countersunk heads



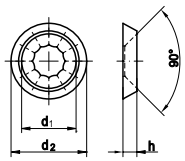
hole ∅ = nominal sizes

Dimensions	3	4.1	5	6	7	8.6
d_1	7	6.5	9	10	12.5	13
d_2	9.8	9	12.5	13	18	18
h	2.1	1.8	2.3	2.3	3.2	3
for screws acc. to DIN 95	3	3.5	4	5	6.0/7.0	6.0/7.0
for screws acc. to DIN 964	M 3	M 3.5	M 4	M 5	M 6	M 6/M 8
for screws acc. to DIN 7973	ST 2.9	ST 3.5	ST 3.9/4.2	ST 4.8	ST 5.5	ST 6.3

Dimensions in stock:
Non-ferrous materials: pg. 647

Article 88966

Rosettes/finishing washers open connecting surface
for countersunk heads

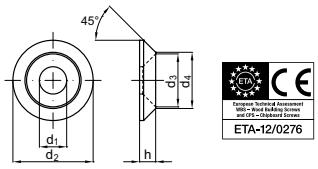


Dimensions	4.8	5	6	7
d_1	8.8	8	10.5	12
d_2	12.7	11	13	15
h	2.7	2.4	3	3.4
for screws acc. to DIN 95	4	4.5	5	6
for screws acc. to DIN 964	M 4	M 4	M 5	M 6
for screws acc. to DIN 7973	ST 4.2	ST 4.2	ST 4.8	ST 5.5

Dimensions in stock:
Non-ferrous materials: pg. 647

Artikel 89184

Countersunk washers, type B



ETA-12/0276
for use with the
wood building screw R 89091

Dimensions	6	8	10
d_1	8	8.5	11
d_2	19.5	25	32
d_3	8.5	16.5	21.5
d_4	9.5	17.5	22.5
h	4.8	5	6

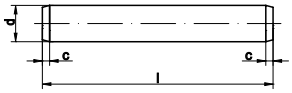
Dimensions in stock:
Steel/Steel coated: 447

Paralellel pins

ISO 2338

replaces DIN 7

Parallel pins



d = nominal size
tolerance m6

Dimensions	0.8	1	1.5	2	2.5	3	4	5	6
$c_{max.\ ISO}$	0.16	0.2	0.3	0.35	0.4	0.5	0.63	0.8	1.2
$c_{max.\ DIN}$	0.12	0.15	0.23	0.3	0.4	0.45	0.6	0.75	0.9
r	0.8	1	1.6	2	2.5	3	4	5	6

Dimensions	8	10	12	13	14	16	20	25	30
$c_{max.\ ISO}$	1.6	2	2.5	–	–	3	3.5	4	5
$c_{max.\ DIN}$	1.2	1.5	1.8	1.9	2	2.5	3	4	4.5
r	8	10	12	14	16	16	20	25	32

Dimensions in stock:
Steel/Steel coated: pg. 229, pg. 453 | Stainless steel: pg. 525, pg. 453

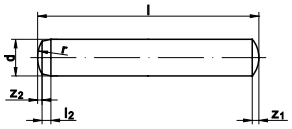
ISO 8734

replaces DIN 6325

Parallel pins
type A = through hardened



ISO 8734



DIN 6325

d = nominal size

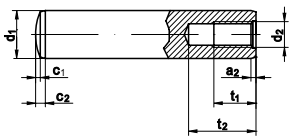
Dimensions	1	1.5	2	2.5	3	4	5
l_2	0.4	0.5	0.6	0.7	0.8	1	1.2
r	1	1.5	2	2.5	3	4	5
z_1	0.15	0.23	0.3	0.4	0.45	0.6	0.75
z_2	0.08	0.12	0.18	0.25	0.3	0.4	0.5
c	0.2	0.3	0.35	0.4	0.5	0.63	0.98

Dimensions	6	8	10	12	14	16	20
l_2	1.5	1.8	2	2.5	2.5	3	4
r	6	8	10	12	16	16	20
z_1	0.9	1.2	1.5	1.8	2	2.5	3
z_2	0.6	0.8	1	1.3	1.3	1.7	2
c	1.2	1.6	2	2.5	–	3	3.5

Dimensions in stock:
Steel/Steel coated: pg. 374, pg. 308

DIN 7979

Parallel pins
with internal thread
type D = hardened



d = nominal size
tolerance m6
*not standardized, reference values

Dimensions	4*	5*	6	8	10	12
a_2	0.5	0.6	0.8	1	1.2	1.6
c_1	0.4	0.5	0.6	0.8	1	1.2
c_2	1.3	1.7	2.1	2.6	3	3.8
d_2	(M 2)	(M 3)	M 4	M 5	M 6	M 6
t_1	6	6	6	8	10	10
$t_{2\ min.}$	7	7	10	12	16	16

Dimensions	14	16	20	25	30	40
a_2	1.8	2	2.5	3	4	5
c_1	1.4	1.6	2	2.5	3	4
c_2	4	4.7	6	6	7	8
d_2	M 8	M 8	M 10	M 16	M 20	M 20
t_1	12	12	16	24	30	30
$t_{2\ min.}$	20	20	25	34	42	42

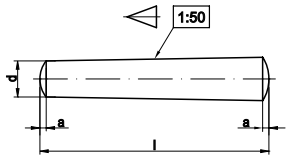
Dimensions in stock:
Steel/Steel coated: 356

Taper pins

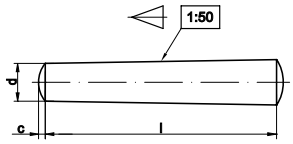
ISO 2339

replaces DIN 1

Taper pins
type B = turned



ISO 2339



DIN 1

*not standardized, reference values

Dimensions	1	1.5	2	2.5	3	4
a_{ISO}	0.12	0.2	0.25	0.3	0.4	0.5
$c_{max.\ DIN}$	0.15	0.23	0.3	0.4	0.45	0.6

Dimensions	5	6	6.5*	7*	8	10
a_{ISO}	0.63	0.8	0.8	0.9	1	1.2
$c_{max.\ DIN}$	0.75	0.9	1	1.1	1.2	1.5

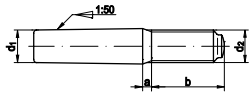
Dimensions	12	13*	14	16	20	
a_{ISO}	1.6	1.7	1.8	2	2.5	
$c_{max.\ DIN}$	1.8	1.9	2	2.5	3	

Dimensions in stock:
Steel/Steel coated: pg. 230, pg. 63 | Stainless steel: pg. 527, pg. 453

ISO 8737

similar DIN 7977

Taper pins with external thread and constant threaded part



d_1 = nominal size
*not standardized, reference values

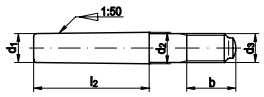
Dimensions	5	6	8	10	12
b	14	18	22	24	27
$a_{max.}$	2.4	3	4	4.5	5.3
d_2	M 5	M 6	M 8	M 10	M 12

Dimensions	13*	14	16	20	
b	27	30	35	35	
$a_{max.}$	5.3	6	6	6	
d_2	M 13	M 12	M 16	M 16	

Dimensions in stock:
Steel/Steel coated: pg. 376, pg. 355*

DIN 258

Taper pins with thread ends and constant taper lengths



d_1 = nominal size

Dimensions	5	6	8	10
$b_{min.}$	14	18	22	24
d_2	5.5	6.6	8.8	10.9
d_3	M 5	M 6	M 8	M 10
l_2	25	30	40	45

Dimensions	12	16	20	25
$b_{min.}$	27	35	35	40
d_2	13.1	17.4	21.7	27
d_3	M 12	M 16	M 20	M 25
l_2	55	72	85	100

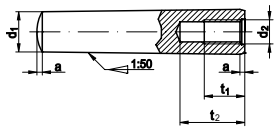
Dimensions in stock:
Steel/Steel coated: pg. 77

Taper pins

ISO 8736

similar DIN 7978

Taper pins with internal thread
type A = polished



d = nominal size

Dimensions	6	8	10
a	0.8	1	1.2
d_2	M 4	M 5	M 6
t_1	6	8	10
$t_{2\ min.}$	10	12	16

Dimensions	12	16	20
a	1.6	2	2.5
d_2	M 8	M 10	M 12
t_1	12	16	18
$t_{2\ min.}$	20	25	27
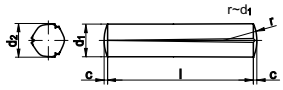
Dimensions in stock:
Steel/Steel coated: pg. 376, pg. 355

Grooved pins

ISO 8744

replaces DIN 1471

Grooved pins full-length taper grooved



[1]∅ depends on the length
[2]minimum shear strength, double kN

Dimensions	1.5	2	2.5	3	4
d_2 [1]	1.60 – 1.63	2.10 – 2.15	2.60 – 2.70	3.20 – 3.30	4.15 – 4.30
c	0.2	0.25	0.3	0.4	0.5
shear strength ISO	1.6	2.84	4.4	6.4	11.3
shear strength[2] DIN	1.6	2.85	4.25	6.15	10.6

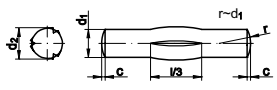
Dimensions	5	6	8	10	12
d_2 [1]	5.15 – 5.30	6.15 – 6.35	8.20 – 8.40	10.20 – 10.45	12.25 – 12.50
c	0.63	0.85	1	1.2	1.6
shear strength ISO	17.6	25.4	45.2	70.4	101.8
shear strength[2] DIN	16.5	22.8	40.5	63.2	91

Dimensions in stock:
Steel/Steel coated: pg. 378, pg. 210 | Stainless steel: pg. 583, pg. 517

ISO 8742

replaces DIN 1475

Grooved pins, one-third-length centre grooved



[1]∅ depends on the length
[2]minimum shear strength, double Kn

Dimensions	1.5	2	2.5	3	4
d_2 [1]	1.60 – 1.63	2.10 – 2.15	2.60 – 2.70	3.20 – 3.30	4.15 – 4.30
c	0.2	0.25	0.3	0.4	0.5
shear strength ISO	1.6	2.84	4.4	6.4	11.3
shear strength[2] DIN	1.6	2.85	4.25	6.15	10.6

Dimensions	5	6	8	10	12
d_2 [1]	5.15 – 5.30	6.15 – 6.35	8.20 – 8.40	10.20 – 10.45	12.25 – 12.50
c	0.63	0.85	1	1.2	1.6
shear strength ISO	17.6	25.4	45.2	70.4	101.8
shear strength[2] DIN	16.5	22.8	40.5	63.2	91

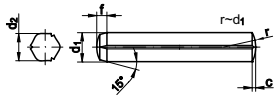
Dimensions in stock:
Steel/Steel coated: pg. 378, pg. 212 | Stainless steel: pg. 517

Grooved pins

ISO 8740

replaces DIN 1473

Grooved pins, full-length parallel-grooved, with chamfer



Dimensions	1.5	2	2.5	3	4
d_2[1]	1.60 – 1.63	2.10 – 2.15	2.60 – 2.70	3.20 – 3.30	4.15 – 4.30
c	0.2	0.25	0.3	0.4	0.5
shear strength ISO	1.6	2.84	4.4	6.4	11.3
shear strength[2] DIN	1.6	2.85	4.25	6.15	10.6

Dimensions	5	6	8	10	12
d_2[1]	5.15 – 5.30	6.15 – 6.35	8.20 – 8.40	10.20 – 10.45	12.25 – 12.50
c	0.63	0.85	1	1.2	1.6
shear strength ISO	17.6	25.4	45.2	70.4	101.8
shear strength[2] DIN	16.5	22.8	40.5	63.2	91

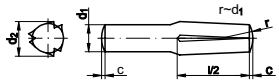
[1]∅ depends on the length
[2]minimum shear strength, double kN

Dimensions in stock:
Steel/Steel coated: pg. 377, pg. 211 | Stainless steel: pg. 583, pg. 517

ISO 8741

replaces DIN 1474

Grooved pins, half-length reverse-taper grooved



Dimensions	1.5	2	2.5	3	4
d_2[1]	1.60 – 1.63	2.10 – 2.15	2.60 – 2.70	3.20 – 3.30	4.15 – 4.30
c	0.2	0.25	0.3	0.4	0.5
shear strength ISO	1.6	2.84	4.4	6.4	11.3
shear strength[2] DIN	1.6	2.85	4.25	6.15	10.6

Dimensions	5	6	8	10	12
d_2[1]	5.15 – 5.30	6.15 – 6.35	8.20 – 8.40	10.20 – 10.45	12.25 – 12.50
c	0.63	0.85	1	1.2	1.6
shear strength ISO	17.6	25.4	45.2	70.4	101.8
shear strength[2] DIN	16.5	22.8	40.5	63.2	91

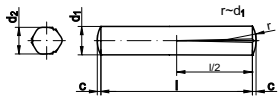
[1]∅ depends on the length
[2]minimum shear strength, double kN

Dimensions in stock:
Steel/Steel coated: pg. 378, pg. 212

ISO 8745

replaces DIN 1472

Grooved pins, half-length taper grooved



Dimensions	1.5	2	2.5	3	4
d_2[1]	1.60 – 1.63	2.10 – 2.15	2.60 – 2.70	3.20 – 3.30	4.15 – 4.30
c	0.2	0.25	0.3	0.4	0.5
shear strength ISO	1.6	2.84	4.4	6.4	11.3
shear strength[2] DIN	1.6	2.85	4.25	6.15	10.6

Dimensions	5	6	8	10	12
d_2[1]	5.15 – 5.30	6.15 – 6.35	8.20 – 8.40	10.20 – 10.45	12.25 – 12.50
c	0.63	0.85	1	1.2	1.6
shear strength ISO	17.6	25.4	45.2	70.4	101.8
shear strength[2] DIN	16.5	22.8	40.5	63.2	91

[1]∅ depends on the length
[2]minimum shear strength, double kN

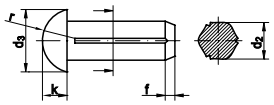
Dimensions in stock:
Steel/Steel coated: pg. 379, pg. 211 | Stainless steel: pg. 584, pg. 517

Grooved pins

ISO 8746

similar DIN 1476

Grooved pins with round head
type A = with chamfer



Dimensions	1.4	1.6	2	2.3	2.5
d_2	1.5	1.7	2.15	2.5	2.7
d_3	2.4	2.8	3.5	4.0	4.4
k	0.8	1	1.2	1.4	1.5
r	1.4	1.6	1.9	2.1	2.4
f	0.5	0.5	0.5	0.7	0.7

Dimensions	3	4	5	6	
d_2	3.2	4.25	5.25	6.3	
d_3	5.2	7	8.8	10.5	
k	1.8	2.4	3	3.6	
r	2.8	3.8	4.6	5.7	
f	4	1.5	1.5	2	

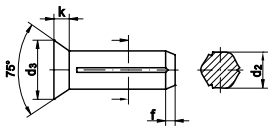
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 380, pg. 213 | Stainless steel: pg. 584, pg. 518 | Non-ferrous materials: pg. 643, pg. 632

ISO 8747

similar DIN 1477

Grooved pins with countersunk head
type A = with chamfer



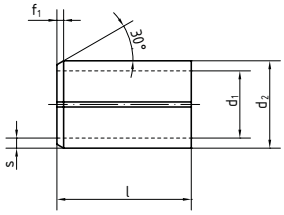
Dimensions	2	3	4	5	6
d_2	2.15	3.20	4.25	5.25	6.30
d_3	3.5	5.2	7	8.8	10.5
k	1	1.4	2	2.5	3
f	0.5	1	1.15	1.15	2

Dimensions in stock:
Steel/Steel coated: pg. 380, pg. 213

Tension bushes

DIN 1498

Tension bushes



Dimensions	16	20	25	25	25	28
d_2	20	26	32	32	32	35
l	20	20	20	28	30	25
s	2	3	3.5	3.5	3.5	3.5
f_1	1.5	2	2	2	2	2

Dimensions	30	40	40	40	50	
d_2	38	50	50	50	60	
l	25	25	30	40	50	
s	4	5	5	5	5	
f_1	2	2.5	2.5	2.5	2.5	

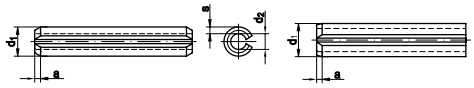
Dimensions in stock:
Steel/Steel coated: 220

Spring-type straight pins

ISO 8752

replaces DIN 1481

Spring-type straight pins
slotted, heavy duty



Dimensions	1	1.5	2	2.5	3	3.5	4	4.5	5
$a_{ISO\ min.}$	0.15	0.25	0.35	0.4	0.5	0.6	0.65	0.8	0.9
$d_{1\ max.}$[1]	1.3	1.8	2.4	2.9	3.5	4	4.6	5.1	5.6
d_2[1]	0.8	1.1	1.5	1.8	2.1	2.3	2.8	2.9	3.4
s	0.2	0.3	0.4	0.5	0.6	0.75	0.8	1	1
shear strength[2]	0.7	1.58	2.82	4.38	6.32	9.06	11.24	15.36	17.54

Dimensions	6	7*	8	9*	10	12	13	14	16
$a_{ISO\ min.}$	1.2	1.8	2	2	2	2	2	2	2
$d_{1\ max.}$[1]	6.7	7.8	8.8	9.5	10.8	12.8	13.8	14.8	16.8
d_2[1]	3.9	4	5.5	6	6.5	7.5	8.5	8.5	10.5
s	1.25	1.5	1.5	2	2	2.5	2.5	3	3
shear strength[2]	26.04	–	42.76	–	70.16	104.1	115.12	144.7	171

Dimensions	18	20	21	25	28	30	35	40	
$a_{ISO\ min.}$	2	3	3	3	3	3	3	4	
$d_{1\ max.}$[1]	18.9	20.9	21.9	25.9	28.9	30.9	35.9	40.9	
d_2[1]	11.5	12.5	13.5	15.5	17.5	18.5	21.5	25.5	
s	3.5	4	4	5	5.5	6	7	7.5	
shear strength[2]	222.5	280.6	298.2	438.5	542.6	631.4	859	1068	

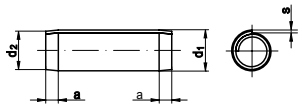
[1]dimensions before installation
[2]shear strength, double kN, only for spring steel
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 381, pg. 217 | Stainless steel: pg. 585, pg. 519

ISO 8750

similar DIN 7343

Spring-type straight pins
coiled, standard duty



Dimensions	1	1.5	2	2.5	3	3.5	4
a	0.3	0.5	0.7	0.8	1	1.2	1.3
s	0.08	0.13	0.17	0.21	0.25	0.29	0.33
d_1[1]	1.1	1.62	2.15	2.65	3.15	3.67	4.2
d_2[1]	0.95	1.4	1.9	2.35	2.85	3.35	3.8
shear strength[2]	0.6	1.45	2.5	3.9	5.5	7.5	9.6

Dimensions	5	6	8	10	12	14	16
a	1.7	2	3	3	4	4.5	5
s	0.42	0.5	0.67	0.84	1	1.2	1.3
d_1[1]	5.25	6.25	8.35	10.45	12.5	14.55	16.55
d_2[1]	4.8	5.8	7.75	9.6	11.5	13.5	15.4
shear strength[2]	15	22	39	62	89	120	155

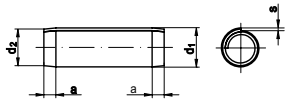
[1]dimensions before installation
[2]shear strength, double kN, only for spring steel

Dimensions in stock:
Steel/Steel coated: pg. 381, pg. 339 | Stainless steel: pg. 584, pg. 571

ISO 8748

similar DIN 7344

Spring-type straight pins
coiled, heavy duty



Dimensions	1.5	2	2.5	3
a	0.5	0.7	0.8	1
s	0.17	0.22	0.28	0.33
d_1[1]	1.6	2.1	2.6	3.12
d_2[1]	1.4	1.9	2.35	2.85
shear strength[2]	1.9	3.5	5.5	7.6

Dimensions	4	5	6	8*
a	1.3	1.7	2	2
s	0.45	0.56	0.67	0.9
d_1[1]	4.15	5.15	6.25	8.25
d_2[1]	3.8	4.8	5.8	7.8
shear strength[2]	13.5	20	30	53

[1]dimensions before installation
[2]shear strength, double kN, only for spring steel
*not standardized, reference values

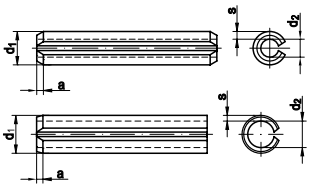
Dimensions in stock:
Steel/Steel coated: pg. 380, pg. 339

Spring-type straight pins

ISO 13337

similar DIN 7346

Spring-type straight pins
slotted, light duty



[1]dimensions before installation
[2]shear strength, double kN, only for spring steel

Dimensions	2	2.5	3	4	5	6
a	0.2	0.25	0.25	0.5	0.5	0.7
d_1[1]	2.3	2.8	3.3	4.4	5.4	6.4
d_2[1]	1.9	2.3	2.7	3.4	4.4	4.9
s	0.2	0.25	0.3	0.5	0.5	0.75
shear strength[2]	1.5	2.4	3.5	8	10.4	18

Dimensions	8	10	12	13	16	21
a	1.5	2	2	2	2	2
d_1[1]	8.5	10.5	12.5	13.5	16.5	21.5
d_2[1]	7	8.5	10.5	11	13.5	17.5
s	0.75	1	1	1.25	1.5	2
shear strength[2]	24	40	48	66	98	168

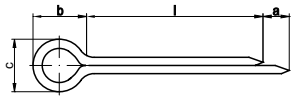
Dimensions in stock:
Steel/Steel coated: pg. 396, pg. 340

Linch pins/spring cotters/split pins

ISO 1234

similar DIN 94

Split pins



*not standardized, reference values

Dimensions	1	1.2	1.6	2	2.5	3.2	4
$a_{min.}$	0.8	1.25	1.25	1.25	1.25	1.6	2
b	3	3	3.2	4	5	6.4	8
$c_{max.}$	1.8	2	2.8	3.6	4.6	5.8	7.4
pin hole ∅	1	1.2	1.6	2	2.5	3.2	4
for screw ∅	3.5 - 4.5	4.5 - 5.5	5.5 - 7	7 - 9	9 - 11	11 - 14	14 - 20
for clevis pin ∅	3 - 4	4 - 5	5 - 6	6 - 8	8 - 9	9 - 12	12 - 17

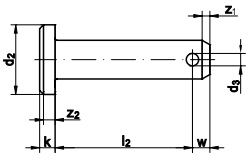
Dimensions	5	5.5*	6.3	8	10	13	16
$a_{min.}$	2	2	2	2	3.2	3.2	3.2
b	10	12.6	12.6	16	20	26	32
$c_{max.}$	9.2	11	11.8	15	19	24.8	30.8
pin hole ∅	5	5.5	6.3	8	10	13	16
for screw ∅	20 - 27	21 - 27	27 - 39	39 - 56	56 - 80	80 - 120	120 - 170
for clevis pin ∅	17 - 23	18 - 23	23 - 29	29 - 44	44 - 69	69 - 110	110 - 160

Dimensions in stock:
Steel/Steel coated: pg. 208, pg. 69 | Stainless steel: pg. 516, pg. 458 | Non-ferrous materials: pg. 632, pg. 613

ISO 2341

similar DIN 1444 B

Clevis pins with head
type B = with split pin hole



pin ∅ with tolerance h11

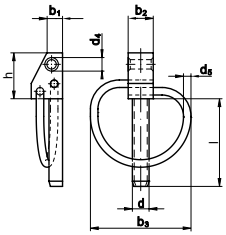
Dimensions	8	10	12	16	18	20
d_2	14	18	20	25	28	30
d_3	2	3.2	3.2	4	5	5
k	3	4	4	4.5	5	5
w	3.5	4.5	5.5	6	7	8
$z_{1\ max.}$	2	2	3	3	3	4
z_2	1	1	1.6	1.6	1.6	2
for split pin ∅	2	3.2	3.2	4	5	5

Dimensions in stock:
Steel/Steel coated: pg. 210

Linch pins/spring cotters/split pins

DIN 11023

Linch pins



Maße	5	6	8	10
l	32	42	42	45
$b_{1\ max.}$	11.5	14	15	15
$b_{2\ max.}$	7	8	9	12
$b_{3\ max.}$	36	52	52	52
$h_{\ max.}$	18	22	22	22
d_4	3.5	4	4	4.5
$d_{5\ min.}$	2.5	3.6	3.6	3.6
for shafts ∅ max.	25	32	32	32
for drilling ∅	5	6	8	10
hole position*	8	10	12	14

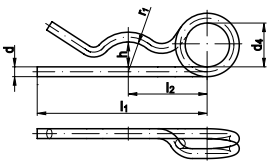
Maße	12	12	17	
l	45	55	60	
$b_{1\ max.}$	15	15	21	
$b_{2\ max.}$	14	14	20	
$b_{3\ max.}$	52	60	60	
$h_{\ max.}$	22	22	29	
d_4	4.5	4.5	6	
$d_{5\ min.}$	3.6	4	4	
for shafts ∅ max.	32	45	45	
for drilling ∅	12	12	17	
hole position*	18	18	21	

*Indication: shaft end to bore center also used as version of ~ DIN 11023 without chain bore available

Dimensions in stock:
Steel/Steel coated: 394

DIN 11024

Spring cotters of a bolt



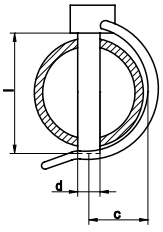
Dimensions	2.5	3.2	4	5	6.3	7	8
d_3	2.25	2.8	3.6	4.5	5.6	6.3	7
d_4	20	20	20	25	25	30	30
l_1	42	48	64	80	97	125	150
l_2	24	26	32	39	45	56	63
h	2.5	3	4.5	7	9	12.5	17.5
r_1	5.6	7	10	13	17	22.5	28
for shafts ∅	9 - 11.2	11.2 - 14	14 - 20	20 - 26	26 - 34	34 - 45	45 - 56

nominal size = drilling ∅

Dimensions in stock:
Steel/Steel coated: pg. 395 | Stainless steel: pg. 589

Article 88023

Linch pins for tubes



Dimensions	6	8	8
c	22	22	25
l	40	40	50

Dimensions	10	10	
c	25	32	
l	50	60	

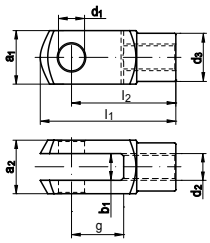
d = nominal size

Dimensions in stock:
Steel/Steel coated: pg. 394

Linch pins/spring cotters/split pins

DIN 71752

Fork joints
type G = yokes
matching spring flap bolts ➔ article 88752



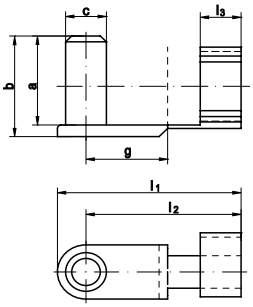
nominal size = drilling ∅
*not standardized, reference values

Dimensions	6	8	10	12	16	20*
g	12/24	16/32	20/40	24/48	32/64	40
a_1	12	16	20	24	32	40
a_2	12	16	20	24	32	40
b_1	6	8	10	12	16	20
d_2	M 6	M 8	M 10	M 12	M 16	M 20
d_3	10	14	18	20	26	34
l_1	31/43	42/58	52/72	62/86	72/101	105
l_2	24/36	32/48	40/60	48/72	64/96	80

Dimensions in stock:
Steel/Steel coated: pg. 409

Article 88752

Spring flap bolts ("ES bolts")
for fork joints ➔ DIN 71752



c x g = nominal size

Dimensions	6x12	6x24	8x16	8x32	10x20	10x40
c	6	6	8	8	10	10
a	14	14	19	19	23	23
b	16	16	21.5	21.5	26	26
l_1	28	40	37	52	45	65
l_2	23	35	30	46	38	58
l_3	6.5	6.5	8	8	10	10

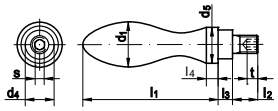
Dimensions	12x24	12x48	16x32	16x64	20x40	
c	12	12	16	16	20	
a	28	28	34	34	44	
b	31	31	38	38	47	
l_1	53	78	73	103	98	
l_2	45	69	62	92	81	
l_3	12	12	16	16	19	

Dimensions in stock:
Steel/Steel coated: pg. 410

Grips

DIN 98

Rotatable ball handles
type E = with threaded shank and hexagon socket

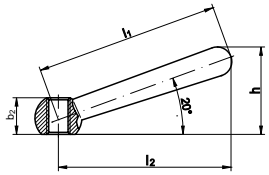


Dimensions	M 6	M 8	M 10	M 12	M 16
d_1	16	20	25	32	36
d_4	10	13	16	20	22
d_5	14	18	21	26	29
l_1	49	61	75	96	106
l_2	11	13	14	21	26
l_3	5.5	6	8	10.5	11
l_4	5	6	6.5	8	9
s	3	4	5	6	8
t	3.5	5	6	8	10

Dimensions in stock:
Steel/Steel coated: pg. 70

DIN 99

Tapered handles
with handle bracket via thread
type N = tilted handle

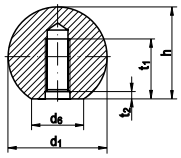


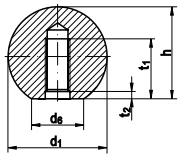
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20	M 24
l_1	50	63	80	100	125	160	200
b_2	9.5	12.5	15	19	25	31	4
h	24	30.5	38	47	59.5	75.7	97
l_2	38	60	76	95	119	152	190
l_2	48	60	76	95	119	152	190

Dimensions in stock:
Steel/Steel coated: pg. 70 | Stainless steel: pg. 460

DIN 319

Ball knobs





type C = with thread
type E = with threaded bush

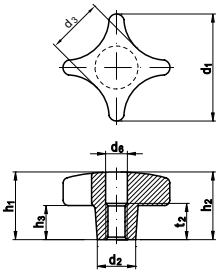
Dimensions	M 4	M 5	M 6	M 8	M 10	M 12
d_1	16	20	25	32	40	50
d_6	8	12	15	18	22	28
t_3	6	7.5	9	12	15	18
h	15	18	22.5	29	37	46
t_1	6	7.5	9	12	15	18
t_2	1.2	1.6	2.0	2.5	3	3

Dimensions in stock:
Non-ferrous materials: pg. 618

Grips

DIN 6335

Palm grips
type D = with continuous thread

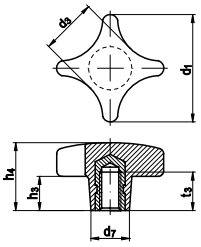


Dimensions	M 6	M 8	M 10	M 12	M 16	M 20
d_1	32	40	50	63	80	100
d_2	12	14	18	20	25	32
d_3	18	21	25	32	40	48
d_6	6.4	8.4	10.5	13	17	21
h_1	21	26	34	42	52	65
h_3	10	14	20	25	30	38
t_2	10	13	16	20	20	25

Dimensions in stock:
Steel/Steel coated: pg. 310

DIN 6335

Palm grips
type K = with threaded bush



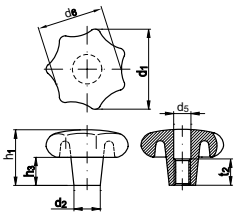
Dimensions	M 5	M 6	M 8	M 10	M 12	M 16	M 20*
d_1	25	32	40	50	63	80	100
d_3	15	18	21	25	32	40	50
d_7	12	14	18	22	26	35	34
h_3	8	10	13	20	25	30	38
h_4	16	20	25	32	40	50	65
$t_{3\ min.}$	9.5	12	14	18	22	30	30

*not standardized, reference values

Dimensions in stock:
Non-ferrous materials: pg. 639

DIN 6336

Star grips
type D = with continuous thread



Dimensions	M 6	M 8	M 8*	M 10	M 10*	M 12	M 12*	M 16
d_1	32	40	50	50	63	63	80	80
d_2	12	14	18	18	20	20	25	25
d_5	6.4	8.4	8.4	10.5	10.5	13	13	17
d_6	26	34	42	42	52	52	64	64
h_1	21	26	32	34	40	42	50	52
h_3	10	13	18	17	20	21	25	25
t_2	10	13	16	16	20	20	20	20

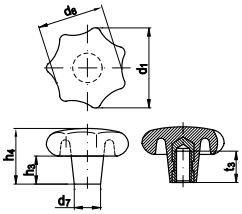
*not standardized, reference values

Dimensions in stock:
Steel/Steel coated: pg. 310

Grips

DIN 6336

Star grips
type K = with threaded bush



Dimensions	M 4	M 5	M 6	M 6*	M 8	M 8*
d_1	20	25	32	40	40	50
d_6	16	20	26	34	34	42
d_7	10	12	14	18	18	21
h_3	7	8	10	13	13	17
h_4	13	16	20	25	25	32
$t_{3\ min.}$	6.5	9.5	12	16	14	18

Dimensions	M 10	M 10*	M 12	M 12*	M 16	
d_1	50	63	63	80	80	
d_6	42	52	52	64	64	
d_7	22	26	26	36	35	
h_3	17	21	21	25	25	
h_4	32	40	40	48	50	
$t_{3\ min.}$	18	25	22	27	30	

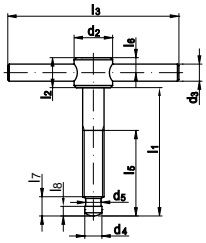
*not standardized, reference values

Dimensions in stock:
Non-ferrous materials: pg. 639

Tommy screws/Tommy nuts

DIN 6304

Tommy screws with fixed clamping bolt
type E = without thrust pad



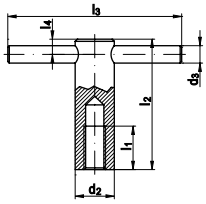
Dimensions	M 6	M 8	M 10	M 12	M 16	M 20
l_1	40/50	50/60	60/70	70/80	75/90/100	75/90/100
d_2	12	14	18	20	24	30
d_3	5	6	8	10	12	16
d_4	4.5	6	8	8	12	15.5
d_5	4	5.4	7.2	7.2	11	14.4
l_2	10	12	14	18	20	28
l_3	50	60	80	100	120	140
l_5	30/40	35/45	40/50	50/60	55/70/90	55/70/90
l_6	5	5	7	9	10	14
l_7	6	7.5	9	10	12	14
l_8	2.5	3	4.5	4.5	5	5.5

thrust pads ➔ DIN 6311

Dimensions in stock:
Steel/Steel coated: pg. 306

DIN 6305

Tommy nuts with fixed clamping bolt



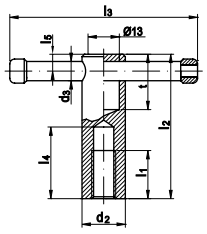
Dimensions	M 10	M 12	M 16	M 20
d_2	18	20	24	30
d_3	8	10	12	16
l_1	25	25	35	40
l_2	60	70	85	95
l_3	80	100	120	140
l_4	7	9	11	14

Dimensions in stock:
Steel/Steel coated: pg. 307

Tommy screws/Tommy nuts

DIN 6307

Tommy nuts with movable clamping bolt

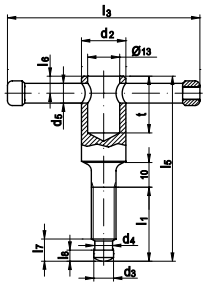


Dimensions	M 10	M 12	M 16	M 20
d_2	18	20	24	30
d_3	8	10	12	16
l_1	25	25	35	40
l_2	60	70	85	95
l_3	80	100	120	140
l_4	30	35	45	50
l_5	7	9	11	14
t	23	26	28	34

Dimensions in stock:
Steel/Steel coated: pg. 307

DIN 6306

Tommy screw with movable clamping bolt
type D = without thrust pad



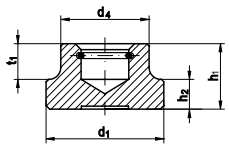
thrust pads ➔ DIN 6311

Dimensions	M 10	M 12	M 16	M 20
l_1	40/50	50/60	55/70/90	55/70/90
d_2	18	20	24	30
d_3	8	8	12	15.5
d_4	7.2	7.2	11	14.4
d_5	8	10	13	16
l_3	80	100	120	140
l_5	72/82	85/95	95/110/130	100/115/135
l_6	7	9	10	14
l_7	9	10	12	14
l_8	4.5	4.5	5	5.5
t	23	26	28	34

Dimensions in stock:
Steel/Steel coated: pg. 307

DIN 6311

Thrust pads
type S = with snap ring



Dimensions	12	16	20
b	0.7	1	1
d_4	10	12	15
h_1	7	9	11
h_2	2.5	4	5
t_1	4	5	6
snap ring[1]	5.1x0.6x2.5	7.0x0.8x2.5	8[1]
grub screw[2]	M 6	M 8	M 10

Dimensions	25	32	40
b	1	1.2	1.8
d_4	18	22	28
h_1	13	15	16
h_2	6	7	9
t_1	7	7.5	8
snap ring[1]	8[1]	12[1]	16[1]
grub screw[2]	M 12	M 16	M 20

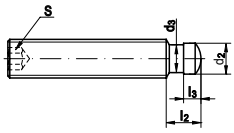
[1]Snap rings – acc. to DIN 7993
[2]for grub screws acc. to DIN 6332

Dimensions in stock:
Steel/Steel coated: pg. 307

Tommy screws/Tommy nuts

DIN 6332

Grub screws with thrust point
type IS = with hexagon socket



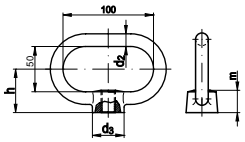
thrust pads ➔ DIN 6311

Dimensions	M 6	M 8	M 10	M 12	M 16	M 20
s	3	4	5	6	8	10
d_2	4.5	6	8	8	12	15.5
d_3	4	5.4	7.2	7.2	11	14.4
l_2	6	7.5	9	10	12	14
l_3	2.5	3	4.5	4.5	5	5.5

Dimensions in stock:
Steel/Steel coated: pg. 310

DIN 28129

Clamp nuts (lifting nuts)



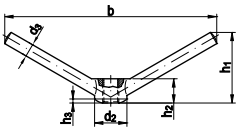
for container const. acc. to AD Regulation, TÜV accepted

Dimensions	M 16	M 20	M 24	M 27
d_2	14	16	18	20
d_3	35	40	45	50
h	48	50	55	58
m	25	28	32	35

Dimensions in stock:
Steel/Steel coated: pg. 408

DIN 80701

Butterfly nuts

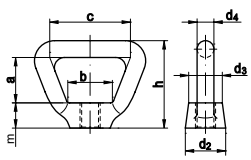


Dimensions	M 16	M 20	M 24
b	200	240	280
d_2	30	40	50
d_3	12	16	20
h_1	65	75	90
h_2	20	25	32
h_3	4	5	5

Dimensions in stock:
Non-ferrous materials: pg. 644

DIN 80704

Bow nuts



*not standardized, reference values

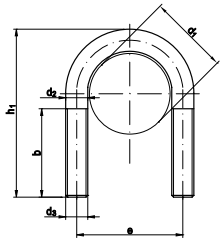
Dimensions	M 6*	M 8*	M 10*	M 12	M 16	M 20	M 22*	M 24
a	15	20	25	27	29	32	32	36
b	14	18	23	27	32	36	36	45
c	25	32	42	48	56	64	64	75
d_2	14	18	23	24	30	36	36	45
d_3	11.5	15	18	20	24	28	28	36
d_4	5	6.5	8	10	12	13	13	14
h	28	36	50	52	59	66	66	75
m	8	10	12	15	18	21	21	25

Dimensions in stock:
Stainless steel: pg. 592 | Non-ferrous materials: pg. 644

Stirup bolts

DIN 3570

Steel strap
type A = double-sided fixing thread



Dimensions	23*	30	38	46	52
for pipe nominal width	15	20	25	32	40
d_1	20 to 21	25 to 26.9	30 to 33.7	38 to 42.4	44.5 to 48.3
b^1	30	40	40	50	50
d_2	10	10	10	10	10
d_3	M 10	M 10	M 10	M 10	M 10
e	33	40	48	56	62
$h_1{}^1$	60	70	76	86	92

Dimensions	64	82	94	120	148
for pipe nominal width	50	65	80	100	125
d_1	57 to 60.3	76.1	88.9	108 to 114.3	133 to 139.7
b^1	50	50	50	60	60
d_2	12	12	12	16	16
d_3	M 12	M 12	M 12	M 16	M 16
e	76	94	106	136	164
$h_1{}^1$	109	125	138	171	191

Dimensions	176	228	282	332	530
for pipe nominal width	150	200	250	300	500
d_1	159 to 168.3	216 to 219.1	267 to 273	318 to 323.9	508 to 521
b^1	60	70	70	70	70
d_2	16	20	20	20	24
d_3	M 16	M 20	M 20	M 20	M 24
e	192	248	302	352	554
$h_1{}^1$	217	283	334	385	589

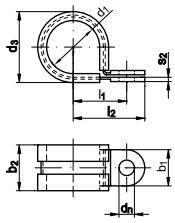
*not standardized, reference values
[1]are minimum dimensions and apply for a sheet thickness of 10 mm

Dimensions in stock:
Steel/Steel coated: pg. 235 | Stainless steel: pg. 528

Hose clamps/pipe clamps

DIN 3016

Fastening clamps
type D1 = with rubber profile



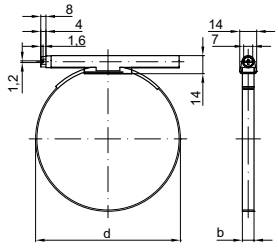
Dimensions (d_1)	4 to 20	4 to 25	5 to 14	15 to 45	10 to 25
b_1	9	12	15	15	20
b_2	13	15	19	19	25
d_n	4.3	5.3	6.4	6.4	8.4
d_3	d1 + 5.2	d1 + 5.8	d1 + 7.4	d1 + 7.4	d1 + 9
l_1	d1/2 + 4.7	d1/2 + 6.8	d1/2 + 9.7	d1/2 + 9.7	d1/2 + 12.5
l_2	d1/2 + 9.2	d1/2 + 13	d1/2 + 17.2	d1/2 + 17.2	d1/2 + 22.5

Dimensions in stock:
Steel/Steel coated: pg. 233

Hose clamps/pipe clamps

DIN 3017

Hose clamps with worm gear drive
type A



Dimensions	8-12	10-16	12-22	16-27	16- 27	20-32	20-32
b	9	9	9	9	12	9	12

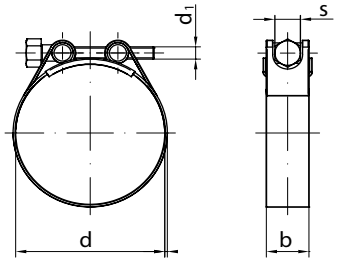
Dimensions	25-40	25-40	30-45	30-45	35-50	35-50	40-60
b	9	12	9	12	9	12	9

Dimensions	40-60	50-70	50-70	60-80	60-80	70-90	70-90
b	12	9	12	9	12	9	12

Dimensions	80-100	80-100	90-110	90-110	100-120	110-130	120-140
b	9	12	9	12	12	12	12

Dimensions	130-150	140-160	150-170	160-180	170-190		
b	12	12	12	12	12		

Hose clamps with hinge bolts
type C1



Dimensions	17-19	19-21	21-23	23-25	25-27	27-29	29-31
b	18	18	18	18	18	18	18
d_1	M 6	M 6	M 6	M 6	M 6	M 6	M 6
s	8	8	8	8	8	8	8

Dimensions	31-34	34-37	37-40	40-43	43-47	47-51	51-55
b	18	18	18	18	20	20	20
d_1	M 6	M 6	M 6	M 6	M 6	M 6	M 6
s	8	8	8	8	10	10	10

Dimensions	55-59	59-63	63-68	68- 73	73-79	79-85	85-91
b	20	20	20	25	25	25	25
d_1	M 6	M 6	M 6	M 8	M 8	M 8	M 8
s	10	10	10	13	13	13	13

Dimensions	91-97	97-104	104-112	112-121	121-130	130-140	140-150
b	25	25	25	25	25	30	30
d_1	M 8	M 8	M 8	M 8	M 8	M 8	M 10
s	13	13	13	13	13	13	16

Dimensions	150-162	162-174	174-187	187-200	200-213	213-226	226-239
b	30	30	30	30	30	30	30
d_1	M 10	M 10	M 10	M 10	M 10	M 10	M 10
s	16	16	16	16	16	16	16

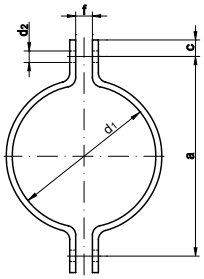
Dimensions	239-252						
b	30						
d_1	M 10						
s	16						

Dimensions in stock:
Steel/Steel coated: 234, 528

Hose clamps/pipe clamps

DIN 3567

Pipe clamps
type A = equal sided



Dimensions	22	27	34	43	45	49
nominal diameter	15	20/¾"	25/1"	32/1¼"	40	40/1½"
a	59	66	72	82	84	88
c	15	15	15	15	15	15
d_2	11.5	11.5	11.5	11.5	11.5	11.5
f	7	7	7	7	7	7
flat steel	30x5	30x5	30x5	30x5	30x5	30x5
screw	M 10x30	M 10x30	M 10x30	M 10x30	M 10x30	M 10x30

Dimensions	57	61	77	89	108	115
nominal diameter	50	50/2"	65/2½"	80/3"	100	100/4"
a	104	108	122	136	172	178
c	18	18	18	18	24	24
d_2	14	14	14	14	18	18
f	9	9	9	9	11	11
flat steel	40x6	40x6	40x6	40x6	50x8	50x8
screw	M 12x35	M 12x35	M 12x35	M 12x35	M 16x45	M 16x45

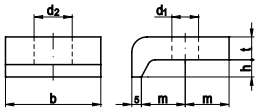
Dimensions	140	169	220	273	305	
nominal diameter	125	150	200	250	300	
a	204	232	284	348	379	
c	24	24	24	30	30	
d_2	18	18	18	23	23	
f	11	11	11	14	14	
flat steel	50x8	50x8	50x8	60x8	60x8	
screw	M 16x45	M 16x45	M 16x45	M 20x50	M 20x50	

d^1 = nominal size

Dimensions in stock:
Steel/Steel coated: pg. 235 | Stainless steel: pg. 528

DIN 3568

Clamping plates for pipe fixings for double-T carriers



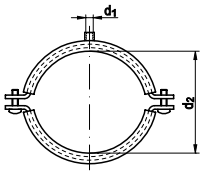
h = nominal size

Dimensions	10	12	14	16	18	20
b	60	60	60	60	60	60
d_1	18	18	18	18	18	18
d_2	24	24	24	24	24	24
m	35	35	35	35	35	35
t	18	18	18	18	18	18
for screw	M 16	M 16	M 16	M 16	M 16	M 16

Dimensions in stock:
Steel/Steel coated: pg. 235

DIN 4109

screwed tubular clamps with noise protection inlay ~DIN 4109



temperature resistance: -50 °C to +110 °C
*connection to stepped thread

Dimensions	1/2"	3/4"	1"	1 1/4"
clamping range	20 - 23	25 - 28	32 - 35	40 - 43
d_1*	M 8/M 10	M 8/M 10	M 8/M 10	M 8/M 10
d_2	1.25 x 20	1.25 x 20	1.25 x 20	1.25 x 20
payload	1.2 kN	1.2 kN	1.2 kN	1.2 kN

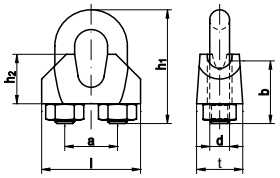
Dimensions	1 1/2"	1 1/2"	2"	
clamping range	48 - 53	57 - 61	60 - 64	
d_1*	M 8/M 10	M 8/M 10	M 8/M 10	
d_2	1.25 x 20	1.25 x 20	1.25 x 20	
payload	1.2 KN	1.2 kN	1.5 kN	

Dimensions in stock:
Steel/Steel coated: pg. 286

Rope clips/thimble ropes/shackles

~DIN 741

U-bolt wire-rope grips
with two hexagon nuts

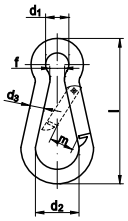


Dimensions	1/8"	3/16"	1/4"	5/16"	7/16"	1/2"	5/8"
for rope ∅	3	5	6.5	8	11	13	16
d_1*	M 4	M 5	M 5	M 6	M 8	M 10	M 12
h_1	20	24	28	34	44	55	63
b	12	13	15	19	22	30	33
a	9	11	13	16	20	24	29
h_2	10	10	11	15	18	21	26
l	21	23	26	30	36	42	50
t	10	11	12	14	19	23	26

Dimensions in stock:
Steel/Steel coated: pg. 111 | Stainless steel: pg. 475

DIN 5299

Snap hooks
type C = pear-shaped

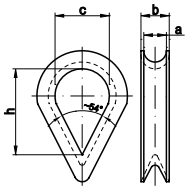


Dimensions	40x4	50x5	60x6	70x7	80x8	100x10
d_1	6	8	9	10	12	15
$d_{2\ min.}$	14	15	17	19	23	29
d_3	4	5	6	7	8	10
f	4	4	6	8	8	10
m	8	7	8	8	10	11
loadability	100 kg	120 kg	120 kg	180 kg	230 kg	350 kg

Dimensions in stock:
Steel/Steel coated: pg. 306

DIN 6899

thimbles for fibre ropes
type BF = medium heavy, with deep groove



Dimensions	BF 3.5	BF 4	BF 5	BF 6
a	4	5	6	7
h	21	23	25	26
c	13	14	16	18

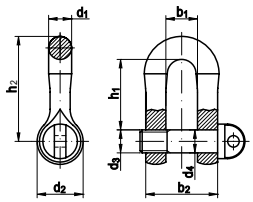
Dimensions	BF 7	BF 9	BF 11	
a	8	10	12	
h	32	38	45	
c	20	24	26	

Dimensions in stock:
Steel/Steel coated: pg. 316

Rope clips/thimble ropes/shackles

DIN 82101

D-shackles
type A = forged



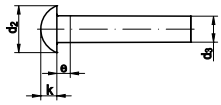
Dimensions	0.16	0.25	0.4	0.6	1
b_1	8	11	14	17	21
b_2	18	25	30	37	47
d_1	5	7	8	10	13
d_2	12	16	20	24	32
d_3	M 6	M 8	M 10	M 12	M 16
d_4	6	8	10	12	16
h_1	18	24	30	36	49
h_2	27	36	45	54	72
wrench size	-	-	-	-	24

Dimensions in stock:
Steel/Steel coated: pg. 410

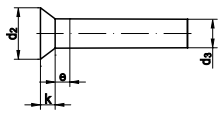
Rivets

DIN 660, 661

Rivets



DIN 660 = round head rivets



DIN 661 = countersunk head rivets

Dimensions	1	2	2.5	3	4
d_2	1.8	3.5	4.4	5.2	7
$d_{3\ min.}$	0.93	1.87	2.37	2.87	3.87
$e_{max.}$	0.5	1	1.25	1.5	2
$k_{DIN\ 660}$	0.6	1.2	1.5	1.8	2.4
$k_{DIN\ 661}$	0.5	1	1.2	1.4	2

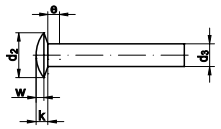
Dimensions	5	6	7	8	10*
d_2	8.8	10.5	12.2	14	16
$d_{3\ min.}$	4.82	5.82	6.82	7.76	9.4
$e_{max.}$	2.5	3	3.5	4	5
$k_{DIN\ 660}$	3	3.6	4.2	4.8	6.5
$k_{DIN\ 661}$	2.5	3	3.5	4	-

*dimensions acc. to DIN 124

Dimensions in stock:
Steel/Steel coated: pg. 109 | Stainless steel: pg. 474, pg. 475 | Non-ferrous materials: pg. 621, pg. 622

DIN 662

Mushroom head rivets



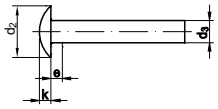
Dimensions	2	2.5	3	3.5	4	5	6
d_2	4	5	6	7	8	10	12
d_3	1.87	2.37	2.87	3.37	3.87	4.82	5.82
$e_{max.}$	1	1.25	1.5	1.75	2	2.5	3
k	1	1.2	1.5	1.8	2.1	2.5	3
w	0.7	0.8	1	1.2	1.4	1.7	2

Dimensions in stock:
Steel/Steel coated: pg. 110 | Non-ferrous materials: pg. 623

Rivets

DIN 674

Flat round head rivets

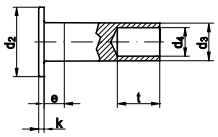


Dimensions	3	4	5
d_2	6.8	9	11.2
$d_{3\ min.}$	2.87	3.87	4.82
$e_{max.}$	1.5	2	2.5
k	1.5	2	2.5

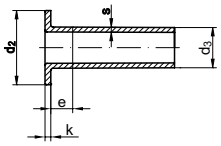
Dimensions in stock:
Steel/Steel coated: pg. 110

DIN 7338

Rivets for brake linings and clutch linings



type B = semi-tubular rivet



type C = tubular rivet

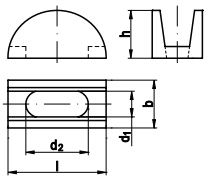
Dimensions	3	4	5	6	8
d_2	5.5	7.5	9.5	11.5	15.5
$d_{3\ min.}$	2.85	3.8	4.8	5.8	7.75
d_4	1.7	2.7	3.5	4.2	6
$e_{max.}$	1.5	2	2.5	3	4
k	0.8	1	1	1.2	1.2
$r_{max.}$	0.2	0.3	0.3	0.4	0.4
s	0.5	0.5	0.6	0.75	1.2

Dimensions in stock:
Steel/Steel coated: pg. 641

Cam segments and washers for diagonal-pull tensions

Article 88060

Cam segments
for tension anchors for diagonal-pull tension



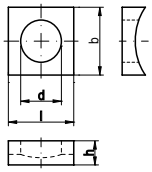
usage only with adjusting washers article 88061

Dimensions	M 12	M 20	M 24
l	59	64	77
b	30	41	53
d_1	17	22	31
d_2	30	45	47
h	30	32	31

Dimensions in stock:
Fixing systems: pg. 687

Article 88061

Adjusting washer for cam segments
for tension anchors for diagonal-pull tension



usage only with cam segments article 88060

Dimensions	M 12	M 16	M 20	M 24	M 27	M 30
l	30	30	41	51	51	51
b	30	30	41	51	51	51
d	13	17	22	25	28	31
h	10	10	11	18	18	18

Dimensions in stock:
Fixing systems: pg. 688

Hooks

Article 88135

Hooks
s-hooks typ 45



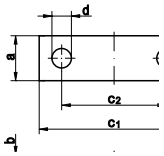
Dimensions	2.3	2.8	3.8	4.7	5.8	6.8	7.6
w	8	9	11	16	18	20	22
L	25	30	40	50	60	70	80
F max.	5 kg	7.5 kg	10 kg	15 kg	30 kg	50 kg	70 kg

Dimensions in stock:
Steel/Steel coated: pg. 434

Axle holders

DIN 15058

Axle holder (for lifting appliances)



a x b = nominal size

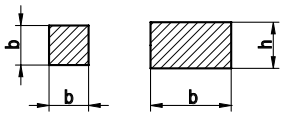
Dimensions	20x5	25x6	30x8	40x10	50x12
c_1	60	80	100	140	190
c_2	36	50	70	100	140
d	9	11	13	17	21
for axis ∅	16 - 25	25 - 40	40 - 63	63 - 100	100 - 160

Dimensions in stock:
Steel/Steel coated: pg. 407

Parallel keys

DIN 6880

Key steel
length 1000 mm



Dimensions	3x3	4x4	5x5	6x6	8x7	10x8	12x8	14x9
for DIN 6884								
for DIN 6885/6886	3x3	4x4	5x5	6x6	8x7	10x8	12x8	14x4
for DIN 6887							8x7	
for DIN 6889						10x4	12x4	14x4.5

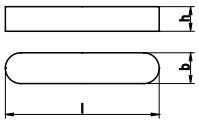
Dimensions	16x10	18x11	20x12	22x14	25x14	28x16	32x18	36x20
for DIN 6884		18x7	20x8	22x9	25x9	28x10	32x11	36x12
for DIN 6885/6886	16x10	18x11	20x12	22x14	25x14	28x16	32x18	36x20
for DIN 6887								
for DIN 6889		18x5						

Dimensions in stock:
Steel/Steel coated: pg. 314

Parallel keys

DIN 6885

Parallel keys, deep pattern
type A = round-ended without holes



b = nominal size

Dimensions	2	3	4	5	6	8	10
h	2	3	4	5	6	8	10
for shafts ∅ d/d_1	6 – 8	8 –10	10 – 12	12 – 17	17 – 22	22 – 30	30 – 38

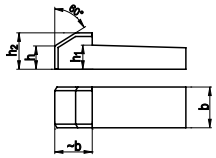
Dimensions	12	14	16	18	20	22	25
h	12	14	16	18	20	22	25
for shafts ∅ d/d_1	38 – 44	44 – 50	50 – 58	58 – 65	65 – 75	75 – 85	85 – 95

Dimensions	28	32	36	40	45		
h	28	32	36	40	45		
for shafts ∅ d/d_1	95 – 110	110 – 130	130 – 150	150 – 170	170 – 200		

Dimensions in stock:
Steel/Steel coated: pg. 315 | Stainless steel: pg. 555

DIN 6887

Taper keys with gib head



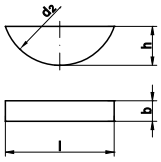
b = nominal size

Dimensions	6	8	10	12	14	16
h	6	7	8	8	9	10
h_1	6.1	7.2	8.2	8.2	9.2	10.2
h_2	10	11	12	12	14	16
for shafts ∅ d/d_1	17 – 22	22 – 30	30 – 38	38 – 44	44 – 50	50 – 58

Dimensions in stock:
Steel/Steel coated: pg. 316

DIN 6888

Woodruff keys



b = nominal size
[1)] for use as a parallel key DIN 6887
[2)] for use when determining the position

Dimensions	2	2	2.5	3	3	3	4
h	2.6	3.7	3.7	3.7	5	6.5	5
d_2	7	10	10	10	13	16	13
l	6.76	9.66	9.66	9.66	12.65	15.72	12.65
for shafts ∅ d/d_1 [1)]	6 – 8	6 – 8	8 – 10	8 – 10	8 – 10	–	10 – 12
for shafts ∅ d/d_1	10 – 12	10 – 12	12 – 17	12 – 17	12 – 17	12 – 17	17 – 22

Dimensions	4	4	5	5	5	6	6
h	6.5	7.5	6.5	7.5	9	7.5	9
d_2	16	19	16	19	22	19	22
l							
for shafts ∅ d/d_1 [1)]	10 – 12	–	12 – 17	12 – 17	–	17 – 22	17 – 22
for shafts ∅ d/d_1 [2)]	17 – 12	17 – 22	22 – 30	22 – 30	22 – 30	30 – 38	30 – 38

Dimensions	6	8	8	8	10	10	10
h	11	9	11	13	11	13	16
d_2	28	22	28	32	28	32	45
l	27.35	21.63	27.35	31.43	27.35	31.43	43.08
for shafts ∅ d/d_1 [1)]	–	22 – 30	22 – 30	–	30 – 38	30 – 38	–
for shafts ∅ d/d_1 [2)]	30 – 38	>38	>38	>38	>38	>38	>38

Dimensions in stock:
Steel/Steel coated: pg. 316



Product information: Head shapes, drive features and ends of externally threaded fasteners

Table 1: Drive features

Slot	Hexalobular socket	Triangle
Phillips cross recess H	Triple square socket	Hexalobular
Pozidriv cross recess Z	12 point socket	Triple square
Supradriv cross recess	Torque set	Hexagon with slot
Cross recess combi H+	Tri – Wing	Theft resistant drives
Cross recess combi Z+	Hi torque	
Square socket	Hexagon	
Hexagon socket	Square	

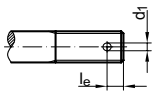
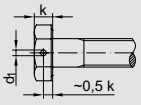
Table 2: Ends of externaly threaded fasteners

Description	New name	Old name	Picture (example)	Description example
Short dog point with rounded end (DIN 962)	Ak	Ak		ISO* – M 12 x 50 – Ak – 8.8
Chamfered end (ISO 4753)	CH	K		ISO* – M 12 x 50 – CH – 8.8
Cone point (ISO 4753)	CN	–		ISO* – M 12 x 50 – CN – 8.8
Cup point (ISO 4753)	CP	Rs		ISO* – M 12 x 50 – CP – 8.8
Flat point (ISO 4753)	FL	Ks		ISO* – M 12 x 50 – FL – 8.8
Long dog point (ISO 4753)	LD	Za		ISO* – M 12 x 50 – LD – 8.8
Pilot point with truncated cone (ISO 4753)	PC	PC		ISO* – M 12 x 50 – PC – 8.8
Short dog point with truncoated cone (DIN 962)	Asp	Asp		ISO* – M 12 x 50 – Asp – 8.8

Description	New name	Old name	Picture (example)	Description example
Pilot point, flat (ISO 4753)	PF	PF		ISO* – M 12 x 50 – PF – 8.8
Thread undercut (DIN 76-1)	Ri	Ri		ISO* – M 12 x 50 – Ri – 8.8
as-rolled end (ISO 4753)	RL	Ko		ISO* – M 12 x 50 – RL – 8.8
rounded end (ISO 4753)	RN	L		ISO* – M 12 x 50 – RN – 8.8
Split pin hole (DIN 962/34803)	S	S		ISO* – M 12 x 50 – S – 8.8
Scrape point (ISO 4753)	SC	Sb		ISO* – M 12 x 50 – SC – 8.8
Short dog point (ISO 4753)	SD	Ka		ISO* – M 12 x 50 – SD –8.8
Wire hole (DIN 962/34803)	SK	SK		ISO* – M 12 x 50 – SK – 8.8
Truncated cone point (ISO 4753)	TC	Sp		ISO* – M 12 x 50 – TC – 8.8

*product standard

Table 3: Dimensions for split pin holes (S) and wire holes (SK)

Gewinde-Ø M		3	4	5	6	7	8	10	12	14	16	18	20	22	24	27	30	33	36
Pin holes S* (DIN 962/34803)	d_1	0.8	1	1.2	1.6	1.6	2	2.5	3.2	3.2	4	4	4	5	5	5	6.3	6.3	6.3
	l_e	2	2.2	2.6	3.3	3.3	4	5	6	6.5	7	7.7	7.7	8.7	10	10	11.3	11.3	12.5
Wire holes SK* (DIN 962/34803)	d_1	–	1.2	1.2	1.6	1.6	2	2	2	2	3	3	3	3	3	3	3	4	4
	*Position tolerance t = 2 IT13 (PK A), 2 IT14 (PK B), 2 IT15 (PK C)																		
Dimensions for slots**	~	0.8	1	1.2	1.6	1.6	2	2.5	3	3	4	**position of the slot at the corners of the hexagon or square is optional							

Product information: Disc springs DIN 2093

According to DIN 2092 and DIN 2093, disc springs are cone-shaped discs which can be stressed along the axis. Compared to other spring-types, these fully concentric bending springs with symmetric-rotation cross section have low spring deflection with high spring power. The characteristic line of the disc springs depends to a large extent on the relationship of the free spring height [h0] to the flatness and disc thickness [t]. This is why the characteristic line is split into three series.

Each series is split into three groups according to their thickness. These groups differentiate themselves from each other with various production processes.

Table 1: Names

D_e	Outside diameter
D_i	Inside diameter
t	Thickness of the individual disc
l_0	Construction height of the unstressed individual disc
s	Spring deflection of the individual disc
h_0	Information parameter (spring deflection up to the height for disc springs without bearing surface); $h_0 = l_0 - t$
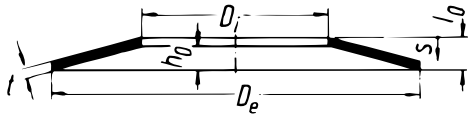


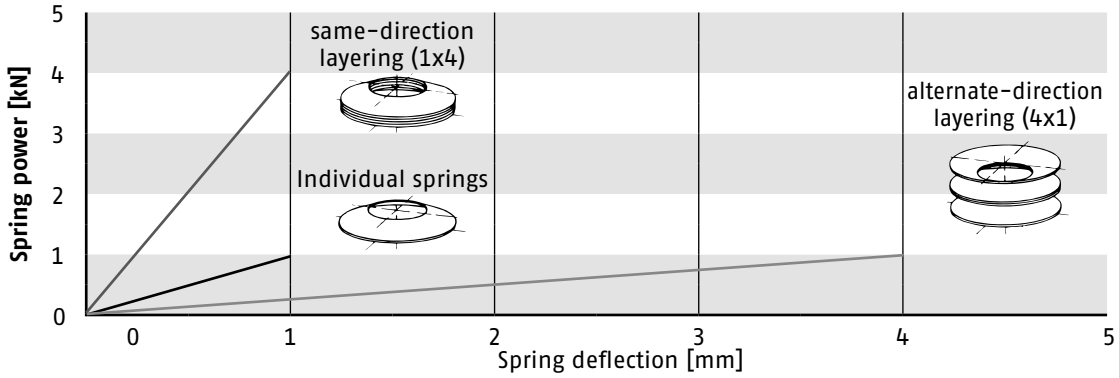
Table 2: Difference according to series

Series	Factor from $\frac{D_e}{t}$	Factor from $\frac{h_0}{t}$
A	~ 18	~ 0.4
B	~ 28	~0.75
C	~ 40	~ 1.3

Table 3: Difference according to groups

Group	Thickness t	Manufacture/Processing
1	< 1.25 mm	cold-formed (punched), edges rounded, without bearing surface,
2	1.25 – 6 mm	cold-formed finely cut, D_e and D_i turned, without bearing surface
3	> 6 mm	cold or hot-formed, turned on all sides, with bearing surface,

Same-direction layering, alternate-direction layering or a combination of the two let disc springs be formed into columns with freely configurable characteristics. If, for example, a spring column is made up of four alternate-direction individual disc springs with the same geometry, the spring deflection increases fourfold in comparison with individual springs. With a spring packet of four same-direction layering springs, the spring power increases fourfold in relation to individual springs.



