

**Non-destructive testing of steel tubes - Part 1:
Automated electromagnetic testing of seamless and
welded (except submerged arc-welded) steel tubes for
the verification of hydraulic leaktightness (ISO 10893-
1:2011)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10893-1:2011 sisaldab Euroopa standardi EN ISO 10893-1:2011 ingliskeelset teksti.

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elektromagnetilised teimid, keevitatud torud, kontrollimine, lekkekindlus, metalltorud, mittepurustavad teimid, terastorud, õmblusteta torud

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English Version

Non-destructive testing of steel tubes - Part 1: Automated
electromagnetic testing of seamless and welded (except
submerged arc-welded) steel tubes for the verification of
hydraulic leaktightness (ISO 10893-1:2011)

Essais non destructifs des tubes en acier - Partie 1:
Contrôle automatisé électromagnétique pour vérification de
l'étanchéité hydraulique des tubes en acier sans soudure et
soudés (sauf à l'arc immergé sous flux et poudre) (ISO
10893-1:2011)

Zerstörungsfreie Prüfung von Stahlrohren - Teil 1:
Automatisierte elektromagnetische Prüfung nahtloser und
geschweißter (ausgenommen unterpulvergeschweißter)
Stahlrohre zum Nachweis der Dichtheit (ISO 10893-1:2011)

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

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Foreword

This document (EN ISO 10893-1:2011) 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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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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Endorsement notice

The text of ISO 10893-1:2011 has been approved by CEN as a EN ISO 10893-1:2011 without any modification.

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Non-destructive testing of steel tubes —

Part 1:

Automated electromagnetic testing of seamless and welded (except submerged arc-welded) steel tubes for the verification of hydraulic leaktightness

1 Scope

This part of ISO 10893 specifies requirements for automated electromagnetic testing of seamless and welded steel tubes, with the exception of submerged arc-welded (SAW) tubes, for verification of hydraulic leaktightness. It is applicable to the inspection of tubes with an outside diameter greater than or equal to 4 mm, when testing with eddy current, and greater than 10 mm when testing with flux leakage method.

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

NOTE Electromagnetic inspection using magnetic flux leakage method is not applicable to austenitic stainless steel tubes.

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11484 and the following apply.

3.1

reference standard

standard for the calibration of non-destructive testing equipment (e.g. drill holes, notches and recesses)

3.2

reference tube

tube or length of tube containing the reference standard(s)