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**ISO metric trapezoidal screw
threads — General plan**

Filetages métriques trapézoïdaux ISO — Vue d'ensemble



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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 second edition cancels and replaces the first edition (ISO 2902:1977), Clause 4 of which has been technically revised (now [Clause 6](#)).

ISO metric trapezoidal screw threads — General plan

1 Scope

This document specifies a series of diameter and pitch combinations for ISO metric trapezoidal screw threads having the basic and design profiles according to ISO 2901.

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

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 2903, *ISO metric trapezoidal screw threads — Tolerances*

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 Choice of diameter and pitch

Choose, for preference, diameters in column 1 of [Table 1](#) and, if necessary, in column 2, and then in column 3.

The diameters in column 3 shall not be used for new designs.

For the diameter selected, choose one of the pitches shown on the corresponding line, for preference, the pitches within broad frames.

If it is necessary to use a trapezoidal thread with a pitch other than shown in the table, choose one of the pitches assigned to a neighbouring diameter.

5 Diameter and pitch combinations

The nominal diameter and pitch combinations are specified in [Table 1](#).

6 Designation

A screw thread in conformity with this document shall be designated in accordance with ISO 2903.

Table 1 — Nominal diameter and pitch combinations

Dimensions in millimetres

Nominal diameters			Pitches																					
<i>D, d</i>			<i>P</i>																					
Col. 1	Col. 2	Col. 3	44	40	36	32	28	24	22	20	18	16	14	12	10	9	8	7	6	5	4	3	2	1,5
8																								1,5
	9																						2	1,5
10																							2	1,5
	11																						3	2
12																							3	2
	14																						3	2
16																							4	2
	18																						4	2
20																							4	2
	22																8						5	3
24																	8						5	3
	26																8						5	3
28																	8						5	3
	30														10								6	3
32															10								6	3
	34														10								6	3
36															10								6	3
	38														10								7	3
40															10								7	3
	42														10								7	3
44														12									7	3
	46																						8	3
48																							8	3
	50																						8	3
52																							8	3
	55												14										9	3
60													14										9	3
	65											16			10								4	4
70												16			10								4	4
	75											16			10								4	4
80												16			10								4	4
	85														12								4	4
90											18				12								4	4
	95										18				12								4	4
100										20					12								4	4
		105								20					12								4	4
	110									20					12								4	4
		115							22						14								6	6
120									22						14								6	6

Table 1 — (continued)

Dimensions in millimetres

Nominal diameters			Pitches																						
<i>D, d</i>			<i>P</i>																						
Col. 1	Col. 2	Col. 3	44	40	36	32	28	24	22	20	18	16	14	12	10	9	8	7	6	5	4	3	2	1,5	
	130	125 135							22 22				14 14 14						6 6 6						
140	150	145						24 24 24					14 14						6 6 6						
160		155 165						24				16 16 16							6 6 6						
	170	175					28 28 28					16 16						8 8	6						
	190	185 195				32 32 32						18 18 18					8 8 8								
200	210				36	32						18					8								
220					36					20 20							8 8								
240	230				36					20							8								
	250			40					22 22					12											
260	270			40					22					12											
280				40				24 24						12											
300	290		44 44					24 24						12											

Bibliography

- [1] ISO 2901, *ISO metric trapezoidal screw threads — Basic and design profiles*
- [2] ISO 5408, *Screw threads — Vocabulary*