The materials named in EN 10083, EN 10089 and EN 10132-4 are permitted for disc springs
(standard is the material 1.8159 – 51 CrV 4),
C steels, however, only for Group 1 disc springs.
The disc springs are delivered hardened and tempered with a hardness of 42-52 HRC (Group 1 disc springs: 425 HV10 to 510 HV10).
The standard surface is coated in phosphate and oiled. Many additional surfaces for increasing corrosion-resistance, like for example, mechanical galvanization or zinc-flake coating, are possible.

Stainless steels are also used as disc spring material. Compared with the standard, these special springs can have different, but always lower spring power.

Disc springs DIN 2093 – in stock

- from Cr/CrV alloy stainless steels
  (REYHER catalogue ➔ green pages pg. 227)
- from stainless steels 1.4310/ 1.4568
  (REYHER catalogue ➔ blue pages pg. 525)

Disc springs – available on request

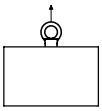
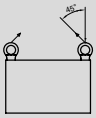
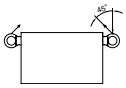
- Disc springs in special dimensions
- Disc springs in special materials
- Disc springs with special coatings

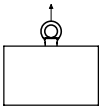
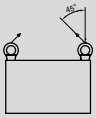
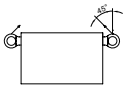
Taking into account a high safety factor in relation to the minimum breaking strength, the lifting eye bolts according to DIN 580 and the lifting eye nuts according to DIN 582 have the load-bearing capacities as indicated in table 1. The load-bearing capacity values apply for steel C15 E and stainless steel A2/A4 without restriction in a temperature range of -20 °C to +200 °C.

Lifting eye bolts and lifting eye nuts are considered load-carrying equipment according to the 2006/42/EC Machinery Directive and are subject to CE labelling. Furthermore, they must show a specification of the minimum carrying force (WLL) as well as the specification of the material if required for safe usage. Furthermore, a marking of an arrow must be present (picture 1), so that the user can tell that the WLL specified on the product only applies in the direction of the axis.

Subsequent colour-coded marking of lifting eye bolts and nuts (especially in red) is to be avoided so that they are not mistaken for high-strength suspension points.

Table 1

Thread (d_1)		M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30
capacity axial (WLL) for each eye bolt kg		75	140	230	340	490	700	850	1200	1400	1800	2100	3200
capacity up to max.45° for each eye bolt kg		55	100	170	240	350	500	600	860	1000	1290	1500	2300
capacity under max. 90° for each eye bolt kg		38	70	115	170	245	350	425	600	700	900	1050	1600

Thread (d_1)		M 33	M 36	M 39	M 42	M 45	M 48	M 52	M 56	M 64	M 72x6	M 80x6	M 100x6
capacity axial (WLL) for each eye bolt kg		3200	4600	4600	6300	6300	8600	8600	11500	16000	20000	28000	40000
capacity up to max.45° for each eye bolt kg		2300	3300	3300	4500	4500	6100	6100	8200	11000	14000	20000	29000
capacity under max. 90° for each eye bolt kg		1600	2300	2300	3150	3150	4300	4300	5750	8000	10000	14000	20000

User information for lifting eye bolts DIN 580

Eye bolts conforming to DIN 580 are primarily intended as permanent attachments on equipment such as motors, control cabinets, gear boxes, etc. for their transportation. When used as temporary attachments on objects to be transported such as large tools, the next largest thread size should be used.

The safety working load values in table 1 are based on the following conditions:

- the eye bolt is firmly screwed down
- the collar sits evenly on the contact surface
- the material of the equipment is capable of accommodating the stresses induced without any deformation liable to impair safety
- tapped holes have a threaded length sufficient to ensure that the eye bolt shank is fully engaged and the collar fully seated.

The capacity specified in the second line of table 1 applies up to an inclination angle of 45°. The capacity specified in the third line applies for laterally inserted eye bolts (eye nuts) up to an inclination angle of 45° in all directions in regard to the eye level. Lateral pull shall not be applied (see picture 2).

Before being used, lifting eye bolts should be checked for correct seating and apparent damage (e.g. corrosion, deformation).

Deformed eye bolts should be discarded and not be reinstalled.

In eye bolt assemblies with clearance hole, a nut (no thin nut) should be screwed on completely and firmly.

In case of sufficient thread length of the bolt, the additional use of a washer is recommended.

Product information: Lifting eye bolts and lifting eye nuts

User information for lifting eye nuts DIN 582

Eye nuts conforming to DIN 582 are primarily intended as permanent attachments on equipment such as e.g. control cabinets etc. for their transportation. When used as temporary attachments on objects to be transported, the next largest thread size should be used.

The safety working load values in table 1 are based on the following conditions:

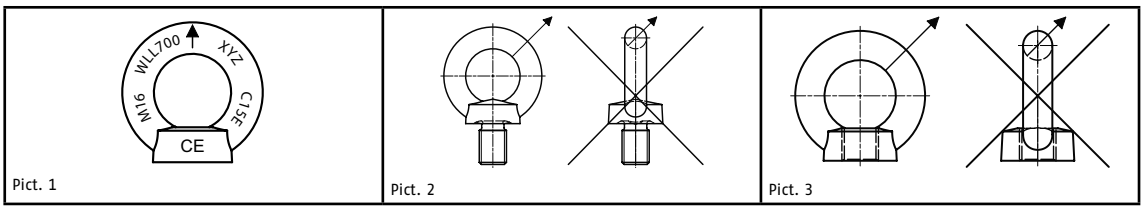
- the eye bolt is firmly screwed down
- the collar sits evenly on the contact surface
- the length of the bolt thread is sufficient and the material is capable of accommodating the stresses induced without any deformation liable to impair safety,
- the material of the bolt on which the eye nut is to screwed is of adequate strength.

In eye nut assemblies with clearance hole a washer should be used.

The capacity specified in the second line of table 1 applies up to an inclination angle of 45°, the capacity specified in the third line applies for laterally inserted eye nuts (eye bolts) up to an inclination angle of 45° in all directions in regard to the ring level. Lateral pull shall not be applied (see picture 3).

Before being used, lifting eye nuts should be checked for correct seating and apparent damage (e.g. corrosion, deformation).

Deformed eye nuts should be discarded and not be reinstalled.

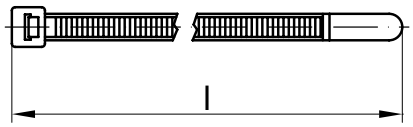


Pict. 1 Pict. 2 Pict. 3

Cable ties

Articles R 82500 – 82515

Cable ties, inside serration
T-series



fire protection
UL94 V2

cable tie width = nominal size

T = R 82500
T- HS = R 82505
T- W = R 82510
T- HR = R 82515

Dimensions	2.3	2.5			2.8		3.3
l	83	100	145	205	240	330	260
Bundle ∅ max.	16	22	35	55	65	95	65
min. tensile strength (N)	80	80	80	80	110	110	180
Type	T18S	T18R T18R-HS T18R-W T 18R-HR	T18I T 18I-HS T18I-W	T18L T18L-HS T18L-W	T25L	T25LL-W	T30LR T30LR-HS T30LR-W

Dimensions	3.5				4		
l	150	198	290	300	175		
Bundle ∅ max.	35	50	80	75	40		
min. tensile strength (N)	135	135	135	135	180		
Type	T30R T30R-HS T30R-W T 30R-HR	T30L T30L-HS T30L-W	T30LL T30LL-W	T30LL-HS	T40R T40R-HS T40R-W		

Dimensions	4.6				4.7		
l	150	200	300	390	210	300	390
Bundle ∅ max.	35	50	81	110	55	85	110
min. tensile strength (N)	225	225	225	225	355	355	355
Type	T50S T50S-HS T50S-W	T 50R-HR	T 50I-HS	T50L T 50L-HR	T80R T80R-HS T80R-W	T80I T80I-W	T80L-HS T80L-W

Dimensions	7.6					8.8	
l	225	365	387	460	760	820	
Bundle ∅ max.	55	100	100	125	225	245	
min. tensile strength (N)	535	670	535	535	535	780	
Type	T120S T120S-W	T150R T150R-HS T150R-W	T120R T120R-HS T120R-W T120R-HR	T120M	T120L T120L-HS T120L-W	T150L-W	

Dimensions	8.9						
l	530	530	820	1095			
Bundle ∅ max.	150	150	245	330			
min. tensile strength (N)	780	780	780	780			
Type	T150M-W	T150M	T150L	T150XL			

Version	T
Material	Polyamide 6.6 (PA66), HF = halogen free
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C, short-term up to 105 °C (500 h)

Version	T- HS
Material	Polyamide 6.6 heat stabilised (PA66HS), HF = halogen free
Colour	NA = natural/BK = black
Properties	Operating temperature: -40 °C to 105 °C

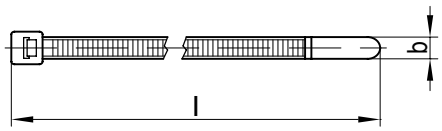
Version	T- W
Material	Polyamide 6.6 UV stabilised (PA66W), HF = halogen free
Colour	BK = black
Properties	Operating temperature: -40 °C to 85 °C, short-term up to 105 °C (500 h)

Version	T- HR
Material	Polyamide 4.6 High-temperature resistance (PA46), HF = halogen free
Colour	NA = natural
Properties	Operating temperature: -40 °C to 150 °C, short-term up to bis 195 °C (500 h)

Cable ties

Article R 82520

Cable ties, inside serration
LK-series



Dimensions	2.3	13.2
l	120	535
Bundle ∅ max	28	150
Tensile strength (N)	135	1.115
Type	LK2	LK5

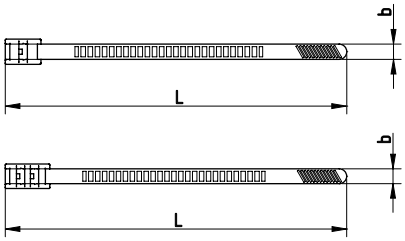
Version	PA66
Material	Polyamide 6.6, HF = halogen free, RoHS conform
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C, short-term up to 105 °C (500 h)

fire protection UL94 V2

cable tie width = nominal size

Article R 82516

Cable ties, outside serrated,
with flat head
Robusto series



Dimension	9.0		
l	180	260	355
Bundle ∅ max	42	62	92
Tensile strength (N)	360	530	530
Type	LPH942	LPH962	LPH992

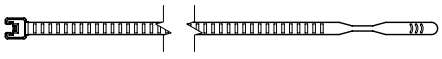
Version	PA11
Material	Polyamide 11, HF = halogen free; RoHS conform
Colour	BK = black
Properties	Operating temperature: -40 °C to 85 °C, short-term up to 105 °C (500 h)

fire protection UL94 HB

cable tie width = nominal size

Article R 82517

Cable ties Q-tie, inside serrated,
with open head and
pre-locking functionality



Dimension	3.6	4.7	7.7
l	160	210	420
Bundle ∅ max	38	50	110
Tensile strength (N)	130	220	530
Type	Q30R	Q50R	Q120R

Version	PA11
Material	Polyamide 6.6, UV-stabilised, HF = halogen free, RoHS conform
Colour	BK = black
Properties	Operating temperature: -40 °C to 85 °C, short-term up to 105 °C (500 h)

fire protection UL94 V2

cable tie width = nominal size

(R = REYHER article numbers)

Cable ties with fixing elements

Article R 82518

2-piece fixing ties for parallel separation



fire protection UL94 HB

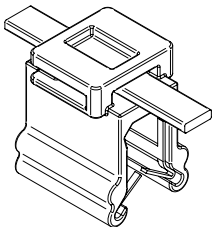
cable tie width = nominal size

Dimensions	4.6	7.6
l	202	390
Bundle ∅ max.	47	105
Tensile strength (N)	225	535
Type	T50RCOUPLER	T120RCOUPLER

Version	Cable tie PA66HIR(S)	Food part PA66HIRHS
Material	Polyamide 6.6. impact resistant	Polyamide 6.6. impact resistant
Colour	BK = black	BK = black
Properties	Operating temperature: -40 °C to 80 °C. short-term up to 105 °C (500 h)	Operating temperature: -40 °C to 105 °C (500 h)

Article R 82521

fixing ties for edges, 2 pieces, edge width 1-3 mm, tie channel top-axial



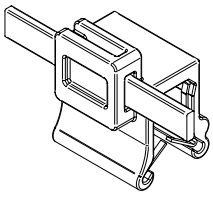
fire protection UL94 V2

Cable tie width	4.6
l	200
Bundle ∅ max	45
Tensile strength (N)	225
Type	T50ROSEC4A-W

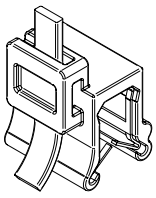
Version	PA66W
Material	Polyamide 6.6, UV-stabilised, HF = halogen free, RoHS conform
Colour	BK = black
Properties	Operating temperature: -40 °C to 85 °C, short-term up to 105 °C (500 h)

Article R 82522

fixing ties for edges, 2 pieces, edge width 1-3 mm



S-A = tie channel lateral-axial



S-Q = tie channel lateral-cross

Cable tie width	3.6 S-Q	4.6 S-Q	4.6 S-A	
l	150	150	150	200
Bundle ∅ max	33	45	31	45
Tensile strength (N)	135	225	225	225
Type	T30REC5A	T50ROSEC5A	T50SOSEC5B	T50ROSEC5B

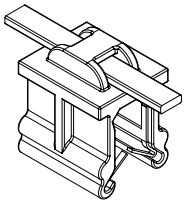
Version	Cable tie PA66HS	Food part PA66HIRHS
Material	Polyamide 6.6, heat stabilised, RoHS conform	Polyamide 6.6, impact resistant, RoHS conform
Colour	BK = black	BK = black
Properties	Operating temperature: -40 °C to 105 °C fire protection UL94 V2	Operating temperature: -40 °C to 105 °C (500 h) fire protection UL94 HB

(R = REYHER article numbers)

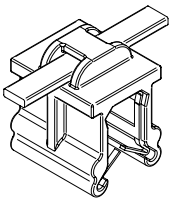
Cable ties with fixing elements

Article R 82523

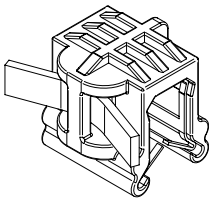
Fixing ties for edges, 2 pieces, edge width 3-6 mm



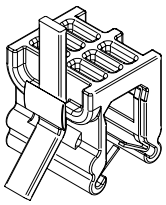
0-A = tie channel top-axis



0-Q = tie channel top-cross



S-A = tie channel lateral-axial



S-Q = tie channel lateral-cross

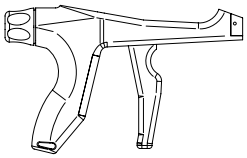
Cable tie width	4.6 0-A	4.6 0-Q		4.6 S-A	4.6 S-Q
l	200	150	200	200	200
Bundle ∅ max	45	35	45	45	45
Tensile strength (N)	225	225	225	225	225
Type	T50ROSEC19	T50SOSEC20	T50ROSEC20	T50ROSEC23	T50ROSEC24

Version	Cable tie PA66HS	Foot part PA66HIRHS
Material	Polyamide 6.6, heat stabilised	Polyamide 6.6, impact resistant
Colour	BK = black	BK = black
Properties	Operating temperature: -40 °C to 105 °C fire protection UL94 V2	Operating temperature: -40 °C to 105 °C (500 h) fire protection UL94 HB

Application tools for cable ties

Article R 82535

Man. application tool E0V7

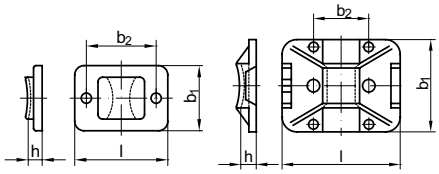


Tie width max.	Tie thickness max.	Weight	Comment
4.8	1.5	280 g	- Manual application tool - Fast and precise application with minimum effort - Convenient and simple tension adjustment - Incl. cutting device - Slip-proof handle - Grip span 90 mm - Housing made of lightweight fibreglass-reinforced plastic

Fixings for cable ties

Article R 82540

**Cable tie mounts,
type TY-G1, self adhesive**



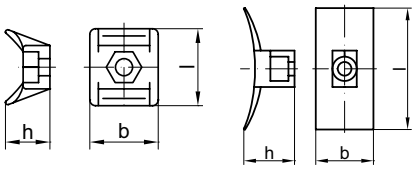
fire protection UL94 V2

Cable tie width	4.0	8.0
l	20	32
b_1	14	25
h	3.7	5.2
b_2	15	15
Fastening-∅	2.2	3.2
Type	TY3G1S	TY8G1S

Version	TY-G1
Material	Polyamide 6.6 (PA66), HF = halogen free, RoHS conform
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C, short-term 105 °C (500 h)
Fastening	self-adhesive and screw mounting

Article R 82543/82546

**cable tie mounts,
type NY/LKC, screw mounting**



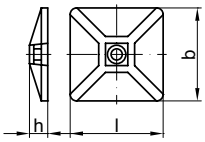
fire protection UL94 V2

Cable tie width	8.0	8.0
l	13.5	25
b	12	17
h	7.8	13.5
Fastening-∅	3.1	5.5
Type	NY3256	LKC

Version	NY und LKC
Material	Polyamide 6.6 (PA66). HF = halogen free
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C. short-term up to 105 °C (500 h)
Fastening	screw mounting

Article R 82550

**Cable tie mounts, type MB-CA,
self adhesive**



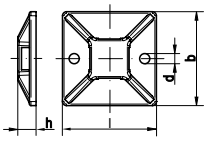
fire protection UL94 V2

Cable tie width	5.4
l	29
b	29
h	5.7
Fastening-∅	4.2
Type	MB4CAS [2)]

Version	PA66
Material	Polyamide 6.6 (PA66). HF = halogen free
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C. short-term up to 105 °C (500 h)
Fastening	self-adhesive

Article R 82553

**Cable tie mounts, type MB-A,
screw mounting and adhesive**



fire protection UL94 V2

Cable tie width	5.4
l	28
b	28
h	4.7
Fastening-∅	4.0
Type	MB4A

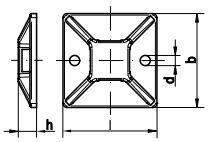
Version	PA66
Material	Polyamide 6.6 (PA66). HF = halogen free
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C. short-term up to 105 °C (500 h)
Fastening	self-adhesive and screw mounting

(R = REYHER article numbers)

Fixings for cable ties

Article R 82554

Cable tie mounts with special glue, SolidTack series



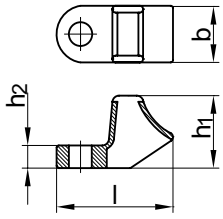
fire protection
UL94 V2

Cable tie width	4.1	5.4
l	19	28
b	19	28
h	3.8	4.7
Fastening-∅	3.1	4
Type	MB3APT	MB4APT

Version	NY und LKC
Material	Polyamide 6.6 (PA66). HF = halogen free
Colour	NA = natural/BK = black
Properties	Operating temperature: -40 °C to 85 °C. short-term up to 105 °C (500 h)
Fastening	self-adhesive with special adhesive (modified acrylate) and screw mounting

Article R 82560

Cable tie mounts, Typ CL8, screw mounting



fire protection
UL94 V2

Cable tie width	8.0
l	27.3
b	12.5
h_1	16.0
h_2	5.0
Fastening-∅	6.5
Type	CL8

Version	CL8
Material	Polyamide 6.6 (PA66). HF = halogen free
Colour	NA = natural
Properties	Operating temperature: -40 °C to 85 °C. short-term up to 105 °C (500 h)
Fastening	screw mounting

1. Standards

The following standards apply for "wire thread inserts for the metric ISO thread"

- DIN 8140-1 dimensions, technical specifications
- DIN 8140-2 helical coil threads for inserts, thread tolerances
- DIN 8140-3 gauges and gauge sizes

These standards apply for ISO metric coarse pitch threads and fine pitch threads.

Details for additional deliverable thread types (BSW/BSF, UNC/UNJC/UNF/UNJF, GAZ, BSP) are available upon request.

2. Field of application/materials/properties

- Initial use: for heavy-duty and long-lasting inside threads partly from metallic and non-metallic materials
- Use during repairs/follow-up work: as a replacement for unusable threads (= damaged/worn).

The particular properties of wire thread inserts are

- reduced inclination for cold welding with screwed fastenings
- mostly constant friction coefficient
- good temperature and corrosion resistance
- with profile B "locking" (➜ 4) additional resistance against independent loosening of the screwed fastenings thanks to increased frictional locking in the thread.

Beyond the standard material in stock "Stainless steel 18.8 (A 2)", wire thread inserts from special materials are deliverable for particular usage requirements ➜ Table 1.

Tabelle 1: Materials for various fields of application

Material	Max. temperature	Options for coatings	Applications
Standard material Stainless steel 18.8 (A 2)	425 °C (short-term) 315 °C (longer periods)	Dry lubrication Cadmium plating Silver plating Zinc plating Tin plating	All standard applications for all materials
AISI 304 (1.4301) AISI 302 (1.4310)			Special use – resistant to acid, rust, high temperatures, non-magnetic
Special stainless steel AISI 304L, 316, 316L, 316Ti, 321	Up to 400 °C over longer periods		
Phosphorous bronze	300 °C (short-term) 250 °C (longer period)	Cadmium plating	Copper parts - resistant to certain electrolytic processes
Inconel x 750 Nc 15 Fe Nba	750 °C (short-term)	Silver plating	Thermal power stations Astronautics Aviation Turbo compressor
Nimonic 90 Nc 20 C 18 Ti	538 °C (longer periods)		

3. Manufacture

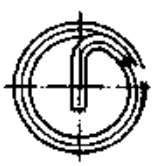
The thread inserts are manufactured from a wire with rhombus-shaped cross-section. After the winding process, they have two threaded profiles, one outside for the insertion into the tool's receiving thread according to DIN 8140-2 and one inside (after insertion) for receiving a screw thread.

4. Types

According to DIN 8140-1, the profiles are differentiated according to:

- Type A = cylindrical shape* for coarse and fine threads.
- Type B = "locking" (like type A, but with centrally positioned, polygon, elastic windings (➜ 2)
  (type B thread inserts are identifiable by their red colour).

*The new generation of the "Type SR" AMECOIL thread inserts is designed in such a way that insertion is now easier and safer, thus increasing productivity.

Type A	Type B
	
	

with engaging tang and groove according to DIN 8140-1 (z.B. AMECOIL)

5. Drive systems for insertion

DIN 8140-1 shows an engaging tang as the drive system, which is to be removed at the groove using a tang breaker after insertion.
AMECOIL thread inserts, for example, have this drive system.

6. Determining the nominal length

The nominal lengths of the threaded inserts to be chosen are,
a) dependent on the tool material and,
b) dependent on the strength class of the screw
(recommended nominal lengths ➜ DIN 8140-1, Table 1).

7. Dimensions/Measuring techniques during acceptance inspection

In the order text, the following dimensions are to be specified (example M 10x15):

- the use/inside thread required after insertion – e.g. M 10
- the chosen nominal length according to DIN 8140-1, Table 1, l_1 – e.g. 15 (= 1.5 d).

In as-delivered condition, only the outside diameter and the number of windings are measurable during acceptance inspection (➔ Table 2) – the nominal length l_1 is first determinable in inserted condition.

Tabelle 2: Dimensions – outside Ø and winding count in as delivered condition

Characteristics		for coarse pitch threads with nominal size use/inside thread														
		M 2	M 2.5	M 3	M 4	M 5	M 6	M 7	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24
Outside-Ø	min.	2.6	3.3	3.8	5.15	6.35	7.6	8.65	9.85	12.1	14.4	16.8	19.0	21.5	23.7	26.3	28.6
	max.	2.8	3.5	4.0	5.35	6.6	7.85	8.9	10.1	12.5	14.8	17.2	19.4	22.0	24.2	26.8	29.1
Drill-Ø	mm	2.1	2.6	3.2	4.2	5.2	6.3	7.3	8.4	10.5	12.5	14.5	16.5	18.75	20.75	22.75	24.75
Winding count AW* at nominal length d/mm	1d = mm	2	2.5	3	4	5	6	7	8	10	12	14	16	18	20	22	24
	AW	2.9	3.5	3.9	3.7	4.3	4.2	5.3	4.7	5.0	5.2	5.6	6.5	5.6	6.3	6.9	6.2
	1.5d = mm	3	3.75	4.5	6	7.5	9	10.5	12	15	18	21	24	27	30	33	36
	AW	4.9	5.9	6.3	6.1	6.9	6.9	8.2	7.4	8.1	8.4	8.8	10.1	9.0	10.0	10.9	10.0
	2d = mm	4	5	6	8	10	12	14	16	20	24	28	32	36	40	44	48
	AW	6.9	8.1	8.7	8.4	9.7	9.6	11.1	10.6	11.2	11.7	12.0	13.8	12.3	13.7	15.1	14.0
(*Tol. –0.25)	2.5d = mm	5	6.25	7.5	10	12.5	15	17.5	20	25	30	35	40	45	–	–	–
	AW	8.9	10.5	11.1	10.9	12.3	12.3	14.3	13.5	14.2	14.7	15.2	17.5	15.5	–	–	–

Characteristics		for fine pitch threads with nominal size use/inside thread										
		M 8x1	M 10x1	M 10x1.25	M 12x1	M 12x1.25	M 14x1.5	M 14x1.25	M 16x1.5	M 20x1.5	M 20x2	M 24x1.5	M 24x2
Outside-Ø	min.	9.85	12.1	12.1	14.4	14.4	16.8	16.8	19.0	23.7	23.7	28.6	28.6
	max.	10.1	12.5	12.5	14.8	14.8	17.2	17.2	19.4	24.2	24.2	29.1	29.1
Drill-Ø	mm	8.3	10.25	10.4	12.3	12.4	14.5	14.4	16.5	20.5	20.5	24.5	24.5
Winding count AW* at nominal length d/mm	1d = mm	8	10	10	12	12	14	8.4 ①	16	20	20	24	24
	AW	6.1	7.6	6.0	9.3	7.4	7.4	(15.2)	8.7	10.7	8.0	12.9	9.6
	1.5d = mm	12	15	15	18	18	21	12.4 ①	24	30	30	36	36
	AW	9.5	12.1	9.7	14.5	11.6	11.6	(18.2)	13.4	16.7	12.5	19.8	15.0
	2d = mm	16	20	20	24	24	28	14.4 ①	32	40	40	48	48
	AW	12.9	16.3	13.1	19.5	15.9	15.7	(19.4)	18.1	22.4	16.8	26.6	20.2
(*Tol. –0.25)	2.5d = mm	20	25	–	–	–	35	16.4 ①	40	① ignition plug threads with special d-dimensions			
	AW	16.5	20.7	–	–	–	19.9	(10.6)	22.9				

Tabelle 3: Overview: Tools, accessories and REYHER article number

Tool/Accessory	REYHER art. no.	
	Coarse pitch thread SR	Fine pitch thread
Thread insert article number	R 88330	R 88331
Drill for tapping hole-Ø	R 88988, R 88989	
Roughing tap	R 88339 from M 18	–
Finish tap	R 88338	R 88338
Assembly tools		
• Multidim. hand fitting tool	–	R 88333 fine
• Mandrel and threaded nose	–	R 88334 fine
• Specific hand fitting tool	R 88333 SR	–
• Threaded mandrel	R 88334 SR	–
• Unidim. hand fitting tool	R 88335 SR from M 18	R 88335 fine ab M 20
Tang breaker	R 88336	
Extractor	R 88337	
Assortment boxes with tools	R 88342, R 88344	

Dimensions/tools in stock:
steel: pg. 561-563

Fitting principle



Drilling



Tapping



Fitting with classic range tool



Fitting with SR range tools



Breaking the engaging tang

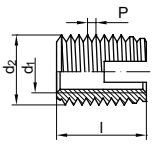


Thread insert fitted

Dimensions for self tapping Ensat® thread inserts

Article 88302

Ensat® 302



d_1 = nominal size

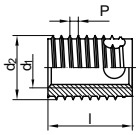
Dimensions	M 2.5	M 3	M 4	M 5	M 6	M 8
d_2	4.5	5	6.5	8	10	12
P	0.5	0.5	0.75	1	1.5	1.5
l	6	6	8	10	14	15
blind hole depth $_{min.}$	8	8	10	13	17	18

Dimensions	M 10	M 12	M 14	M 16	M 18	M 20
d_2	14	16	18	20	22	26
P	1.5	1.5	1.5	1.5	1.5	1.5
l	18	22	24	22	24	27
blind hole depth $_{min.}$	22	26	28	27	29	32

Dimensions	M 22	M 24	M 27	M 30		
d_2	26	30	34	36		
P	1.5	1.5	1.5	1.5		
l	30	30	30	40		
blind hole depth $_{min.}$	36	36	36	46		

Article 88307

Ensat® 307

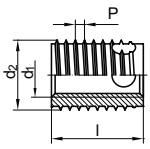


d_1 = nominal size

Dimensions	M 4	M 5	M 6	M 8	M 10	M 12
d_2	6.5	8	10	12	14	16
P	0.8	1	1.25	1.5	1.5	1.75
l	6	7	8	9	10	12
blind hole depth $_{min.}$	8	9	10	11	13	15

Article 88308

Ensat® 308



d_1 = nominal size

Dimensions	M 4	M 5	M 6	M 8	M 10	M 12
d_2	6.5	8	10	12	14	16
P	0.8	1	1.25	1.5	1.5	1.75
l	8	10	12	14	18	22
blind hole depth $_{min.}$	10	13	15	17	22	26

Table 4: Standard values for borehole diameter

Borehole-∅ [mm]		R 88302 (Ensat® 302)				R 88307/R 88308 (Ensat® 307/308)			
Workpieces material	Aluminium alloys Rm= tensile strength [N/mm²]	R_m < 250							
		R_m < 300				R_m < 300			
			R_m < 350				R_m < 350		
				R_m > 350				R_m > 350	
	Brass, bronze, non-ferrous metal			R_m > 350				R_m > 350	
	Cast iron HB = brinell hardness	< 150 HB				< 150 HB			
			< 200 HB				< 200 HB		
				> 200 HB				> 200 HB	
Thread flank overlap approx.		**60%**	**50%**	**40%**	**30%**	**80%**	**70%**	**60%**	**50%**
Ensat® internal thread	M 2/M 2.5	-	4.1	4.2	4.3	-	-	-	-
	M 3	-	4.6	4.7	4.8	4.6	4.7	4.7	4.8
	M 3.5	5.4	5.5	5.6	5.7	5.5	5.6	5.7	-
	M 4	5.9	6.0	6.1	6.2	6.0	6.1	6.2	-
	M 5	7.2	7.3	7.5	7.6	7.4	7.5	7.6	7.7
	M 6	8.8	9.0	9.2	9.4	9.3	9.4	9.5	9.6
	M 8	10.8	11.0	11.2	11.4	11.1	11.2	11.3	11.5
	M 10	12.8	13.0	13.2	13.4	13.1	13.2	13.3	13.5
	M 12	14.8	15.0	15.2	15.4	15.0	15.1	15.2	15.4
	M 14	16.8	17.0	17.2	17.4	17.0	17.1	17.2	17.4
	M 16	18.8	19.0	19.2	19.4	19.0	19.1	19.2	19.4
	M 18	21.0	21.0	21.2	21.4	-	-	-	-
	M 20/M 22	25.0	25.0	25.2	25.4	-	-	-	-
	M 24	29.0	29.2	29.2	29.4	-	-	-	-
	M 27	33.0	33.2	33.2	33.4	-	-	-	-
	M 30	35.0	35.0	35.2	35.4	-	-	-	-

Dimensions in stock:
stainless steel: pg. 603


8 POINT LED

Description of assembly symbols



In case of profiles with closed ends, they cannot be inserted subsequently. Nuts for T-slots must be inserted from the slot end.



Swivel-in nuts can be inserted into the slot at any position. Thus, they are perfectly suitable for assembly in existing structures. However, T-slot and nut for T-slot sizes have to match. The nut can be swiveled into the slot at any position.



Screw-in type nuts can be inserted into the slot at any position. They are also perfectly suitable for assembly in existing structures. Rhomboidal and hammer head nuts have this property. This is also applicable for hammer head bolts. For this type of nuts, inserting aids such as e.g. slot in the T-nut, thread pitch error, marking or plastic tang in the thread are helpful.

Fixing systems



Fixing systems are intended to prevent displacement of nuts before, during and after assembly as well as during disassembly, particularly in case of perpendicular mounting rail. The fixing systems can be combined with the individual assembly types. The nuts can be fixed in the T-slot so as to facilitate assembly.

Versions

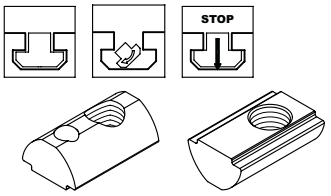
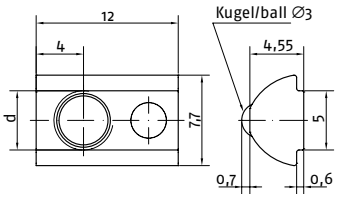
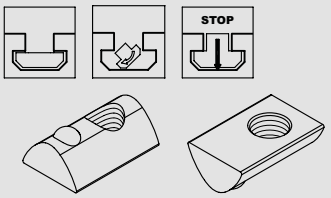
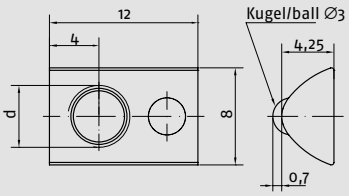
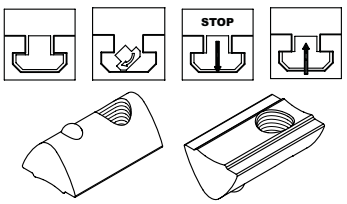
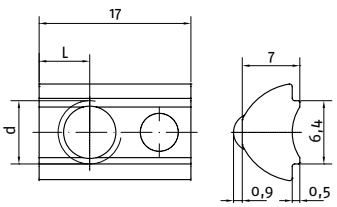
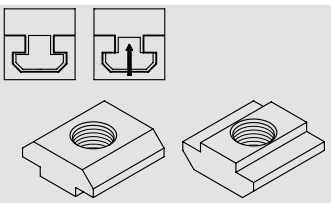
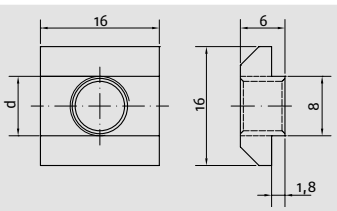


Nuts without guide step for T slots usually show greater allowance for the bolts to be fixed in lateral direction. They are particularly suitable for situations, in which the connecting parts cannot be prepared accurately.

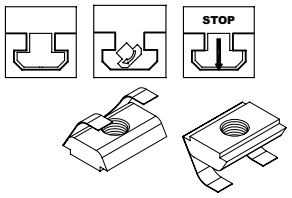
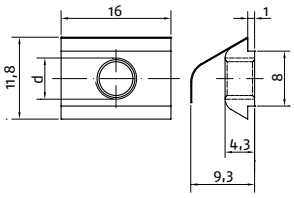
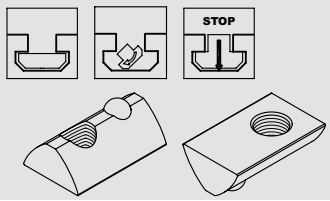
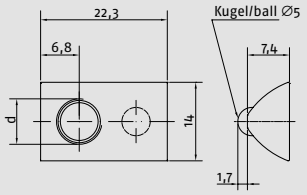
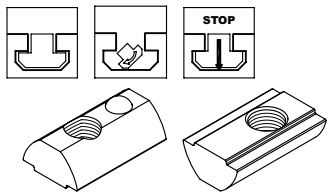
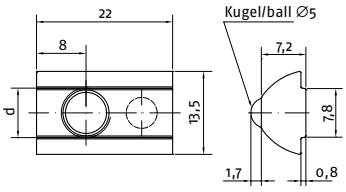
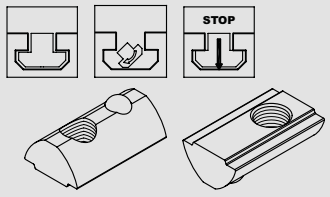
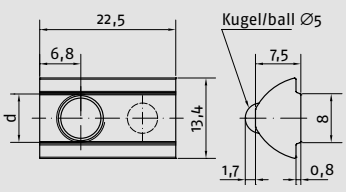
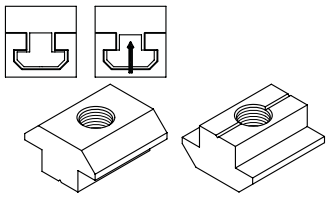
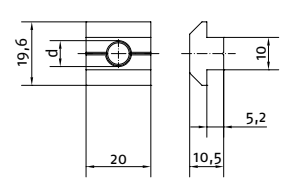
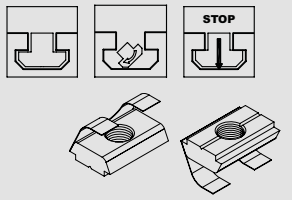
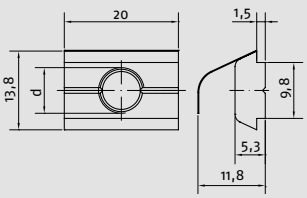
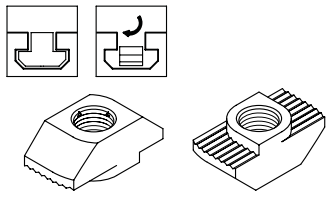
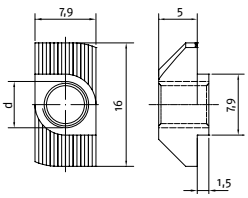
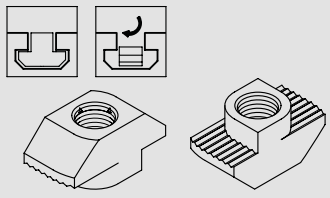
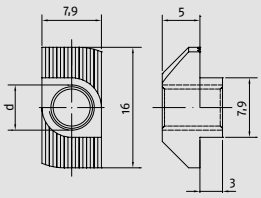
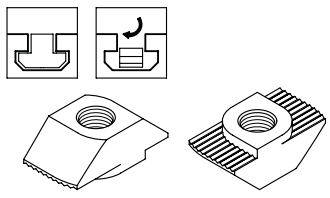
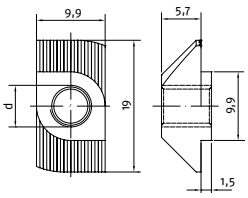


Nuts with guide step for T-slots are centred in the rail by their step. Therefore, these nuts can also be used in rails, in which the lower groove width is considerably larger that the nut width. In addition, the step facilitates assembly and, due to the step, more usable thread leads are available, which helps increase the nut's load bearing value.

Fixing component

Article number	Description		
87010.011	T-slot nuts, (M 4/M 5) profile 5 with guide step and spring-loaded ball, zinc-plated steel		
87010.012	T-slot nuts, (M 4/M 5) profile 5 without guide step and with spring-loaded ball, zinc-plated steel		
87011.013	T-slot nuts, (M 5/M 6) profile 6 with 6 mm external guide step and spring-loaded ball, zinc-plated steel		
87012.011	T-slot nuts, (M 6/M 8) profile 8 with guide step, zinc-plated steel		

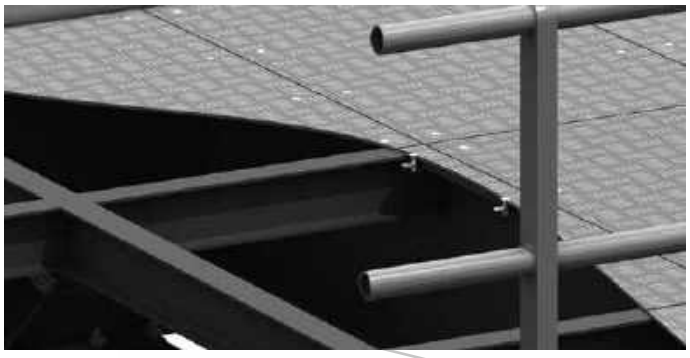
Fixing component

Article number	Description		
87012.015	T-slot nuts, (M 6/M 8) profile 8 with guide step and spring, zinc-plated steel		
87012.012	T-slot nuts, (M 6/M 8) profile 8 without guide step and with spring-loaded ball, zinc-plated steel		
87012.016	T-slot nuts, (M 6/M 8) profile 8 with guide step and spring-loaded ball, zinc-plated steel		
87012.017	T-slot nuts, (M 6/M 8) profile 8 with guide step and spring-loaded ball, zinc-plated steel		
87013.011	T-slot nuts, (M 6/M 8) profile 10 with guide step, zinc-plated steel		
87013.015	T-slot nuts, (M 6/M 8) profile 10 with spring, zinc-plated steel		
87014.011	Hammer head nuts for T-slots, (M 5/M 6) profile 8, low profile, zinc-plated steel		
87014.012	Hammer head nuts for T-slots, (M 5/M 6) profile 8, high profile, steel, zinc-plated		
87015.011	Hammer head nuts for T-slots, (M 6/M 8) profile 10, low profile, zinc-plated steel		

Areas of application

Floor Fixings

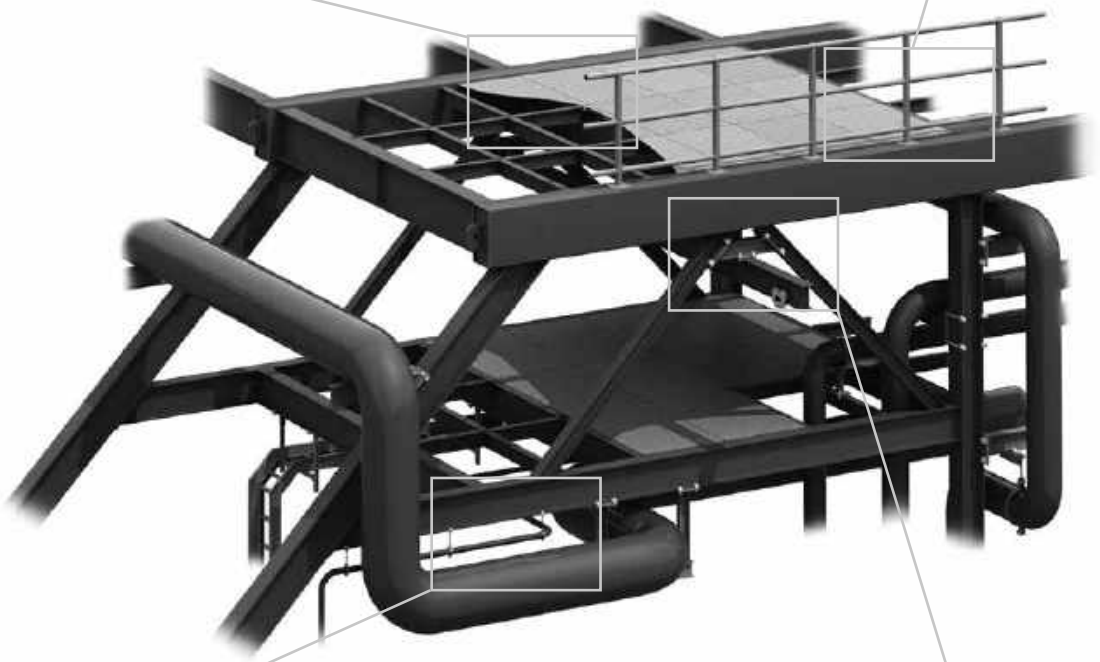
It is now possible to connect steel flooring to supporting steelwork without on-site drilling or welding for a fast, low cost operation. Lindapter fixings allow installation to be carried out safely from above, often by one person, without elevated floors thus significantly reducing costs.



Cavity Fixings

The legendary Hollo-Bolt® and Lindibolt® allow fast, cost-effective connections to SHS and other hollow sections, or conventional steelwork where access is available from one side only. The Hollo-Bolt can be used as a primary structural connection as detailed in the SCI/BCSA publication 'Joints in Steel Construction – Simple Connections'. Plug-like fixing element for hollow profiles, pipes and other constructions which are difficult to access from the rear.







Support Fixings

Lindapter provides easy-to-install solutions for supporting building services from structural or secondary beams, including: the suspension of HVAC equipment, pipe work, fire protection/sprinkler systems, suspended ceilings and electrical equipment.

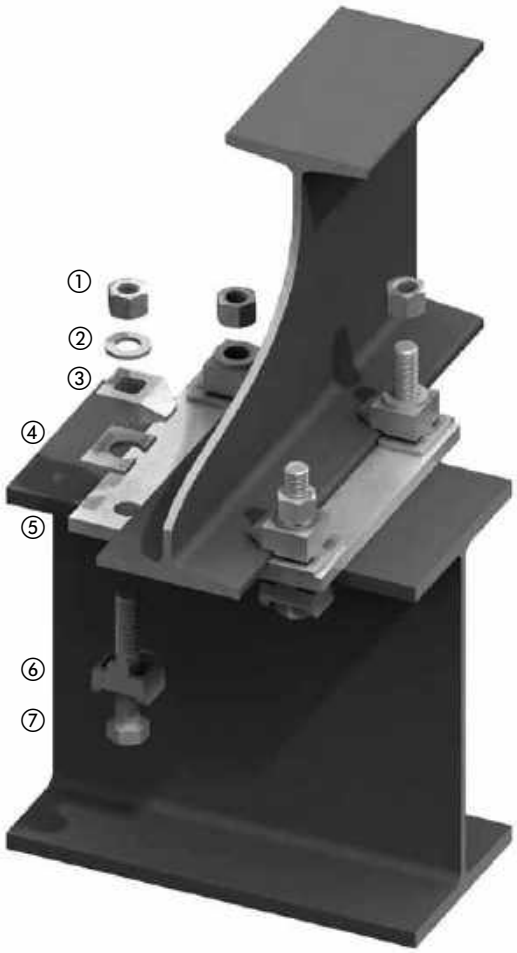


Steelwork Fixings

Lindapter has pioneered the development of steelwork clamping systems for over 75 years, and continues to innovate with their unique and proven concept: eliminate the need to drill or weld, to reduce installation time and labour costs. Lindapter steelwork fixings and girder clamps transform this concept into reality and are ideal for new construction and the refurbishment of existing structures.

Components of a girder clamp

1. **hexagon nuts, property class 8**
   according to DIN 934 (ISO 4032)
2. **washers**
   according to DIN 125 (ISO 7089)
3. **Lindapter clamps**
   Denpending on the application, different clamps may be used, such as e.g.: A, B, BR, AF, LR, LS, D2, or D3.
4. **Packing piece**
   In combination with the above-mentioned clamps these parts increase the tail length to enable the product to sit correctly on the beam.
5. **Location plate**
   This is an essential part of the girder clamp assembly that enables all the components to be located in the correct position. The dimensions depend on the Lindapter type, beams and loads.
6. **Lindapter clamp**
   Same as no. 3.
7. **hexagon bolts, property class 8.8**
   according to DIN 931 (ISO 4014) or DIN 933 (ISO 4017)



Loads

The table beneath shows tensile and frictional load capacities for a standard four-bolt girder clamp using 4 bolts and 8 Lindapter clamps. Lindapter will gladly prepare a customized parts list for any girder clamp connection based on the following customer details:

- Load per connection
- Size and type of both beams
- Flange widths
- Flange thicknesses
- Angle of crossover
- Inclination between beams

Clamps Type A,B, and LR

Screw (Property class 8.8)	Permitted load (5:1 safety factor) Tensile force / 1 screw kN	Tensile force / 2 screw kN	Tightening torque* Nm
M 8	1.0	–	6
M 10	1.5	–	20
M 12	4.5	0.9	69
M 16	8.5	1.7	147
M 20	13.2	2.6	285
M 24	19.0	3.8	491

* Bolts and nuts not lubricated

Clamps Type AF and AAF

Screw ø	Property class	Tensile force / 1 screw (5:1 safety factor) kN	Shearing force / 2 screw (2:1 safety factor) Beam coated kN	Beam zinc-plated kN	Tightening torque Non-lubricated Nm	HV Set* Nm
M 12	8.8	8.5	3.4	3.9	90	–
M 16	8.8	16.0	8.0	10.0	240	–
M 20	8.8	26.3	13.0	16.0	470	–
M 24	8.8	40.0	24.0	30.0	800	–
M 12	10.9	10.0	4.0	5.2	130	100
M 16	10.9	19.5	11.0	12.0	300	250
M 20	10.9	30.0	20.0	25.0	647	450

* K class K1

Note:
All loads are based on actual test data having a safety factor for friction against slip and for tensile against ultimate failure.
Use of lower safety factor is not recommended.

Approvals

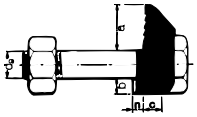
Lindapter girder clamps, types A and B, in sizes from M 12 to M 24 have been approved as construction products via ETA-13/0300.
For use of girder clamps under dynamic load (e.g. crane runways) the applicable calculation provisions according to the approval notification shall be observed.

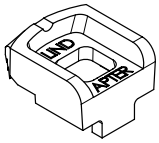
**You can find more detailed information in the Lindapter catalogue.
This can be requested directly from REYHER or downloaded from www.lindapter.de.**

Girder clamps

Type A and B

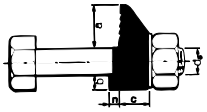
Type A
(R 82001)

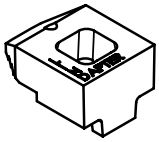




ETA CE

Type B
(R 82002)

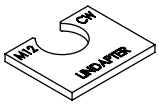




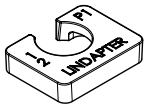
ETA CE

Accessories for type A and B

Type CW
(R 82011)

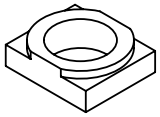


Type P1k/P2k
(R 82012/82013)



Washers for adjustment of different flange thicknesses

Type W
(R 82021)



Recess filling plates for type A

Application examples

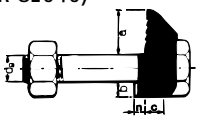


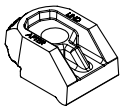


Clamps for static and dynamic loads with adjustment of flange inclinations of up to 8°

Girder clamp type AF

Type AF
(R 82040)

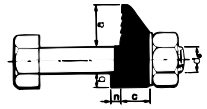




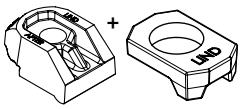
ETA CE

Accessories for type AF

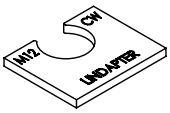
Type AF + AFW
(R 82040 + R 82041)



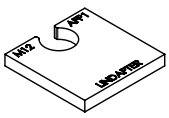
ETA CE



Type AFCW
(R 82042)



Type AFP1/AFP2
(R 82043/82044)



Washers for adjustment of different flange thicknesses

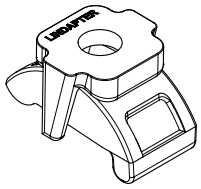
Application examples



Clamps for high friction loads with adjustment of flange inclinations of up to 10°.
Type AF force is preferably combined with type CF.

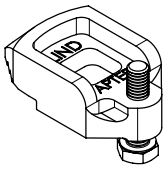
Girder clamp of type LR and D2

Type LR
(R 82010)



ETA CE

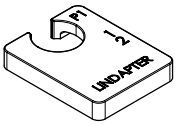
Type D2
(R 82007)



ETA CE

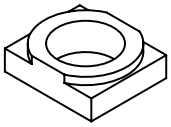
Accessories of type LR and D2

Type P1L/P2L
(R 82015/82016)



Washer for adjustment of different flange thicknesses

Type W
(R 82021)



Recess filling plates for type D2

Application examples



Type LR
Adjustable two-part clamp with large clamping range and anti-turn locking device. Adjustment of flange inclinations of up to 15°.

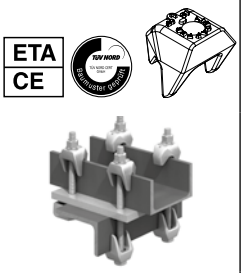
Type D2
Clamp with adjustable screw for large clamping range and anti-turn locking device. Adjustment of flange inclinations of up to 5°.

(R = REYHER article number)

Information on the dimensioning and loads can be found in the Lindapter catalogue.
This can be requested directly from REYHER of downloaded from **www.lindapter.de**.

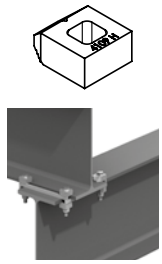
Girder clamps – special clamps

Type CF
(R 82045)



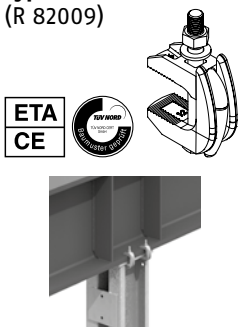
Preferably used in connection with type AF. This type hooks around the flange edge of the profiles.

Type BSNT
(R 82003)



Special clamps for the assembly of girders – flange on flange. The inner plate is replaced by a flat steel frame which is welded onto the clamp.

Type F9
(R 82009)



Flange clamp for parallel girders with identical width. Not suitable for tapered flanges.

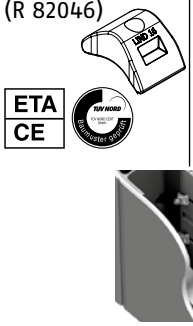
Type BR
(R 82048)



Accessories
Type CW/P1K/P2K

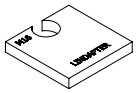
A versatile clamp for beams or rails. The skirt prevents the clamp from rotating during installation. Also suitable for slotted holes. Suitable for flange inclinations of up to 8°.

Type LS
(R 82046)



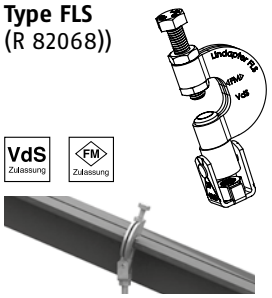
Adjustable single-part clamp with large clamping range. Serrated cams help secure against twisting on the flange. Wide cam for application in slotted holes. Suitable for flange inclinations of up to 10°.

Accessories
Type LSP2
(R 82047)



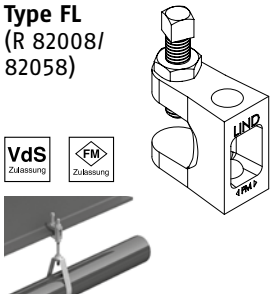
Support fixings

Type FLS
(R 82068))



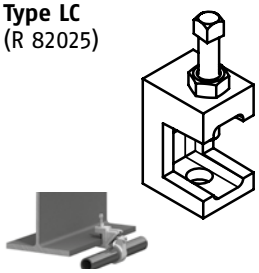
Girder clamp with swivel for use with parallel and inclined flanges.

Type FL
(R 82008/ 82058)



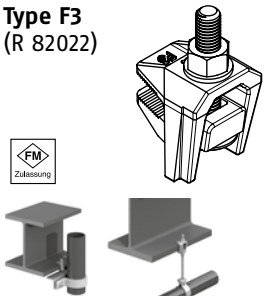
Girder clamp for parallel and inclined flanges with clearance hole or connection thread.

Type LC
(R 82025)



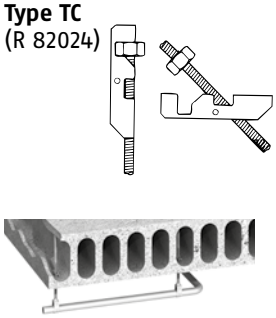
Girder clamp for parallel and inclined flanges with connection thread parallel and perpendicular to the adjusting screw.

Type F3
(R 82022)



Two-part flange clamp with large clamping area for use on parallel flanges.

Type TC
(R 82024)

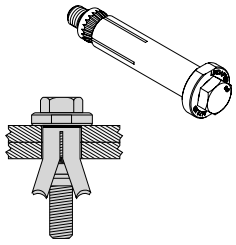


Toggle fixings for mounting to hollow ceilings or steel profiles.

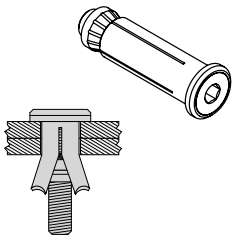
Cavity fixings

Examples of use

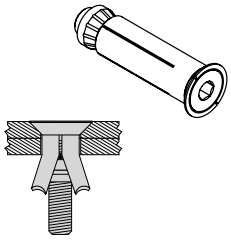
Type HB – Hexagon head
(R 82031)

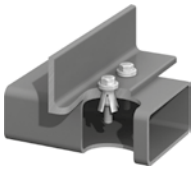


Type HBCSK – Countersunk head
(R 82031)



Type HBFF – Flush Fit
(R 82031)



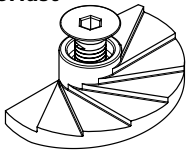


Plug-like connecting element, suitable for hollow sections, tubes and where access is available from one side only.

Floor fixings

Examples of use

Type FF – Floorfast
(R 82019)



Eccentric stepped web of this clamp is suitable for floor fixings. After fixing the Floorfast to the baseplate, the plate can be assembled from the top. The clamp will automatically lock in the right position when torque is applied.
Lloyds' Register Type Approval covers clamping force and vibration.



(R = REYHER article numbers)

When selecting the right plug or anchor for all purposes of use the following important factors need to be taken into consideration – here is some advice to help you make your choice:

1. The building material (anchoring base):
Plugs and anchors can only ever support as much of a load as the anchoring base can handle.
REYHER fixing technology provides the proper technical and commercially economic solution from the catalogues of tried-and-tested proprietary brands FISCHER and UPAT for all intended uses.

The building material needs to be able to take the expansion force of the plug or anchor during frictional contact (➔ Section. 2) without suffering damage. (Approved plugs/anchors for the corresponding building material ➔ Table 6)

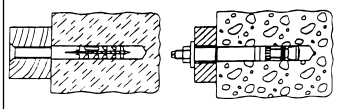
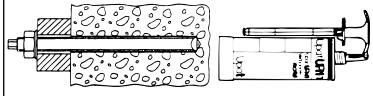
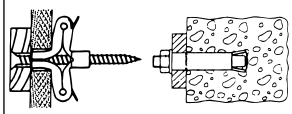
Table 1: Anchoring base acc. to building group

Concrete		Brickwork				Sheets/Panels
Normal concrete B 15 – B 55 C 15/20 – C 50/55	Light-weight concrete LB 10 – LB 55 e.g. Pumice/ expanded/porous (gas) concrete	**Solid brick dense structure** e.g. Solid brick (MZ)/ Sand lime solid bricks (KS)	**Perforated brick dense structure** e.g. Honeycomb brick Sand lime Perforated bricks (KSL)	**Solid brick porous structure** e.g. Porous concrete (G) Light-weight concrete (V)	**Perforated brick porous structure** e.g. Honeycomb brick Light-weight concrete Hbl	Plasterboard/ Chipboard/ Fibreboard/ Fibre cement panels
BN	**BL**	**VD**	**LD**	**VP**	**LP**	**HP**

2. Mode of operation (load anchoring in the building material)

Plugs and anchors are classified into three groups according to their force transmission in the anchoring base.
This type of carrier mechanism is also a decisive factor for the anchoring base, resilience, edge distances and centre distances.

Table 2: Types of force transmission from plugs and anchors in the building ground

Force transmission:	**Frictional contact** (Traction from expansion)	**Adhesive bond** (expansion free)	**Formschluss** (expansion free)
Support mechanism:	Contact pressure of the expansion parts on the wall of the drilling hole = Friction > Tensile loads	Adhesive mortar joins with the anchor and anchoring base	Plug shape/Anchor part shape adapts to the drill hole shape
			
Plug/ Anchor types:	Plastic expansion plug Metal expansion anchor	Compound/Reaction anchor Injection anchor	Cavity plug Zykon anchor

3. The area of use (pressure zone or tension zone?)

When using heavy-duty plugs/anchors in concrete it is decisive to know if the anchoring is to be carried out in the area of a proven pressure zone (consistently non-cracked concrete) or in a tension zone by itself (cracking concrete/concrete inclined to crack).

Tension zones with V-shaped bending cracks form in concrete due to its own weight, superficial loads, e.g. below ceilings. In this area of use, only plugs and anchors suited for crack/tension zones are permitted. Other plugs and anchors are only permitted for proved pressure zones.

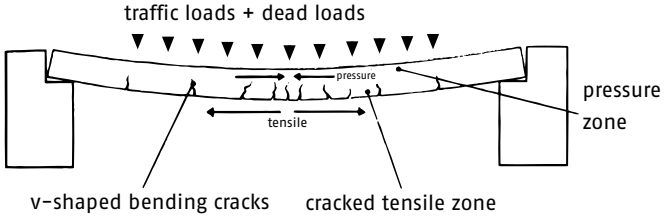
(Tension-zone approved plugs and anchors ➔ Table 5)

4. The anchoring position

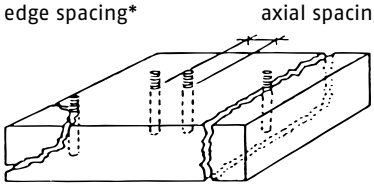
Plugs and anchors with high expansion pressure and heavy loads can lead to cracks or concrete edge failure of the component in any anchoring base, especially with narrow/flat components.

According to their mode of operation, dimensions and load magnitudes, the plugs and anchors have been assigned the following to prevent
undesirable damage from happening:

- Minimum component thicknesses
- Edge spacing
- Axial spacing (with plug pairs/groups)
- Minimum anchoring depths/installation lengths (➔ Section 7) in the relevant technical approvals (➔ Section. 9)

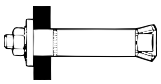


If in doubt, it is recommended to use tension zone approved plugs and anchors.



(* here the breakage due to excessively small distances is shown)

Non-binding typical values:
Edge spacing ≥ 2 x minimum anchoring depth
Axial spacing ≤ 4 x minimum anchoring depth
(the approval details are to be observed on a case-by-case basis)



5. Loading

Alongside the criteria treated in 1–4, the permitted load (F) per plug or anchor is influenced by:

a) Plug/Anchor dimensioning, installation depth, distances
b) Material/Property class of the plug/anchor and the building component into which the loads were inserted
c) Building component thickness, load working point, load type (pull, diagonal pull, pressure, transverse force, bending)
d) Safety factors, details in the approvals

For a) The basis used for the calculation is the size of the actually supporting threaded part (nominal size partially relate to the outer/sheath/drill diameters)

For b) The basis used for the values in approvals/from manufacturers apply to the corresponding form of delivery – e.g. steel, 8.8 or stainless steel A2/A4

6. Corrosion protection

The following guideline applies when specifying the proper protection of fixings against various types of corrosion:
The "Plug/Anchor fixing corrosion system" needs to be at least as fixed, durable and corrosion-resistant in the conditions of use as the parts to be fitted

The task of constructive planning is to determine the necessary corrosion protection measures:
Here the wear-and-tear contingency of the corrosion protection in known operating conditions is to be taken into account until maintenance is due or until the limitation of damages has been reached. Surface or material specifications are to be set accordingly in the article order text.

Table 3: Overview of the surface and material corrosion protection options

Delivery condition/ Corrosion protection	Extent of load/ Protective effect	Area of use	Notes
Zinc plated steel Coating thickness ~ 5–8 mm	I – II = mild – moderate	closed, dry interior rooms	
Hot dip galvanized steel (tZn) Coating thickness ≥ 40 mm	≧ IV = very strong	outdoor area e.g. pole/ crash barrier fixing	only with thicker dimensions due to the necessary play of the thread not a component of the tech. approval
Plastic (Nylon)	> IV = very durable	all atmospheric conditions	only special models on offer
Stainless steel A 4 (Werkst.1.4401/ 1.4571)	> IV = very durable	general atmospheric conditions rear-ventilated facades/roofs seawater/sea air	not for atmospheres containing chlorine (danger of pitting/stress corrosion)
Stainless steel Material 1.4529	> IV = very durable	specifically, indoor swimming pools, tunnels, parking garages, seawater areas	specifically for areas with high chlorine/chloride exposure

7. The clamp length – the installation length

The entire length of ready-to-install complete plugs/anchors for push-through installations is subdivided into:

- **Clamp length** ("use length", "grip strength", "grip thickness") $d_a/t_{fix}/d_p + t_{fix}$
  These need to be chosen as at least as large as the entire thickness of the assembly components to be fastened + non-structural construction material layers (plaster)
  – for stand-off fixing + distance
- **Installation length/Anchoring length h_{ef}**
  This needs to be integrated as a minimum anchoring depth in the fully load-bearing building material section. Load values only apply with the correct installation depth. See assembly instructions.

