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Corrected version  
2007-03-15

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

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

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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 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.

This corrected version incorporates the following correction:

- It corrects an error of reproduction in Figure 3, whereby the subscript became separated from the main symbol in dimension  $L_1$ .

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

## 1 Scope

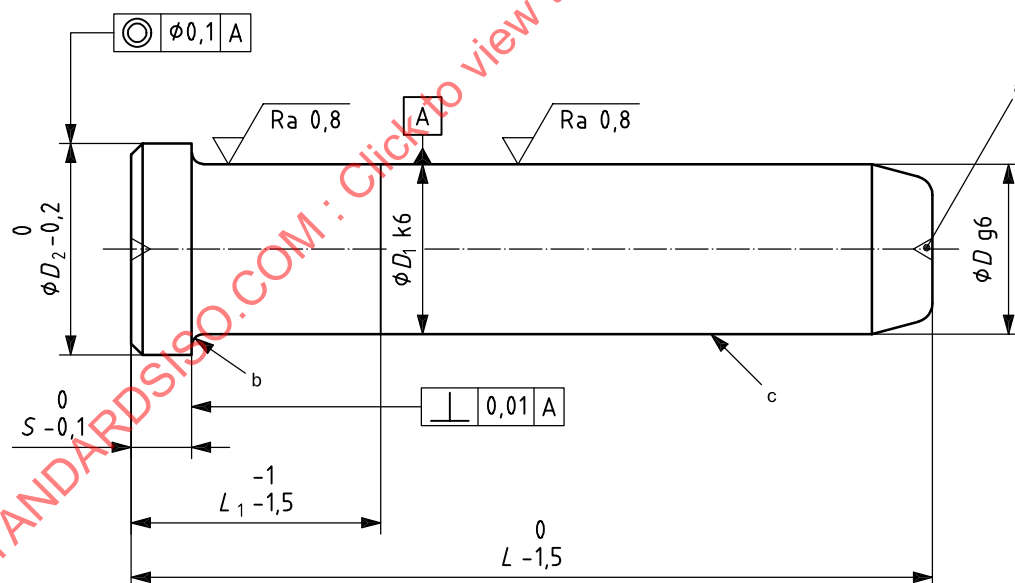
This International Standard specifies the dimensions and tolerances, in millimetres, for headed, straight and shouldered guide pillars and shouldered locating guide pillars intended for use in moulds.

## 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

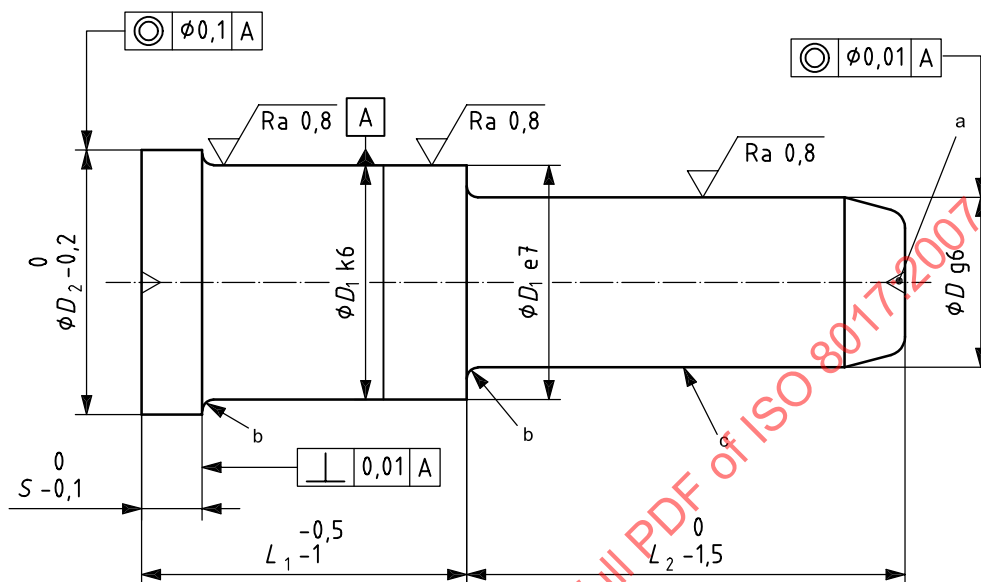
| $D^a$   | 12    |    |    | 16 |    |    | 20 |    |    | 25 |    |    | 32 |    |    | 40 |    |    | 50 |    |    |     |
|---------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| $D_1^a$ | 12    |    |    | 16 |    |    | 20 |    |    | 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     |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ×  |    |    | ×   |

