

STN	Odporové zvarovanie. Zariadenie na odporové zvarovanie. Mechanické a elektrické požiadavky (ISO 669: 2016).	STN EN ISO 669 05 2021
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Resistance welding - Resistance welding equipment - Mechanical and electrical requirements (ISO 669:2016)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/16

Obsahuje: EN ISO 669:2016, ISO 669:2016

123205

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2016
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD

EN ISO 669

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2016

ICS 25.160.30

English Version

**Resistance welding - Resistance welding equipment -
Mechanical and electrical requirements (ISO 669:2016)**

Soudage par résistance - Matériel de soudage par
résistance - Exigences mécaniques et électriques (ISO
669:2016)

Widerstandsschweißen -
Widerstandsschweißeinrichtungen - Mechanische und
elektrische Anforderungen (ISO 669:2016)

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 669:2016) 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of an identical text or by endorsement, at the latest by September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

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STN EN ISO 669: 2016

INTERNATIONAL STANDARD

ISO 669

Third edition
2016-02-15

Resistance welding — Resistance welding equipment — Mechanical and electrical requirements

*Soudage par résistance — Matériel de soudage par résistance —
Exigences mécaniques et électriques*



Reference number
ISO 669:2016(E)

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Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
3.1 Mechanical parts of spot, projection, and seam welding equipment.....	2
3.2 Mechanical parts of upset and flash welding equipment.....	8
3.3 Static mechanical characteristics.....	11
3.4 Electrical and thermal characteristics.....	14
3.5 Pneumatic and hydraulic characteristics.....	16
4 Symbols and abbreviated terms	16
5 Physical environment and operating conditions	18
5.1 General.....	18
5.2 Ambient air temperature.....	18
5.3 Liquid cooling medium.....	18
5.4 Humidity.....	18
5.5 Altitude.....	19
5.6 Transportation and storage.....	19
6 Test conditions	19
6.1 General.....	19
6.2 Environmental conditions.....	19
6.3 Measuring instruments.....	19
7 Rated no load voltage at the output	20
7.1 General.....	20
7.2 a.c. no load voltage (U_{20}).....	20
7.3 d.c. no load voltage (U_{2d}).....	20
8 Maximum short circuit current	20
8.1 General.....	20
8.2 Spot and seam welding equipment.....	21
8.3 Projection welding equipment.....	21
8.4 Upset and flash welding equipment.....	22
9 Thermal rating	23
9.1 General.....	23
9.2 Thermal test.....	23
10 Cooling liquid circuit (liquid cooled welding equipment)	23
11 Static mechanical characteristics	24
11.1 General.....	24
11.2 Spot and projection welding equipment.....	24
11.2.1 General.....	24
11.2.2 Eccentricity.....	25
11.2.3 Angular deflection.....	26
11.2.4 Radial deflection.....	26
11.2.5 Axial deflection.....	27
11.2.6 Machine stiffness.....	27
11.2.7 Parallelism of top and bottom platen.....	27
11.2.8 Perpendicularity in platen movement, δ_4	28
11.3 Seam welding equipment.....	29
11.3.1 General.....	29
11.3.2 Eccentricity.....	29
11.3.3 Angular deflection.....	30
11.4 Upset welding equipment.....	30

11.4.1	General.....	30
11.4.2	Angular deflection.....	31
12	Rating plate.....	31
12.1	General.....	31
12.2	Description.....	32
12.3	Tolerances.....	34
13	Instruction manual.....	34
Annex A (informative) Examples of rating plates.....		36
Bibliography.....		38

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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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 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*.

This third edition cancels and replaces the second edition (ISO 669:2000), which has been technically revised.

Resistance welding — Resistance welding equipment — Mechanical and electrical requirements

1 Scope

This International Standard defines and specifies certain identified electrical and mechanical characteristics of equipment used for

- resistance spot welding,
- projection welding,
- resistance seam welding,
- upset welding¹⁾, and
- flash welding²⁾.

This International Standard specifies the information to be given in equipment specifications and the test methods to be used for measuring those characteristics.

Not all requirements apply to all types of equipment.

The following types of power sources are included:

- single phase with alternating welding current;
- single phase with rectified welding current by rectification of the output of the welding transformer;
- single phase with inverter welding transformer;
- three phase with rectified welding current by rectification of the output of the welding transformer;
- three phase with a current rectification in the input of the welding transformer (sometimes called frequency convertor);
- three phase with inverter welding transformers.

This International Standard does not apply to welding transformers that are separate from the equipment.

NOTE Safety requirements for resistance welding equipment are covered by IEC 62135-1.

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 5826:2014, *Resistance welding equipment — Transformers — General specifications applicable to all transformers*

ISO 17657-2, *Resistance welding — Welding current measurement for resistance welding — Part 2: Welding current meter with current sensing coil*

1) Often referred to by the non-preferred term, butt welding.

2) Often referred to by the non-preferred term, flash butt welding.

ISO 669:2016(E)

ISO 17657-5, *Resistance welding — Welding current measurement for resistance welding — Part 5: Verification of welding current measuring system*

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

IEC 62135-1, *Resistance welding equipment — Part 1: Safety requirements for design, manufacture and installation*

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