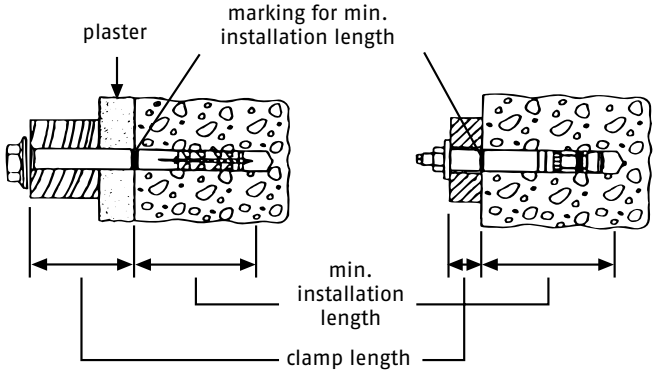
8. The assembly

Plugs and anchors can only achieve their intended task when they are properly installed.

The planner is to instruct the following for installation:
– Type, execution and dimension of the plug/anchor
– Edge and axial spacing on the component
– Special specifications of the technical approval

The grip/use lengths and the installation lengths/depths for the corresponding plugs and anchors are listed in the REYHER catalogue.

The following needs to be taken into consideration for correct assembly:
– The specifications of the planner according to sections 1 – 7
– Drills and drill techniques (➔ 8.1 Table 4)
– Drillhole ∅/depth (➔ Assembly instructions of the manufacturer)
– Borehole cleaning (➔ 8.2)
– Assembly type (➔ 8.3)
– Minimum anchoring depth/clamp length (➔ 7)



8.1 Drilling

Table 4:

Anchoring base		Drill	Drilling technique	Machine	Notes
Concrete	≧ B 25/C20/25	Hammer drills	Rotary/Hammer drilling low hammer count and high hammer power	Drilling hammer	for very large drillhole ∅ or very strong concrete reinforcement, if necessary diamond/core drilling method.
	B 15/C12/15	Stone drills	Impact drilling	Impact drilling machine	–
Solid building materials with dense/fixed structure		Stone drills Hammer drills	Impact drilling Rotary/Hammer drilling	Impact drilling machine Drilling hammer	depending on the component thickness and component stability
Light-weight building material with low strength (Porous/Light-weight concrete)		Stone drills	Rotary drilling without impact	Drilling machine	
			Impact drilling	Impact drilling machine	make sure that the drillhole does not get too large and that the bars of the hole/hollow brick stones don't break off
Perforated bricks		Stone drills	Rotary drilling without impact	Drilling machine	
Panels:	Plasterboard/ Fibre cement	Stone drills			
	Chipboard/ Wood/Wood-fibre boards	Spiral drill for wood			

8.2 Borehole cleaning

Since drill dust can not provide grip or can block the space of an undercut, all loose elements need to be removed from the drillhole before the plugs or anchors are inserted, e.g. by air-cleaning.

8.3 Assembly types (→ Figure 1)

8.3.1 The **push-through installation** is usually easiest for series assemblies and plug pairs as the insert holes of the building component can be used as drill gauges.

8.3.2 With **pre-positioned installation** the drillhole is to be accurately marked out. Internal thread anchors must end flush with the building material surface.

8.3.3 With **stand-off installation** pre-positioned inside thread/compound anchors with sufficiently long projecting lengths are to be used or fastening should be done with a suitably long screw.

8.4 Tightening torques/preloads

The values applicable for the various manufacturers and types are to be specified according to the technical approval by the construction engineer. Typical values can be found on the package or in the package insert.

8.5 Wrench sizes

For ready-to-install plugs and anchors, the wrench sizes are indicated on the package/in the package insert. The wrench sizes standardised for DIN/ISO screws apply to standard screws used for fastening, for example, inside thread anchors.

9. Approvals

For fasteners and anchors whose failure presents a danger to public safety, only plugs and anchors may be used which have been given approval for the use intended. General technical approvals are granted after type testing by the Deutsche Institut für Bautechnik (German Institute for Civil Engineering), Berlin (DIBT). Special approvals for particular uses are granted by the institutes declared responsible for them or the inspection centres of the relevant professional associations.
Plugs and anchors with CE logos require "European Technical Approval" (ETA).

Figure 1

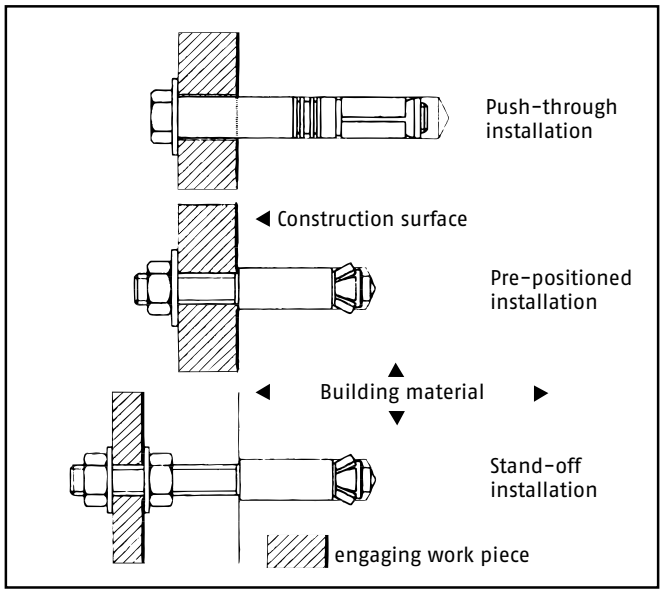
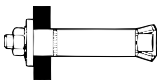


Table 5: Overview of the currently valid types of approval

European Approvals ETA CE	Building materials with the CE symbol may be traded freely in the EU economic zone. One of the requirements for the CE logo on plugs is the prior granting of European Technical Approval =ETA. ETA approvals are classified according to the use of the plug into options 1–6 for cracked concrete and 7–12 for non-cracked concrete. Approvals are granted based on • ETAG 001-1, -2, -3, -4 (future EAD 33-0232), • ETAG 001-5 (future EAD 33-0499), • ETAG 001-06 (future EAD 33-0747),



Overview of alternative plug/anchor systems of various manufacturers

General fixings

REYHER articles	Fischer	Upat	Sormat	TOX	Hilti	Würth	MKT	Mungo	Mea
88554	SX			AS-K/TRI/TRIKA	HUD-1			MQ	FX
88500	S	U		AS-K/TRI/TRIKA		master		MN	F
88520, 88381-383	UX	UVD II	L4 KA/L4 A	AS-K/TRI/TRIKA	HUD-1	W-ZX	UD	MU	MZ/MZK
88507	GB			YTOX	HGN	W-GB			GB
88545	FMD	UMA	4 M	MKD		W-MG		MEF	MSD
88510	M								
88506	M-S								
88521	PA 4								

High performance steel anchors

88583-589	FZA		BLS, SLS, SLKS, ILS		HSC				
88597	FZEA II								
88561/88741	FAZ II	MAX	BoA-X	S-FIX	HST 3			m3	BAZ/BZ
88590-594	FH II		B/S/SK/AB/AS	SZ	HSL-3	W-HAZ-S	SZ	HL	SWA
88582/88764	FBN II	IMC	BoA	S-FN	HSA	W-FA	B	m2	BA/BAN
88715	EXA		BoA	S-KA				m2	BA/BAN
88513	FHY				HKH	W-HD	Easy	MHDA	
88683	TA-M				HAM	W-TM	SL		
88567	EA II			E	HKD	W-ED	E	ESA	SA/SA-N
88546-549	FNA II		T-DN	TDN	HK	W-NA	N	MAN	MDA L
-	FDN				DBZ	W-DN	TDN		
88531	MR								
88688	FPX-I				HPD	W-PA			
-	FBS								

Chemical fixings

88579	FHB II				HVU-TZ				
88686	FIS SB				HIT-HY 200A				
88579	FHB II PF				HVU-TZ				
88687/88534/88720-722	RSB/RGM	UKA 3, ASTA	KLS/KLP	TVA	HVU2/HAS	W-VD	V-P/VMU-A	MVA	VA
88522/88733	FIS V360S	UPM 44		TVM-STV/STP		WIT-VM 250	VMU plus	MIT-SE	MIS-V-V
88522, 88774, 88775	FIS V/VL	UPM 33, UPM 11			HIT-HY 170	WIT-PM 200	VMU		
88522/88772	FIS EM	UPM 55			HIT-RE 500	WIT-PE 500	VME		
88579	FHB dynamik				HAS-TZ	W-VIZ-A	VMZ-A dyn.		

Cavity fixings

88512	HM	UH		MHD	HHD	W-MH		MHD-S	HR/HRM
88509, 88518/519	K/KD/KDH/KM			Kippdübel	EFD/KD	W-FK /W-KD		MF/MK	FKS/FK-KS
88598	GK		LGK	GDK		W-GS Typ K		MFJ	GKD
88598	GKM			GD 37	HSP	W-GS Typ ZD	GKD	MJP	GKDZ

Long-shaft anchors/frame fixings/adjustment fixings

88542, 88782	SXR	UDR			HRD	W-UR		MBR-X	R
88551	SXRL	UDRL			HRD	W-UR			
88504	SXS			SDF	HRD	W-UR		MBR	R
88563-564	FUR			SDF	HRD-U	W-UR			
88503	N	UN	LNS/LNZ	LSN /MSB-LSN	HPS-1	W-ZND	ND	MNA	NP
88515	JUSS			JS-S				MJB	JS
88516	F-S								FR
88516	F-S								FR

Scaffold fixings

88536	S14R0E + GS 12							MGD + MGV	GR + ÖS

Insulation fixings

88514	DHK			DH	HIF	W-IN		MDS,MDP,MIS MIP	DSH

Note: This overview is non-binding. A final testing of applicability and approvals is the responsibility of the user.

Selection aids, dimensioning programmes and product information

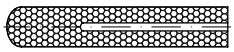
fischer Einfach. Sicher. Upat REYHER

www.fischer.de **www.upat.de** **www.reyher.de**

Chemical fixings

Article 88579 FHB II-P/PF

FISCHER resin capsules FHB II-P/PF
building materials: BN



ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

For use with anchors FHB-A.
Observe the period of hardening according to the package's specifications.
PF= quickly curing

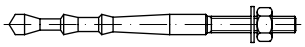
Dimensions	8x60	10x60	10x75	10x95	12x75	12x100	12x120	16x95
d_0	10	10	10	12	12	14	14	16
$h_0 = t$	75	75	90	110	90	115	135	110
h_{ef}	60	60	75	95	75	100	120	95
matching for	FHB II-A L	FHB II-A S	FHB II-A S	FHB II-A L	FHB II-A S	FHB II-A L	FHB II-A L	FHB II-A S

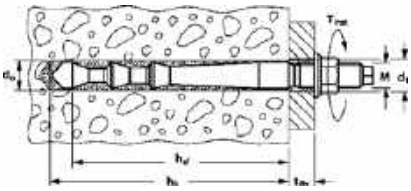
Dimensions	16x125	16x145	16x160	20x170	20x210	24x170	24x210	
d_0	18	18	18	25	25	25	25	
$h_0 = t$	145	165	175	190	235	190	235	
h_{ef}	125	145	160	170	210	170	210	
matching for	FHB II-A L	FHB II-A L	FHB II-A L	FHB II-A S	FHB II-A L	FHB II-A S	FHB-A L	

Dimensions in stock:
Fixing systems: pg. 662

Article 88579 FHB II-A L

FISCHER highbond-anchors FHB II-A L
building materials: BN





ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

Dimensions	M 8x60/10	M 8x60/30	M 8x60/50	M 10x95/10	M 10x95/20
d_0	10	10	10	12	12
$h_0 = t$	75	75	75	110	110
h_{ef}	60	60	60	95	95
t_{fix}	10	30	50	10	20
thread	M 8	M 8	M 8	M 10	M 10
SW	13	13	13	17	17

Dimensions	M 10x95/40	M 10x95/60	M 10x95/100	M 12x100/10	M 12x100/25
d_0	12	12	12	14	14
$h_0 = t$	110	110	110	115	115
h_{ef}	95	95	95	100	100
t_{fix}	40	60	100	10	25
thread	M 10	M 10	M 10	M 12	M 12
SW	17	17	17	19	19

Dimensions	M 12x100/40	M 12x100/60	M 12x100/100	M 12x120/10	M 12x120/25
d_0	14	14	14	14	14
$h_0 = t$	115	115	115	135	135
h_{ef}	100	100	100	120	120
t_{fix}	40	60	100	10	25
thread	M 12	M 12	M 12	M 12	M 12
SW	19	19	19	19	19

Dimensions	M 12x120/40	M 12x120/60	M 12x120/100	M 16x125/30	M 16x125/60
d_0	14	14	14	18	18
$h_0 = t$	135	135	135	140	140
h_{ef}	120	120	120	125	125
t_{fix}	40	60	100	30	60
thread	M 12	M 12	M 12	M 16	M 16
SW	19	19	19	24	24

Dimensions	M 16x125/100	M 16x145/30	M 16x145/60	M 16x145/100	M 16x160/30
d_0	18	18	18	18	18
$h_0 = t$	140	160	160	160	175
h_{ef}	125	145	145	145	160
t_{fix}	100	30	60	100	30
thread	M 16	M 16	M 16	M 16	M 16
SW	24	24	24	24	24

Dimensions	M 16x160/60	M 16x160/100	M 20x210/50	M 20x210/150	M 24x210/50
d_0	18	18	25	25	25
$h_0 = t$	175	175	235	235	235
h_{ef}	160	160	210	210	210
t_{fix}	60	100	50	150	50
thread	M 16	M 16	M 20	M 20	M 24
SW	24	24	30	30	36

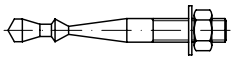
For use with FHB II-P resin capsules

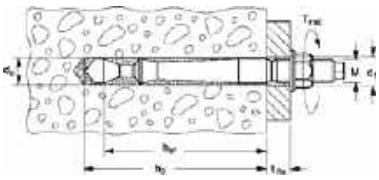
Dimensions in stock:
Fixing systems: pg. 664

Chemical fixings

Article 88579 FHB II-A S

FISCHER highbond-anchors FHB II-A S
building materials: BN





ETA CE | R120 fire resistance classification | Z suitable for tensil zone | BZS shock - approval

Dimensions	M 10x60/10	M 10x60/20	M 10x60/40	M 10x60/60	M 10x60/100	M 10x75/10
d_0	10	10	10	10	10	10
$h_0 = t$	75	75	75	75	75	90
h_{ef}	60	60	60	60	60	75
t_{fix}	10	20	40	60	100	10
M	M 10	M 10	M 10	M 10	M 10	M 10
SW	17	17	17	17	17	17

Dimensions	M 10x75/20	M 10x75/40	M 10x75/60	M 10x75/100	M 12x75/10	M 12x75/25
d_0	10	10	10	10	12	12
$h_0 = t$	90	90	90	90	90	90
h_{ef}	75	75	75	75	75	75
t_{fix}	20	40	60	100	10	25
M	M 10	M10	M 10	M 10	M 12	M 12
SW	17	17	17	17	19	19

Dimensions	M 12x75/40	M 12x75/60	M 12x75/100	M 12x75/165	M 16x95/30	M 16x95/60
d_0	12	12	12	12	16	16
$h_0 = t$	90	90	90	90	110	110
h_{ef}	75	75	75	75	95	95
t_{fix}	40	60	100	165	30	60
M	M 12	M 12	M 12	M 12	M 16	M 16
SW	19	19	19	19	24	24

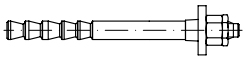
Dimensions	M 16x95/100	M 16x95/165	M 20x170/50	M 24x170/50		
d_0	16	16	25	25		
$h_0 = t$	110	110	190	190		
h_{ef}	95	95	170	170		
t_{fix}	100	165	50	50		
M	M 16	M 16	M 20	M 24		
SW	24	24	30	36		

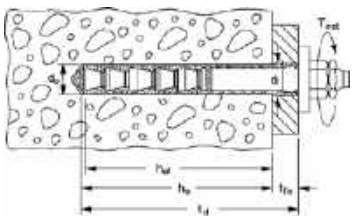
For use with resin capsules FHB II-P and FHB II-PF

Dimensions in stock:
Fixing systems: pg. 664

Article 88579 FHB-A dyn

FISCHER highbond-anchors FHB-A dyn
building materials: BN





dynamic | Z suitable for tensil zone | R120 fire resistance classification

For use with injection mortar FIS HB (REYHER article 88578)

Dimensions	12x100/25	12x100/50	16x125/25
d_0	14	14	18
t_d	130	155	155
$t = h_{ef}$	100	100	125
t_{fix}	8 - 25	8 - 50	10 - 25
d_1	15	15	19
SW	19	19	24

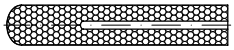
Dimensions	16x125/50	20x170/50	24x220/50
d_0	18	24	28
t_d	180	225	275
$t = h_{ef}$	125	170	220
t_{fix}	10 - 50	12 - 50	14 - 50
d_1	19	25	29
SW	24	30	36

Dimensions in stock:
Fixing systems: pg. 665

Chemical fixings

Article 88687 RSB

FISCHER resin capsules RSB
building materials: BN, VD



ETA CE | R120 fire resistance classification | Z suitable for tensil zone

ETA 12/0258

For use with anchor rods RGM.
Note curing times according to package information!

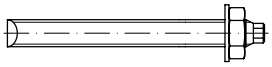
Dimensions	8	10 mini	10	12 mini	12	
d_0	10	12	12/14	14	14/18	
$h_0 = h_{ef}$	80	75/150	90	75/150	110	
matching for RGM	M 8	M 10	M 10	M 12	M 12	
matching for RGM I	-	-	M 8	-	M 10	

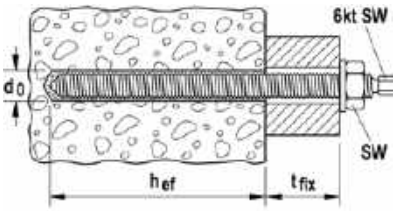
Dimensions	16 mini	16	16 E	20	20 E / 24	30
d_0	18	18/20	24	25	25/28/32	35
$h_0 = h_{ef}$	95/190	125	160	170	210	280
matching for RGM	M 16	M 16	-	M 20	M 20/24	M 30
matching for RGM I	-	M 12	M 16	-	M 20	-

Dimensions in stock:
Fixing systems: pg. 662

Article 88534 RG M

FISCHER anchor rods RG M
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tensil zone

Dimensions	M 8x110	M 8x150	M 10x110	M 12x120	M 12x180	M 20x220	M 10x130
d_0	10	10	12	14	14	25	12
t_{fix}	14	54	15	21/-/-	81/46/6	-/14/-	35/20
h_{ef}	80	80	75	75/-/-	75/110/150	-/170/-	75/90
SW hexagon	5	5	7	8	8	12	7

Dimensions	M 10x165	M 10x190	M 10x220	M 10x250	M 10x350	M 12x160	M 12x220
d_0	12	12	12	12	12	14	14
t_{fix}	70/55	95/80/20	125/110/50	155/140/80	255/240/180	61/26	121/86/46
h_{ef}	75/90	75/90/150	75/90/150	75/90/150	75/90/150	75/110	75/110/150
SW hexagon	7	7	7	7	7	8	8

Dimensions	M 12x250	M 12x300	M 12x380	M 16x165	M 16x190	M 16x250	M 16x270
d_0	14	14	14	18	18	18	18
t_{fix}	151/116/76	201/166/126	281/246/206	38/8	63/33	123/93/28	143/113/48
h_{ef}	75/110/150	75/110/150	75/110/150	95/125	95/125	95/125/190	95/125190
SW hexagon	8	8	8	12	12	12	12

Dimensions	M 16x300	M 16x380	M 16x500	M 20x260	M 20x290	M 20x350	M 20x500
d_0	18	18	18	25	25	25	25
t_{fix}	173/143/78	253/223/158	373/343/278	54/14	84/44	144/104	294/254
h_{ef}	95/125/190	95/125/190	95/125/190	170/210	170/210	170/210	170/210
SW hexagon	12	-	-	12	12	12	-

Dimensions	M 24x295	M 24x300	M 24x400	M 24x600	M 30x380	M 30x500	
d_0	28	28	28	28	35	35	
t_{fix}	56	61	161	361	65	185	
h_{ef}	210	210	210	210	280	280	
SW hexagon	-	-	-	-	-	-	

For use with cartridge RSB
(REYHER article 88687)

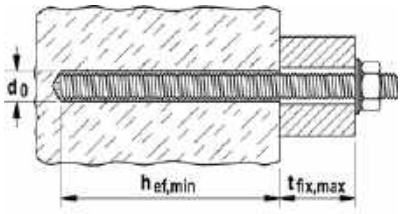
Dimensions in stock:
Fixing systems: pg. 665

Chemical fixings

Article 88523 FIS A

FISCHER threaded rods FIS A
building materials with
anchor sleeve: LD, VD, BN
building materials without
anchor sleeve: BL, VD, VP





ETA CE | Z suitable for tenell zone | R120 fire resistance classification

Dimensions	6x75	6x85	6x110	8x90	8x110	8x130	10x110
d_0 for BN, VD	8	8	8	10	10	10	12
d_0 for LD	12	12	12	12	12/12/16	12/16	16
h_{ef} for BN	–	–	–	60 – 78	60 – 98	60 – 118	60 – 96
h_{ef} for LD	50	50	50/85	50	50/85/85	50/85/85	85
h_{ef} for VD	50	50	50	50	50	50	50
t_{fix} for BN	–	–	–	1 – 19	1 – 39	1 – 59	1 – 37
t_{fix} for LD	16	26	52/17	29	49/14/14	69/34/34	12
t_{fix} for VD	17	27	52	29	49	69	47

Dimensions	10x130	10x150	10x200	12x120	12x140	12x160	12x180
d_0 for BN, VD	12	12	12	14	14	14	14
d_0 for LD	16	16	16	20	20	20	20
h_{ef} for BN	60 – 116	60 – 136	60 – 186	70 – 103	70 – 123	70 – 143	70 – 163
h_{ef} for LD	85	85/130	85/130	85	85	85/130	85/103
h_{ef} for VD	50	50	50	50	50	50	50
t_{fix} for BN	1 – 57	1 – 77	1 – 127	1 – 34	1 – 54	1 – 74	1 – 94
t_{fix} for LD	32	52/7	102/57	19	39	59/14	79/34
t_{fix} for VD	67	87	137	54	74	94	114

Dimensions	12x210	12x260	16x130	16x175	16x200	16x250	16x300
d_0 for BN, VD	14	14	18	18	18	18	18
d_0 for LD	20	20	20	20	20	20	20
h_{ef} for BN	70 – 193	70 – 240	80 – 109	80 – 154	80 – 179	80 – 229	80 – 279
h_{ef} for LD	85/130	85/130/200	85	85/130	85/130	85/130/200	85/130/200
h_{ef} for VD	50	50	50	50	50	50	50
t_{fix} for BN	1 – 124	4 – 174	1 – 30	1 – 75	1 – 100	1 – 150	1 – 200
t_{fix} for LD	109/64	169/114/44	25	70/25	95/50	145/100/30	–
t_{fix} for VD	144	194	60	105	130	180	230

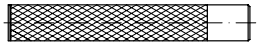
Dimensions	20x245	20x290	24x290	24x380	30x430		
d_0 for BN, VD	24	24	28	28	35		
d_0 for LD	–	–	–	–	–		
h_{ef} for BN	90 – 220	90 – 265	96 – 260	96 – 350	120 – 394		
h_{ef} for LD	–	–	–	–	–		
h_{ef} for VD	–	–	–	–	–		
t_{fix} for BN	1 – 131	1 – 176	1 – 165	1 – 255	1 – 275		
t_{fix} for LD	–	–	–	–	–		
t_{fix} for VD	–	–	–	–	–		

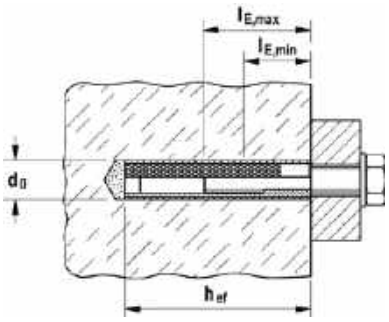
Dimensions in stock:
Fixing systems: pg. 665

Chemical fixings

Article 88529 FIS-E

FISCHER internal threaded sockets FIS-E
building materials: VD





ETA CE R120

For use with injection mortar
FIS-V, FIS-VS and FIS-VW
l_E = length of thread engagement

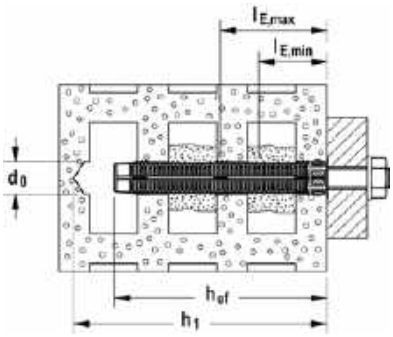
Dimensions	11x85	11x85	15x85	15x85
d_0	14	14	18	18
$t = h_{ef}$	85	85	85	85
$l_{E,\,min.}$	6	8	10	12
$l_{E,\,max.}$	60	60	60	60
d_s	M 6	M 8	M 10	M 12

Dimensions in stock:
Fixing systems: pg. 666

Article 88562 FIS H K

FISCHER injection anchor sleeves FIS H K
building materials: LP, (VD)





For use with injection mortar
FIS-V, FIS-VS and FIS-VW
*max. number when processing with 1 static mixer

Dimensions	12x50	12x85	16x85
d_0	12	12	16
t_d	60	95	95
h_{ef}	50	85	85
matching for	FIS-A (M 6/M 8)	FIS-A (M 6/M 8	FIS-A (M 8/M 10) FIS-E (M 6/M 8)
anchors per 360ml capsule*	34	17	14

Dimensions	16x130	20x85	20x130
d_0	16	20	20
t_d	140	95	140
h_{ef}	110	85	110
matching for	FIS-A (M 8/M 10)	FIS-A (M 12/M 16) FIS-E (M 6 - M 12)	FIS A (M 12 - M 16)
anchors per 360ml capsule*	11	11	

Dimensions	20x200		
d_0	20		
t_d	210		
h_{ef}	200		
matching for	FIS A (M 12 - M 16)		
anchors per 360ml capsule*			

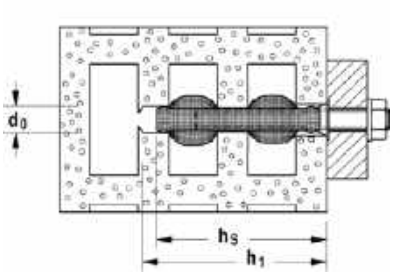
Dimensions in stock:
Fixing systems: pg. 666

Chemical fixings

Article 88526 FIS H N

FISCHER injection anchor sleeves FIS H N
building materials: LP, VD





For use with injection mortar
FIS-V, FIS-VS and FIS-VW
hs = anchor depth sleeve min.
h_1 = anchor depth anchor part min.

Dimensions	16x85	18x85
d_0	16	18
h_1	95	95
h_s	90	90
matching for FIS-A	M 8	M 10

Dimensions	20x85	
d_0	20	
h_1	95	
h_s	90	
matching for FIS-A	M 12	

Dimensions in stock:
Fixing systems: pg. 666

Article 88526 FIS H L



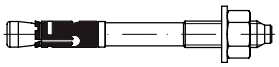
Dimensions	12x1000	16x1000	22x1000
d_0	12	16	22
l	1000	1000	1000
matching for FIS-A	M 6 – M 8	M 10 – M 12	M 12 – M 16

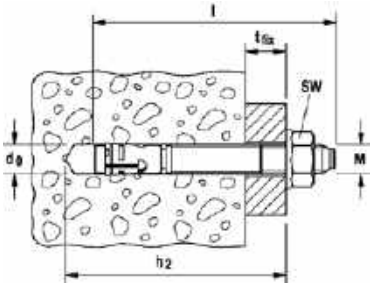
Dimensions in stock:
Fixing systems: pg. 666

High performance steel anchors

Article 88561 FAZ II

FISCHER Anchor bolts FAZ II
FISCHER Anchor bolts FAZ II GZ II K
building materials: BN, VD





ETA CE · FM approval · R120 fire resistance classification · VdS approval · Z suitable for tenail zone

ETA-05/0069

Dimensions	6/10	6/20	8/10	8/30	8/50	8/100	8/160	10/10
d_0	6	6	8	8	8	8	8	10
h_2	60	70	65	85	105	155	215	85
l	65	75	75	95	115	165	225	95
t_{fix}	10/-	20/-	10/20	30/40	50/60	100/110	160/170	10/30
SW	10	10	13	13	13	13	13	17
Washer ∅ at GS	-	-	22x2,5	22x2,5	-	-	-	25x3

Dimensions	10/10 K	10/20	10/20 K	10/30	10/50	10/70	10/80	10/100
d_0	10	10	10	10	10	10	10	10
h_2	65	95	75	105	125	145	155	175
l	75	105	85	115	135	155	165	185
t_{fix}	10	20/40	20	30/50	50/70	70/90	80/100	100/120
SW	-	17	-	17	17	17	17	17
Washer ∅ at GS	20x2	-	20x2	25x3	-	-	-	-

Dimensions	10/160	12/10	12/10 K	12/20	12/20 K	12/30	12/50	12/60
d_0	10	12	12	12	12	12	12	12
h_2	235	100	80	110	90	120	140	150
l	245	110	90	120	100	130	150	160
t_{fix}	160/180	10/30	10	20/40	20	30/50	50/70	60/80
SW	17	19	-	19	-	19	19	19
Washer ∅ at GS	-	30x3	24x2,5	30x3	24x2,5	30x3	30x3	-

Dimensions	12/80	12/100	12/160	12/200	16/5	16/25	16/50	16/100
d_0	12	12	12	12	16	16	16	16
h_2	170	190	250	290	115	135	160	210
l	180	200	260	300	128	148	173	223
t_{fix}	80/100	100/120	160/180	200/220	5/25	25/45	50/70	100/120
SW	19	19	19	19	24	24	24	24
Washer ∅ at GS	44x4	30x3	44x4	44x4	-	-	-	-

Dimensions	16/160	16/200	16/250	16/300	20/30	20/60	20/160	24/30	24/60
d_0	16	16	16	16	20	20	20	24	24
h_2	270	310	360	410	155	185	285	185	215
l	283	323	373	423	172	202	302	205	235
t_{fix}	160/180	200/220	250/270	300/320	30	60	160	30	60
SW	24	24	24	24	30	30	30	36	36
Washer ∅ at GS	56x5	68x6	-	-	-	-	-	-	-

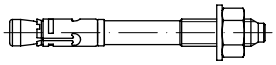
VdS approval M 8-M 20
FM approval starting from M 10

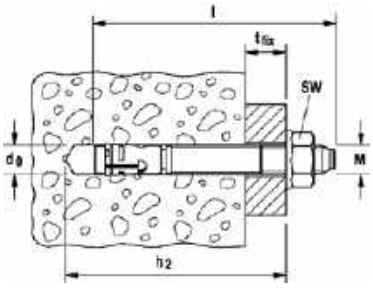
Dimensions in stock:
Fixing systems: pg. 666

High performance steel anchors

Article 88694 FBZ

FISCHER anchor bolts FBZ
building materials: BN





ETA CE | R120 fire resistance classification | Z suitable for tensil zone

ETA-17/0624

Dimensions	8/10	8/10 GS*	10/10	10/10 GS*	10/20	10/30
d_0	8	8	10	10	10	10
h_2	70	70	87	87	97	107
l	75	75	95	95	105	115
$h_{ef\,1}$ red.	35	35	40	40	40	40
$h_{ef\,1}$ stand.	45	45	60	60	60	60
t_{fix}	10/20	10/20	10/30	10/30	20/40	30/50
U-washer	16 x 1,6	22 x 2,5	20 x 2	25 x 3	20 x 2	20 x 2
Thread	M 8 x 38	M 10 x 53	M 10 x 53	M 10 x 53	M 10 x 63	M 10 x 73

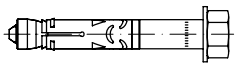
Dimensions	12/10	12/10 GS*	12/20	12/30	16/25	
d_0	12	12	12	12	16	
h_2	99	99	109	119	133	
l	110	110	120	130	148	
$h_{ef\,1}$ red.	50	50	50	50	65	
$h_{ef\,1}$ stand.	70	70	70	70	85	
t_{fix}	10/30	10/30	20/40	30/50	25/45	
U-washer	24 x 23,5	30 x 3	24 x 2,5	24 x 2,5	30 x 3	
Thread	M 12 x 61	M 12 x 61	M 12 x 71	M 12 x 84	M 16 x 84	

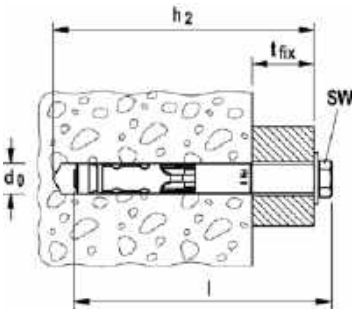
*with large washer

Dimensions in stock:
Fixing systems: pg. 668

Article 88593 FH II-S

FISCHER high performance anchors FH II-S
building materials: BN, VD





ETA CE | R120 fire resistance classification | VdS approval | Z suitable for tensil zone | FM approval

ETA-07/0025
l = total anchor length
VdS approval M 8 – M 20
FM approval starting from M 10

Dimensions	10/10	10/25	10/50	12/10	12/25	12/50	15/10	15/25	18/10
d_0	10	10	10	12	12	12	15	15	18
h_2	65	80	105	90	105	130	100	115	119
h_{ef}	40	40	40	60	60	60	70	70	80
$l_{steel/A\,4}$	70/69	85/84	110	90	105	130	106/107	121/122	118
t_{fix}	10	25	50	10	25	50	10	25	10
thread	M 6	M 6	M 6	M 8	M 8	M 8	M 10	M 10	M 12
SW	10	10	10	13	13	13	17	17	19

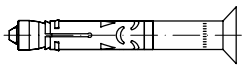
Dimensions	15/50	18/25	18/50	24/25	24/50	28/30	28/60	32/30	32/60
d_0	15	18	18	24	24	28	28	32	32
h_2	140	130	155	150	175	185	215	210	240
h_{ef}	70	80	80	100	100	125	125	150	150
$l_{steel/A\,4}$	146	132/133	157	160	185	192	222	215	245
t_{fix}	50	25	50	25	50	30	60	30	60
thread	M 10	M 12	M 12	M 16	M 16	M 20	M 20	M 24	M 24
SW	17	19	19	24	24	30	30	36	36

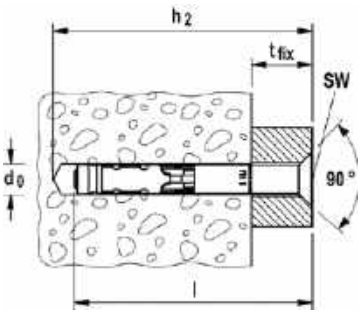
Dimensions in stock:
Fixing systems: pg. 668

High performance steel anchors

Article 88594 FH II-SK

FISCHER high performance anchors FH II-SK
building materials: BN, VD





ETA CE | R120 | VdS approval | Z suitable for tenell zone | FM approval

VdS approval M 8 – M 20
FM approval starting from M 10

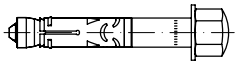
Dimensions	10/15	10/25	10/50	12/15	12/25	12/30	12/50
d_0	10	10	10	12	12	12	12
t_d	70	80	105	95	105	110	130
h_{ef}	40	40	40	60	60		60
l	65	75	100	90	100	105	125
t_{fix}	10	25	50	15	25	30	50
thread	M 6	M 6	M 6	M 8	M 8		M 8
SW	4	4	4	5	5	6	5
x	5	5	5	5.8	5.8		5.8
D	18	18	18	22	22		22

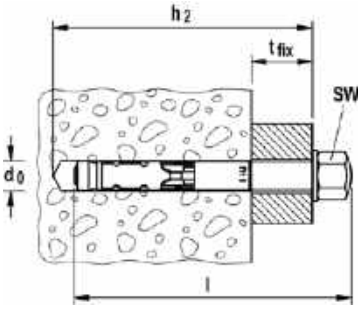
Dimensions	15/15	15/25	15/50	18/15	18/25	18/30	18/50
d_0	15	15	15	18	18	18	18
t_d	105	115	140	120	130	135	155
h_{ef}	70	70	70	80	80		80
l	100	110	135	115	125	130	150
t_{fix}	15	25	50	15	25	30	50
thread	M 10	M 10	M 10	M 12	M 12		M 12
SW	6	6	6	8	8	8	8
x	5.8	5.8	5.8	8	8		8
D	25	25	25	32	32		32

Dimensions in stock:
Fixing systems: pg. 669

Article 88590 FH II-H

FISCHER high performance anchors FH II-H
building materials: BN, VD





ETA CE | R120 | VdS approval | Z suitable for tenell zone | FM approval

ETA-07/0025

l = total anchor length
VdS approval M 8 – M 20
FM approval starting from M 10

Dimensions	10/10	10/25	10/50	12/10	12/25	12/50
d_0	10	10	10	12	12	12
h_2	65	80	105	90	105	130
h_{ef}	40	40	40	60	60	60
l	75	90	115	100	115	140
t_{fix}	10	25	50	10	25	50
thread	M 6	M 6	M 6	M 8	M 8	M 8
SW	13	13	13	17	17	17

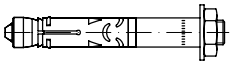
Dimensions	15/10	15/25	15/50	18/25	18/50	
d_0	15	15	15	18	18	
h_2	100	115	140	130	155	
h_{ef}	70	70	70	80	80	
l	115	130	155	145	170	
t_{fix}	10	25	50	25	50	
thread	M 10	M 10	M 10	M 12	M 12	
SW	17	17	17	19	19	

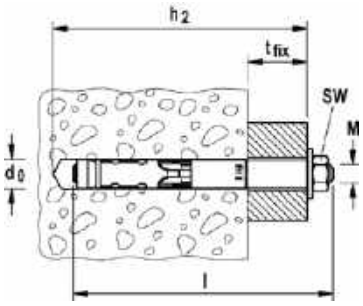
Dimensions in stock:
Fixing systems: pg. 669

High performance steel anchors

Article 88592 FH II-B

FISCHER high performance anchors FH II-B
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tenali zone | FM approval | VdS approval

Dimensions	10/10	10/25	10/50	12/10	12/25	12/50	12/100	15/10	15/25	15/50	15/100
d_0	10	10	10	12	12	12	12	15	15	15	15
h_2	65	80	105	90	105	130	180	100	115	140	190
h_{ef}	40	40	40	60	60	60	60	70	70	70	70
l	70	85	110	95	110	135	185	110	125	150	200
t_{fix}	10	25	50	10	25	50	100	10	25	50	100
thread	M 6	M 6	M 6	M 8	M 8	M 8	M 8	M 10	M 10	M 10	M 10
SW	10	10	10	13	13	13	13	17	17	17	17

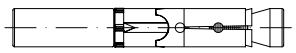
Dimensions	18/25	18/50	18/100	24/25	24/50	24/100	28/30	28/60	32/30	32/60	
d_0	18	18	18	24	24	24	28	28	32	32	
h_2	130	155	205	150	175	225	185	215	210	240	
h_{ef}	80	80	80	100	100	100	125	125	150	150	
l	140	165	215	167	192	242	199	229	231	261	
t_{fix}	25	50	100	25	50	100	30	60	30	60	
thread	M 12	M 12	M 12	M 16	M 16	M 16	M 20	M 20	M 24	M 24	
SW	19	19	19	24	24	24	30	30	36	36	

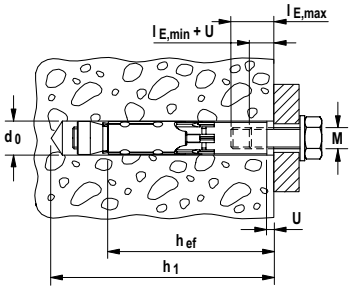
l = total anchor length
VdS approval M 8 – M 20
FM approval starting from M 10

Dimensions in stock:
Fixing systems: pg. 669

Article 88689 FH II-I

FISCHER high performance anchors FH II-I
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tenali zone | VdS approval

ETA-07/0025

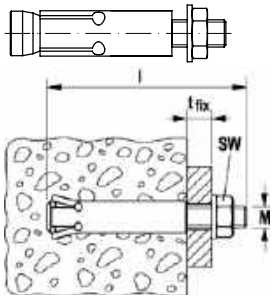
Dimensions	M 6	M 8	M 10	M 12
d_0	12	12	15	15
h_1	85	85	95	95
h_{ef}	60	60	70	70
l	77,5	77,5	90	90
$l_{E,min}$	11 + U	13 + U	10 + U	12 + U
$l_{E,max}$	25	25	25	25
U	3 – 5	3 – 5	3 – 5	3 – 5

Dimensions in stock:
Fixing systems: pg. 668

High performance steel anchors

Article 88583 FZA

FISCHER ZYKON bolt anchors FZA
building materials: BN, VD



ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval

ETA-98/004

VdS approval starting from M 8

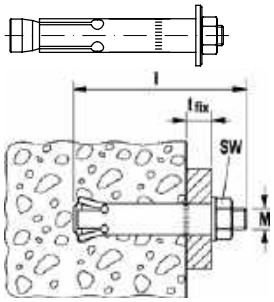
Dimensions	10x40 M 6/10	12x40 M 8/15	12x50 M 8/15	12x50 M 8/50	14x40 M 10/25	14x60 M 10/25
l	60	69	79	114	79	102
t_{fix}	10	15	15	50	25	25
thread	M 6	M 8	M 8	M 8	M 10	M 10
SW	10	13	13	13	17	17
drill FZUR	10 x 40	12 x 40	12 x 50	12 x 50	14 x 40	14 x 60

Dimensions	14x60 M 10/50	18x80 M 12/25	18x80 M 12/55	22x100 M 16/60	22x125 M 16/60	
l	126	126	156	186	209	
t_{fix}	50	25	55	60	60	
thread	M 10	M 12	M 12	M 16	M 16	
SW	17	19	19	24	24	
drill FZUR	14 x 60	18/80	18/80	22 x 100	22 x 125	

Dimensions in stock:
Fixing systems: pg. 668

Article 88584 FZA-D

FISCHER ZYKON through anchors FZA-D
building materials: BN, VD



ETA CE | R120 fire resistance classification | Z suitable for tensil zone | VdS approval

ETA-98/004

VdS approval starting from M 8

Dimensions	12x50 M 8/10	12x60 M 8/10	12x80 M 8/30
l	69	79	99
t_{fix}	10	10	30
thread	M 8	M 8	M 8
SW	13	13	13
drill FZUB	12 x 50	12 x 60	12 x 80

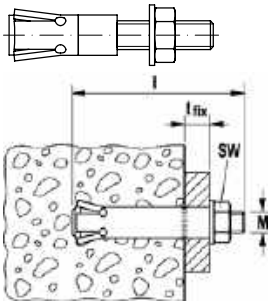
Dimensions	14x80 M 10/20	14x100 M 10/40	18x100 M 12/20
l	102	126	126
t_{fix}	20	40	20
thread	M 10	M 10	M 12
SW	17	17	19
drill FZUB	14 x 80	14 x 100	18 x 100

Dimensions	18x130 M 12/50	22x125 M 16/25	
l	156	156	
t_{fix}	50	25	
thread	M 12	M 16	
SW	19	24	
drill FZUB	18 x 130	22 x 125	

Dimensions in stock:
Fixing systems: pg. 670

Article 88589 FZA ST

FISCHER ZYKON anchors for fixing step irons FZA ST
building materials: BN, VD



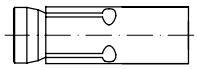
Dimensions	14/40	14/60
t_{fix}	30	30
thread	M 10	M 10
SW	16	16
drill FZUB	14 x 40	14 x 60

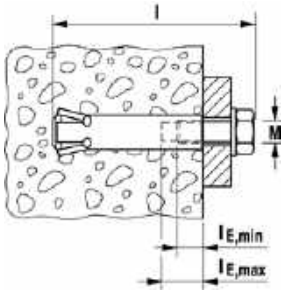
Dimensions in stock:
Fixing systems: pg. 670

High performance steel anchors

Article 88585 FZA-I

FISCHER ZYKON internally threaded anchors FZA-I
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval

ETA-98/004

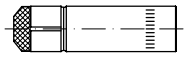
VdS approval starting from M 8

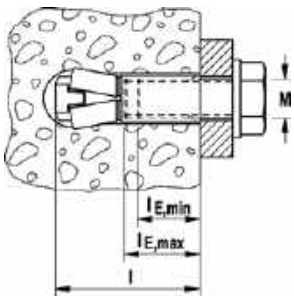
Dimensions	12x40 M 6	12x50 M 6	14x60 M 8	18 x 80 M 10	22 x 100 M 12	22 x 125 M 12
A1	M 6	M 6	M 8	M 10	M 12	M 12
$l_{E,\,min}$	10	10	11	13	15	15
$l_{E,\,max}$	15	15	17	21	25	25

Dimensions in stock:
Fixing systems: pg. 670

Article 88597 FZEA II

FISCHER ZYKON hammerset anchors FZEA II
building materials: BN, VD





ETA CE | FM approval | R120 fire resistance classification | VdS approval | Z suitable for tenell zone

ETA-06/0271

*internal thread
FM approval starting from M 10
VdS approval M 8 – M 20

Dimensions	10x40 M 8	12x40 M 10	14x40 M 12
l	43	43	43
A1	M 8	M 10	M 12
$l_{E,\,min}$	11	13	15
$l_{E,\,max}$	17	19	21

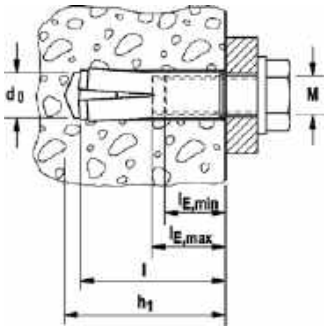
Dimensions in stock:
Fixing systems: pg. 670

High performance steel anchors

Article 88567 EA II

FISCHER hammerset anchors EA II
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tensil zone | FM approval | VdS approval

ETA-07/0135
ETA-07/0142

FM approval starting from M 10

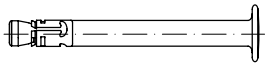
Dimensions	M 6x30	M 8x30	M 8x40	M 10x40
d_0	8	10	10	12
l	30	30	40	40
$l_{E,min}$	6	8	8	10
$l_{E,max}$	14	14	14	17
h_1	32	33	43	43

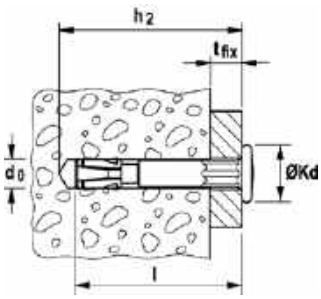
Dimensions	M 12x50	M 16x65	M 20x80	
d_0	15	20	25	
l	50	65	80	
$l_{E,min}$	12	16	20	
$l_{E,max}$	22	28	34	
h_1	54	70	85	

Dimensions in stock:
Fixing systems: pg. 671

Article 88546 FNA II

FISCHER nail anchors FNA II
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tensil zone

ETA-06/0175

Dimensions	6x25/5	6x30/5	6x30/30	6x30/50
d_0	6	6	6	6
h_2	40	45	70	90
h_{ef}	30	30	30	30
l	35	40	65	85
t_{fix}	5	5	30	50
d_K	13	13	13	13

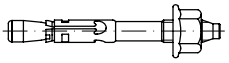
Dimensions	6x30/75	6x30/100	6x30/120	
d_0	6	6	6	
h_2	115	140	160	
h_{ef}	30	30	30	
l	110	135	155	
t_{fix}	75	100	120	
d_K	13	13	13	

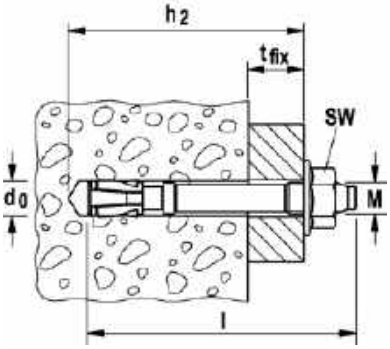
Dimensions in stock:
Fixing systems: pg. 672

High performance steel anchors

Article 88547 FNA II M

FISCHER nail anchors FNA II M
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tenell zone

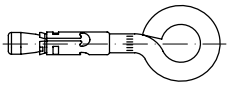
ETA-06/0175

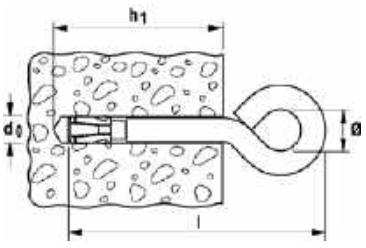
Dimensions	6x30 M 6/5
d_0	6
h_2	45
h_{ef}	30
l	50
t_{fix}	5
thread	M 6
SW	10

Dimensions in stock:
Fixing systems: pg. 672

Article 88548 FNA II-OE

FISCHER nail anchors FNA II-OE
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tenell zone

ETA-06/0175

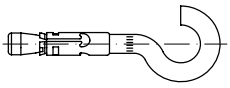
Dimensions	6x25 OE
d_0	6
h_1	35
h_{ef}	25
l	54
inner ∅ eye	10

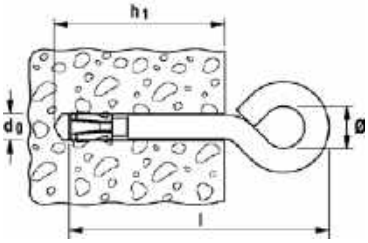
Dimensions in stock:
Fixing systems: pg. 672

High performance steel anchors

Article 88549 FNA II-H

FISCHER nail anchors FNA II-H
building materials: BN, VD





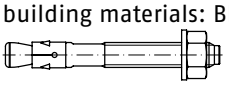
R120 fire resistance classification | Z suitable for tenell zone

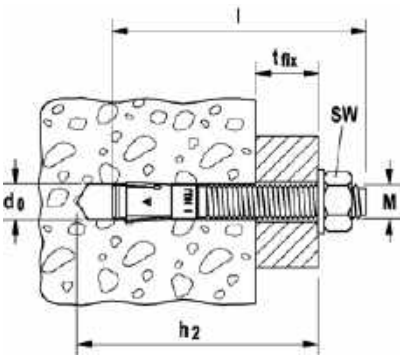
Dimensions	6x25 h
d_0	6
h_1	35
h_{ef}	25
l	54
inner ∅ hook	10

Dimensions in stock:
Fixing systems: pg. 672

Article 88582 FBN II/FBN II K

FISCHER bolt anchors FBN II/FBN II K
building materials: BN, VD





ETA CE | R120 fire resistance classification

ETA-07/0211

Dimensions	6/5	6/10	6/30	8/5	8/5 K	8/10	8/10 K	8/20	8/30	8/50
d_0	6	6	6	8	8	8	8	8	8	8
h_2	45	50	70	61	51	66	56	76	86	106
l	50	55	75	66	56	71	61	81	91	111
t_{fix}	5/-	10/-	30/-	5/15	-/5	10/20	-/10	20/30	30/40	50/60
SW	10	10	10	13	13	13	13	13	13	13

Dimensions	8/70	8/100	10/5 K	10/10	10/10 K	10/20	10/30	10/50	10/70	10/100
d_0	8	8	10	10	10	10	10	10	10	10
h_2	126	156	63	78	68	88	98	118	138	168
l	131	161	71	86	76	96	106	126	146	176
t_{fix}	70/80	100/110	-/5	10/20	-/10	20/30	30/40	50/60	70/80	100/110
SW	13	13	17	17	17	17	17	17	17	17

Dimensions	10/140	10/160	12/5 K	12/10	12/10 K	12/20	12/30	12/30 K	12/50	12/80
d_0	10	10	12	12	12	12	12	12	12	12
h_2	208	228	75	95	80	105	115	100	135	165
l	216	236	86	106	91	116	126	111	146	176
t_{fix}	140/150	160/170	-/5	10/25	-/10	20/35	30/45	-/30	50/65	80/95
SW	17	17	19	19	19	19	19	19	19	19

Dimensions	12/100	12/120	12/140	12/160	16/10	16/15 K	16/25	16/25 K	16/50	16/80
d_0	12	12	12	12	16	16	16	16	16	16
h_2	185	205	225	245	114	104	129	114	154	184
l	196	216	236	256	130	120	145	130	170	200
t_{fix}	100/115	120/135	140/155	160/175	10/25	-/15	25/40	-/25	50/65	80/95
SW	19	19	19	19	24	24	24	24	24	24

Dimensions	16/100	16/140	16/160	16/200	20/10 K	20/30	20/60	20/80	20/120	
d_0	16	16	16	16	20	20	20	20	20	
h_2	204	244	264	304	120	165	195	215	255	
l	220	260	280	320	142	187	217	237	277	
t_{fix}	100/115	140/155	160/175	200/215	-/10	30/55	60/85	80/105	120/145	
SW	24	24	24	24	30	30	30	30	30	

K = short version
with reduced anchor depth

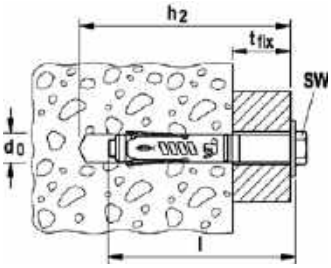
Dimensions in stock:
Fixing systems: pg. 672

High performance steel anchors

Article 88683 TA M

FISCHER heavy duty anchors TA M
building materials: BN, VD





ETA CE R120 fire resistance classification

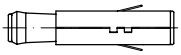
ETA-04/0003

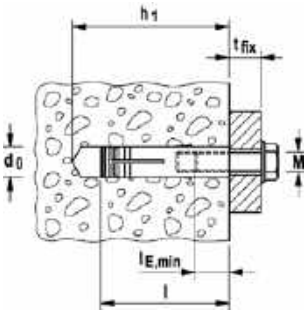
Dimensions	M 6	M 8	M 10	M 12
d_0	10	12	15	18
h_1	65	70	90	105
h_{ef}	40	45	55	70
l	49	56	69	86

Dimensions in stock:
Fixing systems: pg. 673

Article 88530 SL M/SL M-N

FISCHER heavy duty anchors SL M/SL M-N
building materials: VD





R120 fire resistance classification

ls = hef + ds + tfix
*= internal thread

Dimensions	8	10	16
d_0	12	16	24
h_1	60	70	110
h_{ef}	45	50	62
l	54	62	90
d_s*	M 8	M 10	M 16

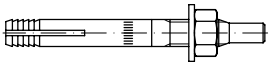
Dimensions	20	24	
d_0	30	35	
h_1	130	150	
h_{ef}	77	90	
l	110	125	
d_s*	M 20	M 24	

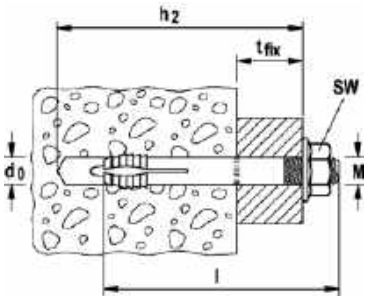
Dimensions in stock:
Fixing systems: pg. 674

High performance steel anchors

Article 88531 MR

FISCHER wall screws MR
building materials: BN



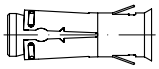


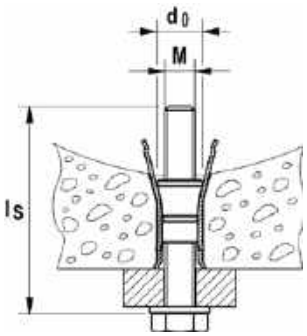
Dimensions	8	10	12
d_0	8	10	12
h_2	70	85	100
l	70	85	100
t_{fix}	22	24	27
SW	13	15	18
thread	M 8	M 10	M 12

Dimensions in stock:
Fixing systems: pg. 674

Article 88513 FHY

FISCHER hollow ceiling anchors FHY
building materials: BN





Dimensions	M 6	M 8	M 10
d_0	10	12	16
h_1	50	60	65
$l=l_{E,\,min}$	37	43	52

R120 fire resistance classification
VdS approval

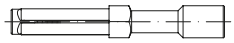
Approval only valid for zinc plated steel,
VdS approval starting from M 8

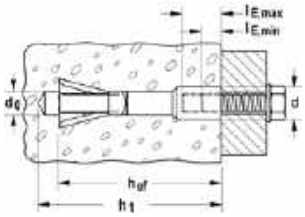
Dimensions in stock:
Fixing systems: pg. 674

High performance steel anchors

Article 88688 FPX-I

FISCHER aircrete anchors FPX-I
building materials: VP





ETA CE | R120 fire resistance classification | VdS approval

ETA-12/0456

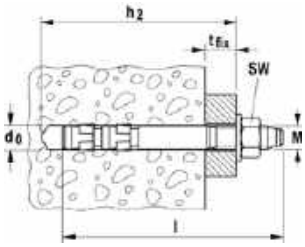
VdS approval M 8 to M 12

Dimensions	M 6	M 8	M 10	M 12
d_0	10	10	10	10
h_1	95	95	95	95
h_{ef}	70	70	70	70
l	75	75	75	75
$l_{E,\,min}$	10	8	10	12
$l_{E,\,max}$	15	15	15	15

Dimensions in stock:
Fixing systems: pg. 674

Article 88715 EXA

FISCHER bolt anchors EXA
building materials: BN, VD



Dimensions	6/5	6/10	6/40	8/5	8/15	8/28
d_0	6	6	6	8	8	8
h_2	50	70	100	60	80	95
l	50	70	100	60	85	98
t_{fix}	5	10	40	5	15	28
thread	M 6 x 17	M 6 x 17	M 6 x 17	M 8 x 22	M 8 x 22	M 8 x 22
SW	10	10	10	13	13	13

Dimensions	8/55	10/5	10/15	10/45	10/90	10/140
d_0	8	10	10	10	10	10
h_2	120	65	85	115	160	210
l	125	70	92	122	167	217
t_{fix}	55	5	15	45	90	140
thread	M 8 x 22	M 10 x 28	M 10 x 28	M 10 x 28	M 10 x 28	M 10 x 28
SW	13	17	17	17	17	17

Dimensions	10/160	12/5	12/15	12/35	12/55	12/85
d_0	10	12	12	12	12	12
h_2	230	75	105	125	145	175
l	237	76	112	132	152	182
t_{fix}	160	5	15	35	55	85
thread	M 10 x 28	M 12 x 30	M 12 x 33	M 12 x 33	M 12 x 33	M 12 x 33
SW	17	19	19	19	19	19

Dimensions	12/105	16/10	16/30	16/75	20/10	20/25
d_0	12	16	16	16	20	20
h_2	195	100	140	185	110	155
l	202	110	153	198	127	172
t_{fix}	105	10	30	75	10	25
thread	M 12 x 33	M 16 x 44	M 16 x 44	M 16 x 44	M 20 x 60	M 20 x 60
SW	19	24	24	24	30	30

Dimensions	20/80	20/220	24/40	M 8 K	M 10 K	
d_0	20	20	24	8	10	
h_2	210	350	230	50	55	
l	227	367	253	52	58	
t_{fix}	80	220	40	5	5	
thread	M 20 x 60	M 20 x 60	M 24 x 70	M 8 x 22	M 10 x 28	
SW	30	30	36	11	17	

ETA CE

ETA-05/0185

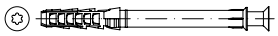
K = short version

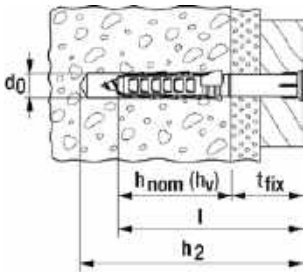
Dimensions in stock:
Fixing systems: pg. 673

Long-shaft anchors/frame fixings/adjustment fixings

Article 88542 SXR-T

FISCHER frame fixings SXR-T
building materials: BN, VD, LD, LP, BL, VP





ETA CE | R90 fire resistance classification | HF halogen free

ETA-07/0121

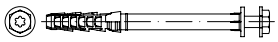
Dimensions	10x80	10x100	10x120	10x140	10x160
d_0	10	10	10	10	10
h_2	90	110	130	150	170
h_{nom} (hv)	50	50	50	50	50
l	80	100	120	140	160
t_{fix}	30	50	70	90	110
drive	T40	T40	T40	T40	T40

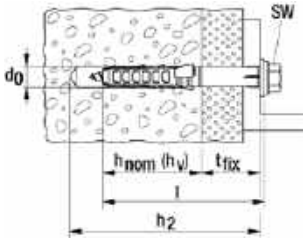
Dimensions	10x180	10x200	10x230	10x260	
d_0	10	10	10	10	
h_2	190	210	240	270	
h_{nom} (hv)	50	50	50	50	
l	180	200	230	260	
t_{fix}	130	150	180	210	
drive	T40	T40	T40	T40	

Dimensions in stock:
Fixing systems: pg. 674

Article 88542 SXR-FUS

FISCHER frame fixings SXR-FUS
building materials: BN, VD, LD, LP, BL, VP





ETA CE | R90 fire resistance classification | HF halogen free

ETA-07/0121

Dimensions	10x52	10x60	10x80	10x100	10x120	10x140
d_0	10	10	10	10	10	10
h_2	62	70	90	110	130	150
h_{nom} (hv)	50	50	50	50	50	50
l	52	60	80	100	120	140
t_{fix}	2	10	30	50	70	90
drive	T40/SW13	T40/SW13	T40/SW13	T40/SW13	T40/SW13	T40/SW13

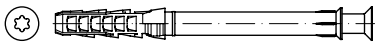
Dimensions	10x160	10x180	10x200	10x230	10x260	
d_0	10	10	10	10	10	
h_2	170	190	210	240	270	
h_{nom} (hv)	50	50	50	50	50	
l	160	180	200	230	260	
t_{fix}	110	130	150	180	210	
drive	T40/SW13	T40/SW13	T40/SW13	T40/SW13	T40/SW13	

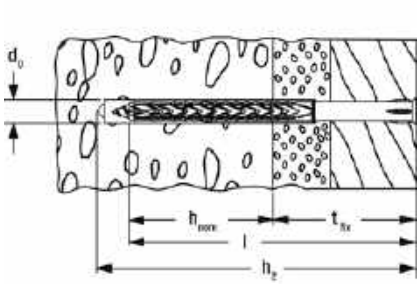
Dimensions in stock:
Fixing systems: pg. 675

Long-shaft anchors/frame fixings/adjustment fixings

Article 88551 SXRL-T

FISCHER frame fixings SXRL-T
building materials: BN, VD, LD, LP, BL, VP





ETA
CE
R90 fire resistance classification

ETA-07/0121
ETA-14/0297

*tfix = Useful length at anchoring depth
50 mm / 70 mm / 90 mm

Dimensions	8x80	8x100	8x120	10x80	10x100
d_0	8	8	8	10	10
h_2	90	110	130	90	110
t_{fix*}	30/10/-	50/30/10	70/50/30	30/10/-	50/30/10
l	80	100	120	80	100
drive	T30	T30	T30	T40	T40

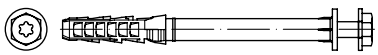
Dimensions	10x120	10x140	10x160	10x180	10x200
d_0	10	10	10	10	10
h_2	130	150	170	190	210
t_{fix*}	70/50/30	90/70/50	110/90/70	130/110/90	150/130/110
l	120	140	160	180	200
drive	T40	T40	T40	T40	T40

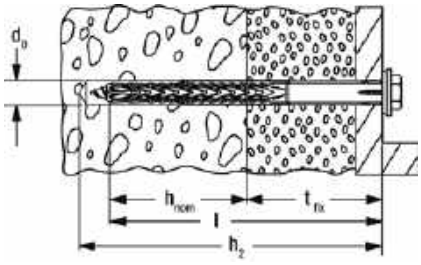
Dimensions	10x230	10x260	10x290		
d_0	10	10	10		
h_2	240	270	300		
t_{fix*}	180/160/140	210/190/170	240/220/200		
l	230	260	290		
drive	T40	T40	T40		

Dimensions in stock:
Fixing systems: pg. 675

Article 88551 SXRL-FUS

FISCHER frame fixings SXRL-FUS
building materials: BN, VD, LD, LP, BL, VP





ETA
CE
R90 fire resistance classification

ETA-07/0121
ETA-14/0297

*tfix = Useful length at anchoring depth
50 mm / 70 mm / 90 mm

Dimensions	8x80	8x100	8x120	10x80	10x100
d_0	8	8	8	10	10
h_2	90	110	130	90	110
t_{fix*}	30/10/-	50/30/10	70/50/30	30/10/-	50/30/10
l	80	100	120	80	100
drive	T30/SW10	T30/SW10	T30/SW10	T40/SW13	T40/SW13

