
International Standard



3859

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Inverse dovetail cutters and dovetail cutters with parallel shanks

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

Second edition — 1985-11-01

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[ISO 3859:1985](https://standards.iteh.ai/catalog/standards/sist/3848761f-b2ad-4f16-a4e0-b2bd06ec911f/iso-3859-1985)

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UDC 621.914.22

Ref. No. ISO 3859-1985 (E)

Descriptors : tools, cutting tools, milling cutters, single angle cutters, dimensions.

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3859 was prepared by Technical Committee ISO/TC 29, *Small tools*.

ISO 3859 was first published in 1977. This second edition cancels and replaces the first edition, of which d for $D = 25$ mm has been revised technically.

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1 Scope and field of application

This International Standard lays down the dimensions of inverse dovetail cutters and dovetail cutters with plain parallel and flatted parallel 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 cutting diameters of $D = 16$ to 31,5 mm.

Parallel shanks are in accordance with ISO 3338/1 and ISO 3338/2.

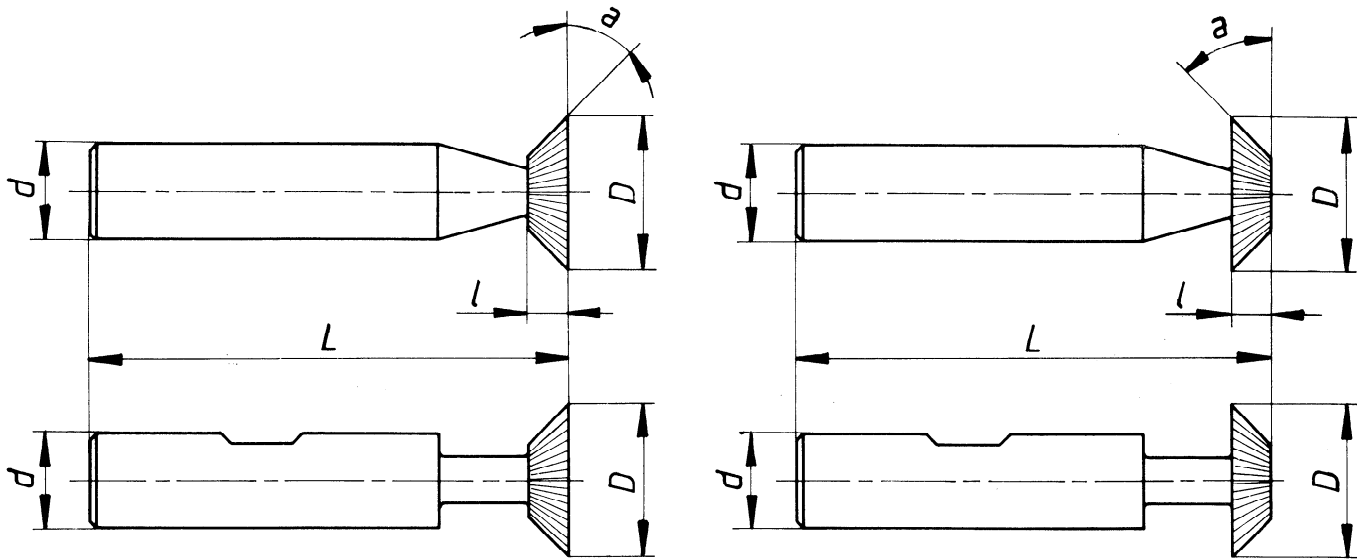
2 References

ISO 523, *Milling cutters — Recommended range of outside diameters.*

ISO 3338/1, *Parallel shanks for milling cutters — Part 1: Dimensional characteristics of plain parallel shanks.*

ISO 3338/2, *Parallel shanks for milling cutters — Part 2: Dimensional characteristics of flatted parallel shanks.*

3 Dimensions



Dovetail cutters

Inverse dovetail cutters

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Dimensions in millimetres

D $j_s 16$	L	$a^{(1)}$	$a^{(2)}$ $\pm 30'$	
16	60	5	45°	
20	63	5		
25	67	6,3		
31,5 ³⁾	71	8	16	
16	60	6,3	12	
20	63	8		
25	67	10		
31,5 ³⁾	71	12,5		
			16	60°

1) Tolerances on a : h8 for plain parallel shanks;
h6 for flatted parallel shanks.

2) This angle corresponds to the cutting edge angle κ , in the case of inverse dovetail cutters and to the included angle ϵ , in the case of dovetail cutters.

3) In accordance with ISO 523, the more rounded value of 32 mm is also allowed instead of this dimension.