

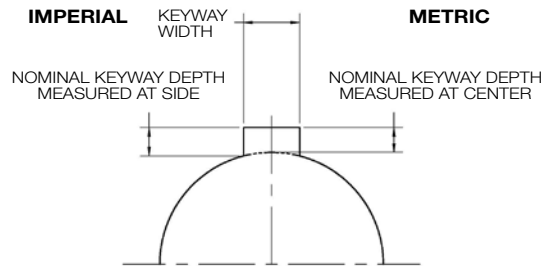
Standard Bore Tolerances

Imperial Standard Bore and Keyway Info

Recommended Bore Tolerance for Imperial Shafts (Inches)

| Nominal Shaft Range | | Shaft Tol. | Interference Fit Bore Tol. | Clearance Fit Bore Tol. |
|---------------------|------------|-----------------|----------------------------|-------------------------|
| Over | To (Incl.) | | | |
| .4375 | 1.5 | +.0000 / -.0010 | -.0005 / -.0010 | +0.0010 / -.0000 |
| 1.5 | 2 | | -.0010 / -.0020 | +0.0010 / -.0000 |
| 2 | 3 | | -.0010 / -.0020 | +0.0015 / -.0000 |
| 3 | 4 | | -.0015 / -.0030 | |
| 4 | 5 | | -.0020 / -.0035 | |
| 5 | 7 | | -.0025 / -.0040 | |
| 7 | 8 | | -.0030 / -.0050 | N/A |
| 8 | 9 | | -.0035 / -.0055 | N/A |
| 9 | 10 | | -.0040 / -.0060 | N/A |

Reference AGMA 9002-B04



Recommended Hub Keyway Dimensions (Inches)

| Nominal Bore Range | | Key Dims. | | |
|--------------------|------------|-----------|------------------|-------------------|
| Over | To (Incl.) | Width | Depth Square Key | Depth Reduced Key |
| 0.312 | 0.438 | 0.094 | 0.047 | - |
| 0.438 | 0.562 | 0.125 | 0.063 | 0.047 |
| 0.562 | 0.875 | 0.188 | 0.094 | 0.062 |
| 0.875 | 1.250 | 0.25 | 0.125 | 0.094 |
| 1.250 | 1.375 | 0.312 | 0.156 | 0.125 |
| 1.375 | 1.750 | 0.375 | 0.188 | 0.125 |
| 1.750 | 2.250 | 0.500 | 0.250 | 0.188 |
| 2.250 | 2.750 | 0.625 | 0.313 | 0.219 |
| 2.750 | 3.250 | 0.750 | 0.375 | 0.250 |
| 3.250 | 3.750 | 0.875 | 0.438 | 0.313 |
| 3.750 | 4.500 | 1.000 | 0.500 | 0.375 |
| 4.500 | 5.500 | 1.250 | 0.625 | 0.438 |
| 5.500 | 6.500 | 1.500 | 0.750 | 0.500 |
| 6.500 | 7.500 | 1.750 | 0.875 | 0.750 |
| 7.500 | 9.000 | 2.000 | 1.000 | 0.750 |
| 9.000 | 11.000 | 2.500 | 1.250 | 0.875 |

Standard keyway fit is Commercial Class per AGMA 9002-B04

Metric Standard Bore and Keyway Info

Recommended Bore Tolerance for Metric Shafts (mm)

| Nominal Shaft Range | | Shaft Tol. | Shaft Des. | Clearance Fit | | Interference Fit | |
|---------------------|------------|----------------|------------|-----------------|-----------|------------------|---------------|
| Over | To (Incl.) | | | Bore Tol. | Bore Des. | Bore Tol. | Bore Des. |
| 12 | 18 | +.008 / -.003 | j6 | +0.016 / +0.034 | F7 | -.015 / -.004 | M6 |
| 19 | 30 | | | +.020 / +0.041 | F7 | -.017 / -.004 | M6 |
| 32 | 50 | +.018 / +0.002 | k6 | +0.025 / +0.050 | F7 | -.013 / +0.003 | K6 |
| 55 | 80 | | | +0.030 / +0.060 | F7 | -.021 / +0.009 | K7 |
| 85 | 100 | +.035 / +0.013 | m6 | +.036 / +0.071 | F7 | -.035 / +0.000 | M7 |
| 110 | 120 | | | | | +.035 / +0.013 | -.059 / -.024 |
| 125 | 180 | +.040 / +0.015 | | +.043 / +0.083 | F7 | -.068 / -.028 | P7 |
| 190 | 200 | | | | | -.079 / -.033 | P7 |
| 210 | 225 | +.046 / +0.017 | | +.050 / +0.096 | F7 | -.109 / -.063 | R7 |
| 230 | 250 | | | | | -.113 / -.067 | R7 |
| 260 | 280 | +.052 / +0.020 | | +.056 / +0.108 | F7 | -.126 / -.074 | R7 |

Reference AGMA 9112-A04

Recommended Hub Keyway Dimensions (mm)

| Nominal Bore Range | | Nominal Key Size | Hub Keyway | |
|--------------------|------------|------------------|------------|-------|
| Over | To (Incl.) | | Width | Depth |
| | | | | |
| | | Nominal | Nominal | |
| 10 | 12 | 4X4 | 4 | 1.8 |
| 12 | 17 | 5X5 | 5 | 2.3 |
| 17 | 22 | 6X6 | 6 | 2.8 |
| 22 | 30 | 8X7 | 8 | 3.3 |
| 30 | 38 | 10X8 | 10 | 3.3 |
| 38 | 44 | 12X8 | 12 | 3.3 |
| 44 | 50 | 14X9 | 14 | 3.8 |
| 50 | 58 | 16X10 | 16 | 4.3 |
| 58 | 65 | 18X11 | 18 | 4.4 |
| 65 | 75 | 20X12 | 20 | 4.9 |
| 75 | 85 | 22X14 | 22 | 5.4 |
| 85 | 95 | 25X15 | 25 | 5.4 |
| 95 | 110 | 28X16 | 28 | 6.4 |
| 110 | 130 | 32X18 | 32 | 7.4 |
| 130 | 150 | 36X20 | 36 | 8.4 |
| 150 | 170 | 40X22 | 40 | 9.4 |
| 170 | 200 | 45X25 | 45 | 10.4 |
| 200 | 230 | 50X28 | 50 | 11.4 |
| 230 | 260 | 56X32 | 56 | 12.4 |
| 260 | 290 | 63X32 | 63 | 12.4 |

Standard metric keyway width tolerance per Js9