
**ISO metric trapezoidal screw
threads — Basic and design profiles**

Filetages métriques trapézoïdaux ISO — Profils de base et nominal

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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 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 1, *Screw threads*.

This third edition cancels and replaces the second edition (ISO 2901:1993), which has been technically revised. The following changes have been made:

- the phrase “maximum material profiles” has been replaced by “design profiles”;
- the reference ISO 2903 has been replaced by ISO 5408;
- the symbols have been updated;
- the definition of basic profile has been deleted;
- [Figure 2](#) has been revised and Figure 3 has been deleted.

ISO metric trapezoidal screw threads — Basic and design profiles

1 Scope

This document specifies the basic and design profiles of ISO metric trapezoidal screw threads.

This document is chiefly applicable to traversing threads for traversing motion on machines, tools, etc. It can also be used for fastening threads.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5408 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Symbols

For the purposes of this document, the following symbols apply.

D	major diameter of internal thread on basic profile
D_4	major diameter of internal thread on design profile
d	major diameter of external thread (nominal diameter)
D_2	pitch diameter of internal thread
d_2	pitch diameter of external thread
D_1	minor diameter of internal thread
d_1	minor diameter of external thread on basic profile
d_3	minor diameter of external thread on design profile
P	pitch
H	fundamental triangle height
H_2	thread height on basic profile
H_0	thread overlap on design profile
H_4	thread height of internal thread on design profile