

**Surveotstarbelised keevitatud
terastorud. Tehnilised tarnetingimused.
Osa 5: Kindlaks määratud
kõrgtemperatuuriliste omadustega
metallkaarkeevitusega süsinik- ja
sulamterasest torud**

Welded steel tubes for pressure purposes -
Technical delivery conditions - Part 5: Submerged
arc welded non-alloy and alloy steel tubes with
specified elevated temperature properties

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 10217-5:2002 sisaldab Euroopa standardi EN 10217-5:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 18.10.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 10217-5:2002 consists of the English text of the European standard EN 10217-5:2002. This document is endorsed on 18.10.2002 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This Part of EN 10217 specifies the technical delivery conditions in two test categories of submerged arc welded tubes of circular cross section, with specified elevated temperature properties, made of non-alloy and alloy steel.	Scope: This Part of EN 10217 specifies the technical delivery conditions in two test categories of submerged arc welded tubes of circular cross section, with specified elevated temperature properties, made of non-alloy and alloy steel.
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ICS 23.040.10, 77.140.75

Võtmesõnad: acceptance, analysis, area, chemical analysis and testin, measurement, orders : sales documents, pipes : tubes, specifications, tolerances, tolerances (measurement), unalloyed steels, weight : mass, weights, weldability, weldable, welded tubes, welding, vessels

Hinnagrupp Q

ICS 23.040.10; 77.140.75

English version

Welded steel tubes for pressure purposes - Technical delivery conditions - Part 5: Submerged arc welded non-alloy and alloy steel tubes with specified elevated temperature properties

Tubes soudés en acier pour service sous pression -
Conditions techniques de livraison - Partie 5: Tubes soudés
à l'arc immergé sous flux en poudre en acier non allié et
allié avec caractéristiques spécifiées à haute température

Geschweißte Stahlrohre für Druckbeanspruchungen -
Technische Lieferbedingungen - Teil 5:
Unterpulvergeschweißte Rohre aus unlegierten und
legierten Stählen mit festgelegten Eigenschaften bei
erhöhten Temperaturen

This European Standard was approved by CEN on 25 April 2002.

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 Management Centre 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 Management Centre 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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 10217-5:2002) 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 November 2002, and conflicting national standards shall be withdrawn at the latest by November 2002.

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.

Other parts of EN 10217 are:

- Part 1: Non-alloy steel tubes with specified room temperature properties.
- Part 2: Electric welded non-alloy and alloy steel tubes with specified elevated temperature properties.
- Part 3: Alloy fine grain steel tubes.
- Part 4: Electric welded non-alloy steel tubes with specified low temperature properties.
- Part 6: Submerged arc welded non-alloy steel tubes with specified low temperature properties.
- Part 7: Stainless steel tubes.

Another European Standard series covering tubes for pressure purposes is:

EN 10216: Seamless steel tubes for pressure purposes.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Part of EN 10217 specifies the technical delivery conditions in two test categories of submerged arc welded tubes of circular cross section, with specified elevated temperature properties, made of non-alloy and alloy steel.

2 Normative references

This European Standard incorporates by date 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 date references, subsequent amendments to or revisions of, any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

The requirements of this European Standard rule when they differ from those in the standards and documents referred to below:

EN 760, *Welding consumables - Fluxes for submerged arc welding – Classification*

EN 895, *Destructive tests on welds in metallic materials - Transverse tensile test.*

EN 910, *Destructive tests on weld in metallic materials -Bend test.*

EN 1321, *Destructive tests on welds in metallic materials - Macroscopic and microscopic examination of welds*

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 testing at elevated temperature*

EN 10020, *Definitions and classification of grades of steel.*

EN 10021, *General technical delivery requirements for steel and iron products.*

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

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

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

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

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

ENV 10220, *Seamless and welded steel tubes - Dimensions and masses per unit length.*

EN 10246-9, *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.*

EN 10246-10, *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 10246-15, *Non-Destructive Testing of steel tubes - Part 15: Automatic ultrasonic testing of strip/ plate used in the manufacture of welded steel tubes for the detection of laminar imperfections.*

EN 10246-16, *Non-Destructive Testing of steel tubes - Part 16: Automatic ultrasonic testing of the area adjacent to the weld seam of welded steel tubes for the detection of laminar imperfections.*

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

EN 10256, *Non-Destructive Testing of steel tubes - Qualification and competence of level 1 and level 2 NDT personnel.*

prEN 10168 ¹⁾, *Iron and steel products - Inspection documents - List of information and description*

prEN 10266 ¹⁾, *Steel tubes, fittings and structural hollow sections - Symbols and definition 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 2566-1, *Steel - Conversion of elongation values – Part 1: Carbon and low-alloy steels (ISO 2566-1:1984)*

ISO 14284, *Steel and iron - Sampling and preparation of samples for the determination of chemical composition*

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

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

3 Terms and definitions

For the purposes of this Part of EN 10217 the terms and definitions given in EN 10020, EN 10021, EN 10052, prEN 10266 and the followings apply:

3.1

test Category

classification that indicates the extent and level of inspection and testing.

3.2

employer

organisation for which a person works on a regular basis.

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

3.3

qualification of welding procedure

testing and inspection of the welding procedure in accordance with annex A by the manufacturer.

3.4

approval of welding procedure

testing and inspection of the welding procedure witnessed and approved in accordance with annex A by an authorised body.

4 Symbols

For the purposes of this part of EN 10217. The symbols given in prEN 10266 and the following apply:

1) In preparation; until this document is published as a European standard, a corresponding national standard should be agreed at the time of enquiry and order.