

Construction drawings — Indication of limit deviations

ICS 01.100.30

National foreword

This British Standard reproduces verbatim ISO 6284:1996 and implements it as the UK national standard. This standard, together with BS EN ISO 4157-1:1999, BS EN ISO 4157-2:1999, BS EN ISO 4157-3:1999, BS EN ISO 8560:1999 and BS EN ISO 9431:1999 supersedes BS 1192-1:1984 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee B/212, Tolerances, drawing practice, modular co-ordination, joints, project information and computer modelling, to Subcommittee B/212/2, Construction drawing practice, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, page 2, the ISO title page, pages ii to iv, pages 1 to 4 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 October 1999

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ISBN 0 580 35115 7

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English version

Construction drawings — Indication of limit deviations

(ISO 6284:1996)

Dessins de génie civil — Indication des écarts
limites
(ISO 6284:1996)

Zeichnungen für das Bauwesen — Eintragung
von Grenzabmaßen
(ISO 6284:1996)

This European Standard was approved by CEN on 11 June 1999.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

The text of the International Standard from Technical Committee ISO/TC 10 “Technical drawings, product definition and related documentation” of the International Organization for Standardization (ISO) has been taken over as an European Standard by CEN/CS.

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 January 2000, and conflicting national standards shall be withdrawn at the latest by January 2000.

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.

Endorsement notice

The text of the International Standard ISO 6284:1996 has been approved by CEN as a European Standard without any modification.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

INTERNATIONAL STANDARD

**ISO
6284**

Second edition
1996-12-15

Construction drawings — Indication of limit deviations

Dessins de génie civil — Indication des écarts limites



Reference number
ISO 6284:1996(E)

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Descriptors: Drawings, technical drawings, construction, buildings, civil engineering, dimensional tolerances, tolerances of position, form tolerances, presentation.

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 6284 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*, Subcommittee SC 8, *Construction documentation*.

This second edition cancels and replaces the first edition (ISO 6284:1985), which has been technically revised.

Annex A of this International Standard is for information only.

1 Scope

This International Standard specifies methods for the indication of limit deviations on construction drawings.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 286-1:1988, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits*.

ISO 1803:—, *Building construction — Expression of dimensional accuracy — Vocabulary*¹⁾.

ISO 4068:1978, *Building and civil engineering drawings — Reference lines*.

ISO 9431:1990, *Construction drawings — Spaces for drawing and for text, and title blocks on drawings sheets*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 286-1 and ISO 1803 apply.

4 General

A limit deviation shall be indicated on a drawing only when there is a functional requirement to control dimension, orientation or form.

5 Indication of limit deviations

5.1 The following methods shall be used when requirements for accuracy are to be defined by limit deviations.

The indication of limit deviations shall be

- a) a single reference in the space for text (see ISO 9431) in the case of repetitive deviations;
- b) placed with, or adjacent to, the caption of the figure when limit deviation information applies only to sizes within that figure (for example, a cross-section detail);
- c) placed with, or adjacent to, the size concerned when limit deviation information applies only to that size.

5.2 Limit deviations for size shall be indicated by the target size and the limit deviations. The target size and the values of limit deviations shall be given in millimetres (see Figure 1 and Figure 2). In the case of angles, the target size and the limit deviations should preferably be given in degrees, but may be given, if necessary, in gon.

Limit deviation information which is shown on drawings should be given in accordance with the example shown in Figure 1 a) for a symmetrical limit deviation and in accordance with Figure 1 b) or Figure 1 c) for an asymmetrical limit deviation.

5.3 Limit deviations for a position dimension are limit deviations for a dimension which locates one item in relation to another, for example, one reference line to another, a component to a reference line [see Figure 2 a) and ISO 4068] or a finished floor level to a datum level [see Figure 2 b)].

Levels relate to site zero datum and are given in metres with three digits to the right of the decimal sign.

¹⁾ To be published. (Revision of ISO 1803-1:1985, ISO 1803-2:1986 and ISO 4464:1980)

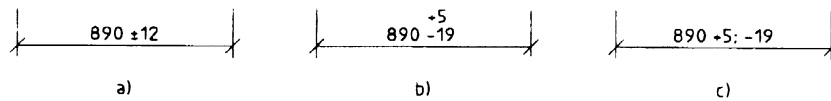


Figure 1 — Examples of indications of limit deviations for size

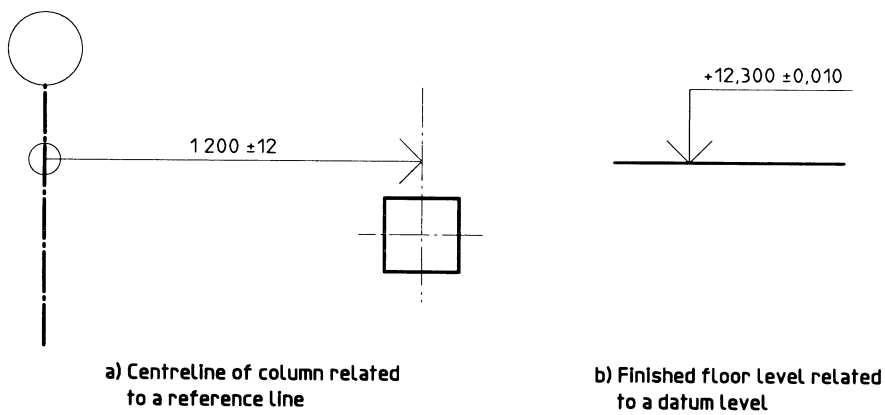


Figure 2 — Examples of limit deviations for position dimensions

Annex A (informative)

Bibliography

- [1] ISO 129:1985, *Technical drawings — Dimensioning — General principles, definitions, methods of execution and special indications*.
- [2] ISO 406:1987, *Technical drawings — Tolerancing of linear and angular dimensions*.
- [3] ISO 1101:1983, *Technical drawings — Geometrical tolerancing — Tolerancing of form, orientation, location and run-out — Generalities, definitions, symbols, indications on drawings*.

Annex ZA (normative)
Normative references to international publications with their relevant European publications

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.

Publication	Year	Title	EN	Year
ISO 286-1	1988	<i>ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits</i>	EN 20286-1	1993

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