<sup>a</sup> 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   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |  |  |  |

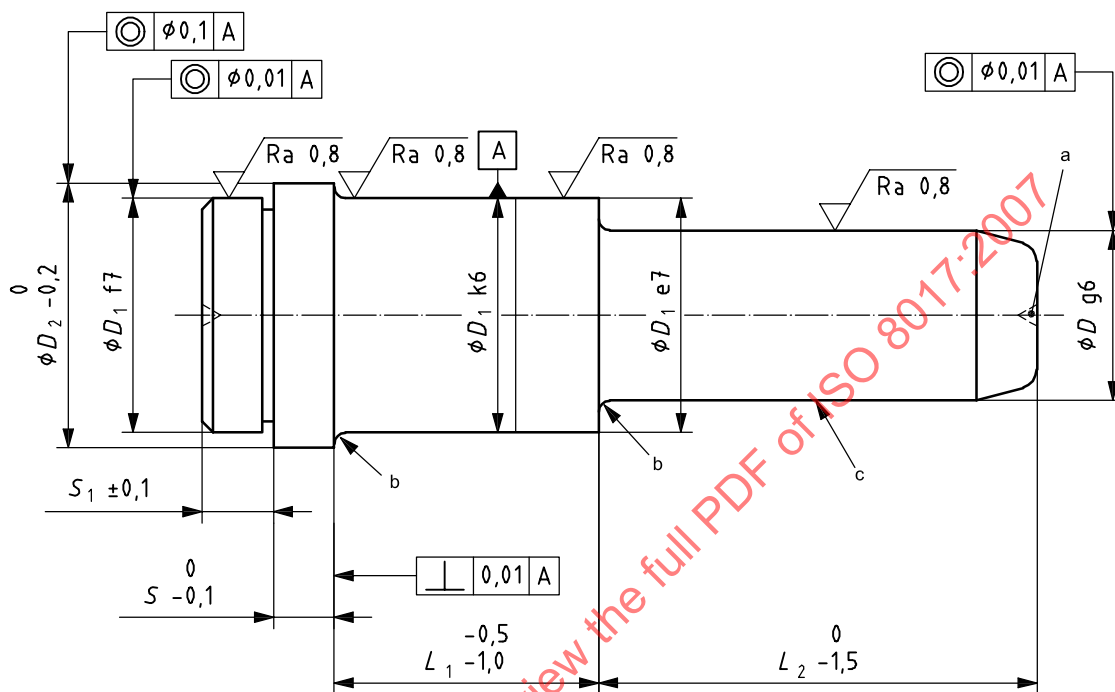
|       |       |    |    |    |     |     |     |    |    |     |     |     |    |     |     |     |     |  |  |
|-------|-------|----|----|----|-----|-----|-----|----|----|-----|-----|-----|----|-----|-----|-----|-----|--|--|
| $D^a$ | 32    |    |    |    |     |     |     | 40 |    |     |     |     |    |     | 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    | x     | x  | x  | x  | x   |     |     | x  | x  |     |     |     |    |     |     |     |     |  |  |
| 80    | x     | x  | x  | x  | x   | x   |     | x  | x  |     |     |     | x  |     |     |     |     |  |  |
| 100   | x     | x  | x  | x  | x   | x   | x   | x  | x  | x   | x   | x   | x  | x   | x   | x   | x   |  |  |
| 125   |       | x  | x  | x  | x   | x   | x   | x  | x  | x   | x   | x   | x  | x   | x   | x   | x   |  |  |
| 160   |       | x  | x  | x  | x   | x   | x   | x  | x  | x   | x   | x   | x  | x   | x   | x   | x   |  |  |
| 200   |       |    |    |    |     |     |     |    |    |     |     |     | x  | x   | x   | x   | x   |  |  |

<sup>a</sup> 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    | x     | x  | x  | x  | x   |     | x   | x  |    |     |     |     |    |     |     |     |     |
| 80    | x     | x  | x  | x  | x   | x   |     | x  | x  |     |     |     | x  |     |     |     |     |
| 100   | x     | x  | x  | x  | x   | x   | x   | x  | x  | x   | x   | x   | x  | x   | x   | x   | x   |
| 125   |       | x  | x  | x  | x   | x   | x   | x  | x  | x   | x   | x   | x  | x   | x   | x   | x   |
| 160   |       | x  | x  | x  | x   | x   | x   | x  | x  | x   | x   | x   | x  | x   | x   | x   | x   |
| 200   |       |    |    |    |     |     |     |    |    |     |     |     | x  | x   | x   | x   | x   |

<sup>a</sup> 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**

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