

BS ISO 10889-5:2016



BSI Standards Publication

Tool holders with cylindrical shank

Part 5: Type D with more than one rectangular seat

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National foreword

This British Standard is the UK implementation of ISO 10889-5:2016. It supersedes BS ISO 10889-5:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MTE/18, Tools tips and inserts for cutting applications.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Date	Text affected
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Tool holders with cylindrical shank —
Part 5:
Type D with more than one
rectangular seat

Porte-outil à queue cylindrique —

Partie 5: Porte-outil de type D comportant plusieurs logements



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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).

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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](#)

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

This second edition cancels and replaces the first edition (ISO 10889-5:1997), 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 5: Type D with more than one rectangular seat

1 Scope

This part of ISO 10889 specifies dimensions, designations and complementary technical delivery conditions for tool holders with more than one rectangular seat of types D1 and D2 with 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 with more than one rectangular seat, such as tool holders as shown in [Figures 1](#) to [3](#), 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*

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*

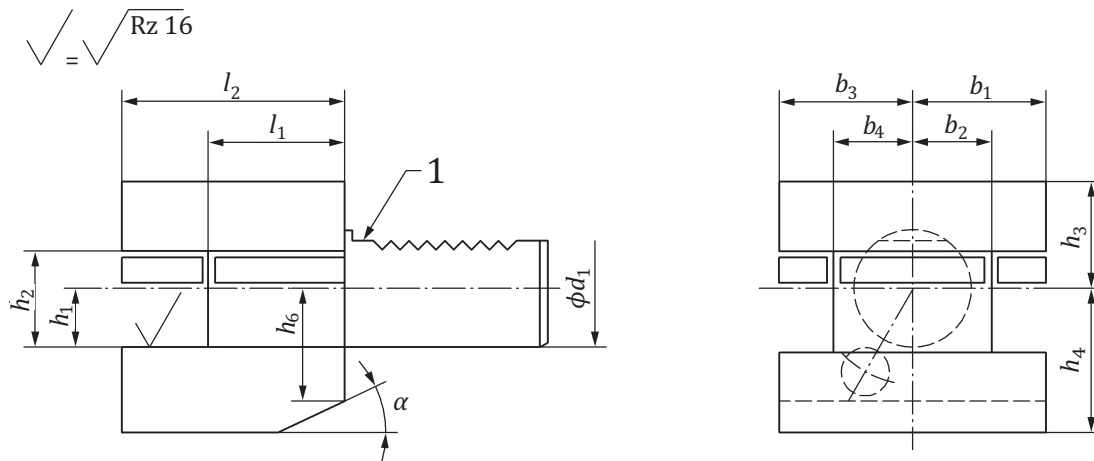
3 Dimensions

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 dimensions of tool holders type D shall be in accordance with the dimensions shown in [Figures 1](#) and [2](#) and given in [Table 1](#).

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

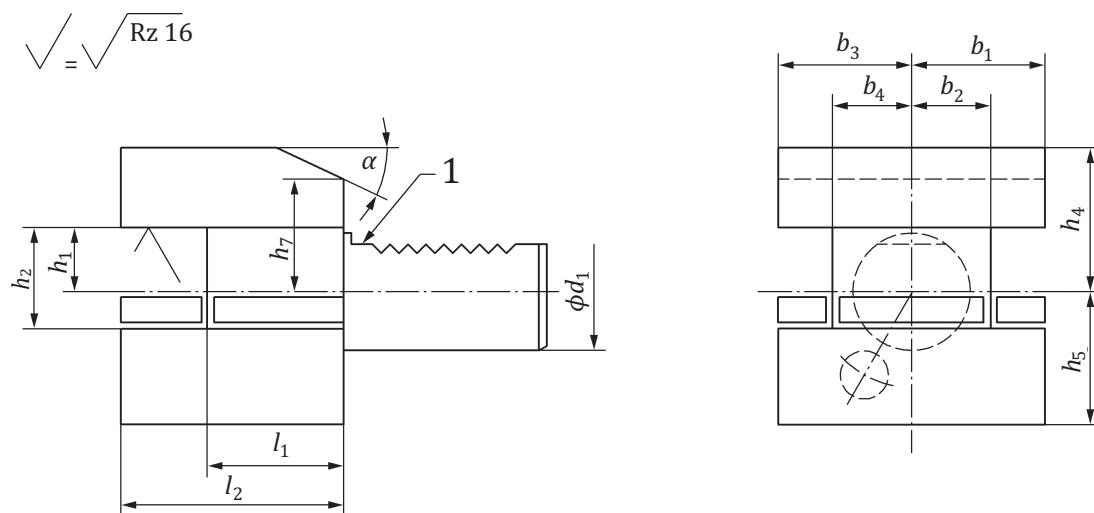


Key

a Cylindrical shank in accordance with ISO 10889-1.

NOTE Surface roughness is given in micrometres.

Figure 1 — Type D1 tool holder



Key

a Cylindrical shank in accordance with ISO 10889-1.

NOTE Surface roughness is given in micrometres.

