INTERNATIONAL STANDARD

ISO 8017

Second edition
2007-02-01

Tools for moulding — Guide pillars, straight and shouldered, and locating guide pillars, shouldered

Outillage de moulage — Colonnes de guidage, droites et épaulées, et épaulées avec plot de centrage

Reference number
ISO 8017:2007(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 8017 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

This second edition cancels and replaces the first edition (ISO 8017:1985), of which it constitutes a minor revision. In particular, the references given in Clause 2, which are not mentioned in the text, have been listed in a Bibliography, and the indication of surface textures has been updated in accordance with ISO 1302:2002.

Tools for moulding — Guide pillars, straight and shouldered, and locating guide pillars, shouldered

1 Scope

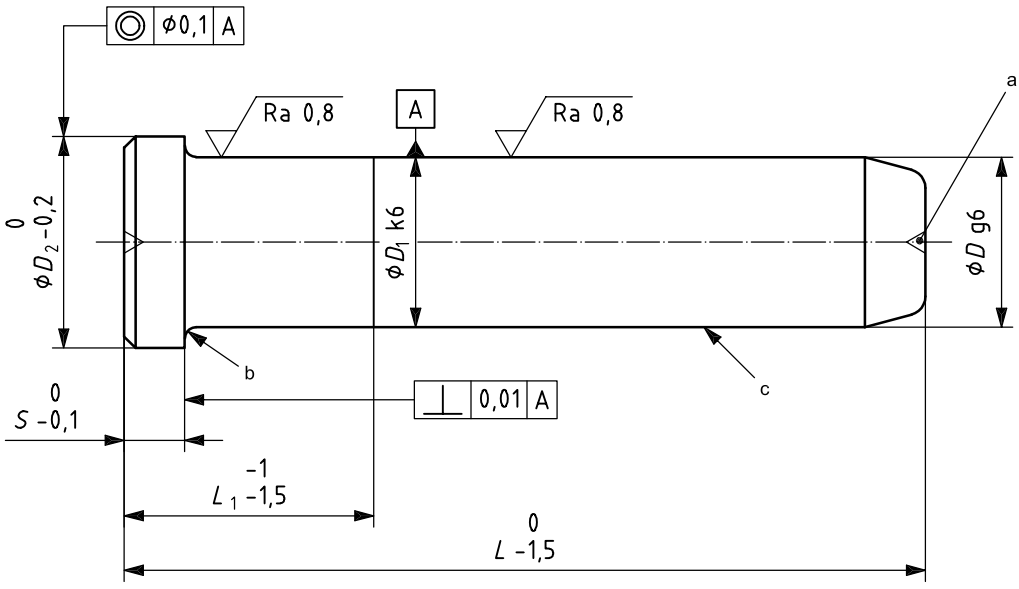
This International Standard specifies the dimensions and tolerances, in millimetres, for headed, straight and shouldered guide pillars and shouldered locating guide pillars intended for use in moulds.

2 Dimensions

2.1 Guide pillars, straight – Type A

The dimensions of straight guide pillars of type A shall conform to the indications of Figure 1 and Table 1.

Surface roughness values in micrometres



NOTE The sketch is an example only.

Key

a Optional centre holes.

b Blending radius or a recess.

c Recess if required.

