INTERNATIONAL STANDARD

ISO 8405

Third edition
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Tools for moulding — Ejector sleeves with cylindrical head — Basic series for general purposes

Outillage de moulage — Éjecteurs tubulaires à tête cylindrique — Série de base pour usages généraux

Reference number
ISO 8405:2013(E)

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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 third edition cancels and replaces the second edition (ISO 8405:1998), which has been technically revised.

Tools for moulding — Ejector sleeves with cylindrical head — Basic series for general purposes

1 Scope

This International Standard specifies the dimensions and tolerances, in millimetres, of ejector sleeves with cylindrical head which are used in compression and injection moulds and in die casting dies.

It also gives material guidelines and hardness requirements, and specifies the designation of ejector sleeves with cylindrical head.

2 Normative references

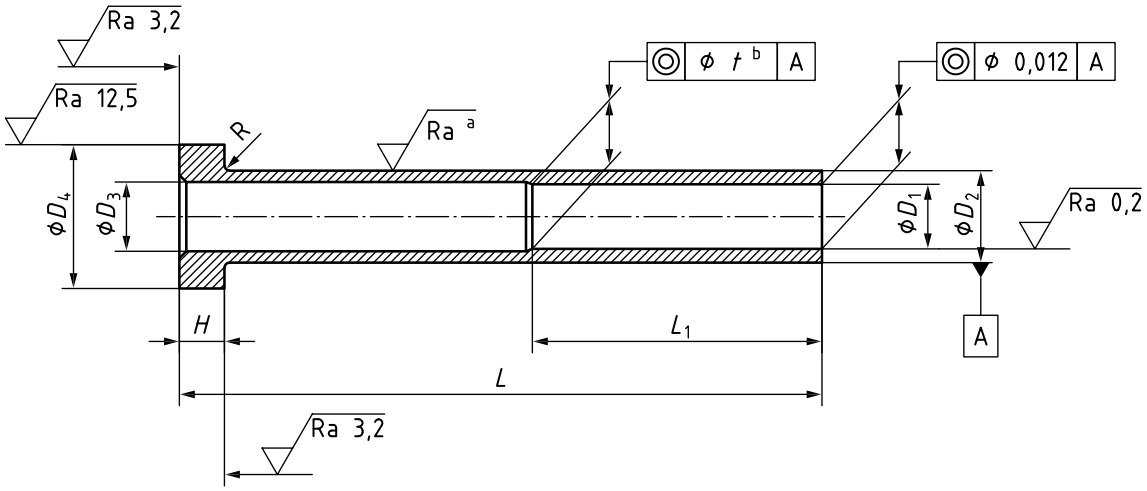
The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6751:2011, *Tools for moulding — Ejector pins with cylindrical head*

3 Dimensions

The dimensions of ejector sleeves with cylindrical head shall be in accordance with the indications of Figure 1 and Table 1.

Surface roughness values in micrometres



Key

a Ra 0,8 for hot worked steel. Ra 0,4 for alloyed cold worked steel.

b t = 0,012 mm ($L_1 \times 10^{-1}$).

Figure 1 — Ejector sleeves

Table 1 — Ejector sleeves

Dimensions in millimetres

D_1[a] H5	D_2 g6	D_3	D_4 $^{0}_{-0,2}$	L_1 $^{+1}_{0}$	L $^{+1}_{0}$										H[b] $^{0}_{-0,05}$	R $^{+0,2}_{0}$
					75	100	125	150	175	200	225	250	275	300		
2	4	2,5 $^{+0,2}_{-0,1}$	8	35	X	X	X								3	0,3
2,5	5	3 $^{+0,2}_{-0,1}$	10		X	X	X									
3		3,5 $^{+0,2}_{-0,1}$		45	X	X	X	X								
4	8	4,5 $^{+0,2}_{-0,1}$	14		X	X	X	X	X	X					5	0,5
5		5,5 $^{+0,3}_{-0,1}$			X	X	X	X	X	X						
6	10	6,5 $^{+0,3}_{-0,1}$	16			X	X	X	X	X	X	X				
8	12	8,5 $^{+0,3}_{-0,1}$	20			X	X	X	X	X	X	X	X	X	7	0,8
10	14	10,5 $^{+0,3}_{-0,1}$	22			X	X	X	X	X	X	X	X	X		
12	16	12,5 $^{+0,3}_{-0,1}$					X	X	X	X	X	X	X	X		

[a] For repair, the following diameters are recommended: 2,2; 2,7; 3,2; 4,2; 5,2; 6,2; 8,2; 10,2; 12,5 (for D_1 = 12,5, D_3 = 13).

[b] For shaft diameters, D_2, larger than those given in Table 1, up to 32 mm, the ratio of head height and diameter shall be the same as for ejector pins given in ISO 6751.

4 Material and hardness

Ejector sleeves with cylindrical head shall be made of hot worked steel or alloyed cold worked steel. The hardness of the shaft and head, respectively, are given in Table 2.

Table 2 — Material and hardness

Material	Hardness[a]	
	Shaft	Head
Hot worked steel	min. 1 400 MPa core strength min. 950 HV 0,3	(45 ± 5) HRC hot-forged
Alloyed cold worked steel	(60 ± 2) HRC	

[a] The point at which hardness is measured is left to the manufacturer's discretion.

5 Designation

Ejector sleeves with cylindrical head according to this International Standard shall be designated by the following:

a) "Ejector sleeve with cylindrical head";

b) a reference to this International Standard (i.e. ISO 8405:2013);

c) the diameter, D_1, in millimetres;

d) the length, L, in millimetres;

e) the material.

EXAMPLE An ejector sleeve with cylindrical head with diameter D_1 = 2 mm, length L = 75 mm, and made of hot worked steel is designated as follows:

Ejector sleeve with cylindrical head ISO 8405 - 2 - 75 - Hot worked steel

ICS 25.120.30

Price based on 3 pages