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NSAI Standards

Irish Standard
I.S. EN ISO 8167:2021

Resistance welding - Embossed projection welding - Projections for resistance welding (ISO 8167:2021)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 8167

July 2021

ICS 25.160.30

Supersedes EN 28167:1992

English Version

Resistance welding - Embossed projection welding - Projections for resistance welding (ISO 8167:2021)

Soudage par résistance - Soudage par bossage embouti - Bossages pour le soudage par résistance (ISO 8167:2021)

Widerstandsschweißen - Buckelschweißungen mit geprägten Buckeln - Buckel zum Widerstandsschweißen (ISO 8167:2021)

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European foreword

This document (EN ISO 8167:2021) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 “Welding and allied processes” 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of an identical text or by endorsement, at the latest by January 2022, and conflicting national standards shall be withdrawn at the latest by January 2022.

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INTERNATIONAL STANDARD

ISO 8167

Second edition
2021-06

Resistance welding — Embossed projection welding — Projections for resistance welding

Soudage par résistance — Soudage par bossage embouti — Bossages pour le soudage par résistance

Reference number
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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.

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 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 8167:1989), which has been technically revised.

The main changes compared to the previous edition are as follows:

— Clause 3 has been updated;

— Annexes B and C have been revised;

— the document has been technically revised to the state of the art.

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Resistance welding — Embossed projection welding — Projections for resistance welding

1 Scope

This document specifies the geometries and dimensions of projections for embossed projection welding. Tools to make the projections are also included in Annex B.

The projections are used on hot-rolled, cold-rolled, uncoated and coated steels, stainless steels and nickel alloys for conventional welding quality up to 3 mm thickness, as single projections, in multiples or as a group of multiples.

Any solid projections are not included in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 17677-1, *Resistance welding — Vocabulary — Part 1: Spot, projection and seam welding*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17677-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
spherical projection
projection with circular protrusion (see Figure 1)

Note 1 to entry: The type code for spherical projection is SP.

3.2
ring-shaped projection
annular projection
projection with ring-shaped protrusion (see Figure 2)

Note 1 to entry: The type code for ring-shaped projection is RP.

Note 2 to entry: In the United States, a kind of solid projection is called “annular projection”.

3.3
elongated projection
projection with oval protrusion (see Figure 3)

Note 1 to entry: The type code for elongated projection is EP.

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