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# International Standard



# 8017

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Mould guide pillars, straight and shouldered, and locating guide pillars, shouldered

*Colonnes de guidage pour moules, droites et épaulées, et épaulées avec plot de centrage*

First edition — 1985-08-15

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UDC 621.81

Ref. No. ISO 8017-1985 (E)

**Descriptors :** tools, moulds, components, pillars, dimensions, designation.

## 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8017 was prepared by Technical Committee ISO/TC 29, *Small tools*.

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# Mould guide pillars, straight and shouldered, and locating guide pillars, shouldered

## 1 Scope and field of application

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

## 2 References

ISO 4957, *Tool steels*.

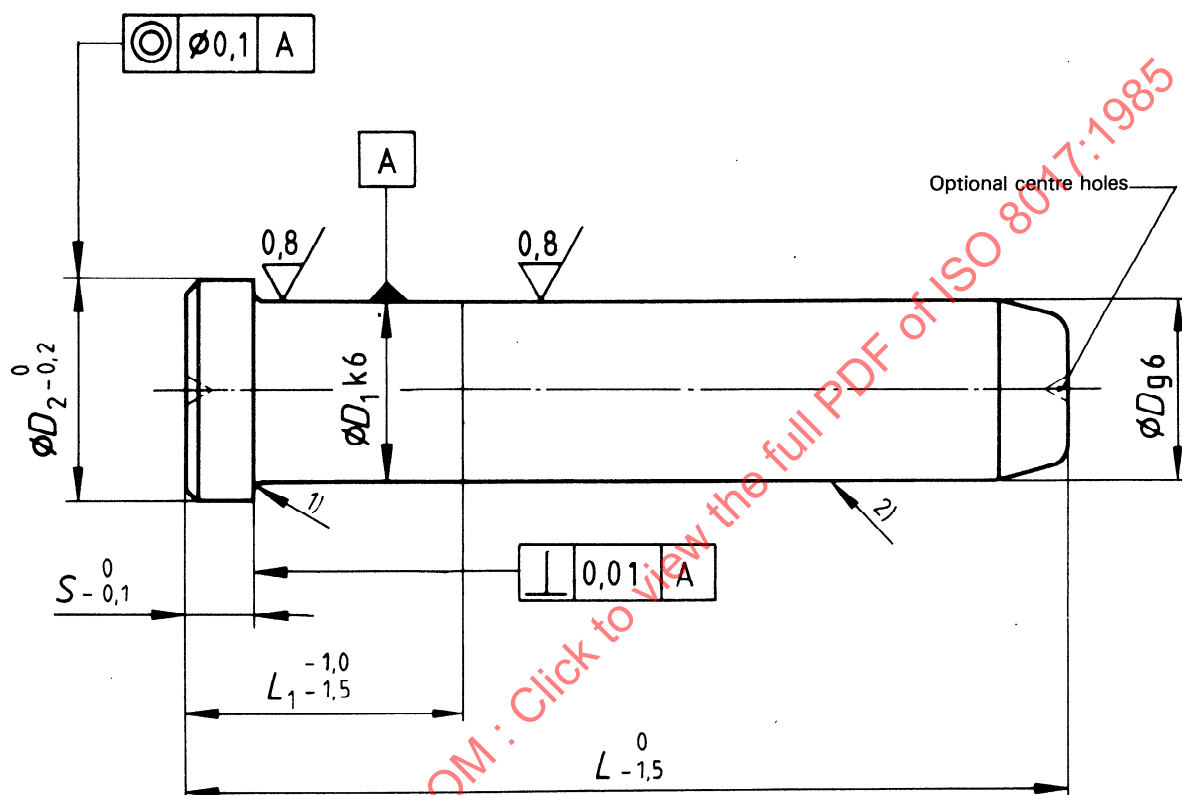
ISO 6753, *Machined plates for press tools, moulds, jigs and fixtures — Nominal dimensions*.

ISO 8018, *Mould guide bushes, headed, and locating guide bushes, headed*.

### 3 Dimensions

#### 3.1 Guide pillars, straight — Type A

Surface roughness values in micrometres



- 1) Blending radius or a recess.
- 2) Recess if required.

NOTE — The sketch is an example only.

