INTERNATIONAL STANDARD

ISO 8406

Third edition
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Tools for moulding — Mould bases — Round locating elements and spacers

Outillage de moulage — Éléments de moule — Plots de centrage cylindriques et rondelles de réglage

Reference number
ISO 8406:2008(E)

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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 8406 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 8, *Tools for pressing and moulding*.

This third edition cancels and replaces the second edition (ISO 8406:2001), of which it constitutes a minor revision. In particular, the indication of surface textures has been updated in accordance with ISO 1302:2002[1)].

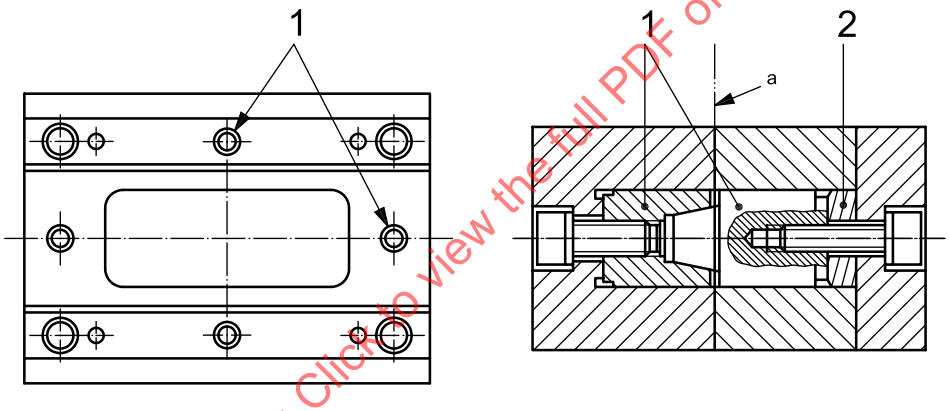
1) ISO 1302:2002, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation.*

Tools for moulding — Mould bases — Round locating elements and spacers

1 Scope

This International Standard specifies the basic dimensions, in millimetres, of round locating elements and spacers, intended for use in moulds for the accurate location of two mould parts with respect to each other. See an example of mounting in Figure 1.

It also specifies the material, hardness and designation of locating elements and their spacers that are in accordance with its specifications.



a) Overall view **b) Detail**

Key

1 round locating elements
2 spacer
[a] Parting level.

