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Non-destructive testing - Characterization and verification of ultrasonic test equipment - Part 2: Probes (ISO 22232-2:2020)

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

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Non-destructive testing - Characterization and verification of ultrasonic test equipment - Part 2: Probes (ISO 22232- 2:2020)

Essais non destructifs - Caractérisation et vérification
de l'appareillage de contrôle par ultrasons - Partie 2:
Traducteurs (ISO 22232-2:2020)

Zerstörungsfreie Prüfung - Charakterisierung und
Verifizierung der Ultraschall-Prüfausrüstung - Teil 2:
Prüfköpfe (ISO 22232-2:2020)

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EN ISO 22232-2:2020 (E)

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European foreword

This document (EN ISO 22232-2:2020) has been prepared by Technical Committee ISO/TC 135 "Non-destructive testing" in collaboration with Technical Committee CEN/TC 138 "Non-destructive testing" 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of an identical text or by endorsement, at the latest by March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

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Non-destructive testing — Characterization and verification of ultrasonic test equipment —

Part 2: Probes

*Essais non destructifs — Caractérisation et vérification de
l'appareillage de contrôle par ultrasons —*

Partie 2: Traducteurs



Reference number
ISO 22232-2:2020(E)

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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 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 22232 series can be found on the ISO website.

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.

Non-destructive testing — Characterization and verification of ultrasonic test equipment —

Part 2: Probes

1 Scope

This document specifies the characteristics of probes used for non-destructive ultrasonic testing in the following categories with centre frequencies in the range of 0,5 MHz to 15 MHz, focusing or without focusing means:

- a) single- or dual-transducer contact probes generating longitudinal and/or transverse waves;
- b) single-transducer immersion probes.

Where material-dependent ultrasonic values are specified in this document they are based on steels having a sound velocity of $(5\,920 \pm 50)$ m/s for longitudinal waves, and $(3\,255 \pm 30)$ m/s for transverse waves.

This document excludes periodic tests for probes. Routine tests for the verification of probes using on-site procedures are given in ISO 22232-3.

If parameters in addition to those specified in ISO 22232-3 are to be verified during the probe's life time, as agreed upon by the contracting parties, the procedures of verification for these additional parameters can be selected from those given in this document.

This document also excludes ultrasonic phased array probes, therefore see ISO 18563-2.

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 5577, *Non-destructive testing — Ultrasonic testing — Vocabulary*

ISO 7963, *Non-destructive testing — Ultrasonic testing — Specification for calibration block No. 2*

ISO 22232-1, *Non-destructive testing — Characterization and verification of ultrasonic test equipment — Part 1: Instruments*

ISO/IEC 17050-1, *Conformity assessment — Supplier's declaration of conformity — Part 1: General requirements*

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