Dimensions	10x120	10x140	10x160	10x180	10x200
d_0	10	10	10	10	10
h_2	130	150	170	190	210
t_{fix*}	70/50/30	90/70/50	110/90/70	130/110/90	150/130/110
l	120	140	160	180	200
drive	T40/SW13	T40/SW13	T40/SW13	T40/SW13	T40/SW13

Dimensions	10x230	10x260	10x290		
d_0	10	10	10		
h_2	240	270	300		
t_{fix*}	180/160/140	210/190/170	240/220/200		
l	230	260	290		
drive	T40/SW13	T40/SW13	T40/SW13		

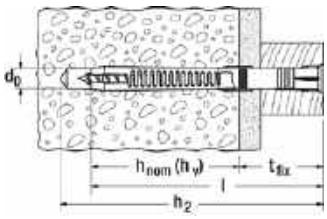
Dimensions in stock:
Fixing systems: pg. 675

Long-shaft anchors/frame fixings/adjustment fixings

Article 88563 FUR-T

FISCHER frame fixings FUR-T
building materials: BN, VD, LD





ETA CE · HF halogen free

ETA-13/0235

Dimensions	10x80	10x100	10x115	10x135
d_0	10	10	10	10
h_2	90	110	125	145
h_{nom} (hv)	70	70	70	70
l	80	100	115	135
t_{fix}	10	30	45	65
drive	T40	T40	T40	T40

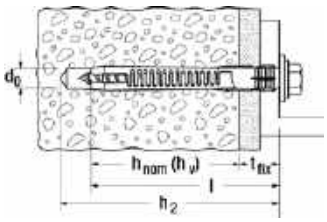
Dimensions	10x160	10x185	10x200	10x230
d_0	10	10	10	10
h_2	170	195	210	240
h_{nom} (hv)	70	70	70	70
l	160	185	200	230
t_{fix}	90	115	130	160
drive	T40	T40	T40	T40

Dimensions in stock:
Fixing systems: pg. 676

Article 88564 FUR-SS

FISCHER frame fixings FUR-SS
building materials: BN, VD, LD





ETA CE · HF halogen free · R90 fire resistance classification

ETA-123/0235

Dimensions	10x80	10x100	10x115	10x135
d_0	10	10	10	10
h_2	90	110	125	145
h_{nom} (hv)	70	70	70	70
l	80	100	115	135
t_{fix}	10	30	45	65
SW	13	13	13	13

Dimensions	10x160	10x185	10x200	10x230
d_0	10	10	10	10
h_2	170	195	210	240
h_{nom} (hv)	70	70	70	70
l	160	185	200	230
t_{fix}	90	115	130	160
SW	13	13	13	13

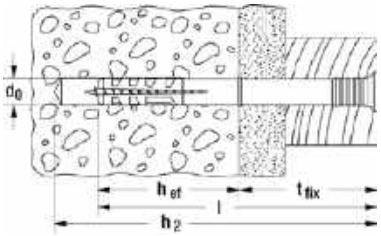
Dimensions in stock:
Fixing systems: pg. 676

Long-shaft anchors/frame fixings/adjustment fixings

Article 88503 N-S

FISCHER nail plugs N-S
building materials: BN, VD, VP, HP, LD, LP





HF halogen free

Dimensions	5x30	5x40	5x50	6x40	6x60	6x80	8x60
d_0	5	5	5	6	6	6	8
h_2	45	55	65	55	75	95	75
h_{ef}	25	25	25	30	30	30	40
l	30	40	50	40	60	80	60
t_{fix}	5	15	25	10	30	50	20

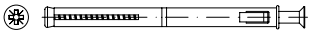
Dimensions	8x80	8x100	8x120	10x100	10x135	10x160	10x230
d_0	8	8	8	10	10	10	10
h_2	95	115	135	115	150	175	245
h_{ef}	40	40	40	50	50	50	50
l	80	100	120	100	135	160	230
t_{fix}	40	60	80	50	85	110	180

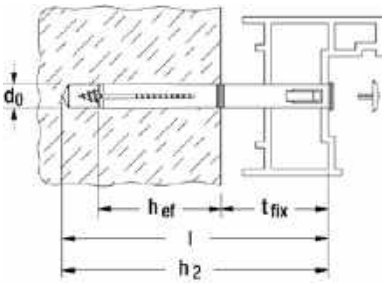
delivery ∅ 5, 6, 8 mounted pre-finished

Dimensions in stock:
Fixing systems: pg. 676

Article 88516 F-S

FISCHER frame fixings F-S
building materials: BN, VD, VP, BL, HP, LP





HF halogen free

Dimensions	F 8 S 100	F 8 S 120	F 8 S 140	F 10 S 75
d_0	8	8	8	10
h_2	115	135	155	90
h_{ef}	40	40	40	50
l	100	120	140	75
t_{fix}	50	70	90	15

Dimensions	F 10 S 100	F 10 S 120	F 10 S 140	F 10 S 165
d_0	10	10	10	10
h_2	115	135	155	180
h_{ef}	50	50	50	50
l	100	120	140	165
t_{fix}	40	60	80	105

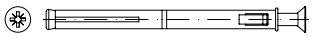
screw head ∅ 10 mm/∅ 12 mm

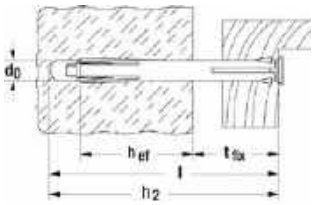
Dimensions in stock:
Fixing systems: pg. 677

Long-shaft anchors/frame fixings/adjustment fixings

Article 88680 F-M

FISCHER metal frame fixings F-M
building materials: BN, VD, VP, BL, HP





F120 fire resistance classification

Screw head ∅ 9 mm/∅ 13 mm

Dimensions	F 8 M 72	F 8 M 92	F 8 M 112	F 8 M 132
d_0	8	8	8	8
h_2	90	110	130	150
h_{ef}	30	30	30	30
l	72	92	112	132
t_{fix}	42	62	82	102

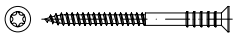
Dimensions	F 10 M 72	F 10 M 92	F 10 M 112	F 10 M 132
d_0	10	10	10	10
h_2	90	110	130	150
h_{ef}	30	30	30	30
l	72	92	112	132
t_{fix}	42	62	82	102

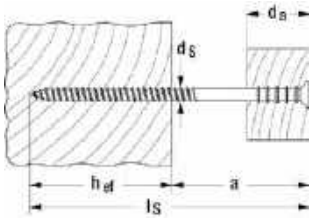
Dimensions	F 10 M 152	F 10 M 182	F 10 M 202	
d_0	10	10	10	
h_2	170	200	220	
h_{ef}	30	30	30	
l	152	182	202	
t_{fix}	122	152	172	

Dimensions in stock:
Fixing systems: pg. 677

Article 88515 JUSS

FISCHER adjustment screws JUSS
building materials: Wood and wood materials





Dimensions	6x60	6x70	6x80	6x90
h_{ef}	30	30	30	30
a	30	40	50	60
$d_s x l_s$	6x60	6x70	6x80	6x90
d_a	20	25	25	25
drive	T25	T25	T25	T25

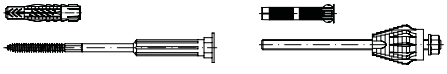
Dimensions	6x100	6x110	6x120	6x145
h_{ef}	30	30	30	30
a	70	80	90	115
$d_s x l_s$	6x100	6x110	6x120	6x145
d_a	25	25	25	25
drive	T25	T25	T25	T25

Dimensions in stock:
Fixing systems: pg. 677

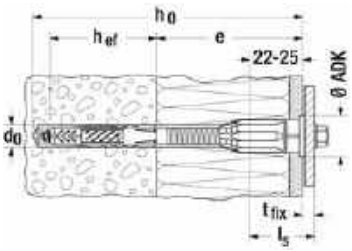
Long-shaft anchors/frame fixings/adjustment fixings

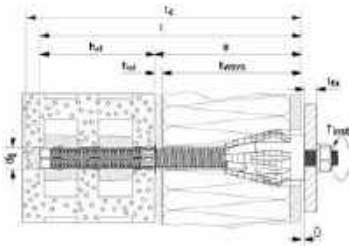
Article 88695 Thermax

FISCHER stand-off installation Thermax
building materials: BN, BL, VD, LD, VP, LP



8/10 12/16





Z suitable for tenell zone

Dimensions	8/80 M 6	8/100 M 6	8/120 M 6	8/140 M 6	8/160 M 6	10/120 M 8	10/140 M 10
d_0	10	10	10	10	10	12	12
h_0	140	160	180	200	220	180	200
e	60 - 80	80 - 100	100 - 120	120 - 140	140 - 160	100 - 120	120 - 140
h_{ef}	60	60	60	60	60	70	70
ADK	18	18	18	18	18	22	22
SW	10	10	10	10	10	13	13

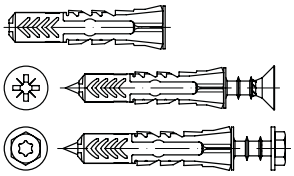
Dimensions	10/160 M 8	10/160 M 10	10/180 M 6	10/200 M 8	10/200 M 10	10/240 M 8
d_0	12	12	12	12	12	12
h_0	220	220	240	260	260	300
e	140 - 160	140 - 160	160 - 180	180 - 200	180 - 200	220 - 240
h_{ef}	70	70	70	70	70	70
ADK	22	22	22	22	22	22
SW	13	13	13	13	13	13

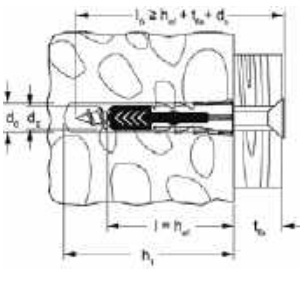
Dimensions	12/110 M 12				16/170 M 12			
building material	BN	VD	LD	BL	BN	VD	LD	BL
d_0	14	14	20	14	18	18	20	18
h_{ef}	70	80	130	100	80	80	200	100
t_d	h_{ef} + e	h_{ef} + e	h_{ef}+e+10mm	h_{ef} + e	h_{ef} + e	h_{ef} + e	h_{ef}+e+10mm	h_{ef} + e
e	62 - 170	62 - 160	62 - 110	62 - 140	62 - 290	62 - 290	62 - 170	62 - 270
t_{fix}	16	16	16	16	16	16	16	16
l	240	240	240	240	370	370	370	370

Dimensions in stock:
Fixing systems: pg. 681

Article 88690 DUOPOWER

FISCHER plugs DUOPOWER
building materials: BN, BL, VD, LD, VP, LP, HP





HF halogen free

*with countersunk bolt
**with hexagon head bolt

Dimensions	5x25	5x25 S*	6x30	6x30 S*	6x50	8x40	8x40 S*
d_0	5	5	6	6	6	8	8
h_1	35	40	40	45	60	50	65
d_p	12.5	12.5	12.5	12.5	12.5	12.5	12.5
$l_{E.\ min}$	29	29	35	35	55	46	45
l	25	25	30	30	50	40	40
d_s / d_s x l_s	3 - 4	4 x 35	4 - 5	4.5 x 40	4 - 5	4.5 - 6	5 x 60
drive	-	PZ2	-	PZ2	-	-	PZ2
t_{fix}	-	6	-	5	-	-	15

Dimensions	8x65	10x50	10x50 S**	10x80	12x60	14x70
d_0	8	10	10	10	12	14
h_1	75	70	74	100	80	90
d_p	2 x 12.5	12.5	12.5	-	-	-
$l_{E.\ min}$	71	58	57	88	70	82
l	65	50	50	80	60	70
d_s / d_s x l_s	4.5 - 6	6 - 8	7 x 69	6 - 8	8 - 10	10 - 12
drive	-	-	SW13/T40	-	-	-
t_{fix}	-	-	13	-	-	-

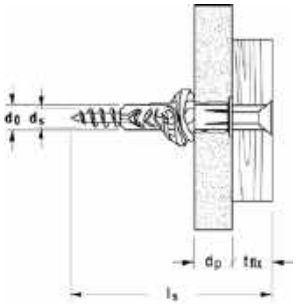
Dimensions in stock:
Fixing systems: pg. 678

General fixings

Article 88520 UX

FISCHER universal plugs UX
building materials: BN, BL, VD, LD, VP, LP, HP





HF halogen free

ls = l + dp + tfix + ds

*also with border

Dimensions	5x30*	6x35*	6x50*	8x40*
d_0	5	6	6	8
h_1	40	45	60	50
d_p	9.5	9.5	9.5	9.5
l	30	35	50	40
d_s	3 - 4	4 - 5	4 - 5	4.5 - 6

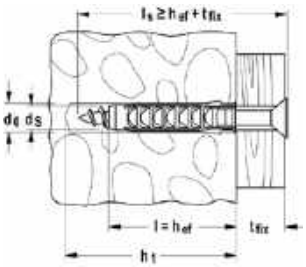
Dimensions	8x50*	10x60*	12x70	14x75
d_0	8	10	12	14
h_1	60	75	85	95
d_p	9.5	12.5	-	-
l	50	60	70	75
d_s	4.5 - 6	6 - 8	8 - 10	10 - 12

Dimensions in stock:
Fixing systems: pg. 677

Article 88554 SX

FISCHER expansion plugs SX
building materials: BN, VD, VP, BL, HP, LP, LD





HF halogen free

*with screw

Dimensions	4x20	5x25	6x30	6x30 S/10*	6x50	8x40
d_0	4	5	6	6	6	8
h_1	25	35	40	45	60	50
$l = h_{ef}$	20	25	30	30	50	40
d_s	2 - 3	3 - 4	4 - 5	4.5x40	4 - 5	4.5 - 6

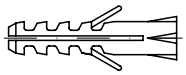
Dimensions	8x40 S/20*	8x65	10x50	12x60	14x70	16x80
d_0	8	8	10	12	14	16
h_1	65	75	70	80	90	100
$l = h_{ef}$	40	65	50	60	70	80
d_s	5x60	4.5 - 6	6 - 8	8 - 10	10 - 12	12 (1/2")

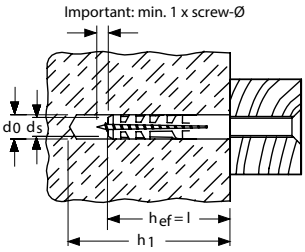
Dimensions in stock:
Fixing systems: pg. 678

General fixings

Article 88500 S

FISCHER expansion plugs S
building materials: BN, VD, VP





HF halogen free

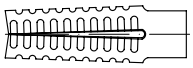
Dimensions	4	5	6	8	10
d_0	4	5	6	8	10
h_1	25	35	40	55	70
l	20	25	30	40	50
d_s	2 - 3	3 - 4	4 - 5	4.5 - 6	6 - 8

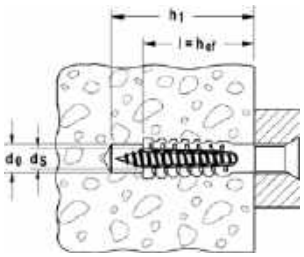
Dimensions	12	14	16	20	
d_0	12	14	16	20	
h_1	80	90	100	120	
l	60	75	80	90	
d_s	8 - 10	10 - 12	12 (1/2")	16	

Dimensions in stock:
Fixing systems: pg. 678

Article 88545 FMD

FISCHER steel expansion plugs FMD
building materials: BN, VD, VP, BL, HP, LP, LD





Dimensions	6x32	8x38	8x60	10x60
d_0*	6 - 7	10 - 12	10 -12	12 - 14
l	32	38	60	60
h_1	38	46	68	68
d_s	5 - 6	6 - 8	6 - 8	8 - 10

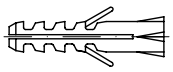
*the higher the building material pressure resistance the larger the drill diameter

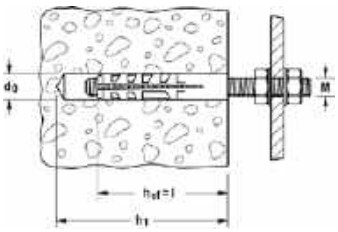
Dimensions in stock:
Fixing systems: pg. 678

General fixings

Article 88506 M-S

FISCHER expansion plugs M-S
building materials: BN, VD, VP, HP, LP, LD, BL





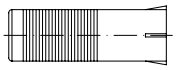
HF halogen free

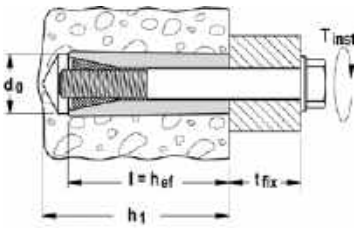
Dimensions	6	8	10	12
d_0	8	10	14	16
h_1	55	70	90	100
$l = h_{ef}$	40	50	70	80
thread	M 6	M 8	M 10	M 12

Dimensions in stock:
Fixing systems: pg. 679

Article 88510 M

FISCHER anchors M
building materials: BN, VD, VP, BL, HP





HF halogen free

Dimensions	M 5	M 6	M 8	M 10	M 12
d_0	10	12	16	20	24
h_1	45	50	65	80	90
$l = h_{ef}$	35	40	50	60	65

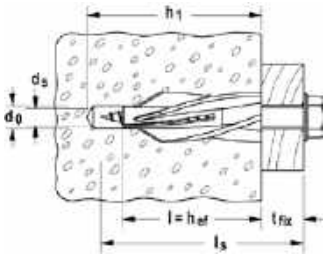
Dimensions in stock:
Fixing systems: pg. 679

General fixings

Article 88507 GB

FISCHER aircrete anchors GB
building materials: VP





HF halogen free

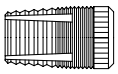
ls = hef + ds + tfix

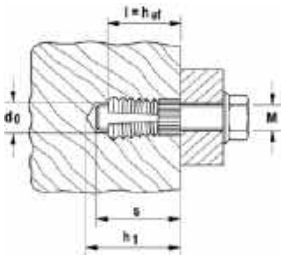
Dimensions	8	10	14
d_0	8	10	14
h_1	60	65	90
l	50	55	75
d_s x l_s	5	7	10

Dimensions in stock:
Fixing systems: pg. 679

Article 88521 PA 4

FISCHER brass fixings PA 4
building materials: BN, VD, HP





*with soft building material drill ∅ reduce by 0.5 mm

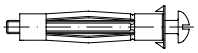
Dimensions	M 6/7.5	M 6/10.5	M 6/13.5	M 8/25	M 10/25
d_0*	8	8	8	10	12
h_1	7.5	10.5	13.5	25	25
l	7.5	10.5	13.5	25	25
thread	M 6	M 6	M 6	M 8	M 10
s	7.5	10.5	13.5	25	25

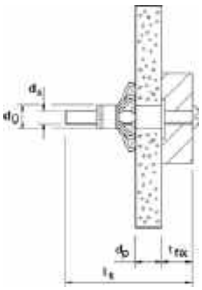
Dimensions in stock:
Fixing systems: pg. 679

Cavity fixings

Article 88512 HM-S

FISCHER cavity metal fixings HM-S
building materials: HP





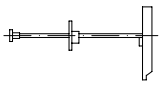
Dimensions	4x32	4x46	4x59	5x37	5x52
d_0	8	8	8	10	10
h_1	40	52	65	45	58
l	32	45	60	37	52
$d_s x l_s$	M 4x40	M 4x52	M 4x65	M 5x45	M 5x58
d_p	3 - 13	16 - 23	31 - 40	6 - 15	7 - 21
t_{fix}	≤ 15 - 25	≤ 12 - 21	≤ 12 - 21	≤ 8 - 17	≤ 10 - 24

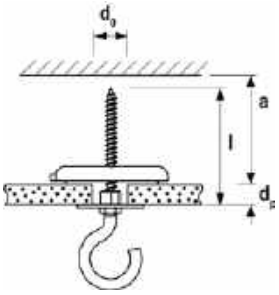
Dimensions	5x65	6x37	6x52	6x65	6x80
d_0	10	12	12	12	12
h_1	71	45	58	71	88
l	65	37	52	65	80
$d_s x l_s$	M 5x71	M 6x45	M 6x58	M 6x71	M 6x88
d_p	20 - 34	6 - 15	7 - 21	17 - 34	32 - 50
t_{fix}	≤ 12 - 26	≤ 12 - 21	≤ 14 - 28	≤ 13 - 30	≤ 16 - 34

Dimensions in stock:
Fixing systems: pg. 679

Article 88509 K 54

FISCHER toggle fixings K 54
building materials: HP, LP





HF halogen free

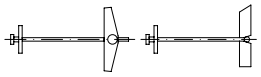
Dimensions	54
d_0	10
d_p	65
a	58
l	125
thread	wood screw 4 mm

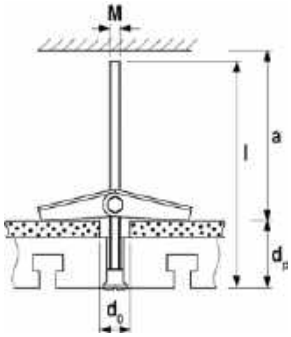
Dimensions in stock:
Fixing systems: pg. 679

Cavity fixings

Article 88518 KD

FISCHER spring toggles KD
building materials: HP, LP



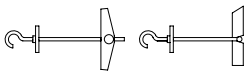


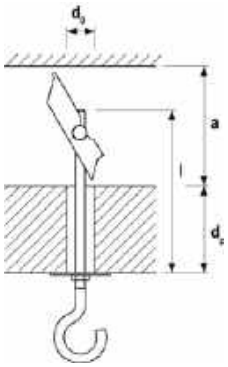
Dimensions	3	4	5	6	8
d_0	12	14	16	16	20
d_p	65	69	63	63	55
a	27	34	70	70	75
l	95	105	100	100	100
thread	M 3x90	M 4x100	M 5x100	M 6x100	M 8x100

Dimensions in stock:
Fixing systems: pg. 679

Article 88519 KDH

FISCHER spring toggles KDH
building materials: HP, LP





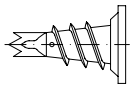
Dimensions	3	4	5	6	8
d_0	12	14	16	16	20
d_p	51	35	60	60	55
a	27	34	70	70	75
l	105	95	130	130	130
thread	M 3x80	M 4x70	M 5x90	M 6x100	M 8x100

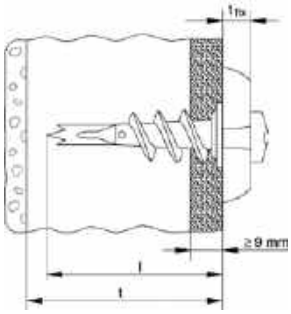
Dimensions in stock:
Fixing systems: pg. 680

Cavity fixings

Article 88598 GKM

FISCHER plasterboard fixings GKM
self-tapping thread, Pozidriv cross recess Z2
building materials: HP



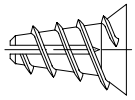


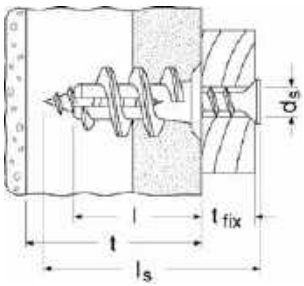
Dimensions	5
l	31
t	35
for screw diameter	4 – 5
t_{fix}	-

Dimensions in stock:
Fixing systems: pg. 680

Article 88598 GK

FISCHER plasterboard fixings GK
with setting tool
building materials: HP





HF halogen free

Dimensions	5
l	22
t	25
d_s	4 – 5 x ls
t_{fix}	-

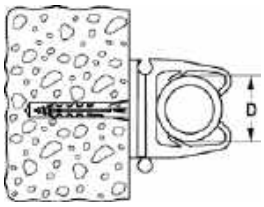
Dimensions in stock:
Fixing systems: pg. 680

Electrical fixings

Article 88558 FC

FISCHER pipe clips FC
for conduits and pipes





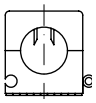
HF halogen free

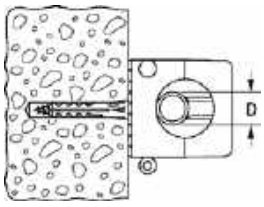
Dimensions	6 - 9	9 - 12	12 - 16	16 - 20
$d_{min.}$ - $d_{max.}$	6 - 9	9 - 12	12 - 16	16 - 20

Dimensions in stock:
Fixing systems: pg. 680

Article 88559 SCH

FISCHER saddle clips SCH
for conduits and pipes





HF halogen free

Dimensions	812*	1216**	1619**
$d_{min.}$ - $d_{max.}$	8 - 12	12 - 16	16 - 19
for WICU pipes	6x1 - 8x1	10x1 - 12x1	-

Dimensions	1623**	2332*	3242**
$d_{min.}$ - $d_{max.}$	16 - 23	23 -32	32 - 42
for WICU pipes	15x1 - 18x1	22x1 - 22x1.5	22x1 - 22x1.5

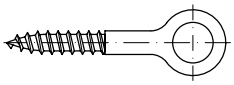
*only available in white
**available in grey or white

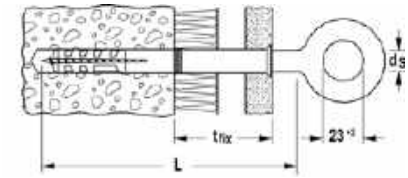
Dimensions in stock:
Fixing systems: pg. 680

Scaffold fixings

Article 88536

FISCHER scaffold eyebolts GS 12
for use with plugs S 14 ROE
building materials: BN, VD



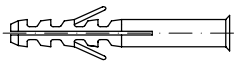


Dimensions	12x90	12x120	12x160	12x190	12x230	12x300	12x350
d_s	12	12	12	12	12	12	12
L	90	120	160	190	230	300	350
t_{fix}	15	30/10	65/45	110/70	110/70	110/70	110/70
eye ∅	23	23	23	23	23	23	23

Dimensions in stock:
Fixing systems: pg. 680

Article 88536

FISCHER plugs S 14 ROE
building materials: BN, VD



Dimensions	70	100	135	185
d_0	14	14	14	14
h_2	80	110	145	195
h_{ef}	70	70	70	70
l	70	100	135	185
t_{fix}	-	30	65	110
l + 5 mm	75	105	140	190

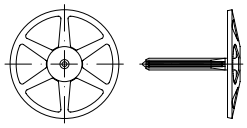
HF halogen free

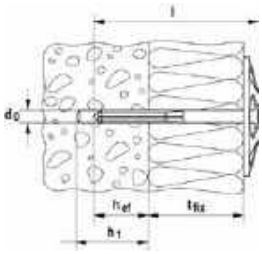
Dimensions in stock:
Fixing systems: pg. 680

Insulation supports

Article 88514 DHK

FISCHER insulation supports DHK
building materials: BN, VD, VP, BL, LP, LD





disc ∅ 90 for soft insulation

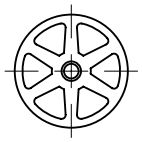
Dimensions	40	60	80	100	120
d_0	8	8	8	8	8
h_1	30	30	30	30	30
h_{ef}	20	20	20	20	20
l	65	85	105	125	145
t_{fix}	40	60	80	100	120

Dimensions	140	160	180	200	220
d_0	8	8	8	8	8
h_1	30	30	30	30	30
h_{ef}	20	20	20	20	20
l	165	185	205	225	245
t_{fix}	140	160	180	200	220

Dimensions in stock:
Fixing systems: pg. 681

Article 88580 DT

FISCHER insulation discs DT
for use with nail plug N

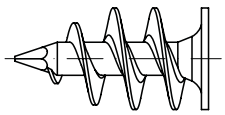


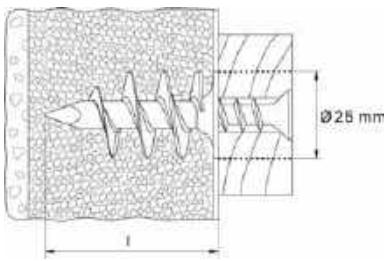
Dimensions	90/4	90/8
disc ∅	90	90
disc height	9.3	9.3
d_f	4	8.2

Dimensions in stock:
Fixing systems: pg. 681

Article 88696 FID

FISCHER insulation fixings FID
building materials: HP





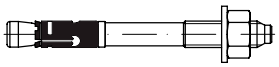
Dimensions	50	90
l	50	90
d_s	4.5 - 5	6
drive	T40	6 mm / 6-kt

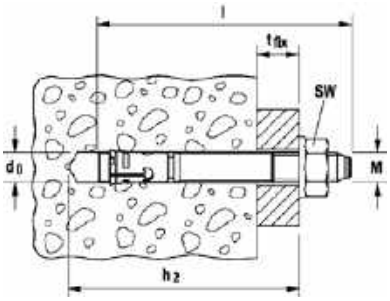
Dimensions in stock:
Fixing systems: pg. 681

High performance steel anchors

Article 88741

UPAT express anchors MAX
with 1 expanding cone, nut and washer
building materials: BN, VD





ETA CE | R120 fire resistance classification | Z suitable for tenell zone | VdS approval

ETA-10/0170

Dimensions	8/10/75	8/30/95	8/50/115	10/10/95	10/20/105	10/30/115	10/50/135
d_0	8	8	8	10	10	10	10
h_2	65	85	105	85	95	105	125
l	75	95	115	95	105	115	135
t_{fix}	10	30	50	10	20	30	50
SW	13	13	13	17	17	17	17

Dimensions	10/80/165	10/100/185	12/10/110	12/20/120	12/30/130	12/50/150	12/80/180
d_0	10	10	12	12	12	12	12
h_2	165	175	100	110	120	140	180
l	80	185	110	120	130	150	80
t_{fix}	100	100	10	20	30	50	100
SW	17	17	19	19	19	19	19

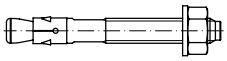
Dimensions	12/100/200	12/120/220	12/160/260	12/200/300	16/25/148	16/50/173	16/100/223
d_0	12	12	12	12	16	16	16
h_2	190	210	250	290	135	160	210
l	200	220	260	300	148	173	223
t_{fix}	100	120	160	200	25	50	100
SW	19	19	19	19	24	24	24

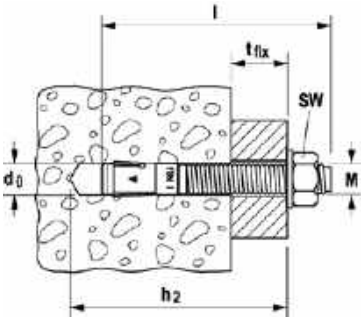
Dimensions	16/160/283	16/200/323	16/250/373	16/300/423	20/30/172	20/60/202	
d_0	16	16	16	16	20	20	
h_2	270	310	360	410	155	185	
l	283	323	373	423	172	202	
t_{fix}	160	200	250	300	30	60	
SW	24	24	24	24	30	30	

Dimensions in stock:
Fixing systems: pg. 681

Article 88764

UPAT express anchors IMC
with 1 expanding cone, nut and washer
building materials: BN, VD





ETA CE | F120 fire resistance classification

ETA-10/0169

Dimensions	6/10/55	8/5/56 K	8/5/66	8/10/71	8/20/81	8/30/91	8/50/111	8/100/161
d_0	6	8	8	8	8	8	8	8
h_2	50	51	61	66	76	86	106	156
l	55	56	66	71	81	91	111	161
t_{fix}	10/-	-/5	5/15	10/20	20/30	30/40	50/60	100/110
SW	13	13	13	13	13	13	13	13

Dimensions	10/5/71 K	10/10/86	10/20/96	10/30/106	10/50/126	10/100/176	12/5/86 K	12/10/106
d_0	10	10	10	10	10	10	12	12
h_2	63	78	88	98	118	168	75	95
l	71	86	96	106	126	176	86	106
t_{fix}	-/5	10/20	20/30	30/40	50/60	100/110	-/5	10/25
SW	17	17	17	17	17	17	19	19

Dimensions	12/20/116	12/30/126	12/50/146	12/100/196	12/120/216	12/140/236	12/160/256	12/180/276
d_0	12	12	12	12	12	12	12	12
h_2	105	115	135	185	205	225	245	265
l	116	126	146	196	216	236	256	276
t_{fix}	20/35	30/45	50/65	100/115	120/135	140/155	160/175	185/195
SW	19	19	19	19	19	19	19	19

Dimensions	12/200/296	12/250/346	16/15/120 K	16/25/145	16/50/170	16/100/220	16/140/260	16/160/280
d_0	12	12	16	16	16	16	16	16
h_2	285	335	105	129	154	204	244	264
l	296	346	120	145	170	220	260	280
t_{fix}	200/215	250/265	-/15	25/40	50/65	100/115	140/155	160/175
SW	19	19	24	24	24	24	24	24

Dimensions	16/200/321	16/250/371	16/300/421	20/30/184	20/60/214			
d_0	16	16	16	20	20			
h_2	304	354	404	165	195			
l	321	371	421	184	214			
t_{fix}	200/215	250/265	300/315	30/55	60/85			
SW	24	24	24	30	30			

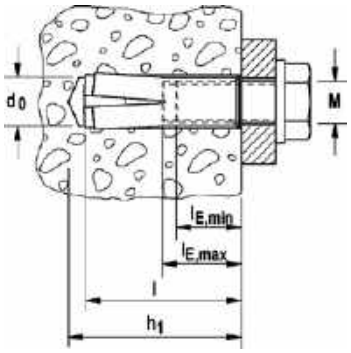
Dimensions in stock:
Fixing systems: pg. 682

High performance steel anchors

Article 88716

UPAT impact anchors USA
with internal thread M





ETA CE R120

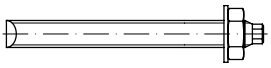
ETA-10/0172
ETA-10/0168

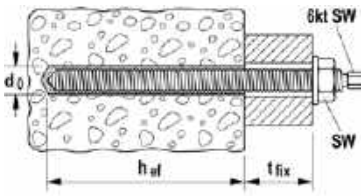
Dimensions	M 6	M 8	M 8x40	M 10	M 12	M 16	M 20
d_0	8	10	10	12	15	20	25
$l = h_{ef}$	30	30	40	40	50	65	80
$l_{E,min.} l_{E,min.}$	6	8	8	10	12	16	20
$l_{E,min.} l_{E,max.}$	13	13	13	17	22	28	34
h_1	32	33	43	43	54	70	85

Dimensions in stock:
Fixing systems: pg. 682

Article 88722

UPAT threaded rods UKA 3-ASTA
with nut and washer





ETA CE F120

for use with UKA 3-cartridges and injection mortar UPM 55, UPM 44, UPM 33

Dimensions	M 8x110	M 8x150	M 8x190	M 10x130	M 10x165	M 10x190
d_0	10	10	10	12	12	12
t_{fix}	13	60	96	20	57	82
h_{ef}	80	80	80	90	90	90
wrench size hexagon	5	5	5	5	7	7

Dimensions	M 12x160	M 12x180	M 12x220	M 12x250	M 12x300	M 14x170
d_0	14	14	14	14	14	16
t_{fix}	25	50	90	120	170	38
h_{ef}	110	110	110	110	110	120
wrench size hexagon	8	8	8	8	8	10

Dimensions	M 16x165	M 16x190	M 16x250	M 16x300	M 20x220	M 20x260
d_0	18	18	18	188	25	25
t_{fix}	13	35	98	148	30	65
h_{ef}	125	125	125	125	170	170
wrench size hexagon	12	12	12	12	12	12

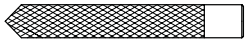
Dimensions	M 20x300	M 20x350	M 22x280	M 24x300	M 27x340	M 30x380
d_0	25	25	30	28	32	35
t_{fix}	105	155	65	65	60	65
h_{ef}	170	170	210	210	250	280
wrench size hexagon	12	12	12	-	-	-

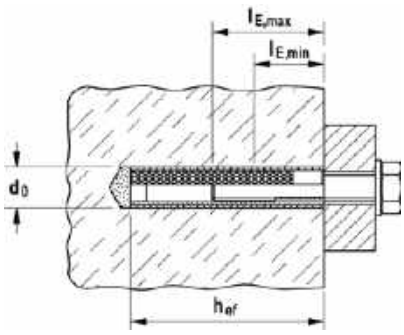
Dimensions in stock:
Fixing systems: pg. 683

High performance steel anchors – Chemical

Article 88714

UPAT internal thread bushes UKA 3-IST





Dimensions	M 5	M 6	M 8	M 10	M 12	M 16	M 20
d_0	10	12	14	18	20	24	32
$h_{ef\ min.}$*	75/–	75/–	90/80	90/80	125/115	160/160	200/–

*steel zinc plated/A 4

Dimensions in stock:
Fixing systems: pg. 632

Article 88770

UPAT internal thread anchors UPM-I



Dimensions	M 6	M 8	M 10	M 12
d_0	14	14	18	18

d_0 = drill hole ∅

Dimensions in stock:
Fixing systems: pg. 633

Chemical fixings

Article 88735

UPAT mesh bushes UPM-SH-K



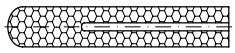
Dimensions	12	16	20
d_0	12	16	20
matching for UPM-A	M 6 - M 8	M 8 - M 10	M 12 - M 16
matching for UPM-I	-	M 6 - M 8	M 6 - M 12

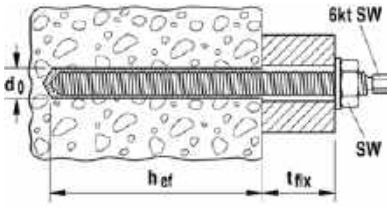
d_0 = drill hole ∅

Dimensions in stock:
Fixing systems: pg. 633

Article 88720

UPAT resin capsules UKA 3-PLUS





Dimensions	M 8	M 10	M 12	M 14	M 16
t = h_{ef}	80	90	110	120	125
matching for ASTA	M 8	M 10	M 12	M 14	M 16
matching for IST	M 5	M 6	M 8	M 10	-

Dimensions	M 20	M 22	M 24	M 27	M 30
t = h_{ef}	170	210	210	250	280
matching for ASTA	M 20	M 22	M 24	M 27	M 30
matching for IST	M 20	-	-	-	-

ETA CE | R120 fire resistance classification | Z suitable for tensil zone

ETA-17/0197

Dimensions in stock:
Fixing systems: pg. 633

The "MULTI-MONTI® fastener system" is a fast, secure, time-saving and cost-cutting screw fastening method.

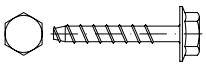
Without plugs and without expansion pressure, "MULTI-MONTI® screw anchors" can be mounted into building materials like
• Concrete, natural stone • Lime sand brick
• Solid brick, clinker brick • Hollow-block concrete

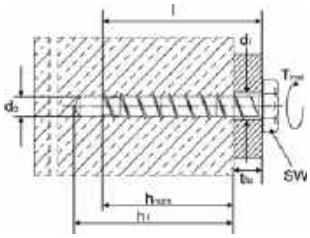
"MULTI-MONTI® screw anchors MMS-plus are well-suited to all regular standard fastenings.

REYHER ARTICLE/MULTI-MONTI® TYPE

88902

Type MMS-plus SS
Hexagon head
steel, ZP





ETA 15/0784 Z-21.1-2103

Z suitable for tenell zone F120 fire resistance classification

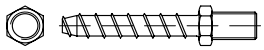
∅ x l	Wrench size hexagon	Drill ∅	Clamping length t_{fix}	Anchor depth h_{nom}	Washer-∅
6 x 40	8	5.0	5	35	11.0
6 x 50	8	5.0	5 - 15	45 - 35	11.0
6 x 60	8	5.0	15 - 25	45 - 35	11.0
6 x 80	8	5.0	35 - 45	45 - 35	11.0
7.5 x 35	10	6.0	1	35	14.0
7.5 x 40	10	6.0	5	35	14.0
7.5 x 50	10	6.0	15	35	14.0
7.5 x 60	10	6.0	5 - 25	55 - 35	14.0
7.5 x 80	10	6.0	25 - 45	55 - 35	14.0
7.5 x 100	10	6.0	45 - 65	55 - 35	14.0
7.5 x 120	10	6.0	65 - 85	55 - 35	14.0
7.5 x 140	10	6.0	85 - 105	55 - 35	14.0
10 x 60	13	8.0	10	50	19.0
10 x 70	13	8.0	5 - 20	65 - 50	19.0
10 x 80	13	8.0	15 - 30	65 - 50	19.0
10 x 100	13	8.0	35 - 50	65 - 50	19.0
10 x 120	13	8.0	55 - 70	65 - 50	19.0
10 x 140	13	8.0	75 - 90	65 - 50	19.0
10 x 160	13	8.0	95 - 110	65 - 50	19.0
12 x 80	15	10.0	5	75	22.0
12 x 90	15	10.0	1 - 15	90 - 75	22.0
12 x 100	15	10.0	10 - 25	90 - 75	22.0
12 x 120	15	10.0	30 - 45	90 - 75	22.0
12 x 140	15	10.0	50 - 65	90 - 75	22.0
12 x 160	15	10.0	70 - 85	90 - 75	22.0
16 x 120	21	14.0	5 - 20	115 - 100	30.0
16 x 130	21	14.0	15 - 30	115 - 100	30.0

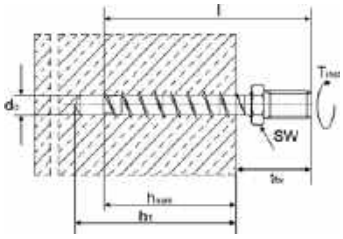
loading capacity ➔ TI-204

REYHER ARTICLE/MULTI-MONTI® TYPE

88903

Type St
Metric stud
steel. ZP





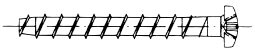
ETA 15/0784 · Z-21.1-2103 · VdS approval · F120 fire resistance classification · Z suitable for tensil zone

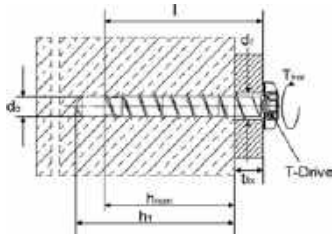
∅ x l	Wrench size hexagon	Drill ∅	Clamping length t_{fix}	Anchor depth h_{nom}	Connecting thread
6 x 55	10	5.0	10 - 20	45 - 35	M 6 x 5
6 x 65	10	5.0	20 - 30	45 - 35	M 6 x 5
7.5 x 60	10	6.0	25	35	M 8 x 14
7.5 x 70	10	6.0	35	35	M 8 x 14
7.5 x 80	10	6.0	25 - 45	55 - 35	M 8 x 14
7.5 x 100	10	6.0	45 - 65	55 - 35	M 8 x 14
7.5 x 120	10	6.0	65 - 85	55 - 35	M 8 x 14
10 x 75	13	8.0	25	50	M 10 x 11
10 x 85	13	8.0	20 - 35	65 - 50	M 10 x 11

REYHER ARTICLE/MULTI-MONTI® TYPE

88908

Type P
Pan head
steel. ZP





ETA 15/0784 · Z-21.1-2103 · VdS approval · F120 fire resistance classification · Z suitable for tensil zone

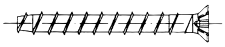
∅ x l	Drive	Drill ∅	Clamping length t_{fix}	Anchor depth h_{nom}	Head-∅
6 x 35	T30	5.0	1	35	11.2
6 x 40	T30	5.0	5	35	11.2
6 x 50	T30	5.0	5 - 15	45 - 35	11.2
6 x 60	T30	5.0	15 - 25	45 - 35	11.2
7.5 x 35	T30	6.0	1	35	14.5
7.5 x 40	T30	6.0	5	35	14.5
7.5 x 50	T30	6.0	15	35	14.5
7.5 x 60	T30	6.0	5 - 25	55 - 35	14.5
10 x 60	T40	8.0	10	50	19.5
10 x 70	T40	8.0	5 - 20	65 - 50	19.5

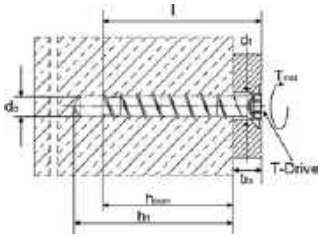
loading capacity ➔ TI-202

REYHER Article/MULTI-MONTI® TYPE

88905

Type F
Countersunk head



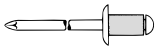


ETA 15/0784 · Z-21.1-2103 · suitable for tensil zone · VdS approval · F120 fire resistance classification

∅ x l	Drive	Drill ∅	Clamping length t_{fix}	Anchor depth h_{nom}	Head-∅
6 x 40	T30	5.0	5	35	11.5
6 x 50	T30	5.0	5 - 15	45 - 35	11.5
6 x 60	T30	5.0	15 - 25	45 - 35	11.5
6 x 70	T30	5.0	25 - 35	45 - 35	11.5
6 x 80	T30	5.0	35 - 45	45 - 35	11.5
6 x 100	T30	5.0	55 - 65	45 - 35	11.5
6 x 120	T30	5.0	75 - 85	45 - 35	11.5
6 x 140	T30	5.0	95 - 105	45 - 35	11.5
7.5 x 45	T40	6.0	10	35	15.5
7.5 x 50	T40	6.0	15	35	15.5
7.5 x 60	T40	6.0	5 - 25	55 - 35	15.5
7.5 x 70	T40	6.0	15 - 35	55 - 35	15.5
7.5 x 80	T40	6.0	25 - 45	55 - 35	15.5
7.5 x 100	T40	6.0	45 - 65	55 - 35	15.5
7.5 x 120	T40	6.0	65 - 85	55 - 35	15.5
7.5 x 140	T40	6.0	85 - 105	55 - 35	15.5
7.5 x 160	T40	6.0	105 - 125	55 - 35	15.5
10 x 60	T45	8.0	10	50	19.5
10 x 70	T45	8.0	5 - 20	65 - 50	19.5
10 x 80	T45	8.0	15 - 30	65 - 50	19.5
12 x 90	T50	10.0	15	75	24.0
12 x 100	T50	10.0	10 - 25	90 - 75	24.0
12 x 120	T50	10.0	30 - 45	90 - 75	24.0

Table: Loading capacities from MULTI-MONTI®-plus screw anchors

MULTI-MONTI®-plus	∅ 6	∅ 7,5	∅ 10	∅ 12
Bricks		Approval: Z-21.1-2103		
Anchor depth	35/45	35/55	65	75
Load capacity N_{RK} [kN]	0.9/1.5	0.75/1.2	2.5	1.5
Load capacity V_{RK} [kN]	0.9/1.5	0.75/1.2	2.5	1.5
Sand-lime brick		Approval: Z-21.1-2103		
Anchor depth	35/45	35/55	65	75
Load capacity N_{RK} [kN]	1.5	0.9/1.2	0.9	0.9
Load capacity V_{RK} [kN]	1.5	0.9/1.2	0.9	0.9
Perforated sand-lime bricks		Approval: Z-21.1-2103		
Anchor depth	35/45	35/55	65	75
Load capacity N_{RK} [kN]	0.9	0.9	1.5	1.5
Load capacity V_{RK} [kN]	0.9	0.9	1.5	1.5
Lightweight concrete		Approval: Z-21.1-2103		
Anchor depth	-	-	65	75
Load capacity N_{RK} [kN]	-	-	0.75	0.75
Load capacity V_{RK} [kN]	-	-	0.75	0.75
Cracked concrete C20/25		Approval: ETA-15/0784		
Anchor depth	35/45	35/55	50/65	75/90
Admissible load capacity N_{zul} [kN]	0.5/0.7	1.0/2.0	3.0/4.4	5.9/7.9
Non-cracked concrete C20/25		Approval: ETA-15/0784		
Anchor depth	35/45	35/55	50/65	75/90
Admissible load capacity N_{zul} [kN]	2.7/4.0	2.0/7.1	5.4/8.8	10.7/14.6



Standards and standard conversion for blind rivets

For the use of blind rivets as calculable construction elements, it was necessary to normatively and uniformly regulate dimensions, mechanical properties, such as tension and shearing loads, as well as general quality-related requirements.

This was done in the national standard DIN 7337 "Blind rivets with break pull mandrel" - first publication May 1985 - amended version July 1985 - follow-up version August 1991.

DIN 7337 – August 1991 included the version: Type A protruding head and type B countersunk head. In May 1997, the version "Open rivets with break pull mandrel" included published as the intended follow-up version for DIN 7337 – August 1991 with additional type C large protruding head.

In 1997, the international and European standards, ISO and EN, adopted the standardisation of the blind rivets.

Then, the basic standards, ISO 14588 and 14589, were published in August 2001.

In April 2003, the product standards, ISO 15973-16585 followed – a separate standard for each material combination/version/type. Here, DIN 7337 incl. design were withdrawn. ①

For the standardised versions and higher, special types are offered for particular uses.

Standards, versions, head types	DIN 7337		ISO - standards		Reyher-article-Nr.
	Material Rivet/Mandrel	in DIN 7337	Material ② Rivet/Mandrel	ISO	
Basic standards:					
– "Blind rivets: Terms and definition"	–	included	–	14588	–
– "Blind rivets: Mechanical test"	–		–	14589	–
Product standards:	Al alloy/steel zinc plated	included as type A–	AlA/St.	15977	88402, 88417
– Open-end blind rivets with protruding head	steel zinc plated/steel zinc plated		St./St.	15979	88401
	Al alloy/Al alloy		AlA/AlA	15981	88410
	A 2/A 2		A 2/A 2	15983	88404
	copper/steel zinc plated		Cu/St.	16582	88406
	copper/bronze		Cu/Br	16582	88407
	–		Cu/SSt	16582	–
	NiCu/steel zinc plated		NiCu/St.	16584	–
	NiCu/A 4		NiCu/SSt	16584	88493
	–		A 2/SSt	16585	–
	A 2/steel zinc plated		–	–	88405
	A 4/A 4		–	–	88415
	Al alloy/A 2		–	–	88403
	plastic/plastic		–		88408
– Open-end blind rivets with countersunk head	Al alloy/steel zinc plated	included as type B	AlA/St.	15978	88412
	steel zinc plated/steel zinc plated		St./St.	15980	88411
	–		AlA/AlA	15982	–
	–		A 2/A 2	15984	–
	–		Cu/St.	16583	–
	–		Cu/Br	16583	–
	–		Cu/SSt	16583	–
– Open-end blind rivets with large protruding head	Al alloy/steel zinc plated	included as type C	–	–	88409
	steel zinc plated/steel zinc plated		–	–	88413
	Al alloy/Al alloy		–	–	88414
	Al alloy/A 2		–	–	88416
– Closed-end blind rivets with protruding head	Al alloy/steel phosphated	–	AlA/St.	15973	88420(CAP)
	–		Al/AlA	15975	–
	–		St./St.	15976	–
	–		A 2/SSt	16585	–
	Al alloy/A 2		–	–	88420(CAP)
	copper/steel		–	–	88420(CAP)
	copper alloy/A 2		–	–	88420(CAP)
– Closed-end blind rivets with countersunk head	–	–	AlA/St.	15974	–

① For the conversion to ISO standards, production needs a certain amount of customisation/transition time. Until otherwise regulated, the article descriptions and REYHER article numbers in the article heads of this catalogue apply to the blind rivets offered. The Technical Information in the TI section of this catalogue also applies here.
For versions and/or material combinations for which standards currently do not exist, subsequent ISO standardisation or a remaining standard, DIN 7337, may have to be reckoned with.

② AlA = aluminium alloy (Al alloy) – SSt = stainless steel
St. = steel (should be protected for storage – e.g. zinc plated version)

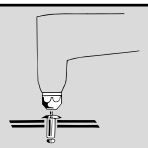
Blind rivets: Function and assembly process

Blind rivet technology was developed as a fastening procedure for hollow profiles and similar single-side access use fields.

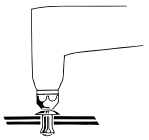
The simple, fast, and thus very economical, blind rivet principle has since replaced conventional fastening tasks in many assembly fields and is continually finding new fields of application.

REYHER has a comprehensive range of blind rivets so that a suitable design is available for every purpose.

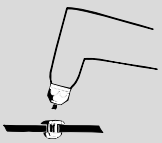
The placement devices provided are ergonomically formed and designed for long-term professional use.



① The blind rivet is inserted into the drill hole from the front of the work piece. The drift pin is incorporated until the head fit from the die of the setting tool. The blind rivet size is based on load and material strength.



② Through operation of the setting tool the protruding end of the rivet body is reformed through the drift pin head into a closing-head. At the same time the materials are compressed.

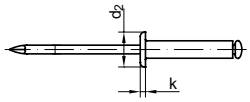


③ the rivet pin is pre-programmed to snap off at the predetermined breaking point – a secure rivet fastening is completed.

Dimensions blind rivets

Open-end blind rivet with protruding head

R 88401
steel zinc plated/steel zinc plated
R 88402
Al alloy/steel zinc plated
R 88403
Al alloy/A 2
R 88404
A 2/A 2
R 88405
A 2/steel zinc plated
R 88406
copper/steel zinc plated
R 88407
copper/bronze
R 88410
Al alloy/Al alloy
R 88415
A 4/A 4
R 88417
Al alloy/steel zinc plated
R 88493
NiCu/A 4



1) A 4 ~ ISO 15983

Nominal ∅	2.4	3	3.2	4	4.8	5	6	6.4
d_2	5	6.5	6.5	8	9.5	9.5	12	13
k	0.65	1.0	1.0	1.2	1.3	1.3	1.5	1.8
drill ∅	2.5	3.1	3.3	4.1	4.9	5.1	6.1	6.5

Material rivet	Shear strength (Tensile strength)							
Al alloy (ISO 15977)	350 (550)	550 (850)	750 (1100)	1250 (1800)	1850 (2600)	2150 (3100)	3200 (4600)	3400 (4850)
Steel (ISO 15979)	650 (700)	950 (1100)	1100 (1200)	1700 (2200)	2900 (3100)	3100 (4000)	4300 (4800)	4900 (5700)
A 2, A 4[1] (ISO 15983)	–	1800 (2200)	1900 (2500)	2700 (3500)	4000 (5000)	4700 (5800)	–	–
Cu (ISO 16582)	–	760 (950)	800 (1000)	1500 (1800)	2000 (2500)	–	–	–
NiCu-Monel (ISO 16584)	–	–	1400 (1900)	2200 (3000)	3300 (3700)	–	–	5500 (6800)

Length	Clamping length range (min. – max.)							
4	0.5-1.5	0.5-1.5	0.5-1.5	–	–	–	–	–
5	–	1.5-2.5	–	0.5-1.5	–	–	–	–
6	1.5-3.5	2.5-3.5	1.5-3.5	1.5-3.0	2.0-2.5	2.0-2.5	–	–
8	3.5-5.0	4.5-5.0	3.5-5.0	4.0-5.0	2.5-4.5	2.5-4.5	2.0-3.0	–
10	–	5.0-7.0	5.0-7.0	5.0-6.5	4.5-6.0	4.5-6.0	3.0-5.0	–
12	–	7.0-9.0	7.0-9.0	6.5-8.5	6.0-8.0	6.0-8.0	5.0-7.0	2.0-6.0
14	–	9.0-11.0	9.0-11.0	8.5-10.5	8.0-10.0	8.0-10.0	–	–
16	–	11.0-13.0	11.0-13.0	10.5-12.5	10.0-12.0	10.0-12.0	7.0-11.0	6.0-10.0
18	–	13.0-15.0	13.0-15.0	10.5-12.5	12.0-14.0	12.0-14.0	11.0-13.0	10.0-12.0
20	–	15.0-17.0	15.0-17.0	14.5-16.5	14.0-15.0	14.0-15.0	13.0-15.0	12.0-14.0
25	–	17.0-22.0	17.0-22.0	16.5-21.5	15.0-20.0	15.0-20.0	15.0-20.0	14.0-18.0
30	–	22.0-26.0	–	21.5-26.0	20.0-25.0	20.0-25.0	20.0-24.0	18.0-23.0
35	–	–	–	26.0-30.0	–	25.0-30.0	24.0-29.0	–
40	–	–	–	30.0-35.0	–	30.0-35.0	29.0-34.0	–
45	–	–	–	–	–	35.0-40.0	–	–
50	–	–	–	–	–	40.0-45.0	34.0-44.0	–
60	–	–	–	–	–	48.0-52.0	–	–
65	–	–	–	–	–	52.0-57.0	–	–
70	–	–	–	–	–	57.0-62.0	–	–
80	–	–	–	–	–	62.0-72.0	–	–

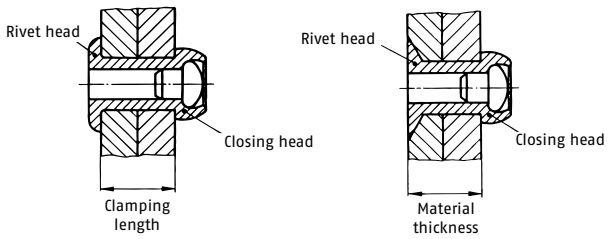
Rivet length specification:

For blind rivets with smooth rivet shafts and head types A, B, C or similar, the suitable nominal length can be set according to the rule of thumb:

Clamping length (material thickness) + 1 x rivet nom. Ø = rivet nominal length min.*

(*for interim results, the next-largest rivet length is to be chosen)

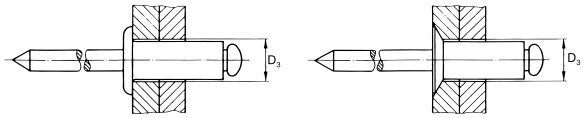
The allocation of the rivet nominal length according to clamping length/ material thickness differs minimally for standard blind rivets – between standard specifications (DIN 7337, attachment A and B) and factory specifications – according to various material combinations.



Rivet hole/Drill diameter:

For blind rivets of the types A, B or C corresponding or similar to DIN 7337 as well as for "CAP" and "PolyGrip" multi-section blind rivets, the rivet/ drill hole diameter is specified according to the following rule of thumb:

Rivet nom. Ø: d1 + 0.1 mm (tol. +0.1 mm) = Rivet hole/Drill hole Ø D3



The following applies for blind-rivet nuts:
Shaft Ø: d1/wrench size + 0.1 mm = Drill/Punch/Hole Ø D3

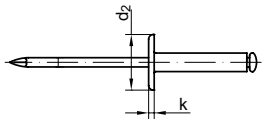
Dimensions blind rivets

Open-end blind rivets with protruding head

similar to DIN 7337-A

R 88408

plastic



Nominal Ø	4	5	6
d_2	9	11	13
k	1.2	1.5	1.5
drill Ø	4.1	5.1	6.1
Material rivet	**Shear strength min. in N (Tensile strength min. in N)**		
plastic	180 (-)	290 (-)	440 (-)
Length	**Clamping length range (min. - max.)**		
8	0.5 – 5.0	0.5 – 5.0	0.5 – 5.0
12	5.0 – 9.0	5.0 – 9.0	5.0 – 9.0

Open-end blind rivets with large protruding head

acc. to DIN 7337-C

R 88409

Al alloy/steel zinc plated

R 88413

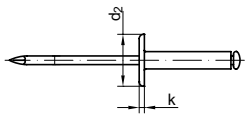
steel zinc plated

R 88414

Al alloy/Al alloy

R 88416

Al alloy/A 2



Nominal Ø	3.2	4	4.8	5
d_2	9.5	12	16	11/14
k	1.3	1.6	1.8	1.8
drill Ø	3.3	4.1	4.9	5.1
Material rivet	**Shear strength min. in N ① (Tensile strength min. in N) ①**			
Al alloy/steel	720 (950)	1400 (2000)	1800 (2700)	2000 (2800)
Length	**Clamping length range (min. – max.)**			
6	1.5 - 3.5	1.5 - 3.0	-	-
8	3.5 - 5.0	3.0 - 5.0	2.5 - 4.5	2.5 - 4.5
10	5.0 - 7.0	5.0 - 6.5	4.5 - 6.0	4.5 - 6.0
12	7.0 - 9.0	6.5 - 8.5	6.0 - 8.0	6.0 - 8.0
14	-	-	-	8.0 -10.0
16	9.0 - 13.0	8.5 - 12.5	8.0 - 12.0	10.0 - 12.0
18	-	12.5 - 16.5	-	12.0 - 14.0
20	-	-	12.0 - 15.0	14.0 - 15.0
25	-	-	15.0 - 20.0	15.0 - 20.0
30	-	-	-	20.0 - 25.0

① acc. to DIN 7337

Dimensions blind rivets

Open-end blind rivets with countersunk head

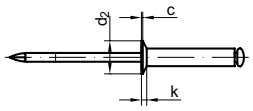
acc. to DIN 7337-B

R 88411

steel zinc plated/steel zinc plated

R 88412

Al alloy/steel zinc plated



Nominal ∅	3	4	5
d_2	6.0	7.5	9.0
k	0.9	1.0	1.2
c	0.3	0.3	0.4
drill ∅	3.1	4.1	5.1

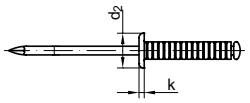
Shear strength (Tensile strenght)			
Force specifications are identical to the specifications for Article 88401 (see TI-200)			
Length	**Clamping length range (min. – max.)**		
4 St./Al.	-/1.0 – 1.5	-	-
6 St./Al.	1.0 – 3.0/1.5 – 3.5	1.0 – 2.5/1.0 – 3.0	1.0 – 2.0/-
8 St./Al.	3.0 – 5.0/3.5 – 5.0	2.5 – 4.5/3.0 – 5.0	2.0 – 4.0/2.0 – 4.5
10 St./Al.	5.0 – 6.5/5.0 – 7.0	4.5 – 6.5/5.0 – 6.5	4.0 – 6.0/4.5 – 6.0
12 St./Al.	6.5 – 8.5/7.0 – 9.0	6.5 – 8.5/6.5 – 8.5	6.0 – 8.0/6.0 – 8.0
14 St./Al.	-	-	8.0 – 9.5/-
16 St./Al.	-/9.0 – 13.0	8.5 – 12.0/8.5 – 12.5	
18 St./Al.	-	-/12.5 – 14.5	
20 St./Al.	-	12.0 – 16.0/14.5 – 16.5	
25 St./Al.	-	-	

Open-end blind rivets with grooved rivet body

for blind holes

R 88419 G

Al alloy/steel zinc plated



Nominal Ø	3,2	4
d_2	6,5	8
k	1	1,2
drill ∅	3,3	4,1

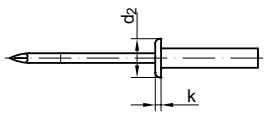
Material rivet	Shear strength min. in N (Tensile strenght min. in N)	
Al alloy	720 (950)	1400 (2000)
Length	**plate thickness (– max.)**	
8	-	4
10	6	-
12	-	8
14	-	-
16	12	12
18	-	-
20	-	-
25	-	-

Closed-end blind rivets with protruding head

for air- and water-tight riveting drill

R 88420 F

Al alloy/steel phos.
Al alloy/A 2
Cu/steel oiled
Cu/steel oiled
Cu/A 2



Dimensions	3.2	4	4.8
d_2	6	8	9.5
k	1.1	1.3	1.8
Drill ∅	3.3	4.1	4.9

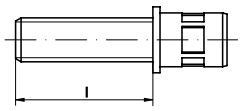
Material rivet	Shear strength min. in N (Tensile strenght min. in N) ①		
Al alloy (~ISO 15973)	1050 (1250)	1550 (2100)	2400 (3500)
Cu	1000 (1400)	1500 (2200)	2100 (3100)
Length	**Clamping length range (min. – max.)**		
6.5	0.5 - 2.0	-	-
7.5	1.0 – 3.0	-	-
8	1.5 - 3.0	0.5 - 3.0	1.0 - 3.0
9.5	3.0 - 5.0	3.0 - 5.0	3.0 - 5.0
10.5	5.0 - 6.5	-	-
11	4.5 - 6.5	4.5 - 6.5	4.5 - 6.5
12.5	6.0 - 8.0	6.0 - 8.0	6.0 - 8.0
14	-	-	7.5 - 9.5
16	-	-	9.0 - 11.0
18	-	-	10.5 - 13.0
21	-	-	13.0 - 16.0

① Manufacturer specification

Dimensions blind rivets

Open-end blind rivets with connection thread

R 88421
steel zinc plated/steel zinc plated
> property class screw=8.8

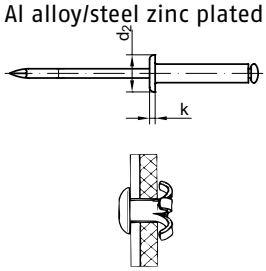


Nominal ∅	M 4	M 5	M 6	M 8
hole diam. ∅	6.1	7.1	9.1	11.1
l	10	11.5	13	15.5

Material rivet	Shear strength min. in N (Thread breaking strength min. in N)			
steel	5160 (6030)	7200 (10800)	10800 (17800)	18400 (27800)
	Clamping length range (min. – max.)			
	0.25 – 3.0	0.25 – 3.0	0.25 – 3.0	0.25 – 3.0

Open-end blind rivets with protruding head and peel rivet body

R 88422
Al alloy/steel zinc plated

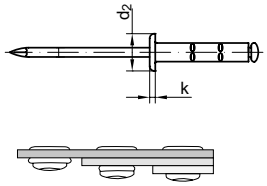


Nominal ∅	3.2	4	4.8
d_2	6.5	8	9.5
k	1	1.2	1.3
drill ∅	3.3	4.1	4.9

Material rivet	Shear strength min. in N (Tensile strength min. in N)		
Al alloy	800 (950)	1.400 (2.000)	2.000 (2.700)
Length	**Clamping length range (min. – max.)**		
8	1.0 – 3.5	1.0 – 3.0	–
10	2.5 – 5.0	2.5 – 5.0	2.5 – 5.0
12	4.5 – 7.0	4.5 – 6.5	4.5 – 7.0
14	–	6.0 – 8.0	6.5 – 9.0
16	6.5 – 11.0	7.5 – 10.0	8.5 – 10.0
18	–	9.0 – 12.0	9.5 – 12.0
20	–	11.5 – 14.0	11.5 – 14.0
25	–	–	13.5 – 19.0

Open-end blind rivets with protruding head and multigrip rivet body

R 88474
Al alloy/steel zinc plated
steel zinc plated/steel zinc plated
Al alloy/A 2
A 2/A 2
A 4/A 4



Nominal ∅	3,2	4	4,8	6,4
d_2	6.5	8	9.5	13
k	0.8	1	1.3	
drill ∅	3.3	4.1	4.9	6.5

Material rivet	Shear strength min. in N (Tensile strength min. in N)			
Al alloy	720 (1.050)	1.060 (1.680)	1.500 (2.300)	2.800 (4.000)
Steel	1.200 (1.600)	1.650 (2.400)	2.400 (3.200)	4.000 (6.100)
A 2/A 4	1.450 (2.300)	2.650 (3.600)	4.000 (5.000)	7.800 (8.800)
Length	**Clamping length range (min. – max.)**			
8	0.5 – 5.0	–	–	–
9.5	1.5 – 6.5	–	–	–
10	–	0.5 – 6.5	0.5 – 6.5	–
11	3.0 – 8.0	–	–	–
13	–	3.5 – 9.5	–	–
15	–	–	4.5 – 11.0	1.5 – 9.0
17	–	7.0 – 13.0	6.5 – 13.0	–
20	–	–	–	6.0 – 14.0
25	–	–	11.0 – 19.5	10.0 – 18.0
30	–	–	16.0 – 24.0	–

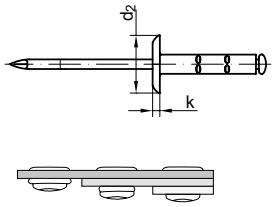
DIBt approval no. Z14.1-4 for
∅ 4.8 Al alloy/steel and Al alloy/A 2

Dimensions blind rivets

Open-end blind rivets with large protruding head and multigrip rivet body

R 88475

Al alloy/steel zinc plated
steel zinc plated/steel zinc plated
Al alloy/A 2



Nominal ∅	3.2	4	4.8
d_2	9.5	12	16
k	1.3	1.5	1.8
drill ∅	3.3	4.1	4.9

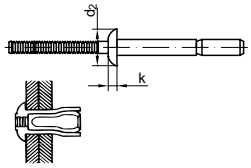
Material rivet	Shear strength min. in N (Tensile strength min. in N)		
Al alloy	720 (1.050)	1.060 (1.680)	1.600 (2.270)
steel	1.200 (1.600)	1.650 (2.400)	2.400 (3.200)

Length	Clamping length range (min. – max.)		
8	0.5 – 5.0	–	–
9.5	1.5 – 6.5	–	–
10	–	0.5 – 6.5	0.5 – 6.5
11	3.0 – 8.0	–	–
13	–	3.5 – 9.5	–
15	–	–	4.5 – 11.0
17	–	7.0 – 13.0	6.5 – 13.0
25	–	–	11.0 – 19.5
30	–	–	16.0 – 24.0

Open-end blind rivets with protruding head for high strength assembly

R 88476

steel zinc plated/steel zinc plated



Nominal ∅	4.8	6.4
d_2	9.2	12.4
k	2.2	2.6
drill ∅	4.9	6.5

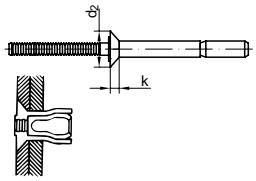
Material rivet	Shear strength min. in N (Tensile strength min. in N)	
steel	6.850 (4.500)	12.500 (8.200)

Length	Clamping length range (min. – max.)	
10.5	1.6 – 6.4	–
14.1	–	2.0 – 9.5
14.5	5.5 – 11.1	–
20.5	–	2.0 – 15.9

Open-end blind rivets with countersunk head for high strength assembly

R 88477

steel zinc plated/steel zinc plated



Nominal ∅	4.8	6.4
d_2	8.9	11
k	2.2	2.6
drill ∅	4.9	6.5

Material rivet	Shear strength min. in N (Tensile strength min. in N)	
steel	6.850 (4.500)	12.500 (8.200)

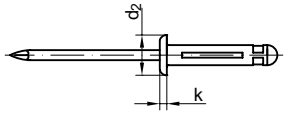
Length	Clamping length range (min. – max.)	
10.5	1.6 – 6.4	–
14.1	–	2.0 – 9.5
14.5	5.5 – 11.1	–

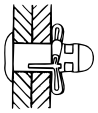
Dimensions blind rivets

Dimensions blind rivets

R 88488

Al alloy/Al alloy





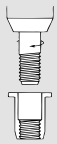
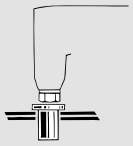
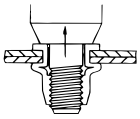
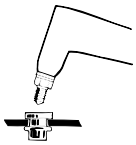
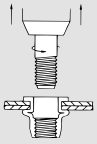
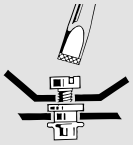
Nominal Ø	4.8
d_2	10.1
d_m	2.9
drill Ø	4.9

Material rivet	Shear strength min. in N (Tensile strength min. in N)
Al alloy	1.100 (1.400)

Length	Clamping length range (min. – max.)
22.2	4.7 – 9.5
25.4	7.9 – 12.7

Blind rivet nuts: Function and assembly process

By combining two fastening options, blind rivet nuts provide cost and quality benefits. On the one hand, a rivet fastening is made by rivetting the nuts with sheet metal and, on the other hand, a screw fastening is created. This combination makes it possible to use thin-walled component parts for which the inclusion of a thread is sometimes problematic due to the low material strength. A further advantage is that a detachable screw fastening is created without any heat impact and thus, an unchecked thermal lag in the components can be prevented. Additionally, various materials can be connected with each other.

