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**Collets with 8° setting angle for tool  
shanks — Collets, nuts and fitting  
dimensions**

*Pinces de serrage avec angle de réglage de 8° pour queues d'outil —  
Pinces, écrous de serrage et dimensions d'assemblage*

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Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

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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 15488 was prepared by Technical Committee ISO/TC 29, *Small tools*.

This second edition cancels and replaces the first edition (ISO 15488:1996), which has been technically revised. In particular, in Table 3, the values of  $d_{10}$  for nominal dimensions 25 mm and 32 mm as well, as the values of  $l_{10}$  for nominal values 25 mm, 32 mm and 40 mm, have been modified. Figure 5 has been modified for the sake of clarity.

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# Collets with 8° setting angle for tool shanks — Collets, nuts and fitting dimensions

## 1 Scope

This International Standard specifies the dimensions, materials and manufacturing requirements, and designation of collets (of form A or of form B) for tools with cylindrical shanks and their corresponding holders and nuts. For non-standardized clamping devices, such as clamping devices specified in drawings, these holders can be agreed upon between customer and supplier.

Form A applies to milling and any other application where a hard collet bore is required, provided that the clamping range of h10 be sufficient.

Form B applies for general purposes where an extended clamping range is required.

## 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 15488:2003  
<https://standards.iteh.ai/catalog/standards/sist/f8d6782b-e363-4b40-8e4a-1d8ccdbedad5/iso-15488-2003>  
ISO 2768-1:1989, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

## 3 Dimensions

### 3.1 General

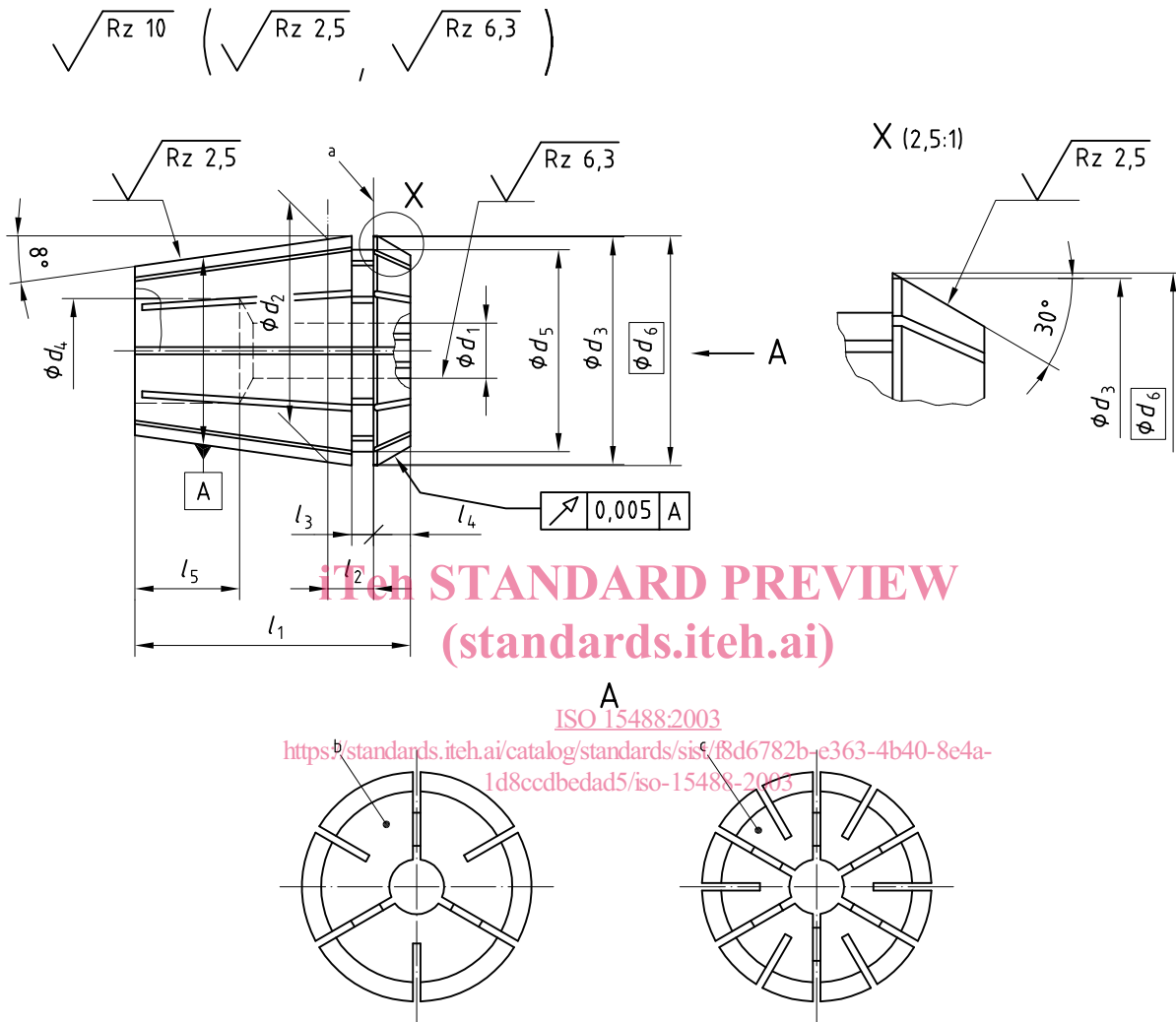
Collets, holders and nuts need not correspond to Figures 1 to 3; only the given dimensions shall be complied with.

