
**Tool holders with cylindrical shank —
Part 6:
Type E with cylindrical seat**

Porte-outil à queue cylindrique —

Partie 6: Porte-outil de type E pour outils à queue cylindrique

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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Dimensions	1
3.1 General	1
3.2 Tool holder of type E1	1
3.3 Tool holder of type E2	3
3.4 Tool holder of type E3	5
3.5 Tool holder of type E4	6
4 Designation	7
5 Technical delivery conditions	8
5.1 General	8
5.2 Design	8
5.3 Scope of delivery	8
Annex A (informative) Relationship between designations in this part of ISO 10889 and ISO 13399	9
Bibliography	10

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](http://www.iso.org/standards/foreword-supplementary-information)

The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 2, *Holding tools, adaptive items and interfaces*.

This third edition cancels and replaces the second edition (ISO 10889-6:2004), of which it constitutes a minor revision, notably with the addition of [Annex A](#), which gives the relationship between the designations of this part of ISO 10889 and the ISO 13399 series.

ISO 10889 consists of the following parts, under the general title *Tool holders with cylindrical shank*:

- *Part 1: Cylindrical shank, location bore — Technical delivery conditions*
- *Part 2: Type A, shanks for tool holders of special designs*
- *Part 3: Type B with rectangular radial seat*
- *Part 4: Type C with rectangular axial seat*
- *Part 5: Type D with more than one rectangular seat*
- *Part 6: Type E with cylindrical seat*
- *Part 7: Type F with taper seat*
- *Part 8: Type Z, accessories*

Tool holders with cylindrical shank —

Part 6: Type E with cylindrical seat

1 Scope

This part of ISO 10889 specifies dimensions, designations, and complementary technical delivery conditions for tool holders with cylindrical seat of types E1 to E4 with a mounting system cylindrical shank in accordance with ISO 10889-1.

ISO 10889 is applicable to tool holders with cylindrical shank for machine tools with non-rotating tools, preferably for turning machines.

For non-standardized tool holders, such as tool holders with a cylindrical seat as shown in [Figures 1 to 4](#), it is advisable to apply the corresponding specifications of this part of ISO 10889.

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 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications* <https://standards.iteh.ai/catalog/standards/sist/c3d138d2-5958-406c-9a06-3ed59ff3d17/iso-10889-6-2016>

ISO 2768-2, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications*

ISO 10889-1, *Tool holders with cylindrical shank — Part 1: Cylindrical shank, location bore — Technical delivery conditions*

ISO 10897, *Collets for tool holders with taper ratio 1:10 — Collets, holders, nuts*

ISO 15488, *Collets with 8 degree setting angle for tool shanks — Collets, nuts and fitting dimensions*

3 Dimensions

3.1 General

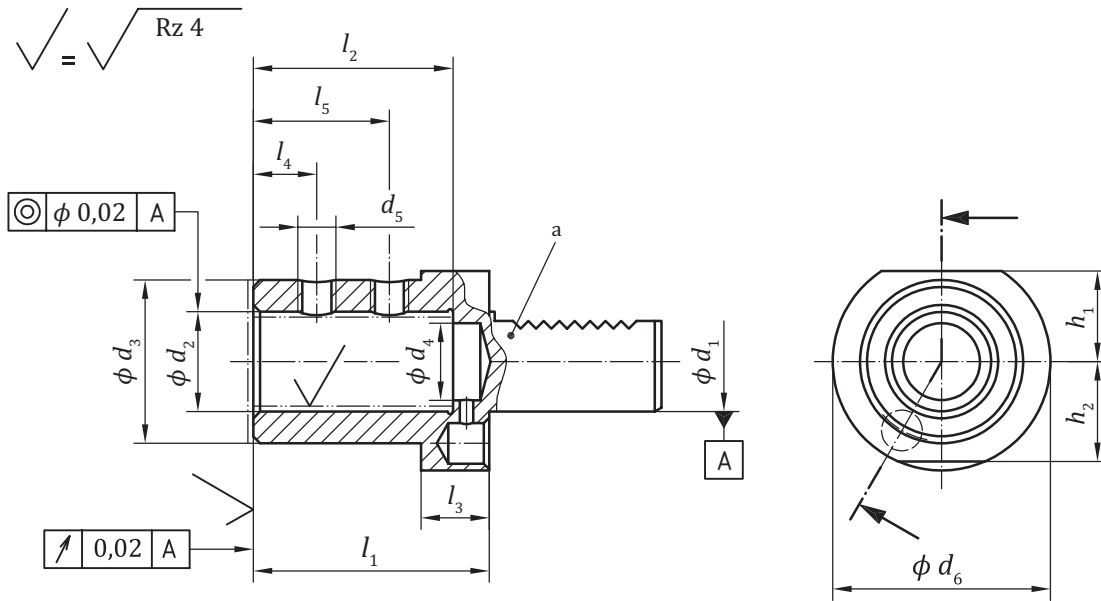
All dimensions and tolerances are given in millimetres. Tolerancing is done according to ISO 8015. Tolerances not specified shall be of tolerance class “m” in accordance with ISO 2768-1 and of class “H” in accordance with ISO 2768-2.

