

# INTERNATIONAL STANDARD 2904

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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 — Basic dimensions

*Filetages métriques trapézoïdaux ISO — Dimensions de base*

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**Descriptors** : screw threads, trapezoidal threads, specifications, profiles, dimensions, 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 2904 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	Hungary	Poland
Belgium	India	Romania
Brazil	Ireland	South Africa, Rep. of
Canada	Italy	Spain
Denmark	Korea, Rep. of	Sweden
Finland	Netherlands	Switzerland
France	New Zealand	U.S.A.
Germany	Norway	

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

Japan  
U.S.S.R.

# ISO metric trapezoidal screw threads – Basic dimensions

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the basic dimensions for ISO metric trapezoidal screw threads according to ISO 2902.

The values refer to the basic profiles according to ISO 2901.

## 2 REFERENCES

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

ISO 2902, *ISO metric trapezoidal screw threads – General plan.*

## 3 CALCULATION

The values given in this International Standard have been calculated from the following formulae :

$$H_1 = 0,5 P$$

$$H_4 = H_1 + a_c = 0,5 P + a_c$$

$$h_3 = H_1 + a_c = 0,5 P + a_c$$

$$z = 0,25 P = H_1/2$$

$$D_1 = d - 2 H_1 = d - P$$

$$D_4 = d + 2 a_c$$

$$d_3 = d - 2 h_3$$

$$d_2 = D_2 = d - 2 z = d - 0,5 P$$

$$R_1 \text{ max.} = 0,5 a_c$$

$$R_2 \text{ max.} = a_c$$

where

$a_c$  = clearance on the crest

$D_4$  = major diameter for internal threads

$D_2$  = pitch diameter for internal threads

$D_1$  = minor diameter for internal threads

$d$  = major diameter for external threads : nominal diameter

$d_2$  = pitch diameter for external threads

$d_3$  = minor diameter for external threads

$H_1$  = height of the overlapping

$H_4$  = height of internal threads

$h_3$  = height of external threads

$P$  = pitch