INTERNATIONAL STANDARD

ISO 9182-4

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Tools for pressing — Guide pillars —

Part 4:
Type C, pillars with taper lead and bush

Outillage de presse — Colonnes de guidage —

Partie 4: Type C, colonnes à emmanchement conique et sa bague de guidage

Reference number
ISO 9182-4:1992(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 9182-4 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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Tools for pressing — Guide pillars —

Part 4:
Type C, pillars with taper lead and bush

1 Scope

This part of ISO 9182 specifies the dimensions and tolerances, in millimetres, of guide pillars, type C, with taper lead and bush, intended for use in press tools.

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 reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 9182. At the time of publication, the edition indicated was 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 edition of the standard 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.*

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

a) "Guide pillar";

b) reference to this part of ISO 9182;

c) its type;

d) its diameter, d_1, in millimetres;

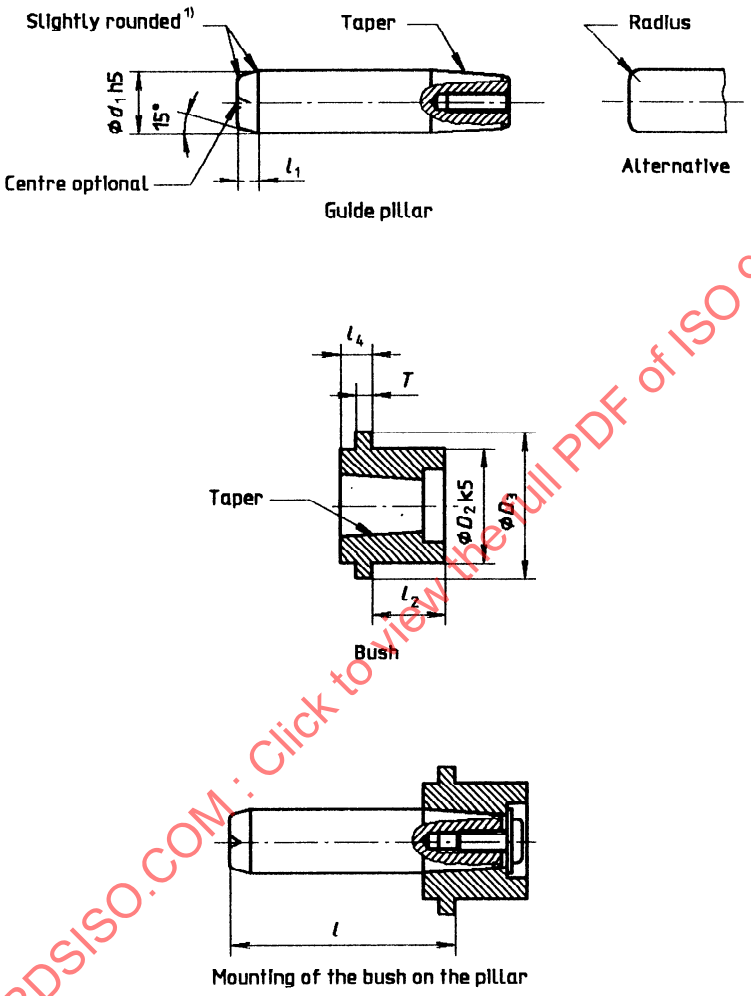
e) the bush length, l_2, in millimetres;

f) the length, l, in millimetres.

EXAMPLE

The designation for a guide pillar, type C, of diameter $d_1 = 12$ mm, with a bush length $l_2 = 20$ mm and a length $l = 80$ mm is as follows:

Guide pillar ISO 9182-4 - C - 12 × 20 × 80



1) The values of the radii are left to the manufacturer's discretion.

Figure 1 — Guide pillar with taper lead and bush

Table 1

d_1		12	16	20	25	32	40	50	63	80	100
D_2		22	28	32	40	48	58	70	85	105	125
D_3		30	36	40	48	56	66	80	95	117	137
l_2 min.		20	25	32	32	40	40	50	63	80	100
l_4		10	10	12	12	15	15	18	18	22	22
l_1 min.		4	4	4	6	6	6	8	8	8	8
$T \pm 0{,}1$		6,3	6,3	6,3	6,3	6,3	6,3	6,3	6,3	6,3	6,3
$l\ ^{0}_{-1}$	80	×									
	90	×	×								
	100	×	×	×							
	112	×	×	×	×						
	125	×	×	×	×	×					
	140		×	×	×	×	×				
	160		×	×	×	×	×	×			
	180		×	×	×	×	×	×			
	200			×	×	×	×	×	×		
	224				×	×	×	×	×		
	250				×	×	×	×	×	×	
	280					×	×	×	×	×	
	315						×	×	×	×	×
	355						×	×	×	×	×
	400							×	×	×	×
	450							×	×	×	×

NOTES

1 × 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: 11, 15, 19, 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.*