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**Milling cutters — Designation —**

Part 1:

**Shank-type end mills of solid or tipped  
design**

*Fraises — Désignation —*

*Partie 1: Fraises deux tailles, à queue monobloc ou à lames*



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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.

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

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11529-1 was prepared by Technical Committee 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 11529-1:1998), which has been technically revised. In particular, it incorporates in 4.9 the addition of hollow taper shanks (HSK), types A and C.

ISO 11529 consists of the following parts, under the general title *Milling cutters — Designation*:

- *Part 1: Shank-type end mills of solid or tipped design*
- *Part 2: Shank-type and bore-type milling cutters with indexable inserts*

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# Milling cutters — Designation —

## Part 1: Shank-type end mills of solid or tipped design

### 1 Scope

This part of ISO 11529 establishes a designation system for shank-type end mills of solid or tipped design with a maximum diameter of 99,9 mm, with the purpose of simplifying communication between the users and suppliers of such tools.

### 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 3002-1:1982, *Basic quantities in cutting and grinding — Part 1: Geometry of the active part of cutting tools — General terms, reference systems, tool and working angles, chip breakers*

ISO 3002-3:1984, *Basic quantities in cutting and grinding — Part 3: Geometric and kinematic quantities in cutting*

### 3 Summary explanation of the designation system

Shank-type end mills are designated by a code comprising symbols which identify the important features of the end mills.

Extensions to the designation codes to include manufacturer's or supplier's information about the end mills, and information about the material of the cutting part, are described in Clauses 5 and 6.

No addition to or extension of the designation system given in this part of ISO 11529 shall be made without consulting with Technical Committee ISO/TC 29 and obtaining its agreement.

The symbols defined by this part of ISO 11529 are:

Position	Definition of designation symbols
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|---|--|
| 1 | Designation symbol (letter) identifying the design of end mill (see 4.1)             |
| 2 | Designation symbol (letter) identifying the type of end mill (see 4.2)               |
| 3 | Designation symbol (number) identifying the cutting edge angle, $\kappa_r$ (see 4.3) |
| 4 | Designation symbol (letter) identifying the helix angle, $\lambda_s$ (see 4.4)       |
| 5 | Designation symbol (number) identifying the diameter, $\varnothing$ (see 4.5)        |