

ISO metric trapezoidal screw threads – General plan

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a series of diameter and pitch combinations for ISO metric trapezoidal screw threads having the basic profile according to ISO 2901.

2 REFERENCE

ISO 2901, ISO metric trapezoidal screw threads – Basic profile and maximum material profiles.

3 CHOICE OF DIAMETER AND PITCH

Choose, for preference, diameters in column 1 of the table and, if necessary, in column 2, and then column 3.

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

For the diameter retained, choose one of the pitches indicated on the corresponding line, for preference the pitches within frames.

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

4 DESIGNATION

The one-start metric trapezoidal screw threads conforming to this International Standard shall be designated by the letters Tr, followed by the values of the nominal diameter and of the pitch expressed in millimetres and separated by the sign x.

Example : Tr 40 x 7

The multiple-start metric trapezoidal screw threads conforming to this International Standard shall be designated by the letters Tr followed by the values of the nominal diameter and of the lead for the multiple-start threads, separated by the sign x, and, in brackets, the letter P and the value of the pitch (axial distance between two neighbouring flanks in the same direction), all expressed in millimetres (see figure).

Example : Tr 40 x 14 (P7)

(Number of starts = $\frac{\text{Lead}}{\text{Pitch}} = \frac{14}{7}$ defines a screw thread of 40 diameter with 2 starts)

For left-hand metric trapezoidal screw threads conforming to this International Standard, the letters LH shall be added to the thread designation.

Example : Tr 40 x 14 (P7) LH

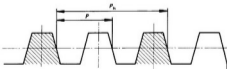


FIGURE – Lead and pitch of multiple start thread

P_n = lead (axial advance at one turn)

P = pitch (axial distance between two neighbouring flanks in the same direction)

TABLE - Diameter/pitch

Dimensions in millimetres

Nominal diameters			Pitches																						
Col. 1	Col. 2	Col. 3	44	40	36	32	28	24	22	20	18	16	14	12	10	8	7	6	5	4	3	2	1,5		
8	9																							1,5	
10																								2	1,5
12	11																							3	2
14																								3	2
16	18																							4	2
20																								4	2
22																									
24	22																								3
26																									3
28	30																								3
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34																									3
36	34																								3
38																									3
40	42																								3
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100	95																								4
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110	106																								4
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300	290																								6