

Welding - Quality requirements for heat treatment in connection with welding and allied processes (ISO 17663:2023)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 17663:2023 sisaldab Euroopa standardi EN ISO 17663:2023 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 17663:2023 consists of the English text of the European standard EN ISO 17663:2023.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.05.2023.	Date of Availability of the European standard is 10.05.2023.
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ICS 25.160.01

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English Version

**Welding - Quality requirements for heat treatment in
connection with welding and allied processes (ISO
17663:2023)**

Soudage - Exigences de qualité relatives au traitement
thermique associé au soudage et aux techniques
connexes (ISO 17663:2023)

Schweißen - Qualitätsanforderungen zur
Wärmebehandlung beim Schweißen und bei
verwandten Prozessen (ISO 17663:2023)

This European Standard was approved by CEN on 4 May 2023.

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

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European foreword

This document (EN ISO 17663:2023) 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of an identical text or by endorsement, at the latest by November 2023, and conflicting national standards shall be withdrawn at the latest by November 2023.

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 17663:2009.

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 17663:2023 has been approved by CEN as EN ISO 17663:2023 without any modification.

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Review of requirements and technical review	2
4.1 General	2
4.2 Review of requirements	2
4.3 Technical review	3
5 Subcontracting	3
6 Personnel	3
7 Inspection and testing	4
7.1 General	4
7.2 Non-destructive testing	4
7.3 Destructive testing	4
8 Equipment for heat treatment	4
8.1 Production and testing equipment	4
8.2 Description of facilities	4
8.3 Suitability of equipment	5
8.4 Verification of heat treatment equipment	5
8.4.1 General	5
8.4.2 Measurement of the uniformity of furnace temperature	5
8.4.3 Validation of setting and recording devices	6
8.5 New equipment	6
8.6 Maintenance	6
9 Heat treatment activities	6
9.1 General	6
9.2 Heat treatment parameters	6
9.3 Heat treatment procedure specification	7
9.4 Work instructions	7
9.5 Number of measuring points	7
9.6 Guidance for local post-weld heat treatment of welds in pipe work	8
10 Heat treatment record	9
11 Non-conformity and corrective actions	9
12 Quality records	10
Annex A (informative) Example of local heat treatment	11
Bibliography	12

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 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.

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 second edition cancels and replaces the first edition (ISO 17663:2009), which has been technically revised.

The main changes are as follows:

- normative references updated;
- arc stud welding added in [9.5](#);
- [Figure A.1](#) revised.

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. 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 — Quality requirements for heat treatment in connection with welding and allied processes

1 Scope

This document provides quality requirements for heat treatment in air or controlled atmospheres carried out in workshops and on site in connection with welding and forming. It applies mainly to ferritic steels but can be used for other materials as appropriate.

This document provides guidance for manufacturers that perform heat treatment or produce heat-treated products or components. This document can also be used as a basis for assessing the manufacturer in respect to its heat treatment capability.

The fulfilment of a requirement can be waived where justification can be provided that a specific requirement is not applicable to a specific process. This document is intended to be a flexible framework to provide:

- specific requirements for heat treatment by manufacturers in order to have a quality system in accordance with ISO 9001;
- specific requirements for heat treatment in specifications which require the manufacturer to have a quality system other than ISO 9001;
- specific guidance for a manufacturer developing a quality control system for heat treatment;
- specific guidance for post-weld heat treatment for manufacturers adopting ISO 3834-2 or ISO 3834-3;
- detailed requirements for specifications, regulations or product standards that require control of heat treatment 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 4885, *Ferrous materials — Heat treatments — Vocabulary*

ISO 13916, *Welding — Measurement of preheating temperature, interpass temperature and preheat maintenance temperature*

IEC 60584-1, *Thermocouples — Part 1: EMF specifications and tolerances*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4885 and ISO 13916 and the following apply.

ISO and IEC maintain terminology 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/>