BS ISO 9182-2:2013



BSI Standards Publication

Tools for pressing — Guide pillars

Part 2: Type A, straight pillars



BS ISO 9182-2:2013 BRITISH STANDARD

National foreword

This British Standard is the UK implementation of ISO 9182-2:2013. It supersedes BS 7568-26:1993 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MTE/12, Tools for pressing and moulding.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Foreword

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The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

This second edition results from the reinstatement of ISO 9182-2:1992 which was withdrawn in 2007 and with which it is technically identical.

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

Tools for pressing — Guide pillars —

Part 2:

Type A, straight pillars

1 Scope

This part of ISO 9182 specifies the dimensions and tolerances, in millimetres, of guide pillars, type A, intended for use in press tools. These guide pillars can be straight, type A1 (see <u>Figure 1</u>), or straight with end-locking and locking ring, type A2 (see <u>Figure 2</u>).

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

2 Dimensions

The dimensions of straight guide pillar (type A1) shall conform to the indications of Figure 1 and Table 1.

The dimensions of straight guide pillar with end-locking and locking ring (type A2) shall conform to the indications in Figure 2 and Table 1.

Key

- 1 alternative
- 2 radius
- 3 centres
- a Optional.
- $^{\rm b}$ $\,$ Slightly rounded. The values of the radii are left to the manufacturer's discretion.

Figure 1 — Type A1, straight guide pillar

Surface roughness value in micrometres

Ra0.4

Ra0.4

1

1

Key

- 1 alternative
- 2 radius
- 3 centres
- a Optional.
- b Slightly rounded. The values of the radii are left to the manufacturer's discretion.

Figure 2 — Type A2, straight guide pillar with end-locking and locking ring

Table 1

d_1		12	16	20	25	32	40	50	63	80	100
d_2		10,3	14,3	17,3	22,3	27,8	35,8	45,8	56,8	73,8	93,8
l_1 min.		4	4	4	6	6	6	8	8	8	8
l_3		1,7	1,7	2,7	2,7	4,2	4,2	4,2	6,2	6,2	6,2
14		4	4	6	6	10	10	10	16	16	16
	80	×									
	90	×	×								
	100	×	×	×	×						
	112	×	×	×	×						
	125	×	×	×	×	×					
	140	×	×	×	×	×					
	160		×	×	×	×	×				
	180		×	×	×	×	×	×			
$\begin{bmatrix} l & 0 \\ -1 \end{bmatrix}$	200		×	×	×	×	×	×			
	224			×	×	×	×	×			
	250				×	×	×	×	×		
	280				×	×	×	×	×		
	315					×	×	×	×	×	
	355						×	×	×	×	×
	400						×	×	×	×	×
	450							×	×	×	×
	500							×	×	×	×

NOTE 1 ×, standardized dimension.

NOTE 2 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: 11, 15, 19, 24, 30, 38, 48, and 60.

3 Material

The material is left to the manufacturer's discretion and the hardness shall be (60 $^{+2}_{\ 0}$) HRC.

4 Designation

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

- a) "Guide pillar";
- b) a reference to this part of ISO 9182, i.e. ISO 9182-2;
- c) its type;
- d) its diameter, d_1 , in millimetres;
- e) its overall length, *l*, in millimetres.

EXAMPLE A guide pillar, type A1, of diameter $d_1 = 12$ mm and overall length l = 80 mm is designated as follows:

Guide pillar ISO $9182-2 - A1 - 12 \times 80$

Bibliography

- [1] ISO 6508-1:2005, Metallic materials Rockwell hardness test Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)
- [2] ISO 9182-1:2013, Tools for pressing Guide pillars Part 1: Types



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