ICS 19.100 SLOVENSKÁ TECHNICKÁ NORMA December 2015

STN	**Nedeštruktívne skúšanie. Charakterizovanie a overovanie ultrazvukových fázových systémov. Časť 1: Prístroje (ISO 18563-1:2015).**	**STN EN ISO 18563-1** 01 5016

Non-destructive testing - Characterization and verification of ultrasonic phased array equipment - Part 1: Instruments (ISO 18563-1:2015)

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. 11/15

Obsahuje: EN ISO 18563-1:2015, ISO 18563-1:2015

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Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2015
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

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 18563-1

June 2015

ICS 19.100

English Version

Non-destructive testing - Characterization and verification of ultrasonic phased array equipment - Part 1: Instruments (ISO 18563-1:2015)

Essais non destructifs - Caractérisation et vérification de l'appareillage de contrôle par ultrasons en multiéléments - Partie 1: Appareils (ISO 18563-1:2015)

Zerstörungsfreie Prüfung - Charakterisierung und Verifizierung der Ultraschall-Prüfausrüstung mit phasengesteuerten Arrays - Teil 1: Prüfgeräte (ISO 18563-1:2015)

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Ref. No. EN ISO 18563-1:2015 E

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European foreword

This document (EN ISO 18563-1:2015) has been prepared by Technical Committee CEN/TC 138 “Non-destructive testing” the secretariat of which is held by AFNOR, in collaboration with Technical Committee ISO/TC 135 "Non-destructive testing".

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of an identical text or by endorsement, at the latest by December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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Endorsement notice

The text of ISO 18563-1:2015 has been approved by CEN as EN ISO 18563-1:2015 without any modification.

INTERNATIONAL STANDARD

ISO 18563-1

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Non-destructive testing — Characterization and verification of ultrasonic phased array equipment —

Part 1: Instruments

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

Partie 1: Appareils

Reference number
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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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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.

ISO 18563-1 was prepared by the European Committee for Standardization (CEN), Technical Committee CEN/TC 138, *Non-destructive testing*, in collaboration with ISO/TC 135, *Non-destructive testing*, Subcommittee SC 3 *Ultrasonic testing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 18563 consists of the following parts, under the general title *Non-destructive testing — Characterization and verification of ultrasonic phased array equipment*:

— *Part 1: Instruments*

— *Part 3: Combined systems*

An additional part on *Probes* is planned.

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INTERNATIONAL STANDARD ISO 18563-1:2015(E)

Non-destructive testing — Characterization and verification of ultrasonic phased array equipment —

Part 1: Instruments

1 Scope

This part of ISO 18563 identifies the functional characteristics of a multichannel ultrasonic phased array instrument used for phased array probes and provides methods for their measurement and verification.

This part of ISO 18563 can partly be applicable to ultrasonic phased array instruments in automated systems, but then, other tests might be needed to ensure satisfactory performance. When the phased array instrument is a part of an automated system, the acceptance criteria can be modified by agreement between the parties involved.

This part of ISO 18563 gives the extent of the verification and defines acceptance criteria within a frequency range of 0,5 MHz to 10 MHz.

The evaluation of these characteristics permits a well-defined description of the ultrasonic phased array instrument and comparability of instruments.

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 2400, *Non-destructive testing — Ultrasonic testing — Specification for calibration block No. 1*

EN 1330-4, *Non-destructive testing — Terminology — Part 4: Terms used in ultrasonic testing*

EN 12668-1, *Non-destructive testing — Characterization and verification of ultrasonic examination equipment — Part 1: Instruments*

EN 16018, *Non-destructive testing — Terminology — Terms used in ultrasonic testing with phased arrays*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

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