

JIS

ORIGINAL

JAPANESE INDUSTRIAL STANDARD

Taper Pipe Threads

JIS B 0203 - 1966

**Translated and Published
by
Japanese Standards Association**

Translation without guarantee
In the event of any doubt arising, the original
standard in Japanese is to be evidence

JAPANESE INDUSTRIAL STANDARD

J I S

Taper Pipe Threads

B 0203-1966
(Reaffirmed: 1976)1. Scope

This standard specifies taper pipe threads (1), and is applicable to threads (2) for pipes, screwed fittings, hydraulic instruments, etc., where pressure-tight joint on the threads is the main purpose.

Notes (1) Read as "kudayō neji" in Japanese.

(2) Shall not be applicable to threads of oil well pipes and other individually specified ones.

2. Classification

Taper pipe threads are classified into taper pipe external threads, taper pipe internal threads and parallel pipe internal threads (3).

Note (3) The parallel pipe internal threads specified in this standard are applied only to the taper pipe external threads, and the parallel pipe internal threads specified in JIS B 0202 differ in deviations.

3. Basic Profiles, Basic Sizes and Deviations

Basic profiles, basic sizes and deviations for taper pipe threads shall conform to the specifications in Table 1.

Reference Standards:

JIS B 0202 - Parallel Pipe Threads

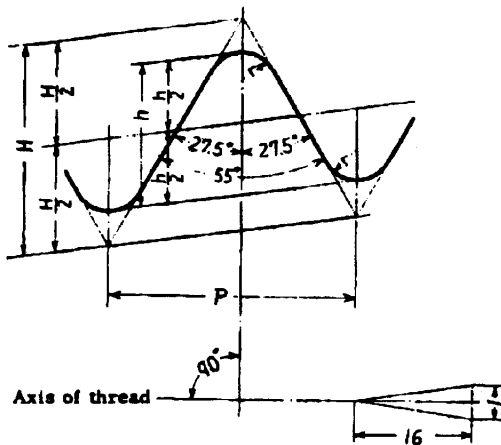
JIS B 0253 - Gauges for Taper Pipe Threads

JIS G 3452 - Carbon Steel Pipes for Ordinary Piping

ISO R 7 Pipe Threads for Gas List Tubes and Screwed Fittings where
Pressure-Tight Joints are Made on the Threads (1/8 inch to 6 inches).

Table 1 Basic Profiles, Basic Sizes and Deviations for Taper Pipe Threads

Basic Profile for Taper External and Internal Threads



Basic profile is represented by a heavy line.

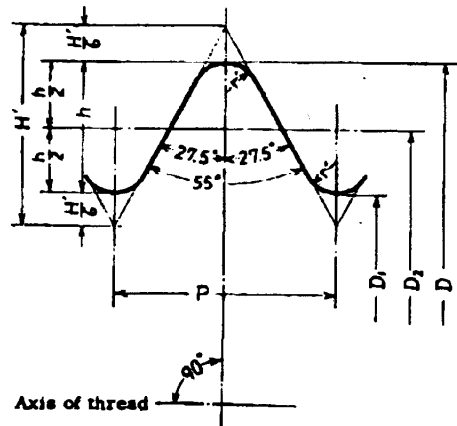
$$P = \frac{25.4}{n}$$

$$H = 0.960237 P$$

$$h = 0.640327 P$$

$$r = 0.137278 P$$

Basic Profile for Parallel Internal Threads



Basic profile is represented by a heavy line.

$$P = \frac{25.4}{n}$$

$$H' = 0.960491 P$$

$$h = 0.640327 P$$

$$r' = 0.137329 P$$

Fit between Taper External Thread and Taper Internal Thread or Parallel Internal Thread

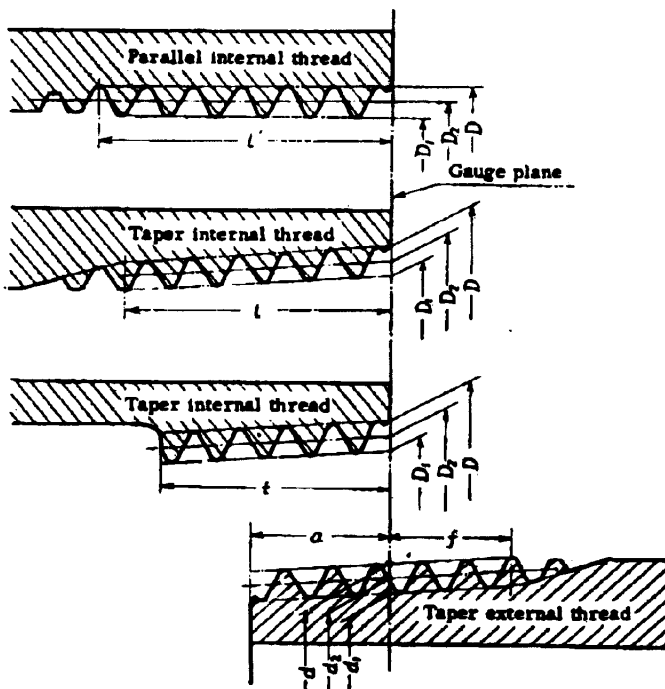


Table 1 (Cont'd)

