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**Tehniške risbe - Simboli za označevanje geometričnih toleranc - Sorazmerja in mere (ISO 7083:1983)**

Technical drawings - Symbols for geometrical tolerancing - Proportions and dimensions (ISO 7083:1983)

Technische Zeichnungen - Symbole für Form-und Lagetolerierung - Verhältnisse und Maße (ISO 7083:1983)

Dessins techniques - Symboles pour tolérancement géométrique - Proportions et dimensions (ISO 7083:1983)

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**Ta slovenski standard je istoveten z: EN ISO 7083:1994**

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**ICS:**

01.100.01      Tehnično risanje na splošno      Technical drawings in general

**SIST EN ISO 7083:% - , .....Yb**

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EUROPEAN STANDARD

EN ISO 7083

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 1994

ICS 01.100.10

Descriptors: technical drawings, graphic methods, form tolerances, symbols, dimensions

English version

**Technical drawings - Symbols for geometrical  
tolerancing - Proportions and dimensions  
(ISO 7083:1983)**

Dessins techniques - Symboles pour tolérancement géométrique - Proportions et dimensions (ISO 7083:1983) Technische Zeichnungen - Symbole für Form- und Lagetoleranzierung - Verhältnisse und Maße (ISO 7083:1983)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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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

This European Standard was taken over by CEN from the work of ISO/TC 10 "Technical drawings, product definition and related documentation" of the international Standards Organization (ISO).

The Technical Board had decided to submit the final draft for Formal Vote. The result was positive.

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 April 1995, and conflicting national standards shall be withdrawn at the latest by April 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

## Endorsement notice

The text of the International Standard ISO 7083:1983 was approved by CEN as a European Standard without any modification.

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# International Standard



# 7083

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## Technical drawings — Symbols for geometrical tolerancing — Proportions and dimensions

*Dessins techniques — Symboles pour tolérancement géométrique — Proportions et dimensions*

**First edition — 1983-06-15**

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**UDC 744.43 : 621.753.1 : 003.62**

**Ref. No. ISO 7083-1983 (E)**

**Descriptors :** technical drawings, graphic methods, form tolerances, symbols, dimensions.

Price based on 9 pages

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 7083 was developed by Technical Committee ISO/TC 10, *Technical drawings*, and was circulated to the member bodies in September 1981.

It has been approved by the member bodies of the following countries :

Austria	India	Poland
Belgium	Ireland	Romania
Czechoslovakia	Italy	South Africa, Rep. of
Denmark	Japan	Spain
Finland	Korea, Dem. P. Rep. of	Sweden
France	Netherlands	Switzerland
Germany, F. R.	New Zealand	USSR

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Canada  
United Kingdom  
USA

# Technical drawings — Symbols for geometrical tolerancing — Proportions and dimensions

## 0 Introduction

The purpose of this International Standard is to give instructions for the correct execution of the symbols for geometrical tolerancing on technical drawings (see ISO 1101 and ISO 5459), and to harmonize the dimensioning of these symbols with the lettering used for dimensioning and other indications on the drawing.

## 1 Scope and field of application

This International Standard specifies the recommended proportions and lays down the dimensions for the symbols used to indicate geometrical tolerancing on technical drawings.

The symbols and their lettering may be hand-written (using a rule for drawing the frames) or executed by means of other appropriate methods (for example, stencils, transfers, mechanical drawing, etc.).

The dimensions of the symbols are based on the standard heights of lettering given in ISO 3098/1.

## 2 References

ISO 1101, *Technical drawings — Geometrical tolerancing — Tolerancing of form, orientation, location and runout — Generalities, definitions, symbols, indication on drawings*.<sup>1)</sup>

ISO 3098/1, *Technical drawings — Lettering — Part 1: Currently used characters*.

ISO 5459, *Technical drawings — Geometrical tolerancing — Datums and datum-systems for geometrical tolerances*.

## 3 General conditions

**3.1** The lettering used with the symbols shall be in accordance with the specifications of ISO 3098/1.

**3.2** It is recommended that on any one drawing the height, thickness of lines and type of lettering with the symbols be equal to those applied for the dimensioning and other indications on that drawing.

## 4 Proportions

Examples for the proportions of the symbols and frames for use with lettering type B, vertical or inclined, are shown in figures 1 to 21.

The configurations are depicted on a grid with a spacing equal to the thickness of line. The design of the inscribed characters is mostly not shown, but shall be the same as in ISO 3098/1 for lettering type B, vertical or inclined.

