INTERNATIONAL STANDARD

ISO 3859

Third edition
2000-08-01

Inverse dovetail cutters and dovetail cutters with cylindrical shanks

Fraises conique à cône renversé et à cône direct, à queue cylindrique

Reference number
ISO 3859:2000(E)

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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 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 3859 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 2, *Drills, reamers, milling cutters and milling machine accessories*.

This third edition cancels and replaces the second edition (ISO 3859:1985), which has been technically revised in particular with the addition of threaded shanks.

Inverse dovetail cutters and dovetail cutters with cylindrical shanks

1 Scope

This International Standard specifies the dimensions of inverse dovetail cutters and dovetail cutters with plain cylindrical shanks, flatted cylindrical shanks and threaded shanks.

Inverse dovetail cutters and dovetail cutters have the same design characteristics.

This International Standard applies to 45° and 60° dovetail cutters and inverse dovetail cutters with diameters of d_2 between 16 mm and 31,5 mm.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3338-1, *Cylindrical shanks for milling cutters — Part 1: Dimensional characteristics of plain cylindrical shanks.*

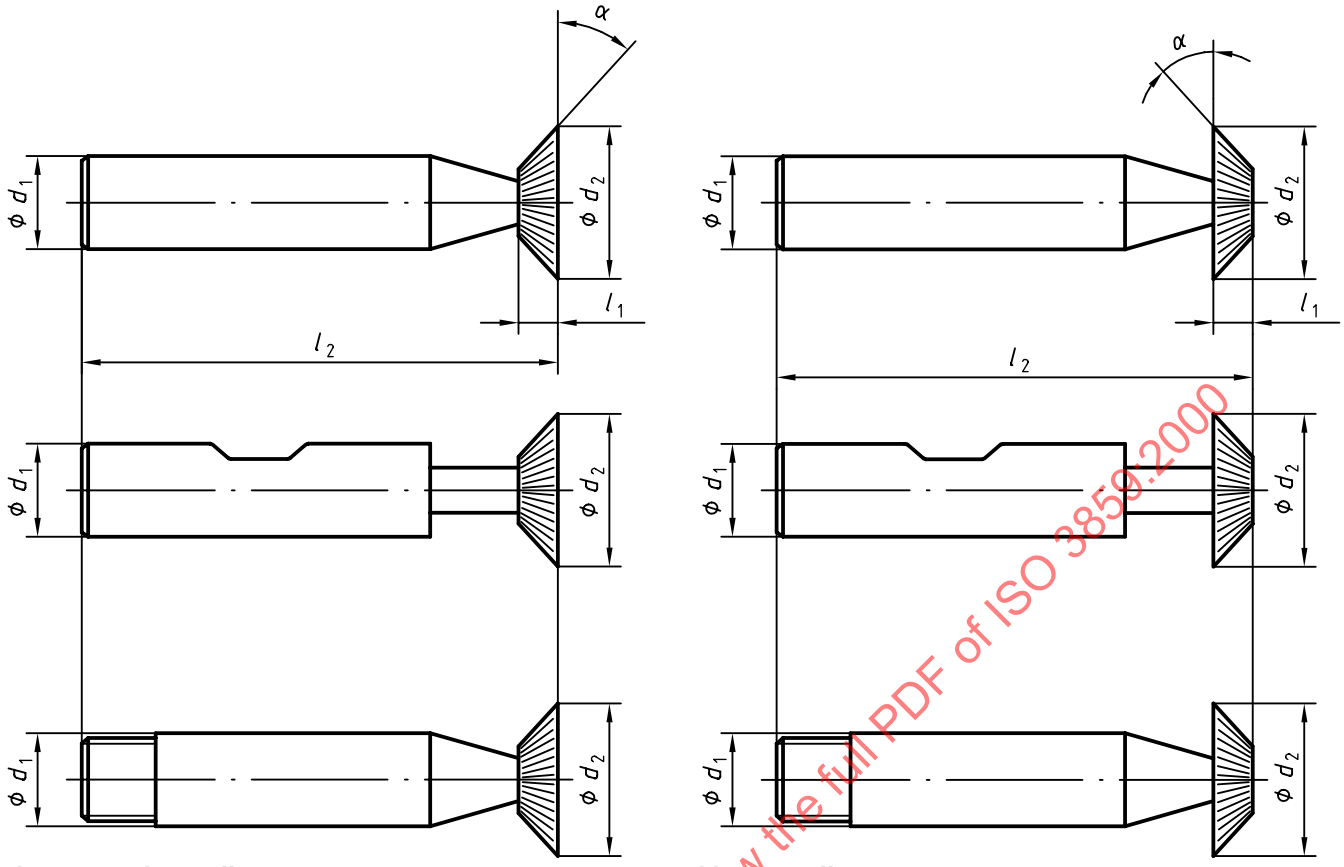
ISO 3338-2, *Cylindrical shanks for milling cutters — Part 2: Dimensionnal characteristics of flatted cylindrical shanks.*

ISO 3338-3, *Cylindrical shanks for milling cutters — Part 3: Dimensionnal characteristics of threaded shanks.*

3 Dimensions

See Figure 1 and Table 1.

Plain cylindrical shanks, flatted cylindrical shanks and threaded shanks are in accordance with ISO 3338-1, ISO 3338-2 and ISO 3338-3 respectively.



a) Inverse dovetail cutters b) Dovetail cutters

Figure 1 — Inverse dovetail cutters and dovetail cutters

Table 1

Dimensions in millimetres

d_2 js16	l_1	l_2	d_1[a]	a[b] ± 30'
16	4	60	12	45°
20	5	63		
25	6,3	67		
31,5	8	71	16	
16	6,3	60	12	60°
20	8	63		
25	10	67		
31,5	12,5	71	16	

[a] Tolerances on d_1 (in accordance with ISO 3338-1, ISO 3338-2 and ISO 3338-3):

h8 for plain cylindrical shanks;
h6 for flatted cylindrical shanks;
h8 for threaded shanks.

[b] This angle corresponds to the cutting edge angle κ_r in the case of inverse dovetail cutters and to the included angle ε_r in the case of dovetail cutters.