Figure 1 — Example of mounting of round locating elements

2 Normative references

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

ISO 4957, *Tool steels*

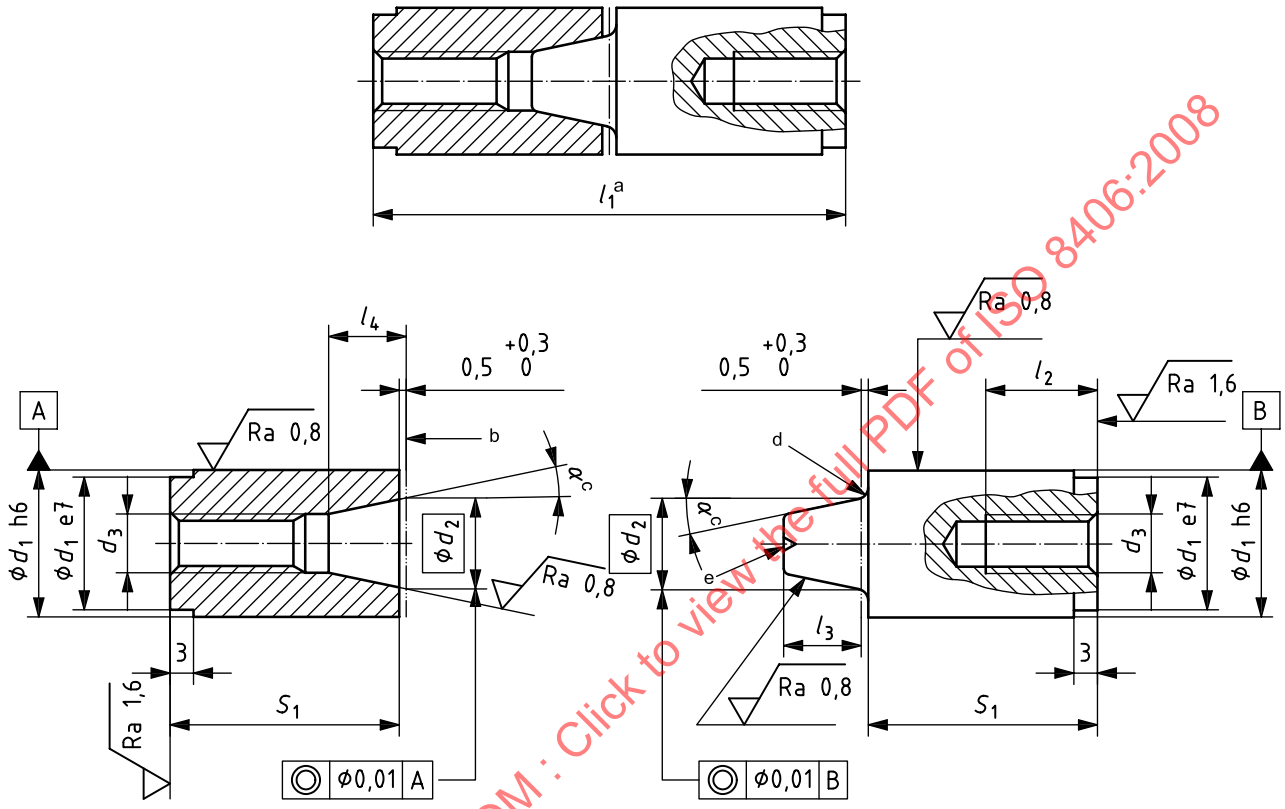
3 Dimensions

3.1 Round locating elements

The dimensions of round locating elements shall conform to the indications in Figure 2 and Table 1.

Dimensions in millimetres

Surface roughness values in micrometres



a The length is adjusted after mounting and the locating elements are supplied in pairs.

b Gauge plane.

c The angle α is left to the manufacturer's discretion.

d The shape of the root of the taper on the male part is left to the manufacturer's discretion.

e Centre hole for machining is permitted.

Figure 2 — Round locating elements

Table 1 — Dimensions of round locating elements

Dimensions in millimetres

d_1	d_2	d_3	l_1	l_2	l_3 ± 0,5	l_4 ± 0,5	S_1 $^{+0,2}_{0}$
12	6	M4	40	11	5	7	19,5
16	10	M5	50	11	6	8	24,5
20	12	M8	64	15	9	11	31,5
25	16	M8	64	15	10	12	31,5
32	20	M10	80	18	14	16	39,5
40	25	M10	100	18	18	20	49,5
50	32	M12	100	20	25	27	49,5

3.2 Spacers

The dimensions of spacers shall conform to the indications in Figure 3 and Table 2.

Surface roughness values in micrometres

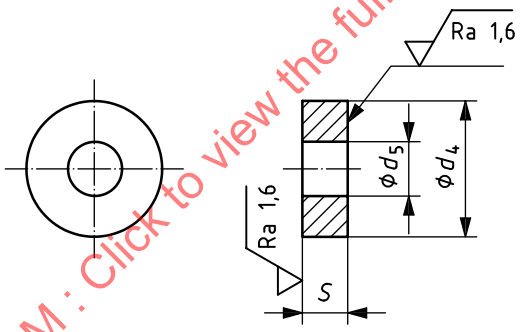


Figure 3 — Spacer

Table 2 — Dimensions of spacers

Dimensions in millimetres

d_4 $^{-0,2}_{-0,5}$	S $^{+0,2}_{+0,1}$	d_5
12	5	4,5
	12	
16	7	5,5
	15	
20	8	9
	18	
25	8	9
	18	
32	10	11
	23	
40	13	11
	30	
50	13	13,5
	30	

4 Material and hardness

Locating elements and spacers shall be made from tool steel in accordance with ISO 4957 and shall have a hardness value of (62 ± 2) HRC.

5 Designation

Locating elements or spacers in accordance with this International Standard shall be designated by the following:

a) “Locating element” or “Spacer”;

b) reference to this International Standard, i.e. ISO 8406;

c) the diameter d_1 for locating elements, or d_4 for spacers, in millimetres;

d) the angle α for locating elements, in degrees.

EXAMPLE A locating element with diameter $d_1 = 32$ mm and an angle $\alpha = 15°$ is designated as follows:

Locating element ISO 8406-32/15