BSI Standards Publication

ISO general purpose screw threads — Basic and design profiles

Part 2: Inch screw threads

bsi.

National foreword

This British Standard is the UK implementation of ISO 68-2:2023. It supersedes BS ISO 68-2:1998+A1:2020, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FME/9, Fasteners.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2023

ISBN 978 0 539 22531 0

ICS 21.040.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2023.

Amendments/corrigenda issued since publication

Date	Text affected

INTERNATIONAL ISO

Second edition
2023-10-05

ISO general purpose screw threads — Basic and design profiles —

Part 2: Inch screw threads

Filetages ISO pour usages généraux — Profil de base et profil nominal —

Partie 2: Filetages en inches

Reference number
ISO 68-2:2023(E)

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 1, *Screw threads*.

This second edition cancels and replaces the first edition (ISO 68-2:1998), which has been technically revised. It also incorporates the Amendment ISO 68-2:1998/Amd 1:2020.

The main changes are as follows:

— “design profiles” has been added in the document title and the first paragraph of the Scope, and Clause 6 has been added;

— the second and third paragraphs have been added in the Scope;

— subclause 3.1 has been deleted;

— Clause 4 has been added;

— the number of decimal places has been changed from 9 to 8 for the constants in the basic profile formulae in Clause 5.

A list of all parts in the ISO 68 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

INTERNATIONAL STANDARD ISO 68-2:2023

ISO general purpose screw threads — Basic and design profiles —

Part 2: Inch screw threads

1 Scope

This document specifies the basic and design profiles for ISO inch screw threads (UN and UNR).

UN applies to both internal and external threads. UNR only applies to external threads. A flat or rounded root contour, due to the threading process, is specified for UN threads, while only a defined rounded root contour is specified for UNR external threads.

This document is applicable to the inch fastening screw threads.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5408, *Screw threads — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5408 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Symbols

For the purposes of this document, the following symbols apply.

D major diameter of internal thread (nominal diameter)

d major diameter of external thread (nominal diameter)

D_2 pitch diameter of internal thread

d_2 pitch diameter of external thread

D_1 minor diameter of internal thread

d_1 minor diameter of external thread on basic profile

d_3 minor diameter of external thread on design profile