## CLASS 2 THREADING

| Nominal Size | Threads per Inch | Class 2A - External Threads |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Allowance | Major Diameter (Outside of Thread) |  |  | Pitch Diameter |  |  |
|  |  |  | Max | Min | Min | Max | Min | Tolerance |
| \# 0 | 80 UNF | 0.0005 | 0.0595 | 0.0563 | - | 0.0514 | 0.0496 | 0.0018 |
| \# 1 | 64 UNC | 0.0006 | 0.0724 | 0.0686 | - | 0.0623 | 0.0603 | 0.0020 |
| \# 1 | 72 UNF | 0.0006 | 0.0724 | 0.0689 | - | 0.0634 | 0.0615 | 0.0019 |
| \# 2 | 56 UNC | 0.0006 | 0.0854 | 0.0813 | - | 0.0738 | 0.0717 | 0.0021 |
| \# 2 | 64 UNF | 0.0006 | 0.0854 | 0.0816 | - | 0.0753 | 0.0733 | 0.0020 |
| \# 3 | 48 UNC | 0.0007 | 0.0983 | 0.0938 | - | 0.0848 | 0.0825 | 0.0023 |
| \# 3 | 56 UNF | 0.0007 | 0.0983 | 0.0942 | - | 0.0867 | 0.0845 | 0.0022 |
| \# 4 | 40 UNC | 0.0008 | 0.1112 | 0.1061 | - | 0.0950 | 0.0925 | 0.0025 |
| \# 4 | 48 UNF | 0.0007 | 0.1113 | 0.1068 | - | 0.0978 | 0.0954 | 0.0024 |
| \# 5 | 40 UNC | 0.0008 | 0.1242 | 0.1191 | - | 0.1080 | 0.1054 | 0.0026 |
| \# 5 | 44 UNF | 0.0007 | 0.1243 | 0.1195 | - | 0.1095 | 0.1070 | 0.0025 |
| \# 6 | 32 UNC | 0.0008 | 0.1372 | 0.1312 | - | 0.1169 | 0.1141 | 0.0028 |
| \# 6 | 40 UNF | 0.0008 | 0.1372 | 0.1321 | - | 0.1210 | 0.1184 | 0.0026 |
| \# 8 | 32 UNC | 0.0009 | 0.1631 | 0.1571 | - | 0.1428 | 0.1399 | 0.0029 |
| \# 8 | 36 UNF | 0.0008 | 0.1632 | 0.1577 | - | 0.1452 | 0.1424 | 0.0028 |
| \#10 | 24 UNC | 0.0010 | 0.1890 | 0.1818 | - | 0.1619 | 0.1586 | 0.0033 |
| \#10 | 32 UNF | 0.0009 | 0.1891 | 0.1831 | - | 0.1688 | 0.1658 | 0.0030 |
| \#12 | 24 UNC | 0.0010 | 0.2150 | 0.2078 | - | 0.1879 | 0.1845 | 0.0034 |
| \#12 | 28 UNF | 0.0010 | 0.2150 | 0.2085 | - | 0.1918 | 0.1886 | 0.0032 |
| 1/4 | 20 UNC | 0.0011 | 0.2489 | 0.2408 | 0.2367 | 0.2164 | 0.2127 | 0.0037 |
| 1/4 | 28 UNF | 0.0010 | 0.2490 | 0.2425 | - | 0.2258 | 0.2225 | 0.0033 |
| 5/16 | 18 UNC | 0.0012 | 0.3113 | 0.3026 | 0.2982 | 0.2752 | 0.2712 | 0.0040 |
| 5/16 | 24 UNF | 0.0011 | 0.3114 | 0.3042 | - | 0.2843 | 0.2806 | 0.0037 |
| 3/8 | 16 UNC | 0.0013 | 0.3737 | 0.3643 | 0.3595 | 0.3331 | 0.3287 | 0.0044 |
