
Core drills with parallel shanks and with Morse taper shanks

Forets-aléseurs à queue cylindrique et à queue cône Morse

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[ISO 7079:2016](https://standards.iteh.ai/catalog/standards/sist/3aeb09ae-0fb6-423b-b0eb-7b3808a66e8c/iso-7079-2016)

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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 second edition cancels and replaces the first edition (ISO 7079:1981), of which it constitutes a minor revision, notably with the addition of [Annex A](#), which gives the relationship between the designations of this International Standard and the ISO 13399 series.

Core drills with parallel shanks and with Morse taper shanks

1 Scope

This International Standard specifies the dimensions of core drills with parallel shanks and with Morse taper shanks.

It includes two tables for each of the above specified types, giving respectively

- the dimensions for the preferred diameter (see [Tables 1](#) and [2](#)), and
- the corresponding lengths defined in terms of diameter ranges (see [Tables 3](#) and [4](#)).

The tables show only metric dimensions which are alone recommended in the future for this type of drill.

Unless otherwise stated, these drills will be right-hand cutting drills.

2 Normative references

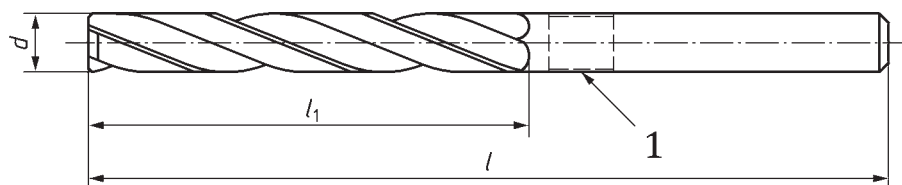
The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 296, *Machine tools — Self-holding tapers for tool shanks*

<https://standards.iteh.ai/catalog/standards/sist/3aeb09ae-0fb6-423b-b0eb-7b380ba66e8c/iso-7079-2016>

3 Core drills with parallel shanks

See [Figure 1](#) and [Tables 1](#) and [2](#).



Key

- 1 optional recess

Figure 1

Table 1 — Dimensions for the preferred diameters

Dimensions in millimetres

<i>d</i> h8	<i>l</i> ₁	<i>l</i>
3,00	33	61
3,30	36	65
3,50	39	70
3,80	43	75
4,00		
4,30	47	80
4,50		
4,80	52	86
5,00		
5,80	57	93
6,00		
6,80	69	109
7,00		
7,80	75	117
8,00		
8,80	81	125
9,00		
9,80	87	133
10,00		
10,75	94	142
11,00		
11,75	101	151
12,00		
12,75	108	160
13,00		
13,75	114	169
14,00		
14,75	120	178
15,00		
15,75	125	184
16,00		
16,75	130	191
17,00		
17,75	130	191
18,00		

When intermediate sizes are needed, reference should be made to [Table 2](#) for the corresponding lengths.

Flute portion:

- Tolerance on diameter, *d*, measured near the point: h8;
- Back taper: at the manufacturer's discretion.

Shank: These drills are normally made without driving tenon.

See [Table 2](#).

Table 1 (continued)

d h8	l_1	l
18,70	135	198
19,00		
19,70	140	205

When intermediate sizes are needed, reference should be made to [Table 2](#) for the corresponding lengths.

Flute portion:

- Tolerance on diameter, d , measured near the point: h8;
- Back taper: at the manufacturer's discretion.

Shank: These drills are normally made without driving tenon.

See [Table 2](#).

Table 2 — Corresponding lengths set out as a function of diameter ranges

Dimensions in millimetres

Diameter ranges d		Corresponding lengths	
over	Up to and including	l_1	l
—	3,00	33	61
3,00	3,35	36	65
3,35	3,75	39	70
3,75	4,25	43	75
4,25	4,75	47	80
4,75	5,30	52	86
5,30	6,00	57	93
6,00	6,70	63	101
6,70	7,50	69	109
7,50	8,50	75	117
8,50	9,50	81	125
9,50	10,60	87	133
10,60	11,80	94	142
11,80	13,20	101	151
13,20	14,00	108	160
14,00	15,00	114	169
15,00	16,00	120	178
16,00	17,00	125	184
17,00	18,00	130	191
18,00	19,00	135	198
19,00	20,00	140	205

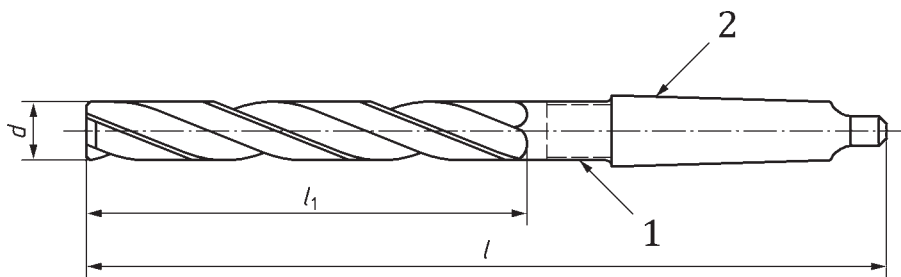
Tolerance on lengths

Lengths, l and l_1 , may vary within one diameter range, between the minimum and maximum limits corresponding respectively to the figures given for the nearest lower or upper range.

EXAMPLE For diameter 4 mm, length l_1 may vary between 39 mm and 47 mm about nominal value 43 mm, and length l may vary between 70 mm and 80 mm about nominal value 75 mm.

4 Core drills with Morse taper shanks

See [Figure 2](#) and [Tables 3](#) and [4](#).



Key

- 1 optional recess
- 2 Morse taper (ISO 296)

Figure 2

Table 3 — Dimensions for the preferred diameters

Dimensions in millimetres

d h8	l_1	l	Morse taper no.
7,80	75	156	1
8,00			
8,80	81	162	
9,00			
9,80	87	168	
10,00			
10,75	94	175	
11,00			
11,75			
12,00	101	182	
12,75			2
13,00			
13,75	108	189	
14,00			
14,75	114	212	
15,00			
15,75	120	218	
16,00			
16,75	125	223	
17,00			

When intermediate sizes are needed, reference should be made to [Table 4](#) for the corresponding lengths.

Flute portion:

- Tolerance on diameter d measured near the point: h8;
- Back taper : at the manufacturer's discretion.

Shank: In accordance with ISO 296.

See [Table 4](#).

Table 3 (continued)

d h8	l_1	l	Morse taper no.	
17,75	130	228		
18,00				
18,70	135	233		
19,00				
19,70	140	238		
20,00				
20,70	145	243		
21,00				
21,70	150	248		
22,00				
22,70	155	253		
23,00				
23,70	160	281		3
24,00				
24,70				
25,00				
25,70	165	286		
26,00				
27,70	170	291		
28,00				
29,70	175	296		
30,00				
31,60	185	306	4	
32,00	185	334		
33,60	190	339		
34,00				
34,60				
35,00				
35,60	195	344		
36,00				
37,60	200	349		
38,00				
39,60				
40,00				
41,60	205	354		
42,00				

When intermediate sizes are needed, reference should be made to [Table 4](#) for the corresponding lengths.

Flute portion:

- Tolerance on diameter d measured near the point: h8;
- Back taper : at the manufacturer's discretion.

Shank: In accordance with ISO 296.

See [Table 4](#).