

**Surveotstarbelised terassepised. Osa 1:
Vabasepiste üldnõuded**

Steel forgings for pressure purposes - Part 1:
General requirements for open die forgings

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 10222-1:1999 sisaldab Euroopa standardi EN 10222-1:1998 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 23.11.1999 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 10222-1:1999 consists of the English text of the European standard EN 10222-1:1998.

This standard is ratified with the order of Estonian Centre for Standardisation dated 23.11.1999 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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ICS 77.140.85

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ICS 77.140.85

Descriptors: iron and steel products, forgings, steels, pressure equipment, designation, manufacturing, surface condition, grades: quality, chemical composition, mechanical properties, sampling, tests, inspection, marking

English version

Steel forgings for pressure purposes - Part 1 : General
requirements for open die forgings

Pièces forgées en acier pour appareils à pression - Partie
1: Prescriptions générales concernant les pièces obtenues
par forgeage libre

Schmiedestücke aus Stahl für Druckbehälter - Teil 1 :
Allgemeine Anforderungen an Freiformschmiedestücke

This European Standard was approved by CEN on 26 October 1997.

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
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 28 "Steel forgings", the secretariat of which is held by BSI.

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 July 1998, and conflicting national standards shall be withdrawn at the latest by July 1998.

The titles of the other Parts of this European Standard are:

Part 2 : Ferritic and martensitic steels with specified elevated temperature properties.

Part 3 : Nickel steels with specified low temperature properties.

Part 4 : Weldable fine grain steels with high proof strength.

Part 5 : Martensitic, austenitic and austenitic-ferritic stainless steels.

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 this European Standard specifies the general technical delivery conditions for open die steel forgings, ring rolled products and forged bars for pressure purposes.

General information on technical delivery conditions is given in EN 10021.

2 Normative references

This European Standard 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 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.

- | | |
|-------------|--|
| EN 287-1 | Approval testing of welders. Fusion welding. Part 1 : Steels |
| EN 288 | Specification and qualification of welding procedure for fusion welding
Part 1: General rules
Part 2: Welding procedure specification for arc welding of metallic materials
Part 3: Welding procedure tests for arc welding of steels |
| EN 10 002-1 | Metallic materials - Tensile testing - Method of test (at ambient temperature) |
| EN 10 002-5 | Metallic materials - Tensile test - Method of test at elevated temperatures |
| EN 10 020 | Definition and classification of grades of steel |
| EN 10 021 | General technical delivery requirements for iron and steel products |
| EN 10 027 | Designation system for steel
Part 1 : Steel names, principal symbols
Part 2 : Steel numbers |
| EN 10 045-1 | Metallic materials - Charpy impact test - Test method |
| EN 10 052 | Vocabulary of heat treatment terms for ferrous products |
| EN 10 079 | Definition of steel products |
| EN 10 204 | Metallic products - Inspection documents |

prEN 10228	Non-destructive testing of steel forgings. Part 1. Magnetic particle inspection. Part 2. Penetrant testing. Part 3. Ultrasonic testing of ferritic or martensitic steel forgings. Part 4. Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings.
EURONORM 168	Iron and Steel products - Inspection documents - Contents
ENV 22605-1	Steel products for pressure purposes - Derivation and verification of elevated temperature properties - Part 1: Yield or proof stress of carbon and low alloy steel products
ENV 22605-2	Steel products for pressure purposes - Derivation and verification of elevated temperature properties - Part 2: Proof stress of austenitic steel products
EN ISO 377	Steel and steel products - Location of samples and test pieces for mechanical testing.
prEN ISO 3651	Determination of resistance to intergranular corrosion stainless steels Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels - Corrosion test in media containing sulfuric acid
CR10260	ECISS Information Circular 10. Designation systems for steel : Additional symbols for steel names
CR 10261	ECISS Information Circular 11. Iron and steel - Review of available methods of chemical analysis

3 Definitions

3.1 General

For the purposes of this Part of this European Standard the following definitions apply in addition to the definitions in EN 10 020, EN 10 021, EN 10 052, EN 10 079 and EN ISO 377.

3.2 batch: Forgings of similar dimensions from the same cast, made by the same forging procedure and from the same heat treatment charge.