
Tools for pressing — Guide pillars —
Part 3:
Type B, end-locking pillars

Outillage de presse — Colonnes de guidage —
Partie 3: Type B, colonnes à retenue inférieure

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Published in Switzerland

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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).

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).

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.

This document was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

This third edition cancels and replaces the second edition (ISO 9182-3:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

- correction of [Figure 1](#) with the addition of a surface roughness indication on diameter d_1 ;
- addition of a surface roughness indication on the groove in [Figure 2](#);
- updating of the Bibliography.

A list of all parts in the ISO 9182 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 www.iso.org/members.html.

Tools for pressing — Guide pillars —

Part 3: Type B, end-locking pillars

1 Scope

This document specifies the dimensions and tolerances of guide pillars, type B, intended for use in press tools. These guide pillars can be end-locking, type B1 (see [Figure 1](#)), or end-locking with lubrication grooves, type B2 (see [Figure 2](#)).

It gives guidance on the materials and specifies the hardness and the designation of guide pillars which meet the requirements of this document.

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 6753-1, *Tools for pressing and moulding — Machined plates — Part 1: Machined plates for press tools*

ISO 9448-10, *Tools for pressing — Guide bushes — Part 10: Form E, gliding bushes, flanged, type 2*

3 Terms and definitions

No terms and definitions are listed in this document.

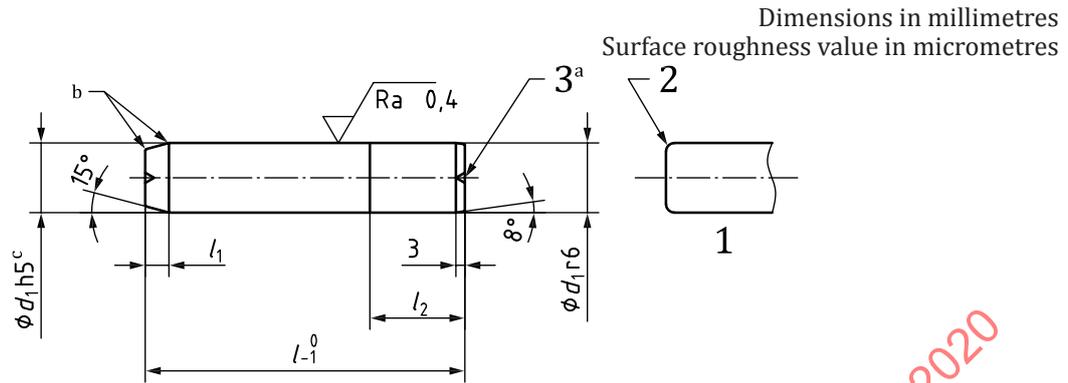
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

4 Dimensions

The dimensions of end-locking guide pillar (type B1) shall conform to the indications of [Figure 1](#) and [Table 1](#).

The dimensions of end-locking guide pillar with lubrication grooves (type B2) shall conform to the indications of [Figure 2](#) and [Table 1](#).



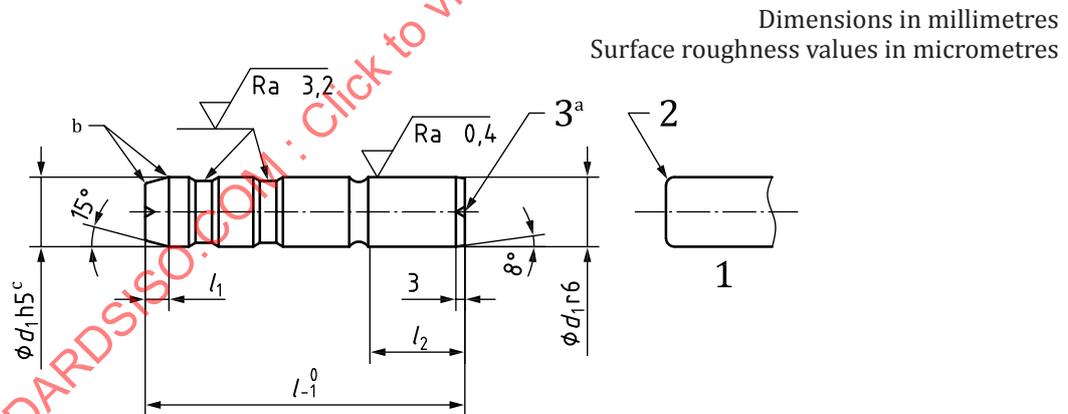
Key

- 1 alternative
- 2 radius
- 3 centres

NOTE Tolerance classes and limit deviations are defined in ISO 286-2.

- a Optional.
- b Slightly rounded. The values of the radii are left to the manufacturer's discretion.
- c A g6 tolerance can be applied if required for certain applications and, if so, shall be used only in conjunction with guide bush in accordance with ISO 9448-10.

Figure 1 — Type B1, end-locking guide pillar



Key

- 1 alternative
- 2 radius
- 3 centres

NOTE Tolerance classes and limit deviations are defined in ISO 286-2.

- a Optional.
- b Slightly rounded. The values of the radii are left to the manufacturer's discretion.
- c A g6 tolerance can be applied if required for certain applications and, if so, shall be used only in conjunction with guide bush in accordance with ISO 9448-10.

Figure 2 — Type B2, end-locking guide pillar with lubrication grooves

Table 1

Dimensions in millimetres

d_1^a	25	32	40	50	63	80	100
l_1 min.	6	6	6	8	8	8	8
l_2 min. ^b	32	40	40	50	63	80	100
l_{-1}^0	125	×	×				
	140	×	×	×			
	160	×	×	×	×		
	180	×	×	×	×	×	
	200	×	×	×	×	×	×
	224	×	×	×	×	×	×
	250	×	×	×	×	×	×
	280	×	×	×	×	×	×
	315		×	×	×	×	×
	355			×	×	×	×
	400			×	×	×	×
	450				×	×	×
500				×	×	×	

Key
 × standardized dimension
^a To prevent an incorrect assembly of the upper and lower plates of the die set in relation to each other, the following values of d_1 are recommended: 24, 30, 38, 48, and 60.
^b Larger values of l_2 shall be chosen as a function of other dimensions such as plate thickness in accordance with ISO 6753-1.

5 Material

The material is left to the manufacturer's discretion and the hardness shall be (60^{+2}_0) HRC.

NOTE Rockwell C hardness (HRC) is defined in ISO 6508-1.

6 Designation

Guide pillars for press tools in accordance with this document shall be designated by

- "Guide pillar";
- a reference to this document, i.e. ISO 9182-3;
- its type;
- its diameter, d_1 , in millimetres, and corresponding tolerance;
- its overall length, l , in millimetres.

EXAMPLE A guide pillar, type B1, of diameter $d_1 = 25$ mm with a tolerance h5, and overall length $l = 125$ mm is designated as follows:

Guide pillar ISO 9182-3 - B1 - 25h5 × 125

Bibliography

- [1] ISO 286-2, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts*
- [2] ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method*
- [3] ISO 9182-1, *Tools for pressing — Guide pillars — Part 1: Types*

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