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Non-destructive testing of welds — Time-of-flight diffraction technique (TOFD) — Acceptance levels

Essais non destructifs des assemblages soudés — Technique de diffraction des temps de vol (méthode TOFD) — Niveaux d'acceptation



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Foreword

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

Any feedback, question or request for official interpretation related to 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/members. html. Official interpretations, where they exist, are available from this page: https://committee. iso. org/sites/tc44/home/interpretation. html.

This second edition cancels and replaces the first edition (ISO 15626:2011), which has been technically revised. The main changes compared to the previous edition are as follows:

— in 6.3.1, method 4 has been described;

— for all figures, the keys have been completed.

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Non-destructive testing of welds — Time-of-flight diffraction technique (TOFD) — Acceptance levels

1 Scope

This document specifies acceptance levels for the time-of-flight diffraction technique (TOFD) of full penetration welds in ferritic steels from 6 mm up to 300 mm thickness which correspond to the quality levels of ISO 5817.

These acceptance levels are applicable to indications classified in accordance with ISO 10863.

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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5577 and the following apply.

ISO and IEC maintain terminological 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/

3.1
embedded discontinuity
discontinuity within the volume of the material, separated from the surfaces

3.2
surface-breaking discontinuity
discontinuity connected to the near (scanning) surface or far (opposite) surface

4 Symbols

h height of an indication

l length of an indication

t nominal wall thickness in accordance with construction drawing or dimension table

5 Relation between quality levels and acceptance levels

Three different acceptance levels are defined. The relation between these acceptance levels and the quality levels as mentioned in ISO 5817 are given in Table 1.

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