Unspecified details shall be chosen appropriately.

The relationship between the symbols of this part of ISO 10889 and the symbols according to ISO 13399 is given in [Annex A](#).

3.2 Tool holder of type E1

The dimensions of tool holders type E1 shall be in accordance with the dimensions shown in [Figure 1](#) and given in [Table 1](#).



Key

a Cylindrical shank in accordance with ISO 10889-1.

NOTE Surface roughness is given in micrometres.

Figure 1 — Type E1 tool holder for drilling tools with internal coolant supply
(standards.itech.ai)

Table 1 — Type E1 tool holder dimensions

<https://standards.itech.ai/catalog/standards/sist/c3d138d2-5958-406c-92a0-3e3591b3d17/iso-10889-6-2016> Dimensions in millimetres

d_1	d_2 H6	d_3	d_4^a	d_5	d_6	h_1	h_2	l_1 0 -0,2	l_2	l_3	l_4	l_5
20	20	40	12	M10 × 1	50	—	23	67	54	18	15	35
	25	45	17	M12 × 1				71	59		17	40
25	20	40	12	M10 × 1	58	25	25	67	54	18	15	35
	25	45	17	M12 × 1				71	59		17	40
30	20	40	12	M10 × 1	68	28	30	67	54	22	15	35
	25	45	17	M12 × 1				71	59		17	40
	32	52	24					75	63		17	44
40	20	40	12	M10 × 1	83	32,5	—	67	54	22	15	35
	25	45	17	M12 × 1				75	59		17	40
	32	52	24					75	63		17	44
	40	65	32	M16 × 1				90	73		22	50
50	20	40	12	M10 × 1	98	35	—	67	54	30	15	35
	25	45	17	M12 × 1				80	59		17	40
	32	52	24					80	63		17	44
	40	65	32	M16 × 1				90	73		22	50
	50	75	42					100	83		24	60

^a d_4 shall be pilot-drilled for manufacturing reasons.

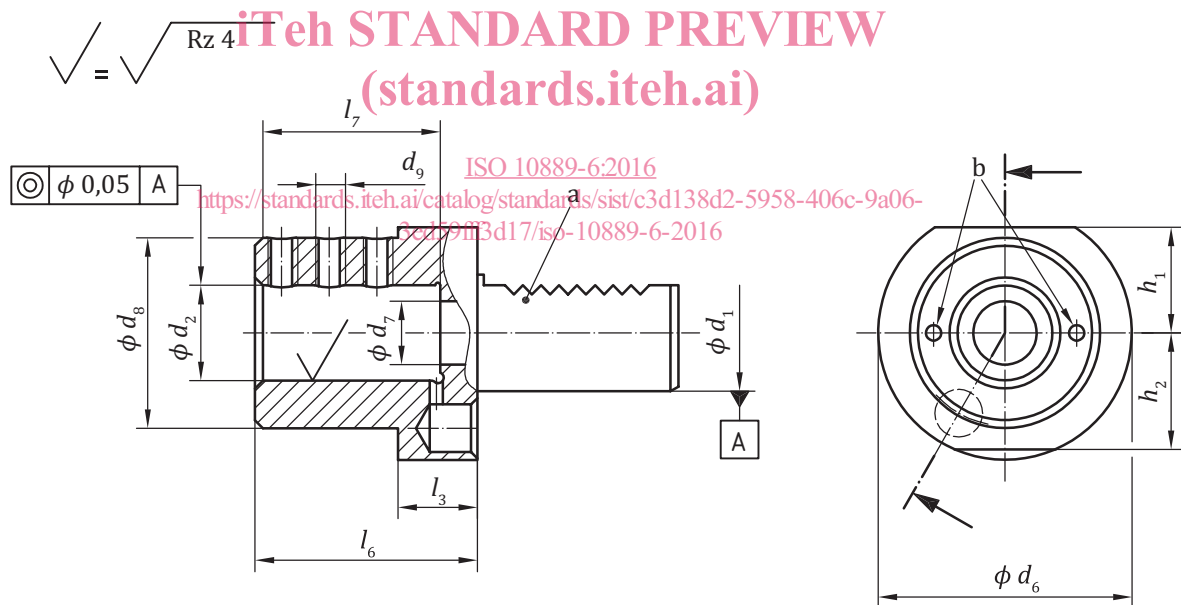
Table 1 (continued)

d_1	d_2 H6	d_3	d_4^a	d_5	d_6	h_1	h_2	l_1 0 -0,2	l_2	l_3	l_4	l_5
60	20	40	12	M10 × 1	123	42,5	—	80	54	30	15	35
	25	45	17	M12 × 1				80	59		17	40
	32	52	24	M12 × 1				80	63		17	44
	40	65	32	M16 × 1				90	73		22	50
	50	75	42	M16 × 1				100	83		24	60
80	20	40	12	M10 × 1	158	55	—	80	54	30	15	35
	25	45	17	M12 × 1				80	59		17	40
	32	52	24	M12 × 1				80	63		17	44
	40	65	32	M16 × 1				90	73		22	50
	50	75	42	M16 × 1				100	83		24	60

^a d_4 shall be pilot-drilled for manufacturing reasons.

