SLOVENSKI STANDARD

SIST EN 10312:2003/A1:2005

01-september-2005

Varjene nerjavne jeklene cevi za transport vode in drugih vodnih tekoļ in ï Tehniļ ni dobavni pogoji

Welded stainless steel tubes for the conveyance of water and other aqueous liquids - Technical delivery conditions

Geschweißte Rohre aus nichtrostenden Stählen für den Transport von Wasser und anderen wässrigen Flüssigkeiten - Technische Lieferbedingungen

Tubes soudés en acier inoxydable pour le transport d'eau et d'autres liquides aqueux - Conditions techniques de livraison

Ta slovenski standard je istoveten z: **EN 10312:2002/A1:2005**

ICS:

23.040.10	Železne in jeklene cevi	Iron and steel pipes

SIST EN 10312:2003/A1:2005 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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English version

Welded stainless steel tubes for the conveyance of water and other aqueous liquids - Technical delivery conditions

Tubes soudés en acier inoxydable pour le transport d'eau et d'autres liquides aqueux - Conditions techniques de livraison

Geschweißte Rohre aus nichtrostenden Stählen für den Transport von Wasser und anderen wässrigen Flüssigkeiten - Technische Lieferbedingungen

This amendment A1 modifies the European Standard EN 10312:2002; it was approved by CEN on 25 April 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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 amendment 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Foreword

This document (EN 10312:2002/A1:2005) 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 Amendment to the European Standard EN 10312:2002 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2005, and conflicting national standards shall be withdrawn at the latest by December 2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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

1 Scope

This document amends the wording and content of EN 10312:2002 as scheduled in the following text, to enable the combined document to be used as the basis for regulatory marking.

2 Modification to the Title

Title – amend to read:

Welded stainless steel tubes for the conveyance of water and other aqueous liquids – Technical delivery conditions

3 Modification to the Foreword

Foreword - add the following new paragraphs:

Another European Standard covering tubes for the conveyance of aqueous liquids is:

EN 10224, Non-alloy steel tubes and fittings for the conveyance of water and other aqueous liquids – Technical delivery conditions

Compliance of a product with this document does not confer a presumption of fitness of the product for the transport of water intended for human consumption within the meaning of the Directive 89/106/EEC. However, until the operation of the envisaged European Acceptance Scheme for construction products in contact with water intended for human consumption and the revision of the present document, products complying with this document may be used for the transport of water intended for human consumption if they comply with the relevant national, regional or local regulatory provisions applicable in the place of use.

4 Modification to the Introduction

Introduction – amend as follows:

Add as first sentence to the Introduction: "This European Standard applies to welded tubular products in stainless steels for use with all types of aqueous liquids".

5 Modification to Clause 1

1 – replace the existing text with:

This European Standard specifies the technical delivery conditions for light gauge welded stainless steel tubes, primarily for water applications, supplied in straight lengths and for use at ambient temperatures. This document does not cover applications where elevated temperature properties are required. The tube is suitable for use with compression fittings or press fittings and for adhesive bonding, silver brazing or inert gas welding of capillary fittings. The document is applicable to tubes in the size range from 6 mm to 267 mm outside diameter made of stainless (except martensitic and precipitation hardening) steel grades taken from EN 10088-2.

6 Modification to Clause 2

2 – amend as follows:

Amend the following references:

'prEN 10266' and 'prEN 10168' to read 'EN 10266' and 'EN 10168', move to appropriate position in list and delete footnote [1)] and footnote reference.

7 Modification to Clause 3

3 – amend as follows

Amend 'prEN 10266' to read 'EN 10266'

8 Modification to Clause 6

6 - replace title with the following:

Information to be obtained by the manufacturer

9 Modification to Subclause 6.1

6.1 replace text with the following:

The following information shall be obtained by the manufacturer at the time of enquiry and order.