| 3/8 | 24 UNF | 0.0011 | 0.3739 | 0.3667 | - | 0.3468 | 0.3430 | 0.0038 |
| 7/16 | 14 UNC | 0.0014 | 0.4361 | 0.4258 | 0.4206 | 0.3897 | 0.3850 | 0.0047 |
| 7/16 | 20 UNF | 0.0013 | 0.4362 | 0.4281 | - | 0.4037 | 0.3995 | 0.0042 |
| 1/2 | 13 UNC | 0.0015 | 0.4985 | 0.4876 | 0.4822 | 0.4485 | 0.4435 | 0.0050 |
| 1/2 | 20 UNF | 0.0013 | 0.4987 | 0.4906 | - | 0.4662 | 0.4619 | 0.0043 |
| 9/16 | 12 UNC | 0.0016 | 0.5609 | 0.5495 | 0.5437 | 0.5068 | 0.5016 | 0.0052 |
| 9/16 | 18 UNF | 0.0014 | 0.5611 | 0.5524 | - | 0.5250 | 0.5205 | 0.0045 |
| 5/8 | 11 UNC | 0.0016 | 0.6234 | 0.6113 | 0.6052 | 0.5644 | 0.5589 | 0.0055 |
| 5/8 | 18 UNF | 0.0014 | 0.6236 | 0.6149 | - | 0.5875 | 0.5828 | 0.0047 |
| 3/4 | 10 UNC | 0.0018 | 0.7482 | 0.7353 | 0.7288 | 0.6832 | 0.6773 | 0.0059 |
| 3/4 | 16 UNF | 0.0015 | 0.7485 | 0.7391 | - | 0.7079 | 0.7029 | 0.0050 |
| 7/8 | 9 UNC | 0.0019 | 0.8731 | 0.8592 | 0.8523 | 0.8009 | 0.7946 | 0.0063 |
| 7/8 | 14 UNF | 0.0016 | 0.8734 | 0.8631 | - | 0.8270 | 0.8216 | 0.0054 |
| 1 | 8 UNC | 0.0020 | 0.9980 | 0.9830 | 0.9755 | 0.9168 | 0.9100 | 0.0068 |
| 1 | 12 UNF | 0.0018 | 0.9982 | 0.9868 | - | 0.9441 | 0.9382 | 0.0059 |
| 1 | 14 UNS | 0.0017 | 0.9983 | 0.9880 | - | 0.9519 | 0.9463 | 0.0056 |

## CLASS 2 THREADING

| Nominal Size | Threads per Inch | Class 2B - Internal Threads |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Allowance | Minor Diameter (Inside of Thread) |  | Pitch Diameter |  |  |
|  |  |  | Min | Max | Min | Max | Tolerance |
| \# 0 | 80 UNF | 0.0005 | 0.0465 | 0.0514 | 0.0519 | 0.0542 | 0.0023 |
| \# 1 | 64 UNC | 0.0006 | 0.0561 | 0.0623 | 0.0629 | 0.0655 | 0.0026 |
| \# 1 | 72 UNF | 0.0006 | 0.0580 | 0.0635 | 0.0640 | 0.0665 | 0.0025 |
| \# 2 | 56 UNC | 0.0006 | 0.0667 | 0.0737 | 0.0744 | 0.0772 | 0.0028 |
| \# 2 | 64 UNF | 0.0006 | 0.0691 | 0.0753 | 0.0759 | 0.0786 | 0.0027 |
| \# 3 | 48 UNC | 0.0007 | 0.0764 | 0.0845 | 0.0855 | 0.0885 | 0.0030 |
| \# 3 | 56 UNF | 0.0007 | 0.0797 | 0.0865 | 0.0874 | 0.0902 | 0.0028 |
| \# 4 | 40 UNC | 0.0008 | 0.0849 | 0.0939 | 0.0958 | 0.0991 | 0.0033 |
| \# 4 | 48 UNF | 0.0007 | 0.0894 | 0.0968 | 0.0985 | 0.1016 | 0.0031 |
