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Non-destructive testing of welds - Ultrasonic testing -
Characterization of discontinuities in welds (ISO
23279:2017)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 23279:2017 sisaldab Euroopa standardi EN ISO 23279:2017 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 23279:2017 consists of the English text of the European standard EN ISO 23279:2017.
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.
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ICS 25.160.40

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EUROPEAN STANDARD

EN ISO 23279

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2017

ICS 25.160.40

Supersedes EN ISO 23279:2010

English Version

Non-destructive testing of welds - Ultrasonic testing -
Characterization of discontinuities in welds (ISO
23279:2017)

Essais non destructifs des assemblages soudés -
Contrôle par ultrasons - Caractérisation des
discontinuités dans les assemblages soudés (ISO
23279:2017)

Zerstörungsfreie Prüfung von Schweißverbindungen -
Ultraschallprüfung - Charakterisierung von
Inhomogenitäten in Schweißnähten (ISO 23279:2017)

This European Standard was approved by CEN on 4 June 2017.

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

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

European foreword

This document (EN ISO 23279:2017) 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of an identical text or by endorsement, at the latest by March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

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 23279:2010.

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Endorsement notice

The text of ISO 23279:2017 has been approved by CEN as EN ISO 23279:2017 without any modification.

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

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 5, *Testing and inspection of welds*.

This third edition cancels and replaces the second edition (ISO 23279:2010), which has been technically revised.

Requests for official interpretations of any aspect of this document should be directed to the Secretariat of ISO/TC 44/SC 5 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

Non-destructive testing of welds — Ultrasonic testing — Characterization of discontinuities in welds

1 Scope

This document specifies how to characterize indications from discontinuities by classifying them as originating from planar or non-planar embedded discontinuities.

This procedure is also suitable for indications from discontinuities that break the surface after removal of the weld reinforcement.

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 11666, *Non-destructive testing of welds — Ultrasonic testing — Acceptance levels*

ISO 17640, *Non-destructive testing of welds — Ultrasonic testing — Techniques, testing levels, and assessment*

3 Terms and definitions

No terms and definitions are listed in this document.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Principle

Classification of discontinuities as planar or non-planar is based on several parameters:

- a) welding techniques;
- b) geometrical position of the discontinuity;
- c) maximum echo amplitude;
- d) directional reflectivity;
- e) echo static pattern (i.e. A-scan);
- f) echo dynamic pattern (envelope).

The process of classification involves examining each of the parameters against all the others in order to arrive at an accurate conclusion.

For guidance, [Figure A.1](#) gives the classification of indications from internal weld discontinuities suitable for general applications. [Figure A.1](#) should be applied in conjunction with the two parameters a) and b) listed above and not taken in isolation.