10 Modification to Subclause 9.3

9.3 – amend as follows

1st line, amend 'prEN 10168' to read 'EN 10168'

11 Modification to Subclause 11.4.1

Subclause 11.4.1 - Delete text and add the following:

The manufacturer shall declare the leak tightness applied test method in accordance with either 11.4.2; 11.4.3; or 11.4.4. (See ZA.3) The choice of test method is at the discretion of the manufacturer, unless Option 7 is specified.

12 Addition of Clause 15

New Clause 15 – add the following new clause:

15 Evaluation of conformity

15.1 General

The compliance of tubes with the requirements of this document and with the stated values (including classes) shall be demonstrated by:

— initial type testing;

— factory production control.

15.2 Initial type testing (ITT)

15.2.1 General

ITT is the complete set of tests or other procedures described in the technical specification, determining the performance of samples of products representative of the steel tube designs. Initial type testing shall be performed to show conformity with this document on first use of this document for welded stainless steel tubes being put onto the market and:

— at the beginning of the production of a new or modified steel tube type or change to the raw material;

— at the beginning of a new or modified method of production.

In the case of type testing on welded stainless steel tubes for which initial type testing in accordance with this document was already performed, type testing may be reduced:

— if it has been established that the performance characteristics compared with the already tested steel tubes have not been affected or;

— if historical data is available (see 15.2.4).

The results of all type tests shall be recorded and stored for at least 5 years.

15.2.2 Characteristics

All characteristics in Clause 8, for which the manufacturer is stating a value, shall be subject to ITT by tests and/or calculation and/or tabulated values in accordance with the relevant subclasses of Clause 8.

15.2.3 Product families

For the purposes of testing (including FPC testing) welded stainless steel tubes may be grouped into families, where it is considered that the results for a characteristic from any one product is common to all tubes within that family.

15.2.4 Use of historical data

Tests previously performed on the same steel tube type in accordance with the provisions of this document (same characteristic(s), test method, sampling procedure, system of attestation of conformity, etc.) may be taken into account.

15.2.5 'Deemed to satisfy' provisions and use of reference tabulated data

In those cases where conformity with this document is based on 'deemed to satisfy' provisions or tabulated values, type testing shall be limited to the verification of whether the steel tube meets the requirements to use those values, classes or levels, unless better values, classes or levels are being claimed.

15.2.6 Sampling

ITT shall be performed on samples of welded stainless steel tubes representative of the manufactured types in accordance with Table 4. The frequency of testing or assessment shall be in accordance with Clause 9.4.

Table 16 Characteristics and compliance criteria for the initial type testing of welded stainless steel tubes.

Characteristic	Requirement Clause	Assessment Method	Compliance Criteria
Yield Strength	8.3	11.1	Pass
Dimensional Tolerances	8.8 except for 8.8.3 and 8.8.6	11.7	Pass
Tightness: Liquid	8.5.2	11.4	Pass

15.3 Factory production control (FPC)

15.3.1 General

The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market conform to the stated performance characteristics. The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control feedstock and any other incoming materials or components, equipment, the production process and the product.

An FPC system conforming to the requirements of EN ISO 9001, and made specific to the requirements of this document, shall be considered to satisfy the above requirements.

The results of inspections, tests or assessments requiring action shall be recorded, as shall any action taken. The action to be taken when control values or criteria are not met shall be recorded and retained for the period specified in the manufacturer's FPC procedures.

15.3.2 Equipment

Testing - All weighing, measuring and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

Manufacturing - All equipment used in the manufacturing process shall be regularly inspected and maintained to ensure use, wear or failure does not cause inconsistency in the manufacturing process. Inspections and maintenance shall be carried out and recorded in accordance with the manufacturer's written procedures and the records retained for the period defined in the manufacturer's FPC procedures.

15.3.3 Feedstock and components

The specifications of all incoming feedstock and components shall be documented, as shall the inspection scheme for ensuring their conformity.