

Drills in the number (1–80) and letter (A–Z) series which are specified in decimal inches.

Standard metric drill sizes.

Standard metric drill sizes used for metric taps of the size indicated in the tap size column.

| Drill bit diameter |              | Fractional size | Drill wire gauge <sup>[2][3]</sup> | Tap size <sup>[4][5][6]</sup> | Clearance                |                          | Thread depth† <sup>[7][8]</sup> (%) | Outer diameter |
|--------------------|--------------|-----------------|------------------------------------|-------------------------------|--------------------------|--------------------------|-------------------------------------|----------------|
| (mm, 4 d.p.)       | (in, 5 d.p.) | (in)            |                                    |                               | Close fit <sup>[9]</sup> | Free fit <sup>[10]</sup> |                                     |                |
| 0.0483             | 0.00190      |                 | 107                                |                               |                          |                          |                                     |                |
| 0.0500             | 0.00197      |                 |                                    |                               |                          |                          |                                     |                |
| 0.0584             | 0.00230      |                 | 106                                |                               |                          |                          |                                     |                |
| 0.0686             | 0.00270      |                 | 105                                |                               |                          |                          |                                     |                |
| 0.0787             | 0.00310      |                 | 104                                |                               |                          |                          |                                     |                |
| 0.0889             | 0.00350      |                 | 103                                |                               |                          |                          |                                     |                |
| 0.0991             | 0.00390      |                 | 102                                |                               |                          |                          |                                     |                |
| 0.1000             | 0.00394      |                 |                                    |                               |                          |                          |                                     |                |
| 0.1092             | 0.00430      |                 | 101                                |                               |                          |                          |                                     |                |
| 0.1194             | 0.00470      |                 | 100                                |                               |                          |                          |                                     |                |
| 0.1295             | 0.00510      |                 | 99                                 |                               |                          |                          |                                     |                |
| 0.1397             | 0.00550      |                 | 98                                 |                               |                          |                          |                                     |                |
| 0.1499             | 0.00590      |                 | 97                                 |                               |                          |                          |                                     |                |
| 0.1600             | 0.00630      |                 | 96                                 |                               |                          |                          |                                     |                |
| 0.1702             | 0.00670      |                 | 95                                 |                               |                          |                          |                                     |                |
| 0.1803             | 0.00710      |                 | 94                                 |                               |                          |                          |                                     |                |
| 0.1905             | 0.00750      |                 | 93                                 |                               |                          |                          |                                     |                |
| 0.2007             | 0.00790      |                 | 92                                 |                               |                          |                          |                                     |                |
| 0.2000             | 0.00787      |                 |                                    |                               |                          |                          |                                     |                |
| 0.2108             | 0.00830      |                 | 91                                 |                               |                          |                          |                                     |                |
| 0.2210             | 0.00870      |                 | 90                                 |                               |                          |                          |                                     |                |
| 0.2311             | 0.00910      |                 | 89                                 |                               |                          |                          |                                     |                |
| 0.2413             | 0.00950      |                 | 88                                 |                               |                          |                          |                                     |                |
| 0.2500             | 0.00984      |                 |                                    |                               |                          |                          |                                     |                |
| 0.2540             | 0.01000      |                 | 87                                 |                               |                          |                          |                                     |                |
| 0.2667             | 0.01050      |                 | 86                                 |                               |                          |                          |                                     |                |
| 0.2794             | 0.01100      |                 | 85                                 |                               |                          |                          |                                     |                |
| 0.2921             | 0.01150      |                 | 84                                 |                               |                          |                          |                                     |                |
| 0.3000             | 0.01181      |                 |                                    |                               |                          |                          |                                     |                |