Figure 1 — Guide pillars, straight — Type A

Table 1 — Dimensions of guide pillars, straight — Type A

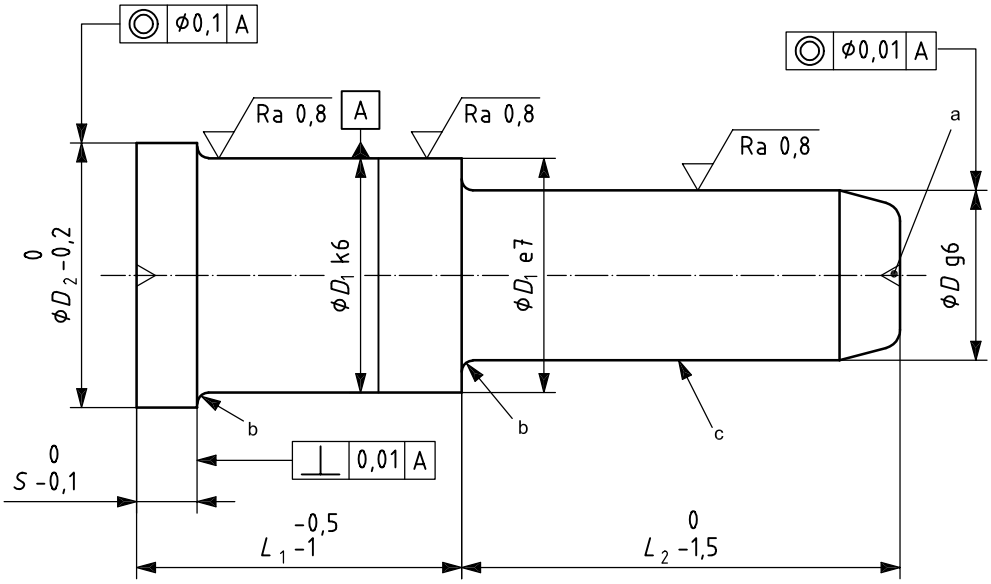
D[a] / D_1[a]	12			16			20				25				32		40			50		
D_2	16			20			25				32				40		48			56		
S	4			6			6				6				8		8			8		
L	L_1																					
	20	25	32	25	32	40	25	32	40	50	25	32	40	50	40	50	50	63	80	63	80	100
40	×																					
50	×			×			×				×											
63	×			×			×				×											
80		×		×			×				×											
90		×		×			×					×			×							
100		×		×			×					×			×							
125			×		×			×					×		×							
160			×		×				×				×			×	×			×		
200						×			×					×		×	×			×		
250										×				×		×		×			×	
315																		×			×	
400																			×			×

[a] For use in exceptional cases, for instance, to prevent incorrect assembly of the upper and lower plates of the mould in relation to each other, the following additional values for diameters D and D_1 are recommended: 11, 15, 19, 24, 30, 38 and 48.

2.2 Guide pillars, shouldered – Type B

The dimensions of shouldered guide pillars of type B shall conform to the indications of Figure 2 and Table 2.

Surface roughness values in micrometres



NOTE The sketch is an example only.

Key

a Optional centre holes.

b Blending radius or a recess.

c Recess if required.

Figure 2 — Guide pillars, shouldered — Type B

Table 2 — Dimensions of guide pillars, shouldered — Type B

D[a]	12						16						20						25						
D_1	18						22						28						32						
D_2	22						26						32						36						
S	4						6						6						6						
L_2	L_1																								
	16	20	25	32	40	50	25	32	40	50	63	80	32	40	50	63	80	100	32	40	50	63	80	100	125
25	×	×	×																						
32	×	×	×	×	×	×																			
40	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×				×	×	×				
50	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×			
63	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
80							×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
100										×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
125																	×	×			×	×	×	×	×
160																									
200																									

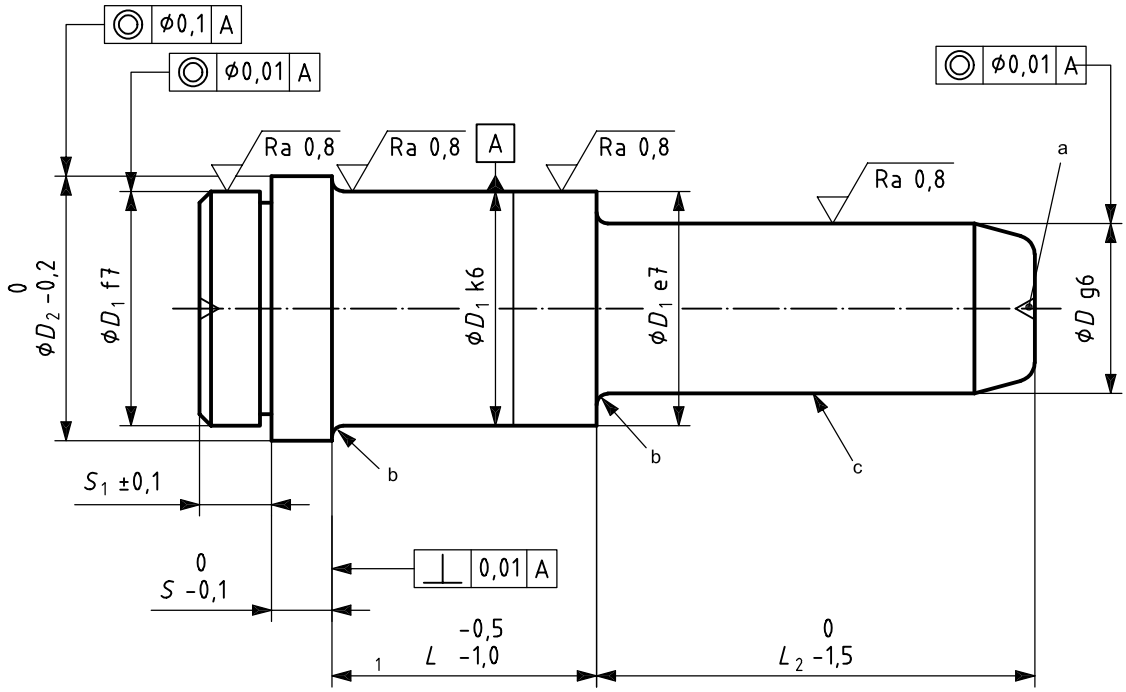
D[a]	32							40					50				
D_1	40							50					63				
D_2	45							56					71				
S	8							8					8				
L_2	L_1																
	40	50	63	80	100	125	160	63	80	100	125	160	80	100	125	160	200
25																	
32																	
40																	
50																	
63	×	×	×	×	×			×	×								
80	×	×	×	×	×	×		×	×				×				
100	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
125		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
160		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
200													×	×	×	×	×

