



NSAI
Standards

Irish Standard
I.S. EN ISO 2553:2013

Welding and allied processes - Symbolic representation on drawings - Welded joints (ISO 2553:2013)

I.S. EN ISO 2553:2013

Incorporating amendments/corrigenda/National Annexes issued since publication:

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Welding and allied processes - Symbolic representation on drawings - Welded joints (ISO 2553:2013)

Soudage et techniques connexes - Représentations symboliques sur les dessins - Joints soudés (ISO 2553:2013)

Schweißen und verwandte Prozesse - Symbolische Darstellung in Zeichnungen - Schweiß- und Lötverbindungen (ISO 2553:2013)

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Foreword

This document (EN ISO 2553:2013) has been prepared by Technical Committee ISO/TC 44 “Welding and allied processes” in collaboration with Technical Committee CEN/TC 121 “Welding”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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INTERNATIONAL STANDARD

**ISO
2553**

Fourth edition
2013-12-15

Welding and allied processes — Symbolic representation on drawings — Welded joints

*Soudage et techniques connexes — Représentations symboliques sur
les dessins — Joints soudés*



Reference number
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ISO 2553:2013(E)

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC *Welding and allied processes*, Subcommittee SC 7, *Representation and terms*.

This fourth edition cancels and replaces the third edition (ISO 2553:1992), which has been technically revised.

Requests for official interpretations of any aspect of this standard should be directed to the Secretariat of ISO/TC 44/SC 7 via your national standards body, a complete listing of which can be found at www.iso.org.

Introduction

The symbols given in this standard can be used on technical drawings for welded components. Design-related specifications, such as type, thickness, and length of weld, weld quality, surface treatment, filler material and testing specifications, can be indicated directly at the weld by means of the symbols given in this standard. The principals of this standard can be applied to brazed and soldered joints.

Clarity may be improved by references to collective information in the drawings or references to additional design-related documents.

Preparation for production may require detailed welding-related planning. The type of representation described in this standard can be used for this purpose and complemented by additional production-related information (e.g. welding position, welding process, WPS, weld preparation, preheating ...). This information is often given in production-related documents, such as work schedules or welding procedure specifications (WPS).

Technical drawings are intended to clearly and understandably illustrate design-related specifications. Welding-related drawings should be prepared and checked by specially trained personnel (see ISO 14731).

This edition of ISO 2553 recognizes that there are two different approaches in the global market to designate the arrow side and other side on drawings, and allows for either to be used in isolation, to suit a particular market need. Application of either approach identifies a welding symbol in accordance with this International Standard. The approach in accordance with system A is based on ISO 2553:1992. The approach in accordance with system B is based upon standards used by Pacific Rim countries.

Welding and allied processes — Symbolic representation on drawings — Welded joints

1 Scope

This International Standard defines the rules to be applied for symbolic representation of welded joints on technical drawings. This may include information about the geometry, manufacture, quality and testing of the welds. The principles of this standard may also be applied to soldered and brazed joints.

It is recognized that there are two different approaches in the global market to designate the arrow side and other side on drawings. In this International Standard:

- clauses, tables and figures which carry the suffix letter “A” are applicable only to the symbolic representation system based on a dual reference line;
- clauses, tables and figures which carry the suffix letter “B” are applicable only to the symbolic representation system based on a single reference line;
- clauses, tables and figures which do not have the suffix letter “A” or “B” are applicable to both systems.

The symbols shown in this International Standard may be combined with other symbols used on technical drawings, for example to show surface finish requirements.

An alternative designation method is presented which may be used to represent welded joints on drawings by specifying essential design information such as weld dimensions, quality level, etc. The joint preparation and welding process(es) are then determined by the production unit in order to meet the specified requirements.

NOTE Examples given in this International Standard, including dimensions, are illustrative only and are intended to demonstrate the proper application of principles. They are not intended to represent good design practices, or to replace code or specification requirements.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 128 (all parts), *Technical drawings — General principles of presentation*

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

ISO 1302, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

ISO 3098-2, *Technical product documentation — Lettering — Part 2: Latin alphabet, numerals and marks*

ISO 4063, *Welding and allied processes — Nomenclature of processes and reference numbers*

ISO/TR 25901:2007, *Welding and related processes — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/TR 25901 and the following apply.

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