For the alternative lettering type A, vertical or inclined, appropriate grids should be used, but it is understood that

- frames are always drawn as squares or rectangles;
- symbols for tolerated characteristics and additional symbols (see ISO 1101) are always to be depicted as shown in figures 1 to 21.

<sup>1)</sup> At present at the stage of draft. (Revision of ISO/R 1101/1-1969.)

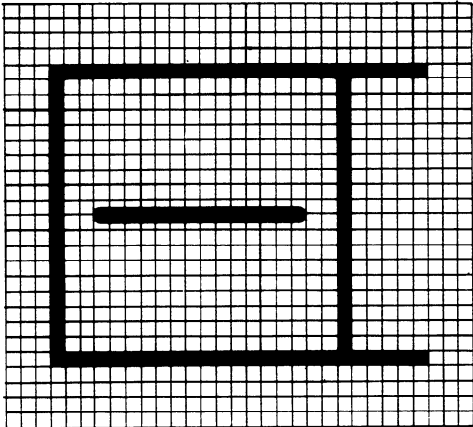


Figure 1 — Straightness

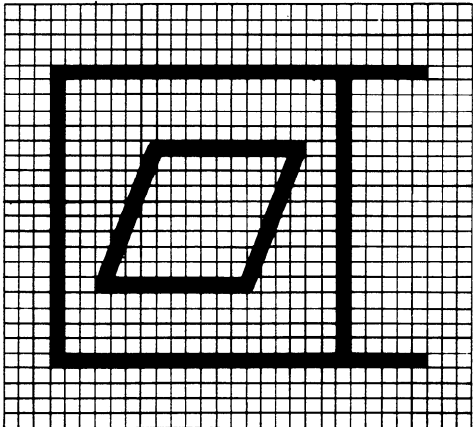


Figure 2 — Flatness

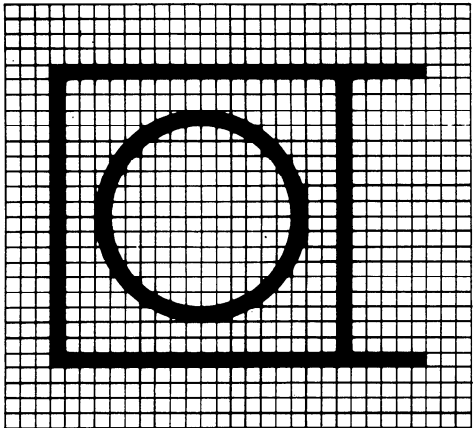


Figure 3 — Circularity (roundness)

