INTERNATIONAL STANDARD

ISO 8830

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High-speed steel machine taps with ground threads — Technical specifications

Tarauds à machine, en acier rapide, à filets rectifiés — Spécifications techniques

Reference number
ISO 8830:1991(E)

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.

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.

International Standard ISO 8830 was prepared by Technical Committee ISO/TC 29, *Small tools*, Sub-Committee SC 4, *Screwing taps and dies*.

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High-speed steel machine taps with ground threads — Technical specifications

1 Scope

This International Standard specifies characteristics for high-speed steel machine taps with ground threads.

It applies to standard taps in accordance with ISO 529, ISO 2283, ISO 2284, and ISO 2857. These specifications may be applied to non-standard taps by agreement between purchaser and supplier.

The terminology is derived from ISO 5967:1981, *Taps and thread cutting — Nomenclature of the main types and terminology.*

NOTE 1 The characteristics specified in this International Standard may also be applied to hand finishing taps.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 529:1975, *Short machine taps and hand taps.*

ISO 2283:1972, *Long shank machine taps with nominal diameters from 3 to 24 mm and 1/8 to 1 in.*

ISO 2284:1987, *Hand taps for parallel and taper pipe threads — General dimensions and marking.*

ISO 2857:1973, *Ground thread taps for ISO metric threads of tolerances 4H to 8H and 4G to 6G coarse and fine pitches — Manufacturing tolerances on the threaded portion.*

ISO 11054:—[1], *Cutting tools — Designation of high-speed steel groups.*

3 Material and hardness

3.1 Material

The codes of the most currently used high-speed steels are given in ISO 11054.

3.2 Hardness of threaded portion of taps

The hardness of the threaded portion of taps is given in table 1.

Table 1

Nominal tap diameter d mm	Minimum hardness
$d \leqslant 3$	750 HV5 or 61 HRC
$3 < d \leqslant 6$	780 HV10 or 62 HRC
$d > 6$	820 HV30 or 63 HRC

3.3 Hardness of the shank

Whatever the diameter and the conception (one-piece or with welded shank) of the tap, the hardness of the shank and of the square shall not be less than 30 HRC.

1) To be published.