

**Keevisõmbluste mittepurustav katsetamine.  
Katsetamine ultraheliga. Aktsepteerimise tasemed**

**Non-destructive testing of welds - Ultrasonic testing -  
Acceptance levels (ISO 11666:2010)**

## EESTI STANDARDI EESSÕNA

See Eesti standard EVS-EN ISO 11666:2011 sisaldab Euroopa standardi EN ISO 11666:2010 ingliskeelset teksti.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

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Standard on kättesaadav Eesti Standardikeskusest.

## NATIONAL FOREWORD

This Estonian standard EVS-EN ISO 11666:2011 consists of the English text of the European standard EN ISO 11666:2010.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.

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The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

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English Version

Non-destructive testing of welds - Ultrasonic testing -  
Acceptance levels (ISO 11666:2010)

Contrôle non destructif des assemblages soudés - Contrôle  
par ultrasons - Niveaux d'acceptation (ISO 11666:2010)

Zerstörungsfreie Prüfung von Schweißverbindungen -  
Ultraschallprüfung von Schweißverbindungen -  
Zulässigkeitsgrenzen (ISO 11666:2010)

This European Standard was approved by CEN on 14 December 2010.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This document (EN ISO 11666:2010) has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 44 "Welding and allied processes".

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of an identical text or by endorsement, at the latest by June 2011, and conflicting national standards shall be withdrawn at the latest by June 2011.

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

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# Non-destructive testing of welds — Ultrasonic testing — Acceptance levels

## 1 Scope

This International Standard specifies ultrasonic acceptance levels 2 and 3 for full penetration welded joints in ferritic steels, which correspond to ISO 5817 quality levels B and C. An acceptance level corresponding to ISO 5817 quality level D is not included in this International Standard as ultrasonic testing is generally not requested for this weld quality.

These acceptance levels are applicable to testing carried out in accordance with ISO 17640.

This International Standard applies to the examination of full penetration ferritic steel welds, with thicknesses from 8 mm to 100 mm. It can also be used for other types of welds, materials and thicknesses above 100 mm, provided the examinations have been performed with necessary consideration of the geometry and acoustic properties of the component, and an adequate sensitivity can be employed to enable the acceptance levels of this International Standard to be applied. The nominal frequency of probes used in this International Standard is between 2 MHz and 5 MHz unless attenuation or requirements for higher resolution call for other frequencies. The use of these acceptance levels in conjunction with frequencies outside this range needs to be considered carefully.

## 2 Normative references

The following referenced documents are indispensable for the application 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 5817, *Welding — Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections*

ISO 17635, *Non-destructive testing of welds — General rules for metallic materials*

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

ISO 23279, *Non-destructive testing of welds — Ultrasonic testing — Characterization of indications in welds*

## 3 Measurement of indication length

The length of an indication shall be determined by measuring the distance along the length over which the echo amplitude is above the evaluation level, using the fixed amplitude level technique specified in Annex B.

Alternative techniques for measuring indication length may be used when specified.