		①	The blind rivet nut is screwed onto the thread mandrel and inserted into the drill hole from the front side of the workpiece. The length of the blind rivet nut is based on the material strength.
		②	By using the setting tool the blind rivet nut is reshaped, which creates a firmly-sitting, immovable thread in seconds. At the same time, materials can be pressed together in this process.
		③	After unscrewing the thread mandrel, a metric screw can be used to fasten an additional part.

The following table shows the minimum thread breaking force and guide values for a tightening torque.
The thread breaking force is determined under axial tensile load in the smallest and largest clamping range of the blind rivet nut.
The tightening torque is tested with a grease-free screw of property class 10.9 and a hardened washer as a clamping part.

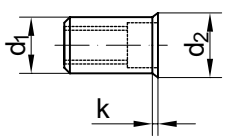
Table 1: Minimum thread breaking force and guide values for tightening torques

Thread nominal -Ø	Material	Blind rivet nuts round		Closed blind rivet nuts		Multi-range blind rivet nuts		Blind rivet nuts with hexagon	
		Thread breaking force [N]	Tightening torque [Nm]	Thread breaking force [N]	Tightening torque [Nm]	Thread breaking force [N]	Tightening torque [Nm]	Thread breaking force [N]	Tightening torque [Nm]
M 4	Steel zinc plated	6800	3	5000	3	5200	4	5200	3
	Alu	2400	2	–	–	3000	3	–	–
	A 2/A 4	5800	2.5	–	–	–	–	6800	3
M 5	Steel zinc plated	7000	6	9500	6	9500	6	10000	6
	Alu	4000	4	4300	4	4200	4	–	–
	A 2/A 4	10000	6	–	–	15000	14	10000	6
M 6	Steel zinc plated	13500	10	13000	9	15500	11	15000	12
	Alu	6000	6	6700	6	6500	6	–	–
	A 2/A 4	15000	10	–	–	25000	27	15000	10
M 8	Steel zinc plated	22000	4	21000	18	21500	24	23500	24
	Alu	10500	17.5	11000	17.5	10500	17.5	–	–
	A 2/A 4	27000	24	–	–	30000	40	28000	30
M 10	Steel zinc plated	28000	30	37000	50	–	–	–	–
	Alu	14000	28	–	–	–	–	–	–
	A 2	–	–	–	–	–	–	37000	48

Blind rivet nuts dimensions

Open blind rivet nuts with small countersunk head

R 88418
Al alloy
Steel ZP**
A 2**
A 4**



Dimensions	M 4	M 5	M 6	M 8
d_1	6	7	9	11
d_2*	7	8	10	12
k*	0.6	0.6	0.6	0.6
drill ∅	6.1	7.1	9.1	11.1

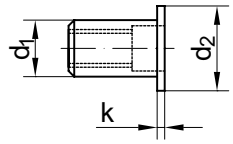
Available clamping lengths → price pages

*dimensions may vary depending on the product.
**successive conversion to curved shaft.

Blind rivet nuts dimensions

Open blind rivet nuts with protruding head

R 88423
Al alloy
Steel ZP**
A 2**
A 4**



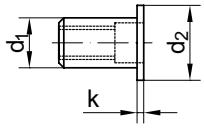
Dimensions	M 4	M 5	M 6	M 8	M 10
d_1	6	7	9	11	12
d_2*	9	10	12	15	15
k*	0.8	1	1.5	1.5	1.5
drill ∅	6.1	7.1	9.1	11.1	12.1

Available clamping lengths → price pages

Open blind rivet nuts with protruding head, with multigrip rivet body

for variable clamping length

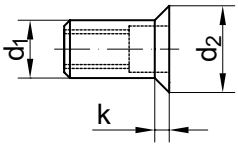
R 88490
Al alloy
Steel ZP
A 2



Dimensions	M 4	M 5	M 6	M 8
d_1	6	7	9	11
d_2*	10	11	13	16
k*	0.8	1.0	1.5	1.5
drill ∅	6.1	7.1	9.1	11.1
clamping length	0.5 – 6.0	0.5 – 6.0	0.5 – 6.0	0.5 – 7.5

Open blind rivet nuts with countersunk head

R 88424
Al alloy
Steel ZP**
A 2*
A 4*



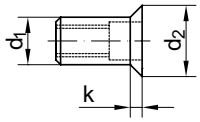
Dimensions	M 4	M 5	M 6	M 8	M 10
d_1	6	7	9	11	12
d_2	9	10	12	14	15
k	1.5	1.5	1.5	1.5	1.5
drill ∅	6.1	7.1	9.1	11.1	12.1

Available clamping lengths → price pages

Open blind rivet nuts with countersunk head, with multigrip rivet body

for variable clamping length

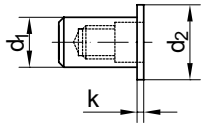
R 88491
Al alloy
Steel ZP



Dimensions	M 4	M 5	M 6	M 8
d_1	6	7	9	11
d_2*	10	11	13	16
k*	1.5	1.5	1.5	1.5
drill ∅	6.1	7.1	9.1	11.1
Clamping length	1.5 – 6.0	1.5 – 6.0	1.5 – 6.0	1.5 – 7.5

Closed blind rivet nuts with flat head

R 88480
Al alloy
Steel ZP

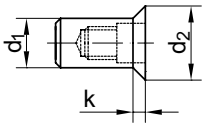


Dimensions	M 5	M 6	M 8	M 10
d_1	7	9	11	13
d_2*	11	12	15	19
k*	1.0	1.3	1.4	2.0
drill ∅	7.1	9.1	11.1	13.1

Available clamping lengths → price pages

Closed blind rivet nuts with countersunk head

R 88481
Al alloy
Steel ZP



Dimensions	M 4	M 5	M 6	M 8
d_1	6	7	9	11
d_2*	9	10	12	14
k*	1,5	1,5	1,5	1,5
drill ∅	6,1	7,1	9,1	11,1

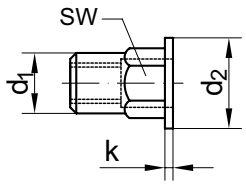
Available clamping lengths → price pages

*dimensions may vary depending on the product.
**successive conversion to curved shaft.

Blind rivet nuts dimensions

Open blind rivet nuts with hexagonal protruding head

R 88483
Steel ZP
A 2

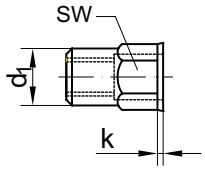


Dimensions	M 4	M 5	M 6	M 8	M 10
d_1	6	7	9	11	13
d_2*	9	10	13	16	16.5
k*	0.8	1	1.5	1.5	2.0
Hexagon size	SW 6	SW 7	SW 9	SW 11	SW 13
Mounting hole	6 +0.1	7 +0.1	9 +0.1	11 +0.1	13 +0.1

Available clamping lengths → price pages

Open blind rivet nuts with hexagonal small countersunk head

R 88484
Steel ZP
A 2



Dimensions	M 4	M 5	M 6	M 8	M 10
d_1	6	7	9	11	13
k*	0.6	0.6	0.6	0.6	0.7
Hexagon size	SW 6	SW 7	SW 9	SW 11	SW 13
Mounting hole	6 +0.1	7 +0.1	9 +0.1	11 +0.1	13 +0.1

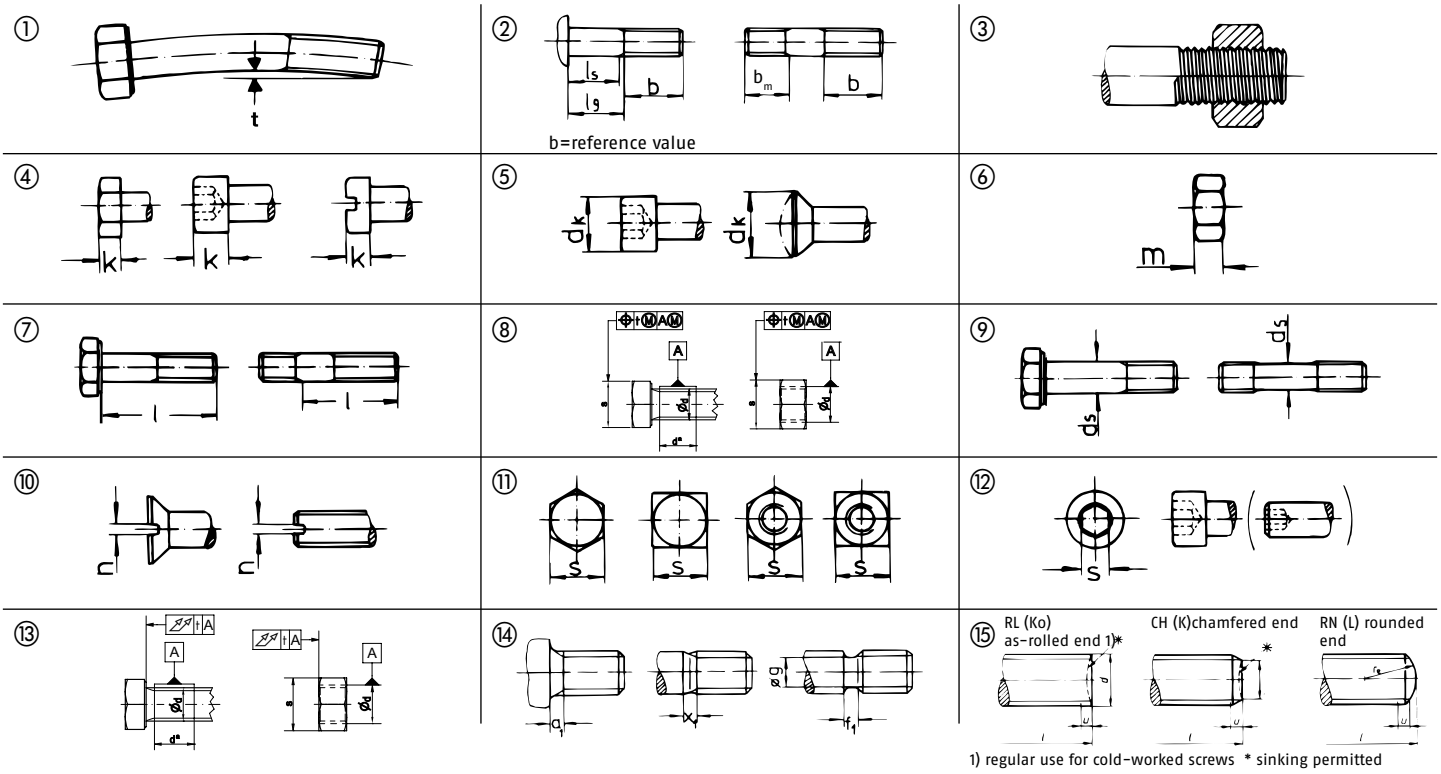
Available clamping lengths → price pages

*dimensions may vary depending on the product.


17
30

Dimensional, shape and position tolerances for screws and nuts are mainly defined in ISO 4759-1.
In addition, the following standards also define tolerances for specific requirements:

Thread runs and thread undercuts	Thread ends (→ TI-140)	Cotter pin holes	Surface roughness
• ISO 3508 • ISO 4755 • DIN 76-1	• ISO 4753 • DIN 78 • DIN 962	• ISO 7378 • DIN 34803	• DIN 267-2



	Characteristic			Dimension range	Procuct class A	Procuct class B	Procuct class C
①	Straightness (permissible deflection) (l = nominal length)		t	d m 8	0,0020 l + 0,05		2x(0,0020 l + 0,05)
				d > 8	0,0025 l + 0,05		2x(0,0025 l + 0,05)
②	Thread length		b		0 bis + 2 P	0 bis + 2 P	0 bis + 2 P
	Length of metal end	Stud	b_m		js 16	js 17	js 17
③	Thread dimension	Mutter			6 H	6 H	7H
		Nut			6 g	6 g	8 g
④	Head hight	External drive	k	k < 10	js 14	js 15	js 16
				k 10			js 17
		Internal drive	k	M 5	h 13	–	–
				M 5	h 14	–	–
⑤	Diameter of head		d_k		h 13 (slotted screws h 14)	–	–
⑥	Nut hight		m	m M 12	h 14	h 14	h 17
				> M 12 M 18	h 15	h 15	h 17
				> M 18	h 16	h 16	h 17
⑦	Nominal length		l	l m 150	js 15 (slotted screws l > 50 js 16)	js 17	js 17
				l > 150		js 17	2 js 17
⑧	Tolerances of position (screws)	s:d		Reference dimension for t: s	2 IT 13	2 IT 14	2 IT 15
		d_k:d		Reference dimension for t: d_k	2 IT 13	2 IT 14	2 IT 15
		n:d		Reference dimension for t: d	2 IT 12	2 IT 13	2 IT 14
	Tolerances of position (nuts)	s:d (core)		Reference dimension for t: s	2 IT 13	2 IT 14	2 IT 15
		n:d (core)		Reference dimension for t: d	2 IT 13	2 IT 14	2 IT 15

Tolerances for screws and nuts

Characteristic			Dimension range	Product class A	Product class B	Product class C
⑨ **Shank diameter**		ds		h 13	h 14	± IT 15
				Reduced shank: shank diameter ~ pitch diameter		
⑩ **Slot width**		n	n ≤ 1	+0.20 to +0.06	–	–
			n > 1 ≤ 3	+0.31 to +0.06		
			n > 3 ≤ 6	+0.37 to +0.07		
⑪ **Wrench size**	**External drive**	s		s ≤ 32 = h 13 s > 32 = h 14	s ≤ 19 = h 14/s > 19 ≤ 60 = h 15 s > 60 ≤ 180 = h 16/s > 180 = h 17	
⑫ **Wrench size**	**Internal drive**	s		s *Tol.* *0.7 EF8* *0.9 FS9* *1.3 K9* *1.5–3 D11* *4 E11* *5–14 E12* *> 14 D12*	–	–
⑬ **Tolerance of total run-out t**[b] (= angularity) acc. to ISO 4759-1 article 3.2.2.3 (for screws) 4.2.2.2 (for nuts)		∢	≤ M 39	(± 1°)[a]	(± 1°)[a]	(± 2°)[a]
			> M 39	(± 1/2°)[a]	(± 1/2°)[a]	(± 1°)[a]

a) Tolerances of total run-out is conform to angular deviation of...
b) Values for t see ISO 4759-1

⑭						⑮		
External thread		a_1	x_1	g_1 (f_1)	g_2 (f_2)	u	z_1 +	z_2 +
Nominal ∅ M	Pitch P	max.	max.	min.	max.	2 p max.	IT 14	IT 14
3	0.5	1.5	1.25	1.1	1.75	1	0.75	1.5
4	0.7	2.1	1.75	1.5	2.45	1.4	1	2
5	0.8	2.4	2	1.7	2.8	1.6	1.25	2.5
6	1	3	2.5	2.1	3.5	2	1.5	3
8	1.25	3.75	3.2	2.7	4.4	2.5	2	4
10	1.5	4.5	3.8	3.2	5.2	3	2.5	5
12	1.75	5.25	4.3	3.9	6.1	3.5	3	6
14	2	6	5	4.5	7	4	3.5	7
16	2	6	5	4.5	7	4	4	8
18	2.5	7.5	6.3	5.6	8.7	5	4.5	9

⑭						⑮		
External thread		a_1	x_1	g_1 (f_1)	g_2 (f_2)	u	z_1 +	z_2 +
Nominal ∅ M	Pitch P	max.	max.	min.	max.	2 p max.	IT 14	IT 14
20	2.5	7.5	6.3	5.6	8.7	5	5	10
22	2.5	7.5	6.3	5.6	8.7	5	5.5	11
24	3	9	7.5	6.7	10.5	6	6.7	12
27	3	9	7.5	6.7	10.5	6	6.7	13.5
30	3.5	10.5	9	7.7	12	7	7.5	15
33	3.5	10.5	9	7.7	12	7	8.2	16.5
36	4	12	10	9	14	8	9	18
39	4	12	10	9	14	8	9.7	19.5
42	4.5	13.5	11	10.5	16	9	10.5	21
45	4.5	13.5	11	10.5	16	9		22.5

⑭ = Excerpt from ISO 3508/4755 (DIN 76)
a_1 = Distance of the last full threadturn from the contact surface (for parts with threads to the head)
x_1 = Thread run-out general use
g (f) = Thread undercut general use (Type A)

⑮ = Excerpt from ISO 4753 (DIN 78)
u = Incomplete thread at screw ends (general use for screws with rolled threading)
z_1 = Length of dog point in ISD (Ka) finish
z_2 = Length of dog point in LD (Za) finish

Surface roughness (acc. to DIN 267-2, not regulated by ISO-standard)			R_z P < 2,5 l_m = 0,4 λ_c = 0,08	R_z P ≥ 2,5 l_m = 1,25 λ_c = 0,25	R_z nach DIN 4768 Teil 1
Thread flank	Screws	rolled	6,3	10	–
		cut	16	25	–
	Nuts		25	40	–
Connecting surface	Cold forging		16	25	–
	Warm forging		25	40	–
Shank (screws)	Cold forging		–	–	50
	Warm forging		–	–	100
Visible surface			10	–	–

Dimension, form and position tolerances for washers are determined in theISO 4759-3.

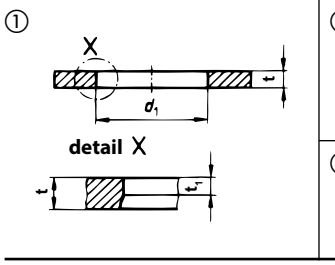
For dimensions without tolerance specification applies ISO 2768 (DIN 7168) m for product class A and ISO 2768 (DIN 7168) g for product class C.

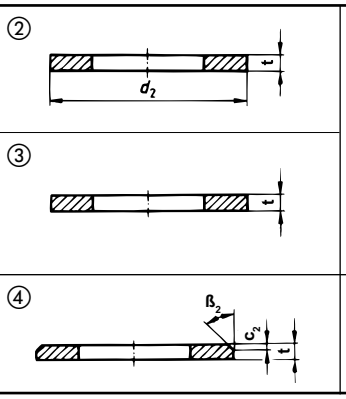
The washers shown are only examples. The information also applies for other standard and non-standard washers.

In the following tables, only the information for the standard product classes A and C.

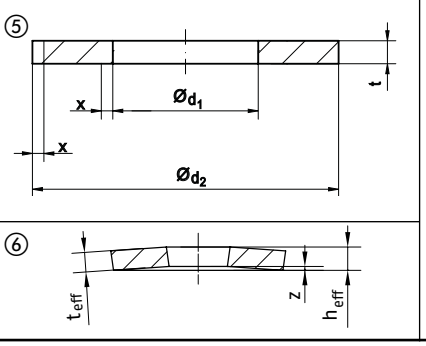
The reference measure is the information specified in the respective product standards individual measure.

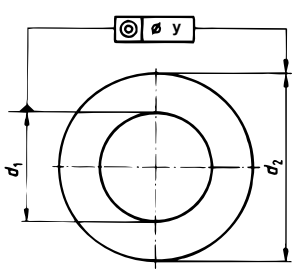
Dimension tolerances





Form and position tolerances





Dimension tolerances

Characteristic	Nominal dimension ≧	Nominal dimension <	Product class A (m)	Product class C (g)
① **Hole diameter d_1**	**t**		**d_1**	
	–	4	H 13	H 14
	4	–	H 14	H 15
	t		**t_1 min.**	
	–	2	0.3t	–
	2	4	0.25t	–
	4	–	0.2t	–
② **Outside diameter d_2**	**t**		**d_2**	
	–	4	h 14	h 16
	4	–	h 15	h 16
③ **Washer thickness t**	**> t ≦**		**Tol. mm**	
	–	0.5	± 0.05	± 0.10
	0.5	1.0	± 0.10	± 0.20
	1.0	2.5	± 0.20	± 0.30
	2.5	4.0	± 0.30	± 0.60
	4.0	6.0	± 0.60	± 1.00
	6.0	10	± 1.00	± 1.20
	10	20	± 1.20	± 1.60
④ **Chamfer** $ß_2$ = 35 ° to 45 °	**> t ≦**		**c_2 min.**	
	1	2	0.25t	0.25t
	2	4	0.22t	0.22t
	4	–	0.20t	0.20t

Form and position tolerances

Characteristic	Nominal dimension >	Nominal dimension ≦	Product class A (m)	Product class C (g)
⑤ **Thickness variation on the same part**	**t**		**Δ t***	
	–	0.5	0.025	
	0.5	1.0	0.05	
	1.0	2.5	0.10	
	2.5	4.0	0.15	–
	4.0	6.0	0.20	
	6.0	10	0.30	
	10	20	0.40	
⑥ **Flatness**	**t**		**z**	
	stainless steel excluded			
	–	0.5	0.10	
	0.5	1.0	0.15	
	1.0	2.5	0.20	
	2.5	4.0	0.30	–
	4.0	6.0	0.40	
	6.0	10	0.60	
	stainless steel			
	–	0.5	0.15	
	0.5	1	0.22	
	1	2.5	0.30	
	2.5	4	0.45	–
	4	6	0.60	
	6	10	0.90	
	10	20	1.5	
⑦ **Coaxiality y** (Reference element for tolerance y is d_2)	**≧ t <**		y max	
	–	2	2 IT 12	2 IT 13
	2	4	2 IT 13	2 IT 14
	4	–	2 IT 14	2 IT 15

* The tolerances for the hole diameter do not apply on the outbreak side ($t-t_1$).

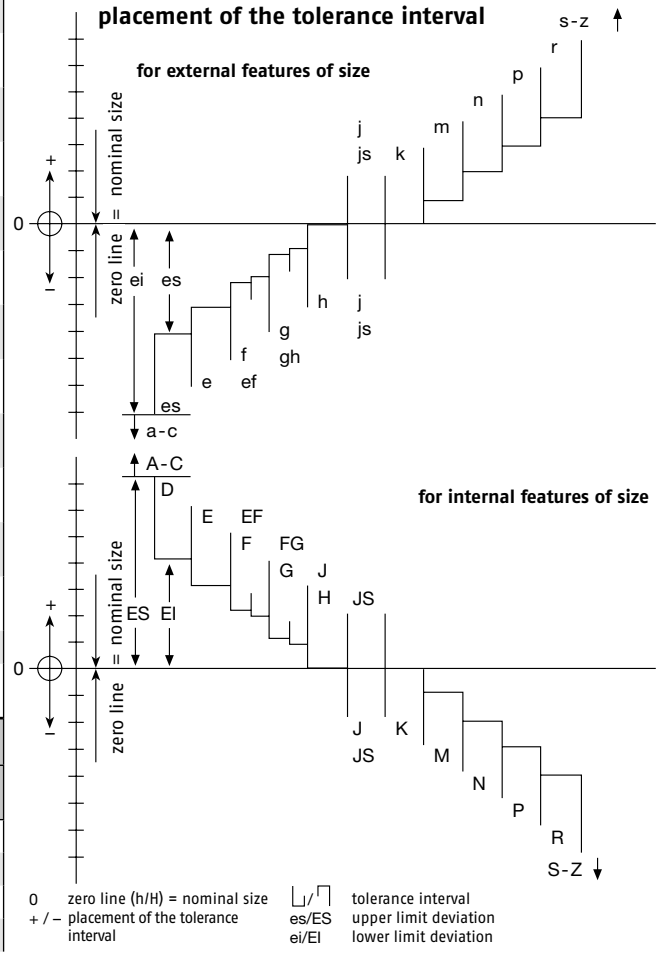
* Δ *t* apply at a distance of $x = 0.1 (d_2 - d_1)$ from the edge of the hole and the outer edge: i.e. only 60% of the ring width

The flatness is determined after measured for deburring.

Excerpt from ISO 4759-3

Tolerances, ISO deviations

Tolerances		Nominal dimensions												
		≤ 3	> 3 ≤ 6	> 6 ≤ 10	> 10 ≤ 18	> 18 ≤ 30	> 30 ≤ 50 (40)	> 50 ≤ 80	> 80 ≤ 120	> 120 ≤ 180	> 180 ≤ 250	> 250 ≤ 315	> 315 ≤ 400	> 400 ≤ 500
IT values in mm standard tolerances	IT 12	0.10	0.12	0.15	0.18	0.21	0.25	0.30	0.35	0.40	0.46	0.52	0.57	0.63
	IT 13	0.14	0.18	0.22	0.27	0.33	0.39	0.46	0.54	0.63	0.72	0.81	0.89	0.97
	IT 14	0.25	0.30	0.36	0.43	0.52	0.62	0.74	0.87	1.00	1.15	1.30	1.40	1.55
	IT 15	0.40	0.48	0.58	0.70	0.84	1.00	1.20	1.40	1.60	1.85	2.10	2.30	2.50
	IT 16	0.60	0.75	0.90	1.10	1.30	1.60	1.90	2.20	2.60	2.90	3.20	3.60	4.00
	IT 17	1.00	1.20	1.50	1.80	2.10	2.50	3.00	3.50	4.00	4.60	5.20	5.70	6.30
for external features of size in mm	a 11	− 0.270 − 0.330	− 0.270 − 0.345	− 0.280 − 0.370	− 0.290 − 0.400	− 0.300 − 0.430	− 0.310 − 0.470							
	c 11	− 0.060 − 0.120	− 0.070 − 0.145	− 0.080 − 0.170	− 0.095 − 0.205	− 0.110 − 0.240	− 0.120 − 0.280							
	f 8	− 0.006 − 0.020	− 0.010 − 0.028	− 0.013 − 0.035	− 0.016 − 0.043	− 0.020 − 0.053	− 0.025 − 0.064	− 0.030 − 0.076	− 0.036 − 0.090	− 0.043 − 0.106	− 0.050 − 0.122	− 0.056 − 0.137	− 0.062 − 0.151	− 0.068 − 0.165
	h 8 h 9	0/− 0.014 0/− 0.025	0/− 0.018 0/− 0.030	0/− 0.022 0/− 0.036	0/− 0.027 0/− 0.043	0/− 0.033 0/− 0.052	0/− 0.039 0/− 0.062	0/− 0.046 0/− 0.074	0/− 0.054 0/− 0.087	0/− 0.063 0/− 0.100	0/− 0.072 0/− 0.115	0/− 0.081 0/− 0.130	0/− 0.089 0/− 0.140	0/− 0.097 0/− 0.155
	h 10 h 11	0/− 0.040 0/− 0.060	0/− 0.048 0/− 0.075	0/− 0.058 0/− 0.090	0/− 0.070 0/− 0.110	0/− 0.084 0/− 0.130	0/− 0.100 0/− 0.160	0/− 0.120 0/− 0.190	0/− 0.140 0/− 0.220	0/− 0.160 0/− 0.250	0/− 0.185 0/− 0.290	0/− 0.210 0/− 0.320	0/− 0.230 0/− 0.360	0/− 0.250 0/− 0.400
	h 13 h 14	0/− 0.14 0/− 0.25	0/− 0.18 0/− 0.30	0/− 0.22 0/− 0.36	0/− 0.27 0/− 0.43	0/− 0.33 0/− 0.52	0/− 0.39 0/− 0.62	0/− 0.46 0/− 0.74	0/− 0.54 0/− 0.87	0/− 0.63 0/− 1.00	0/− 0.72 0/− 1.15	0/− 0.81 0/− 1.30	0/− 0.89 0/− 1.40	0/− 0.97 0/− 1.55
	h 15 h 16	0/− 0.40 0/− 0.60	0/− 0.48 0/− 0.75	0/− 0.58 0/− 0.90	0/− 0.70 0/− 1.10	0/− 0.84 0/− 1.30	0/− 1.00 0/− 1.60	0/− 1.20 0/− 1.90	0/− 1.40 0/− 2.20	0/− 1.60 0/− 2.50	0/− 1.85 0/− 2.90	0/− 2.10 0/− 3.20	0/− 2.30 0/− 3.60	0/− 2.50 0/− 4.00
	h 17 js 14	0/− 1.00 ± 0.125	0/− 1.20 ± 0.150	0/− 1.50 ± 0.180	0/− 1.80 ± 0.215	0/− 2.10 ± 0.260	0/− 2.50 ± 0.310	0/− 3.00 ± 0.370	0/− 3.50 ± 0.435	0/− 4.00 ± 0.500	0/− 4.60 ± 0.575	0/− 5.20 ± 0.650	0/− 5.70 ± 0.700	0/− 6.30 ± 0.775
	js 15 js 16 js 17	± 0.200 ± 0.300 ± 0.500	± 0.240 ± 0.375 ± 0.600	± 0.290 ± 0.450 ± 0.750	± 0.350 ± 0.550 ± 0.900	± 0.420 ± 0.650 ± 1.050	± 0.500 ± 0.800 ± 1.250	± 0.600 ± 0.950 ± 1.500	± 0.700 ± 1.100 ± 1.750	± 0.800 ± 1.250 ± 2.000	± 0.925 ± 1.450 ± 2.300	± 1.050 ± 1.600 ± 2.600	± 1.150 ± 1.800 ± 2.850	± 1.250 ± 2.000 ± 3.150
	k 6	+ 0.006 0	+ 0.009 + 0.001	+ 0.010 + 0.001	+ 0.012 + 0.001	+ 0.015 + 0.002	+ 0.018 + 0.002							
	m 6	+ 0.008 + 0.002	+ 0.012 + 0.004	+ 0.015 + 0.006	+ 0.018 + 0.007	+ 0.021 + 0.008	+ 0.025 + 0.009							
inside dimension in mm	D 9	+ 0.045 + 0.020	+ 0.060 + 0.030	+ 0.076 + 0.040	+ 0.093 + 0.050	+ 0.117 + 0.065	+ 0.142 + 0.080							
	D 10	+ 0.060 + 0.020	+ 0.078 + 0.030	+ 0.098 + 0.040	+ 0.120 + 0.050	+ 0.149 + 0.065	+ 0.180 + 0.080							
	D 11	+ 0.080 + 0.020	+ 0.105 + 0.030	+ 0.130 + 0.040	+ 0.160 + 0.050	+ 0.195 + 0.065	+ 0.240 + 0.080							
	D 12	+ 0.120 + 0.020	+ 0.150 + 0.030	+ 0.190 + 0.040	+ 0.230 + 0.050	+ 0.275 + 0.065	+ 0.330 + 0.080							
	E 11	+ 0.074 + 0.014	+ 0.095 + 0.020	+ 0.115 + 0.025	+ 0.142 + 0.032	– –	– –							
	E 12	+ 0.100 + 0.014	+ 0.140 + 0.020	+ 0.175 + 0.025	+ 0.212 + 0.032	– –	– –							
	EF 8	+ 0.024 + 0.010	+ 0.032 + 0.014	+ 0.040 + 0.018	– –	– –	– –							
	H 9	+ 0.025 0	+ 0.030 0	+ 0.036 0	+ 0.043 0	+ 0.052 0	+ 0.062 0							
	H 11	+ 0.060 0	+ 0.075 0	+ 0.090 0	+ 0.110 0	+ 0.130 0	+ 0.160 0							
	H 13	+ 0.140 0	+ 0.180 0	+ 0.220 0	+ 0.270 0	+ 0.330 0	+ 0.390 0							
	H 14	+ 0.250 0	+ 0.300 0	+ 0.360 0	+ 0.430 0	+ 0.520 0	+ 0.620 0							
	H 15	+ 0.400 0	+ 0.480 0	+ 0.580 0	+ 0.700 0	+ 0.840 0	+ 1.000 0							
	JS 9	± 0.0125	± 0.015	± 0.018	± 0.0215	± 0.026	± 0.031							
	K 9	0 − 0.025	0 − 0.030	0 − 0.036	–	–	–							



General tolerance for linear dimensions

Tolerance class		≥ 0.5 ≤ 3	> 3 ≤ 6	> 6 ≤ 30	> 30 ≤ 120	> 120 ≤ 400	> 400 ≤ 1000
f	(fine)	± 0.050	± 0.050	± 0.100	± 0.150	± 0.200	± 0.300
m	(medium)	± 0.100	± 0.100	± 0.200	± 0.300	±0.500	± 0.800
g	(coarse)	± 0.150	± 0.200	± 0.500	± 0.800	±1.200	± 2.000
sg	(very coarse)	–	± 0.500	± 1.000	± 1.500	± 2.000	± 3.000

Excerpts from ISO 286, 965, 4759 (DIN 267-2, 7160, 7161, 7168)

Technically a thread is "a bevelled level equally wound around a cylinder".

This principle enables both a screw on/in as well as screw off function and thus forms the basic characteristic for "detachable" fastenings = screws and nuts.

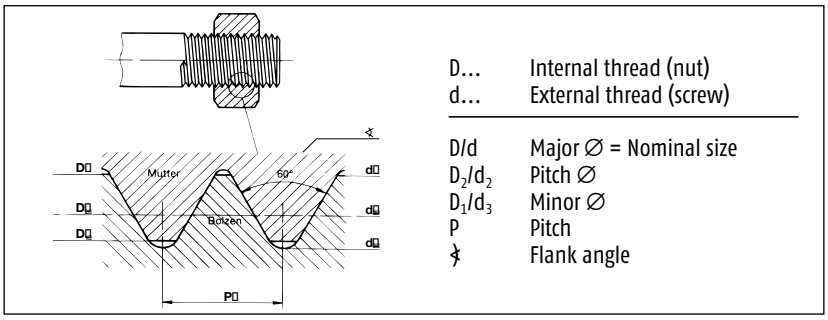
The geometric shape and the standardised dimension and tolerance system are the requirements for the coupling and exchangeability of the same kinds of thread profiles.

Thread profile, thread measuring points

The basic profile and the five measuring points of the thread are illustrated in figure A.

For external threads (screw) the dimension inspection is executed using ring gauges, flank micrometers and optical measuring devices, for internal threads (nuts), this is done using plug gauges.

Figure A:
Thread profile with 5 measuring points



Thread types

Table 1 shows an overview of the most common thread types for screws and nuts. The metric ISO thread has been valid since 1963 as a basis for global, uniform standardisation (ISO) for "Mechanical Fasteners".

Table 1: Overview of the most conventional thread types for mechanical fasteners (excerpt from DIN 202)

Code letter	Description	Version Usage		Designation Example	Flank ⋋	acc. to Standard
M	Metric ISO thread	Coarse thread	right-hand	M 20x80	60°	ISO 724 (DIN 13-1)
M-LH		Coarse thread	left-hand	M 20x80 LH		
M		Fine thread	right-hand	M 20x2x80		ISO 724 (DIN 13-2...11)
M-LH		Fine thread	left-hand	M 20x2x80 LH		
M-SN 4	Metric ISO thread for transition fit	Interference fit thread	sealing	M 20 Sn 4x80		DIN 13-51
M-Sk 6		Interference fit thread	non-sealing	M 20 Sk 6x80		
MFS				MFS 20x80		DIN 8141-1
M	Metric thread with large clearance	Screw threads with larger thread limit deviation nut tolerance 6H		DIN 2510 M 20x80		DIN 2510-2
EG-M	Metric ISO thread: helical coil threads for inserts	External thread dimensions for thread inserts with coarse and fine threading		EG M 20 / EG M 20x2		DIN 8140-2
M-az/M-AZ	Metric ISO thread for HDG items	undersized and oversized thread for HDG external and internal threads		M 12-6az	60°	ISO 965-4 ISO 965-5
M-keg.	Metric external taper screw thread	for screw plugs and lubricating nipples		M 20x1.5 taper		DIN 158-1
G	Cylindrical Ww pipe threads where pressure-tight joints are not made on the threads	for pipes/pipe fastenings		G 3/4"	55°	ISO 228-1
R	Taper Ww piping thread where pressure-tight joints are not made on the threads	for external threads pipes/ fittings/pipe screwed fastenings		R 3/4"		DIN 2999-1 DIN 3858
Rp	Cylindrical Ww Pipe threads where pressure-tight joints are made on the thread	for internal thread pipes/ fittings/pipe screwed fastenings		Rp 3/4"		
Tr	Metric ISO trapezoidal thread (single-start and multi-start thread)	for general use		Tr 20x4	30°	ISO 2901-04
		Precision movement thread		nach Angabe		DIN 3975
Rd	Cylindrical round thread (single-start and multi-start thread)	for, e.g. flush pipe screwed fastenings		Rd 20x1/8		DIN 405-1,2
ST	Tapping screw thread			ST 4,2	60°	ISO 1478
–	Wooden screw thread			–		DIN 7998
UNC	USA: inch thread	Coarse thread		3/4-10 UNC	60°	ANSI B 1.1 B.S. 1580-1.2
UNF		Fine thread		3/4-16 UNF		
BSW	UK: inch thread	Coarse thread		3/4-10 BSW	55°	B.S. 84
BSF		Fine thread		3/4-12 BSF		

Thread manufacture

- Non-cutting production
  (= normal for large series production of screws)
  – thread rolling using profile barrels (M 2–M 30)
  – thread rolling using profile rolls ≥ M 20
- Metal-cutting production
  – cutting using profile threading die
  – thread-chasing using profile clip
  – reeling using profile threading die
  – milling, grinding (for special movement threads)

Fit of thread/threadability

For the screw-in function of internal and external threads (e.g. screw with nut), the standards are generally based on the functional quality upon assembly with the corresponding tool.

With additional thicker layers/coatings and/or required light-running clearance in the thread (manual assembly) additional measures and order information are necessary!

The basic parameters for threadability:

- **placement of tolerance**
  = Distance of the upper dimension of the external thread to the lower limit deviation of the internal thread
  ➔ Figure B
- **tolerance interval**
  („Tolerance quality")
  = Distance of lower to upper limit deviation
  (interval size es–ei/EI–ES)
- **length of thread engagement:**
  Minor form and position differences which can occur depending on the length as a kind of lead deviation are unavoidable in mass production.

  For this reason, length of thread engagement of the external thread into the internal thread for normal screw fastenings (= screw-in group N) according to ISO 965/DIN 13-14 is restricted due to pitch dependency.
  ➔ Table 3

  For higher lengths of thread engagements (L) correspondingly larger tolerance intervals are to be selected.

- **Surface discontinuities/damages to the thread**
  During thread production, small laps and/or profile deviations may occur – in the later manufacturing process (quenching and tempering, transport, drum-coating) minor damage like dents, nicks and gouges are unavoidable and make the threadability with thread gauges and mating threads more difficult.

  These manufacturing-related surface discontinuities/damages are permitted up to specific limits according to ISO 6157-1/-3 (DIN 267-19) for screws or according to ISO 6157-2 (DIN 267-20) for nuts.

  Should especially smooth-running threads be necessary for specific operating situations, either higher tolerance qualities or supplementary "smoothing rolls" with thread protection are needed.

Note: The standardised permitted stress loads for screw fastenings are valid for the tolerances assigned in the respective product standards. Understandably, increases in the tolerance placements/intervals lead to a reduction in the stress capacity in the thread.

Figure B: Placement of tolerance tolerance interval

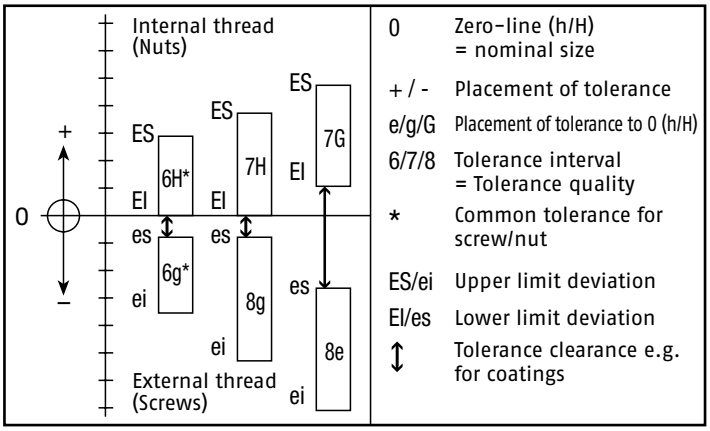


Table 2: Recommended tolerance intervals for length of thread engagement N
(before applying a corrosion protection coating*)

Tolerance class: / Thread		medium		coarse	
		Ext. thread. (screw)	Int. thread. (nut)	Ext. thread. (screw)	Int. thread (nut)
for surface condition	– without coating (plain)* – thin coatings** (electro plated)	6g*	6H*	8g*	7H*
	– with large clearance (plain) – thick coatings** (electro plated)	6e	6G	8e	7G
Article product class:		A, B (m, mg)		C (g)	
= e. g. DIN		931, 933	934	558, 601	555
ISO		4014, 4017	4032	4018, 4016	4034

* general tolerance without/before application of coatings
** ➔ TI-217, Table 8/TI-219, Table 9

Table 3: Length of thread engagement $N_{max.}$ for coarse and fine pitch thread

Nominal ∅ d/D	d/D	M 5	M 6	M 8	M 10	M 12	M 14 / M 16	M 18 / -M 22	M 24 / M 27	M 30 / M 33	M 36 / M 39	M 42 / M 45
Pitch P	RG	0.8	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5
	FG	0.5	0.75	1	1.25	1.5	1.5	2	2	2	3	3
Length of thread engagement $N_{max.}$	RG	7.5	9	12	15	18	24	30	36	45	53	63
	FG	4.5	7.1	9	12	13	16	16	25	25	36	36

Table 4: Limit deviations A0 – AU (min. – max.) for external and internal threads (bolts/nuts) with coarse and fine pitch thread (RG/FG)
(Extracts from ISO 965-2 /DIN 13 – 20, 21, 22, 27)

				External thread (Bolts/Screws)							Internal thread (Nuts)					
Thread Nom. ∅	Pitch P		Pitch ∅ Zero-line	Tolerance	Major ∅ d		Pitch ∅ d_2		Minor ∅ d_3		Tolerance	Major ∅ D	Pitch ∅ D_2		Minor ∅ D_3	
d/D	RG	FG	h/H		max.	min.	max.	min.	max.	min.		min.	max.	min.	max.	min.
M 3	0.5		2,675	6g	2,980	2,874	2,655	2,580	2,367	2,273	6H	3,000	2,775	2,675	2,599	2,459
				6e	2,950	2,844	2,625	2,550	2,337	2,243	6G	3,020	2,795	2,695	2,619	2,479
M 4	0.7		3,545	6g	3,978	3,838	3,523	3,433	3,119	3,002	6H	4,000	3,663	3,545	3,422	3,242
				6e	3,944	3,804	3,489	3,399	3,085	2,968	6G	4,022	3,685	3,567	3,444	3,264
M 5	0.8		4,480	6g	4,976	4,826	4,456	4,361	3,995	3,869	6H	5,000	4,605	4,480	4,334	4,134
				6e	4,940	4,790	4,420	4,325	3,959	3,833	6G	5,024	4,629	4,504	4,358	4,158
M 6	1		5,350	6g	5,974	5,794	5,324	5,212	4,747	4,596	6H	6,000	5,500	5,350	5,153	4,917
				6e	5,940	5,760	5,290	5,178	4,713	4,562	6G	6,026	5,526	5,376	5,179	4,943
M 8	1.25		7,188	6g	7,972	7,760	7,160	7,042	6,438	6,272	6H	8,000	7,348	7,188	6,912	6,647
				8e	7,937	7,602	7,125	6,935	6,403	6,165	6G	8,028	7,376	7,216	6,940	6,675
		1	7,350	6g	7,974	7,794	7,324	7,212	6,747	6,596	6H	8,000	7,500	7,350	7,153	6,917
M 10	1.5		9,026	6g	9,968	9,732	8,994	8,862	8,128	7,938	6H	10,000	9,206	9,026	8,676	8,376
				8e	9,933	9,558	8,959	8,747	8,093	7,823	6G	10,032	9,238	9,058	8,708	8,408
		1.25	9,188	6g	9,972	9,760	9,160	9,042	8,438	8,272	6H	10,000	9,348	9,188	8,912	8,647
M 12	1.75		10,863	6g	11,966	11,701	10,829	10,679	9,819	9,602	6H	12,000	11,063	10,863	10,441	10,106
				8e	11,929	11,504	10,792	10,556	9,782	9,479	6G	12,034	11,097	10,897	10,475	10,140
		1.5	11,026	6g	11,968	11,732	10,994	10,854	10,128	9,930	6H	12,000	11,216	11,026	10,676	10,376
M 14	2		12,701	6g	13,962	13,682	12,663	12,503	11,508	11,271	6H	14,000	12,913	12,701	12,210	11,835
				8e	13,929	13,479	12,630	12,380	11,475	11,148	6G	14,038	12,951	12,739	12,248	11,873
		1.5	13,026	6g	13,968	13,732	12,994	12,854	12,128	11,930	6H	14,000	13,216	13,026	12,676	12,376
M 16	2		14,701	6g	15,962	15,682	14,663	14,503	13,508	13,271	6H	16,000	14,913	14,701	14,210	13,835
				8e	15,929	15,479	14,630	14,380	13,475	13,148	6G	16,038	14,951	14,739	14,248	13,873
		1.5	15,026	6g	15,968	15,732	14,994	14,854	14,128	13,930	6H	16,000	15,216	15,026	14,676	14,376
M 18	2.5		16,376	6g	17,958	17,623	16,334	16,164	14,891	14,625	6H	18,000	16,600	16,376	15,744	15,294
				8e	17,920	17,390	16,296	16,031	14,853	14,492	6G	18,042	16,642	16,418	15,786	15,336
		2	16,701	6g	17,962	17,682	16,663	16,503	15,508	15,271	6H	18,000	16,913	16,701	16,210	15,835
M 20	2.5		18,376	6g	19,958	19,623	18,334	18,164	16,891	16,625	6H	20,000	18,600	18,376	17,744	17,294
				8e	19,920	19,390	18,296	18,031	16,853	16,492	6G	20,042	18,642	18,418	17,786	17,336
		2	18,701	6g	19,962	19,682	18,663	18,503	17,508	17,271	6H	20,000	18,913	18,701	18,210	17,835
M 22	2.5		20,376	6g	21,958	21,623	20,334	20,164	18,891	18,625	6H	22,000	20,600	20,376	19,744	19,294
				8e	21,920	21,390	20,296	20,031	18,853	18,492	6G	22,042	20,642	20,418	19,786	19,336
		2	20,701	6g	21,962	21,682	20,663	20,503	19,508	19,271	6H	22,000	20,913	20,701	20,210	19,835
M 24	3		22,051	6g	23,952	23,577	22,003	21,803	20,271	19,955	6H	24,000	22,316	22,051	21,252	20,752
				8e	23,915	23,315	21,966	21,651	20,234	19,803	6G	24,048	22,364	22,099	21,300	20,800
		2	22,701	6g	23,962	23,682	22,663	22,493	21,508	21,261	6H	24,000	22,925	22,701	22,210	21,835
M 27	3		25,051	6g	26,952	26,577	25,003	24,803	23,271	22,955	6H	27,000	25,316	25,051	24,252	23,752
				8e	26,915	26,315	24,966	24,651	23,234	22,803	6G	27,048	25,364	25,099	24,300	23,800
		2	25,701	6g	26,962	26,682	25,663	25,493	24,508	24,261	6H	27,000	25,925	25,701	25,210	24,835
M 30	3.5		27,727	6g	29,947	29,522	27,674	27,462	25,653	25,306	6H	30,000	28,007	27,727	26,771	26,211
				8e	29,910	29,240	27,637	27,302	25,616	25,146	6G	30,053	28,060	27,780	26,824	26,264
		2	28,701	6g	29,952	29,577	28,003	27,803	26,271	25,955	6H	30,000	28,316	28,051	27,252	26,752
M 33	3.5		30,727	6g	32,947	32,522	30,674	30,462	28,653	28,306	6H	33,000	31,007	30,727	29,771	29,211
				8e	32,910	32,240	30,637	30,302	28,616	28,146	6G	33,053	31,060	30,780	29,824	29,264
		2	31,701	6g	32,962	32,682	31,663	31,493	30,508	30,261	6H	33,000	31,925	31,701	31,210	30,835
M 36	4		33,402	6g	35,940	35,465	33,342	33,118	31,033	30,655	6H	36,000	33,702	33,402	32,270	31,670
				8e	35,905	35,155	33,307	32,952	30,998	30,489	6G	36,060	33,762	33,462	32,330	31,730
		3	34,051	6g	35,952	35,577	34,003	33,803	32,271	31,955	6H	36,000	34,316	34,051	33,252	32,752

Table 5: Dimensions in millimeters for Ww pipe threads

Thread Nom. ∅ in mm	Zoll	1/16	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Major ∅ in mm	d/D	7.72	9.73	13.16	16.66	20.96	26.44	33.25	41.91	47.80	59.61	75.18	87.88
Distance measuring level a		4.0	4.0	6.0	6.4	8.2	9.5	10.4	12.7	12.7	15.9	17.5	20.6

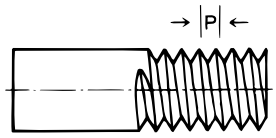
G = cylindrical external/internal thread
R = taper external thread
R_P = cylindrical internal thread
a = distance of the reference level/measuring level from the start of thread in mm

Table 6: Limit deviation for UNC and UNF threads acc. to ASME B 1.1

Thread Nom. ∅ UNC/UNF Nr.	UNC/ UNF	Pitches	Tolerances for external thread in inch Tolerance class 2A					Tolerances for internal thread in inch Tolerance class 2B				
			Major ∅	Pitch ∅		Minor ∅		Major ∅	Pitch ∅		Minor ∅	
			min.	max.	min.	max.	min.	min.	min.	max.	min.	max.
2	UNC	56	0,0813	0,0854	0,0717	0,0738	0,0641	0,0860	0,0744	0,0772	0,0667	0,0737
	UNF	64	0,0816	0,0854	0,0733	0,0753	0,0668	0,0860	0,0759	0,0786	0,0691	0,0752
3	UNC	48	0,0938	0,0983	0,0825	0,0848	0,0735	0,0990	0,0855	0,0885	0,0764	0,0845
	UNF	56	0,0942	0,0983	0,0845	0,0867	0,0770	0,0990	0,0874	0,0902	0,0797	0,0865
4	UNC	40	0,1061	0,1112	0,0925	0,0950	0,0814	0,1120	0,0958	0,0991	0,0849	0,0939
	UNF	48	0,1068	0,1113	0,0954	0,0978	0,0865	0,1120	0,0985	0,1016	0,0894	0,0968
5	UNC	40	0,1191	0,1242	0,1054	0,1080	0,0944	0,1250	0,1088	0,1121	0,0979	0,1062
	UNF	44	0,1195	0,1243	0,1070	0,1095	0,0972	0,1250	0,1102	0,1134	0,1004	0,1079
6	UNC	32	0,1312	0,1372	0,1141	0,1169	0,1000	0,1380	0,1177	0,1214	0,1040	0,1140
	UNF	40	0,1321	0,1372	0,1184	0,1210	0,1074	0,1380	0,1218	0,1252	0,1110	0,1190
8	UNC	32	0,1571	0,1631	0,1399	0,1428	0,1259	0,1640	0,1437	0,1475	0,1300	0,1390
	UNF	36	0,1577	0,1632	0,1424	0,1452	0,1301	0,1640	0,1460	0,1496	0,1340	0,1420
10	UNC	24	0,1818	0,1890	0,1586	0,1619	0,1394	0,1900	0,1629	0,1672	0,1450	0,1550
	UNF	32	0,1831	0,1891	0,1658	0,1688	0,1519	0,1900	0,1697	0,1736	0,1560	0,1640
12	UNC	24	0,2078	0,2150	0,1845	0,1879	0,1654	0,2160	0,1889	0,1933	0,1710	0,1810
	UNF	28	0,2085	0,2150	0,1886	0,1918	0,1725	0,2160	0,1928	0,1970	0,1770	0,1860
1/4	UNC	20	0,2408	0,2489	0,2127	0,2164	0,1894	0,2500	0,2175	0,2224	0,1960	0,2070
	UNF	28	0,2425	0,2490	0,2225	0,2258	0,2065	0,2500	0,2268	0,2311	0,2110	0,2200
5/16	UNC	18	0,3026	0,3113	0,2712	0,2752	0,2451	0,3125	0,2764	0,2817	0,2520	0,2650
	UNF	24	0,3042	0,3114	0,2806	0,2843	0,2618	0,3125	0,2854	0,2902	0,2670	0,2770
3/8	UNC	16	0,3643	0,3737	0,3287	0,3331	0,2993	0,3750	0,3344	0,3401	0,3070	0,3210
	UNF	24	0,3667	0,3739	0,3430	0,3468	0,3243	0,3750	0,3479	0,3528	0,3300	0,3400
7/16	UNC	14	0,4206	0,4361	0,3826	0,3897	0,3510	0,4375	0,3911	0,4003	0,3600	0,3760
	UNF	20	0,4281	0,4362	0,3995	0,4037	0,3767	0,4375	0,4050	0,4104	0,3830	0,3950
1/2	UNC	13	0,4876	0,4985	0,4435	0,4485	0,4069	0,5000	0,4500	0,4565	0,4170	0,4340
	UNF	20	0,4906	0,4987	0,4619	0,4662	0,4392	0,5000	0,4675	0,4731	0,4460	0,4570
9/16	UNC	12	0,5495	0,5609	0,5016	0,5068	0,4617	0,5625	0,5084	0,5152	0,4720	0,4900
	UNF	18	0,5524	0,5611	0,5205	0,5250	0,4949	0,5625	0,5264	0,5323	0,4050	0,5150
5/8	UNC	11	0,6112	0,6233	0,5588	0,5643	0,5150	0,6250	0,5660	0,5732	0,5270	0,5460
	UNF	18	0,6149	0,6236	0,5828	0,5875	0,5574	0,6250	0,5889	0,5949	0,5650	0,5780
3/4	UNC	10	0,7353	0,7482	0,6773	0,6832	0,6291	0,7500	0,6850	0,6927	0,6420	0,6630
	UNF	16	0,7391	0,7485	0,7029	0,7079	0,6741	0,7500	0,7094	0,7159	0,6820	0,6960
7/8	UNC	9	0,8592	0,8731	0,7946	0,8009	0,7408	0,8750	0,8028	0,8110	0,7550	0,7780
	UNF	14	0,8631	0,8734	0,8216	0,8270	0,7883	0,8750	0,8286	0,8356	0,7980	0,8130
1	UNC	8	0,9830	0,9980	0,9101	0,9168	0,8492	1,0000	0,9188	0,9276	0,8650	0,8900
	UNF	12	0,9868	0,9982	0,9382	0,9441	0,8990	1,0000	0,9459	0,9535	0,9100	0,9280
1 1/8	UNC	7	1,1064	1,1228	1,0228	1,0300	0,9527	1,1250	1,0322	1,0416	0,9700	0,9980
	UNF	12	1,1118	1,1232	1,0631	1,0691	1,0240	1,1250	1,0709	1,0787	1,0350	1,0530
1 1/4	UNC	7	1,2314	1,2478	1,1476	0,1550	1,0777	1,2500	1,1572	1,6680	1,0950	1,1230
	UNF	12	1,2368	1,2482	1,1879	1,1941	1,1490	1,2500	1,1959	1,2039	1,1600	1,1780
1 3/8	UNC	6	1,3544	1,3726	1,2563	1,2643	1,1741	1,3750	1,2667	1,2771	1,1950	1,2250
	UNF	12	1,3617	1,3731	1,3127	1,3190	1,2739	1,3750	1,3209	1,3291	1,2850	1,3030
1 1/2	UNC	6	1,4794	1,4976	1,3812	1,3893	1,2991	1,5000	1,3917	1,4022	1,3200	1,3500
	UNF	12	1,4867	1,4981	1,4376	1,4440	1,3989	1,5000	1,4459	1,4542	1,4100	1,4280
1 3/4	UNC	5	1,7268	1,7473	1,6085	1,6175	1,5091	1,7500	1,6201	1,6317	1,5330	1,5670
	UNF	12	1,7368	1,7482	1,6881	1,6941	1,6490	1,7500	1,6959	1,7037	1,6600	1,6780
2	UNC	4 1/2	1,9751	1,9971	1,8433	1,8528	1,7325	2,0000	1,8557	1,8681	1,7590	1,7950
	UNF	12	1,9868	1,9982	1,9380	1,9441	1,8990	2,0000	1,9459	1,9538	1,9100	1,9280
3	UNC	4	2,9730	2,9968	2,8237	2,8344	2,6991	3,0000	2,8376	2,8515	2,7290	2,7670
4	UNC	4	3,9728	3,9966	3,8229	3,8342	3,6989	4,0000	3,8376	3,8523	3,7290	3,7670

Thread pitches P in mm for

- **ISO-metric coarse pitch thread M**
- **ISO-metric fine pitch thread M-F**
- **Trapezoidal thread Tr**



Threadturn count per inch for

- **UNC coarse pitch thread**
- **UNF fine pitch thread**
- **BSW coarse pitch thread (Ww)**
- **BSF fine pitch thread**
- **Whitworth pipe thread**

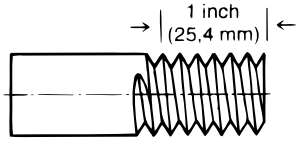


Table 6:

Thread Ø		Pitch P						
M	Tr	M	M-F	M-F2	M-F3	Tr		
1		0.25	(0.2)					
1.2		0.25	(0.2)					
1.4		0.3	(0.2)					
1.6		0.35	(0.2)					
1.8		0.35	(0.2)					
2		0.4	(0.25)					
2.2		0.45	(0.25)					
2.5		0.45	(0.35)					
3		0.5	(0.35)					
3.5		0.6	(0.35)					
4		0.7	0.5					
5		0.8	0.5					
6		1	0.75	0.5				
8	8	1.25	1	0.75	0.5		1,5	
10	10	1.5	1.25	1	0.75		2	1,5
12	12	1.75	1.5	1.25	1		3	2
14	14	2	1.5	1.25	1	4	3	2
16	16	2	1.5		1		4	2
18	18	2.5	2	1.5	1		4	2
20	20	2.5	2	1.5	1		4	2
22	22	2.5	2	1.5	1	8	5	3
24	24	3	2	1.5	1	8	5	3
27	26/28	3	2	1.5	(1)	8	5	3
30	30	3.5	2	1.5	(1)	10	6	3
33	32/34	3.5	2	1.5		10	6	3
36	36	4	3	2	1.5	10	6	3
39	38/40	4	3	2	1.5	10	7	3
42	42	4.5	(4) 3	2	1.5	10	7	3
45	44/46	4.5	(4) 3		1.5	12	7/8	3
48	48	5	(4) 3	2	1.5	12	8	3
52	50/52	5	(4) 3	2	1.5	12	8	3
56	55	5.5	4	3/2	1.5	14	9	3
60	60	5.5	4	3/2	1.5	14	9	3
64	65	6	4	3	2 (1.5)	16	10	4
68	70	6	4	3	2 (1.5)	16	10	4
Flank ∢		60°				30°		

With fine pitch thread, M-F insertion is preferred

Thread Ø			Number G (per 1 inch)				
UNC/UNF No.	Inch	= mm	UNC (NC)	UNF (NF)	BSW (Ww C)	BSF (Ww F)	R, G Rp
0		1,524	–	80	–	–	–
1		1,854	64	72	–	–	–
2		2,184	56	64	–	–	–
3		2,515	48	56	–	–	–
4		2,845	40	48	–	–	–
5		3,175	40	44	–	–	–
6		3,505	32	40	–	–	–
8		4,166	32	36	–	–	–
10		4,826	24	32	–	–	–
12		5,486	24	28	–	–	–
	1/8	3,175	–	–	40	–	28
	5/32	3,969	–	–	32	–	–
	3/16	4,763	–	–	24	32	–
	7/32	5,556	–	–	24	28	–
	1/4	6,350	20	28	20	26	19
	5/16	7,938	18	24	18	22	–
	3/8	9,525	16	24	16	20	19
	7/16	11,113	14	20	14	18	–
	1/2	12,700	13	20	12	16	14
	9/16	14,288	12	18	12	16	–
	5/8	15,875	11	18	11	14	14
	3/4	19,050	10	16	10	12	14
	7/8	22,225	9	14	9	11	14
	1	25,401	8	12	8	10	11
	1 1/8	28,575	7*	12	7	9	11
	1 1/4	31,750	7*	12	7	9	11
	1 3/8	34,925	6*	12	6	8	11
	1 1/2	38,100	6*	12	6	8	11
	1 3/4	44,450	5*	12	5	7	11
	2	50,802	4 1/2*	12	4 1/2	7	11
	2 1/4	57,150	4 1/2*	–	4	–	11
	2 1/2	63,500	4*	–	4	–	11
	2 3/4	69,850	4*	–	3 1/2	–	11
	3	76,200	4*	–	3 1/2	–	11
	4	101,60	4*	–	3	–	11
–			60°		55°		

* Studbolts ∅ ≥ 1" = constant 8 threads/inch
** Pipe threads have a larger major diameter (➜ Table 5)

General information

Corrosion is the reaction of a metallic material with its environment which causes a measurable change in the material and can negatively influence the function of a metallic component or an entire system. In most cases, this reaction is of an electrochemical nature, but, in some cases, it can be of a chemical or a metal-physical nature. (Definition: Basic principle of "Corrosion" according to ISO 8044)

Table 1 shows the most important corrosion types from a selection of different corrosions which need to be considered with "mechanical fasteners".

