

BS ISO 6986:2013



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Side and face milling (slotting) cutters with indexable inserts — Dimensions

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National foreword

This British Standard is the UK implementation of ISO 6986:2013. It supersedes BS 4193-12:1984 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee MTE/18, Tools tips and inserts for cutting applications.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Second edition
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**Side and face milling (slotting) cutters
with indexable inserts — Dimensions**

Fraises trois tailles à plaquettes amovibles — Dimensions



Reference number
ISO 6986:2013(E)

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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. www.iso.org/directives

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The committee responsible for this document is ISO/TC 29, *Small tools*, Subcommittee SC 9, *Tools with cutting edges made of hard cutting materials*.

This second edition cancels and replaces the first edition (ISO 6986:1983), of which it constitutes a minor revision.

Side and face milling (slotting) cutters with indexable inserts — Dimensions

1 Scope

This International Standard specifies the dimensions of side and face milling (slotting) cutters with indexable inserts.

The shape and dimensions of the inserts are left to the discretion of the manufacturer.

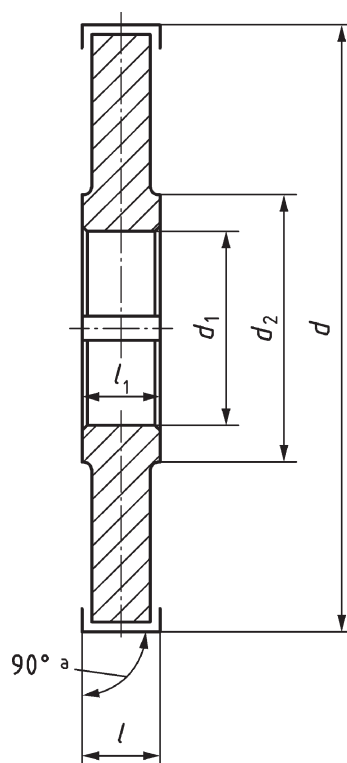
2 Normative references

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 240, *Milling cutters — Interchangeability dimensions for cutter arbors or cutter mandrels*

3 Dimensions

See Figure 1 and Table 1.



a The value of 90° is the nominal cutting edge angle of the insert.

Figure 1 — Dimensions

Table 1 — Dimensions

Dimensions in millimetres

| d js16 | d_1^b H7 | d_2 min. | l | l_1 $\begin{matrix} +2 \\ 0 \end{matrix}$ |
|--------------------------------------------------------------------------------------|---------------|---------------|-----|------------------------------------------------|
| 80 | 27 | 41 | 10 | 10 |
| 100 | 32 | 47 | 10 | 10 |
| | | | 12 | 12 |
| 125 | 40 | 55 | 12 | 12 |
| | | | 16 | 16 |
| 160 | 40 | 55 | 16 | 16 |
| | | | 20 | 20 |
| 200 | 50 | 69 | 20 | 20 |
| | | | 25 | 25 |
| ^b The dimensions of the bore and key shall be in accordance with ISO 240. | | | | |

Annex A (informative)

Relationship between designations in this International Standard and ISO 13399 (all parts)

For the relationship between designations in this International Standard and preferred symbols according to the ISO 13399 series, see [Table A.1](#).

Table A.1 — Relationship between designations in this International Standard and the ISO 13399 series

| Symbol in this International Standard (ISO 6986) | Reference in this International Standard (ISO 6986) | Property name in the ISO 13399 series | Symbol in the ISO 13399 series | Reference in the ISO 13399 series |
|--------------------------------------------------|------------------------------------------------------|---------------------------------------|--------------------------------|-----------------------------------|
| d | Figure 1 and Table 1 | Cutting diameter | DC | ISO/TS 13399-3 71D084653E57F |
| d_1 | Figure 1 and Table 1 | Connection diameter | DCON | ISO/TS 13399-3 71EBDBF5060E6 |
| d_2 | Figure 1 and Table 1 | Hub diameter | DHUB | ISO/TS 13399-3 71D087D3B17B0 |
| l | Figure 1 and Table 1 | Cutting width | CW | ISO/TS 13399-3 71CEAEBE2B825 |
| l_1 | Figure 1 and Table 1 | Hub thickness | THUB | ISO/TS 13399-3 71D087D3F5E07 |
| 90° | Figure 1 | Tool cutting edge angle | KAPR | ISO/TS 13399-3 71D078F683C9B |

Bibliography

- [1] ISO 13399 (all parts), *Cutting tool data representation and exchange*

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