

**Non-destructive testing of steel tubes - Part 11:
Automated ultrasonic testing of the weld seam of
welded steel tubes for the detection of longitudinal
and/or transverse imperfections (ISO 10893-11:2011)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10893-11:2011 sisaldab Euroopa standardi EN ISO 10893-11:2011 ingliskeelset teksti.

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English Version

Non-destructive testing of steel tubes - Part 11: Automated
ultrasonic testing of the weld seam of welded steel tubes for the
detection of longitudinal and/or transverse imperfections (ISO
10893-11:2011)

Essais non destructifs des tubes en acier - Partie 11:
Contrôle automatisé par ultrasons du cordon de soudure
des tubes en acier soudés pour la détection des
imperfections longitudinales et/ou transversales (ISO
10893-11:2011)

Zerstörungsfreie Prüfung von Stahlrohren - Teil 11:
Automatisierte Ultraschallprüfung der Schweißnaht
geschweißter Stahlrohre zum Nachweis von
Unvollkommenheiten in Längs- und/oder Querrichtung (ISO
10893-11:2011)

This European Standard was approved by CEN on 10 December 2010.

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Foreword

This document (EN ISO 10893-11:2011) has been prepared by Technical Committee ISO/TC 17 "Steel" in collaboration with Technical Committee ECISS/TC 110 "Steel tubes, and iron and steel fittings" the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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Endorsement notice

The text of ISO 10893-11:2011 has been approved by CEN as a EN ISO 10893-11:2011 without any modification.

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Non-destructive testing of steel tubes —

Part 11:

Automated ultrasonic testing of the weld seam of welded steel tubes for the detection of longitudinal and/or transverse imperfections

1 Scope

This part of ISO 10893 specifies requirements for the automated ultrasonic shear wave (generated by conventional or phased array technique) testing of the weld seam of submerged arc-welded (SAW) or electric resistance and induction-welded (EW) steel tubes.

For SAW tubes, the test covers the detection of imperfections oriented predominantly parallel to or, by agreement, perpendicular to the weld seam or both.

For EW tubes, the test covers the detection of imperfections oriented predominantly parallel to the weld seam. In the case of testing on longitudinal imperfections, Lamb wave testing can be applied at the discretion of the manufacturer.

For the detection of imperfections at the weld seam of EW tubes, full peripheral ultrasonic testing is possible.

This part of ISO 10893 can also be applicable to the testing of circular hollow sections.

NOTE For full peripheral ultrasonic testing of seamless and welded (except SAW) tubes, see ISO 10893-10.

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

ISO 9712, *Non-destructive testing — Qualification and certification of personnel*

ISO 10893-6, *Non-destructive testing of steel tubes — Part 6: Radiographic testing of the weld seam of welded steel tubes for the detection of imperfections*

ISO 10893-7, *Non-destructive testing of steel tubes — Part 7: Digital radiographic testing of the weld seam of welded steel tubes for the detection of imperfections*

ISO 11484, *Steel products — Employer's qualification system for non-destructive testing (NDT) personnel*