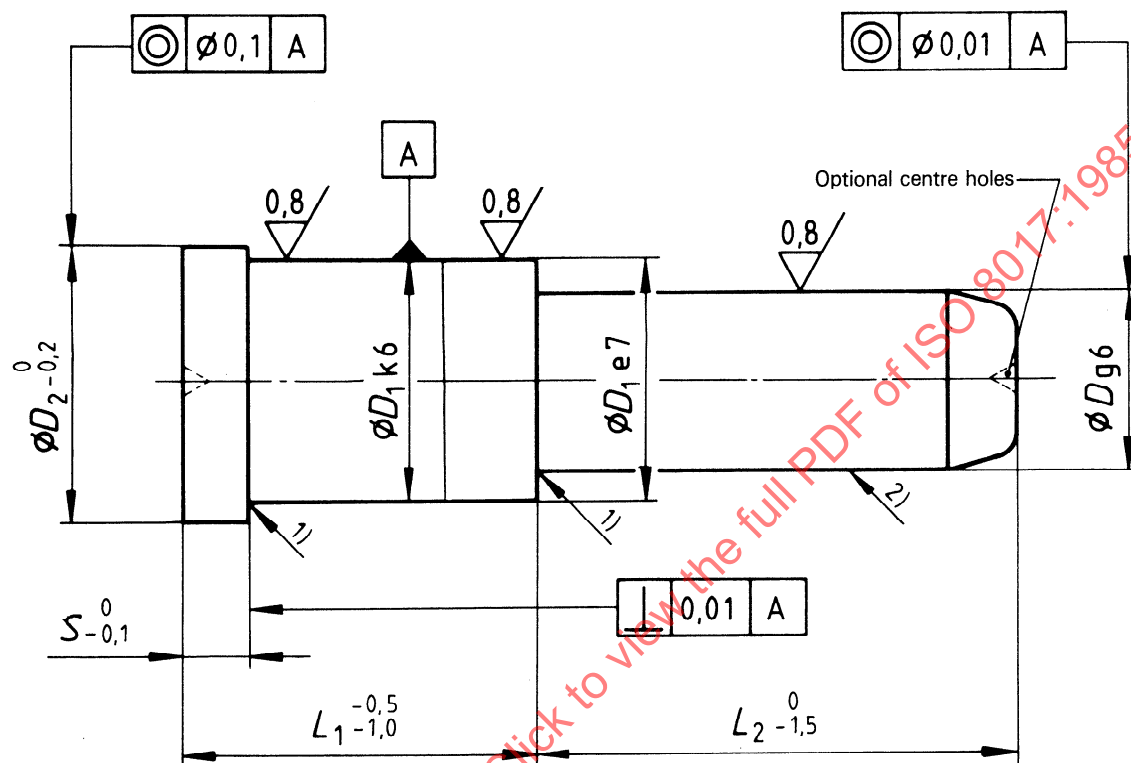
|       |       |    |    |    |    |    |     |
|-------|-------|----|----|----|----|----|-----|
| $D^*$ | 12    | 16 | 20 | 25 | 32 | 40 | 50  |
| $D_1$ |       |    |    |    |    |    |     |
| $D_2$ | 16    | 20 | 25 | 32 | 40 | 48 | 56  |
| $S$   | 4     | 6  | 6  | 6  | 8  | 8  | 8   |
| $L$   | $L_1$ |    |    |    |    |    |     |
| 40    | 20    |    |    |    |    |    |     |
| 50    | 20    | 25 | 25 | 25 |    |    |     |
| 63    | 20    | 25 | 25 | 25 |    |    |     |
| 80    | 25    | 25 | 25 | 25 |    |    |     |
| 90    | 25    | 25 | 25 | 32 | 40 |    |     |
| 100   | 25    | 25 | 25 | 32 | 40 |    |     |
| 125   | 32    | 32 | 32 | 40 | 40 |    |     |
| 160   | 32    | 32 | 40 | 40 | 50 | 50 | 63  |
| 200   |       | 40 | 40 | 50 | 50 | 50 | 63  |
| 250   |       |    | 50 | 50 | 50 | 63 | 80  |
| 315   |       |    |    |    |    | 63 | 80  |
| 400   |       |    |    |    |    | 80 | 100 |

\* 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.

### 3.2 Guide pillars, shouldered — Type B

Surface roughness values in micrometres



- 1) Blending radius or a recess.
- 2) Recess if required.

NOTE — The sketch is an example only.

|       |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |  |  |  |
|-------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|-----|-----|--|--|--|
| $D^*$ | 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    | x     | x  | x  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |  |  |  |
| 32    | x     | x  | x  | x  | x  | x  |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |  |  |  |
| 40    | x     | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  |    |    |     |    | x  | x  | x  |    |     |     |  |  |  |
| 50    | x     | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  |    |     |    | x  | x  | x  | x  |     |     |  |  |  |
| 63    | x     | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x   | x  | x  | x  | x  | x  | x   |     |  |  |  |
| 80    |       |    |    |    |    |    | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | 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   |  |  |  |
| 125   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | x   | x  |    |    | x  | x  | x   | x   |  |  |  |
| 160   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |  |  |  |
| 200   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |  |  |  |

|       |       |    |    |    |     |     |     |    |    |     |     |     |    |     |     |     |     |  |  |
|-------|-------|----|----|----|-----|-----|-----|----|----|-----|-----|-----|----|-----|-----|-----|-----|--|--|
| $D^*$ | 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   |  |  |

\* 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.

[illegible]

- 1) Blending radius or a recess.
- 2) Recess if required.

**NOTE** — The sketch is an example only.

|       |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |
|-------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|-----|-----|
| $D^*$ | 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    | x     | x  | x  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |
| 32    | x     | x  | x  | x  | x  | x  |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |
| 40    | x     | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  |    |    |     | x  | x  | x  |    |    |     |     |
| 50    | x     | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  |    |     | x  | x  | x  | x  |    |     |     |
| 63    | x     | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x   | x  | x  | x  | x  | x  | x   |     |
| 80    |       |    |    |    |    |    | x  | x  | x  | x  | x  | x  | x  | x  | 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   |
| 125   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | x   | x  |    |    | x  | x  | x   | x   |
| 160   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |
| 200   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |    |    |    |    |    |     |     |

|       |       |    |    |    |     |     |     |    |    |     |     |     |    |     |     |     |     |  |  |  |  |
|-------|-------|----|----|----|-----|-----|-----|----|----|-----|-----|-----|----|-----|-----|-----|-----|--|--|--|--|
| $D^*$ | 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   |  |  |  |  |

\* 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.