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मानक

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Mazdoor Kisan Shakti Sangathan

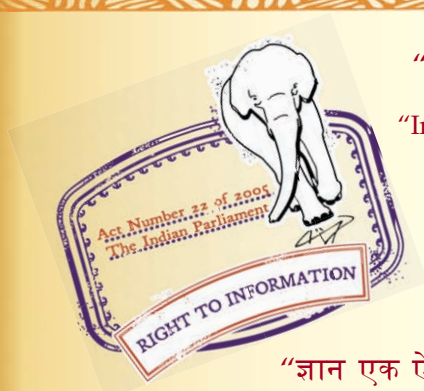
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

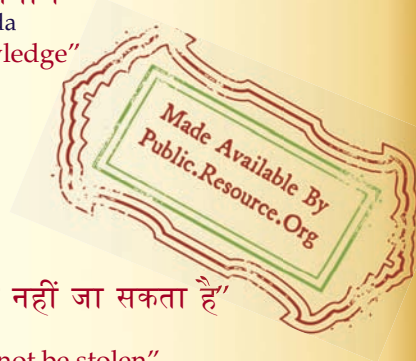
IS 15942 (2011): Technical drawings – symbolic presentation and indication of adhesive, fold and pressed joints [PGD 24: Drawings]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS 15942 : 2011
ISO 15785 : 2002

भारतीय मानक

तकनीकी ड्राइंगें — आसंजक, फोल्ड एवं प्रैस्ड जोड़ों
के सिम्बोलिक प्रस्तुतीकरण एवं संकेतन

Indian Standard

TECHNICAL DRAWINGS — SYMBOLIC
PRESENTATION AND INDICATION OF ADHESIVE,
FOLD AND PRESSED JOINTS

ICS 01.100.20

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

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NATIONAL FOREWORD

This Indian Standard which is identical with ISO 15785 : 2002 'Technical drawings — Symbolic presentation and indication of adhesive, fold and pressed joints' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Drawings Sectional Committee and approval of the Production and General Engineering Division Council.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminology and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 128-20 : 1996 Technical drawings — General principles of presentation — Part 20: Basic conventions for lines	IS 10714 (Part 20) : 2001 Technical drawings — General principles of presentation: Part 20 Basic conventions for lines	Identical
ISO 128-22 : 1999 Technical drawings — General principles of presentation — Part 22: Basic conventions and applications for leader lines and reference lines	IS 10714 (Part 22) : 2006 Technical drawings — General principles of presentation: Part 22 Basic conventions and applications for leader lines and reference lines	do
ISO 3098-0 : 1997 Technical product documentation — Lettering — Part 0: General requirements	IS 9609 (Part 0) : 2001 Technical product documentation — Lettering: Part 0 General requirements	do

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 128-24 : 1999	Technical drawings — General principles of presentation — Part 24: Lines on mechanical engineering drawings
ISO 129-1 : 2004	Technical drawings — Indication of dimensions and tolerances — Part 1: General principles
ISO 2553 : 1992	Welded, brazed and soldered joints — Symbolic representation on drawings
ISO 17659 : 2002	Welding — Multilingual terms for welded joins with illustrations

(Continued on third cover)

Indian Standard

**TECHNICAL DRAWINGS — SYMBOLIC
PRESENTATION AND INDICATION OF ADHESIVE,
FOLD AND PRESSED JOINTS**

1 Scope

This International Standard establishes rules for the symbolic presentation and indication of adhesive, fold and pressed joints in technical drawings.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 128-20, *Technical drawings — General principles of presentation — Part 20: Basic conventions for lines*

ISO 128-22, *Technical drawings — General principles of presentation — Part 22: Basic conventions and applications for leader lines and reference lines*

ISO 128-24:1999, *Technical drawings — General principles of presentation — Part 24: Lines on mechanical engineering drawings*

ISO 129-1:—¹⁾, *Technical drawings — Indication of dimensions and tolerances — Part 1: General principles*

ISO 2553, *Welded, brazed and soldered joints — Symbolic representation on drawings*

ISO 3098-0:1997, *Technical product documentation — Lettering — Part 0: General requirements*

ISO 17659:2002, *Welding — Multilingual terms for welded joints with illustrations*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 128-22 and the following apply.

3.1 joint

junction of workpieces or edges of workpieces that are to be joined or have been joined

[ISO 17659:2002, definition 3.1]

1) To be published. (Revision of ISO 129:1985)

3.1.1

adhesive joint

joint of two or more parts of similar or different materials made using adhesives

3.1.2

fold joint

joint of two edges of surfaces of similar or different materials made by catching and coupling

3.1.3

pressed joint

joint of two or more parts of sheet materials made by simultaneous deformation from two sides by means of (cylindrical, rectangular etc.) tools

4 Graphical symbols

4.1 General

The joints specified in this International Standard are identified by the symbols shown in Figures 1 to 4.

