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Machine bridge reamers

Alésoirs de chaudronnerie, à machine

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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 of the voluntary nature of standards, 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with defined cutting edges, holding tools, cutting items, adaptive items and interfaces*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This third edition cancels and replaces the second edition (ISO 2238:2011), of which it constitutes a minor revision.

The main changes compared to the previous edition are as follows:

— addition of Annex B;

— editorial changes to align with the ISO/IEC Directives.

Machine bridge reamers

1 Scope

This document specifies the dimensions of machine bridge reamers. It gives, for a series of diameter ranges, d_1, from 6 mm to 50,8 mm, the values, in millimetres, for the following dimensions of these tools:

— overall length, l_3;

— total cutting edge length, l_2;

— tapered cutting edge length, l_1.

Unless otherwise stated, these reamers are right-hand cutting.

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*

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:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Dimensions

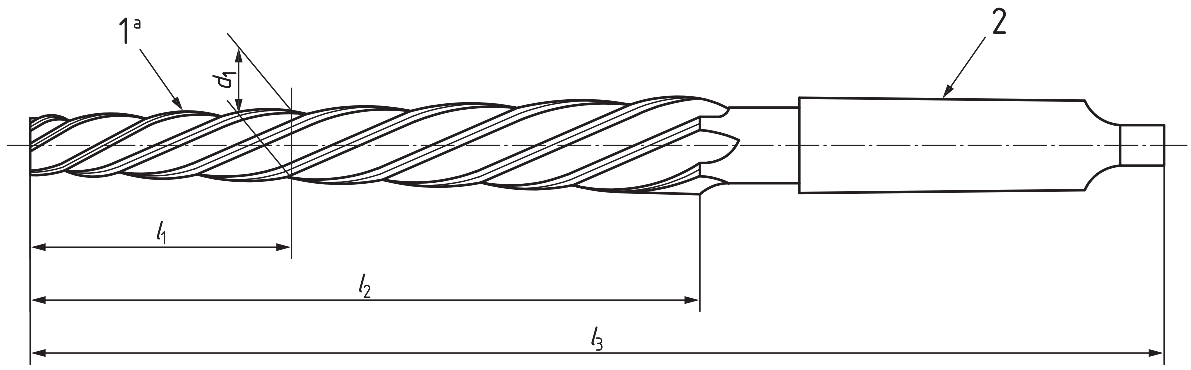
4.1 General

The Morse taper shanks shall be in accordance with ISO 296.

All dimensions and tolerances are given in millimetres.

4.2 Dimensions of machine bridge reamers

The dimensions of machine bridge reamers shall be in accordance with the indications given in Figure 1 and Table 1.



Key

1 rate of taper 1:10

2 Morse taper according to ISO 296

a 1:10 corresponds approximately to an opening angle of 5°45'.

Figure 1 — Dimensions of machine bridge reamers

Table 1 — Dimensions of machine bridge reamers

Diameter ranges, d_1[a,b] k11		l_1	l_2	l_3	**Morse taper No.**
from (over)	to (including)				
6,0	6,7	30	75	151	1
6,7	7,5	32	80	156	
7,5	8,5	34	85	161	
8,5	9,5	36	90	166	
9,5	10,6	38	95	171	
10,6	11,8	40	100	176	
11,8	13,2	42	105	199	2
13,2	14,0	46	115	209	
14,0	15,0	50	125	219	
15,0	16,0	54	135	229	
16,0	17,0	54	135	251	3
17,0	19,0	58	145	261	
19,0	21,2	62	155	271	
21,2	23,6	66	165	281	
23,6	26,5	72	180	296	
26,5	30,0	78	195	311	
30,0	31,5	84	210	326	

