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)

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.

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Construction drawings — Indication of limit deviations

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:—[1], *Building construction — Expression of dimensional accuracy — Vocabulary.*

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.

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

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 figures 1 and 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 1a) for a symmetrical limit deviation and in accordance with figure 1b) or figure 1c) for an asymmetrical limit deviation.

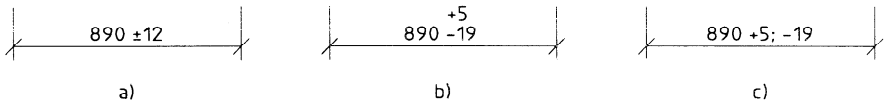

Figure 1 — Examples of indications of limit deviations for size

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 2a) and ISO 4068] or a finished floor level to a datum level [see figure 2b)].

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

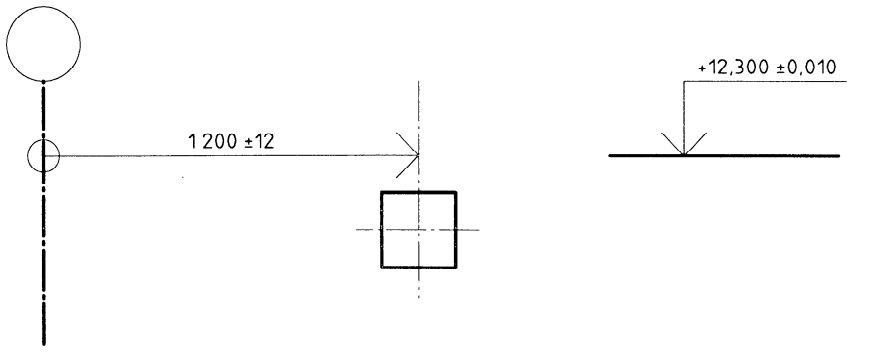

Figure 2 — Examples of limit deviations for position dimensions

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.*

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

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