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Technical product documentation - Construction  
documentation - Indication of limit deviations (ISO  
6284:2023)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 6284:2024 sisaldab Euroopa standardi EN ISO 6284:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 31.01.2024.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 6284:2024 consists of the English text of the European standard EN ISO 6284:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 31.01.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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ICS 01.100.30

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EUROPEAN STANDARD

EN ISO 6284

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2024

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Supersedes EN ISO 6284:1999

English Version

Technical product documentation - Construction  
documentation - Indication of limit deviations (ISO  
6284:2023)

Documentation technique de produits - Documentation  
de construction - Indication des écarts limites (ISO  
6284:2023)

Technische Produktdokumentation - Dokumentation  
im Bauwesen - Angabe von Grenzabmaßen (ISO  
6284:2023)

This European Standard was approved by CEN on 8 January 2024.

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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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Türkiye and United Kingdom.



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

The text of ISO 6284:2023 has been prepared by Technical Committee ISO/TC 10 "Technical product documentation" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 6284:2024 by 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 July 2024, and conflicting national standards shall be withdrawn at the latest by July 2024.

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 6284:1999.

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 organizations 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, Türkiye and the United Kingdom.

## Endorsement notice

The text of ISO 6284:2023 has been approved by CEN as EN ISO 6284:2024 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 [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 10, *Technical product documentation*, Subcommittee SC 8, *Construction documentation*.

This third edition cancels and replaces the second edition (ISO 6284:1996), which has been technically revised.

The main changes are as follows:

- validation of normative references;
- consideration of multiple categories of deviations;
- definitions of indications of limit deviations using building information modelling (BIM).

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 [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Deviations are a common part of the built environment which are often left to operatives on site to resolve. With the development of prefabrication, there is recognition that control of deviations is an essential requirement to improve the quality of building and infrastructure works. It is important for architectural designers, product manufacturers and constructors to indicate limit deviations and work to these, where they exist.

The previous edition, ISO 6284:1996, pointed out some basic principles and ways to indicate limit deviations. It focused on graphical presentations, generally drawings, as a method for delivering construction and product information. Technically, limit deviations are about not only geometric information but also the requirements, which shall be delivered objectively by parties to a project.

The digitization of construction requires both graphical and alphanumeric information to be presented in a formal way to achieve both human-readability and machine-readability.

Data templates are a formal representation method adopted widely to describe exchange information or product specifications for machine-readability. ISO 23387 has been developed to support digital processes using formats which are machine-interpretable, based upon standardized data structures, to exchange information about any type of construction object.

This document focuses on how to provide indication methods for limit deviations that are humanly recognizable, which is essential given that humans are ultimately the decision-makers, even though more and more tasks are carried out with the assistance of computers. Therefore, this document provides two ways to indicate limit deviations:

- a) classical graphical or symbolic representations;
- b) natural language property items for data templates.

The illustrations included in this document are intended to illustrate the text and/or to provide examples of the related technical drawing specification. These illustrations are not fully dimensioned and toleranced, showing only the relevant general principles.

# Technical product documentation — Construction documentation — Indication of limit deviations

## 1 Scope

This document specifies methods for the indication of limit deviations on construction documents.

## 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 286-1:2010, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 1: Basis of tolerances, deviations and fits*

ISO 6707-1:2020, *Buildings and civil engineering works — Vocabulary — Part 1: General terms*

ISO 9431, *Construction drawings — Spaces for drawing and for text, and title blocks on drawing sheets*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 286-1 and ISO 6707-1 and the following apply.

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

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

### 3.1

#### **construction document**

document which specifies construction information

Note 1 to entry: A construction document can be a drawing or a document used to convey or record construction requirements.

Note 2 to entry: See ISO 5127:2017, 3.1.1.38 for more information about the term “document”.

### 3.2

#### **data template**

schema providing a data structure used to describe the properties of objects

[SOURCE: ISO 23387:2020, 3.3, modified — Definition revised, examples and notes to entry removed.]

### 3.3

#### **limit deviation**

*upper limit deviation* (3.4) or *lower limit deviation* (3.5) from *target size* (3.6)

Note 1 to entry: In this document, “target size” is used for applying deviations to comply with the conventions in the built environment sector, while “nominal size” is commonly used in engineering fields.

Note 2 to entry: See ISO 6707-1:2020, 3.7.2.6 for more information about the term “deviation”.

[SOURCE: ISO 286-1:2010, 3.2.5, modified — Definition modified and notes to entry added.]