Thread Information

If you think that threads are just wrinkles on a bolt, invest a couple minutes and read on.

It is a fact that we are the largest tap and die supplier in the motorcycle industry. Sets or open stock, we have it.

American Threads

The Americans use the U.S.S. or National Coarse and the S.A.E. or National Fine as the basic thread patterns. It uses a 60 degree included angle with the tops and bottoms flat.

**American National Thread**
- Depth \( D = 0.6495 \times \text{pitch} \)
- Width of flat \( W = 0.122 \times \text{pitch} \)
- Angle = 60 degrees in plane of axis

Metric Threads

The French, Germans, Italians, Japanese etc. use basically the International Std. Metric thread form which also uses a 60 degree included angle, but the depth is a little greater and the bottom is rounded, with the top flat, similar to the American National.

**International Standard Metric Thread**
- Max. depth \( D = 0.7015 \times \text{pitch} \)
- Min. depth \( D_2 = 0.6835 \times \text{pitch} \)
- Root radius
- Max. \( R = 0.038 \times \text{pitch} \)
- Min. \( R = 0.024 \times \text{pitch} \)
- Angle = 60 deg. in plane of axis
- \( p = \text{pitch} \)
- \( R = \text{width of basic flat} \)
- \( f = \text{pitch diameter} \)

The Old British System

The British have four systems of thread forms which are all available at Flanders company.

**BSW**

The British Std. Whitworth thread form is similar in pitch to the National coarse or U.S.S. thread form. It has a 55 degree included angle with rounded tops and bottoms.

**BSF**

The British Std. Fine-thread form is similar in pitch to our National Fine or S.A.E. thread form but like the B.S.W. It uses a 55 degree included angle with rounded tops and bottoms.

**BA**

The British Association thread form has rounded tops and bottoms similar to B.S.W. but uses an included angle of 40 degrees 30'. It is used for screws 1/4" diameter and less, and is based upon metric pitch and diameter measurements.

**CEI**

The Cycle Engineers Institute thread form is used on motorcycles and bicycles to avoid vibration forces. It has a fine pitch and has a 60 degree included angle that is similar to the Americans with rounded tops and bottoms.