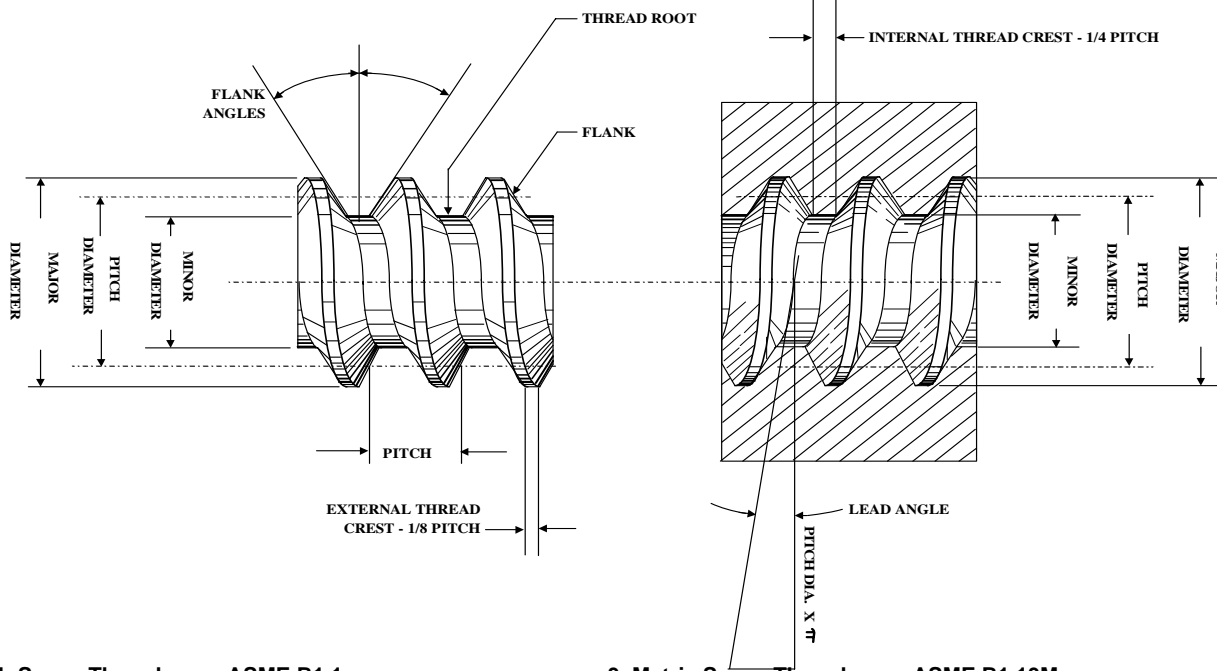


BASIC SCREW THREAD DESIGNATIONS

These simplified drawings of an external and internal thread will illustrate basic thread geometry. They make it possible to visualize the critical dimensions which must be controlled for correct thread form.



**1. Unified Inch Screw Threads: per ASME B1.1
Federal Std H28/2
Military Std MIL-S-7742D**

**3. Metric Screw Threads: per ASME B1.13M,
Federal Std H28/21**

Nominal Size (Basic Major Diameter expressed as a fraction, decimal or machine screw number).

Number of Threads per Inch (TPI).

Thread Form & Series (UN, UNC, UNF, UNEF, or UNS).

Class of Fit (1A,2A, or 3A external) (1b, 2B, or 3B internal (or SPL for special).

Gaging System per ASME B1.3M (21,22, or 23).

1/4 - 20 UNC - 2A (21)

Metric Thread Symbol, ISO 68 Metric Thread Form.

Normal Size (Basic Major Diameter in millimeters)

Pitch (in millimeters)

Tolerance Class

Gaging System per ASME B1.3M (21,22, or 23)

M 6 X 1 - 4g6g (22)

Allowance
Tolerance
Major Dia. Ext. Thd.,
or
Minor Dia. Int. Thd.

Allowance
Tolerance
Pitch Diameter

**2. Inch "J" Series Screw Threads: per Military Standard
MIL-S-8879C (25 July 1991).**

Nominal Size (Basic Major Diameter expressed as a 4-place inch decimal ONLY).

Number of Threads per Inch (TPI)

Thread Form & Series (UNJ, UNJC, UNJF, UNEF, or UNJS).

Class of Fit (3A external, 3B internal).

Application Category (Safety Critical or Other Thread).

Military Standard Number

.2500 - 20 UNJC - 3A Safety Critical Thread MIL-S-8879

Standard Allowance Grades:

Internal Threads G and H shown as capital letter.

External Threads e, f, g and h shown as lower case letter.

Standard Tolerance Grades:

Internal Threads

Pitch and Minor Diameter 4, 5, 6, 7 and 8.

External Threads

Pitch Diameter 3,4,5,6,7,8 and 9.

Major Diameter 4, 6 and 8.

The most common tolerance and allowance Grades for standard series threads are shown in **bold print**.