

INTERNATIONAL STANDARD

ISO
9182-3

First edition
1992-06-15

Tools for pressing — Guide pillars —

Part 3:

Type B, end-locking pillars

Outils de presse — Colonnes de guidage —

Partie 3: Type B, colonnes à retenue inférieure



Reference number
ISO 9182-3:1992(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 9182-3 was prepared by Technical Committee ISO/TC 29, *Small tools*, Sub-Committee SC 8, *Tools for pressing and moulding*.

ISO 9182 consists of the following parts, under the general title *Tools for pressing* — *Guide pillars*:

- Part 1: *Types*
- Part 2: *Type A, straight pillars*
- Part 3: *Type B, end-locking pillars*
- Part 4: *Type C, pillars with taper lead and bush*
- Part 5: *Type D, end-locking pillars with flange*

Annex A of this part of ISO 9182 is for information only.

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International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Tools for pressing — Guide pillars —

Part 3:

Type B, end-locking pillars

1 Scope

This part of ISO 9182 specifies the dimensions and tolerances, in millimetres, of guide pillars, type B, intended for use in press tools. These guide pillars may be end-locking, type B1 [see figure 1 a)], or end-locking with lubrication grooves, type B2 [see figure 1 b)].

It gives guidance on materials and specifies the hardness and the designation of guide pillars which meet the requirements of this part of ISO 9182.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 9182. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9182 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6753:1982, *Machined plates for press tools, moulds, jigs and fixtures — Nominal dimensions*.

ISO 9448-10:1992, *Tools for pressing — Guide bushes — Part 10: Form E, gliding bushes, flanged, type 2*.

3 Dimensions

See figure 1 and table 1.

4 Material and hardness

The material is left to the manufacturer's discretion. The hardness shall be (62^{+2}_{-0}) HRC.

5 Designation

Guide pillars for press tools in accordance with this part of ISO 9182 shall be designated by

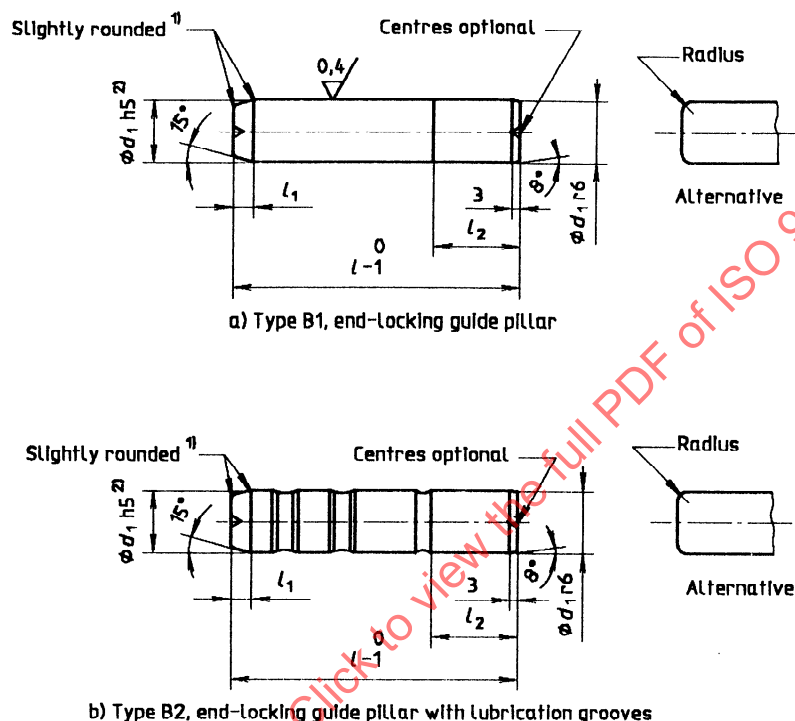
- "Guide pillar";
- reference to this part of ISO 9182;
- its type;
- its diameter, d_1 , in millimetres, and corresponding tolerance;
- its overall length, l , in millimetres.

EXAMPLE

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

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

Surface roughness values in micrometres



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

Figure 1 — End-locking guide pillars

Table 1

d_1		25	32	40	50	63	80	100
l_1 min.		6	6	6	8	8	8	8
l_2 min.		32	40	40	50	63	80	100
l_1^0	125	x	x					
	140	x	x	x				
	160	x	x	x	x			
	180	x	x	x	x	x		
	200	x	x	x	x	x	x	
	224	x	x	x	x	x	x	x
	250	x	x	x	x	x	x	x
	280	x	x	x	x	x	x	x
	315		x	x	x	x	x	x
	355			x	x	x	x	x
	400			x	x	x	x	x
	450				x	x	x	x
	500				x	x	x	x

NOTES

1 x standardized dimensions.

2 Larger values of l_2 shall be chosen as a function of other dimensions such as the plate thickness in accordance with ISO 6753.

3 To prevent an incorrect assembly of the upper and lower plates of the die set in relation to each other, the following values for diameter d_1 are recommended: 24, 30, 38, 48 and 60.

Annex A
(informative)

Bibliography

- [1] ISO 6508:1986, *Metallic materials — Hardness test — Rockwell test (scales A - B - C - D - E - F - G - H - K)*.
- [2] ISO 9182-1:1992, *Tools for pressing — Guide pillars — Part 1: Types*.

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