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# INTERNATIONAL STANDARD 2902

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## ISO metric trapezoidal screw threads — General plan

*Filetages métriques trapézoïdaux ISO — Vue d'ensemble*

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**Descriptors** : screw threads, trapezoidal threads, specifications, designation, diameters, thread pitch.

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2902 was developed by Technical Committee ISO/TC 1, *Screw threads*, and was circulated to the member bodies in June 1976.

It has been approved by the member bodies of the following countries :

Austria	Ireland	Romania
Belgium	Italy	South Africa Rep. of
Brazil	Japan	Spain
Canada	Korea, Rep. of	Sweden
Denmark	Mexico	Switzerland
Finland	Netherlands	United Kingdom
Germany	New Zealand	U.S.A.
Hungary	Norway	
India	Poland	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

France  
U.S.S.R.

# 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

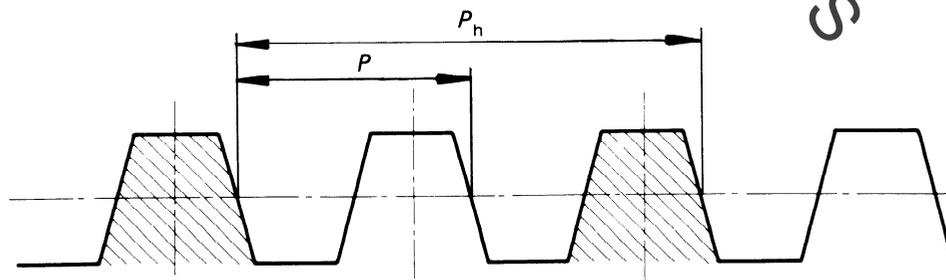


FIGURE – Lead and pitch of multiple-start thread

$P_h$  = lead (axial advance at one turn)

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