

**Surveotstarbelised õmblusteta
terastorud. Tehnilised tarnetingimused.
Osa 5: Roostevabad terastorud**

Seamless steel tubes for pressure purposes -
Technical delivery conditions - Part 5: Stainless steel
tubes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10216-5:2004 sisaldab Euroopa standardi EN 10216-5:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10216-5:2004 consists of the English text of the European standard EN 10216-5:2004.</p> <p>This document is endorsed on 23.11.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This part of this European Standard specifies the technical conditions in two test categories for seamless tubes of circular cross-section made of austenitic (including creep resisting steels) and austenitic-ferritic stainless steel which are applied for pressure and corrosion resisting purposes at room temperature, at low temperatures or at elevated temperatures. It is important that the purchaser, at the time of delivery and order, takes in account the requirements of the relevant national legal regulations for the intended application</p>	<p>Scope: This part of this European Standard specifies the technical conditions in two test categories for seamless tubes of circular cross-section made of austenitic (including creep resisting steels) and austenitic-ferritic stainless steel which are applied for pressure and corrosion resisting purposes at room temperature, at low temperatures or at elevated temperatures. It is important that the purchaser, at the time of delivery and order, takes in account the requirements of the relevant national legal regulations for the intended application</p>
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ICS 77.140.30, 77.140.75

Võtmesõnad: acceptance testing, circular form, measurement, orders : sales documents, pipes : tubes, sampling, seamless tubes, specifications, temperature, ther, tightness, tolerances, tolerances (measurement), unalloyed steels, weight : mass, weights, weldability, verification

Hinnagrupp S

ICS 23.040.10; 77.140.75

English version

Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 5: Stainless steel tubes

Tubes en acier sans soudure pour service sous pression -
Conditions techniques de livraison - Partie 5: Tubes en
aciers inoxydables

Nahtlose Stahlrohre für Druckbeanspruchungen -
Technische Lieferbedingungen - Teil 5: Rohre aus
nichtrostenden Stählen

This European Standard was approved by CEN on 3 March 2004.

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, 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 10216-5:2004) 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 March 2005, and conflicting national standards shall be withdrawn at the latest by March 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 the EU Directive 97/23/EC.

For relationship with the EU Directive 97/23/EC, see informative Annex ZA, which is an integral part of this document.

Other parts of EN 10216 are:

- *Part 1: Non-alloy steel tubes with specified room temperature properties;*
- *Part 2: Non-alloy and alloy steel tubes with specified elevated temperature properties;*
- *Part 3: Alloy fine grain steel tubes;*
- *Part 4: Non-alloy and alloy steel tubes with specified low temperature properties.*

Another European Standard series covering tubes for pressure purposes is:

- EN 10217: *Welded steel tubes for pressure purposes – Technical delivery conditions.*

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 specifies the technical delivery conditions in two test categories for seamless tubes of circular cross section made of austenitic (including creep resisting steel) and austenitic-ferritic stainless steel which are applied for pressure and corrosion resisting purposes at room temperature, at low temperatures or at elevated temperatures.

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.

The requirements of this part of EN 10216 rule when they differ from those in the standards and documents referred to below:

EN 10002-1, *Metallic materials - Tensile testing - Part 1: Method of test at ambient temperature.*

EN 10002-5, *Metallic materials - Tensile testing - Part 5: Method of test at elevated temperatures.*

EN 10020:2000, *Definition and classification of grades of steel.*

EN 10021:1993, *General technical delivery conditions for steel and iron products.*

EN 10027-1, *Designation systems for steels - Part 1: Steel names, principal symbols.*

EN 10027-2, *Designation systems for steels - Part 2: Numerical systems.*

EN 10028-7, *Flat products made of steels for pressure purposes - Part 7: Stainless steels.*

EN 10045-1, *Metallic materials - Charpy impact test - Part 1: Test method.*

EN 10052:1993, *Vocabulary of heat treatment terms for ferrous products.*

EN 10088-1, *Stainless steels - Part 1: List of stainless steels.*

EN 10204, *Metallic products - Types of inspection documents.*

EN 10233, *Metallic materials - Tubes - Flattening test.*

EN 10234, *Metallic materials - Tubes - Drift expanding test.*

EN 10236, *Metallic materials - Tubes - Ring expanding test.*

EN 10237, *Metallic materials - Tubes - Ring tensile test.*

EN 10246-2, *Non-destructive testing of steel tubes - Part 2: Automatic eddy current testing of seamless and welded (except submerged arc-welded) austenitic and ferritic-austenitic steel tubes for verification of hydraulic leak tightness.*

EN 10246-6, *Non-destructive testing of steel tubes - Part 6: Automatic full peripheral ultrasonic testing of seamless steel tubes for the detection of transverse imperfections.*

EN 10246-7, *Non-destructive testing of steel tubes - Part 7: Automatic full peripheral ultrasonic testing of seamless and welded (except submerged arc welded) steel tubes for the detection of longitudinal imperfections.*

EN 10246-17, *Non-destructive testing of steel tubes - Part 17: Ultrasonic testing of tube ends of seamless and welded steel tubes for detection of laminar imperfections.*

EN 10216-5:2004 (E)

EN 10256, *Non-destructive testing of steel tubes - Qualification and competence of level 1 and level 2 non-destructive testing personnel.*

EN 10168, *Steel products - Inspection documents - List of information and description.*

EN 10266:2003, *Steel tubes, fittings and structural hollow sections - Symbols and definitions of terms for use in product standards.*

EN ISO 377, *Steel and steel products - Location and preparation of samples and test pieces for mechanical testing (ISO 377:1997).*

EN ISO 643, *Steels - Micrographic determination of the apparent grain size (ISO 643:2003)*

EN ISO 1127, *Stainless steel tubes - Dimensions, tolerances and conventional masses per unit length (ISO 1127:1992).*

EN ISO 2566-2, *Steel - Conversion of elongation values - Part 2: Austenitic steels (ISO 2566-2:1984).*

EN ISO 3651-2, *Determination of resistance to intergranular corrosion of stainless steels - Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels - Corrosion test in media containing sulfuric acid (ISO 3651.2:1998).*

EN ISO 14284, *Steel and iron - Sampling and preparation of samples for the determination of the chemical composition (ISO 14284:1996).*

CR 10260, *Designation systems for steel - Additional symbols.*

CR 10261, *ECISS Information Circular 11 - Iron and steel - Review of available methods of chemical analysis.*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10020:2000, EN 10021:1993, EN 10052:1993 and EN 10266:2003 together with the following apply.

3.1
test category
classification that indicates the extent and level of inspection and testing

3.2
employer
organization for which a person works on a regular basis

NOTE The employer may be either the tube manufacturer or supplier or a third party organization providing Non-Destructive Testing (NDT) services.