The manner of presentation and the dimensions of these symbols are given in Annex A.

NOTE The symbols shown in Figures 1 to 3 are identical to those given in ISO 2553 for joints of identical configuration.

4.2 Adhesive joints

Adhesive joints shall be identified by the symbols shown in Figures 1 and 2.

A surface joint shall be identified by the symbol shown in Figure 1.



Figure 1 — Symbol for surface joint

An inclined joint shall be identified by the symbol shown in Figure 2.



Figure 2 — Symbol for inclined joint

4.3 Fold joint

A fold joint shall be identified by the symbol shown in Figure 3.

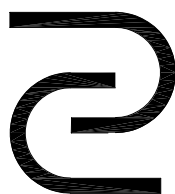


Figure 3 — Symbol for fold joint

4.4 Pressed joint

A pressed joint shall be identified by the symbol shown in Figure 4.



Figure 4 — Symbol for pressed joint

5 Indication of joints in drawings

The symbols shall be drawn using a continuous wide line in accordance with ISO 128-24 (see Figure 5 for an example), supplemented by the applicable information in accordance with ISO 2553.

The distance between the graphical symbol and the reference line shall be at least $2d$ (for d , see Annex A).

The leader line and reference line shall be drawn using a continuous narrow line in accordance with ISO 128-22.

The leader line shall end in an arrow (see Figure 5) and the reference line may begin with a fork (see Figure 6), where additional requirements may be indicated (see Figure 7).

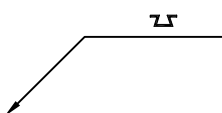


Figure 5 — Symbol with reference line and leader line

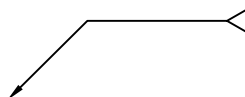


Figure 6 — Reference line with fork

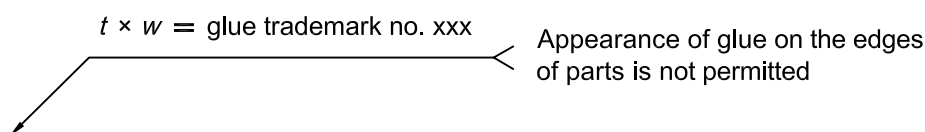


Figure 7 — Additional information with reference line

In addition to the symbol, the following may be indicated with the reference line, as necessary:

- a) the dimensions of the cross-section of the joint (width and height, punch diameter, depth of punching etc.), placed at left of symbol;
- b) other characteristics, for example, designations of the material, placed at right of symbol;
- c) additional requirements for the joint, placed in the fork (see Figure 7).

The dimensions that locate the joint shall be indicated in accordance with ISO 129-1.

6 Basic conventions for symbolic presentation and indication of joints

6.1 Adhesive joints

Adhesive joints shall be shown without an indication of the adhesive, as shown in Figures 8 and 9.

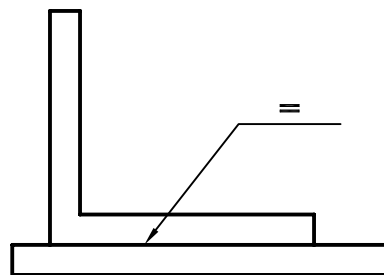


Figure 8 — Indication of surface joint

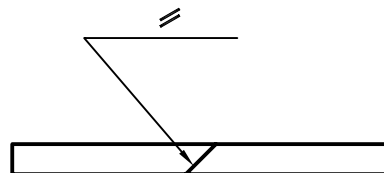


Figure 9 — Indication of inclined joint

To indicate a continuous adhesive joint formed around the periphery of a part, a circle shall be added at the intersection between the leader and reference lines in accordance with ISO 128-22 (see Figure 10).

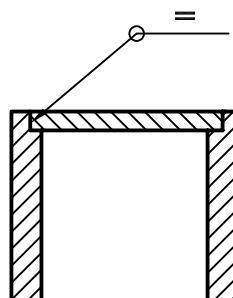


Figure 10 — Indication of joint around periphery

An adhesive joint limited to an area shall be indicated using a type 05.1.8 long-dashed double-dotted narrow line in accordance with ISO 128-24:1999 (see Figure 11).

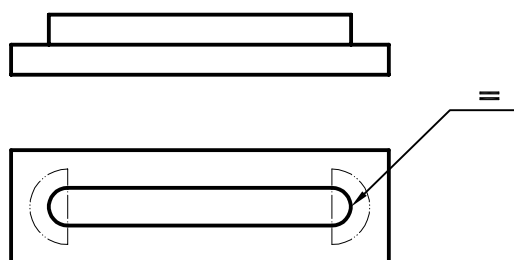


Figure 11 — Indication of limited area

6.2 Fold joints

Fold joints shall be presented in accordance with the general principles given in ISO 128-20, ISO 128-22 and ISO 128-24.