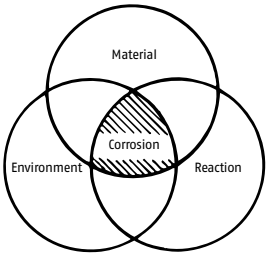
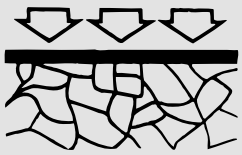
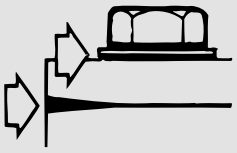
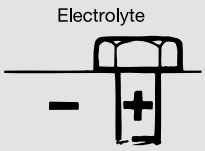
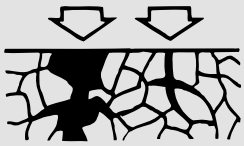
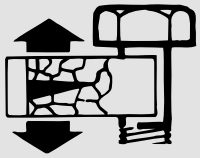


Table 1: Corrosion types

				
Surface corrosion, e.g. rust, pitting corrosion	Crevice corrosion	Electrochemical corrosion (Contact corrosion) (see Table 2)	intergranular/ transgranular corrosion	Stress corrosion cracking

Corrosion is unavoidable, but damage due to corrosion is avoidable, provided the proper planning of suitable corrosion protection measures is in place. The corrosion protection of screw fastenings needs to be at least as corrosion-resistant as the components to be connected.

The task of constructive planning is to determine the necessary corrosion protection measures. Here the resilience of the corrosion protection in known operating conditions is to be taken into account until maintenance is due or until the limitation of damages has been reached. Surface or material specifications are to be listed in the article order text according to standards.

The next page provides a rough overview of the corrosion protection options for fasteners.

Inspection standards for corrosion protection procedures, compiled in DIN pocketbook 175, stipulate uniform conditions for the type and setup of equipment and methods for checking adherence to the specified coating type, layer thickness and optical appearance. The inspections according to these standards do not provide any information on the effect or fatigue strength of the corrosion protection under practical operating conditions.

An overview of the friction coefficients for various surface combinations → TI assembly. The friction ratios in the screw fastenings are vital when determining the correct tightening torque (→ VDI 2230)

Electrochemical corrosion

The combination of electrochemical noble and ignoble metals in humid conditions (= electrolyte) generates corrosion currents which spread from ignoble (anodic) metal to more noble metal (cathode). This means that less noble metal will be more eroded or corroded. The corrosion current thicknesses are also vital. If the ignoble, anodic part is small in comparison with the surrounding cathodic area (screw head on sheet surface), a very high anodic current thickness will generate which will carry off a lot of material.

Example 1:
Zinc plated screws for fastening a copper sheet:
Zinc is considerably less noble compared to copper. In humid conditions, a very high corrosion current thickness occurs on the small, ignoble, anodic screw head (left column zinc – small) in the direction of the noble, cathodic copper sheet (upper row – copper). The galvanized surface of the screw erodes in a short space of time and red rust appears on the steel.

Remedy:
In relation to the metallic building component, the fasteners should be as similar as possible if not more noble.

Screw	Component
zinc plated	zinc plated
nickel plated	steel, copper, brass
stainless	steel, zinc plated, aluminium, copper, brass

Example 2:
Copper or stainless steel screws which work in a similar way for fastening a zinc plated metal sheet:
This time, the ignoble, anodal, galvanized section is very large in relation to the small, noble, cathodic screw head. The corrosion current which stretches over the entire surface has very low tightness in the anode. The material degradation occurs across the entire surface and shows hardly any corrosion. This process actually additionally protects the nobler screw head against corrosion.

If unfavourable metal pairings cannot be avoided, they should be isolated from each other, e.g. using intermediate layers or coatings. Here, it must be made sure that the full strength of the connection remains intact.

Table 2: Electrochemical corrosion with metal pairings

In regard to contact corrosion of observed material ▼	Area ratio*	Magnesium alloy	Zinc	Hot-dip galvanized steel	Aluminium alloy	Cadmium coating	Construction steel	Low-alloy steel	Cast steel	Chrome steel	Lead	Tin	Copper	Stainless steel
Magnesium alloy	small		S	S	S	S	S	S	S	S	S	S	S	S
	large		M	M	M	M	S	S	S	S	S	S	S	S
Zinc	small	M		G	M	M	S	S	S	S	S	S	S	S
	large	G		G	G	G	G	G	G	G	G	G	G	G
Hot dip galvanized steel	small	M	G		M	M	S	S	S	S	S	S	S	S
	large	G	G		G	G	G	G	G	G	G	G	G	G
Aluminium alloy	small	M	G	G		G	M	G	S	M	S	S	S	S
	large	G	M	M		G	G		M	S	S		S	M
Cadmium coating	small	G	G	G	G		S	S	S	S	S	S	S	S
	large	M	G	M	G		G	G	G	G	G	G	G	G
Construction steel	small	G	G	G	G	G		M	S	S	S	S	S	S
	large	G	G	G	G	G		G	G	G	G	G	G	G
Low-alloy steel	small	G	G	G	G	G	G		G	S	S	S	S	S
	large	G	G	G	G	G	G		G	G	G	G	G	G
Cast steel	small	G	G	G	G	G	G	M		S	S	S	S	S
	large	G	G	G	G	G	G	G		G	G	G		
Chrome steel	small	G	G	G	G	G	G	G			M	M	S	S
	large	G	G	G	G	G	G	G			G	G		G
Lead	small	G	G	G	G	G	G	G	G	G		G	G	
	large	G	G	G	G	G	G	G	M	G		G		G
Tin	small	G	G	G	G	G	G	G		G	G			
	large	G	G	G	G	G	G	G	G	M	G			
Copper	small	G	G	G	G	G	G	G		M	M	S		
	large	G	G	G	G	G	G	G	G		G	M		G
Stainless steel	small	G	G	G	G	G		G	G	M	M	M	G	
	large	G	G	M	G	G	G	G	G		M	M		

S = strong corrosion of the observed material
M = moderate corrosion of the observed material (in very humid environments)
G = negligible or zero corrosion of the observed material

* ratio of the surface of the "observed" material to the surface of the "pairing material"
(Source: "FEUERVERZINKEN" (HOT DIP GALVANIZATION) information centre)

Corrosion protection measures

Constructive measures e.g. isolation, avoidance of crevices...
Electrochemical measures e.g. cathodic protection, ventilation

Table 3: Surface measures

Measures	Procedures	Coatings	Coat-thicknesses µm	Standards Brand names
· **Non-metallic coatings** (inorganic/ *organic coatings)	Lubrication	Oil	–	
	Browning, oxidising	Iron oxide coat	0.5 – 2	DIN 50938
	Phosphate-coating	Phosphate coat	–	EN 12476 (DIN 50942)
	Thin-layer coats of lacquer*	Lacquer/Plastic / Resin (Fluoropolymer/TEFLON)	3 – 20	IRCO-SEAL, KLEVER-COL, XYLAN, PTFE, STAND-COTE
	Dip coating*	Epoxide resin/Polyester/ Phenolic resin	10 – 20	KTL-KATAPHORESE, ECO 2000
	Powder coatings*	Polyester powder	60 – 90	PULVER-COLOR, WEMA-KOR-EX
· **Metallic coatings** (inorganic coatings)	**Electroplated coatings:** (electrolytic/chemical/acidic/ alkaline/cyanidic)	Zinc Cadmium Copper Copper-zinc Nickel Nickel-chrome Copper-nickel Copper-nickel-chrome Tin Copper-tin Silver Copper-silver Zinc-nickel Zinc-cobalt Zinc-iron	3 – 25	ISO 4042
	+ Conversion layers (e.g. passivation/ chromating – ISO 4520)			
	Hot dip galvanization tZn	Zinc	min. 40	ISO 10684 (DIN 267-10) for fasteners ISO 1461 for batch galvanizing
	Mechanical plating (plated coatings)	Zinc powder on sub-layer copper-plating (chromating possible)	6 – 107	ISO 12683
	Diffusion coatings	Zinc power burned in/on	15 – 45	EN 13811: SHERARD-galvanizing ISO 14713-3
· **Zinc flake coating**	**Basecoat** (dispersions coatings = inorganic)	Zn-/Al lamellas (silver)	5 – 20	ISO 10683, DACROMET/GEOMET, DELTA-TONE, ZINCTECH
	Topcoat (thin-layer lacquering = organic)	Thin layer argentine or coloured, lubrication integration possible	8 – 15	DELTA-SEAL, DELTA-PROTEKT KL + VH, GEOMET PLUS VL

Table 4: Material measures

Measures	Procedure	Coatings	Standards	Brand names
· **Non-ferrous metals (NE)**	Copper (Cu) Brass (CuZn) Bronze (CuNiSi, CuSn)	– Ni plated, Cr plated, browned –	ISO 8839 (DIN 267-18) (galv. coatings ISO 4042 [DIN 267-9])	KURBUS Special brass 59 KUPRODUR
	Aluminium (Al)	anodised	–	–
	Titanium/Titanium alloys	–	ISO 8839 (DIN 267-18)	–
· **Non-metallic materials (K)***	Plastics PA, POM, PP, PVDF, Nylon	–	VDI 2544 DIN 34810 - 34816	ULTRAMID, DELRIN, HOSTALEN...
· **Stainless steels**	**Ferritic steels (F)** 1.4016, 1.4568	clean and metallic, bright-polished	ISO 3506 (DIN 267-11) EN 10088 (DIN 17224)	–
	Martensite steels (C) 1.4016, 1.4057, 1.4122...		ISO 3506 (DIN 267-11) EN 10088 (DIN 17442)	–
	Austenitic steels (A) A 1= 1. 4305 A 2 = 1.4301, 1.4303 A 4 = 1.4401 A 3 = 1.4541 A 5 = 1.4571 FSt = 1.4310		ISO 3506 (DIN 267-11) EN 10088 (DIN 17440, 17244) EN 10088 (DIN 17224)	NIRO, NIROSTA, INOX, CRONIFER, REMANIT, UNOX, SINOX ... Austenitic/austenitic-ferritic steels with particular resistance against chlorine-induced stress corrosion, e.g. indoor swimming pools ➔ TI-226
· **Special materials**	Nickel, nickel alloys	metallic, bright-polished	DIN 17740, 17742-44	INCONEL, HASTELLOY, MONEL...
	Special copper alloys Multi-component bronzes		DIN 17662-17665	Sn-/Al-Bronze, NEUSILBER, RESISTIN, CUNIFER...
	Special steels		EN 10269 (DIN 17240), SEW 390	URANUS, SICROMAL, MANOX...

*mechanical properties ➔ TI-227

Table 5:
Standard references for corrosion protection of surfaces

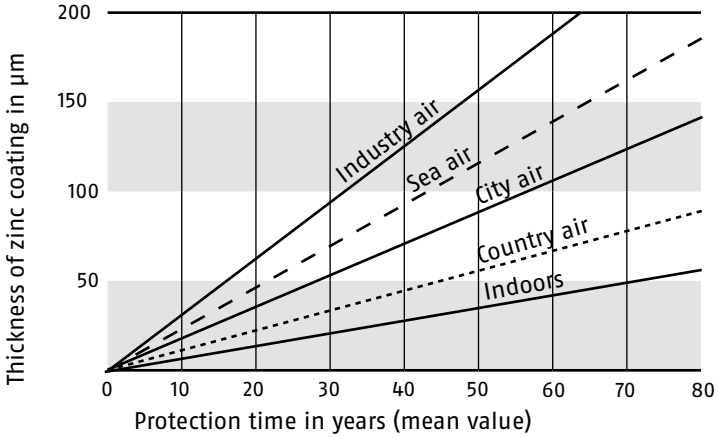
Standard no.	Title
ISO 4042	Fasteners – Electroplated coatings
ISO 10683	Fasteners – Non-electrolytically applied zinc flake coatings
ISO 10684	Fasteners – Hot dip galvanized coating
ISO 1891-2	Fasteners – Terminology. Vocabulary and definitions for coatings
ISO 19598	Metallic coatings – Electroplated coatings of zinc and zinc alloys on iron or steel with supplementary Cr(VI)-free treatment
ISO 2081	Metallic and other inorganic coatings – Electroplated coatings of zinc with supplementary treatments on iron or steel
ISO 1461	Hot dip galvanized coatings on fabricated iron and steel articles
EN 1403	Electrodeposited coatings – Method of specifying general requirements
ISO 12944 Part 1 to part 6	Corrosion protection of steel structures

Table 6:
Service conditions for zinc plated steel

	Service condition	Duration of salt spray test without base metal corrosion (NSS) in hours
0	Decorative use (without strain)	48
1	Indoor conditions in warm, dry atmosphere	72
2	Indoor condition in rooms, in which condensation may occur	120
3	Outdoor weathering under moderate conditions	192
4	Outdoor weathering under difficult corrosive conditions – e.g. salt/industry environment	360

- Extract from ISO 2081:2009-05, EN 1403
- The listed protective effects vary in practice and are mere reference values
- Suitable coatings are listed below

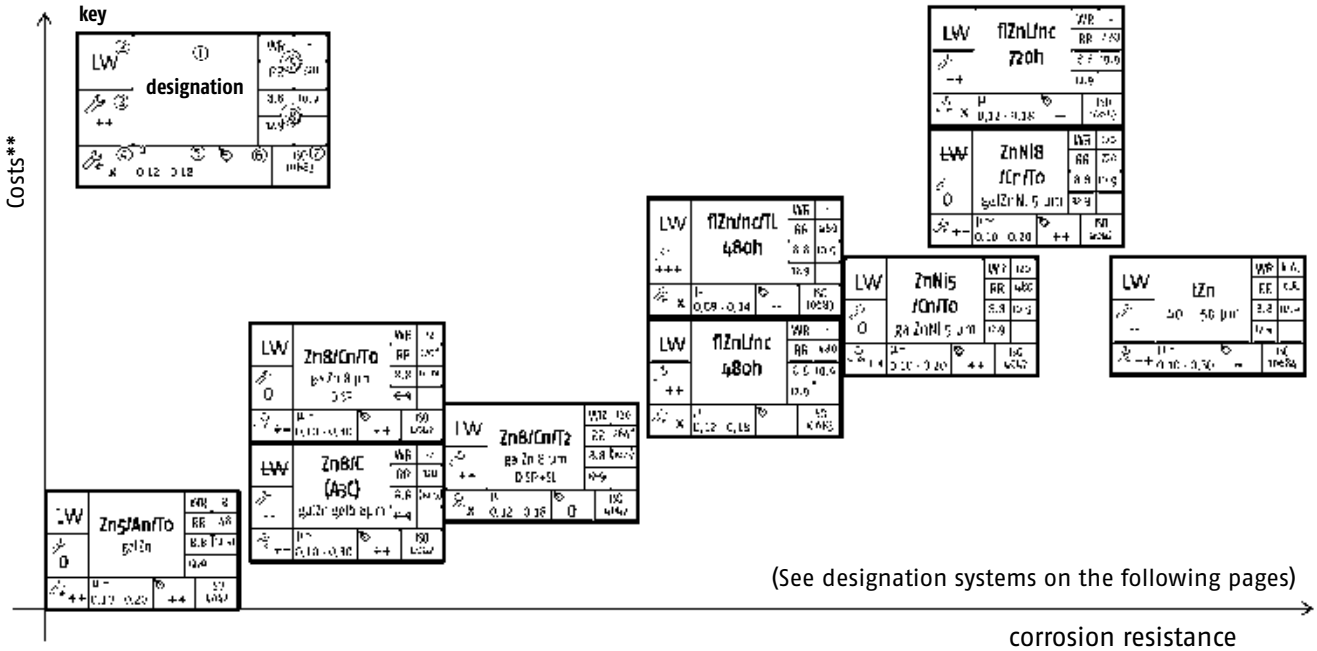
Table 7:
Yearly erosion values for zinc



Service condition	µm/year
Indoors	1.0 – 2.0
Country air*	1.3 – 2.5
City air*	1.9 – 5.6
Industry air*	6.4 – 19
Sea air*	2.2 – 7.2

*In practice, a mixed climate is to be reckoned with.

Overview of common coating systems



1) Designation of surface; 2) Products with this surface in stock; 3) assembly behaviour (friction coefficient spread) without additional lubrication (-- = bad to ++ = very good); 4) assembly behaviour (friction coefficient spread) with additional lubrication (-- = bad to ++ = very good / x = lubrication already contained in surface); 5) friction coefficient range in delivery condition (µ~ = typical values) 6) Bonding suitability of surface (-- = bad to ++ = good); 7) Standard for technical delivery conditions; 8) Suitability of surface for property classes; 9) corrosion resistance in salt spray test (WR = white rust; RR = red rust)

*Deviating from ISO 4042
**the categorization gives an approximate, nonbinding overview of costs

Corrosion protection: Electroplated coatings

The technical conditions of delivery ISO 4042 apply to electroplated coatings on standard and non-standard fasteners.
The coating metal is applied onto the parts to be coated in an electrolytic precipitation process in an electroplating bath.

Layer composition and description system of electroplated coatings

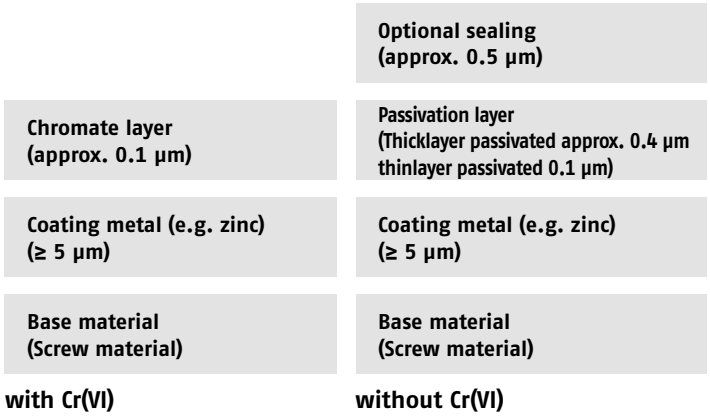


Table 8: Coating metals (Extract from ISO 4042)

Symbol	Description	Type
Zn	Zinc	Metal
ZnNi	Zinc-nickel	Alloy
ZnFe	Zinc-iron	Alloy
Ni	Nickel	Metal
Ni+Cr	Nickel-Chrome	Multi-layer
Cu+Ni	Copper-Nickel	Multi-layer
Cu+Ni+Cr	Copper-Nickel-Chrome	Multi-layer
CuZn	Brass	Alloy
CuSn	Copper-Tin (Bronze)	Alloy
Cu	Copper	Metal
Sn	Tin	Metal

Table 9: Sealings/topcoats/lubricants

Code	Description	Requirement
–		Manufacturer's choice
T0	No sealing or topcoat	To achieve a certain function, no sealing or topcoat shall be applied
T2	Sealing	Sealing to increase corrosion resistance with or without integrated lubricant
T4	Subsequently applied lubricant	A lubricant shall be applied to the metal coating or the conversion layer or the sealing/topcoat
T7	Topcoat	e.g. increase chemical resistance or colouring scheme
nL	No lubricant	There shall be no integrated lubricant in T2 or T7

Table 10: Conversion layers for zinc and zinc alloy coatings

Code	Name	Typical look	Type of conversion layer
An	Transparent	Transparent, clear to bluish	Passivation without Cr(VI)
Cn	Iridescent (Thick layer passivation)	Transparent, clear to iridescent	Passivation without Cr(VI)
Fn	Black	Black, dark iridescent permitted	Passivation without Cr(VI)
A	Clear	Transparent, clear to bluish	Chromation with Cr(VI)
C	Iridescent	Yellow iridescent	Chromation with Cr(VI)
D	Matt	Olive	Chromation with Cr(VI)
F	Black	Black, dark iridescent permitted	Chromation with Cr(VI)
U	–	No conversion layer	–

Designation example of electroplating surface treatment as per ISO 4042

ISO 4014 – M 16x60 – 8.8 /Zn8/Cn/T2(µ0.12–0.18)

Zn8	Cn	T2	(µ0.12–0.18)
			Set friction coefficient range – to be implemented with integrated lubricant in the sealing or subsequently applied lubricant
		Sealing with or without integrated lubricant	
	Conversion layer Cn = Cr(VI)-free passivation iridescent (thick layer passivation)		
Coating metal Zn = zinc with a minimum layer thickness of 8µm			

General/common descriptions

Table 11: Coating metals (extract from ISO 4042)

Description old	Description new	common descriptions
A2A; A2B; A2K	ISO 4042 Zn5/An/T0	galZn; VZB; elVZ; ZP; BZP;VZ
–	ISO 4042 Zn5/Cn/T0	galZnDiSP; VZD;...
A2C	ISO 4042 Zn5/C/T0	galZnC; VG; GVZ; YZP; VZG

Corrosion resistance of electroplated zinc and zinc alloy coatings with Cr(VI)-free conversion layers

Table 12: Corrosion resistance as per ISO 4042

Coating system	Code	Minimum time for neutral salt spray test in hours		
		White rust	Red rust layer thickness	
			5 µm	8 µm
Zn, transparent passivated	Zn/An/T0	8	48	72
Zn, iridescent passivated	Zn/Cn/T0	72	120	192
Zn, iridescent passivated, sealed	Zn/Cn/T2	120	168	240
Zn, black passivated, sealed	Zn/Fn/T2	24	72	144
ZnFe, iridescent passivated	ZnFe/Cn/T0	96	144	216
ZnFe, iridescent, passivated, sealed	ZnFe/Cn/T2	120	216	288
ZnFE, black passivated, sealed	ZnFe/Fn/T2	96	192	240
ZnNi, silver grey, passivated	ZnNi/Cn/T0	120	480	720
ZnNi, silver grey, passivated, sealed	ZnNi/Cn/T2	168	600	720
ZnNi, black, passivated	ZnNi/Fn/T0	48	360	600
ZnNi, black, passivated, sealed	ZnNi/Fn/T2	120	480	720
1) in drum-coating; inspection is performed directly after coating				

Note: These are only extracts from standards. For inspection purposes, please refer to the relevant standard.

Requirements for gaugeability and assemblability of fasteners as per ISO 4042

The tread tolerances apply before the coatings are plated – when coating, the zero line of a screw thread (tolerance range h) or nut thread (tolerance range H) shall not be exceeded and deceeded, respectively. Thus, the screw thread with coating may be in between the upper tolerance limit and the zero line. The threads shall be gaugable over the complete thread length. Deviating from this, the threads may be damaged in delivery condition due to transport and pouring processes. In this case the maximum torques of a thread gauge shall not exceed the value of $0.001 d_3$ in Nm (Table 13). Alternatively, order and supplier may agree on an inspection for assemblability with a suitable nut or screw.

In the interest of threadability, the layer thickness for thread parts with a normal degree of tolerance of 6g/6H is of course limited. The empirically recommended limit values possible according to ISO 4042 can be found in Table 14. Thicker coatings require different tolerance zones with larger sizes according to DIN 13-14 (custom-made).

Layer thickness inspection of electroplated coatings on fasteners

In order to determine the layer thickness, different testing methods can be applied (X-ray spectrometric method as per ISO 3497, coulometric method as per ISO 2177, microscopical method as per ISO 1463, magnetic method as per ISO 1463, or eddy current method as per ISO 21968). In case of arbitration, the microscopical method shall be applied.

The test shall be performed at the reference areas marked in the figure.

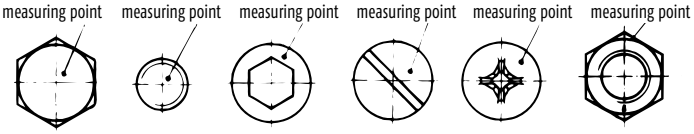


Table 13: Maximum torque for gauging of coated metric threads as per ISO 4042

Thread	Max. Torque [Nm]	Thread	Max. Torque [Nm]
M 3	0.03	M 18	5.8
M 4	0.06	M 20	8.0
M 5	0.13	M 22	11.0
M 6	0.22	M 24	14.0
M 8	0.51	M 27	20.0
M 10	1.0	M 30	27.0
M 12	1.7	M 33	36.0
M 14	2.7	M 36	47.0
M 16	4.1	M 39	59.0

Table 14: Maximum layer thicknesses for outer threads with thread tolerance group g

Thread Ø M	Pitch	Max. Layer thickness [µm] as per ISO 4042 ① Screw length			Practice values ② Screw length	
		< 5d	5d – 10d	10d – 15d	< 5d	5d – 15d
1 – 2	0.2 – 0.4	3	3	3	–	–
2,5 – 7	0.45 – 1	5	3	3	3	3
8	1.25	5	5	3	5	3
10 – 16	1.5 – 2	8	5	5	5	3
18 – 22	2.5	10	8	5	8	5
24 – 27	3	12	8	8	8	5
30 – 33	3.5	12	10	8	8	8
36 – 52	4 – 5	15	12	10	10	8
56 – 60	5.5	15	15	12	12	10
64	6	20	15	12	12	10

① Mathematical limiting value according to ISO 4042, Tab. 2
② Recommended limiting value from practice in due consideration of manufacturing and procedural faults according to ISO 6157-1, -3

Normal storage:	Layer thickness = Type (≥ M 5)
"galZn"	ca. 5 µm = A2A/A2B/A2E/A2F
"galZnC" yellow chromate	approx. 5 µm = A2C/A2G/A2L
"galZn 8 DiSP"	approx. 8 µm thick layer passivation

Notes on manufacturing-related hydrogen embrittlement (ISO 4042)

The risk of manufacturing-related hydrogen embrittlement exists (IHE = internal hydrogen embrittlement), if the fastener has high hardness or tensile strength, is subjected to tensile stress and can absorb atomic hydrogen during the manufacturing process.

Table 15: Measures to reduce hydrogen embrittlement with regard to hardness as per ISO 4042

Measure	A	B	C①
Description measure	No supplementary process verification or product testing with regard to IHE AND No malleablizing required	Supplementary process verification and/or product testing with regard to IHE OR Malleablizing	Supplementary process verification and/or product testing with regard to IHE AND Malleablizing
Applicable for screws of property class as per ISO 898-1	≤ 8.8	10.9	12.9
Applicable for nuts of property class and hardness as per ISO 898-2	≤ property class 12 and < 360 HV	≤ property class 12 and < 360 HV	-
Applicable for washers of property class as per ISO 898-3	≤ 200 HV	300 HV	380 HV

① As, despite measure C the risk of hydrogen embrittlement cannot be ruled out completely for the listed screws and washers, they are manufactured only upon explicit order.

Corrosion protection: Zinc flake coatings

The technical conditions of delivery ISO 10683 apply to non-electrolytically applied zinc flake coating on standard and non-standard fasteners. The coating is composed of zinc and aluminium flakes linked by an inorganic matrix. It is applied onto the part surface in a dipping or spraying process and then burned in at temperatures between 200 ° - 320 °C.

Layer composition and description system of zinc flake coatings

Variations in layer composition:

- Basecoat only
- Basecoat + lubricant
- Basecoat + topcoat
- Basecoat + topcoat + lubricant

Optional - lubricant

Optional topcoat optional with integrated lubricant (topcoat)

Basecoat optional with integrated lubricant (basecoat)

Base metal

Table 16: Comparison of resistance in the salt spray test to reference layer thickness according to ISO 10683

Duration NSS without red rust [h]	Reference layer thickness a) [µm]
240	4
480	5
600	6
720	8
960	10

a) The reference layer thickness includes basecoat layer(s) and topcoat layer(s), if present, with or without cr(VI). For approval, the corrosion resistance is decisive; the indication of the reference layer thickness is merely for orientation.

Table 17: Designation system according to ISO 10683

Basecoat	Chromium(VI)	Topcoat	Additional lubricant	Duration of salt spray test until red rust	Requirements for the friction coefficient range
1. Without integrated lubricant = **flZn**	1. Not specified (manufacturer's choice)	1. With integrated lubricant in the top layer = **TL**	**L**	e.g. **480 h**	**C**[a]
2.With integrated lubricant = **flZnL**	2.With Cr(VI) = **yc**	2.Without integrated lubricant in the top layer = **Tn**			
	3. Without Cr(VI) = 3: **nc**				

a) Friction coefficient range µ must be named in the order

Description example for a screw with zinc flake coating as per ISO 10683
ISO 4014 – M 16 x 60 – 8.8 flZnL/nc/480h/C (µ = 0.12–0.18)

flZnL	nc	480h	C (µ=0.12-0.18)
			Requirement for a friction coefficient range µ between 0.12 and 0.18
		Corrosion resistance in salt spray test 480 h to red rust	
	Coating system Cr(VI) free		
Zinc flake coating with integrated lubricant in the basecoat			

Table 18: Typical products

Manufacturers	Product examples	
MAGNI EUROP	Basecoat: Topcoat:	MAGNI FLAKE MAGNI TOP
ATOTECH	Basecoat: Topcoat:	ZINKTEK TECHSEAL
DÖRKEN	Basecoat: Topcoat:	DELTA-PROTEKT ® DELTA-SEAL ® DELTACOLL ®
NOF	Basecoat: Topcoat:	GEOMET PLUS L ® PLUS VL ®

Requirements for gaugeability and assemblability of fasteners as per ISO 10683

The thread tolerances apply before the coatings are plated – when coating, the zero line of a screw thread (tolerance range h) or nut thread (tolerance range H) shall not be exceeded and deceeded, respectively. Thus, the screw thread with coating may be in between the upper tolerance limit and the zero line. Threads may be damaged in delivery condition due to transport and pouring processes. In this case, the maximum torques of a thread gauge shall not exceed the value of 0.001d3 in Nm (Table 19). Alternatively, order and supplier may agree on an inspection for assemblability with a suitable nut or screw.

Table 19: Maximum torque for gauging of coated metric threads per ISO 10683

Thread	Max. Torque [Nm]	Thread	Max. Torque [Nm]
M 3	0.03	M 18	5.8
M 4	0.06	M 20	8
M 5	0.13	M 22	11
M 6	0.22	M 24	14
M 8	0.51	M 27	20
M 10	1	M 30	27
M 12	1.7	M 33	36
M 14	2.7	M 36	47
M 16	4.1	M 39	59

Properties of zinc flake technology at a glance:

- No hydrogen embrittlement as a result of the application process
- Virtually all systems are now Cr(VI)-free in accordance with according to RoHS and EU-End-of-Life-Vehicles Directives
- Extremely thin coatings of typically 5 - 12 µm
- Caution, however, with cropped parts with internal drive and small diameters ≤ M 6
- High cathodic corrosion protection compared to electroplated standard surfaces

Note: These are only extracts from standards. For inspection purposes, please refer to the relevant standard.

Corrosion protection: Hot dip galvanized fasteners

For hot dip fasteners, the technical conditions of delivery apply according to ISO 10684.

Requirements for thread and geometry tolerances

The minimum layer thickness of at least 40 µm at the point of measurement stipulated by this standard requires that the thread dimensions be adjusted (see Table 10).

The undersize is usually to be found in the screw thread with the tolerance group 6az so that the hot dip galvanized screw thread does not exceed the (ISO-compatible) zero line (h tolerance). These screws are also identified with a "U".
Rethreading the screw is not permitted.

For high-strength structural bolting assemblies -system HV- according to EN 14399-4, a non-rethreaded screw (g tolerance) is coated which means that the screw thread with hot dip galvanization is above the zero line. In this case the necessary oversize is in the nut thread (= 6 az).
The nut thread is later cut into the hot dip galvanized castings. The corrosion protection of the bare nut thread comes from the zinc coating of the screw thread with remote cathodic protection.

In case of external dimensions (head, shaft), there may be a minor oversize due to the zinc layer.

Table 20: Basic dimensions of the screw thread before hot dip galvanization – tolerance group 6az according to ISO 10684/ISO 965-4

Coarse thread	M 6*	M 8	M 10	M 12	M 14 M 16	M 18 M 22	M 24 M 27	M 30 M 33	M 36 M 39	M 42 M 45	M 48 M 52	M 56 M 60	M 64
Upper limit dimension es [µm]	-290	-295	-330	-335	-340	-350	-360	-370	-380	-390	-400	-410	-420

*not regulated by standards

Requirements for mechanical properties

After hot dip galvanization, the requirements of ISO 898-1 and ISO 898-2 apply to hot dip galvanized screws and nuts ≥ M 12.
For thread sizes M 8 and M 10, reduced load bearing capacities apply according to ISO 10684.

Table 21:
Minimum tensile strength [N] for screws of the 6az tolerance

Property class Marking	4.6 4.6 U	5.6 5.6 U	8.8 8.8 U	10.9 10.9 U
M 6*	7 075	8 844	14 150	17 687
M 8	13 300	16 600	26 600	34 500
M 10	21 400	26 800	42 900	55 700
M 12	33 700	42 200	67 400	87 700
M 16	62 800	78 500	125 000	163 000
M 20	98 000	122 000	203 000	255 000
M 24	141 000	176 000	293 000	367 000
M 30	224 000	280 000	466 000	583 000
M 36	327 000	408 000	678 000	850 000

*reference values not regulated by standards

Table 22:
Proof loads [N] for nuts of the 6az tolerance

Property class Marking	5 5 Z	6 6 Z	8 8 Z	10 10 Z
M 6*	7 969	9 962	15 934	19 923
M 8	17 300	20 000	25 500	30 600
M 10	28 600	33 000	42 200	50 400
M 12	51 400	59 000	74 200	88 500
M 16	95 800	109 900	138 200	164 900
M 20	154 400	176 400	225 400	259 700
M 24	222 400	254 200	324 800	374 200
M 30	353 400	403 900	516 100	594 700
M 36	514 700	588 200	751 600	866 000

*reference values not regulated by standards

Assembly

When assembling hot dip galvanized screws and nuts, especially with additional lubrication of the threading, different friction coefficients and tightening torques need to be reckoned with. EN 1993 – 1 – 8 NA needs to be considered for hot dip galvanized high strength structural bolting assemblies!
(→TI - Assembly)

Requirements for coating and surface

The grey appearance of the hot dip galvanized surface is dependent on the material and not a characteristic for the quality of corrosion protection. White rust and/or whitish to dark corrosion points (zinc oxide), which may occur after hot dip galvanization, e.g. through dampness, do not usually impair the corrosion protection and are no reason for rejection (→ ISO 1461, section 6.1).

A certain surface rawness and small dents in the thread tips are dependent on the procedure. For this reason, an assembly tool may be required for initial screwing.

Suitability of hot dip galvanizing for fasteners

Due to the great layer thicknesses and the coating process, coating is standardized only for thread diameters starting from M 8. Fasteners with a diameter of M 6 are suitable for hot dip galvanizing to a limited extent.

Articles with hollow sections (e.g. cap nuts, hexagon socket screws) are not suitable for hot dip galvanizing.

Properties: Steel screws, bolts and studs with metric thread

The mechanical properties of steel metric screws as well as their quality inspection and marking are set in ISO 898-1.
For fasteners under compressive stress with external thread, such as e.g. studs, only hardness classes are defined acc. to ISO 898-5.

Designation system for property classes
The most important mechanical properties for steel screws are given a two-digit combination name – here's an example:

The first number gives 1/100 of the **minimum tensile strength** in N/mm² stress area.
Tensile strength 8 x 100 = 800 N/mm².

← **8.8** →

The second number specifies the 10-fold ratio of the lower yield strength limit (R_{el} or Rp 0.2) over nominal tensile strength R_m (yield strength ratio).
Multiplying the two numbers results in 1/10 of the **minimum yield strength** in N/mm².
Tensile strength 8 x 10 = 640 N/mm².

Table 1: Mechanical properties of screws, bolts and studs as per ISO 898-1

Properties	Property classes	3.6	4.6	4.8	5.6	5.8	6.8	8.8 ≤ M 16	8.8 >M 16*	10.9	12.9
Tensile strength **	Nominal value	300	400		500		600	800		1000	1200
R_m in N/mm²	min.	330	400	420	500	520	600	800	830	1040	1220
Lower yield strength **	Nominal value	180	240	320	300	400	480	–	–	–	–
R_{el} in N/mm²	min.	190	240	340	300	420	480	–	–	–	–
Stress at 0,2 % non-proportional elongation**	Nominal value				–			640	640	900	1080
$R_{p\,0,2}$ in N/mm²	min.				–			640	660	940	1100
R_{el} / $R_{p0.2}$ Continuous use at increased temperatures can lead to significant tensile relaxation!	+ 100° C	–	–	–	270	–	–	590		875	1020
at higher temperatures in N/mm² (ISO 898-1 Issue 11/99 A1)	+ 200° C	–	–	–	230	–	–	540		790	925
	+ 250° C	–	–	–	215	–	–	510		745	875
	+ 300° C	–	–	–	195	–	–	480		705	825
Elongation after fracture A in % **	min	25	22	–	20	–	–	12		9	8
Vickers hardness(F ≤ 98 N)**	HV min-max	95-220	120-220	130-220	155-220	160-220	190-250	250-320	255-335	320-380	385-435
	***	250	250	250	250	250					
Brinell hardness (F = 30 D2)**	HB min-max	90-209	114-209	124-209	147-209	152-209	181-238	238-304	242-318	304-361	366-414
	***	238	238	238	238	238					
Rockwell hardness**	HRB min-max	52-95	67-95	71-95	79-95	82-95	89-99,5				
	***	99.5	99.5	99.5	99.5	99.5	–	–	–	–	–
	HRC min-max	–	–	–	–	–	–	22-32	23-34	32-39	39-44

*construction steel bolts from M 12 **values apply at room temperature approx. +20 °C ***max. value at the screw end

Marking screws, bolts and studs
According to the standard, fasteners from a thread diameter of M 5 onward are to be marked with the manufacturer's identification marks and the property class marking as follows*:



①② **Hexagon and hexalobular head screws and bolts** in all property classes. The marking shall be made preferably on the top of the head by indenting or embossing.

③④ **Hexagon and hexalobular socket head cap screws** in all property classes. The marking shall be made preferably on the top of the head by indenting or embossing.

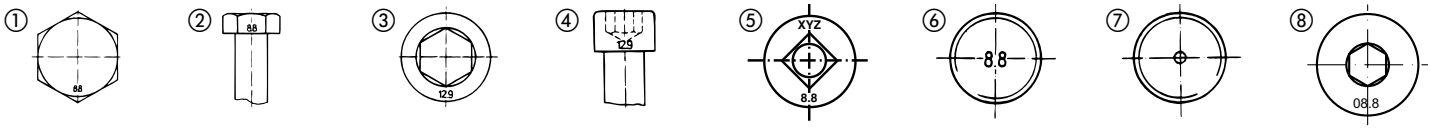
⑤ **Cup head square neck bolts** in all property classes. The marking shall be made on the head by indenting or embossing.

⑥⑦ **Studs** 5.6 and starting from property class 8.8. The marking shall be on the unthreaded part of the stud or on the tip of the nut end. If this is not possible, marking symbols an be used as follows: 5.6 = –, 8.8 = ○, for 10.9 = □ and for 12.9 = △

⑧ **Marking of fasteners which have reduced loadability**, such as, hexagon socket head cap screws with low head for example (DIN 7984): Fasteners shall be marked with the property class, except that the marking symbol for property class shall be preceded by the digit "0" (e.g. "08.8"). The obligation to add a marking is regulated in the product standards. Other screws with reduced loadability are, for example, hexagon socket countersunk head screws acc. to ISO 10642.

Threaded rods acc. to DIN 976 (DIN 975) are marked with the property class starting from 5.6. The manufacturer's identification is not required.
Alternatively, the following colour marking is allowed:

Property class/ material	Colour
5.6	brown
5.8	blue
8.8	yellow
10.9	white
12.9	black
A2-70	green
A4-70	red



*According to ISO 898-1, in case of limited space marking can be made clockwise (➔ analogue table 3)

Table 2: Hardness classes for set screws per ISO 898-5

Designation	14 H	22 H	33 H	45 H
Vickers hardness HV min.	140	220	330	450

Marking of products is not mandatory or only regulated in the product standards.

Properties: Steel nuts with metric thread

The DIN product and function standards for nuts are being converted to ISO standards. Accordingly, during the transition period standards for previous DIN and new ISO nut designs shall be on the market together.

Information about standards conversion, "Standards conversion DIN ➔ ISO", see TI-7:

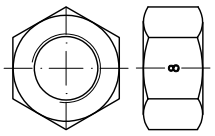
The properties of nuts with coarse threads is specified in ISO 898-2 (EN 20898-2/DIN 267-4) and for nuts with fine threads in ISO 898-6. The loadability of a nut is set by the hardness & nut height and defined by the proof load.
It is regulated that specific nut types must be marked with the property class.
The type of marking as well as the place where it needs to appear is prescribed in the standards ISO 898-2, DIN 267-24 and DIN 267-13, among others.
The key number specifies a direct assignment of property classes of the screws, bolts and studs (➔ Table 2).

Nuts with nominal height ≥ 0.8 D

The first number of the property class of the screw/bolt/stud is the assignment of the property class of the nut. For nuts with a nominal height of ~0.8 D, e.g. nuts according to DIN 555 and DIN 934, the marking is a number, for instance (8 = 1/100 of the proof stress in N/mm²). The marking of two vertical bars (| |) refers to the applicable proof loads according to DIN 267-4.

For nuts with a nominal height of ≥ 0.8 D, e.g. nuts according to ISO 4032, ISO 8673, the marking is a number, for instance (8 = 1/100 of the proof stress in N/mm²), without marking of two vertical bars (| |), here the proof loads apply according to ISO 898-2.

Marking: Hexagon head nuts of this group are to be marked from a thread diameter of ≥ M 5 with the manufacturer's identification mark and the property class in accordance with Table 2 or Table 3.



8
8

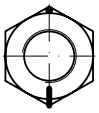
Table 3: Assignment of the nut property classes to the screw property classes

Property class of the nut	Associated screw/bolt/stud		Nut - Thread range	
	Property class	Thread range	Type 1[1)]	Type 2[1)]
4	4.6 4.8	> M 16	> M 16	
5	4.6 4.8 5.6 5.8	≤ M 16 ≤ M 39	≤ M 39	
6	6.8	≤ M 39	≤ M 39	
8	8.8	≤ M 39	≤ M 39	> M 16 ≤ M 39
10	10.9	≤ M 39	≤ M 39	
12	12.9	≤ M 39	≤ M 16	≤ M 39

1) The type determines the necessary proof loads in ISO 898-2.

Note in accordance with ISO 898-2: In general, nuts from the higher property class can be used instead of nuts from the lower property class. This is recommended for a screw-nut fastening with loads above the yield stress or above the proof stress.

Table 4: Alternative marking of the property class with symbols (clock system)

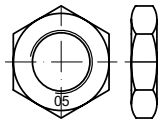
Property class	4	5	6	8	10	12 [2)]
Marking						

2) The marking placement cannot be replaced by the manufacturer's identification mark

Nuts with nominal height ≥ 0.5 D < 0.8 D

For nuts with a nominal height of ≥ 0.5 D < 0.8 D, e.g. nuts according to ISO 4035, ISO 8675 and DIN 439-2 the marking is a number prefixed with "0", e.g. (05 = 1/100 of the proof stress in N/mm²).
The prefixed 0 shows that nuts from this group cannot or can only limitedly take on the loads of a screw due to the low nut height.

Marking: Hexagon head nuts of this group are to be marked from a thread diameter of ≥ M 5 with the manufacturer's identification mark and the property class.



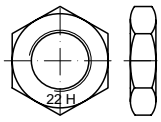
05

Nuts with nominal height < 0.5 D

For nuts with nominal height < 0.5 D, for example, nuts according to DIN 936, there is a marking of 1/10 of the minimum hardness according to Vickers, e.g. 22 H (= 220 HV).

Nuts for easy fastenings without specified proof load values are included in this group.
The hardness classes for these nuts are specified in DIN 267-24.

Marking: Nuts of the hardness class 22 H are to be marked with a hardness class if the thread diameter ≥ M 5.



22 H

Properties for fasteners made of steel with inch thread as per ASME standards

The properties of fasteners as per American ASME standards are regulated in the following standards among others:

- Hexagon head and square head screws: ASME B18.2.1-2010
- Hexagon socket head cap screws: ASME B18.3-2012
- Nuts: ASME B18.2.2-2010
- Plain washers: ASME B18.22.1-1965

The property classes/mechanical properties for these fasteners are regulated in different norms and standards that are partly included in the product standards. A clear and strict separation as in the field of DIN/EN/ISO standards in product and function standards is not present in the field of ASME standards.

Properties of hexagon head screws as per ASME B18.2.1-2010 Table 6

The ASME B18.2.1-2010 standard regulates the properties of hexagon head and square head screws with inch thread. The standard specifies 8 different product geometries here. An important difference is the difference between so-called "bolts" and "screws". Unfortunately there is no generally valid definition of "bolts" and "screws". In the area of hexagon head screws, "bolts" are always screws without a pronounced washer face; in contrast "screws" always have a washer face. The properties of hex cap screws (ASME B18.2.1-2010 Table 6) are dealt with in more detail in the following. There is no difference between partial and full thread in this standard; screws up to a specific length are supplied with full thread, longer products with partial thread.

Table 5: Overview of full thread/partial thread as per ASME B18.2.1-2010

Diameter in inches	Dimensions with full thread (R 83933)	Dimensions with partial thread (R 83931)	Minimum and maximum length of partial thread in inch	
	Length to in inch	Length from to in inch	min.	max,
1/2	1 1/8	1 1/4 to 6	3/4	1,000
5/16	1 1/4	1 5/16 to 6	7/8	1,153
3/8	1 3/8	1 1/2 to 6	1	1,312
7/16	1 5/8	1 3/4 to 6	1 1/8	1,482
1/2	1 3/4	1 7/8 to 6	1 1/4	1,635
9/16	2	2 1/8 to 6	1 3/8	1,792
5/8	2 1/8	2 1/4 to 6	1 1/2	1,955
3/4	2 1/2	2 5/8 to 6	1 3/4	2,250
7/8	2 3/4	2 7/8 to 6	2	2,556
1	3	3 1/8 to 6	2 1/4	2,875
1 1/8	3 1/2	3 5/8 to 6	2 1/2	3,214
1 1/4	3 3/4	3 7/8 to 6	2 3/4	3,464
1 3/8	4 1/4	4 5/16 to 6	3	3,833
1 1/2	4 1/2	4 5/8 to 6	3 1/4	4,083
1 3/4	5 1/8	5 1/4 to 6	3 3/4	4,75
2	5 3/4	5 7/8 to 6	4 1/4	5,361
2 1/4	6 1/2	6 5/8 to 12	5	5,861
2 1/2	7 1/8	7 1/4 to 12	5 1/2	6,500
2 3/4	7 5/8	7 3/4 to 12	5 3/4	7,000
3	8 1/8	8 1/4 to 12	6 1/2	7,500

REYHER nevertheless offers a separation here, item 83931 corresponds to the longer dimensions with partial thread and item 83933 corresponds to the shorter dimensions with full thread.

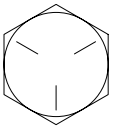
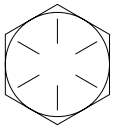
The thread tolerances for inch screws are regulated in the ASME B18.1.1 standard where the following tolerances apply:

- Tolerance limit 2A prior to galvanic coating,
- Tolerance limit 3A (go-master ring) and 2A (no-go gauge) after the coating

unless otherwise agreed.

The mechanical properties for screws as per ASME B18.2.1 are defined in accordance with the SAE J429 standard (see Table 5). Strengths are normally specified there in psi (pound-force per square inch), 1000 psi = 6,895 N/mm².

Table 6: Mechanical properties of hexagon head screws as per ASME B18.2.1/SAE J429

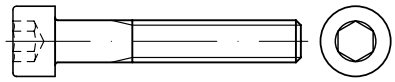
Property class	Grade 5 (~ 8.8)		Grade 8 (~ 10.9)
Properties	Ø > ¼ – 1	Ø > 1 – 1½	Ø > ¼ – 1
Tensile strength N/mm²	827	724	1034
psi	120.000	105.000	150.000
0.2 % yield strength N/mm²	634	558	896
psi	92.000	81.000	130.000
Elongation at fracture in %	Min. 14%		Min. 12%
Rockwell core hardness in HRC min.-max.	25 - 34	19 - 30	33 - 39
Marking of the property class			

Screws as per ASME B18.2.1 should be marked with the manufacturer's mark and the property class as per SAE J429.

Properties for fasteners made of steel with inch thread as per ASME standards

Properties of hexagon socket head cap screws as per ASME B18.3-2012 Table 1

The ASME B18.3-2012 standard regulates the properties of hexagon socket head cap screws with inch thread. The 1936 version of the standard was thoroughly revised in 1960. The head geometry had also changed. The goods supplied by REYHER comply fully with the "1960 series"; the "1936 series" can be obtained on request. The ASME B18.3 standard specifies 5 different product geometries here (including countersunk head and lower head height). The hexagon socket head cap screws (comparable to DIN 912/ISO 4762) are described in detail in the following.



The thread tolerances for inch screws are regulated in the ASME B18.1.1 standard where the following tolerances apply:

- Up to and including 1 inch: Class 3A,
- Above 1 inch: Class 2A.

The mechanical properties for screws as per ASME B18.3-2012 Table 1 are only defined in accordance with the ASTM A574 standard (see Table 6). Strengths are normally specified there in psi (pound-force per square inch), 1000 psi = 6.895 N/mm².

These screws should only be marked with the manufacturer's mark as only one property class is provided for this product. The head of the hexagon socket head cap screw can be knurled at the choice of the manufacturer. A galvanic coating should be avoided due to the high tensile strength and the associated danger of hydrogen embrittlement.

Table 7: Mechanical properties of hexagon socket head cap screws as per ASME B18.3/ASTM A574

Properties	Steel as per ASTM A574 (~ 12.9)	
	Ø ≤ ½	Ø > ½
Tensile strength		
N/mm²	1241	1172
psi	180.000	170.000
0.2 % yield strength		
N/mm²	1054	
psi	153.000	
Elongation at fracture in %	Min. 10%	
Rockwell core hardness in HRC min.-max.	39 - 45	37 - 45

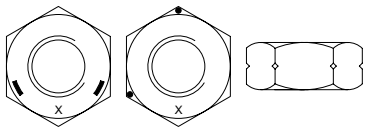
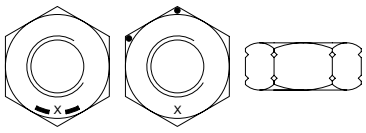
Properties of nuts as per ASME B18.2.2-2010 Table 7

The ASME B18.2.2 standard regulates the properties of nuts with inch thread. On the other hand, this standard specifies 14 different product types, thus "hex nuts" are the products that are listed as item 83934 in this catalogue.

The thread tolerances for nuts are also regulated in the ASME B18.1.1 standard; the nuts are supplied in tolerance class 2B unless agreed otherwise. These nuts can be screwed together with zinc plated and non zinc plated products.

The mechanical properties for nuts as per ASME B18.2.2 are defined in accordance with the SAE J995 standard (see Table 7). Strengths are normally specified there in psi (pound-force per square inch), 1000 psi = 6.895 N/mm².

Table 8: Mechanical properties of "hex nuts" as per ASME B18.2.2/SAE J 995

Property class Properties	Grade 5 (~ 8)		Grade 8 (~ 10)		
	Ø > ¼ – 1 UNC	Ø > 1 – 1½ UNC	Ø > ¼ – ⅝ UNC	Ø > ⅝ – 1" UNC	Ø > 1 – 1½ UNC
Tension under test force					
N/mm²	827	723	1034		
psi	120.000	105.000	150.000		
Rockwell core hardness in HRC min.-max.	≤ 32		24 - 32	26 - 34	26 - 36
Marking of the property class					

Nuts as per ASME B18.2.2 should be marked with the manufacturer's mark and the property class.

Properties of washers as per ASME B18.22.1-1965 Type A

The ASME B18.22.1 standard regulates the properties of washers for screws with inch thread. The standard essentially differentiates 2 versions: "Narrow " and "Wide". The difference between the two versions is in the larger outside diameter for the washers of the "wide" version (see table of dimension pages).

There are no requirements on mechanical properties for the "plain" version washers; they should only be produced from steel materials. An overview of washer properties is given in Table 8.

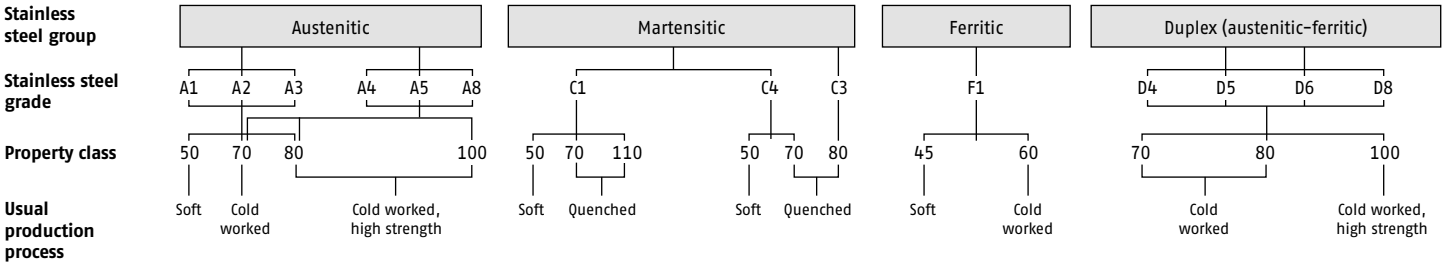
Table 9: Mechanical properties of washers as per ASME B18.22.1/ASTM F436

Properties	Plain washers	Hardened washers as per ASTM F436		
	ASME B18.22.1	Hardened, bare or ZP	Hardened, HDG	Case hardened
Rockwell core hardness in HRC min.-max.	No specification	38 - 45	26 - 45	Min. 30 HRC
Case hardness depth/case hardness HR15N				
- Bare/ZP				0.015"/79 – 83
- HDG				0.015"/73 - 83

Properties: Fasteners from stainless steels

The mechanical properties of fasteners from corrosion-resistant stainless steel as well as their quality inspection and marking are set in ISO 3506. Parts 1 and 2 are currently being revised, and a new part 6 (General rules for the selection of stainless steels and nickel alloys for fasteners) is under development. Extracts from these drafts and scripts are also presented here.

According to ISO 3506, stainless steels are divided into four steel groups according to their steel structure. The different steel types of stainless steels can be obtained with various materials and have different properties in terms of corrosion resistance and function.



The fasteners' surface condition (passivation ➔ ISO 16048, surface roughness etc.) may affect the corrosion resistance of the fastener. Fasteners made of stainless steels can be used in low temperature environments as follows:

- martensitic, ferritic, and Duplex steel are suitable for working environments of down to -40 °C
- austenitic steel is suitable for operating environments of down to -196 °C (screws with head down to -60 °C, headless screw down to -200 °C per DIN 267-13)

Austenitic steels (A)

Austenitic stainless steels are generally divided into austenitic chrome nickel steels (A1 to A3) and austenitic chrome nickel molybdenum steels (A4 to A8). Austenitic stainless steels cannot be hardened with heat treatment. The mechanical properties of the fasteners are normally achieved by cold working. Copper can help improve the workability of the austenitic structure.

Under the following conditions, A2 and A4 steels can be more susceptible to intercrystalline corrosion:

- the carbon content is higher than 0.030% and/or
- the steel is exposed to high temperatures (either during the manufacturing process, a welding process or in its operating environment)

In these cases, steels with a carbon content of less than 0.030% (A2L or A4L) or stabilized austenitic steels of the types A3 or A5 may be used.

A8 is a high-alloy austenitic stainless steel with significantly higher corrosion resistance compared to A4.

Austenitic steels are usually not magnetic in annealed condition, however, cold forming that occurs during the manufacturing process of fasteners, may lead to a certain degree of residual magnetism.

The steel types A1 – A3 are **not** suitable for use in oxidizing acids or in an environment with chloride (e.g. in swimming pools where chloride is used as a cleaning agent, or in marine environments).

Permeability

A 2:	μ_r P 1.8
A 4:	μ_r P 1.015
A 4L:	μ_r P 1.005

Excerpt from ISO 3506-1 Annex H

A1: Stainless steels of steel type 1 are designed particularly for mechanical processing. Due its high sulphur content this type is less corrosion resistant than the respective steels with normal sulphur content.

A2: Type A2 stainless steels are the steel types that are mostly used for compressed fasteners. They are more resistant to corrosion than A1.

A3: Type A3 stainless steels have similar properties to type A2 steels; however, their temperature resistance is increased (typically up to 350 °C) They are stabilized by adding titanium or niobium, which combine carbon and nitrogen.

A4: A4 type stainless steels are often called "acid-resistant steels", contain molybdenum as an alloy and are much more corrosion resistant. This steel type can be used in environments containing chloride, but not in swimming pool areas with chloride as a cleaning agent and not in many maritime environments.

A5: Type A5 stainless steels are stabilized steels with the same properties as A4 type steels; however they are more temperature-resistant (typically up to 350 °C). They are stabilized by adding titanium or niobium, which combine carbon and nitrogen. This steel type can be used in environments containing chloride, but not in swimming pool areas with chloride as a cleaning agent and not in many maritime environments.

A8: Type A8 steels are also known as "6% Mo" steels. They are highly resistant against all types of corrosion, including pitting corrosion, crevice corrosion and stress crack corrosion. They are suitable for use in swimming pools, where chloride is used as a cleaning agent; however, specific requirements and/or regulations for buildings and structures should be considered. They can also be applied in maritime environments.

Martensitic steels (C)

Three martensitic steel types C1,C3, and C4 are contained in the ISO 3506 standard. They can be hardened by quenching.
The mechanical properties are increased with increasing carbon content. For this reason, the chromium content is increased in order to achieve suitable corrosion resistance. The martensitic steel types are normally less corrosion resistant than austenitic steel types.
In temperatures below zero, their use shall be considered carefully, as martensitic stainless steels are less resistant to impacts and less ductile than austenitic steels. Martensitic steels are always highly magnetic.

Properties: Fasteners from stainless steels

Ferritic steels (F)
The mechanical properties of ferritic steels are achieved with cold working (cold forming), where the efficiency is however reduced in comparison to austenitic stainless steels. Ferritic steels are always magnetic. If the corrosion resistance required for a certain application can be lower than that of steel types A2 or A3, the stainless steel type F1 may be a good economic solution. Type F1 steel shall however not be used in temperatures below –20 °C, as ferritic stainless steels are less resistant to impacts and less ductile.

Duplex steels (D)
The structure of duplex steels is composed of a mixture of ferrite and austenite grains with a ferrite content of typically 40 to 60 percentage by volume. In solution heat treated condition, the strength of stainless duplex steels is considerably higher than the strength of austenitic stainless steels and can be additionally increased through cold working. However, ductility will be reduced in this process. Duplex steel types are normally described as follows:

- "Lean-Duplex" with low alloy content of particularly nickel and molybdenum (D2 and D4),
- "Standard-Duplex" (D6),
- "Super-Duplex" with high alloy content (D8).

In comparison to austenitic stainless steels A1 to A5, Duplex steels show clearly improved resistance to stress crack corrosion. Duplex steels should be applied only within a temperature range of –40 °C to +250 °C.

D2/D4: In terms of pitting corrosion and crevice corrosion, corrosion resistance of D2 is at least equivalent to that of A2, and corrosion resistance of D4 is at least equivalent to that of A4.

D6: "Standard-Duplex" contains more than 2.5% molybdenum. This helps to improve its corrosion resistance in terms of pitting corrosion and crevice corrosion in comparison to A1 to A5 and D4.

D8: The corrosion resistance of this "Super-Duplex" is comparable to that of A8.

Marking: Hexagon head, hexagon and hexalobular socket head cap screws, studs and nuts with a thread diameter of ≥ M 5 (studs ≥ M 6) are to be marked with manufacturer symbol, steel grade and property class.

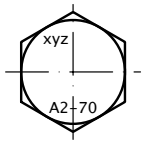


Table 9: Mechanical properties for fasteners of A 1 – A 8, D2 – D8 and BUMAX88/109 at approx. +20 °C

		Screws				Nuts	
						Proof stress Sp/N/mm² min.	
Property class	Diameter range	Tensile strength Rm N/mm² min.	0.2 % Yield strength N/mm² min.	Temperature impact on 0.2% Yield strength	Elongation after fracture A mm min.	m ≥ 0.8 d	0.5 d ≤ m < 0.8 d
50	≤ M 39	500	210		0.6 d	500	250 (property class - 025)
70	≤ M 24	700	450	Only for austenitic materials A 1 – A 8 at 100 °C = 85% at 200 °C = 80% at 300 °C = 75% at 400 °C = 70%	0.4 d	700	350 (property class - 035)
80	≤ M 24	800	600		0.3 d	800	400 (property class - 040)
100*	not specified	1000	800		0.2 d	1000	500 (property class - 050)
BUMAX88	≤ M 36	800	640	at 200 °C = 90% at 300 °C = 85% at 400 °C = 80%	0.3 d	800	–
BUMAX109	≤ M 12 M14 - M 20	1000 1000	900 800	at 200 °C = 95% at 300 °C = 95% at 400 °C = 90%	0.2 d	1000	–

*Property class 100 as per draft ISO 3506-1/-2:2018-02

Table 10: Chemical composition in % acc. to ISO 3506/EN 10088-3

Steel grade	Common materials (ISO/DIS 3506-6)	C	Cr	Mo	Ni	Cu
A1	1.4305 (303)	0.12	16 - 19	0.7	5 - 10	(1.75-) 2.25
A2	1.4301 (304)	0.10	15 - 20	-	8 - 19	4
A3	1.4541 (321)	0.08	17 - 19	-	9 - 12	1
A4	1.4401 (316) BUMAX88 BUMAX109	0.08	16 - 18.5	2.0 - 3.0	10 - 15	4
A5	1.4571 (316 TI)	0.08	16 - 18.5	2.0 - 3.0	10.5 - 14	1
A8*	1.4529	0.03	19 - 22	6.0 - 7.0	17.5 - 26	1.5
C1	1. 4021	0.09 - 0.15	11.5 - 14	-	1	
C3	1. 4057	0.17 - 0.25	16 - 18	-	1.5 - 2.5	
C4	1. 4005	0.08 - 0.15	12 - 14	0.6	1	
F1	1. 4016	0.08	15 - 18	-	1	
D2*	1. 4482	0.04	19 - 24	0.10 - 1.0	1.5 - 5.5	3
D4*	1. 4062	0.04	21 - 25	0.10 - 2.0	1.0 - 5.5	3
D6*	1. 4462	0.03	21 - 26	2.5 - 3.5	4.5 - 7.5	
D8*	1. 4410	0.03	24 - 26	3.0 - 4.5	6.0 - 8.0	2.5

Extract from ISO 3506-1 with the most important chemical elements (more details ➔ ISO 3506).
*New steel types as per draft ISO 3605-1/-2: 2018-02

Chemical resistance of stainless steel fasteners A 2 and A 4

In practice, the resistance specifications can change; the pure agents rarely have an effect, admixtures often strengthen or weaken the attack. Residue on the part can also change the conditions. The safest approach is always to check the operating conditions.

