



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 10246-9:2000

ICS 23.040.10  
25.160.40  
77.040.20

**NON-DESTRUCTIVE TESTING OF STEEL  
TUBES - PART 9: AUTOMATIC ULTRASONIC  
TESTING OF THE WELD SEAM OF  
SUBMERGED ARC WELDED STEEL TUBES  
FOR THE DETECTION OF LONGITUDINAL  
AND/OR TRANSVERSE IMPERFECTIONS**

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EUROPEAN STANDARD

EN 10246-9

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2000

ICS 23.040.10; 25.160.40; 77.040.20

English version

Non-destructive testing of steel tubes - Part 9: Automatic ultrasonic testing of the weld seam of submerged arc welded steel tubes for the detection of longitudinal and/or transverse imperfections

Essais non destructifs des tubes en acier - Partie 9:  
Contrôle automatique par ultrasons du cordon de soudure  
pour la détection des imperfections longitudinales et/ou  
transversales des tubes soudés à l'arc immergé sous flux  
en poudre

Zerstörungsfreie Prüfung von Stahlrohren - Teil 9:  
Automatische Ultraschallprüfung der Schweißnaht  
unterpulvergeschweißter Stahlrohre zum Nachweis von  
Längs- und/oder Querfehlern

This European Standard was approved by CEN on 25 December 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITE EUROPÉEN DE NORMALISATION  
EUROPAISCHES KOMITEE FÜR NORMUNG

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## CONTENTS

	Page
FOREWORD .....	3
1 SCOPE .....	4
2 NORMATIVE REFERENCES .....	4
3 GENERAL REQUIREMENTS .....	4
4 METHOD OF TEST .....	4
5 REFERENCE STANDARDS .....	5
6 EQUIPMENT CALIBRATION AND CHECKING .....	8
7 ACCEPTANCE .....	9
8 TEST REPORTING .....	10
ANNEX A (informative) Table A.1 : Parts of EN 10246 - Non-destructive testing of steel tubes .....	11

## **FOREWORD**

This European Standard has been prepared by Technical Committee ECISS/TC 29 "Steel tubes and fittings for steel tubes", 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 August 2000, and conflicting national standards shall be withdrawn at the latest by August 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 SCOPE

This Part of EN 10246 specifies the requirements for the automatic ultrasonic testing of the weld seam of submerged arc-welded (longitudinally or helically) tubes for the detection of imperfections oriented predominantly parallel to and/or at right angles to the weld seam. The standard specifies acceptance levels and calibration procedures.

European Standard EN 10246 "Non-destructive testing of steel tubes" comprises the parts shown in Annex A.

## 2 NORMATIVE REFERENCES

This Part of EN 10246 incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of those publications apply to this Part of EN 10246 only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 10246-10:1999	Non destructive testing of steel tubes - Part 10: Radiographic testing of the weld seam of automatic fusion arc welded steel tubes for the detection of imperfections
EN 20286-2	ISO system of limits and fits - Part 2 : Tables of standard tolerance grades and limit deviations for holes and shafts (ISO 286-2:1988)
ISO 235	Parallel shank jobber and stub series drills and Morse taper shank drills

## 3 GENERAL REQUIREMENTS

**3.1** The ultrasonic inspection covered by this Part of EN 10246 is usually carried out on tubes after completion of all the primary production process operations.

For cold-expanded tubes, the ultrasonic testing shall be carried out after expansion.

**3.2** The tubes to be tested shall be sufficiently straight and free from foreign matter as to ensure the validity of the test.

## 4 METHOD OF TEST

**4.1** The weld of the longitudinally or helically tubes shall be tested using an ultrasonic technique for the detection of imperfections oriented predominantly parallel and/or at right angles to the weld seam.

In both cases, testing shall be carried out in two opposite directions of beam travel, unless otherwise agreed between purchaser and manufacturer.

**4.2** During testing, the transducer assembly shall be maintained in proper alignment with the weld so that the whole of the weld seam is scanned.

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