General tolerances: ISO 2768-m

3.2 Collets

See Figure 1 and Table 1.

Tolerances in millimetres,  
surface roughness in micrometres



- a Reference area.
- b Form A, 6 to 8 slots.
- c Form B, 12 to 16 slots.

Figure 1 — Collets form A and form B

Table 1 — Collet dimensions

| Nominal size | Form A <sup>a</sup>   Form B <sup>b</sup> |               | Nominal diameter |               | d <sub>2</sub> | d <sub>3</sub> |        | d <sub>4</sub> |        | d <sub>6</sub> |        | l <sub>1</sub> | l <sub>2</sub> |        | l <sub>3</sub> | l <sub>4</sub> | l <sub>5</sub> |
|--------------|---|---------------|------------------|---------------|----------------|----------------|--------|----------------|--------|----------------|--------|----------------|----------------|--------|----------------|----------------|----------------|
|              |   |               |                  |               |                | Form A         | Form B | Form A         | Form B | Form A         | Form B |                | Form A         | Form B |                |                |                |
|              | from (incl.)                              | up to (incl.) | from (incl.)     | up to (incl.) | from (incl.)   |                |        |                |        |                |        | up to (incl.)  |                |        | from (incl.)   | up to (incl.)  |                |
| 11           | 1   | < 3           | 1                | 2,5           | 11             | 11,3           | 11,5   | 5              | 6      | 11,6           | 11,7   | 18             | 2              | 3,8    | 2              | 2,5            | 9              |
|              | 3   | 6             | 3                | 7             |                |                |        |                |        |                |        |                |                |        |                |                |                |
| 16           | 1   | < 5           | 1                | 4             | 16             | 16,74          | 17     | 7              | 7,5    | 17,1           | 17,25  | 27,5           | 2,3            | 6,26   | 2,3            | 4              | 9              |
|              | 5   | 10            | 5                | 10            |                |                |        |                |        |                |        |                |                |        |                |                |                |
| 20           | 1   | < 7           | 1                | 6             | 20             | 20,74          | 21     | 9              | 10     | 21,1           | 21,3   | 31,5           | 2,4            | 6,36   | 2,4            | 4,8            | 12             |
|              | 7   | 13            | 7                | 13            |                |                |        |                |        |                |        |                |                |        |                |                |                |
| 25           | 1   | < 8           | 2                | 7             | 25             | 25,74          | 26     | 10             | 12     | 26,1           | 26,3   | 34             | 2,5            | 6,66   | 2,5            | 5              | 13             |
|              | 8   | 16            | 8                | 16            |                |                |        |                |        |                |        |                |                |        |                |                |                |
| 32           | 2   | < 8           | 3                | 7             | 32             | 32,74          | 33     | 12             | 15     | 33,1           | 33,35  | 40             | 2,7            | 7,16   | 2,7            | 5,5            | 15             |
|              | 8   | 20            | 8                | 20            |                |                |        |                |        |                |        |                |                |        |                |                |                |
| 40           | 3   | < 9           | 4                | 8             | 40             | 40,74          | 41     | 14             | 20     | 41,1           | 41,4   | 46             | 3,5            | 7,66   | 3,5            | 7              | 18             |
|              | 9   | 26            | 9                | 26            |                |                |        |                |        |                |        |                |                |        |                |                |                |

<sup>a</sup> Form clamping range h10.

<sup>b</sup> Clamping range - 0,5.

Nominal size 16 to 40, clamping range - 0,1 or, upon agreement, - 0,5.

3.3 Holder

See Figure 2 and Table 2.