Figure 2 — Type D2 tool holder

Table 1 — Type D tool holder dimensions

Dimensions in millimetres

d_1	h_1 0 -0,1	h_2 max.	h_3	h_4	h_5	h_6	h_7	b_1	b_2 +0,3 0	b_3	b_4 +0,3 0	l_1 +0,5 0	l_2	α
25	16	22	25	30	25	25	25	33	19	33	19	34	48	30°
30	20	29	28	38	34	30	28	35	17	41	23	42	60	25°
40	25	34	32,5	48	42,5	—	—	42,5	21	47,5	25,5	50	72	—
50	32	41	35	60	50	—	—	50	26	55	30,5	60	85	—
60	32	41	42,5	62,5	62,5	—	—	57,5	33	57,5	33	85	110	—
80	40	53	55	80	80	—	—	76	42	76	42	105	140	—

4 Geometrical tolerances

Geometrical tolerances shall be as defined in [Figure 3](#).

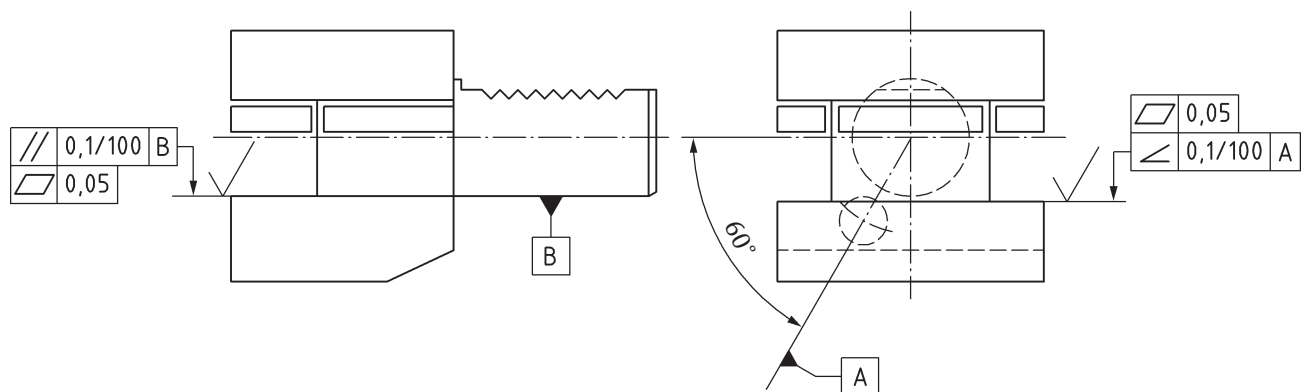


Figure 3 — Geometrical tolerances

5 Designation

A type D tool holder with more than one rectangular seat in accordance with this part of ISO 10889 shall be designated by the following:

- “Tool holder”;
- reference to this part of ISO 10889, i.e. ISO 10889-5;
- type (D1 or D2);
- nominal diameter, d_1 , in millimetres;
- nominal height, h_1 , in millimetres.

EXAMPLE A tool holder with more than one rectangular seat of type D1 with a nominal diameter, $d_1 = 60$ mm, and a nominal height, $h_1 = 32$ mm, is designated as follows:

Tool holder ISO 10889-5 - D1 - 60 × 32

6 Technical delivery conditions

6.1 General

As a complement to the requirements of ISO 10889-1, those given in [6.2](#) and [6.3](#) also apply.

6.2 Design

Tool holders with more than one rectangular seat are equipped with a coolant supply with adjustable direction. The design is at the discretion of the manufacturer.

The tools shall be adjustable in the tool holder at right angles to the rectangular seat. The design is at the discretion of the manufacturer.

6.3 Scope of delivery

The scope of delivery of tool holders includes clamping elements for the clamping of the tools. The design of the clamping elements is at the discretion of the manufacturer.

Annex A (informative)

Relationship between designations in this part of ISO 10889 and ISO 13399

For the relationship between the symbols of this part of ISO 10889 and symbols according to ISO 13399, see [Table A.1](#).

Table A.1 — Relationship between symbols in this part of ISO 10889 and ISO 13399

Symbol in this part of ISO 10889	Reference in this part of ISO 10889	Property name in ISO 13399	Symbol in ISO 13399	Reference in ISO 13399 (BSU code)
d_1	Figures 1 and 2	connection diameter machine side	DCONMS	71EBDBF5060E6
b_1	Figures 1 and 2	radial width	RADW ^a	726E3E8DA5589
b_2	Figures 1 and 2	functional width	WF ^a	71CF29984CDA7
b_3	Figures 1 and 2	functional width	WF ^a	71CF29984CDA7
b_4	Figures 1 and 2	radial width	RADW ^a	726E3E8DA5589
l_1	Figures 1 and 2	functional length	LF	71DCD39338974
l_2	Figures 1 and 2	protruding length	LPR	71DCD394BB20E
h_1	Figures 1 and 2	functional height	HF	71CF29994E737
h_2	Figures 1 and 2	—	—	—
h_3	Figure 1	—	OAH ^b — RADH	—
h_4	Figures 1 and 2	radial height	RADH	726E3E86B5284
h_5	Figure 2	—	OAH ^b — RADH	—
h_6	Figure 1	—	—	—
h_7	Figure 2	—	—	—
α	Figure 2	—	—	—

^a To be indexed.

^b OAH is the “overall height” (code BSU 71D078EB73E87).

b_1 shall be number 1 and b_3 number 2.

b_2 shall be number 1 and b_4 number 2.

Bibliography

- [1] ISO 8015, *Geometrical product specifications (GPS) — Fundamentals — Concepts, principles and rules*
- [2] ISO 13399 (all parts), *Cutting tool data representation and exchange*

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