

# Thread Information

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

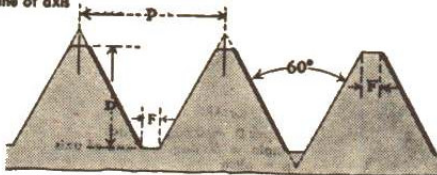
It is a fact that we are the largest tap and die supplier in the motorcycle industry. Sets or open stock, we have it.

## 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  $F = 0.125 \times \text{pitch}$   
 Angle = 60 degrees in plane of axis

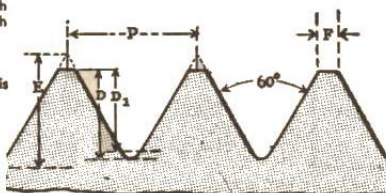


## Metric Threads DIN ISO JIS

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  $D = 0.7035 \times \text{pitch}$   
 Min. depth  $D_1 = 0.6855 \times \text{pitch}$   
 Root radius  
 Max. =  $0.0633 \times \text{pitch}$   
 Min. =  $0.054 \times \text{pitch}$   
 Angle = 60 deg. in plane of axis  
 $p$  = pitch  
 $F$  = width of basic flat  
 $E$  = pitch diameter

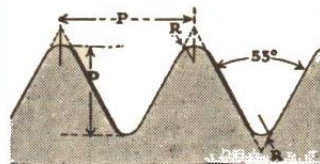


## The Old British System

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.



### BRITISH STANDARD WHITWORTH THREAD

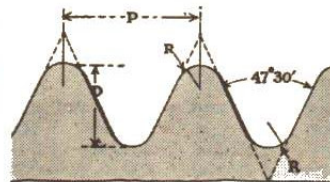
Depth  $D = 0.6403 \times \text{pitch}$   
 Radius  $R$  at crest and root =  $0.137329 \times \text{pitch}$   
 Angle = 55 degrees in plane of axis

### 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.



### BRITISH ASSOCIATION THREAD

Depth  $D = 0.6 \times \text{pitch}$   
 Radius  $R$  at crest and root =  $2 \times \text{pitch} + 11$   
 Angle =  $47\frac{1}{2}$  degrees in plane of axis

### 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.