| \# 5 | 40 UNC | 0.0008 | 0.0979 | 0.1062 | 0.1088 | 0.1121 | 0.0033 |
| \# 5 | 44 UNF | 0.0007 | 0.1004 | 0.1079 | 0.1102 | 0.1134 | 0.0032 |
| \# 6 | 32 UNC | 0.0008 | 0.104 | 0.114 | 0.1177 | 0.1214 | 0.0037 |
| \# 6 | 40 UNF | 0.0008 | 0.111 | 0.119 | 0.1218 | 0.1252 | 0.0034 |
| \# 8 | 32 UNC | 0.0009 | 0.130 | 0.139 | 0.1437 | 0.1475 | 0.0038 |
| \# 8 | 36 UNF | 0.0008 | 0.134 | 0.142 | 0.1460 | 0.1496 | 0.0036 |
| \#10 | 24 UNC | 0.0010 | 0.145 | 0.156 | 0.1629 | 0.1672 | 0.0043 |
| \#10 | 32 UNF | 0.0009 | 0.156 | 0.164 | 0.1697 | 0.1736 | 0.0039 |
| \#12 | 24 UNC | 0.0010 | 0.171 | 0.181 | 0.1889 | 0.1933 | 0.0044 |
| \#12 | 28 UNF | 0.0010 | 0.177 | 0.186 | 0.1928 | 0.1970 | 0.0042 |
| 1/4 | 20 UNC | 0.0011 | 0.196 | 0.207 | 0.2175 | 0.2223 | 0.0048 |
| 1/4 | 28 UNF | 0.0010 | 0.211 | 0.220 | 0.2268 | 0.2311 | 0.0043 |
| 5/16 | 18 UNC | 0.0012 | 0.252 | 0.265 | 0.2764 | 0.2817 | 0.0053 |
| 5/16 | 24 UNF | 0.0011 | 0.267 | 0.277 | 0.2854 | 0.2902 | 0.0048 |
| 3/8 | 16 UNC | 0.0013 | 0.307 | 0.321 | 0.3344 | 0.3401 | 0.0057 |
| 3/8 | 24 UNF | 0.0011 | 0.330 | 0.340 | 0.3479 | 0.3528 | 0.0049 |
| 7/16 | 14 UNC | 0.0014 | 0.360 | 0.376 | 0.3911 | 0.3972 | 0.0061 |
| 7/16 | 20 UNF | 0.0013 | 0.383 | 0.395 | 0.4050 | 0.4104 | 0.0054 |
| 1/2 | 13 UNC | 0.0015 | 0.417 | 0.434 | 0.4500 | 0.4565 | 0.0065 |
| 1/2 | 20 UNF | 0.0013 | 0.446 | 0.457 | 0.4675 | 0.4731 | 0.0056 |
| 9/16 | 12 UNC | 0.0016 | 0.472 | 0.490 | 0.5084 | 0.5152 | 0.0068 |
| 9/16 | 18 UNF | 0.0014 | 0.502 | 0.515 | 0.5264 | 0.5323 | 0.0059 |
| 5/8 | 11 UNC | 0.0016 | 0.527 | 0.546 | 0.5660 | 0.5732 | 0.0072 |
| 5/8 | 18 UNF | 0.0014 | 0.565 | 0.578 | 0.5889 | 0.5949 | 0.0060 |
| 3/4 | 10 UNC | 0.0018 | 0.642 | 0.663 | 0.6850 | 0.6927 | 0.0077 |
| 3/4 | 16 UNF | 0.0015 | 0.682 | 0.696 | 0.7094 | 0.7159 | 0.0065 |
| 7/8 | 9 UNC | 0.0019 | 0.755 | 0.778 | 0.8028 | 0.8110 | 0.0082 |
| 7/8 | 14 UNF | 0.0016 | 0.798 | 0.814 | 0.8286 | 0.8356 | 0.0070 |
| 1 | 8 UNC | 0.0020 | 0.865 | 0.890 | 0.9188 | 0.9276 | 0.0088 |
| 1 | 12 UNF | 0.0018 | 0.910 | 0.928 | 0.9459 | 0.9535 | 0.0076 |
| 1 | 14 UNS | 0.0017 | 0.923 | 0.938 | 0.9536 | 0.9609 | 0.0073 |

