INTERNATIONAL STANDARD

ISO 9182-2

Second edition
2013-12-15

Tools for pressing — Guide pillars —

Part 2: Type A, straight pillars

Outillage de presse — Colonnes de guidage —

Partie 2: Type A, colonnes droites

Reference number
ISO 9182-2:2013(E)

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Foreword

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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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

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This second edition results from the reinstatement of ISO 9182-2:1992 which was withdrawn in 2007 and with which it is technically identical.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 Figure 1), or straight with end-locking and locking ring, type A2 (see Figure 2).

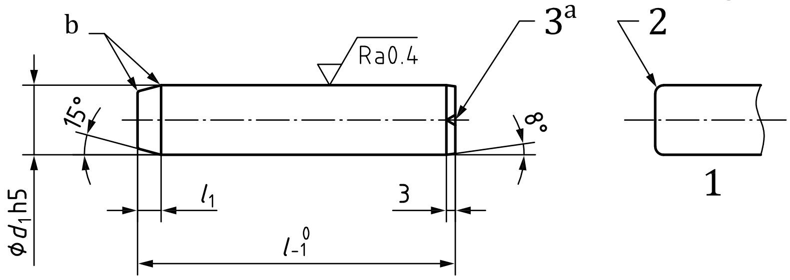
It gives guidance on the materials and specifies the hardness and the designation of guide pillars which meet the requirements of this part of ISO 9182.

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.

Surface roughness value in micrometres



Key

1 alternative

2 radius

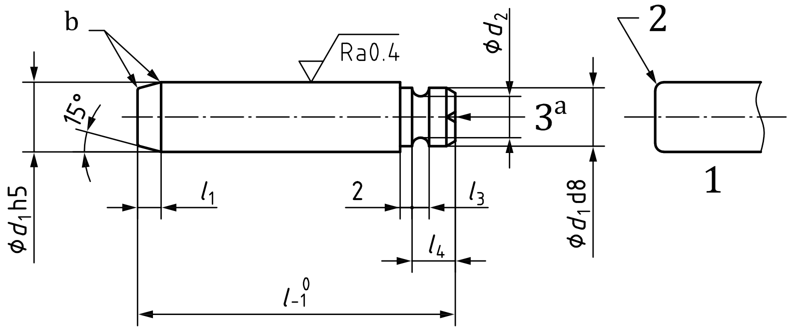
3 centres

a Optional.

b Slightly rounded. The values of the radii are left to the manufacturer's discretion.

Figure 1 — Type A1, straight guide pillar

Surface roughness value in micrometres



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
l_4		4	4	6	6	10	10	10	16	16	16
$l\ ^{0}_{-1}$	80	×									
	90	×	×								
	100	×	×	×	×						
	112	×	×	×	×						
	125	×	×	×	×	×					
	140	×	×	×	×	×					
	160		×	×	×	×	×				
	180		×	×	×	×	×	×			
	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 × 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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