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# International Standard



# 965/2

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

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## ISO general purpose metric screw threads — Tolerances —

### Part 2 : Limits of sizes for general purpose bolt and nut threads — Medium quality

*Filetages métriques ISO pour usages généraux — Tolérances — Partie 2 : Dimensions limites pour la boulonnerie d'usage courant — Qualité moyenne*

Second edition — 1980-09-15

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**Descriptors** : screw threads, ISO screw threads, metric system, nuts (fasteners), screws, designation, dimensions, bolts, tolerances, dimensional tolerances.

## 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 965/2 was developed by Technical Committee ISO/TC 1, *Screw threads*, and was circulated to the member bodies in January 1979.

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

Australia	Hungary	Poland
Austria	India	Romania
Belgium	Ireland	South Africa, Rep. of
Bulgaria	Italy	Spain
Canada	Japan	Sweden
Chile	Korea, Rep. of	Switzerland
Czechoslovakia	Libyan Arab Jamahiriya	United Kingdom
Denmark	Mexico	USA
Finland	Netherlands	USSR
France	New Zealand	
Germany, F. R.	Norway	

No member body expressed disapproval of the document.

This second edition cancels and replaces the first edition (i.e. ISO 965/2-1973).

This International Standard is one of a number of ISO publications determining tolerances for ISO metric screw threads. The complete set is made up as follows :

ISO 965/1, *ISO general purpose metric screw threads — Tolerances — Part 1 : Principles and basic data.*

ISO 965/2, *ISO general purpose metric screw threads — Tolerances — Part 2 : Limits of sizes for general purpose bolt and nut threads — Medium quality.*

ISO 965/3, *ISO general purpose metric screw threads — Tolerances — Part 3 : Deviations for constructional threads.*

ISO/R 1501, *ISO miniature screw threads.*

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# ISO general purpose metric screw threads — Tolerances — Part 2 : Limits of sizes for general purpose bolt and nut threads — Medium quality

## 1 Scope and field of application

This International Standard specifies limits of sizes for pitch and crest diameters for ISO general purpose metric screw threads conforming to ISO 262, *ISO general purpose metric screw threads — Selected sizes for screws, bolts and nuts*.

The limits of sizes for the tolerance quality specified are derived from the fundamental deviations and tolerances specified in ISO 965/1.

## 2 Designation

Tolerance designation for nut threads is

- 5H for sizes up to and including M 1,4;
- 6H for sizes M 1,6 and larger.

Examples :

M1 — 5H

M10 × 1,25 — 6H

Tolerance designation for bolt threads is

- 6H for sizes up to and including M 1,4;
- 6g for sizes M 1,6 and larger.

Examples :

M1 — 6h

M10 × 1,25 — 6g

A fit between threaded parts is indicated by the nut thread tolerance designation followed by the bolt thread tolerance designation separated by a stroke.

Examples :

M1 — 5H/6h

M10 × 1,25 — 6H/6g

## 3 Remark

The root contour shall not in any point transgress the basic profile.

For coated threads, the tolerances apply to the parts before coating, unless otherwise stated. After coating, the actual thread profile shall not in any point transgress the maximum material limits for position H or h respectively.

NOTE — These provisions are intended for thin coatings, for example those obtained by electroplating. For thicker coatings, for example those obtained by hot-dip galvanizing, special provisions are under consideration and will be added to ISO 965/1, 2 and 3.