

**Tasapinnalised terastooted surve all kasutamiseks.
Osa 1: Üldnõuded KONSOLIDEERITUD TEKST**

Flat products made of steels for pressure purposes -
Part 1: General requirements CONSOLIDATED TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10028-1:2008+A1:2009 sisaldab Euroopa standardi EN 10028-1:2007+A1:2009 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 29.05.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.04.2009.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10028-1:2008+A1:2009 consists of the English text of the European standard EN 10028-1:2007+A1:2009.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 29.05.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 22.04.2009.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 77.140.30, 77.140.50

Võtmesõnad: delivery condition, designation, iron and steel products, marking, metal plates, pressure equipment, specifications, steels, strips, tests

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English Version

Flat products made of steels for pressure purposes - Part 1: General requirements

Produits plats en acier pour appareils à pression - Partie 1:
Prescriptions générales

Flacherzeugnisse aus Druckbehälterstählen - Teil 1:
Allgemeine Anforderungen

This European Standard was approved by CEN on 21 October 2007 and includes Amendment 1 approved by CEN on 14 March 2009.

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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 CEN Management Centre has the same status as the official versions.

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Contents

	Page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Dimensions and tolerances on dimensions	6
5 Calculation of mass	6
6 Classification and designation.....	6
6.1 Classification.....	6
6.2 Designation	6
7 Information to be supplied by the purchaser	7
7.1 Mandatory information.....	7
7.2 Options	7
7.3 Examples of ordering	8
8 Requirements	8
8.1 Steelmaking process	8
8.2 Delivery condition.....	8
8.3 Chemical composition	8
8.4 Mechanical properties.....	8
8.5 Surface condition.....	8
8.6 Internal soundness	8
9 Inspection	9
9.1 Types of inspection and inspection documents	9
9.2 Tests to be carried out	9
9.3 Retests, sorting and reprocessing.....	10
10 Sampling.....	10
10.1 Frequency of testing	10
10.2 Selection and preparation of samples and test pieces.....	11
10.2.1 Sampling and sample preparation	11
10.2.2 Preparation of test pieces	11
11 Test methods.....	15
11.1 Chemical analysis.....	15
11.2 Tensile test at room temperature	16
11.3 Tensile test at elevated temperature	16
11.4 Impact test	16
11.5 Other testing.....	17
12 Marking	17
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC	19
Bibliography	20

Foreword

This document (EN 10028-1:2007+A1:2009) has been prepared by Technical Committee ECISS/TC 22 “Steels for pressure purposes - Qualities”, the secretariat of which is held by DIN.

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 2009, and conflicting national standards shall be withdrawn at the latest by October 2009.

This document includes Amendment 1, approved by CEN on 2009-03-14.

This document supersedes A1 EN 10028-1:2007 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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 97/23/EC.

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

EN 10028 consists of the following parts under the general title *Flat products made of steels for pressure purposes*:

- *Part 1: General requirements*
- *Part 2: Non-alloy and alloy steels with specified elevated temperature properties*
- *Part 3: Weldable fine grain steels, normalized*
- *Part 4: Nickel alloy steels with specified low temperature properties*
- *Part 5: Weldable fine grain steels, thermomechanically rolled*
- *Part 6: Weldable fine grain steels, quenched and tempered*
- *Part 7: Stainless steels*

NOTE The clauses marked with a point (●) contain information relating to agreements which are to be made at the time of enquiry and order. The clauses marked by two points (●●) contain information relating to agreements that may be made at the time of enquiry and order.

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

1 Scope

This European Standard specifies general technical delivery conditions for flat products for the construction of pressure equipment.

The general technical delivery conditions in EN 10021 also apply.

NOTE Once this European Standard is published in the EU Official Journal (OJEU) under Directive 97/23/EC, presumption of conformity to the Essential Safety Requirements (ESRs) of Directive 97/23/EC is limited to technical data of materials in this European Standard (Part 1 and the other relevant part of the series) and does not presume adequacy of the material to a specific item of equipment. Consequently, the assessment of the technical data stated in this material standard against the design requirements of this specific item of equipment to verify that the ESRs of Directive 97/23/EC are satisfied, needs to be done.

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.

EN 10002-1:2001, *Metallic materials — Tensile testing — Part 1: Method of test at ambient temperature*

EN 10002-5:1991, *Metallic materials — Tensile testing — Part 5: Method of testing at elevated temperatures*

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

EN 10021:2006, *General technical delivery conditions for steel products*

EN 10028-2:2003, *Flat products made of steels for pressure purposes — Part 2: Non-alloy and alloy steels with specified elevated temperature properties*

EN 10028-3:2003, *Flat products made of steels for pressure purposes — Part 3: Weldable fine grain steels, normalized*

EN 10028-4:2003, *Flat products made of steels for pressure purposes — Part 4: Nickel alloy steels with specified low temperature properties*

EN 10028-5:2003, *Flat products made of steels for pressure purposes — Part 5: Weldable fine grain steels, thermomechanically rolled*

EN 10028-6:2003, *Flat products made of steels for pressure purposes — Part 6: Weldable fine grain steels, quenched and tempered*

EN 10028-7:2007, *Flat products made of steels for pressure purposes — Part 7: Stainless steels*

EN 10029, *Hot rolled plates 3 mm thick or above — Tolerances on dimensions, shape and mass*

EN 10045-1:1990, *Metallic materials — Charpy impact test — Part 1: Test method*

EN 10048, *Hot rolled narrow steel strip — Tolerances on dimensions and shape*

EN 10051, *Continuously hot-rolled uncoated plate, sheet and strip of non-alloy and alloy steels — Tolerances on dimensions and shape*

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

EN 10079:2007, *Definitions of steel products*

EN 10088-1:2005, *Stainless steels — Part 1: List of stainless steels*

EN 10160, *Ultrasonic testing of steel flat product of thickness equal or greater than 6 mm (reflection method)*

EN 10163-2:2004, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 2: Plates and wide flats*

EN 10164:2004, *Steel products with improved deformation properties perpendicular to the surface of the product — Technical delivery conditions*

EN 10168:2004, *Steel products — Inspection documents — List of information and description*

EN 10204:2004, *Metallic products — Types of inspection documents*

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)*

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 9445, *Continuously cold-rolled stainless steel narrow strip, wide strip, plate/sheet and cut lengths — Tolerances on dimensions and form (ISO 9445:2002)*

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