Tolerances in millimetres,  
surface roughness in micrometers

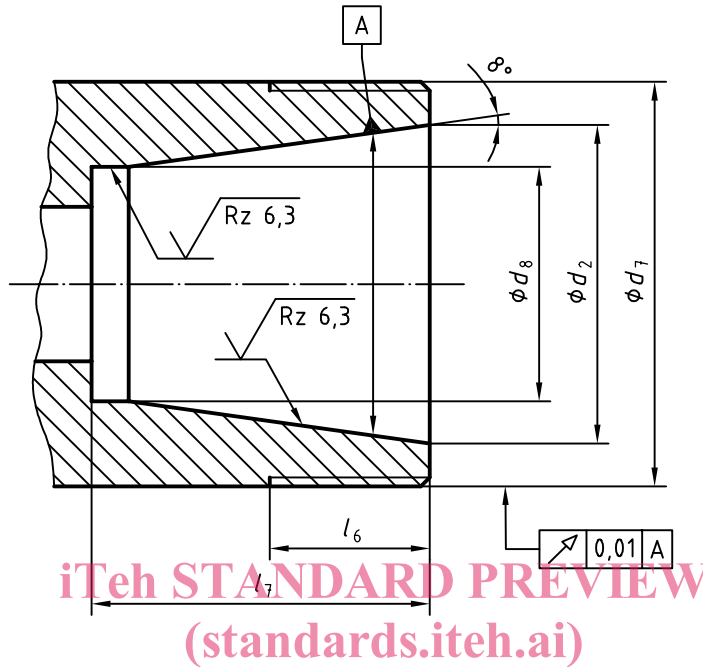


Figure 2 — Holder form C

<https://standards.iteh.ai/catalog/standards/sist/f8d6782b-e363-4b40-8e4a-1d8ccdbedad5/iso-15488-2003>

Table 2 — Holder dimensions

Dimensions in millimetres

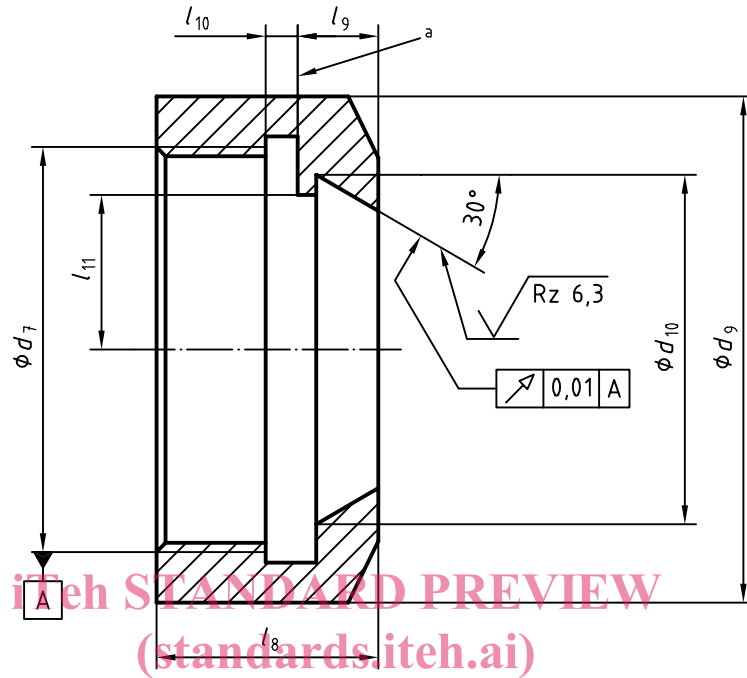
| Nominal size  |   | 11                | 16               | 20               | 25               | 32               | 40               |
|---------------|---|-------------------|------------------|------------------|------------------|------------------|------------------|
| $d_2$         | $\pm 0,05$                              | 11                | 16               | 20               | 25               | 32               | 40               |
| $d_7$         | 6g                                      | M14 $\times$ 0,75 | M22 $\times$ 1,5 | M25 $\times$ 1,5 | M32 $\times$ 1,5 | M40 $\times$ 1,5 | M50 $\times$ 1,5 |
| $d_8$         | $\begin{matrix} +0,5 \\ 0 \end{matrix}$ | 7,5               | 10,5             | 13,5             | 18               | 23,5             | 30,5             |
| $l_6$         | min.                                    | 10                | 13               | 13,5             | 14               | 16               | 17               |
| $l_7$         | min.                                    | 17                | 22               | 26,5             | 29               | 34               | 38               |
| (Form A or B) |   |                   |                  |                  |                  |                  |                  |



3.4 Nut

See Figure 3 and Table 3.

Tolerances in millimetres,  
surface roughness in micrometres



a Reference area.

ISO 15488:2003

<https://standards.iteh.ai/catalog/standards/sist/f8d6782b-e363-4b40-8e4a-1d8cc0e10000>

Figure 3 — Nut form D

Table 3 — Nut dimensions

Dimensions in millimetres

| Nominal size | $d_7$      | $d_9$ | $d_{10}$ | $l_8$ | $l_9$ | $l_{10}$                                | $l_{11}$ |
|--------------|------------|-------|----------|-------|-------|---|----------|
|              | 6H         |       |          |       |       | $\begin{matrix} 0 \\ -0,2 \end{matrix}$ | max.     |
| 11           | M14 × 0,75 | 19    | 12,1     | 11,3  | 3,1   | 1                                       | 5        |
| 16           | M22 × 1,5  | 32    | 17,71    | 17,5  | 4,7   | 1,1                                     | 7,2      |
| 20           | M25 × 1,5  | 35    | 21,76    | 19    | 5,5   | 1,2                                     | 9,2      |
| 25           | M32 × 1,5  | 42    | 26,64    | 20    | 5,7   | 1,3                                     | 11,5     |
| 32           | M40 × 1,5  | 50    | 33,57    | 22,5  | 6,2   | 1,6                                     | 14,9     |
| 40           | M50 × 1,5  | 63    | 41,86    | 25,5  | 7,7   | 2,1                                     | 18,5     |