Table 16: Extract from the resistance list
(Further information on request and from www.reyher.de)

Agents	Degree of resistance	
	A 2	A 4
Acetic acid, cold	1	1
Acetone, all conc.	1	1
Al (10%), cold	1	1
Alum saturated solution, boiling	3	1
Aluminium acetate	1	1
Aluminium saturated, cold	2	1
Aluminium sulphate (10%), cold	1	1
Ammonium carbonate	1	1
Ammonium nitrate	1	1
Ammonium sulphate, cold	1	1
Ammonium sulphite	1	1
Aniline	1	1
Azotic acid up to 60%, cold	1	1
Beer	1	1
Benzine	1	1
Benzoic acid	1	1
Benzol	1	1
Boric acid	1	1
Butyl acetate	1	1
Calcium bisulphite, boiling	3	1
Calcium bisulphite, cold	1	1
Calcium hydroxyde (10–50%), cold	1	1
Calcium nitrate	1	1
Camphor	1	1
Carbon dioxide	1	1
Carbon disulphide	1	1
Carbon tetrachloride, waterless	1	1
Chlorine, dry	1	1
Chloroform, waterless	1	1
Chromic acid (10%), cold	1	1
Chromic boiling	2	2
Citric acid 50%, boiling	3	2
Citric acid saturated, cold	1	1
Copper acetate	1	1
Copper arsenite	1	1
Copper nitrate	1	1
Copper sulphate	1	1

Agents	Degree of resistance	
	A 2	A 4
Creosote	1	1
Developer (photo)	1	1
Ethyl acetate	1	1
Ethyl alcohol, all conc.	1	1
Ethylether, boiling	1	1
Fatty acid, 150 °C	1	1
Formalin	1	1
Formic acid, cold	1	1
Fruit juices	1	1
Glue oil	1	1
Glycerine	1	1
Hydrogen cyanide	1	1
Hydrogen peroxide	1	1
Hydrogen sulphide	1	1
Iron nitrate	1	1
Iron sulphate	1	1
Lactic acid (80%), boiling	3	2
Lactic acid all conc., cold	1	1
Latex	1	1
Lime milk	1	1
Liquid ammonia	1	1
Liquid gases (propane, butane)	1	1
Magnesium sulphate	1	1
Maleic acid	1	1
Mercury	1	1
Mercury amalgam	1	1
Mercury nitrate	1	1
Methyl alcohol	1	1
Molasses	1	1
Nickel sulphate	1	1
Nitrous acid	2	1
Oils (lubricating and vegetable oils)	1	1
Oxalic acid, 5%, cold	1	1
Phenol, boiling	2	1
Phosphoric acid up to 70%, cold	1	1
Photograph. Developer/Fixer	1	1
Potash	1	1

Agents	Degree of resistance	
	A 2	A 4
Potassium bichromate (25%)	1	1
Potassium bitartrate, cold	1	1
Potassium chlorate	1	1
Potassium cyanide	1	1
Potassium hydroxyde (caustic potash)	1	1
Potassium nitrate	1	1
Potassium permanganate	1	1
Potassium sulphate	1	1
Salicylic acid	1	1
Salt water, 20 °C	1L	1L
Soap	1	1
Sodium aluminate	1	1
Sodium bisulphate, boiling	1	1
Sodium bisulphide, boiling	1	1
Sodium carbonate (soda)	1	1
Sodium hydroxide, cold	1	1
Sodium nitrate	1	1
Sodium perchlorate	1	1
Sodium phosphate	1	1
Sodium silicate	1	1
Sodium sulphide	1	1
Sodium sulphite	1	1
Sulphur (molten)	1	1
Sulphur chloride, waterless	1	1
Sulphur dioxide	1	1
Sulphuric acids, saturated, 20 °C	1	1
Tannic acid	1	1
Tar	1	1
Tartaric acid	1	1
Treacle	1	1
Trichloroethylene, waterless	1	1
Viscose	1	1
Waste waters without acid sulphur	1	1
Wine	1	1
Zinc sulphate	1	1

1 – resistant (substance loss less than 0.1 g/m² x h)
2 – conditionally resistant (substance loss of 0.1 to 1.0 g/m² x h)
3 – not very resistant (substance loss of 1.0 to 10.0 g/m² x h)
4 – not resistant (substance loss over 10.1 g/m² x h)
L – danger of hole, crack or stress corrosion

Fasteners in indoor swimming pool environments Field of application	Materials
Non-loaded fasteners with occasional refilling/areas which come into contact with pool water which have to be cleaned regularly (e.g. section at the side of the pool, decorative linings)	1.4401 (A 4) 1.4404 (A 4L) 1.4571 (A 5)
Non-loaded fasteners with occasional refilling/areas which come into contact with pool water which do not have to be cleaned regularly (e.g. overflow basins, steel gratings and slides)	1.4439 1.4539 1.4462 (D 6)
Non-loaded fasteners with occasional refilling/areas which come into contact with pool water which do not have to be cleaned regularly (e.g. overflow basins, steel gratings and slides)	1.4539* 1.4529* (A 8) 1.4565* 1.4547* (A 8)

*general technical approval Z-30.3-6

On the blue catalogue pages: The large REYHER article range of stainless steels.

Properties: Fasteners from non-ferrous materials

The mechanical properties of fasteners from non-ferrous materials as well as their quality inspection and marking are set in ISO 8839.

Table 17: Metallic non-ferrous materials (Cu, MS, Al, Ti) for fasteners and special parts
(Extract from ISO 8839/DIN 267-18)

Material Marking	Material code	Material no.	Tensile strength R_m N/mm² min.	Stress at 0.2% non-proportional elongation N/mm² min.	Elongation after fracture A % min.	Notes
CU 1	E-Cu57	2.0060	240	160	14	–
CU 2	CuZn37 (MS 63)	2.0321	370-440	250-340	19-11	Storage of compressed parts
CU 3	CuZn39Pb3 (MS 58)	2.0401	370-440	250-340	19-11	Storage of turned parts
CU 4	CuSn6	2.1020	400-470	200-340	33-32	–
CU 5	CuNi1, 5Si	2.0853	590	540	12	saltwater-proof
CU 6	CuZn40MnPb	2.0580	440	180	18	–
CU 7	CuAl10Ni	2.0966	640	270	15	–
AL 1	AlMg3	3.3535	250-270	180-230	4-3	conditionally saltwater-proof
AL 2	AlMg5	3.3555	280-310	200	6	saltwater-proof
AL 3	AlMgSi1	3.2315	310	250	10-7	–
AL 4	AlCuMg1	3.1325	380-420	260-290	10-6	–
AL 5	AlZnMgCu0,5	3.4345	460	380	7	–
AL 6	AlZnMgCu1,5	3.4365	510	440	7	–
Ti 1	Titanium (Titanium 99.5)	3.7025	290	180	30	Storage (➔ yellow catalogue pages)
Ti 2	TiAl6V4	3.7165	890	820	10	–

Table 18: Saltwater-proof copper alloys for fasteners and special parts
(Extract from DIN 17660, 17664, 17666)

Description	Material no.	Composition approx. %	Tensile strength Rm approx N/mm²	Stress at 0.2% nonproportional elongation $R_{p\,0,2}$ approx N/mm²	Elongation after fracture As approx %
SO-MS 59	2.0540	Cu 59/Zn 36/Ni 2/Mn 1,5	500	300	18
RESISTIN	–	Cu 85/Mn 14/Fe 1	520	400	17-12
CuNiSi	2.0853	Cu 98/Ni 1,5/Si 0,5	590	540	10
CUNIFER	2.0872	Cu 88/Ni 10/Fe 1/Mn 0,5	280-360	100-250	30-10
CUNIFER	2.0882	Cu 69/Ni 30/Fe 0,5/Mn 0,5	340-420	120-300	35-14

Table 19: Plastic materials (thermoplastics) fasteners and special parts
(General values – Further details – Spec. coarse tolerances ➔ VDI 2544 or on request)

Material code	Material group (trade name)	Density g/cm³	Yield stress dry-humid approx. N/mm²	Elongation after fracture approx. %	Modulus of elasticity dry-humid approx. N/mm²	Operating temperature –/+ approx. °C
PA 6	Polyamide 6 (Ultramide)	1.14	80-30	130-220	2700-1800	–40/+80-130
PA 66	Polyamide 6.6 (Ultramide A)	1.14	85-50	40-170	3000-1900	–20/+80-140
POM	Polyacetal (Delrin 150)	1.42	69	30	3000	–40/+100-130
PP	Polypropylene (Hostalen PPH)	0.91	30-35	15	1000-1300	–10/+100-120
PA 12	Polyamide 12	1.01	55-48	150-350	1800-1300	–0/+100
PC	Polycarbonate	1.2	60	80-100	2100	–0/+130
PA 66 (gfv)	with 35% glass fibre	1.39	190-140	5	9500-8500	–40/+100-140

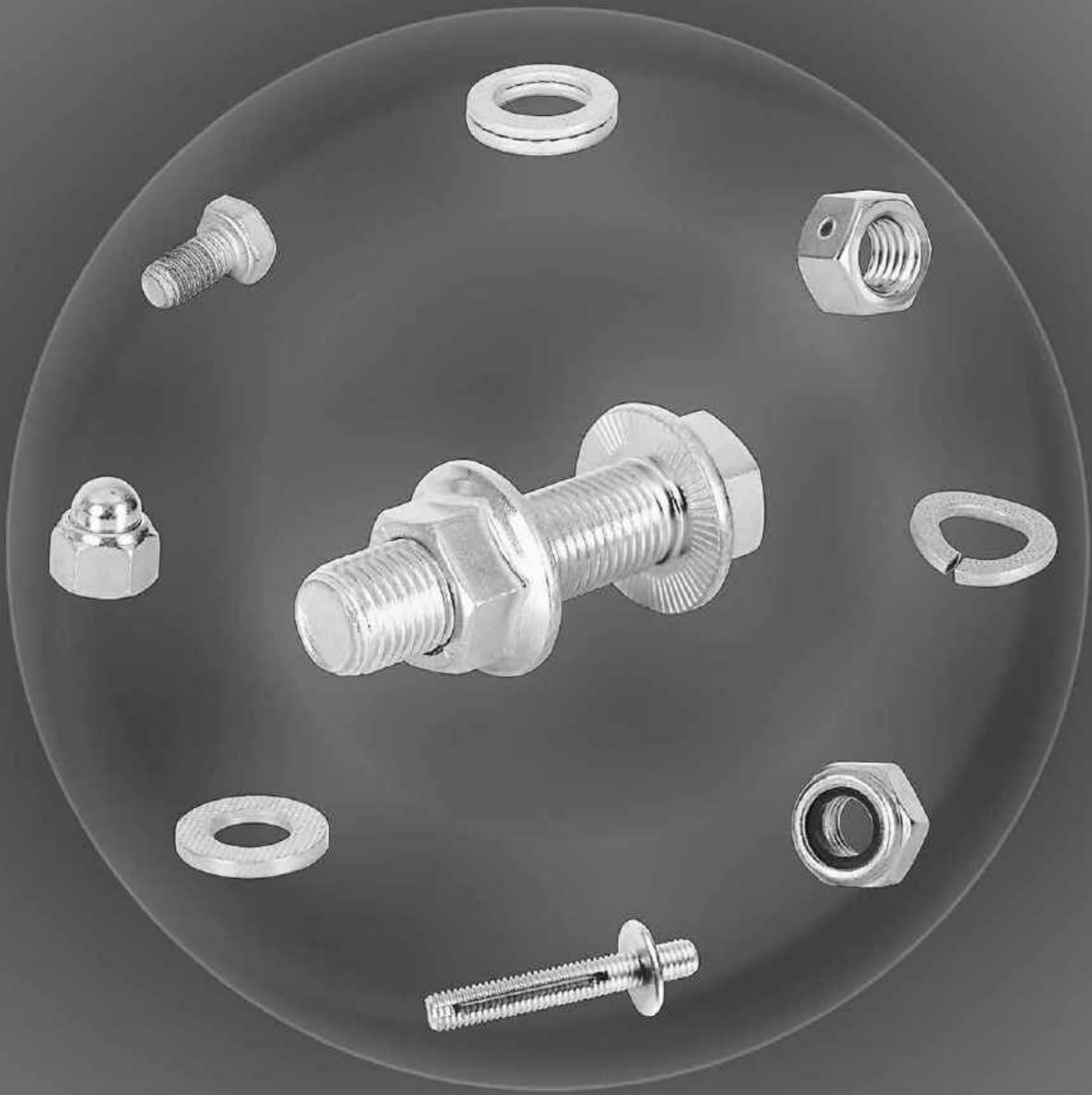
Fasteners in stock = PA 6/PA 6.6 natural-colour/milky-white, if not specified otherwise.
From the other materials, fasteners can be supplied on short notice, other materials on request.

*Information from DIN 34810

Standard and special parts according to drawings can be delivered for different applications in all necessary special materials – in any amount required.
The table shows some examples of frequently requested special materials, roughly ordered according to application area:

Material group Particular properties/areas of application		Material no. (AISI)	Material designation (previous)	Standard/ Material data sheet
Stainless steels – [1]	F 1	1.4016	X6Cr17 (X8Cr17)	EN 10088 (DIN 17440)
a) ferritic (F) and martensitic (C) Greater mechanical properties with less corrosion-resistance	C 1 C 1 C 3 C 4	1.4006 (410) 1.4021 (420) 1.4057 (431) 1.4104 (430 F)	X10Cr13 X20Cr13 X20CrNi172 (X20CrNi17) X12CrMoS17	ISO 3506 (DIN 267-11)
		1.4034 (420)	X46Cr13 (X40Cr13)	
b) austenitic (A) Increased corrosion resistance, rust and acid-resistant, tough at sub-zero temperatures	A 3	1.4541* (321)	X6CrNiTi1810	EN 10088 (DIN 17440)
	A 4 A 5 A 4	1.4436 (319) 1.4571* (316 Ti) 1.4580 (316 Cb)	X5CrNiMo17133 (X5CrNiMo1812) X6CrNiMoTi1722 X6CrNiMoNb17122 (X10CrNiMoNb1810)	ISO 3506 (DIN 267-11) * DIN 267-13
		1.4310** (301)	X12CrNi177	** SEW 400
Rust and acid-resistant steel For particular corrosion media e.g. for use in indoor swimming pools	Uranus B 6 Austenitic Austenitic	1.4539 1.4439 1.4529	X1NiCrMoCu 25 20 5 X2CrNiMoN 17 13 5 X1NiCrMoCuN 25 20 7	ISO 3506-1, E1 (especially resistant against chloride-induced stress corrosion)
	Austen./ferritic	1.4462	X2CrNiMoN 22 5 3	
Steels tough at sub-zero temperatures Increasing strength and stretch limit behaviour and high toughness at temperatures as low as – 195 °C (SEW) or – 253 °C (AD)	Marking KA Marking KB Marking KC Marking KD	1.7219 1.5680 1.6900 1.6903	26CrMo4 12Ni19 X12CrNi189 X10CrNiTi1810	DIN 267-13 SEW 680/70
	A 2 A 2 A 3 A 4 A 5	1.4301 (304) 1.4303 (305) 1.4541 (321) 1.4401 (316) 1.4571 (316 Ti)	X5CrNi1810 X5CrNi1812 X6CrNiTi1810 X5CrNiMo17122 X6CrNiMoTi17122	ISO 3506 (DIN 267-11) DIN 267-13 EN 10088 (DIN 17440) ADW 2/ADW 10
Highly heat-resisting and heat-resistant steels Good temperature-resistance with medium to lower mechanical properties		1.1181 1.7218 1.7709	C35E 25CrMo4 21CrMoV5-7	DIN 267-13 EN 10269
	Nimonic 80 A Nimonic 90 Nimonic 105	2.4631/2.4952 2.4632/2.4969 2.4634	NiCr20TiAl NiCr20Co18Ti NiCo20Cr15MoAlTi	EN 10269 (DIN 17240, DIN 17480 DIN 17225)
	(Sicromal 8) (Sicromal 10) (Sicromal 12)	1.4713 1.4724 1.4742 1.4762 1.4821 1.4828 (309) 1.4841 (310) 1.4845 (310 S) 1.4864 (330)	X10CrAl7 X10CrAl13 X10CrAl18 X10CrAl24 X20CrNiSi254 X15CrNiSi2012 X15CrNiSi2520 X12CrNi2521 X12NiCrSi3616	SEW 470/76
Non-magnetisable steels – [1] Mechanical properties (tensile strength, stretch limit, toughness) are dependent on the processing state - e.g. quenched, hot/cold-shaped, fully hardened	Amanox 182M 9	1.3805 1.3813 1.3817 1.3819 1.3952 1.3960 1.3965 (202) 1.3967	X35Mn18 X40MnCrN19 X40MnCr18 X50MnCrV2014 X4CrNiMoN1814 X45MnNiCrV1376 X8CrMnNi188 X50CrMnNi229	SEW 390/61
Nickel, nickel alloys High corrosion resistance, saltwater-proof, very high to highest resistance against aggressive chemical agents, higher oxidation resistance, high to optimum mechanical properties and fatigue strength - also at higher temperatures	Nickel 99.6 Nickel 99.2 Nickel 99	2.4060 2.4066 2.4068	Ni 99.6 Ni 99.2 LC-Ni 99	EN 10088 (DIN 17740)
	Hastelloy B Hastelloy C	2.4617 2.4610	NiMo28 NiMo16Cr16Ti	DIN 17744
	Monel 400/Silverin K-Monel/Silverin Al	2.4360* 2.4375	NiCu30Fe NiCu30Al	DIN 17743 * ASTM B 164 Class A
	Inconel 600/625 Nicrofer 7216 Inconel X 750/ Nimonic 80 A Incolloy 825/ Nicrofer 4221	2.4816/2.4856 2.4952* 2.4858	NiCr15Fe NiCr15Ti7Al/NiCr20TiAl NiCr21Mo	DIN 17742 DIN 17744 * EN 10269 (DIN 17240) * DIN 267-13
Titanium, titanium alloys Low specific weight, high corrosion resistance, salt-water proof, anti-magnetic	Titan 992 (Grade 4) Titan 993 (Grade 3) Titan 994 (Grade 2) Titan 995 (Grade 1) Ti 1	3.7065 3.7055 3.7035 3.7025*	Ti 99.2 Ti 99.3 Ti 99.4 Ti 99.5	DIN 17850 DIN 17860 DIN 17862 DIN 17863 DIN 17864 * ISO 8839 (DIN 267-18)
	Titan Al 6V4 Titan Grade 5/Ti 2	3.7164 3.7165*	TiAl6V4 TiAl6V4	DIN 17851 WL-sheets * ISO 8839 (DIN 267-18)

1) further austenitic materials, see "Parts made from stainless steels" ➔ TI-224



General information and tightening methods

General information

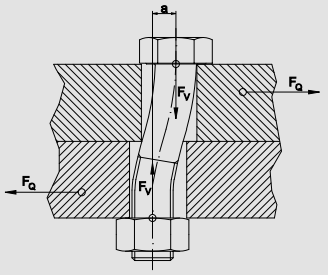
Functional quality and fatigue limit of fasteners are mainly determined with the following factors:

- Mechanical properties (tensile strength, yield strength, elongation)
- Operating conditions (static/dynamic...)
- Service conditions (temperature, corrosion)
- Dimensioning (diameter, length)
- Locking against loosening and unscrewing if necessary
- Assembly (tightening method, preload/clamp load, tightening torque...)

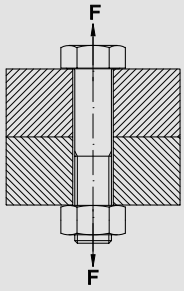
While taking into account all requirements, the task of constructive planning is to determine the suitable fasteners, to define them with the standardised descriptions and to provide the necessary assembly instructions.

The VDI guideline 2230 is available as the recognised standard reference for the "systematic evaluation of highly stressed fasteners".

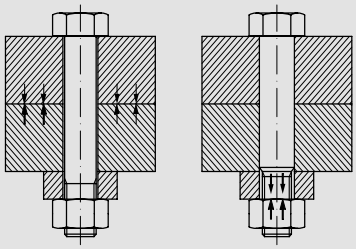
Fasteners should be evaluated and assembled in such a way that transverse loads (FQ) perpendicular to the centre of the screw do not have any effect because of the sufficiently intact clamp load under operating conditions. Here, loss of clamp load due to intrusions of parts into materials also needs to be taken into account. If the transverse loads are larger than the clamp load, this will lead to the screwed fastening loosening, and ultimately, to its failure.



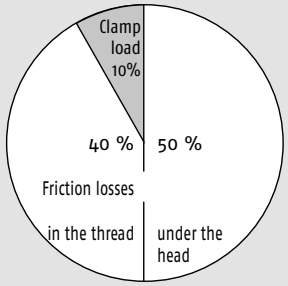
Transverse load F_Q



Preload F_V,
Clamp load F_S



Clamp load F_{KL}



Reaction ratio of tightening torque in clamp load

Tightening method

Essential for the quality and fatigue limit of a fastening is the precise setting/adherence to the assembly preload. Thus alongside the size of the screw, the property class and the friction ratios, the tightening/assembly method is of vital importance during assembly. Numerous tests and theory observations have shown that 80–90% of the tightening torque is required to overcome the friction under the head and in the thread. Only a small part is actually put into generating preload.

Differentiations are made between the following methods:

Manual tightening
In general, tightening by feel with manual tools should not be done. Even with experienced workers, the spread is very large. Empirical values show that screws/bolts up to M 12 are usually tightened beyond the yield strength, while screws over M 14 are usually not tightened enough.

Torque-controlled tightening
Tightening with a torque wrench still shows quite a large spread in the preload due to the friction coefficient differences.

Impact-controlled tightening
When assembling with impact screwdrivers, the motor power of the screwdriver in the impact mechanism is converted into tangential angular momentum. This preloaded the screw step-by-step. The advantage of using the impact screwdriver is that the worker absorbs hardly any reaction torque. The disadvantage is to be found in the numerous factors of influence on the screw preloading:

- Elasticity and friction coefficients of the screwed fastening
- Elasticity of the attached tool and the extensions
- Impact strengths and frequency duration or entire impact count

Elongation-controlled tightening
The preload can be calculated from the change in length of the screw, which, for example, can be determined using an ultrasound method during assembly. This method currently offers the highest level of accuracy. However, it is quite complex and expensive.

Angle controlled-tightening
With this method the screw is first preloaded by rotation torque then turned further by a mathematically calculated rotation angle until the ductile deformation starts. The method requires complex trials and is thus quite expensive. Furthermore, it can only be used for screwed fastenings with a long enough stretching length. The mostly ductile deformation of the screw makes it impossible to reuse.

Yield-controlled tightening
This method requires a screwing system consisting of a screwdriver, a control unit and a computer and uses the technical data for controlling, i.e. that upon reaching the yield strength of the screw, the tightening rotational torque no longer increases. The mostly ductile deformation of the screw makes it impossible to reuse.

Hydraulic tightening
Hydraulic preloading is done via the overlong end of the screw. The preloading device supports itself around the nut. The nut can be tightened in a form-fitting way or with a small amount of torque. The centre point of the hydraulic tightening is with large screws up to M 200 in system construction. For example, all screws of a flange can be tightened simultaneously which brings about a uniform distribution of load.

**Table 1: Accuracy classes of the tightening methods
Influence of the friction ratios, spread of the preloads**

Accuracy class	Spread of the preload %	Tightening factor	Influence of the friction coefficient?	Tightening method (tools)	Adjustment/Inspection method
–	± 2 to +10 ± 5 to ± 20	1.05 to 1.2 1.1 to 1.5	no	• elongation-controlled (ultrasound) • elongation measurement (mechanical)	Ultrasound sensor (➜ PMT system) Set up and length measurement
I	± 9 to ±17	1.2 to 1.4	no	• yield-controlled • angle-controlled (power-assisted or manually)	Empirical specification of pre-tightening torque/rotation angle
II	± 9 to ± 23	1.2 – 1.6	no	• hydraulic tightening	Length/pressure measurement
III	± 17 to ± 23	1.4 – 1.6	yes	• torque-controlled (torque wrench, extension measurement, precision screwdriver)	Empirical specification of the reference tightening torque/ dynamic torque measurement
IV	± 23 to ± 33	1.6 – 2.0	yes	• torque-controlled	Reference tightening torque according to estimated friction coefficient
V	± 26 to ± 43	1.7 – 2.5	yes	• torque-controlled (screwdriver) • impulse-controlled (impact wrench)	with post-tightening torque, taken from reference tightening torque (according to estimated friction coefficient) + extra
VI	± 43 to ± 60	2.5 – 4.0	yes	• impulse-controlled (impact wrench) • manually (wrench)	without (via post-tightening torque if necessary)

**Table 2: Friction coefficients $\mu_{ges.}$
for steel screws/nuts***

Surface condition		$\mu_{ges.}$ for condition		
Male thread (screw)	Internal thread (nut/component)	non-lubricated	oiled	MoS_2-lubricated
without coating (black)	without coating	0.12 – 0.18	0.10 – 0.17	0.06 – 0.12
Mn-phosphated		0.14 – 0.18	0.14 – 0.15	0.06 – 0.11
Zn-phosphated		0.14 – 0.21	0.14 – 0.17	0.06 – 0.12
zinc plated		0.12 – 0.20	0.10 – 0.18	Attention! The friction coefficient can considerably differ depending on the type/extent of the lubrication! Protection with screw connect test recommended!
cadmium plated		0.08 – 0.14	0.08 – 0.11	
zinc plated	zinc plated	0.12 – 0.20	0.10 – 0.18	
cadmium plated	cadmium plated	0.12 – 0.16	0.12 – 0.14	

**Table 3: Friction coefficients μ_G and µK
for screws/nuts* from stainless steel**

Screw/bolt and material of screwed part	nut material	lubricants		Resilience of the joint	Friction coefficients	
		in the thread	under the head		in the thread μ_G	under the head μ_K
A 2 (~ A 4)	A 2 (~ A 4)	without	without	very big	0.26 – 0.50	0.35 – 0.50
		Special lubricating agent (chlorine-paraffin basis)			0.12 – 0.23	0.08 – 0.12
		Corrosion protection grease			0.26 – 0.45	0.25 – 0.35
		without	without	small	0.23 – 0.35	0.08 – 0.12
		Special lubricating agent (chlorine-paraffin basis)			0.10 – 0.16	0.08 – 0.12
	AlMgSi	without		very big	0.32 – 0.43	0.08 – 0.11
		Special lubricating agent (chlorine-paraffin basis)			0.32 – 0.43	0.08 – 0.11
					0.28 – 0.35	0.08 – 0.11

*Typical values according to VDI 2230-1, issue 07.86, tab. 5-6 for screws/nuts with standard contact surfaces, e.g. according to DIN 912, 931, 933, 934/ISO 4762, 4014, 4017, 4032

Blind hole thread - minimum engagement depth

The minimum engagement depth is dependent on the strength of the nut thread and the thread pitch. Reference values see table 4

Table 4: Reference values for minimum engagement depth in blind hole threads

Property class screws/bolts		8.8	8.8 10.9	10.9 12.9
Proportion Ø thread pitch *d/P*		< 9	≥ 9 < 9	≥ 9 < 9
Nut material	hard Al-alloy	1.1 *d*	1.4 *d*	–
	grey iron	1.1 *d*	1.25 *d*	1.4 *d*
	steel $R_m \leq 400$ MPa	1.0 *d*	1.25 *d*	1.4 *d*
	steel $R_m \leq 500$ MPa	0.9 *d*	1.0 *d*	1.2 *d*
	steel $R_m \leq 800$ MPa	0.8 *d*	0.9 *d*	1.0 *d*

Source: Dabel book for the mechanical engineering

Preloads and tightening torque for fasteners of steel

Preloads and tightening torque for steel shank screws with full loadability with head contact area sizes like DIN 912, 931, 933, 934, ISO 4762, 4014, 4017, 4032*

The following are taken into account in table values for M_A:

a) Friction coefficient μ_{total} = 0.14*
b) Utilisation of the minimum yield strength = 90%
c) Torsion torque when tightening

(* The friction coefficient of μ_{total} = 0.14 is generally assumed for screws and nuts in standard commercial deliveries)

Additional lubrication of the thread considerably changes the friction coefficient and brings about unspecified tightening ratios! Tightening methods and tools have different spreads (→ Tab. 1/VDI 2230-1, Tab. A8).

Table 5: Typical values for shank screws/bolts with coarse thread, friction coefficient μ_{total} =0.14

Dimensions		Stress area AS (mm²)	Preloads F_V (kN) for property class					Tightening torque M_A (Nm) for property class				
	P		4.6	5.6	8.8	10.9	12.9	4.6	5.6	8.8	10.9	12.9
M 4	0.7	8.78	1.28	1.71	4.30	6.30	7.40	1.02	1.37	3.3	4.8	5.6
M 5	0.8	14.2	2.10	2.79	7.00	10.3	12.0	2.0	2.7	6.5	9.5	11.2
M 6	1.0	20.1	2.96	3.94	9.90	14.5	17.0	3.5	4.6	11.3	16.5	19.3
M 8	1.25	36.6	5.42	7.23	18.1	26.6	31.1	8.4	11.0	27.3	40.1	46.9
M 10	1.5	58.0	8.64	11.5	28.8	42.2	49.4	17.0	22.0	54.0	79.0	93.0
M 12	1.75	84.3	12.6	16.8	41.9	61.5	72.0	29.0	39.0	93.0	137.0	160.0
M 14	2.0	115.0	17.3	23.1	57.5	84.4	98.8	46.0	62.0	148.0	218.0	255.0
M 16	2.0	157.0	23.8	31.7	78.8	115.7	135.4	71.0	95.0	230.0	338.0	395.0
M 18	2.5	193.0	28.9	38.6	99.0	141.0	165.0	97.0	130.0	329.0	469.0	549.0
M 20	2.5	245.0	37.2	49.6	127.0	181.0	212.0	138.0	184.0	464.0	661.0	773.0
M 22	2.5	303.0	46.5	62.0	158.0	225.0	264.0	186.0	250.0	634.0	904.0	1057.0
M 24	3.0	353.0	53.6	71.4	183.0	260.0	305.0	235.0	315.0	798.0	1136.0	1329.0
M 27	3.0	459.0	70.6	94.1	240.0	342.0	400.0	350.0	470.0	1176.0	1674.0	1959.0
M 30	3.5	561.0	85.7	114.0	292.0	416.0	487.0	475.0	635.0	1597.0	2274.0	2662.0
M 33	3.5	694.0	107.0	142.0	363.0	517.0	605.0	645.0	865.0	2161.0	3078.0	3601.0
M 36	4.0	817.0	125.0	167.0	427.0	608.0	711.0	1080.0	1440.0	2778.0	3957.0	4631.0
M 39	4.0	976.0	151.0	201.0	512.0	729.0	853.0	1330.0	1780.0	3597.0	5123.0	5994.0
M 42	4.5	1117.0	212.0	265.0	584.0	832.0	974.0	1605.0	2006.0	4413.0	6285.0	7354.0
M 45	4.5	1302.0	249.0	311.0	684.0	974.0	1140.0	2005.0	2506.0	5512.0	7851.0	9187.0
M 48	5.0	1468.0	280.0	350.0	770.0	1096.0	1283.0	2424.0	3030.0	6667.0	9495.0	11112.0
M 52	5.0	1753.0	335.0	419.0	922.0	1314.0	1537.0	3116.0	3896.0	8570.0	12206.0	14284.0
M 56	5.5	2024.0	387.0	484.0	1064.0	1516.0	1774.0	3883.0	4854.0	10678.0	15208.0	17797.0
M 60	5.5	2356.0	452.0	565.0	1242.0	1770.0	2071.0	4818.0	6022.0	13249.0	18870.0	22082.0
M 64	6.0	2669.0	511.0	639.0	1406.0	2003.0	2344.0	5802.0	7252.0	15955.0	22724.0	26592.0
M 68	6.0	3047.0	585.0	732.0	1610.0	2293.0	2683.0	7012.0	8765.0	19282.0	27462.0	32137.0
M 72	6.0	3451.0	665.0	831.0	1828.0	2603.0	3046.0	8379.0	10474.0	23043.0	32819.0	38405.0
M 76	6.0	3881.0	749.0	936.0	2059.0	2933.0	3432.0	9903.0	12378.0	27232.0	38785.0	45387.0
M 80	6.0	4335.0	838.0	1047.0	2304.0	3282.0	3840.0	11610.0	14514.0	31930.0	45476.0	53216.0
M 90	6.0	5580.0	1083.0	1353.0	2977.0	4240.0	4962.0	16796.0	20995.0	46188.0	65783.0	76980.0
M 100	6.0	6983.0	1359.0	1698.0	3736.0	5322.0	6227.0	23381.0	29226.0	64297.0	91574.0	107161.0

Table 6: Typical values for shank screws/bolts with fine pitch thread, friction coefficient μ_{total} = 0,14

Dimensions		Stress area AS (mm²)	Preloads F_V (kN) for property class			Tightening torque M_A (Nm) for property class		
	P		8.8	10.9	12.9	8.8	10.9	12.9
M 8	1.0	39.2	19.7	28.9	33.9	29.2	42.8	50.1
M 10	1.25	61.2	30.8	45.2	52.9	57.0	83.0	98.0
M 12	1.25	92.1	46.8	68.7	80.4	101.0	149.0	174.0
M 12	1.5	88.1	44.3	65.1	76.2	97.0	143.0	167.0
M 14	1.5	125.0	63.2	92.9	109.0	159.0	234.0	274.0
M 16	1.5	167.0	85.5	126.0	147.0	244.0	359.0	420.0
M 18	1.5	216.0	115.0	163.0	191.0	368.0	523.0	613.0
M 20	1.5	272.0	144.0	206.0	241.0	511.0	728.0	852.0
M 22	1.5	333.0	178.0	253.0	296.0	692.0	985.0	1153.0
M 24	2.0	384.0	204.0	290.0	339.0	865.0	1232.0	1442.0
M 27	2.0	496.0	264.0	375.0	439.0	1262.0	1797.0	2103.0
M 30	2.0	621.0	331.0	472.0	552.0	1756.0	2502.0	2927.0
M 33	2.0	761.0	407.0	580.0	678.0	2352.0	3350.0	3921.0
M 36	2.0	915.0	490.0	698.0	817.0	3082.0	4390.0	5137.0
M 39	2.0	1082.0	581.0	828.0	969.0	3953.0	5631.0	6589.0

Tables 5 and 6: up to M 39 extract from VDI 2230-1: 2003-02, above M 39 calculation based on VDI guideline 2230-1: 2003-02

Preloads and tightening torques for fasteners of steel

Preloads and tightening torque for steel shank screws with defined friction coefficient range* with head contact area sizes like DIN 912, 931, 933, 934, ISO 4762, 4014, 4017, 4032

*the coeficient of friction μ_{ges} is shown for the applicable fasteners on the price pages of this catalogue.

Table 7: Typical values for shank screws/bolts with coarse thread, utilisation of the minimum yield strength of 90%

Dimensions		Stress area A (mm²)	Preloads F_V (kN) for property class and μ_{ges}						Tightening torque M_V (kN) for property class and μ_{ges}					
			8.8		10.9		12.9		8.8		10.9		12.9	
	P		0.09	0.12	0.09	0.12	0.09	0.12	0.09	0.12	0.09	0.12	0.09	0.12
M 4	0.7	8.8	4.5	4.4	6.6	6.5	7.8	7.6	2.5	3.0	3.5	4.6	4.1	5.1
M 5	0.8	14.2	7.5	7.2	11.0	10.6	12.7	12.4	4.8	5.9	7.1	8.6	8.0	10.0
M 6	1.0	20.1	10.6	10.2	15.5	14.9	17.9	17.5	8.4	10.1	12.3	14.9	14.0	17.4
M 8	1.25	36.6	19.3	18.6	28.4	27.3	32.9	32.0	20.2	24.6	29.6	36.1	34.0	42.2
M 10	1.5	58.0	30.7	29.6	45.1	43.4	52.3	50.8	39.7	48.0	58.3	71.0	67.0	83.0
M 12	1.75	84.3	44.7	43.0	65.1	63.2	76.3	74.0	68.3	84.0	100.0	123.0	115.6	144.0
M 14	2.0	115.0	61.3	59.1	90.0	86.7	104.6	101.5	109.0	133.0	160.0	195.0	183.8	229.0
M 16	2.0	157.0	83.8	80.9	123.0	118.8	143.2	139.0	167.0	206.0	245.0	302.0	282.1	354.0
M 18	2.5	193.0	106.0	102.0	150.0	145.0	174.9	170.0	241.0	295.0	343.0	421.0	394.7	492.0
M 20	2.5	245.0	135.0	130.0	192.0	186.0	223.9	217.0	337.0	415.0	480.0	592.0	553.0	692.0
M 22	2.5	303.0	168.0	162.0	239.0	231.0	278.9	271.0	458.0	567.0	652.0	807.0	753.3	945.0
M 24	3.0	353.0	194.0	188.0	277.0	267.0	322.5	313.0	580.0	714.0	825.0	1017.0	952.9	1190.0
M 27	3.0	459.0	255.0	246.0	363.0	351.0	422.9	410.0	847.0	1050.0	1207.0	1496.0	1398.7	1750.0
M 30	3.5	561.0	310.0	300.0	442.0	427.0	514.9	499.0	1154.0	1428.0	1644.0	2033.0	1905.5	2380.0
M 33	3.5	694.0	385.0	373.0	549.0	531.0	639.9	621.0	1552.0	1928.0	2211.0	2747.0	2565.8	3214.0
M 36	4.0	817.0	453.0	438.0	645.0	623.0	752.0	729.0	2001.0	2482.0	2850.0	3535.0	3307.3	4136.0
M 39	4.0	976.0	543.0	525.0	773.0	748.0	901.6	875.0	2578.0	3208.0	3672.0	4569.0	4263.2	5346.0

Preloads and tightening torques for steel shank screws of the material 25CrMo4 +QT (1.7218) with head dimensions such as ISO 4762, 4014, 4017, 4032

Table 8: Typical values for shank screws/bolts with coarse thread made of 25CrMo4 +QT ($R_m \geq 600$ MPa, $R_{p0.2} \geq 440$ MPa) and utilisation of the minimum yield strength of 90%

Dimensions		Stress area A (mm²)	Preloads F_V (kN) for μ_{ges}			Tightening torques M_A (Nm) for μ_{ges}		
	P		0.10	0.12	0.14	0.10	0.12	0.14
M 8	1.25	36.6	13.0	12.7	12.3	14.6	16.6	18.4
M 10	1.5	58.0	20.7	20.2	19.6	28.9	32.8	36.5
M 12	1.75	84.3	30.1	29.4	28.6	49.8	56.7	63.0
M 14	2.0	115.0	41.2	40.3	39.3	79.3	90.2	100.3
M 16	2.0	157.0	56.6	55.3	53.9	122.0	139.3	155.5
M 18	2.5	193.0	69.2	67.5	65.7	170.3	194.0	216.0
M 20	2.5	245.0	88.6	86.5	84.2	239.1	273.2	304.9
M 22	2.5	303.0	110.4	107.8	105.1	326.3	373.9	418.2
M 24	3.0	353.0	127.6	124.5	121.3	412.0	470.8	525.4
M 27	3.0	459.0	167.3	163.5	159.3	606.1	694.9	777.7
M 30	3.5	561.0	203.7	198.9	193.9	825.0	944.7	1056.2
M 33	3.5	694.0	253.3	247.5	241.3	1112.6	1277.0	1430.4
M 36	4.0	817.0	297.6	290.7	283.4	1433.1	1642.9	1838.5
M 39	4.0	976.0	356.9	348.8	340.1	1849.6	2124.8	2381.5

Preloads and tightening torques for bolts with waisted shank made from material 21CrMoV5-7 +QT (1.7709) acc. to DIN 2510

Table 9: Typical values for bolts with waisted shank with coarse thread made of 21CrMoV5-7 +QT ($R_m \geq 700$ MPa, $R_{p0.2} \geq 550$ MPa) utilisation of the minimum yield strength of 70%

Dimensions		Shank Ø	Preloads F_V (kN) for μ_{ges}		Tightening torques M_A (Nm) for μ_{ges}	
	P		0.10	0.12	0.10	0.12
M 12	1.75	8.5	21.6	21.6	38.0	44.0
M 16	2.0	12.0	43.5	43.5	98.0	115.0
M 20	2.5	15.0	67.8	67.8	190.0	220.0
M 24	3.0	18.0	97.8	97.8	320.0	370.0
M 27	3.0	20.5	126.5	126.5	465.0	545.0
M 30	3.5	23.0	160.0	160.0	650.0	770.0
M 33	3.5	25.5	196.5	196.5	870.0	1000.0
M 36	4.0	27.5	228.5	228.5	1100.0	1300.0
M 39	4.0	30.5	281.0	281.0	1450.0	1750.0
M 42	4.5	32.5	319.0	319.0	1800.0	2100.0
M 45	4.5	35.5	381.0	381.0	2300.0	2700.0
M 48	5.0	37.5	425.0	425.0	2750.0	3250.0

Preloads and tightening torques for fasteners from steel

Preloads and tightening torques for fasteners with reduced loadability like e.g. DIN 6912, 7984, ISO 7380 -1/-2, 10642

Fasteners with reduced loadability are standardized or non-standardized fasteners with material and mechanical properties according ISO 898-1, due to its geometry, does not fulfil the test requirements for full loadability fasteners.

Fasteners with reduced loadability does not normally break in the free threaded length.

Basically, there are two geometrical reasons for reduced loadability of fasteners:

a) head design which applies to
- bolts and screws with low head with or
- without external driving feature, or
- with low round or cylindrical head with internal driving feature or
- countersunk head with internal driving feature.

b) shank design: e.g. screws with waisted shank.

The identification of screws and bolts with reduced loadability is a "0" before the property class, e.g. 08.8 or 010.9.
Fasteners according to above mentioned product standards can hold about 80% of the preloads of fasteners with full loadability.

Table 10: Typical values for fasteners according DIN 6912, 7984, ISO 7380 -1/-2, 10642, total friction coefficient μ_{ges} = 0.14

Dimensions	Preloads F_V (kN) for property class		Tightening torque M_A (Nm) for propery class	
	08.8	010.9	08.8	010.9
M 3	1.9	2.9	1.1	1.6
M 4	3.4	5.0	2.6	3.8
M 5	5.5	8.1	5.1	7.4
M 6	7.8	11.0	8.8	13.0
M 8	14.0	21.0	21.0	31.0
M 10	23.0	34.0	42.0	62.0
M 12	33.0	49.0	73.0	108.0
M 14	46.0	67.0	117.0	171.0
M 16	63.0	92.0	181.0	266.0
M 18	79.0	112.0	259.0	370.0
M 20	101.0	144.0	366.0	521.0
M 22	126.0	180.0	502.0	715.0
M 24	146.0	207.0	630.0	898.0
M 30	233.0	331.0	1 267.0	1 805.0
M 36	340.0	484.0	2 206.0	3 140.0

Preloads and tightening torques for fasteners with shank from steel, with UNC/UNF thread acc. to ASME B18.2.1, ASME B18.3 and ASME B18.2.2

Table 11: Typical values for fasteners with UNC thread, total friction coefficient µges = 0,14 and utilisation of the minimum yield strength of 90%

Dimensions		Preloads F_A for property class						Tightening torque M_A for property class					
		Grade 5*		Grade 8*		ASTM A 574		Grade 5*		Grade 8*		ASTM A 574	
Ø	G	[kN]	[lbf]	[kN]	[lbf]	[kN]	[lbf]	[Nm]	[ft-lbs]	[Nm]	[ft-lbs]	[Nm]	[ft-lbs]
#2	56	1.2	262	1.7	370	1.9	435	0.5	0.4	0.7	0.5	0.8	6.0
#4	40	1.9	423	2.7	598	3.1	704	1.1	0.8	1.5	1.1	1.8	1.3
#5	40	2.5	565	3.6	798	4.2	940	1.6	1.2	2.2	1.6	2.6	1.9
#6	32	2.8	636	4.0	899	4.7	1058	2.0	1.5	2.8	2.1	3.3	2.4
#8	32	4.5	1000	6.3	1413	7.4	1663	3.6	2.7	5.1	3.8	6.1	4.5
#10	24	5.5	1232	7.8	1741	9.1	2050	5.3	3.9	7.4	5.5	8.7	6.4
1/4	20	10.1	2260	14.2	3194	16.7	3759	12.1	8.95	17.1	12.6	20.2	14.9
5/16	18	16.7	3764	23.7	5319	27.8	6260	25.7	18.9	36.3	26.7	42.7	31.5
3/8	16	24.9	5594	35.2	7904	41.4	9303	44.6	32.9	63.0	46.4	74.1	54.7
7/16	14	34.2	7684	48.3	10858	56.8	12780	70.9	52.3	100.0	73.9	117.9	87.0
1/2	13	45.8	10300	64.7	14554	76.2	17131	109.0	80.3	154.0	114.0	181.1	133.6
5/8	11	73.2	16464	103.0	23265	121.8	27384	213.0	157.0	301.0	222.0	354.5	261.4
3/4	10	109.0	24485	154.0	34599	181.2	40725	383.0	283.0	541.0	399.0	637.2	470.0
7/8	9	151.0	33891	213.0	47889	250.7	56368	614.0	453.0	868.0	640.0	1021.5	753.4
1	8	198.0	44499	280.0	62879	329.2	74012	922.0	680.0	1303.0	961.0	1533.3	1130.9
1 1/8	7	219.0	49326	252.0	79166	414.5	93183	1153.0	850.0	1850.0	1364.0	2178.0	1606.4
1 1/4	7	280.0	62934	449.0	101005	528.8	118888	1618.0	1194.0	2597.0	1916.0	3057.2	2254.9
1 3/8	6	333.0	74796	534.0	120043	628.5	141297	2121.0	1565.0	3405.0	2511.0	4007.4	2955.7
1 1/2	6	406.0	91358	652.0	146624	767.7	172585	2806.0	2070.0	4504.0	3322.0	5301.5	3910.2

Table 12: Typical values for fasteners with UNF thread , total friction coefficient µges = 0,14 and utilisation of the minimum yield strength of 90%

Dimensions		Preloads F_A for property class						Tightening torque M_A for property class					
		Grade 5*		Grade 8*		ASTM A 574*		Grade 5*		Grade 8*		ASTM A 574*	
Ø	G	[kN]	[lbf]	[kN]	[lbf]	[kN]	[lbf]	[Nm]	[ft-lbs]	[Nm]	[ft-lbs]	[Nm]	[ft-lbs]
1/4	28	11.8	2653	16.7	3749	19.6	4413	13.8	10.2	19.5	14.4	22.9	16.9
5/16	24	18.9	4252	26.7	6008	31.5	7071	28.3	20.9	40.0	29.5	47.0	34.7
3/8	24	28.9	6486	40.8	9165	47.9	10788	50.0	36.9	70.7	52.2	83.2	61.4
7/16	20	39.0	8758	55.0	12375	64.8	14566	78.6	57.9	111.0	81.9	130.7	96.4
1/2	20	52.8	11861	74.6	16760	87.8	19727	122.0	89.7	172.0	127.0	202.2	149.1
5/8	18	84.7	19050	120.0	26918	140.9	31684	239.0	176.0	337.0	249.0	396.6	292.5
3/4	16	124.0	27814	175.0	39302	250.8	46261	423.0	312.0	597.0	441.0	703.0	518.5
7/8	14	170.5	38321	240.8	54150	283.5	63737	677.3	499.6	957.1	705.9	1126.6	830.9
1	12	221.5	49803	313.0	70373	368.5	82833	1008.6	743.9	1425.2	1051.1	1677.5	1237.2
1 ¼	12	360.7	81088	509.68	114581	599.9	134868	2030.6	1497.7	2869.4	2116.4	3377.4	2491.1
1 1/2	12	533.28	119886	753.5	169404	886.9	199398	3568.9	2632.3	5043.0	3719.6	5935.9	4378.1

*Grade 5 (~ 8.8) and Grade 8 (~ 10.9) acc. to SAE J 429, ASTM A 574 for hexagon head cap screws (~ 12.9)

Preloads and tightening torques of screwed fastenings from steel with locking elements

Table 13: Typical values for preloads F_V and tightening torques for screws and nuts with lock ribs under the flange
(REYHER articles 88913 and 88914)

Material of screwed part	Property class 100/10													
	M 5		M 6		M 8		M 10		M 12		M 14x1.5		M 16	
	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	MA[Nm]	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]
Steel R_m < 800 MPa		11		19		42		85		130		250		330
Steel R_m ≥ 800 MPa	9000	10	12600	18	23200	37	37000	80	54000	120	74000	240	102000	310
malleable cast iron		9		16		35		75		115		230		300

Table 14: Typical values for preloads F_V and tightening torques F_V for hexagon socket cap screws with lock ribs under the flange
(REYHER articles 88912)

Material of screwed part	Property class 100/10									
	M 5		M 6		M 8		M 10		M 12	
	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	MA[Nm]	F_V [N]	M_A [Nm]
Steel R_m < 800 MPa		13		24		45		90		150
Steel R_m ≥ 800 MPa	9000	11	12600	20	23200	42	37000	85	54000	140
malleable cast iron		10		19		39		80		120

Table 15: Typical values for preloads and tightening torques of locking screws and nuts
(REYHER articles 88933 und 88934)

Material of screwed part	Property class 100/10								Property class 100/10			
	M 5		M 6		M 8		M 10		M 12		M 16	
	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]	F_V [N]	MA[Nm]	F_V [N]	M_A [Nm]	F_V [N]	M_A [Nm]
Steel	6350	9	9000	16	16500	34	26200	58	54000	120	102000	280
malleable cast iron		7		13		28		49		105		260

Table 16: Typical values for tightening torques and prestressing forces of screwed fastenings with wedge lock washers
(REYHER article 88132, 88032)

NL washers for threads	Preloads F_V (kN) for property class					Tightening torque M_A (Nm) for property class				
	8.8 [1]	10.9 [2]	12.9 [3]	A 4 -70 [4]	A 4-80 [4]	8.8 [1]	10.9 [2]	12.9 [3]	A 4 -70 [4]	A 4-80 [4]
M 4	3.5	5.9	7.1	2.6	3.4	3.1	4.1	4.6	2.0	2.7
M 5	5.6	9.6	11.5	4.1	5.5	6.0	8.1	9.1	3.9	5.3
M 6	8.0	13.6	16.3	5.9	7.8	10.2	14.1	15.8	6.9	9.2
M 8	15.0	25.0	30.0	11.0	14.0	25.0	34.0	38.0	17.0	22.0
M 10	23.0	39.0	47.0	17.0	23.0	50.0	67.0	75.0	33.0	43.0
M 12	33.0	57.0	68.0	25.0	33.0	85.0	115.0	128.0	56.0	75.0
M 14	46.0	78.0	94.0	34.0	45.0	136.0	183.0	204.0	89.0	119.0
M 16	62.0	106.0	127.0	46.0	61.0	208.0	279.0	311.0	136.0	181.0
M 18	76.0	130.0	156.0	56.0	75.0	291.0	391.0	437.0	191.0	254.0
M 20	97.0	165.0	198.0	72.0	95.0	408.0	547.0	610.0	267.0	356.0
M 22	120.0	205.0	246.0	89.0	118.0	557.0	745.0	831.0	364.0	485.0
M 24	140.0	238.0	286.0	103.0	137.0	703.0	942.0	1052.0	460.0	613.0
M 27	182.0	310.0	372.0	134.0	179.0	1028.0	1375.0	1533.0	671.0	895.0
M 30	222.0	378.0	454.0	164.0	219.0	1401.0	1875.0	2091.0	915.0	1220.0
M 33	275.0	468.0	562.0	-	-	1889.0	2526.0	2815.0	-	-
M 36	324.0	551.0	662.0	239.0	319.0	2436.0	3259.0	3633.0	1591.0	2121.0
M 39	387.0	659.0	790.0	-	-	3145.0	4203.0	4683.0	-	-
M 42	445.0	757.0	908.0	-	-	3890.0	5202.0	5799.0	-	-

Source: www.nordlock.com

1) Screw zinc plated, dry, thread friction μ_G = 0,15, friction coefficient of the lock washer μ_W = 0,18, utilisation of the minimum yield strength = 62%
2) Screw uncoated, oiled, thread friction μ_G = 0,13, friction coefficient of the lock washer μ_W = 0,14, utilisation of the minimum yield strength = 71%
3) Screw uncoated, oiled, thread friction μ_G = 0,13, friction coefficient of the lock washer μ_W = 0,12, utilisation of the minimum yield strength = 71%
4) Screw lubricated with graphite paste, thread friction μ_G = 0,14, friction coefficient of the lock washer μ_W = 0,15, utilisation of the minimum yield strength = 65%

Table 17: Typical values for tightening torques of screwed fastenings with lock washers

REYHER-articles	Property class Screws	Tightening torque M_A in Nm													
		M 4	M 5	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30
88123 type S	5.8	2.0	4.0	7.0	16.5	32	57	-	-	-	-	-	-	-	-
88124 type M	8.8	3.3	6.7	11.5	27	54	92	145	225	320	460	620	790	1160	1550
	10.9	4.9	9.8	16.5	40	79	135	215	330	460	650	890	1120	1650	2250
88125 type B	10.9	-	-	16.5	40	79	135	-	-	-	-	-	-	-	-
	12.9	-	-	19.5	47	92	158	-	-	-	-	-	-	-	-

Source: www.teckentrup.de

Typical values for tightening torques of screwed fastenings with SCHNORR washers
REYHER article 88120 and REYHER article 88121:
As a typical value, 10% should be added to the normal tightening torque M_A according to TI-244, Tabels 5 and 6.

Assembly of fastenings in steel constructions

Systematic preloaded connections with HV sets

The following two assembly methods for achieving the preload force are permitted in Germany for the assembly of HV sets.

Standard	Preload	Assembly method	*k* class
EN 1090-2	$F_{p,C}$ (full preload force)	Combined method	K1
DIN EN 1993-1-8 NA DAST Guideline 024	$F_{p,C}$* (modified preload force)	Modified torque method	K1

Preload forces and tightening torques for the respective methods for *k*-class K1 and property class 10.9 are listed in the following table. Refer to EN 1090-2 for the corresponding assembly steps required.

Table 18: Preloads and tightening torques for HV fastenings of property class 10.9 as per EN 14399-4 or DAST Guideline 012 with *k*-class K1

Ø	Combined tightening procedure with $F_{p,C}$				Modified method with $F_{p,C}$*		
			EN 1090-2	DAST-Guideline 024	Modified torque preload method acc. to DIN EN 1993-1-8 and DAST Guideline 024		Modified combined method acc. to DIN EN 1993-1-8 NA
	Reference preloads $F_{p,C}$ in kN	Reference torques $M_{r,1}$ in Nm	Pre-tightening torques 0,75 $M_{r,1}$ in Nm	Pre-tightening torques M_{Vor} in Nm	Modified preloads $F_{p,C}$* in kN	Modified torques M_A in Nm	Pre-tightening torques $M_{A,MKV}$ in Nm
M 12	59	92	69	75	50	100	75
M 16	110	229	172	190	100	250	190
M 20	172	447	335	340	160	450	340
M 22	212	606	455	490	190	650	490
M 24	247	771	578	600	220	800	600
M 27	321	1127	845	940	290	1250	940
M 30	393	1533	1150	1240	350	1650	1240
M 36	572	2677	2008	2100	510	2800	2100
M 39*					610	3500	
M 42*					710	4500	
M 45*					820	5500	
M 48*					930	6500	
M 56*					1280	10000	
M 64*					1680	15000	

*as per DASt Directive 021; these values only apply to hot dip galvanized HV sets

Table 19: Prevailing angle for combined assembly method

Standard	Prevailing angle in ° t = grip length with washers, d = screw diameter		
	t < 2d	2d ≤ t < 6d	6d ≤ t ≤ 10d
EN 1090-2 / DAST Guideline 024	60	90	120
DIN EN 1993-1-8/NA	45	60	90

Securing of HV connection against loosening

Using self-locking washers, an HV fastening can be secured against loosening. Tables 20 and 21 indicate two products and their assembly parametres.

Table 20: Preload forces and tightening torpqes for HV fastenings with NL SC self-locking washers (Art. 88132) per ETA-13-0246

Ø	Modified preloads $F_{p,cr}NL$* in kN	Modified torques $M_{A,NL}$ in Nm	Pre-tighening torques for modified combined method Process $M_{A,MKV,NL}$ in Nm
M 12	45	130	100
M 16	90	330	250
M 20	145	660	490
M 22	170	850	640
M 24	200	1100	825
M 27	260	1600	1220
M 30	315	2150	1650
M 36	460	3750	2800

Table 21: Preload forces and tightening torques for HV fastenings with HLK self-locking washers (Art. 88032) acc. to Z Z-Z-14.4-702

Ø	Modified pre-loads $F_{p,crHLK}$* in kN	Modified torques $M_{A,HLK}$ in Nm	Pre-tighening torques 1) for modified combined method Process $M_{A,\ MKV,\ NL}$ in Nm
M 12	45	150	100
M 16	80	330	210
M 20	120	560	365
M 22	145	730	475
M 24	165	880	575
M 27	200	1160	755
M 30	252	1580	1030
M 36	367	2530	1650

1) Prevailing angle for modified combined method according to DIN EN 1993-1-8/NA (see Table 19)

Non-preloaded structural bolting assemblies – SB sets

For the area of non-preloaded fastenings, SB sets such as e.g. ISO 4014/4017/4032/7090 but also DIN7990 and more in the future are used that, contrary to the HV system, are only hand-tightened. Screws and nuts must also be marked with "SB" for "structural bolting".

Table 22: Recommended "hand-tight" tightening torques for non-preloaded fastenings, independent of the property class of the screws according to DAST regulation 024.

Ø	M 12	M 16	M 20	M 22	M 24	M 27	M 30	M 36
$M_{A,\ hand-tight}$ in Nm	15	35	60	90	110	165	220	350

Preloads and tightening torques for fasteners made of stainless steel

Preloads and tightening torques for fasteners with full loadability from stainless steel

For fasteners made of stainless steel, the friction coefficients in the thread and on the contact surfaces are much higher than with quenched and tempered steel screws. Even the spread of the friction coefficients is much higher here (up to and over 100%). To finally determine the correct torque it is recommended that testing should be carried out under operating conditions.

While it is possible to reduce friction coefficients by using lubricating agents, the very high range of variation will remain.

The table lists non-binding typical values for various friction coefficients, valid for screws and nuts according to DIN 912, 931, 933 and 934/ISO 4762, 4014, 4017, 4032 made from stainless steels A 1–A 5, in property classes –50, –70 and –80 at room temperature (approx. +20 °C) and utilisation of the minimum yield stress of $R_{p0.2}$ = 90%.

Table 23: Typical values for fasteners from A 2/A 4

⌀	Prop. Class	Assembly preload in kN for μ_{ges} =								Tightening torque in Nm for μ_{ges} =							
		0.10	0.12	0.14	0.16	0.18	0.20	0.30	0.40	0.10	0.12	0.14	0.16	0.18	0.20	0.30	0.40
M 4	50	1.47	1.48	1.39	1.35	1.31	1.26	1.07	0.91	0.8	0.9	1.0	1.1	1.2	1.3	1.6	1.8
	70	3.14	2.71	2.97	2.89	2.80	2.71	2.30	1.95	1.8	2.0	2.2	2.4	2.6	2.8	3.4	3.8
	80	4.19	4.08	3.96	3.85	3.73	3.61	3.06	2.61	2.4	2.7	3.0	3.3	3.5	3.7	4.6	5.1
M 5	50	2.39	2.33	2.27	2.20	2.14	2.07	1.76	1.50	1.7	1.9	2.1	2.3	2.4	2.6	3.2	3.6
	70	5.13	5.00	4.86	4.72	4.58	4.44	3.77	3.21	3.5	4.0	4.5	4.9	5.2	5.6	6.8	7.6
	80	6.84	6.66	6.48	6.29	6.10	5.91	5.02	4.28	4.7	5.4	5.9	6.5	7.0	7.4	9.1	10.2
M 6	50	3.39	3.30	3.21	3.11	3.02	2.93	2.48	2.11	2.9	3.3	3.6	3.9	4.2	4.5	5.5	6.2
	70	7.26	7.07	6.87	6.67	6.47	6.27	5.32	4.53	6.2	7.0	7.7	8.4	9.1	9.7	11.9	13.2
	80	9.68	9.43	9.13	8.90	8.63	8.36	7.09	6.04	8.2	9.3	10.3	11.3	12.1	12.9	15.8	17.7
M 8	50	6.21	6.05	5.88	5.72	5.54	5.37	4.57	3.89	7.0	7.9	8.8	9.6	10.3	11.0	13.6	15.2
	70	13.30	12.96	12.61	12.25	11.88	11.51	9.79	8.34	15.0	17.0	18.8	20.6	22.2	23.6	29.1	32.5
	80	17.74	17.29	16.81	16.33	15.84	15.35	13.05	11.11	19.9	22.6	25.1	27.4	29.5	31.5	38.8	43.4
M 10	50	9.87	9.62	9.37	9.10	8.83	8.56	7.28	6.20	13.8	15.7	17.4	19.0	20.5	21.8	27.0	30.2
	70	21.16	20.63	18.40	19.50	18.92	18.34	15.60	13.29	29.5	33.5	37.3	40.7	41.9	46.8	57.8	67.7
	80	28.21	27.50	26.76	25.99	25.22	24.45	20.79	17.72	39.4	44.7	49.7	54.3	58.5	62.4	77.1	86.2
M 12	50	14.38	14.03	13.65	13.27	12.87	12.48	10.62	9.05	23.8	27.1	30.1	32.9	35.4	37.8	46.8	52.3
	70	30.83	30.06	29.26	28.43	28.59	26.75	22.76	19.40	51.0	58.0	64.5	70.5	76.0	81.0	100.2	112.1
	80	41.10	40.08	39.01	37.90	36.78	35.66	30.35	25.87	68.0	77.3	85.9	93.9	101.0	108.0	133.6	149.5
M 14	50	19.74	19.25	18.74	18.21	17.68	17.14	14.59	12.44	37.8	43.0	47.9	52.4	56.5	60.2	74.6	83.5
	70	42.31	41.26	40.16	39.03	37.88	36.73	31.27	26.65	81.1	92.2	103.0	112.0	121.0	129.0	160.0	179.0
	80	56.41	55.01	53.54	52.04	50.50	48.97	41.69	35.54	108.0	123.0	137.0	150.0	161.0	172.0	212.0	238.5
M 16	50	27.04	26.39	25.71	25.01	24.29	23.56	20.10	17.16	58.2	66.5	74.2	81.4	87.9	94.0	117.0	131.0
	70	57.94	56.55	55.09	53.58	52.04	50.49	43.08	36.77	125.0	143.0	159.0	174.0	188.0	201.0	251.0	282.0
	80	77.25	74.40	73.46	71.44	69.39	67.33	57.44	49.03	166.0	190.0	212.0	233.0	251.0	269.0	334.0	375.0
M 18	50	33.01	32.20	31.35	30.47	29.58	28.68	24.43	20.83	81.3	92.6	103.0	113.0	122.0	130.0	161.0	180.0
	70	70.73	69.00	67.17	65.29	63.38	61.46	52.34	44.64	174.0	198.0	221.0	242.0	261.0	278.0	345.0	387.0
	80	94.31	92.00	89.56	87.05	84.51	81.95	69.79	59.52	232.0	265.0	295.0	322.0	348.0	371.0	460.0	515.0
M 20	50	42.27	41.26	40.20	39.10	37.79	36.84	31.34	26.83	114.0	130.0	146.0	160.0	173.0	184.0	230.0	258.0
	70	90.58	88.40	86.14	83.78	81.37	78.95	67.35	57.49	245.0	280.0	312.0	342.0	370.0	395.0	492.0	552.0
	80	120.80	117.90	114.90	111.70	108.50	105.30	89.80	76.70	326.0	373.0	416.0	456.0	493.0	527.0	656.0	736.0
M 22	50	52.67	51.45	50.15	48.80	47.42	46.02	39.32	33.59	156.0	178.0	200.0	219.0	237.0	254.0	318.0	257.0
	70	112.87	110.24	107.46	104.56	101.61	98.61	84.25	–	334.0	382.0	428.0	470.0	508.0	544.0	680.0	–
M 24	50	60.88	59.43	57.90	56.30	54.69	53.01	45.27	38.64	197.0	225.0	251.0	275.0	297.0	318.0	396.0	444.0
	70	130.50	127.40	124.10	120.70	117.20	113.70	97.00	–	421.0	482.0	537.0	589.0	637.0	680.0	848.0	–
M 27	50	79.86	78.02	76.05	74.01	71.93	69.82	59.67	50.98	289.0	332.0	371.0	408.0	442.0	473.0	591.0	666.0
	70	171.00	167.00	163.00	159.00	154.00	150.00	128.00	–	620.0	711.0	795.0	873.0	946.0	1013.0	1267.0	–
M 30	50	97.23	94.96	92.54	90.04	87.48	84.90	72.50	61.90	394.0	451.0	504.0	553.0	599.0	640.0	800.0	900.0
	70	208.00	203.00	198.00	193.00	187.00	182.00	155.00	–	844.0	966.0	1080.0	1186.0	1283.0	1373.0	1715.0	–
M 33	50	121.00	118.00	115.00	112.00	109.00	106.00	90.00	77.00	531.0	610.0	683.0	751.0	813.0	871.0	1092.0	1230.0
M 36	50	142.00	139.00	135.00	132.00	128.00	124.00	106.00	91.00	684.0	784.0	876.0	964.0	1044.0	1117.0	1398.0	1573.0
M 39	50	170.00	166.00	162.00	158.00	154.00	149.00	128.00	109.00	883.0	1014.0	1137.0	1250.0	1355.0	1452.0	1822.0	2054.0

Tightening torques and preloads

for fasteners with reduced loadability from stainless steel.

Fasteners according to DIN 6912, 7984, ISO 7380-1/-2, and 10642 have a reduced loadability due to their head geometry. As a guideline for preloads and tightening torques of 80% of the values of the above table 22 can be assumed. (➔ see also TI-246)

Torque typ hexagon nuts

from stainless steels sometimes tend to jam in the locking element due to the high flank pressure when inserting the screw head. Here, treating the screw thread with an anti-friction agent usually helps.



