

**Non-destructive testing of steel tubes - Part 12:
Automated full peripheral ultrasonic thickness testing of
seamless and welded (except submerged arc-welded)
steel tubes (ISO 10893-12:2011)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10893-12:2011 sisaldab Euroopa standardi EN ISO 10893-12:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.04.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.04.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 10893-12:2011 consists of the English text of the European standard EN ISO 10893-12:2011.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 01.04.2011.

The standard is available from Estonian standardisation organisation.

ICS 23.040.10, 77.040.20, 77.140.75

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English Version

Non-destructive testing of steel tubes - Part 12: Automated full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc-welded) steel tubes (ISO 10893-12:2011)

Essais non destructifs des tubes en acier - Partie 12:
Contrôle automatisé de l'épaisseur par ultrasons sur toute
la circonférence des tubes en acier sans soudure et soudés
(sauf à l'arc immergé sous flux en poudre) (ISO 10893-
12:2011)

Zerstörungsfreie Prüfung von Stahlrohren - Teil 12:
Automatisierte Ultraschall-Wanddickenprüfung nahtloser
und geschweißter (ausgenommen
unterpulvergeschweißter) Stahlrohre über den gesamten
Rohrumfang (ISO 10893-12:2011)

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN ISO 10893-12:2011) 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 10893-12:2011 has been approved by CEN as a EN ISO 10893-12:2011 without any modification.

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Non-destructive testing of steel tubes —

Part 12:

Automated full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc-welded) steel tubes

1 Scope

This part of ISO 10893 specifies requirements for the automated full peripheral ultrasonic testing of seamless and welded steel tubes, with the exception of submerged arc-welded (SAW) tubes, for wall thickness measurement. It specifies the testing method and corresponding calibration procedures.

NOTE 1 Full peripheral testing does not necessarily mean that 100 % of the tube surface is scanned.

NOTE 2 This test can be carried out simultaneously with full peripheral ultrasonic testing for the detection of laminar imperfections (see ISO 10893-8) using the same ultrasonic transducers for both inspection requirements. Under these circumstances, the minimum lamination size under detection determines the percentage of the tube surface for scanning, according to ISO 10893-8.

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

This part of ISO 10893 is applicable to the thickness measurement of tubes with a specified outside diameter equal to or greater than 25,4 mm and a minimum wall thickness of 2,6 mm, unless otherwise agreed on.

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