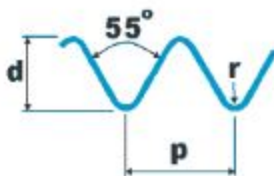


British Standard Whitworth Threads (BSW)

| Diameter | TPI | Tapping Drill | | Tapping Drill | | Clearance Drill | |
|----------|-----|------------------|-------|-------------------|-------|-----------------|-------|
| | | (65% Engagement) | | (100% Engagement) | | Inches | mm |
| Inches | | Inches | mm | Inches | mm | Inches | mm |
| 1/16 | 60 | 0.048 | 1.24 | 0.04 | 1.05 | No.51 | 1.70 |
| 3/32 | 48 | 0.076 | 1.94 | 0.07 | 1.70 | No.41 | 2.44 |
| 1/8 | 40 | 0.104 | 2.60 | 0.09 | 2.36 | 0.14 | 3.57 |
| 5/32 | 32 | 0.130 | 3.30 | 0.12 | 2.95 | No.21 | 4.00 |
| 3/16 | 24 | 0.152 | 3.90 | 0.13 | 3.41 | 0.20 | 5.16 |
| 7/32 | 24 | 0.184 | 4.70 | 0.17 | 4.20 | No.2 | 5.60 |
| 1/4 | 20 | 0.208 | 5.30 | 0.19 | 4.72 | 0.27 | 6.75 |
| 5/16 | 18 | 0.266 | 6.80 | 0.24 | 6.13 | 0.33 | 8.30 |
| 3/8 | 16 | 0.323 | 8.20 | 0.30 | 7.49 | 0.39 | 9.90 |
| 7/16 | 14 | 0.378 | 9.60 | 0.35 | 8.79 | 0.45 | 11.50 |
| 1/2 | 12 | 0.430 | 10.90 | 0.39 | 10.00 | 0.52 | 13.10 |
| 9/16 | 12 | 0.493 | 12.50 | 0.46 | 11.60 | 0.58 | 14.70 |
| 5/8 | 11 | 0.549 | 14.00 | 0.51 | 12.90 | 0.64 | 16.30 |
| 3/4 | 10 | 0.666 | 16.90 | 0.62 | 15.80 | 0.77 | 19.50 |
| 7/8 | 9 | 0.782 | 19.90 | 0.73 | 18.60 | 0.89 | 22.60 |
| 1 | 8 | 0.896 | 22.80 | 0.84 | 21.30 | 1.02 | 25.80 |
| 1 1/8 | 7 | 1.006 | 25.60 | 0.94 | 23.90 | 1.14 | 29.00 |
| 1 1/4 | 7 | 1.131 | 28.70 | 1.07 | 27.10 | 1.27 | 32.20 |
| 1 1/2 | 6 | 1.361 | 34.60 | 1.29 | 32.70 | 1.52 | 38.50 |
| 2 | 4.5 | 1.815 | 46.10 | 1.72 | 43.60 | 2.02 | 51.20 |

British Standard Fine Threads (BSF)

| Diameter | TPI | Tapping Drill | | Clearance Drill | |
|----------|-----|---------------|-------|-----------------|-------|
| | | Inches | mm | Inches | mm |
| 3/16 | 32 | 0.155 | 3.95 | 0.193 | 4.9 |
| 7/32 | 28 | 0.182 | 4.63 | 0.224 | 5.7 |
| 1/4 | 26 | 0.211 | 5.35 | 0.256 | 6.5 |
| 5/16 | 22 | 0.266 | 6.75 | 0.319 | 8.1 |
| 3/8 | 20 | 0.324 | 8.22 | 0.382 | 9.7 |
| 7/16 | 18 | 0.381 | 9.67 | 0.445 | 11.3 |
| 1/2 | 16 | 0.436 | 11.07 | 0.512 | 13 |
| 9/16 | 16 | 0.498 | 12.66 | 0.571 | 14.5 |
| 5/8 | 14 | 0.552 | 14.02 | 0.64 | 16.25 |
| 11/16 | 14 | 0.614 | 15.6 | 0.699 | 17.75 |
| 3/4 | 12 | 0.665 | 16.88 | 0.758 | 19.25 |
| 7/8 | 11 | 0.782 | 19.86 | 0.886 | 22.5 |
| 1 | 10 | 0.898 | 22.8 | 1.014 | 25.75 |
| 1 1/8 | 9 | 1.011 | 25.68 | 1.142 | 29 |
| 1 1/4 | 9 | 1.136 | 28.86 | 1.26 | 32 |
| 1 3/8 | 8 | 1.247 | 31.67 | 1.398 | 35.5 |
| 1 1/2 | 8 | 1.372 | 34.85 | 1.516 | 38.5 |



p = pitch of the thread
 d = depth of the thread
 r = radius at the top and bottom of the threads
 $d = 0.640327 p$
 $r = 0.137329 p$

Sir Joseph Whitworth proposed this thread in 1841. This was the first standardised thread form. The form of the thread is shown in the diagram. The principal features of the British Standard Whitworth (BSW) thread form are that the angle between the thread flanks is 55 degrees and the thread has radii at both the roots and the crests of the thread. The relevant standard for this thread form is BS 84: 1956. The thread form is now redundant and has been replaced by Unified and Metric threads.

The British Standard Fine (BSF) thread has the same profile as the BSW thread form but was used when a finer pitch was required for a given diameter. BSW and BSF measurements are all derived from the thread pitch.