3.3 Tool holder of type E2

The dimensions of tool holders type E2 shall be in accordance with the dimensions shown in [Figure 2](#) and given in [Table 2](#).



Key

- a Cylindrical shank in accordance with ISO 10889-1.
- b External coolant supply (closable).

NOTE Surface roughness is given in micrometres.

Figure 2 — Type E2 tool holder for turning tools with cylindrical shank

Table 2 — Type E2 tool holder dimensions

Dimensions in millimetres

d_1	d_2 H7	d_6	d_7 min.	d_8	d_9^a	h_1	h_2	l_3	l_6	l_7
16	6	40	6,7	32	M6	18	18	13	44	34
	8									
	10									
	12			40	M8					
	16									
20	8	50	9	40	M6	—	23	18	50	41
	10									
	12									
	16			50	M8				60	51
	20									
	25									
25	8	58	10,5	40	M6	25	25	18	50	41
	10									
	12									
	16			58	M8				60	51
	20									
	25									
30	8	68	16,5	55	M6	30	30	22	60	51
	10									
	12									
	16			55	M8				75	61
	20									
	25									
	32									
40	12	83	20,5	55	M8	32,5	—	22	75	61
	16									
	20									
	25			83	M10				90	76
	32									
	40									
50	16	98	25,5	68	M10	35	—	30	90	76
	20									
	25									
	32			68	M12				100	86
	40									
	50									

^a For $d_1 = 20$ mm: at least two fastening threads; other sizes at least three fastening threads.

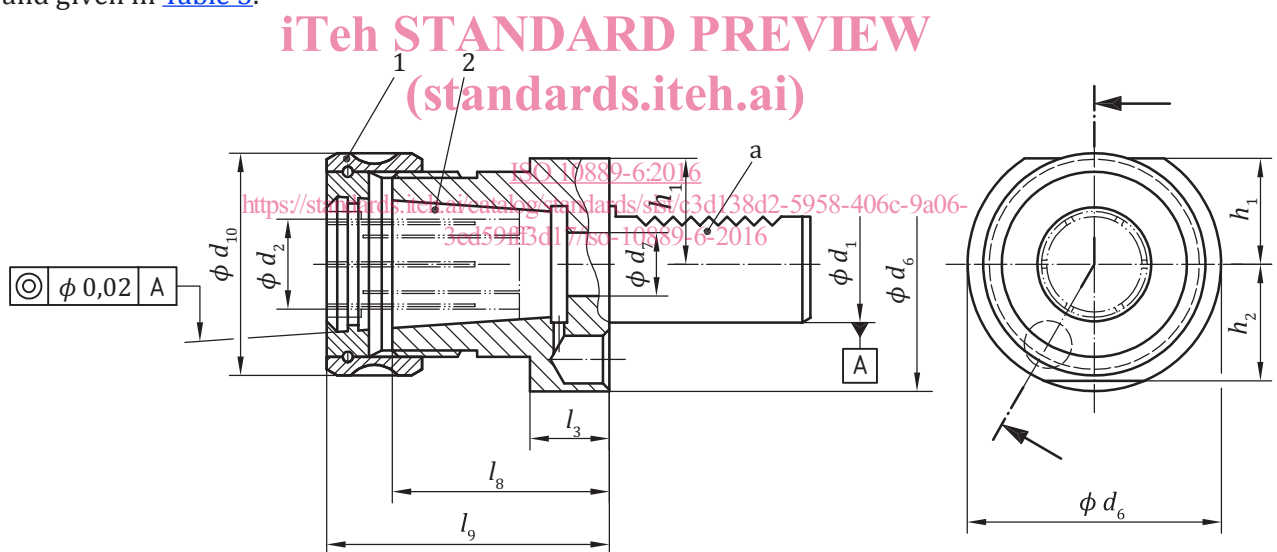
Table 2 (continued)

d_1	d_2 H7	d_6	d_7 min.	d_8	d_9^a	h_1	h_2	l_3	l_6	l_7	
60	16	123	40,5	68	M10	42,5	—	30	90	76	
	20				M12						
	25										
	32										
	40			98	100						86
	50										
80	20	158	40,5	68	M12	55	—	30	100	86	
	25										
	32										
	40			98							
	50										

^a For $d_1 = 20$ mm: at least two fastening threads; other sizes at least three fastening threads.

3.4 Tool holder of type E3

The dimensions of tool holders type E3 shall be in accordance with the dimensions shown in Figure 3 and given in Table 3.



Key

- 1 nut, form D, in accordance with ISO 10897
- 2 collet, form C, in accordance with ISO 10897
- a Cylindrical shank in accordance with ISO 10889-1.

Figure 3 — Type E3 tool holder with cylindrical seat by collet in accordance with ISO 10897