Technical product document principles of representation - Fa. and cuts (ISO 128-3:2022)



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 128-3:2022 sisaldab Euroopa standardi EN ISO 128-3:2022 ingliskeelset teksti.

This Estonian standard EVS-EN ISO 128-3:2022 consists of the English text of the European standard EN ISO 128-3:2022.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 14.09.2022.

Date of Availability of the European standard is 14.09.2022.

Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.

The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

#### ICS 01.100.01

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### EUROPEAN STANDARD NORME EUROPÉENNE

#### **EN ISO 128-3**

EUROPÄISCHE NORM

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ICS 01.100.01

Supersedes EN ISO 128-3:2020

#### **English Version**

# Technical product documentation (TPD) - General principles of representation - Part 3: Views, sections and cuts (ISO 128-3:2022)

Documentation technique de produits (TPD) -Principes généraux de représentation - Partie 3: Vues, sections et coupes (ISO 128-3:2022) Technische Produktdokumentation (TPD) - Allgemeine Grundlagen der Darstellung - Teil 3: Ansichten, Schnitte und Schnittansichten (ISO 128-3:2022)

This European Standard was approved by CEN on 13 August 2022.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### **European foreword**

This document (EN ISO 128-3:2022) has been prepared by Technical Committee ISO/TC 10 "Technical product documentation" in collaboration with CCMC.

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of an identical text or by endorsement, at the latest by March 2023, and conflicting national standards shall be withdrawn at the latest by March 2023.

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 ISO 128-3:2020.

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

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#### **Endorsement notice**

The text of ISO 128-3:2022 has been approved by CEN as EN ISO 128-3:2022 without any modification.

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#### **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS F01, *Technical drawings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 128-3:2020), of which it constitutes a minor revision, and ISO 128-43:2015. The changes are as follows:

- Clause 2: reference to ISO 10209 has been updated;
- Figures A.3, A.4, A.5, B.4, D.10, E.1 and E.2 have been redrawn to be consistent with the text;
- minor editorial changes.

A list of all parts in the ISO 128 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

#### Introduction

This document contains generally applicable rules for the presentation of views, sections and cuts in all kinds of technical product documentation. The first-angle projection method (formerly referred to as method E) and the third-angle projection method (formerly referred to as method A) are described in more detail in ISO 5456-2.

All figures in this document, excluding <u>Figure 1</u>, <u>Figure 6</u> and <u>Figure 7</u>, have been drawn in first-angle projection method unless other methods are stated. It should be understood that third-angle projection or other methods could have been used equally well without prejudice to the principles established.

75, Triles. The application of views, sections and cuts within drawings of special technical fields varies considerably. Therefore, rules of application specific to technical fields are given in Annexes C, D, E and <u>F</u>.

## Technical product documentation (TPD) — General principles of representation —

#### Part 3:

#### Views, sections and cuts

#### 1 Scope

This document specifies the general principles for presenting views, sections and cuts applicable to various kinds of technical drawings (e.g. mechanical, electrical, architectural, civil engineering), following the orthographic projection methods specified in ISO 5456-2. Views and sections for shipbuilding technical drawings are discussed in ISO 128-15. Views and sections for 3D models are discussed in ISO 16792.

Attention has also been given in this document to the requirements of reproduction, including microcopying in accordance with ISO 6428.

#### 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.

ISO 128-2:—,<sup>1)</sup>Technical product documentation (TPD) — General principles of presentation — Part 2: Basic conventions for lines

ISO 129-1, Technical product documentation (TPD) — Presentation of dimensions and tolerances — Part 1: General principles

ISO 3098-1, Technical product documentation — Lettering — Part 1: General requirements

ISO 5456-2, Technical drawings — Projection methods — Part 2: Orthographic representations

ISO 6428, Technical drawings — Requirements for microcopying

ISO 10209:2022, Technical product documentation — Vocabulary — Terms relating to technical drawings, product definition and related documentation

ISO 15519-1, Specification for diagrams for process industry — Part 1: General rules

ISO 81714-1, Design of graphical symbols for use in the technical documentation of products — Part 1: Basic rules

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10209:2022 and the following apply.

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

ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>

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<sup>1)</sup> Under preparation. Stage at the time of publication: ISO/FDIS 128-2:2022.