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

Part 3:
Deviations for constructional screw threads

*Filetages métriques ISO pour usages généraux — Tolérances —
Partie 3: Écarts pour filetages de construction*



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

This third edition cancels and replaces the second edition (ISO 965-3:1980), which has been technically revised.

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*

© ISO 1998

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

ISO general purpose metric screw threads — Tolerances —

Part 3: Deviations for constructional screw threads

1 Scope

This part of ISO 965 specifies deviations for pitch and crest diameters for ISO general purpose metric screw threads (M) conforming to ISO 261 having basic profile according to ISO 68-1.

The deviations specified are derived from the fundamental deviations and tolerances specified in ISO 965-1.

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 261:1998, *ISO general purpose metric screw threads — General plan*.

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

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

3 Definitions

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

4 Deviations

For internal threads as well as external threads, the actual root contour shall not in any point transgress the basic profile.

The tabulated deviation values for the minor diameter of the external thread are calculated on the basis of $\frac{H}{6}$ truncation and

may be used for stress calculations $\left[\text{deviation} = - \left(|e_s| + \frac{H}{6} \right) \right]$.

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.