
**Reduction sleeves with external 7/24
taper for tools with Morse taper shanks**

*Douilles de réduction au cône extérieur 7/24 pour outils à queue
cône Morse*

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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 4202:1978), of which it constitutes a minor revision, notably with the addition of [Annex A](#), which gives the relationship between the designations of this document and the ISO 13399 series.

Reduction sleeves with external 7/24 taper for tools with Morse taper shanks

1 Scope

This document specifies the dimensions of reduction sleeves with external 7/24 taper (Nos. 30, 40, 45, 50 and 60) for tools with Morse taper shanks (Nos. 1 to 6).

All these sleeves allow driving of tools having Morse taper shanks which have a tenon at the small end of the shank; some sleeves allow driving of tools having Morse taper shanks which have an axially tapped hole in the shank:

- with the use of an incorporated screw for sleeves 30 × 1 – 40 × 1 – 40 × 2 – 45 × 1 – 45 × 2 – 45 × 3 – 50 × 2 – 50 × 3 – 50 × 4 – 60 × 3 – 60 × 4 – 60 × 5;
- with the use of a draw bar for sleeves 30 × 1 – 30 × 2 – 40 × 1 – 40 × 2 – 40 × 3 – 45 × 1 – 45 × 2 – 45 × 3 – 45 × 4 – 50 × 2 – 50 × 3 – 50 × 4 – 50 × 5 – 60 × 3 – 60 × 4 – 60 × 5 – 60 × 6.

Morse tapers conform to ISO 296 while 7/24 tapers are in accordance with ISO 297.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 296, *Machine tools — Self-holding tapers for tool shanks*

ISO 297, *7/24 tapers for tool shanks for manual changing*

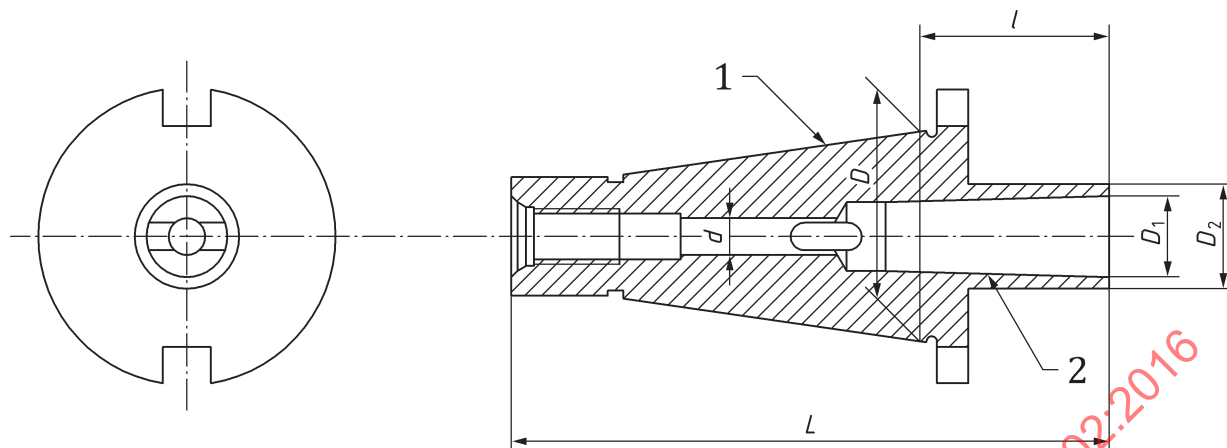
3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Dimensions



Key

- 1 7/24 external taper
2 internal Morse taper

NOTE The sketch is diagrammatic and is not intended to show design details.

Figure 1

Table 1

Dimensions in millimetres

Designation		D	D ₁	D ₂	d	l max.	L max.
7/24 external taper	Internal Morse taper						
30	1	31,750	12,065	25	6,2	50	118
	2		17,780	32	10,3	50	118
	3		23,825	40	12,5	70	138
40	1	44,450	12,065	25	6,2	50	143
	2		17,780	32	10,3	50	143
	3		23,825	40	12,5	65	158
	4		31,267	48	17,0	95	188
45	1	57,150	12,065	25	6,2	50	157
	2		17,780	32	10,3	50	157
	3		23,825	40	12,5	65	172
	4		31,267	48	17,0	75	182
	5		44,399	63	21,0	125	232
50	2	69,850	17,780	32	10,3	60	187
	3		23,825	40	12,5	65	192
	4		31,267	48	17,0	70	197
	5		44,399	63	21,0	105	232
60	3	107,950	23,825	40	12,5	70	277
	4		31,267	48	17,0	70	277
	5		44,399	63	21,0	70	277
	6		63,348	80	25,0	100	307

Annex A

(informative)

Relationship between designations in this document and ISO 13399 (all parts)

For relationship between designations in this document and preferred symbols according to ISO 13399 (all parts), see [Table A.1](#).

**Table A.1 — Relationship between designations in this document
and ISO 13399 (all parts)**

Symbol in this document	Reference in this document	Property name in ISO 13399 (all parts)	Symbol in ISO 13399 (all parts)	Reference in ISO 13399 (all parts)
7/24 external taper	Figure 1 Table 1	connection size code machine side	CZCMS	71EBDBF5060E6
Internal Morse taper	Figure 1 Table 1	connection size code workpiece side	CZCWS	727C2BCBC1684
<i>l</i>	Figure 1	protruding length	LPR	71DCD394BB20E
<i>L</i>	Figure 1	overall length	OAL	71D078EB7C086
<i>l</i> max.	Table 1	protruding length	LPR	71DCD394BB20E
<i>L</i> max.	Table 1	overall length	OAL	71D078EB7C086

Bibliography

- [1] ISO 2583,¹⁾ *Tool shanks and equipment with 7/24 tapers — Collar dimensions*
- [2] ISO 13399 (all parts), *Cutting tool data representation and exchange*

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1) Withdrawn.