[a] For use in exceptional cases, for instance, to prevent incorrect assembly of the upper and lower plates of the mould in relation to each other, the following additional values for diameter D are recommended: 11, 15, 19, 24, 30, 38 and 48.

2.3 Guide pillars, shouldered locating — Type C

The dimensions of shouldered locating guide pillars of type C, shall conform to the indications of Figure 3 and Table 3.

Surface roughness values in micrometres



NOTE The sketch is an example only.

Key

a Optional centre holes.

b Blending radius or a recess.

c Recess if required.

Figure 3 — Guide pillars, shouldered locating — Type C

Table 3 — Dimensions of guide pillars, shouldered locating — Type C

D[a]	12						16						20						25					
D_1	18						22						28						32					
D_2	22						26						32						36					
S	4						6						6						6					
S_1	4						6						6						6					
L_2	L_1																							
	16	20	25	32	40	50	25	32	40	50	63	80	32	40	50	63	80	100	32	40	50	63	80	100	125
25	×	×	×																						
32	×	×	×	×	×	×																			
40	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×				×	×	×				
50	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×			×	×	×	×			
63	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
80							×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×		
100										×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
125																	×	×			×	×	×	×	×
160																									
200																									

D[a]	32							40					50					
D_1	40							50					63					
D_2	45							56					71					
S	8							8					8					
S_1	8							8					8					
L_2	L_1																	
	40	50	63	80	100	125	160	63	80	100	125	160	80	100	125	160	200	
25																		
32																		
40																		
50																		
63	×	×	×	×	×		×	×										
80	×	×	×	×	×	×		×	×				×					
100	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
125		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
160		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
200													×	×	×	×	×	

[a] For use in exceptional cases, for instance, to prevent incorrect assembly of the upper and lower plates of the mould in relation to each other, the following additional values for diameter D are recommended: 11, 15, 19, 24, 30, 38 and 48.

3 Designation

A guide pillar in accordance with this International Standard shall be designated by:

a) "guide pillar";

b) a reference to this International Standard, i.e. ISO 8017;

c) type of guide pillar (A, B or C);

d) its diameter (D);

e) its length (L for type A and $L_2 \times L_1$ for types B and C).

EXAMPLE **Guide pillar ISO 8017 – A 12 × 40**

Guide pillar ISO 8017 – B 12 × 25 × 16

Guide pillar ISO 8017 – C 12 × 25 × 16

Bibliography

[1] ISO 1302:2002, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

[2] ISO 4957:1999, *Tool steels*

[3] ISO 6753-2:1998, *Tools for pressing and moulding — Machined plates — Part 2: Machined plates for moulds*

[4] ISO 8018, *Tools for moulding — Guide bushes, headed, and locating guide bushes, headed*

ICS 25.120.30

Price based on 8 pages