

ASME B1.7-2006
(Revision of ANSI/ASME B1.7M-1984)

Screw Threads: Nomenclature, Definitions, and Letter Symbols

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

Three Park Avenue • New York, NY 10016

CONTENTS

Foreword	v
Committee Roster	vi
1 General	1
2 Definition of Terms	1
Figures	
1 Allowance	2
2 Axis of Thread	2
3 Best Wire Size	2
4 Blunt Start Thread	3
5 Bottom of Chamfer	4
6 Clearance Flank	4
7 Countersink	4
8 Crest	4
9 Root and Crest Truncation	5
10 Fundamental Deviation	6
11 Metric Tolerance System for Screw Threads	7
12 Element	7
13 Flank	7
14 Flank Angle	7
15 Flat Form	7
16 Following Flank	8
17 Gauge Plane	8
18 Height of Fundamental Triangle	8
19 Height of Thread	9
20 Height of Thread Engagement	9
21 Helix	9
22 Helix Variation (Drunken Thread)	9
23 Incomplete Thread	10
24 Interference Fit	11
25 Internal Thread	11
26 Lead	11
27 Leading Flank	11
28 Gaging Length	11
29 Length of Assembly	11
30 Length of Thread Engagement	12
31 Load Flank	12
32 Major Clearance	12
33 Major Diameter, External Thread	12
34 Major Diameter, Internal Thread	12
35 Major Diameter, Internal Thread (Rounded Form)	12
36 Major Diameter, Taper Thread	12
37 Minor Clearance	13
38 Minor Diameter, External Thread (Flat Form)	14
39 Minor Diameter, External Thread (Rounded Form)	14
40 Minor Diameter, Internal Thread	14
41 Minor Diameter, Taper Thread	14
42 Multiple Start Thread	14

43	Pitch	14
44	Pitch Cone	14
45	Pitch Cylinder	14
46	Pitch Diameter, External Thread	15
47	Pitch Diameter, Internal Thread	15
48	Plane of Vanish Point	15
49	Profile, Basic Thread	16
50	Root Radius	16
51	Screw Thread	16
52	Sharp Crest and Root	16
53	Shear Area	17
54	Straight Thread	18
55	Thread Angle	23
56	Thread Ridge Thickness	23
57	Truncation	23
58	Vanish Cone	24

Tables

1	General Symbols	19
2	ISO General Symbols	20
3	Thread Series Designations	21
4	ISO Thread Series Designations	22

Nonmandatory Appendices

A	Superseded Thread Series Designations	25
B	ISO Symbols for Screw Threads	26
C	Greek Alphabet	27