

This is a preview of "BS 1580-1:2007". [Click here to purchase the full version from the ANSI store.](#)

BRITISH STANDARD

Unified screw threads

Part 1: Screw threads with diameters $\frac{1}{4}$ in and larger – Requirements

ICS 21.040.20

BSi
British Standards

This is a preview of "BS 1580-1:2007". [Click here to purchase the full version from the ANSI store.](#)

The BSI copyright notice displayed in this document indicates when the document was last issued.

© BSI 2009

ISBN 978 0 580 68654 2

The following BSI references relate to the work on this standard:
Committee reference FME/9
Draft for comment 07/30158490 DC

Publication history

First published June 1949

Second edition, November 1953

Third edition, as Parts 1 and 2, September 1962

Fourth edition, as Part 1, December 2007

Amendments issued since publication

Amd. no.	Date	Text affected
C1	August 2009	<p><u>Table 2</u> Size: $\frac{1}{2}$—20 Class: 3A Column: 10 Correction: 0.458 7 corrected to 0.438 7</p> <p>Size: $1\frac{9}{16}$—6 Class: 2A Column: 11 Correction: 1.355 4 corrected to 1.335 4</p> <p>Size: $3\frac{1}{2}$—16 Class: 3A Column: 9 Correction: 0.004 8 corrected to 0.004 3</p> <p>Size: $5\frac{5}{8}$—12 and $5\frac{5}{8}$—16 Column: 12 Correction: 23 corrected to 2B in two places</p> <p><u>Table 31</u> Column: 1, second value Correction: 38 corrected to 36</p> <p><u>Figure D.1a</u> Dimension f_m added</p> <p><u>Bibliography</u> Reference to BS 84 added</p>

This is a preview of "BS 1580-1:2007". [Click here to purchase the full version from the ANSI store.](#)

Foreword *iv*

Section 1: General *1*

- 1 Scope *1*
- 2 Normative references *2*
- 3 Terms and definitions and symbols *2*
- 4 Profile of unified screw threads *3*

Section 2: Standard series *9*

- 5 Diameter/pitch combinations *9*
- 6 Tolerance classes of external and internal threads *9*
- 7 Limits of size, and tolerances, for uncoated threads *9*
- 8 Allowances for uncoated threads *10*
- 9 Coated threads *11*
- 10 Gauges *14*
- 11 Designation of unified screw threads *16*

Section 3: Special series (UNS) *69*

- 12 Diameter/pitch combinations, fractional sizes *69*
- 13 Diameter/pitch combinations, decimal sizes *70*
- 14 Tolerance classes of external and internal UNS threads *70*
- 15 Tolerances and allowances *70*
- 16 Coated UNS threads *71*
- 17 Designation of UNS threads *71*

Annexes

- Annex A (informative) Bases of tolerances and allowances for unified screw threads $\frac{1}{4}$ in and larger *89*
- Annex B (informative) Outline guide, and examples, for calculating limits of size of untabulated UNS screw threads *95*
- Annex C (informative) Forms of the crest of external threads *101*
- Annex D (informative) General symbols *103*
- Annex E (informative) Tolerances on pitch and flank angle in relation to tolerance on effective diameter *106*
- Annex F (informative) Standard unified thread series, guidance on selection and use *108*
- Annex G (informative) Standard unified thread series, information and guidance regarding the tolerance classes *109*

Bibliography *111*

List of figures

- Figure 1 – Basic profile of unified screw threads *5*
- Figure 2 – Design profiles of unified internal and external threads (maximum material condition) *6*
- Figure 3 – Limiting profiles for crests of external threads *8*
- Figure 4 – Classes of unified screw threads – Effective diameter tolerance zones of finished uncoated threads *12*
- Figure 5 – Classes of unified screw threads – Effective diameter tolerance zones of coated threads before and after coating *13*
- Figure 6 – Tolerance zones for unified threads, Class 1A external thread and Class 1B internal thread *14*
- Figure 7 – Tolerance zones for unified threads, Class 2A external thread and Class 2B internal thread *15*
- Figure 8 – Tolerance zones for unified threads, Class 3A external thread and Class 3B internal thread *16*