

<b>STN</b>	<b>Zváranie Kalibrovanie, overovanie a osvedčenie zariadení používaných na zváranie vrátane pridružených činností (ISO 17662: 2025)</b>	<b>STN EN ISO 17662</b>  05 2009
------------	---	--

Welding - Calibration, verification and validation of equipment used for welding, including ancillary activities (ISO 17662:2025)

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. 01/26

Obsahuje: EN ISO 17662:2025, ISO 17662:2025

Oznámením tejto normy sa ruší

STN EN ISO 17662 (05 2009) zo septembra 2016

**141932**

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2026

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 17662**

September 2025

ICS 25.160.30

Supersedes EN ISO 17662:2016

English Version

**Welding - Calibration, verification and validation of  
equipment used for welding, including ancillary activities  
(ISO 17662:2025)**

Soudage - Étalonnage, vérification et validation du  
matériel utilisé pour le soudage, y compris pour les  
procédés connexes (ISO 17662:2025)

Schweißen - Kalibrierung, Verifizierung und  
Validierung von Einrichtungen einschließlich  
ergänzender Tätigkeiten, die beim Schweißen  
verwendet werden (ISO 17662:2025)

This European Standard was approved by CEN on 12 September 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN ISO 17662:2025 (E)**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## **European foreword**

This document (EN ISO 17662:2025) 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 AFNOR.

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 March 2026, and conflicting national standards shall be withdrawn at the latest by March 2026.

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

This document supersedes EN ISO 17662:2016.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

## **Endorsement notice**

The text of ISO 17662:2025 has been approved by CEN as EN ISO 17662:2025 without any modification.



# International Standard

**ISO 17662**

## **Welding — Calibration, verification and validation of equipment used for welding, including ancillary activities**

*Soudage — Étalonnage, vérification et validation du matériel  
utilisé pour le soudage, y compris pour les procédés connexes*

**Third edition  
2025-09**

## ISO 17662:2025(en)



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

**ISO 17662:2025(en)****Contents**

Page

<b>Foreword</b>	<b>iv</b>
<b>1 Scope</b>	<b>1</b>
<b>2 Normative references</b>	<b>1</b>
<b>3 Terms and definitions</b>	<b>1</b>
<b>4 General requirements</b>	<b>3</b>
4.1 General	3
4.2 Frequency	4
4.3 Requirements	4
4.4 Process data	5
4.5 Material properties	5
<b>5 Process data common to more than one welding/brazing process</b>	<b>5</b>
5.1 Process data common to all welding/brazing processes	5
5.2 Requirements specific to several welding/brazing processes	7
5.3 Requirements specific to arc welding (group 1)	7
<b>6 Metal arc welding without gas protection (group 11)</b>	<b>9</b>
<b>7 Plasma arc welding (group 15)</b>	<b>9</b>
<b>8 Resistance welding (groups 21, 22, 23, 24, and 25)</b>	<b>10</b>
<b>9 Gas welding (group 3)</b>	<b>11</b>
<b>10 Friction welding (group 42)</b>	<b>11</b>
<b>11 Laser beam welding (group 52)</b>	<b>12</b>
<b>12 Electron beam welding (group 51)</b>	<b>13</b>
<b>13 Stud welding (group 78)</b>	<b>14</b>
<b>14 Brazing and soldering (group 9)</b>	<b>15</b>
14.1 General	15
14.2 Manual and mechanized flame brazing (group 912)	16
14.3 Induction brazing (group 916)	16
14.4 Resistance brazing (group 918)	16
14.5 Furnace brazing in protective atmosphere (group 921)	17
14.6 Vacuum brazing (group 922)	18
14.7 Furnace brazing in open atmosphere (group 921)	19
14.8 Dip-bath brazing (group 923), salt-bath brazing (group 924) and flux-bath brazing (group 925)	20
14.9 Infrared soldering (group 941)	20
<b>15 Preheat and/or post weld heat treatment</b>	<b>21</b>
15.1 Preheat	21
15.2 Post weld heat treatment	21
<b>16 Post weld cleaning</b>	<b>22</b>
<b>17 Flame cutting (group 81) and other ancillary processes</b>	<b>22</b>
<b>Annex A (informative) Details for stud welding</b>	<b>23</b>
<b>Annex B (informative) Acceptance testing of equipment</b>	<b>26</b>
<b>Annex C (informative) Parties involved</b>	<b>27</b>
<b>Bibliography</b>	<b>28</b>



**ISO 17662:2025(en)****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 document 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](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 10, *Quality management in the field of welding*, 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 third edition cancels and replaces the second edition (ISO 17662:2016), which has been technically revised.

The main changes are as follows:

- [Clause 13](#) (Stud welding) technically revised;
- [Clause 14](#) (Brazing) soldering added;
- bibliography updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html). Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: <https://committee.iso.org/sites/tc44/home/interpretation.html>.

# Welding — Calibration, verification and validation of equipment used for welding, including ancillary activities

## 1 Scope

This document specifies requirements for calibration, verification and validation of equipment used for:

- control of process variables during fabrication,
- control of the properties of equipment used for welding or welding allied processes,

where the resulting output cannot be readily or economically documented by subsequent monitoring, inspection and testing. This involves process variables influencing the fitness-for-purpose and in particular the safety of the fabricated product.

**NOTE** This document is based on the lists of process variables stated in International Standards for specification of welding procedures, in particular, but not exclusively in the ISO 15609 series. Future revisions of these International Standards can result in addition or deletion of parameters considered necessary to specify.

Some guidance is, in addition, given in [Annex B](#) for requirements for calibration, verification and validation as part of acceptance testing of equipment used for welding or allied processes.

This document does not specify requirements to calibrate, verify and validate as part of inspection, testing, non-destructive testing or measuring of final welded products performed in order to verify product conformance.

This document applies only to calibration, verification and validation of equipment for use in production or on site.

This document does not apply to the manufacture and installation of equipment for welding. Requirements for new equipment are formulated in directives and product codes (standards), as necessary.

[Annex C](#) provides information when other parties are involved in calibration, verification and validation activities.

## 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 669, *Resistance welding — Resistance welding equipment — Mechanical and electrical requirements*

ISO 5171, *Gas welding equipment — Pressure gauges used in welding, cutting and allied processes*

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**