
**Finishing reamers for Morse and metric
tapers, with cylindrical shanks and Morse
taper shanks**

*Alésoirs de finition pour cônes Morse et métrique, à queue cylindrique
et à queue cône Morse*

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[ISO 2250:2009](#)

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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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.

ISO 2250 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 2, *High speed steel cutting tools and their attachments*.

This second edition cancels and replaces the first edition (ISO 2250:1972), of which it constitutes a minor revision. In particular, the normative references have been updated and the dimensions in inches have been deleted.

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Finishing reamers for Morse and metric tapers, with cylindrical shanks and Morse taper shanks

1 Scope

This International Standard specifies the dimensions of cylindrical shank socket reamers and taper shank socket reamers manufactured to produce self-holding taper sockets for self-holding taper shanks of the following designations, and which are in accordance with ISO 296:

- metric tapers no. 4 and no. 6;
- Morse tapers no. 0 to no. 6 inclusive.

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

2 Normative references

The following referenced documents are indispensable for the application 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 237, *Rotating tools with parallel shanks — Diameters of shanks and sizes of driving squares*

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

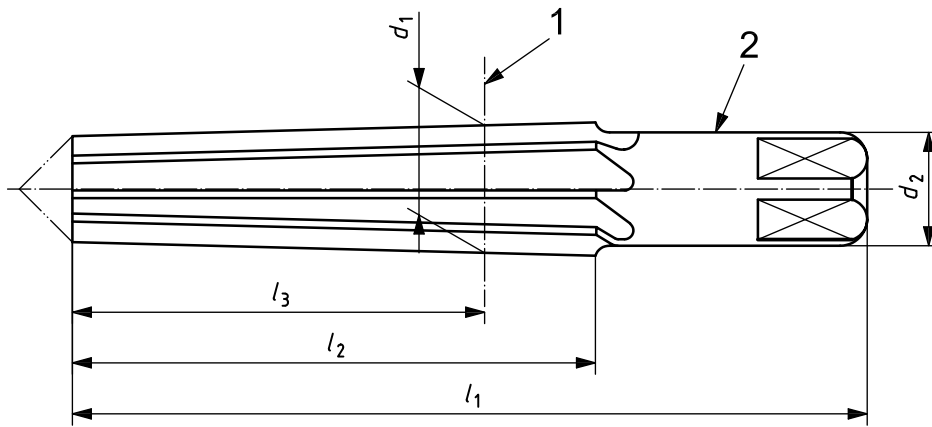
3 Dimensions

3.1 General

All dimensions are given in millimetres. The shanks and driving squares of the tools shall be in accordance with ISO 237. The Morse taper shanks shall be in accordance with ISO 296.

3.2 Cylindrical shank reamers

The dimensions of cylindrical shank reamers shall be as given in Figure 1 and Table 1.



Key

- 1 gauge plane
- 2 cylindrical shank in accordance with ISO 237

Figure 1 — Cylindrical shank reamers
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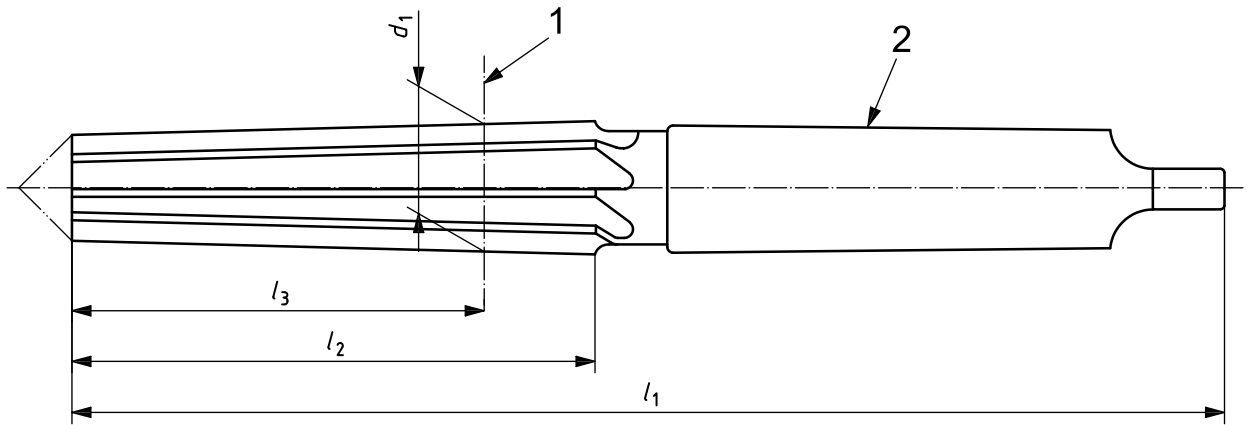
Table 1 — Dimensions of cylindrical shank reamers

Dimensions in millimetres

Taper		d_1	l_1	l_2	l_3	d_2 h9
Designation	Taper rate					
Metric No. 4	1:20,000	4,000	48	30	22	4,0
Metric No. 6	1:20,000	6,000	63	40	30	5,0
Morse No. 0	1:19,212	9,045	93	61	48	8,0
Morse No. 1	1:20,047	12,065	102	66	50	10,0
Morse No. 2	1:20,020	17,780	121	79	61	14,0
Morse No. 3	1: 19,922	23,825	146	96	76	20,0
Morse No. 4	1:19,254	31,267	179	119	97	25,0
Morse No. 5	1:19,002	44,399	222	150	124	31,5
Morse No. 6	1:19,180	63,348	300	208	176	45,0

3.3 Morse taper shank reamers

The dimensions of Morse taper shank reamer shall be as given in Figure 2 and Table 2.



Key

- 1 gauge plane
- 2 Morse taper in accordance with ISO 296

Figure 2 — Morse taper shank reamer

Table 2 — Dimensions of Morse taper shank reamers

Dimensions in millimetres

Designation	Taper		d_1	l_1	l_2	l_3
	Designation	Rate of taper				
Metric No. 4		1:20,000	4,000	106	30	22
Metric No. 6		1:20,000	6,000	116	40	30
Morse No. 0		1:19,212	9,045	137	61	48
Morse No. 1		1:20,047	12,065	142	66	50
Morse No. 2		1:20,020	17,780	173	79	61
Morse No. 3		1:19,922	23,825	212	96	76
Morse No. 4		1:19,254	31,267	263	119	97
Morse No. 5		1:19,002	44,399	331	150	124
Morse No. 6		1:19,180	63,348	389	208	176

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