Unit: mm

Designation	Thread			Diameter at gauge plane (basic)			Position of gauge plane			Length of useful thread, not less than:			Sizes for carbon steel pipes for ordinary piping (Ref.)		
	Number of threads (per 25.4 mm)	Pitch P (Ref.)	Height of thread	Radius	External thread			External thread		Internal thread		From pipe or pipe joint end, e			
					Major dia. d	Pitch dia. d ₂	Minor dia. d ₁	From pipe end	On pipe end	Devia- tions on D, D ₂ and D ₁ for parallel internal threads					
											Major dia. D			Pitch dia. D ₂	Minor dia. D ₁
PT 1/8	28	0.9071	0.581	0.12	9.728	9.147	8.566	3.97	0.91	1.13	2.5	6.2	7.4	10.5	2.0
PT 1/4	19	1.3368	0.856	0.18	13.157	12.301	11.445	6.01	1.34	1.67	3.7	9.4	11.0	13.8	2.3
PT 3/8	19	1.3368	0.856	0.18	16.662	15.806	14.950	6.35	1.34	1.67	3.7	9.7	11.4	17.3	2.3
PT 1/2	14	1.8143	1.162	0.25	20.955	19.793	18.631	8.16	1.81	2.27	5.0	12.7	15.0	21.7	2.8
PT 3/4	14	1.8143	1.162	0.25	26.441	25.279	24.117	9.53	1.81	2.27	5.0	14.1	16.3	27.2	2.8
PT 1	11	2.3091	1.479	0.32	33.249	31.770	30.291	10.39	2.31	2.89	6.4	16.2	19.0	34	3.2
PT 1 1/4	11	2.3091	1.479	0.32	41.910	40.431	38.952	12.70	2.31	2.89	6.4	18.5	21.4	42.7	3.5
PT 1 1/2	11	2.3091	1.479	0.32	47.803	46.324	44.845	12.70	2.31	2.89	6.4	18.5	21.4	48.6	3.5
PT 2	11	2.3091	1.479	0.32	59.614	58.135	56.656	15.88	2.31	2.89	7.5	22.8	25.7	60.5	3.8
PT 2 1/2	11	2.3091	1.479	0.32	75.184	73.705	72.226	17.46	3.46	3.46	9.2	26.7	30.2	76.3	4.2
PT 3	11	2.3091	1.479	0.32	87.884	86.405	84.926	20.64	3.46	3.46	9.2	29.9	33.3	89.1	4.2
PT 3 1/2	11	2.3091	1.479	0.32	100.330	98.851	97.372	22.23	3.46	3.46	9.2	31.5	34.9	101.6	4.2
PT 4	11	2.3091	1.479	0.32	113.030	111.551	110.072	25.40	3.46	3.46	10.4	35.8	39.3	114.3	4.5
PT 5	11	2.3091	1.479	0.32	138.430	136.951	135.472	28.58	3.46	3.46	11.5	40.1	43.6	139.8	4.5
PT 6	11	2.3091	1.479	0.32	163.830	162.351	160.872	28.58	3.46	3.46	11.5	40.1	43.6	165.2	5.0
PT 7	11	2.3091	1.479	0.32	189.230	187.751	186.272	34.93	5.08	5.08	14.0	48.9	54.0	190.7	5.3
PT 8	11	2.3091	1.479	0.32	214.630	213.151	211.672	38.10	5.08	5.08	14.0	52.1	57.2	216.3	5.8
PT 9	11	2.3091	1.479	0.32	240.030	238.551	237.072	38.10	5.08	5.08	14.0	52.1	57.2	241.8	6.2
PT 10	11	2.3091	1.479	0.32	265.430	263.951	262.472	41.28	5.08	5.08	14.0	55.2	60.3	267.4	6.6
PT 12	11	2.3091	1.479	0.32	316.230	314.751	313.272	41.28	6.35	6.35	17.5	58.7	65.1	318.5	6.9

Remarks 1. Symbol "PT" designating taper pipe threads may be omitted at need. Symbol "PS" shall be used for designating parallel internal threads mating with taper external threads, if necessary.

2. Centre line of a thread section shall be perpendicular to the axis of the thread, and pitch be measured axially.

3. "Useful length" means length where complete thread is machined, allowing some threads left pipe or joint surface on their crests. And chamfered portion on pipe or joint end is included to the useful length.

4. When "a", "f" and "f'" in this table can not be applied, they shall be specified in the individual standard of the joint.

5. The values specified for PT 1/8 - PT 6 coincide with those of ISO R 7.

PT = Rc
(old current)



B 0202-1966
Edition 5

Japanese Text

Established by Minister of International Trade and Industry

Date of Establishment: 1966-03-01

Date of Reaffirmation: 1973-10-01

Date of Public Notice in Official Gazette: 1973-10-18

Investigated by: Japanese Industrial Standards Committee
Technical Committee on Pipe Threads
Divisional Council on Machine Element

This English translation is published by:
Japanese Standards Association
1-24, Akasaka 4, Minato-ku
Tokyo 107 Japan
© JSA, 1976