6.3 Pressed joints

If a joint is made by mechanical pressing in more than one place, the dimensions specifying the locations of the pressings shall be shown on the presentation of the parts being jointed (see Figure 12).

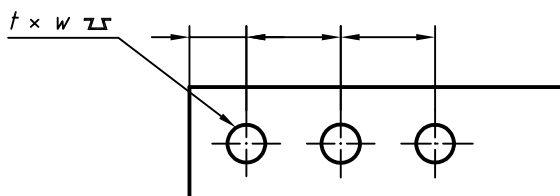
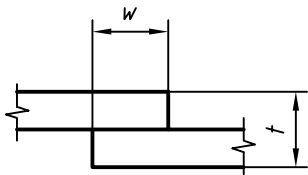
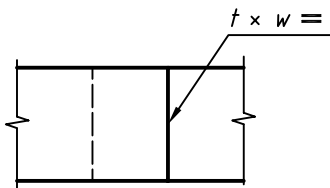
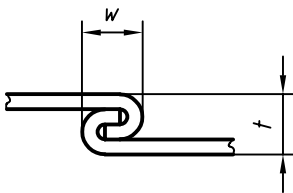
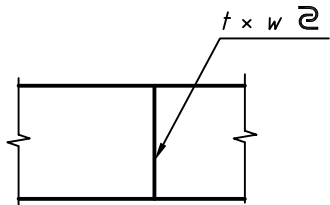
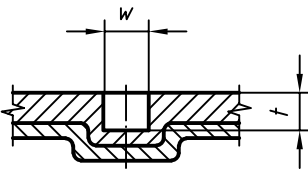
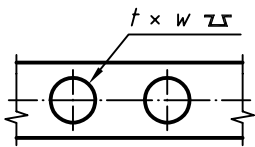


Figure 12 — Indication of pressed joint

7 Designation examples

Examples of designations are given in Table 1.

Table 1 — Designation examples

Type of connection	Presentation	Designation
Adhesive		
Fold		
Pressed		

Annex A (normative)

Presentation and dimensions of graphical symbols

The presentation and dimensions of the graphical symbols shall be as shown in Figures A.1 to A.4.

The line width, d , for both graphical symbols and upright letters shall be

$$d = 0,1 h$$

where h is the lettering height according to ISO 3098-0:1997.