Lubricated nuts

For optimal assembly of austenitic fasteners the use of a lubricant is recommended.

REYHER offers lubricated nuts in A 2/A 4 as part of our product range.

Tightening torque for fasteners made from BUMAX 88/109 brass, polyamide

Tightening torques and preloads for fasteners made from stainless steel BUMAX 88/109

Fasteners made from BUMAX 88/109 have an adjusted coefficient of friction by a specific lubrication. In contrast to this, this allows usually unlubricated fasteners made of stainless steel (A 2/A 4) are applied to targeted pre-tensioning forces.

Table 24: Typical values for fasteners made from BUMAX 88/109

Dimensions	P	Stress area A_s (mm²)	Preloads F_V (kN) for BUMAX 88	109	Tightening Torques M_A (Nm) for BUMAX 88	109
M 3	0.5	5.03	2.1	2.9	1.3	1.7
M 4	0.7	8.78	3.6	5.2	2.9	4.1
M 5	0.8	14.2	5.9	8.6	5.7	8.1
M 6	1.0	20.1	8.4	12.0	9.8	14.0
M 8	1.25	34.4	15.0	21.0	25.0	34.0
M 10	1.5	58.0	24.0	34.0	47.0	66.0
M 12	1.75	84.3	35.0	49.0	82.0	115.0
M 14	2.0	115.0	48.0	60.0	129.0	161.0
M 16	2.0	157.0	65.0	81.0	198.0	248.0
M 18	2.5	192.0	80.0	100.0	275.0	344.0
M 20	2.5	245.0	102.0	128.0	385.0	481.0
M 24	3.0	353.0	181.0	-	665.0	-
M 27	3.0	459.0	235.0	-	961.0	-
M 30	3.5	561.0	287.0	-	1310.0	-
M 36	4.0	817.0	418.0	-	2280.0	-

Preloads and tightening torque for fasteners made from brass

For fasteners made from brass, the friction coefficients in the thread and on the contact surfaces are much higher than with quenched and tempered steel screws. In order to determine the correct torque, it is recommended that experiments should be carried out under operating conditions. It is possible to reduce friction coefficients by using lubricating agents.

Table 24 lists non-binding typical values for various friction coefficients, valid for screws and nuts according to DIN 912, 931, 933 and 934/ISO 4762, 4014, 4017, 4032 made from brass with a minimum stress at 0.2% non-proportional elongation of 250 N/mm² (e.g. MS 58 and MS 63) and utilisation of the yield stress of 90%.

The tightening torques listed in the table may **only be used as very rough and non-binding typical values.**

Table 25: Typical values for fasteners made from brass

Ø	Assembly preloads in kN for μ_{ges}								Tightening torque in Nm for μ_{ges}							
	0.10	0.12	0.14	0.16	0.18	0.20	0.30	0.40	0.10	0.12	0.14	0.16	0.18	0.20	0.30	0.40
M 4	1.75	1.70	1.65	1.60	1.55	1.51	1.28	1.09	1.0	1.1	1.2	1.4	1.5	1.6	1.9	2.1
M 5	2.85	2.78	2.70	2.62	2.54	2.46	2.09	1.78	2.0	2.2	2.5	2.7	2.9	3.1	3.8	4.2
M 6	4.03	3.93	3.82	3.71	3.59	3.48	2.96	2.52	3.4	3.9	4.3	4.7	5.0	5.4	6.6	7.4
M 8	7.39	7.20	7.01	6.84	6.60	6.40	5.44	4.63	8.3	9.4	10.5	11.4	12.3	13.1	16.2	18.1
M 10	11.75	11.46	11.15	10.83	10.51	10.19	8.66	7.38	16.4	18.6	20.7	22.6	24.4	26.0	32.1	35.9
M 12	17.13	16.70	16.25	15.79	15.33	14.86	12.64	10.78	28.3	32.2	35.8	39.1	42.2	45.0	55.7	62.3
M 14	23.50	22.92	22.31	21.68	21.04	20.40	17.37	14.81	45.0	51.2	57.0	62.3	67.2	71.7	88.8	99.4
M 16	32.19	31.42	30.61	29.77	28.91	28.05	23.93	20.43	69.3	79.2	88.4	96.9	105.0	112.0	139.0	156.0
M 18	39.30	38.33	37.32	36.27	35.21	34.15	29.08	24.80	96.8	110.0	123.0	134.0	145.0	155.0	192.0	215.0
M 20	50.32	49.12	47.86	46.54	45.21	43.86	37.42	31.94	136.0	155.0	173.0	190.0	205.0	219.0	273.0	307.0
M 22	62.71	61.25	59.70	58.09	56.45	54.79	46.81	40.00	185.0	212.0	238.0	261.0	282.0	302.0	378.0	425.0
M 24	72.48	70.75	68.93	67.04	65.11	63.17	53.89	46.00	234.0	268.0	299.0	327.0	354.0	378.0	471.0	529.0
M 27	95.07	92.88	90.54	88.11	85.63	83.12	71.03	60.70	344.0	395.0	442.0	485.0	526.0	563.0	704.0	793.0
M 30	116.00	113.00	110.00	107.00	104.00	101.00	86.31	73.70	469.0	537.0	600.0	659.0	713.0	762.0	953.0	1071.0
M 33	144.00	141.00	137.00	133.00	130.00	126.00	108.00	92.00	632.0	726.0	813.0	894.0	968.0	1036.0	1300.0	1464.0
M 36	169.00	165.00	161.00	157.00	152.00	148.00	126.00	108.00	814.0	934.0	1045.0	1148.0	1243.0	1330.0	1664.0	1873.0
M 39	203.00	198.00	193.00	188.00	183.00	178.00	152.00	130.00	1051.0	1207.0	1353.0	1488.0	1613.0	1728.0	2169.0	2445.0

Tightening torques for polyamide screws and nuts

Table 19 includes non-binding typical values for appropriate tightening torques for screws and nuts made from polyamide 6.6 at 20 °C after storage in a normal climate.

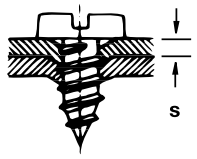
The preload can ease off somewhat as a result of relaxation processes.

Table 26

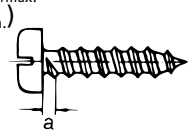
Ø	M 3	M 4	M 5	M 6	M 8	M 10	M 12	M 16
Tightening torque Nm	0.1	0.25	0.5	0.8	1.8	3.5	6.0	12

General assembly instructions

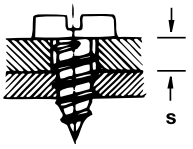
Screwing in of thinner sheet metal with continuous tapping holes or ones enlarged with a drift



Sheet metal thickness lower/upper limit* $s_{min./max.}$ ($a_{max.} = s_{min.}$)



Screwing in of thicker sheet metal with drilled or punched tapping holes



Screwable plate thickness

Ø/ST	2.2	2.9	3.5	3.9	4.2
$s_{min.} = a_{max.}$	0.8	1.1	1.3	1.3	1.4
$s_{max.}$	1.8	2.2	2.8	3	3.5

Ø/ST	4.8	5.5	6.3	8	
$s_{min.} = a_{max.}$	1.6	1.8	1.8	2.1	
$s_{max.}$	4	4.5	5	6.5	

s = sheet thickness
a = distance from head to thread

* With very thin metal sheets (< a max.) the usage of special thin tapping screws or clamping nuts (spring nuts) is recommended.

Drilling hole diameters for tapping screws

The tapping hole diameters in the following tables are non-binding approximate values for round holes.

The values may differ depending on the material or assembly conditions – this applies in particular to screws made from non-hardenable, stainless steels of the austenitic material groups A 2/A 4 (→ ISO 3506-4).

When using synthetic-based screws, the following conditions apply.

Table 27: Drilling hole für tapping screws

Nominal thread diameter d_1	Drilling hole-Ø (Tol. H 12) for tapping screws from material							
	for sheet thickness s		Hardened steel (min. 450 HV)				Stainless steels A 2/A 4 (ca. 250 HV)**	
			Drift-enlarged/Continuous hole Sheet from material		Drilled/Punched hole Sheet from material		Sheet from material	
	>	≤	St, Ni, MS, Cu, Monel	Al	St, Ni, MS, Cu, Monel	Al	Baustahl St. 37	Al
2.2 mm	–	0.56	–	–	1.60	–		
	0.56	0.75	–	–	1.70	1.60		
	0.75	0.88	–	–	1.80	1.60		
	0.88	1.13	–	–	1.85	1.60		
	1.13	1.38	–	–	1.85	1.70		
	1.38	1.50	–	–	1.90	1.80		
2.9 mm		0.56	2.20	–	2.20	–		
	0.56	0.63	2.50	2.20	2.25	–	2.30	2.40
	0.63	0.75	2.50	2.20	2.25	2.20	2.30	2.40
	0.75	0.88	2.50	2.20	2.40	2.20	2.30	2.40
	0.88	1.25	–	2.20	2.40	2.20	2.30	2.40
	1.25	1.38	–	–	2.40	2.20	2.30	2.40
	1.38	1.75	–	–	2.50	2.25	2.30	2.40
	1.75	2.50	–	–	2.60	2.40	2.40	2.50
3.5 mm		0.56	2.80	–	2.60	–	2.70	2.80
	0.56	0.75	2.80	2.80	2.70	–	2.70	2.80
	0.75	0.88	2.80	2.80	2.70	2.65	2.70	2.80
	0.88	1.25	–	2.80	2.80	2.65	2.70	2.80
	1.25	1.38	–	–	2.80	2.65	2.70	2.80
	1.38	1.75	–	–	2.90	2.75	2.80	2.90
	1.75	2.50	–	–	3.00	2.85	2.80	2.90
	2.50	3.00	–	–	3.20	3.00	2.90	3.00
	3.00	6.00	–	–	–	3.00	2.90	3.00
3.9 mm		0.50	3.00	–	2.95	–	3.00	3.10
	0.50	0.63	3.00	3.00	2.95	–	3.00	3.10
	0.63	0.88	3.00	3.00	2.95	2.90	3.00	3.10
	0.88	1.13	3.00	3.00	2.95	2.95	3.00	3.10
	1.13	1.25	3.00	3.00	3.00	2.95	3.00	3.10
	1.25	1.38	–	–	3.00	2.95	3.00	3.10
	1.38	1.75	–	–	3.20	3.00	3.00	3.10
	1.75	2.00	–	–	3.20	3.50	3.00	3.10
	2.00	2.50	–	–	3.50	3.50	3.10	3.20
	2.50	3.50	–	–	3.60	3.50	3.20	3.30
4.2 mm	–	0.50	3.50	–	–	–	–	–
	0.50	0.63	3.50	3.50	3.20	–	–	–
	0.63	0.88	3.50	3.50	3.20	2.95	–	–
	0.88	1.13	3.50	3.50	3.20	3.00	3.20	3.30
	1.13	1.38	3.50	3.50	3.30	3.20	3.20	3.30
	1.38	2.50	–	–	3.50	3.50	3.30	3.40
	2.50	3.00	–	–	3.80	3.70	3.30	3.40
	3.00	3.50	–	–	3.90	3.80	3.40	3.50
	3.50	10.00	–	–	–	3.90	3.5–3.6	3.6–3.7
4.8 mm	–	0.50	4.00	–	–	–	–	–
	0.50	0.75	4.00	4.00	3.70	–	–	–
	0.75	1.13	4.00	4.00	3.70	3.70	–	–
	1.13	1.38	4.00	4.00	3.90	3.70	3.70	3.90
	1.38	1.75	–	–	3.90	3.70	3.70	3.90
	1.75	2.50	–	–	4.00	3.80	3.80	3.90
	2.50	3.00	–	–	4.10	3.80	3.80	3.90
	3.00	3.50	–	–	4.30	3.90	3.90	4.00
	3.50	4.00	–	–	4.40	3.90	3.90	4.00
	4.00	4.75	–	–	4.40	4.00	4.00	4.10
	4.75	10.00	–	–	–	4.20	4.1–4.2	4.2–4.3
5.5 mm	–	1.13	4.70	–	4.20	–	–	–
	1.13	1.38	4.70	–	4.30	4.10	–	–
	1.38	1.50	–	–	4.30	4.10	–	–
	1.50	1.75	–	–	4.50	4.20	–	–
	1.75	2.25	–	–	4.60	4.40	4.50	4.60
	2.25	3.00	–	–	4.70	4.60	4.50	4.60
	3.00	3.50	–	–	5.00	4.60	4.60	4.70
	3.50	4.00	–	–	5.00	4.80	4.60	4.70
	4.00	4.75	–	–	5.10	4.80	4.70	4.80
	4.75	10.00	–	–	–	4.90	4.7–4.9	4.8–5.0
6.3 mm	–	1.38	5.30	–	4.90	–	–	–
	1.38	1.75	–	–	5.00	5.00	–	–
	1.75	2.00	–	–	5.20	5.00	–	–
	2.00	3.00	–	–	5.30	5.20	5.30	5.40
	3.00	4.00	–	–	5.80	5.30	5.40	5.50
	4.00	4.75	–	–	5.90	5.40	5.50	5.60
	4.75	5.00	–	–	–	5.60	5.50	5.60
	5.00	10.00	–	–	–	5.80	5.6–5.7	5.7–5.8

For "Mechanical fasteners" (screws, nuts and accessory parts), all function-relevant external and internal characteristics are regulated in detail in DIN, ISO or EN standards, this includes:

- **Product standards** (e.g. DIN 931/ISO 4014)
  Specifications on the figure of the product, assigned version and product class (tolerance group), usual strength classes and/or materials and nominal sizes. Furthermore, each product standard contains "normative references" to relevantly applicable basic function standards.

Basic/Function standards (e.g. DIN 13, 267/ISO 898, 4759, 3269...)
Regulations for joint characteristics of the various products such as e.g. thread, tolerances, surface versions, corrosion protection, mechanical properties and corresponding factory test programme as well as acceptance testing conditions.

By naming an article with a product standard number, all referred basic standards are automatically included and applicable as "Technical Delivery Conditions". This also applies for non-standardised thread and form parts when no particular arrangements have been made between the orderer and the supplier.

Standards always can only regulate just one general standard for products "for general use", this also applies for "Mechanical fasteners" (➔ ISO 3269/8992). For higher requirements for specific cases exceeding these normative regulations, it is the job of the user to define these requirements and specify necessary additional inspection requirements.

1. Quality checks during manufacture:
For basic/functional standards, testing programmes and procedures are given within which the manufacturer has to ensure the compliance with the proper standards quality of its products by carrying out constant sample checks. Alongside the obligatory checks for dimensional accuracy and surface condition, the following checks are also listed, among others:

- for screws and similar thread parts (➔ e.g. ISO 898-1)
  - hardness testing, proof load testing
  - bolt head impact/diagonal pull testing
  - surface decarburisation testing
- for nuts (➔ e.g. ISO 898-2)
  - hardness test, proof load test
  - expansion test

The procedure to be used in arbitration is specified in the standards. All standardised mechanical properties are generally valid at room temperature (approx. +20 °C).

2. Additional tests – Certificates

For particular requirements and/or safety-related use cases, additional articles or use-specific tests can be carried out either in the factory or by a commissioned factory independent technical expert or testing institute. The results of these extra tests shall be documented in a test certificate.

The type and scope of these additional tests and who is to carry out and document them is to be determined by the user due to his knowledge on the use and particular requirements, and specified accordingly upon ordering. The costs for additional tests are usually not part of the product price.

2.1. Inspection documents according to ISO 16228

For fasteners, ISO 16228 was released in May 2018 and replaces DIN 11204. This standard regulates the various types of inspection documents for fasteners, and it also contains 4 document types according to ISO 10204, starting with F (for fasteners), i. e. F2.1, F2.2, F3.1, F3.2. Furthermore, the scope of content of inspection documents for fasteners is specified and can be applied to finished fasteners such as bolts, screws, threaded bolts, nuts, washers, pins, rivets, and so forth, made of steel, stainless steel, non-ferrous metals or non-metallic material. In the inspection documents (F2.2, F3.1, F3.2) all inspection results are taken over from the certificates of the material suppliers and/or the reference inspections on the finished fasteners. In case of F3.1 this can be made by the actual manufacturer or the distributor. ISO 16228 is thus a useful summary of EN 10204 and DIN 11204 and facilitates the handling of inspection documents for fasteners.

2.2. Inspection contents according to ISO 16228 (former DIN 11204)

If there are no specifications on the scope of the test contents agreed in the order, ISO 16228 shall apply.

Table 1 – Test contents for fasteners (excerpt from ISO 16228)

Screws	Type of test	
	Material properties/ mechanical and physical properties	functional properties
Screws ISO 898-1	Chemical composition except for F2.2 (M) tensile strength a) (M) hardness for quenched property class (M)	Thread reduction (A)
Screws ISO 3506-1	Chemical composition except for F2.2 (M) tensile strength and elongation after fracture (M) hardness for fasteners made of martensitic and ferritic stainless steel (M)	Thread reduction (A)

Nuts	Type of test	
	Material properties/ mechanical and physical properties	functional properties
Nuts ISO 898-2	Chemical composition except for F2.2 (M) test load a) (M) hardness for quenched property class (M)	Thread reduction (A)
Nuts ISO 3506-2	Chemical composition except for F2.2 (M) test load a) (M) hardness for fasteners made of martensitic and ferritic stainless steel (M)	Thread reduction (A)

(M) = Measurement, (A) with attribute test

a) If possible, the tensile strength of mechanical fasteners shall be tested on whole screws according to the FF test programme as per ISO 898-1. If none of the tensile inspections specified in ISO 898-1, the substitute inspection that has to be performed, shall be agreed at the time of order placement.

General information:

- The values determined by additional testing and documented in certificates are not "committed properties" or "guarantees of quality" according to Section 267 of the German Civil Code (BGB) and do not mean that the user does not have to perform the proper inspection of incoming goods (Section 377 of the German Commercial Code (HGB)).
- All tests named in 1 and 2 are carried out in general on samples. While their results are representative for the most part of the delivery batch of a load, a 100% guarantee for each part of the batch can be derived from this just as little as its suitability for a specific purpose can be.

Table 2: Overview of the usual inspection documents for screws, nuts and accessory parts according to ISO 16228
Excerpt from ISO 16228 – 05.2018

Type and name of test certificate for mechanical fasteners		When	Content	Confirmed by
F2.1 ①	Declaration of Conformity for fasteners	requested on ordering	Declaration of Conformity for delivered fasteners, no results	Authorized representative of manufacturer or distributor
F2.2 ②	Inspection certificate for fasteners	requested on ordering	Declaration of Conformity for delivered fasteners, with results on the basis of non-specific tests	Authorized representative of manufacturer
F3.1	Inspection certificate for fasteners	requested on ordering	Declaration of Conformity for delivered fasteners, with results of specific tests	Authorized representative of manufacturer or distributor
F3.2 ③	Inspection certificate for fasteners	requested on ordering	Declaration of Conformity for delivered fasteners, with results of specific tests	Authorized representative of manufacturer or distributor and either an authorized representative of the buyer or an external authorized representative

① not recommended since there is no specific statement on the delivered product.
② the sample quantities for destructive inspections are to be taken into account when deciding the order quantity
③ e.g. TÜV, GL, DB ...

3. Acceptance testing for "Mechanical fasteners" according to ISO 3269

This standard is always included as applicable when "Mechanical fasteners" are ordered according to standard or similar form parts, if not expressly agreed otherwise beforehand.

It does not apply to fasteners which

- are intended for automatic screw-in,
- are supposed to fulfil particularly high requirements,
- require particular processing procedures/testing measures,
- require specific traceability.

Here, special corresponding arrangements always need to be made on request, on ordering at the latest (e.g. according to ISO 16426). In general, standard commercial stock is not suitable for these specific requirements.

The final draft ISO 3269 – FprISO 3269:2019 now defines scopes of random samples, acceptance numbers and rejection numbers for certain test categories. The test categories are allocated to certain characteristics. Tables 3 and 4 show an extract from this draft with the most important details.

Table 3: Sample test scope, acceptance number N_A and number of rejections N_R
per FprISO 3269:2019

Batch size	Category 1	Category 2		Category 3
		Initial sample test	Additional sample test	
	N_A=0 N_R=1	N_A=0 N_R=2	N_A=0 N_R=1	
2 to 50	1	4	4	not applicable
51 to 90	1	5	5	5 N_A=1 N_R=2
91 to 150	1	6	6	6 N_A=1 N_R=2
151 to 280	1	7	7	7 N_A=1 N_R=2
281 to 500	2	9	9	9 N_A=1 N_R=2
501 to 1200	2	11	11	11 N_A=1 N_R=2
1201 to 3200	2	13	13	13 N_A=1 N_R=2
3201 to 35000	3	15	15	15 N_A=2 N_R=3
35001 to 500000	5	20	20	20 N_A=2 N_R=3
more than 500 000	8	20	20	20 N_A=2 N_R=3

Table 4: Test categories according to FprISO 3269:2019

Test category	Description
Category 1	Characteristics, for which the acceptance number N_A is zero. Category 1 characteristics comprise all mechanical and functional properties that are usually tested with destructive testing. In case deviations are detected during random sampling, the batch or delivery will be rejected.
Category 2	Characteristics, for which the acceptance number N_A is zero; however, in case of deviation, a second sample may be taken. Category 2 characteristics are important dimensional characteristics, which may have negative effects on fit or function of the fastener. If, however, a single deviation is detected in the first sample, another sample with regard to this respective characteristic shall be tested, the scope of which shall correspond to the first sample. If no deviation is detected in this additional sample with regard to the respective characteristic, the batch will be accepted.
Category 3	Characteristics, for which the acceptance number N_A matches one or more deviations, as indicated respectively. Category 3 characteristics are minor dimensional characteristics and certain functional properties, for which deviations are tolerated to a certain extent. In case more deviations are detected during random sampling than those stated as acceptable, the batch or delivery will be rejected.

Test method: Hardness measurement and notch impact test

The hardness measurement serves to determine the resistance of a material against the penetration of a test specimen which acts upon it with a specific type, force and time. Depending on the applied procedure, the hardness value is determined from the measured depth or size of the impression the test specimen makes on the workpiece.

The most common standardised methods are shown in Table 1. If in doubt, the Vickers Hardness test shall be applied for the mechanical fasteners. The measurements are taken on prepared samples. Here it needs to be differentiated between:

- **"Routine testing"**
  The measurement is taken on an even cut on the surface of the sample. Common hardness test procedures are Rockwell (HRC) and Vickers (HV 10 – HV 30).
- **"Arbitration testing"**
  The measurement is taken on a lengthwise or diagonal polished section of the cut-up specimen. The testing procedure according to ISO 898 is Vickers (HV).

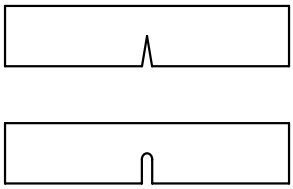
With the acceptance test of "Mechanical fasteners" hardness measurements are only part of routine and comparative checks. They are not themselves decisive for determining mechanical characteristics.

For screws, the tensile test determines the tensile strength, yield strength limit and elongation. For nuts, proof load tests and expansion tests are applicable. (ISO 898-1, DIN 267-21, ISO 898-2).

Table 2 shows a conversion of the hardnesses according to Vickers, Rockwell and Brinell into each other and for the tensile strength of non-alloy to low-alloy steels in hot-formed or heat-treated conditions. Beside these, the hardness ranges of screws, nuts and washers of the various strength classes are specified according to the standard.

Low load-hardness testing
The low load-hardness test with test loads between 2 and 30 N (HV 0.2 to HV 3) is the link between the conventional hardness testing (HV 5 to HV 100) and micro-hardness testing. It is suitable for determining the hardness in surface layers and for absorbing hardness gradient curves. For fasteners, especially quenched and tempered screws from property class 8.8 or higher, the low load-hardness testing according to ISO 898-1 is used to determine the carburisation state in the thread range.

Impact testing
Impact testing is used to measure the toughness. This shows the extent of the damage which needs to be done in order to shatter a sample. Tough steels can absorb a lot. Brittle steels require less effort. The result of impact testing is used in particular to estimate the usability of steel at low temperatures.
For testing, quadratic test specimens with a defined chamfer are made out of the screws. ISO-V and ISO-U samples are distinguished from each other. In practice, using the ISO-V sample was approved as this reacts more sensitively to the embrittlement of the screw due to the stronger notch effect compared to the ISO-U sample.



ISO-V- and ISO-U-sample

Table 1: Comparison of hardness measuring procedures

Procedure, Marking	Vickers HV	Brinell HB	Rockwell HRC	Rockwell HRB
Norm, Standard	ISO 6507-1.2 (DIN 50133)	ISO 6506 (DIN 50351)	ISO 6508/EN 10004 (DIN 50103-1)	
Suitable for materials	Metallic materials with very low to very high hardness level (specification of medium hardness)	Metallic materials with very low to high hardness level (specification of partial hardness)	Hardened steels, hardened and tempered alloys	Materials of medium hardness, steels with low to medium C-content of brass, bronze ...
Tensile strength range approx. (R_m in N/mm²)	< 250 – 2000	255 – 1520	770 – 2000	250 – 800 250 – 800
Penetrator	Diamond pyramids, quadratic base area, surface angle 136°	Ball from hardened steel, diameter: 10/15/2.5 or 1 mm	Diamond cone, cone angle 120° Tip: Radius of curvature 0.2 mm	Ball from hardened steel Diameter: 1/16" = 1.5875 mm
General dwell time (for arbitration tests, min.)	Material-dependent 10 – 30 (30) sec.	Material-dependent 10 – 30 (30) sec.	Material-dependent 2 – 25 (30) sec. (two-stage impression Test load F_0 + Test load F_1 = Total test load F)	
Code (examples)	640 HV 30 – applied test load F = 294 N/30 kp; Vickers Hardness; determined hardness value 180 HV 50/30 – Dwell time/sec	350 HB – Hardness Brinell determined hardness value for ball diameter of 10mm Test load 29420 N/3000 kp Dwell time 10–15 sec. 120 HB 5/250/30 – Ball-Ø; Test load/kp; Dwell time/sec.	45 HRC – Hardness Rockwell procedure C; determined hardness value	45 HRB – Hardness Rockwell procedure B; determined hardness value

Test method: Hardness measurement

Table 2: Hardness re-evaluation*/comparison
Hardness ranges of screws, bolts, studs, nuts, washers and rings

Vickers hardness	Brinell hardness	Rockwell hardness		~ Tensile strength	Rough hardness range (based on Vickers Hardness) for																
					Screws					Nuts m ≥ 0.5 d**					Nuts m < 0.5 d Set screws				Washers/Rings		
HV 10	HB	HRB	HRC	MPa	4.6	5.6	8.8	10.9	12.9	5	6	8 04	10 05	12	14 H	17 H	22 H	45 H	St.	St. hard.	SSt.
80	76.0			255																	
85	80.7	41.0		270																	
90	85.5	48.0		285																	
95	90.2	52.0		305																	
100	95.0	56.2		320															100		
105	99.8			335																	
110	105	62.3		350																	
115	109			370	120																
120	114	66.7		385																	
125	119			400						130/142											
130	124	71.2		415																	
135	128			430																	
140	133	75.0		450							150/170										
145	138			465											140						
150	143	78.7		480		155													140		
155	147			495																	
160	152	81.7		510																	
165	156			530												170					
170	162	85.0		545																	
175	166			560																	
180	171	87.1		575								188/233									
185	176			595																	
190	181	89.5		610																	
195	185			625																	
200	190	91.5		640																	
205	195	92.5		660																	
210	199	93.5		675											Mu 215						
215	204	94.0		690													220				
220	209	95.0		705																	
225	214	96.0		720																	
230	219	96.7		740																	
235	223			755																	
240	228	98.1	20.3	770																	
245	233		21.3	785			≤ M 16 250														
250	238	99.5	22.2	800												245					
255	242		23.1	820	250	250													250		
260	247	(101)	24.0	835																	
265	252		24.8	850			> M 16 255						272								
270	257	(102)	25.6	865																	
275	261		26.4	880																	
280	266	(104)	27.1	900																	
285	271		27.8	915																295	
290	276	(105)	28.5	930										295	G. St./290						
295	280		29.2	950																	
300	285		29.8	965																	
310	295		31.0	995			≤ M 16 320	320									300			300	
320	304		32.2	1030																	
330	314		33.3	1060																	
340	323		34.4	1095			> M 16 335														
350	333		35.5	1125																	
360	342		36.6	1155																	
370	352		37.7	1190					385			302/353	353	353							
380	361		38.8	1220																	
390	371		39.8	1255				380													
400	380		40.8	1290																400	
410	390		41.8	1320																	
420	399		42.7	1350																	430
430	409		43.6	1385																	
440	418		44.5	1420					435									450			
450	428		45.3	1455																	
460	437		46.1	1485																	
470	447		46.9	1520																	
480	456		47.7	1555																	
490	466		48.4	1595																	
500	475		49.1	1630																	
520	494		50.5	1700																	
540	513		51.7	1775																	530
560	532		53.0	1845																	
580	551		54.1	1920														560			
600	570		55.2	1195																	
ISO 18265 Table A.1					ISO 898-1					ISO 898-2					DIN 267-24 ISO 898-5				e.g DIN 125-1	e.g DIN 125-2	e.g DIN 267-26

* Limitations according to ISO 18265 need to be taken into consideration.
** Hardness ranges differ according to the dimension ranges in min./max. values

Screwed fastenings should be designed in such a way that the preload applied under working stress remains as intact as possible.
While in some cases a clear drop in preload can indeed be tolerated, the screwed fastenings coming undone completely must be prevented.

Mechanism of independent loosening

Creep
Time-dependent exceeding of material yield strength

Settling
Balancing of intrusions in the surface

Relative movement
between the contact surfaces

until final balance:
inner loosening torque ≤ self-retention torque

until connection comes undone completely due to the self-retention torque compensation

Loosening

Independent unscrewing

Loss of preload

Measures

Maintain frictional contact (preload)

Avoid unscrewing

Avoid connection from coming undone

Reduce bearing stress

Balance intrusions

Create material bond

Create form fitting

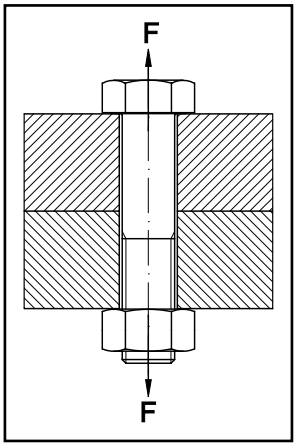
Increase self-retention

Provide locking device against loosening

Provide locking device against unscrewing

Provide locking device against losing

Source: DIN 25201-4



Loosening

Risk
Static loads in axial direction due to assembly forces and/or first operating loads may lead to settling losses. This may lead to a complete loss of preload in the screwed connection.

Settling is not only dependent on forces applied, but also on the number and shape of the separation joints between the tensile building components and the surface condition of the component, such as roughness or coating layers. Low strength of the component may also cause settling, which is caused by yield/creep of the soft material.

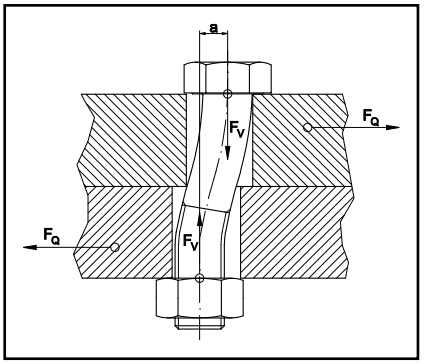
Measures
Loss of preload may be counteracted with certain constructive measures or by using screw-settling locks.
To keep settling losses in a screwed connection as low as possible, the number of separation joints between the building components are to be kept to a minimum. Every unnecessary washer is an additional separation joint. The insertion of "soft" washers according to DIN 125 with a hardness of 140 HV in a high-strength screwed fastening with screws of a property class of ≥ 8.8 is to be avoided.

By selecting a longer screw grip length, e.g. by using extension sleeves, preload losses can be absorbed by greater elastic elongation. The same effects are achieved by using shank expansion screws or screws with full thread or by using higher preloads from higher-strength materials.

If these measures cannot be used, a curved washer can be used in accordance with DIN 6796 to partially balance out intrusions of parts into materials. Here, it should be made sure that the building component onto which the curved washer is placed is strong enough to not move under the strain and that the curved washer does not dig into the building component.

Independent unscrewing

Risk
If dynamic loads in lateral direction are large enough to shift the fastened component to each other, a loosening torque is generated which can overcome the self-retention in the threaded joint and in the bearing areas. Depending on the frequency in change of load direction, the joints will systematically loosen until they come apart.



Measures
Depending on the structural conditions, either constructive measures or locking devices are applied. The following measures may be applied (see also DIN 252014).

- Increase in initial load (preload)
- Increase in elasticity of the screw
- Increase in friction at the bearing areas of screw and nut and/or in the threaded joint
- Limitation of lateral slipping (use of fit bolts or pins)
- Use of locking fasteners in order to avoid relative movement of screw or nut
- Bonding (liquid adhesive or encapsulated adhesive)

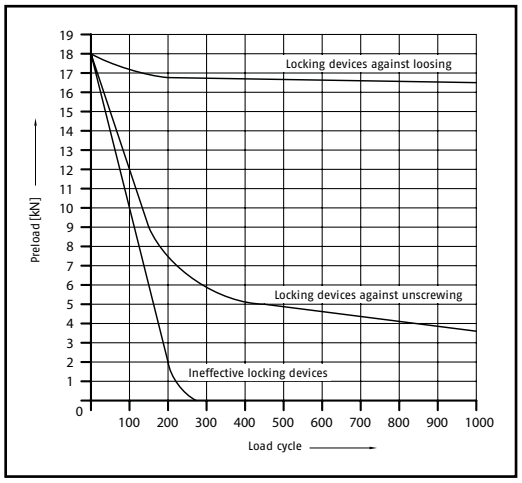
Locking of screwed fastenings

Locking devices against losing

While locking devices against losing do not prevent significant loss of preload, they do prevent the joint from coming apart completely. Usually, around 20% of the preload remains. The working principle is based on the gripping action in the thread. Nuts and screws with locking element or coating, thread rolling screws, all-over coating, strip coating or spot coating are used as locking devices against losing in practice.

The requirements for locking coatings on screws are specified in DIN 26728.
The functional properties of nuts with locking elements (prevailing torque nuts) are defined in ISO 2320.

Locking devices against losing are nuts and screws with locking element or as well as thread rolling screws.



Locking device against unscrewing

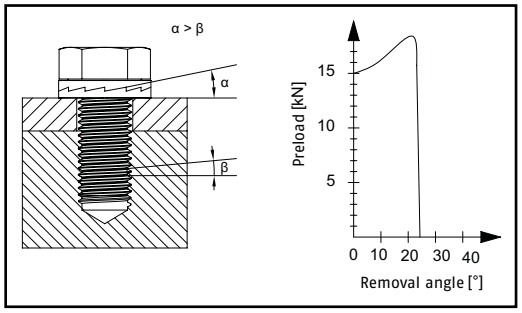
Unscrew locking devices describe elements and methods which are made fundamentally for maintaining the preload in the screwed fastening despite strong dynamic loads to avoid the screwed connections from coming apart. Normally, this prevents the preload from dropping below 80% of the assembly preload. The following basic locking methods are possible:

- Formfitting locking devices against unscrewing
- Locking through increase in preload
- Adhesive locking devices against unscrewing

Formfitting locking devices against unscrewing

Form fitting is achieved by using locking serrations or ribs on the supporting surfaces of the screw head or nut. The use of washers with locking serrations or ribs is also possible. Of particular importance here is that the surface hardness of the locking serrations/ribs be considerably stronger than the building components to be connected so that they can dig themselves into the surface. It should be noted that the serrations and ribs strongly affect the friction coefficients.

As such, much higher friction coefficients (μ_{total} = 0.2–0.3) need to be considered when dealing with soft contact materials such as aluminium alloys and construction steels, into which the serrations dig. The tightening torques need to be determined accordingly in order to achieve the desired preloads. Ultimately, the optimum tightening torques are to be determined by testing in environments which reflect the actual conditions. Typical values for tightening torques can be found on the TI pages TI-247.

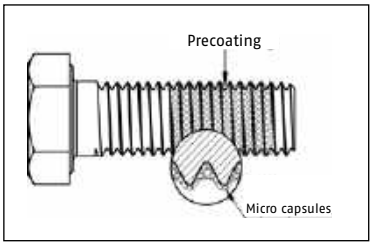


Locking through increase in preload

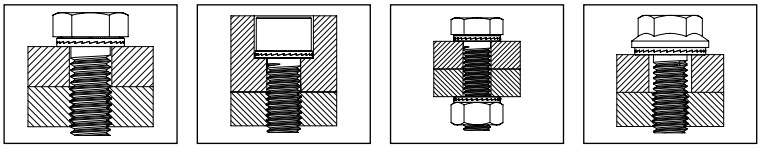
With this locking method, the exterior radial ribs of the self-locking washers are embossed into the respective component surface. In case of dynamic load and the related unscrewing attempt of the screwed connection, only a movement between the inner wedge surfaces is possible.

Due to the washers' increased wedge angle compared to the screw thread pitch angle the preload in the connection is increased, which is shown clearly in the following two figures.

Adhesive locking devices against unscrewing



In an adhesive locking device against unscrewing, micro-capsules are applied on the thread with a carrier material. These contain the adhesive and a hardening agent. The capsules break open during screwing and the adhesive begins to harden. The hardening process usually takes 24 hours to complete. A screwed fastening results which is locked against vibrations and loss of preload and which simultaneously acts as a sealant. The adhesive creates a bonded connection, which prevents unscrewing as well as locking by form fitting. DIN 267-27 describes the adhesive coating with encapsulated adhesive. Since the micro-capsules are applied to the thread in a special coating process, it is recommended that this be used especially with bulk amounts. When applying micro-capsule adhesives to zinc flake coatings, seals and/or coatings with lubricant additives, a reduction in the breakaway torques vis-à-vis DIN 267-27 may come about. In this case, the application should be safeguarded by testing in application conditions before using in bulk. The shelf life of micro-encapsulated coatings according to DIN 267-27 is determined to be at least 4 years from date of manufacturing. For smaller batches and universal use, anaerobic hardening liquid adhesives are suitable. They are applied to the thread when assembling the screwed fastening and harden when atmospheric oxygen and metal (iron and copper ions) come into contact with each other. The temperature resistance of adhesive coatings is limited. For more information please refer to TI-258.



Installation examples

Assembly instructions for form-fitting and preload-increasing locking device against unscrewing

The connection must be locked under the screw head and under the nut in order to prevent unscrewing. The figures show which versions are possible.

Information on the use of austenitic and stainless steels

Austenitic steels of the steel groups A1 to A5 do not have any spring-hard properties. Therefore, the locking elements made of these steels cannot balance any intrusions with a spring effect. Steels 1.4310 and 1.4568 represent an alternative.

Other than the steels A 1 to A 5 have partial spring-hard properties, which, however, do not fulfil the requirements for spring steel in full. For this reason, locking elements made of these two steels can obtain the spring properties of steel products only to a limited extent.

Comparison of locking and adhesive coatings

Adhesive bonding

Product/Description	Colour	Temperature resistance, locked [°C]	Thread friction coefficient µ	Curing time [h]	Property
Precote 30	yellow	-60 to +150	0.10 - 0.15	6	medium strength, sealing
Precote 80	red/green	-60 to +170	> 0.25	6	high strength, sealing
Precote 85	turquoise	-60 to +170	0.10 - 0.15	6	high strength, sealing
ScotchGrip 2353	blue	-30 to +110	0.13 - 0.19	24	high strength, sealing
ScotchGrip 2510	orange	-30 to +200	0.13 - 0.19	72	high strength, sealing

All indications are given by the manufacturer. We are not responsible for the accuracy of the given information.

Locking and sealing

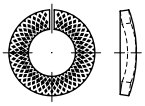
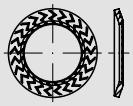
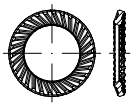
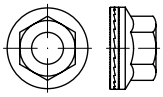
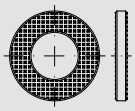
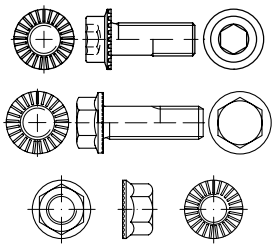
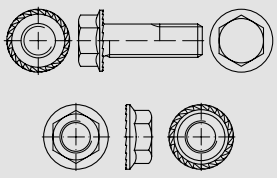
Product/Description	Colour	Temperature resistance, locked [°C]	Thread friction coefficient µ	Property
PolyamidFleck (GESI)	blue, red	-60 to +120		Locking
PolyamidRundum (GESI)	blue, red	-60 to +120	0.12 - 0.14	Locking and sealing
TUFLOKFleck (NYLOK)	blue/red	-56 to +121		Locking
TUFLOKRundum (NYLOK)	blue/red	-56 to +121		Locking and sealing
LongLok Polycap Nylon	green	-51 to +121		Locking
LongLok KelF	blue	-196 to +199		Locking
LongLok Vespel	brown	-268 to +260		Locking
HotLok	silver	-240 to +649		Locking
Klemmtight	-	-60 to +200		Locking
Alutight	-	-60 to +500		Locking
Heattight	-	up to +1000		Locking
Thermotight	-	-240 to +220		Locking
precote 2	blue	-60 to +90	0.10 - 0.15	Locking
precote 6	white	-60 to +110	0.25 - 0.30	Locking
precote 9	white/redbrown	-60 to +180	0.10 - 0.15	Locking
precote 10	grey/green/blue	-60 to +130	0.16 - 0.20	Locking and sealing
precote 101	green	-60 to +150	0.18 - 0.23	Locking and sealing
precote 192	red/transparent	-60 to +90	0.18 - 0.23	Locking
precote 197	yellow/transparent	-60 to +150	0.10 - 0.15	Locking

All indications are given by the manufacturer. We are not responsible for the accuracy of the given information.

Help for selecting the correct locking device

Design objectives	Locking elements
Reusability	Form-fitting locking elements
Defined/constant friction coefficients	Nord-lock washers, adhesive locking devices
Low assembly costs	Flange screws and nuts with locking serrations/ribs, adhesive locking device
Readjustability of the fastenings	Form-fitting locking elements
Assembly conditions	If it cannot be avoided that the threads to be coupled are free from oil and grease, form fitting locking devices shall be preferred.
Temperature	Depending on the product, adhesive locking devices can bear temperatures between 110 and 200 °C maximum – see overview on page 13. Otherwise metal locking devices are recommended, which lock by form or friction.

Table 3: Overview of locking devices against unscrewing in the REYHER product range

REYHER article			Special properties
88130 – 88131	Lock rings		Duplex structured surface and bulging ➔ this also balances out small intrusions of parts into materials
88123 – 88126	Lock washers		To a certain extent, bulging also balances out intrusions of parts into materials, similar to conical spring washers.
88120 – 88121	SCHNORR safety washers		Duplex serrated surface and bulging ➔ this also balances out small intrusions of parts into materials
88132 88032 88033	Nord-Lock washers – Standard – SP (enlarged outer Ø) – SC for HV connections – Nord-Lock X-series		Each consisting of one washer pair, stuck as a pair for easy assembly. The external surfaces have ridges which are embossed into the surface of the components. The interior surfaces are wedge-shaped. During assembly, the interior surfaces only slide on top of each other ➔ this means that the friction coefficient remains constant, which makes it possible to determine a precise specification for the tightening torque. The Nord-Lock X-series washers are additionally convex. This also balances out small intrusions of parts into materials.
88034	Wedge lock nuts		With captive wedge lock washer fixed to a flange nut with a plastic ring. ➔ for easier assembly
88119	LOCKTIX washers		Duplex structured surface and large bearing area.
88912 88913 88914	Flange screws Flange nuts		The assembly process is made easier thanks to the pressed flange with ribs as individual washers do not need to be used.
88933 88934	Locking screws Locking nuts		The assembly process is made easier thanks to the pressed flange with serrations as individual washers do not need to be used. The special design of the flange balances out intrusions of parts into materials to a limited degree.

EC Directive 2000/53/EC on end-of-life vehicles (ELV Directive)
(End-of-Live-Vehicles)

The aim of this European directive is to avoid having materials which are dangerous to health in vehicles or to prevent this from happening as much as possible.
All cars and utility vehicles up to 3.5 t, which were put into operation from 1st July 2007 onwards are affected by this.

The following are banned from this date

1. Lead
2. Cadmium
3. Chromium (VI)
4. Mercury

Exceptional approval was granted until 1st July 2008 for hexavalent chromium in corrosion protection layers for screws and nuts to fasten parts of chassis frames.

This EC directive was adopted into German law through the end-to-life vehicles directive.

The automotive industry implemented the requirements of the EC directive in the form of

1. VDA data sheet 232-101 (list of materials which must be declared)
2. International material data system (IMDS)

The IDMS is a portal on which all environmentally relevant information in the supply chain are summarized and reported to the vehicle manufacturer.

➔ **These products from the REYHER catalogue comply with this directive**
All products made of steel, stainless steel and non-ferrous metals uncoated or zinc-plated with blue/transparent thick layer passivation, with zinc flake coatings without hexavalent chromates (flZnnc) and hot dip galvanization

EC Directive 2011/65/EU on electrical and electronic equipment (ROHS directive)
(Restriction of Hazardous Substances)

The Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment has been updated with the Directive 2015/863/EU (RoHS III).

It is implemented by the Electrical and Electronic Equipment Ordinance (ElektroStoffV) in Germany. According to this ordinance, waste electrical and electronic equipment, including cables and spare parts that contain more than 0.1 percent by weight of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers or more than 0.01 percent by weight of cadmium per homogeneous material may not be placed on the market. For certain substances and applications there are exceptions.

For lead as an alloying element there are exemptions applicable according to Annex III:

- 6(a) -I (steel up to 0.35%, galvanised steel containing up to 0.2% by weight)
- 6(b) -I (as an alloying element in aluminium containing up to 0.4% lead by weight)
- 6(c) -I (copper alloy containing up to 4% by weight)

➔ **These products from the REYHER catalogue comply with this directive**
To this current date, products that are marked with the RoHS symbol on the price pages do not contain amounts of any hazardous substances exceeding the above-mentioned limit values or are exemptions according to Annex III. If there are products that are not marked with this symbols, these might contain amounts of the mentioned substances exceeding the limit value. More detailed information is available on request.

ZEK 01.2-08 PAK
(Polycyclic aromatic hydrocarbons)

This directive replaces directive ZEK 01-08. Products (technical work equipment and consumer products) must comply with legal requirements to avoid any risk to health, such as § 30, 31 LFGB, the Chemicals Prohibition Ordinance and

§ 4 the Equipment and Product Safety Act (GPSG), which is why the revised PAH test specifications as well as the new PAH maximum values were specified in this document. Materials that may contain PAHs are, for example, elastomers (plastics and rubber materials), black or dark-coloured polymers, coatings and lacquers as well as materials treated with preservatives (naphtalene) such as natural bristles, leather products, bast and wood.

The main causes of PAH contamination in materials are the use of:

- PAH-contaminated softening oils in rubber and flexible plastics (soft plastics)
- PAH-contaminated soot as a black pigment used in rubber, plastics and varnish

This shows that products we delivered which were made of steel, stainless steel and non-ferrous metals including all coatings are not affected by this regulation.

➔ **All products from the REYHER catalogue comply with this directive**

California Proposition 65
(The Safe Drinking Water and Toxic Enforcement Act of 1986)

California Proposition 65 is a Californian law to protect drinking water sources from contamination with chemicals known to cause cancer and/or birth defects or other reproductive harm. This law does not prohibit any substances, but sets limit values for exposure to certain substances. It requires businesses to provide "clear and adequate" warnings to individuals prior to exposure to listed chemicals. These chemicals can be in the products that people purchase, in their homes or workplaces, or that are released into the environment.

The list of chemicals causing cancer and/or birth defects or other reproductive harm is maintained by the Office of Environmental Health Hazard Assessment (OEHHA),and updated every year. Currently, it contains more than 900 chemicals.

SJ/T 11364-2014 (China RoHS 2)
(Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products)

The China RoHS 2 is very close to the EU RoHS and can be compared to the EC Directive 2011/65/EU (RoHS 2). According to the China RoHS 2, waste electrical and electronic equipment that contains more than 0.1 percent by weight of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers or more than 0.01 percent by weight of cadmium per homogeneous material. Other than the EU RoHS, the China RoHS 2 does not state exemptions. That is why products, that are in compliance with the EU RoHS, do not automatically fulfil the China RoHS conditions. China RoHS 2 requires that all electronic and electrical products that are sold in the People's Republic of China be marked with a label. The "e" label is applied to products that do not contain any hazardous substances exceeding concentration limits. Products that contain certain hazardous substances are marked with an orange label and can be used safely during its environmental protection use period (as indicated by the number in the center) which should enter into the recycling system after its environmental protection use period. In the case of the orange label, the amount of substances to be declared shall also be stated on the component or, in case of limited space, in the user manual. This indication must be made in Mandarin.

Conflict minerals
(Dodd Frank Act)

With the 15th title of the Dodd Frank Act the use of "conflict minerals" shall be avoided that are originating in or near the Democratic Republic of the Congo and are benefiting armed groups in the area. The relevant raw materials comprise tin, tantalum, tungsten, and gold from the African Great Lakes region including the Democratic Republic of the Congo, Angola, Burundi, Rwanda, Tanzania, Uganda and the Central African Republic of Zambia. According to section 1502 Dodd-Frank Act, companies that, according to US legislation, are required to issue annual reports on their stock trade to disclose whether so-called "conflict minerals" required for manufacturing products are originating in or near the Democratic Republic of the Congo. This way, all companies are affected that are allocated allong the supply chain of companies listed on US stock exchanges,
be it as a direct supplier or intermediate supplier. The material data communication in the supply chain is made via a CMRT template, that we will gladly send to you upon request.

EC Regulation EC 2006/122 (PFOS)
(Perfluoroctansulfonate)

The EU directive 2006/122/EC relates to the use of perflouroctane sulfonates (PFOS). PFOS are mainly used in the aerospace, semiconductor, and electronics industries, as well as in the photographic trade. If emissions into the environment and exposure in the workplace can be reduced to a minimum, there is no serious threat to the environment or to human health. According to the directive, special attention needs to be given to galvanic processes and surface treatment of metals and plastics. There are indications and experience shows that legislative measures are to be expected in this regard. By using the best technology available, it is expected that emissions shall be reduced accordingly. Another proposal is for restricting semi-finished products and products containing PFOS to which PFOS were intentionally added. The directive would apply only to new products and not to products that are already on the market. Since perfluoro-octanoic acid (PFOA) and its salts pose a similar risk, possible additions to this directive with regard to this group are to be expected. A fully galvanized product does not contain any measureable quantities of PFOS.

➜ All products from the REYHER catalogue comply with this directive

EC Regulations 1907/2006 – Chemicals regulation (REACh)
(Registration, Evaluation, Authorisation of Chemicals)

This EC regulation centralises and simplifies Europe-wide chemical laws through registration, evaluation and authorisation and came into effect on 1st June 2007. It is the dedicated objective to increase the level of knowledge of the dangers and risks which arise from chemicals. Here, companies are given more responsibility for the safe handling of their products. Although fasteners are in principle included as articles by the REACh regulation, most fall under exemptions and are thus exempt from the registration requirement.

According to Article 3 of REACh regulation fasteners are articles. Articles are objects, whose function is defined not by its chemical composition (e.g.by the metal components in the alloy), but by their external shape.

However, according to Article 7, Section 1 REACh regulation articles are only subject to registration if they also contain substances that are intended to be released. This is however not the case for fasteners.

Even fasteners with corrosion protection coatings, which thus have a sacrificial coating, i.e. a coating which is sacrificed to protect the component part, is not subject to having to be registered. This is because the protective layer is not released as such, but only certain reaction products. What is relevant is the exemption under Article 2 section 7 (b) REACh regulation in conjunction with Annex V section 3 of the REACh regulation. According to this, the substances which result from a chemical reaction occurring upon end use of other substances, mixtures or articles and which are not themselves manufactured, imported or placed on the market, are exempted from the obligation to register.

However, this does not affect provisions regarding substances of very high concern (SVHC) (Articles 57, 59, Annex 14 REACh regulation) in articles under Article 7 section 2 REACh regulation. These substances are not subject to registration, but must be reported, provided

a) the substance is present in those articles in quantities totalling over one tonne per year per producer or importer
b) the substance in these articles contain a concentration of more than 0.1% (by mass).

The statements above do not apply to chemical/technical products (e. g. aerosols, adhesives and sealants). These are preparations, not articles. For preparations it is not the preparations themselves, but the ingredients that are subject to registration. For products manufactured in the EU this obligation to register affects the manufacturer and the importer for imports from non-EU countries.

Next to the obligation to register and report, the REACh regulation also describes an obligation to inform according to article 33. Every supplier of every product, which contains at least one substance listed according to Article 59 (SVHC) in a concentration of more than 0.1% (by mass), must inform all participants within the supply chain. In doing so at least the name of the substance must be given. The list of substances according to Article 59 is revised and extended every half year. The Court of Justice of the European Union decided on the concept of articles, 10th September 2015 "Once and article – always an article". This means that each individual article and not the number of articles a product is composed of, serves as a reference for determining the obligation to inform. If a product contains more than 0.1% (by mass) of an SVHC candidate and thus be subject to information obligation this does not affect the production, distribution or processing of the product.

On 27th June 2018 lead (CAS-No. 7439-92-1, EG-No. 231-100-4) was added to the list of SVHC candidates, and some of our products are affected. Lead may be contained as an alloy in machine elements > 0.1 percent per pass in the following property classes/materials:

-Property classes: 4.6, 4.8, 5.8, 6.8, 04, 4, 5, 6, 11H, 14H, 17H, 22H, 33H, 45H
-free cutting steel
-copper alloys (e.g. brass, bronze)
-Aluminium alloys

Although lead has been classified as a substance causing reproductive harm, this does not mean that materials containing lead represent imminent danger. Apart from that, the potentially toxic properties of lead have been known for years and must be considered depending on the use.

➜ **The following products from the REYHER catalogue do not contain any SVHC**
All products marked with a "REACh SVHC free" symbol in the price pages do currently not contain any SVHC candidate in a concentration of more than 0.1% (by mass). If there are products that are not marked with this symbol, these might contain SVHC candidates in concentrations of more than 0.1% (by mass).

EC Construction Products Regulation 305/2011/EU
(Construction products directive)

On 1st July 2013 this regulation repealed Construction Products Directive 89/106/EEG.

This regulation defines the conditions for the marketing and provision of construction as well as their CE marking.

For more detailed information, please refer to the REYHER special publication "Fasteners Metal and Steel Construction"

➜ **These products from the REYHER catalogue comply with this directive***
- Fasteners for steel construction: EN 14399-4, EN 14399-6, EN 14399-8, DIN 7968, DIN 7969, DIN 7989, DIN 7990, Sets from ISO 4014/4017 according to EN 15048.
- Fasteners for steel construction:
  - o Chipboard screws: REYHER Article numbers 89096 – 89098, SPAX articles
  - o Wood building screws: REYHER Article numbers 89091, 89092
  - o Hexagon wood building screws: REYHER Article numbers 89571, 89092
  - o Bolts with hexagon nuts: REYHER Article number 89601

EC Directive 2006/42/EC
(Machinery Directive)

The **Directive** regulates a unified protection level for accident prevention when bringing machinery into circulation inside the European Economic Area (EEA).

This Machinery Directive is supposed to reduce non-tariff barriers in the Union. Like all directives decreed on the basis of the EC Treaty, the Machinery Directive does not have any direct effect. It needs to be adopted into national law. In Germany, this has been done by the Equipment and Product Safety Act (Geräte- und Produktsicherheitsgesetz (GPSG)) and the Machinery Directive based thereon (9th GPSGV).

From **29th December 2009** the new Machinery Directive is to be applied in a binding fashion.

Essentially, the following change were made:

- Clearer restriction of the scope of application for the low-voltage directive and for the lift directive
- Incomplete machinery are included in the scope of application. Which directive requirements were satisfied can be found in the related documents. Included in the scope of delivery are a declaration of installation and assembly instructions written in the language of the country.
- The basic health and safety requirements were modified to meet technical advances made
- Selection options for conformity assessment procedures for machinery with inherently dangerous machines (see Annex 4 of the directive)
- Safety components receive the CE marking
- Inclusion of household appliances also commercially used, provided they fulfil the machine definition

➔ **These products from the REYHER catalogue can be used to implement this directive**
DIN 7964 and REYHER article numbers 88151, 88152 and 88153

Product Safety Act (ProdSG)

The German Product Safety Act, formerly the Equipment and Product Safety Act (GPSG), applies whenever products are made available on the market, exhibited on the market or used for the first time in the context of a commercial activity as well as tot he erection and the operation of installations subject to mandatory inspection, which are used for commercial or economic purposes or which may put employees at risk, with the exception of installations subject to mandatory inspection.

The Product Safety Act (ProdSG) includes a number of regulations which have implemented a number of European directives into German law.

1. ProdSV – Regulation relating to making available on the market electrical equipment designed for use within certain voltage limits
2. ProdSV – Regulation relating to the safety of toys
6. ProdSV – Regulation relating to making available on the market simple pressure vessels
7. ProdSV – Appliances burning gaseous fuels regulation
8. ProdSV – Regulation relating to making available on the market personal protective equipment
9. ProdSV – Machinery regulation
10. ProdSV – Regulation relating to making available on the market recreation craft and transport using recreational craft
11. ProdSV – Explosion protection regulation
12. ProdSV – Lift regulation
13. ProdSV – Aerosol dispenser regulation
14. ProdSV – Pressure equipment regulation

EU Directive 97/23/EC
(Pressure equipment directive)

The EU Directive is implemented by the 6th and 14th ProdSV Regulation relating to making available on the market simple pressure vessels.

The Regulation is reflected in the Technical Regulations (standards), which include instructions on computation and construction, on approved materials (including materials and strength classes for bolts and nuts), on acceptance test provisions (factory inspection documents) and on selected and correspondingly recognised manufacturers.

In addition or if not otherwise specified, the Technical Regulations apply to bolts and nuts among others:

AD 2000 data sheet W 0 = General principles for materials
AD 2000 data sheet W 2 = For austenitic steel parts
AD 2000 data sheet W 7 = For ferritic steel parts
AD 2000 data sheet W 10 = For ferrous material parts for low temperatures

The recognised manufacturer of bolts and nuts made from permitted materials must prove to the responsible authority that the requirements have been satisfied according to AD 2000 data sheet W0. Manufacturers who fulfil these requirements are listed in the VdTÜV data sheet for materials 1253/1. These manufacturers are subject to constant inspection.

➔ **These products from the REYHER catalogue are in compliance with this regulation***
DIN 938 (5.6), DIN 939 (5.6), DIN 28129 (C 35)
ISO 4014/4017 (5.6, 8.8, A 2-70, A 4-70, A 4-80, BUMAX 88), ISO 4032 (5, 8, A 2-70, A 4-70, A 4-80, BUMAX 88), ISO 4762 (8.8, A 2-70, A 4-70, A 4-80, BUMAX 88)

*See the information on the corresponding products on the price pages



Note: This catalogue and the descriptions it contains as well as technical notes, drawings and explanations have been compiled by us with the greatest care. Nevertheless, we cannot accept any liability for type-setting and typographical errors, technical changes to the products or for any incidental or consequential damage in connection with our technical statements or our ability to deliver during the catalogue's duration of validity.

Illustrations and descriptions in this catalogue are in no way of an agreed quality. Understandably, the application of the products listed in this catalogue assumes expertise on their use and assembly as well as standards.

Product range and current price list with effect from 1 October 2019

All deliveries are made in accordance with our sales and delivery conditions.

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PART 1 – GREEN PAGES **PAGE 63–452**



Fasteners made of steel, plain or coated acc. to DIN, ISO, EN and not standardised products

- Steel zinc plated, hot dip galvanized
- Steel mechanical zinc plated
- Steel zinc flake coating
- Steel nickel plated, chromium plated
- Steel brass plated, browned
- SPAX screws
- Assortments and tool boxes

PART 2 – BLUE PAGES **PAGE 453–610**



Fasteners made of stainless steel acc. to DIN, ISO, EN and not standardised products

- Screws/bolts/rods/studs
- Nuts
- Washers
- Accessories

PART 3 – YELLOW PAGES **PAGE 611–648**



Fasteners made of non-ferrous materials acc. to DIN, ISO, EN and not standardised products

- Brass, coated brass
- Copper, bronze
- Aluminium, coated aluminium
- Titanium
- Plastic

PART 4 – ORANGE PAGES **PAGE 649–702**



- Cable ties and accessories
- LINDAPTER fastener and fixing systems
- Plugs and anchors
- Cam segments and adjusting washers for diagonal tension anchors
- MULTI-MONTI screw-in-anchors
- Assembly tools – bits, wrench keys
- Drills, blind rivet systems

TECHNICAL INFORMATION TI **PAGE 1–263**



- Standards conversion ■ Product information
- Dimensions for fasteners
- Steelwork fastener and fixing systems
- Plugs and anchors ■ Screw thread
- Blind rivet systems ■ Mechanical properties
- Inspections, certificates ■ Corrosion protection
- Locking of screwed fastenings ■ Tolerances
- Assembly of screwed fastenings
- Directives and legislation

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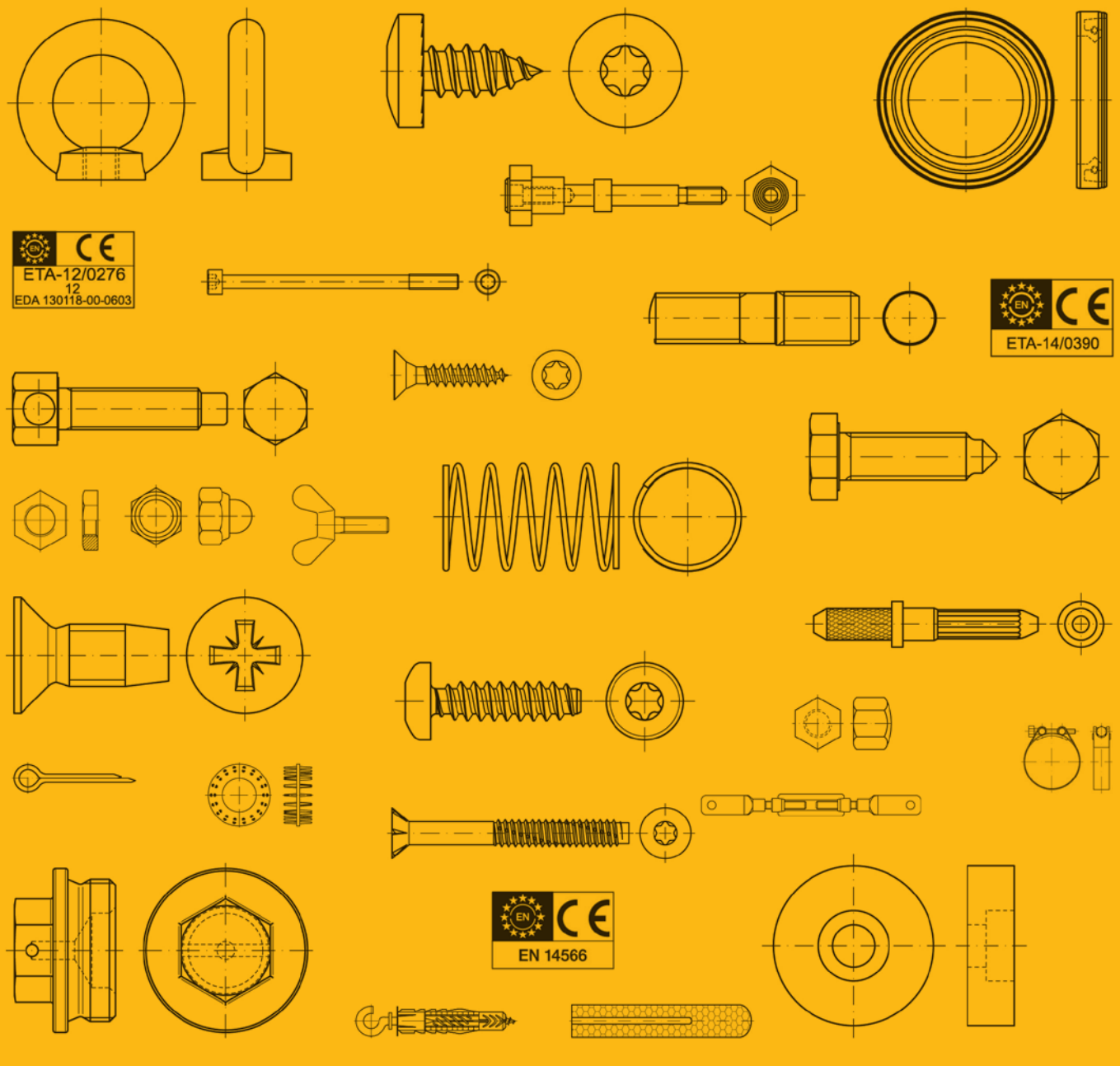
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