

TERASEST SEPISED ÜLDISEKS INSENERTEHNILISEKS  
OTSTARBEKS. OSA 1: ÜLDISED NÕUDED

Open die steel forgings for general engineering  
purposes - Part 1: General requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 10250-1:2022 sisaldab Euroopa standardi EN 10250-1:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 10250-1:2022 consists of the English text of the European standard EN 10250-1:2022.
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EUROPEAN STANDARD

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English Version

## Open die steel forgings for general engineering purposes - Part 1: General requirements

Pièces forgées en acier pour usage général - Partie 1:  
Exigences générales

Freiformschmiedestücke aus Stahl für allgemeine  
Verwendung - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 14 February 2022.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 10250-1:2022) has been prepared by Technical Committee CEN/TC 459 “ECISS - European Committee for Iron and Steel Standardization”<sup>1</sup>, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 10250-1:1999.

In comparison with the previous edition, the following technical modifications have been made:

- updating of normative references;
- alignment of the text with reference standards.

EN 10250, *Open die steel forgings for general engineering purposes*, consists of the following parts:

- *Part 1: General requirements;*
- *Part 2: Non-alloy quality and special steels;*
- *Part 3: Alloy special steels;*
- *Part 4: Stainless steels.*

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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

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<sup>1</sup> Through its sub-committee SC 11 “Steel castings and forgings” (secretariat: AFNOR).

## 1 Scope

This document specifies the general technical delivery conditions for open die forgings, forged bars, and products pre-forged and finished in ring rolling mills, for general engineering purposes.

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

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

CEN/TR 10261, *Iron and steel - European standards for the determination of chemical composition*

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

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

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

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

EN 10079, *Definition of steel products*

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

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

EN 10228-1, *Non-destructive testing of steel forgings - Part 1: Magnetic particle inspection*

EN 10228-2, *Non-destructive testing of steel forgings - Part 2: Penetrant testing*

EN 10228-3, *Non-destructive testing of steel forgings - Part 3: Ultrasonic testing of ferritic or martensitic steel forgings*

EN 10228-4, *Non-destructive testing of steel forgings - Part 4: Ultrasonic testing of austenitic and austenitic-ferritic stainless steel forgings*

EN 10250-2, *Open die steel forgings for general engineering purposes - Part 2: Non-alloy quality and special steels*

EN 10250-3, *Open die steel forgings for general engineering purposes - Part 3: Alloy special steels*

EN 10250-4, *Open die steel forgings for general engineering purposes - Part 4: Stainless steels*

EN ISO 148-1, *Metallic materials - Charpy pendulum impact test - Part 1: Test method (ISO 148-1)*

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

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)*

EN ISO 4885, *Ferrous materials - Heat treatments - Vocabulary (ISO 4885)*

EN ISO 6506-1, *Metallic materials - Brinell hardness test - Part 1: Test method (ISO 6506-1)*

EN ISO 6892-1, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)*

EN ISO 9606-1, *Qualification testing of welders - Fusion welding - Part 1: Steels (ISO 9606-1)*

EN ISO 15607, *Specification and qualification of welding procedures for metallic materials - General rules (ISO 15607)*

EN ISO 15609-1, *Specification and qualification of welding procedures for metallic materials - Welding procedure specification - Part 1: Arc welding (ISO 15609-1)*

EN ISO 15614-1, *Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1)*

### **3 Terms and definitions**

For the purposes of this document the terms and definitions given in EN 10020, EN 10021, EN 10079, EN ISO 377, EN ISO 4885, and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

#### **3.1 batch**

forgings of similar dimensions from the same cast, made by the same forging procedure and from the same heat treatment charge

Note 1 to entry: "Similar dimensions" are to be taken as forgings having dimensions within  $\pm 10\%$  of the equivalent thickness.

### **4 Classification and designation**

#### **4.1 Classification**

The steels covered by this document are classified as follows:

- Non-alloy quality and special steels, see EN 10250-2;
- Alloy special steels, see EN 10250-3;
- Stainless steels, see EN 10250-4.

#### **4.2 Designation**

The steels in EN 10250-2, EN 10250-3 and EN 10250-4 shall be designated in accordance with the requirements of EN 10027-1 and EN 10027-2.