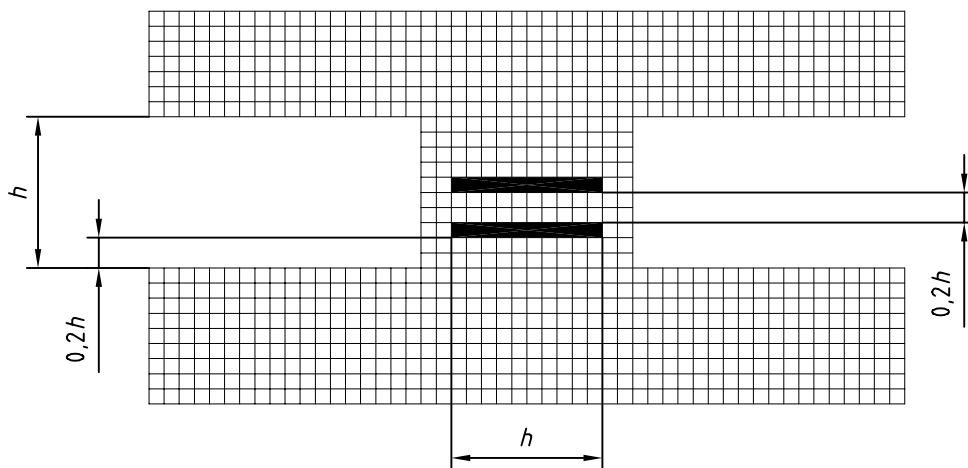


Figure A.1 — Adhesive joint — Surface joint

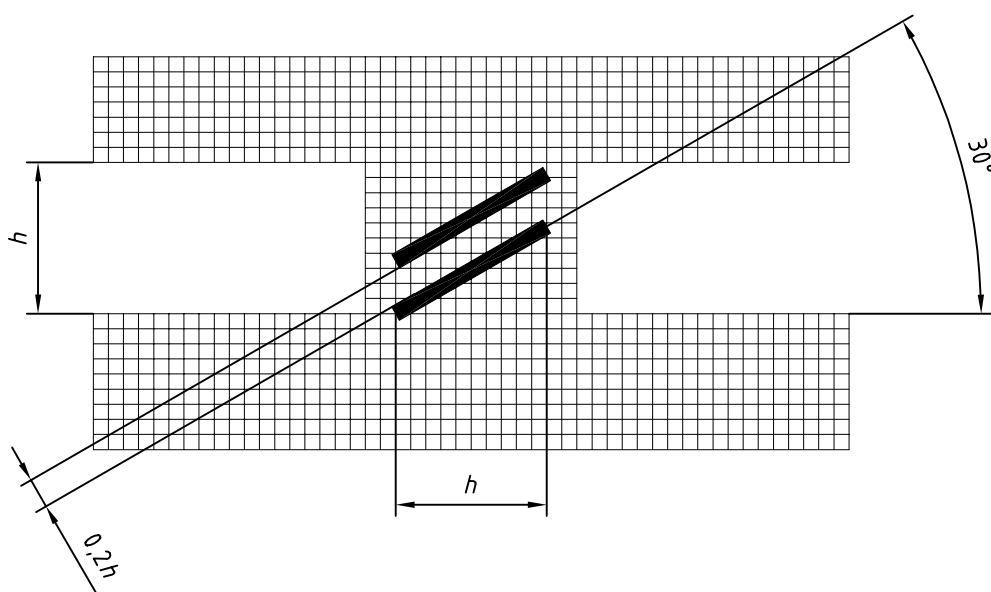


Figure A.2 — Adhesive joint — Inclined joint

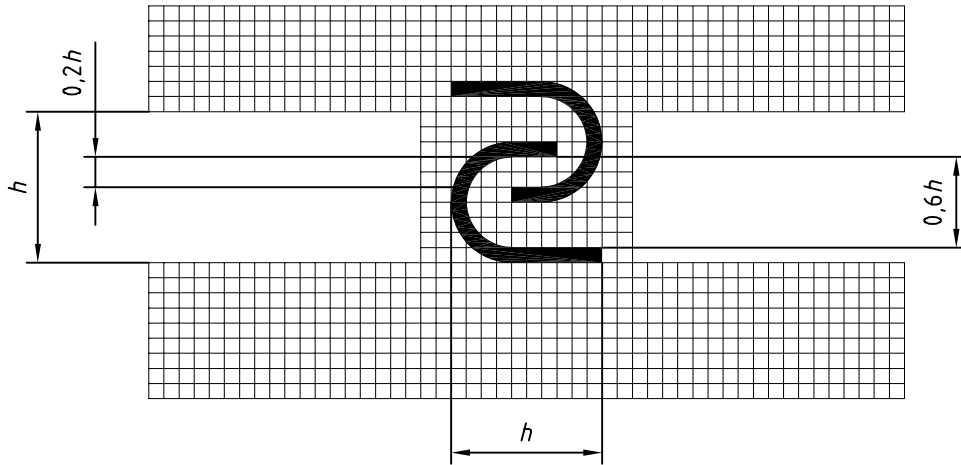


Figure A.3 — Fold joint

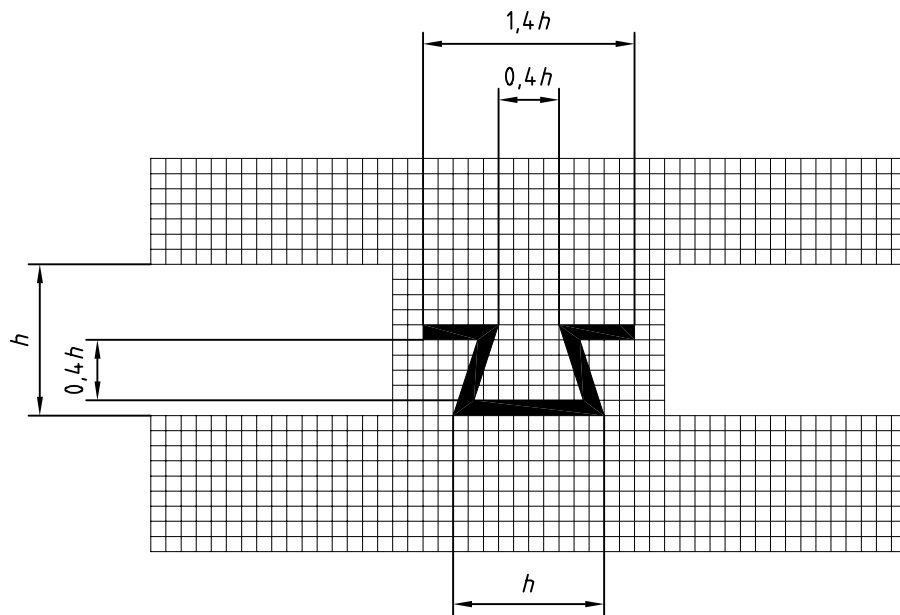


Figure A.4 — Pressed joint

(Continued from second cover)

Annex A forms a normative part of this Indian Standard.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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Amendments Issued Since Publication

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