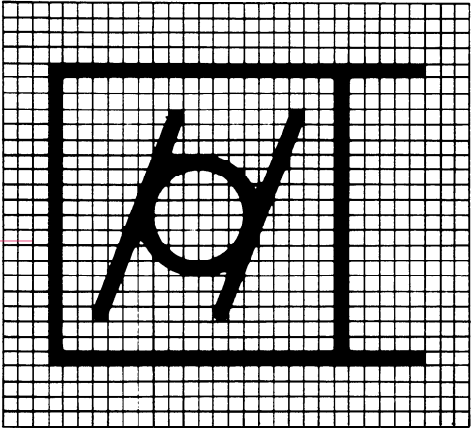


Figure 4 — Cylindricity

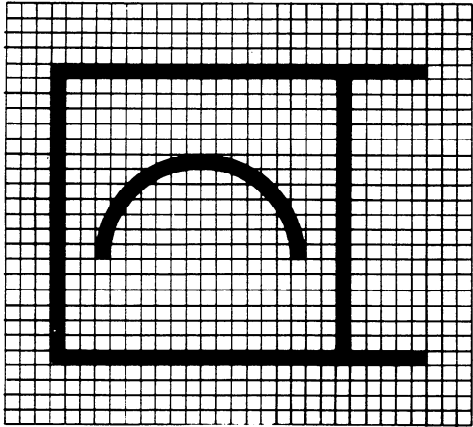


Figure 5 — Profile of any line

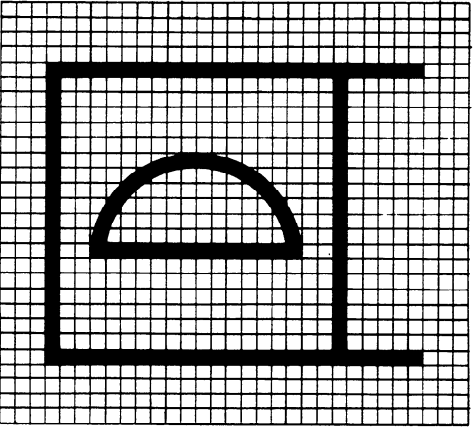


Figure 6 — Profile of any surface



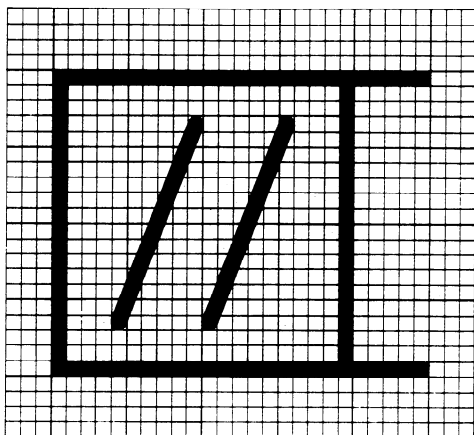


Figure 7 — Parallelism

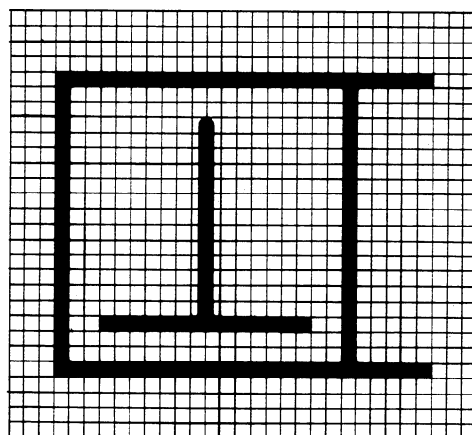


Figure 8 — Perpendicularity

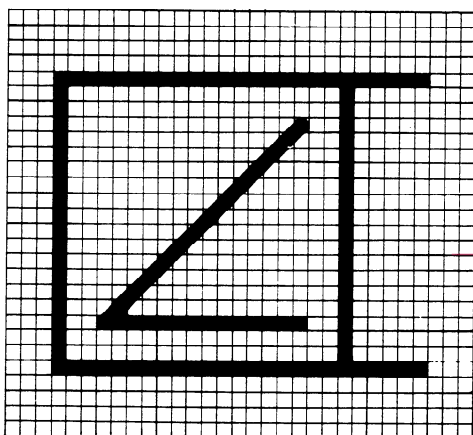


Figure 9 — Angularity

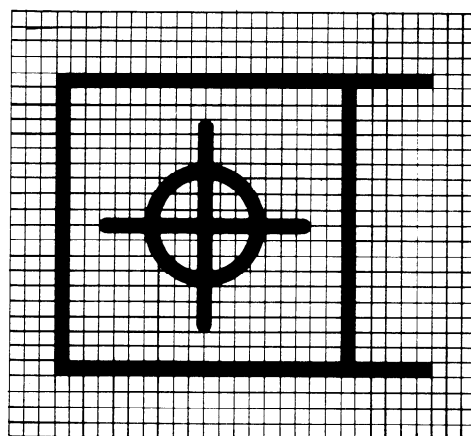


Figure 10 — Position

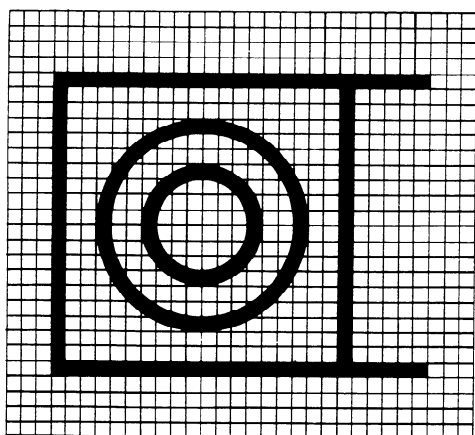


Figure 11 — Concentricity and coaxiality

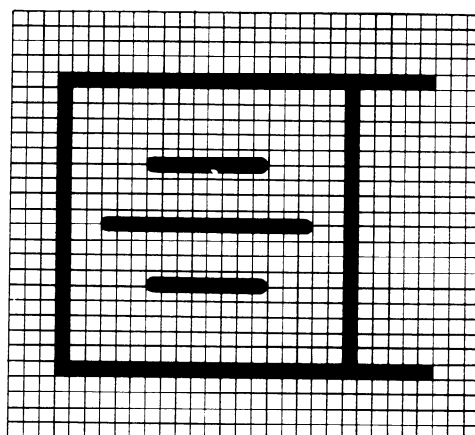


Figure 12 — Symmetry