

INTERNATIONAL STANDARD

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2553

Third edition
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Welded, brazed and soldered joints — Symbolic representation on drawings

Joints soudés et brasés — Représentations symboliques sur les dessins



Reference number
ISO 2553:1992(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 2553 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Sub-Committee SC 7, *Representation and terms*.

This third edition cancels and replaces the second edition (ISO 2553:1984), which has been technically revised to include ISO 2553/DAD 1:1987.

Annexes A and B of this International Standard are for information only.

Welded, brazed and soldered joints — Symbolic representation on drawings

1 Scope

This International Standard prescribes the rules to be applied for the symbolic representation of welded, brazed and soldered joints on drawings.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 128:1982, *Technical drawings — General principles of presentation*.

ISO 544:1989, *Filler materials for manual welding — Size requirements*.

ISO 1302:1978, *Technical drawings — Method of indicating surface texture on drawings*.

ISO 2560:1973, *Covered electrodes for manual arc welding of mild steel and low alloy steel — Code of symbols for identification*.

ISO 3098-1:1974, *Technical drawings — Lettering — Part 1: Currently used characters*.

ISO 3581:1976, *Covered electrodes for manual arc welding of stainless and other similar high alloy steels — Code of symbols for identification*.

ISO 4063:1990, *Welding, brazing, soldering and braze welding of metals — Nomenclature of processes and*

reference numbers for symbolic representation on drawings.

ISO 5817:1992, *Arc-welded joints in steel — Guidance on quality levels for imperfections*.

ISO 6947:1990, *Welds — Working positions — Definitions of angles of slope and rotation*.

ISO 8167:1989, *Projections for resistance welding*.

ISO 10042:—¹⁾, *Arc-welded joints in aluminium and its weldable alloys — Guidance on quality levels for imperfections*.

3 General

3.1 Joints may be indicated with the general recommendations for technical drawings. However, for the purpose of simplification, it is advisable to adopt, for usual joints, the symbolic representation described in this International Standard.

3.2 The symbolic representation shall give clearly all necessary indications regarding the specific joint to be obtained without over-burdening the drawing with notes or showing an additional view.

3.3 This symbolic representation includes an elementary symbol which may be completed by

- a supplementary symbol;
- a means of showing dimensions;
- some complementary indications (particularly for workshop drawings).

3.4 In order to simplify the drawings as much as possible it is recommended that references be made to specific instructions or particular specifications giving all details of the preparation of edges to be

1) To be published.

welded, brazed and soldered and/or welding, brazing and soldering procedures, rather than showing these indications on the drawings of the welded parts.

If there are no such instructions, the dimensions relating to the preparation of the edges to be welded, brazed and soldered and/or welding, brazing and soldering procedures can be close to the symbol.

4 Symbols

4.1 Elementary symbols

The various categories of joints are characterized by a symbol which, in general, is similar to the shape of the weld to be made.

The symbol shall not be taken to prejudice the process to be employed.

The elementary symbols are shown in table 1.

If the joint should not be specified but only be represented that the joint will be welded, brazed or soldered, the following symbol shall be used:

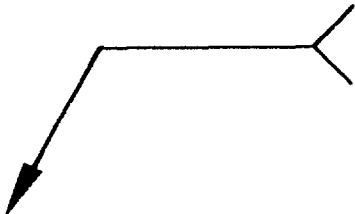




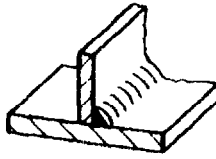



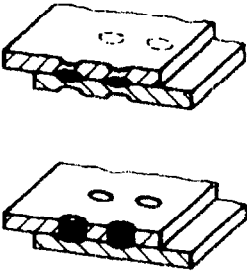

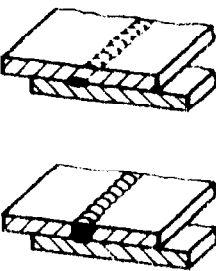

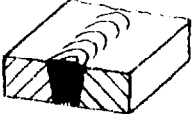



Table 1 — Elementary symbols

No.	Designation	Illustration	Symbol
1	Butt weld between plates with raised edges ¹⁾ ; edge flanged weld /USA/ (the raised edges being melted down completely)		
2	Square butt weld		
3	Single-V butt weld		
4	Single-bevel butt weld		
5	Single-V butt weld with broad root face		
6	Single-bevel butt weld with broad root face		
7	Single-U butt weld (parallel or sloping sides)		

No.	Designation	Illustration	Symbol
8	Single-J butt weld		
9	Backing run; back or backing weld /USA/		
10	Fillet weld		
11	Plug weld; plug or slot weld /USA/		
12	Spot weld		
13	Seam weld		
14	Steep-flanked single-V butt weld		
15	Steep-flanked single-bevel butt weld	