
**ISO general purpose metric screw
threads — Tolerances —**

Part 4:

Limits of sizes for hot-dip galvanized external screw threads to mate with internal screw threads tapped with tolerance position H or G after galvanizing

Filetages métriques ISO pour usages généraux — Tolérances —

Partie 4: Dimensions limites pour filetages extérieurs galvanisés à chaud pour assemblages avec des filetages intérieurs de position de tolérance H ou G après galvanisation



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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 965-4 was prepared by Technical Committee ISO/TC 1, *Screw threads*, Subcommittee SC 2, *Tolerances*.

ISO 965 consists of the following parts, under the general title *ISO general purpose metric screw threads – Tolerances*

- Part 1: Principles and basic data
- Part 2: Limits of sizes for general purpose bolt and nut threads – Medium quality
- Part 3: Deviations for constructional screw threads
- Part 4: Limits of sizes for hot-dip galvanized external threads to mate with internal threads tapped with tolerance position H or G after galvanizing
- Part 5: Limits of sizes for internal screw threads to mate with hot-dip galvanized external screw threads with maximum size of tolerance position h before galvanizing

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ISO general purpose metric screw threads — Tolerances —

Part 4:

Limits of sizes for hot-dip galvanized external screw threads to mate with internal screw threads tapped with tolerance position H or G after galvanizing

1 Scope

This part of ISO 965 specifies deviations and limits of sizes for pitch and crest diameters for ISO general purpose metric external screw threads conforming to ISO 262 having a basic profile according to ISO 68-1.

External screw threads according to this part of ISO 965 are intended to mate with internal screw threads tapped with tolerance position H or G after hot dip galvanizing.

The limits of sizes for the tolerance quality specified are derived from tolerances specified in ISO 965-1 and the fundamental deviations according to the following formula:

$$es_{az} = -(300 + 20P)$$

where

es is expressed in micrometres;

P is expressed in millimetres.

Products made with thread tolerances in accordance with this part of ISO 965 may show failure at lower ultimate tensile loads than those specified in ISO 898-1 due to reduction of the stress area.

External screw threads with thread tolerances according to this part of ISO 965 must not be mated with internal screw threads with thread tolerances according to ISO 965-5 because such combinations will create severe risk for thread stripping.

NOTE If the tolerance class 6az is not specified the external screw threads are to mate with internal screw threads with tolerance position 6AZ if the products are centrifuged and with hot-dip galvanized internal screw threads with tolerance position 6AX if the products are not centrifuged.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 965. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 965 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 68-1:1998, *ISO general purpose screw threads — Basic profile — Part 1: Metric screw threads*.

ISO 262:1998, *ISO general purpose metric screw threads — Selected sizes for screws, bolts and nuts*.

ISO 898-1:—¹⁾, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs.*

ISO 965-1:1998, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data.*

ISO 965-5:1998, *ISO general purpose metric screw threads — Tolerances — Part 5: Limits of sizes for internal screw threads to mate with hot-dip galvanized external screw threads with maximum size of tolerance position h before galvanizing.*

ISO 5408:1983, *Cylindrical screw threads — Vocabulary.*

3 Definitions

For the purposes of this part of ISO 965 the definitions given in ISO 5408 apply.

4 Designation

Tolerance designation for external screw threads is 6az.

Example:

M12-6az

1) To be published. (Revision of ISO 898-1:1988)