|               |                |                |    |                        |            |  |          |
|---------------|----------------|----------------|----|------------------------|------------|--|----------|
| <b>0.3048</b> | <b>0.01200</b> |                | 83 |                        |            |  |          |
| <b>0.3175</b> | <b>0.01250</b> |                | 82 |                        |            |  |          |
| <b>0.3302</b> | <b>0.01300</b> |                | 81 |                        |            |  |          |
| <b>0.3429</b> | <b>0.01350</b> |                | 80 |                        |            |  |          |
| <b>0.3500</b> | <b>0.01378</b> |                |    |                        |            |  |          |
| <b>0.3680</b> | <b>0.01449</b> |                | 79 |                        |            |  |          |
| <b>0.3969</b> | <b>0.01563</b> | $\frac{1}{64}$ |    | #0000-160 <sup>‡</sup> | 0.02400 in |  | 0.021 in |
| <b>0.4000</b> | <b>0.01575</b> |                |    |                        |            |  |          |
| <b>0.4064</b> | <b>0.01600</b> |                | 78 |                        |            |  |          |
| <b>0.4200</b> | <b>0.01654</b> |                |    |                        |            |  |          |
| <b>0.4400</b> | <b>0.01732</b> |                |    |                        |            |  |          |
| <b>0.4500</b> | <b>0.01772</b> |                |    |                        |            |  |          |
| <b>0.4572</b> | <b>0.01800</b> |                | 77 |                        |            |  |          |
| <b>0.4600</b> | <b>0.01811</b> |                |    |                        |            |  |          |
| <b>0.4800</b> | <b>0.01890</b> |                |    |                        |            |  |          |
| <b>0.5000</b> | <b>0.01969</b> |                |    |                        |            |  |          |
| <b>0.5080</b> | <b>0.02000</b> |                | 76 |                        |            |  |          |
| <b>0.5334</b> | <b>0.02100</b> |                | 75 |                        |            |  |          |
| <b>0.5500</b> | <b>0.02165</b> |                |    |                        |            |  |          |
| <b>0.5715</b> | <b>0.02250</b> |                | 74 |                        |            |  |          |
| <b>0.6000</b> | <b>0.02362</b> |                |    |                        |            |  |          |
| <b>0.6096</b> | <b>0.02400</b> |                | 73 |                        |            |  |          |
| <b>0.6350</b> | <b>0.02500</b> |                | 72 |                        |            |  |          |
| <b>0.6500</b> | <b>0.02559</b> |                |    |                        |            |  |          |
| <b>0.6604</b> | <b>0.02600</b> |                | 71 | #000-120 <sup>‡</sup>  | 0.03700 in |  |          |
| <b>0.7000</b> | <b>0.02756</b> |                |    |                        |            |  |          |
| <b>0.7112</b> | <b>0.02800</b> |                | 70 |                        |            |  |          |
| <b>0.7417</b> | <b>0.02920</b> |                | 69 |                        |            |  |          |
| <b>0.7500</b> | <b>0.02953</b> |                |    |                        |            |  |          |
| <b>0.7874</b> | <b>0.03100</b> |                | 68 |                        |            |  |          |
| <b>0.7938</b> | <b>0.03125</b> | $\frac{1}{32}$ |    |                        |            |  |          |
| <b>0.8000</b> | <b>0.03150</b> |                |    |                        |            |  |          |
| <b>0.8128</b> | <b>0.03200</b> |                | 67 |                        |            |  |          |
| <b>0.8382</b> | <b>0.03300</b> |                | 66 |                        |            |  |          |

|               |                |                |    |                     |            |            |  |
|---------------|----------------|----------------|----|---------------------|------------|------------|--|
| <b>0.8500</b> | <b>0.03346</b> |                |    |                     |            |            |  |
| <b>0.8890</b> | <b>0.03500</b> |                | 65 | #00-90 <sup>‡</sup> | 0.05200 in |            |  |
| <b>0.9000</b> | <b>0.03543</b> |                |    |                     |            |            |  |
| <b>0.9144</b> | <b>0.03600</b> |                | 64 |                     |            |            |  |
| <b>0.9398</b> | <b>0.03700</b> |                | 63 |                     |            |            |  |
| <b>0.9500</b> | <b>0.03740</b> |                |    |                     |            |            |  |
| <b>0.9652</b> | <b>0.03800</b> |                | 62 |                     |            |            |  |
| <b>0.9906</b> | <b>0.03900</b> |                | 61 |                     |            |            |  |
| <b>1.0000</b> | <b>0.03937</b> |                |    |                     |            |            |  |
| <b>1.0160</b> | <b>0.04000</b> |                | 60 |                     |            |            |  |
| <b>1.0414</b> | <b>0.04100</b> |                | 59 |                     |            |            |  |
| <b>1.0500</b> | <b>0.04134</b> |                |    |                     |            |            |  |
| <b>1.0668</b> | <b>0.04200</b> |                | 58 |                     |            |            |  |
| <b>1.0922</b> | <b>0.04300</b> |                | 57 |                     |            |            |  |
| <b>1.1000</b> | <b>0.04331</b> |                |    |                     |            |            |  |
| <b>1.1500</b> | <b>0.04528</b> |                |    |                     |            |            |  |
| <b>1.1811</b> | <b>0.04650</b> |                | 56 |                     |            |            |  |
| <b>1.1906</b> | <b>0.04688</b> | $\frac{3}{64}$ |    | #0-80               | 0.06350 in | 0.07000 in |  |
| <b>1.2000</b> | <b>0.04724</b> |                |    |                     |            |            |  |
| <b>1.2500</b> | <b>0.04921</b> |                |    |                     |            |            |  |
| <b>1.3000</b> | <b>0.05118</b> |                |    |                     |            |            |  |
| <b>1.3208</b> | <b>0.05200</b> |                | 55 |                     |            |            |  |
| <b>1.3500</b> | <b>0.05315</b> |                |    |                     |            |            |  |
| <b>1.3970</b> | <b>0.05500</b> |                | 54 |                     |            |            |  |
| <b>1.4000</b> | <b>0.05512</b> |                |    |                     |            |            |  |
| <b>1.4500</b> | <b>0.05709</b> |                |    |                     |            |            |  |
| <b>1.5000</b> | <b>0.05906</b> |                |    |                     |            |            |  |
| <b>1.5113</b> | <b>0.05950</b> |                | 53 | #1-64, #1-72        | 0.07600 in | 0.08100 in |  |
| <b>1.5500</b> | <b>0.06102</b> |                |    |                     |            |            |  |
| <b>1.5875</b> | <b>0.06250</b> | $\frac{1}{16}$ |    |                     |            |            |  |
| <b>1.6000</b> | <b>0.06299</b> |                |    | M2×0.4              | 2.2 mm     |            |  |
| <b>1.6129</b> | <b>0.06350</b> |                | 52 |                     |            |            |  |
| <b>1.6500</b> | <b>0.06496</b> |                |    |                     |            |            |  |
| <b>1.7000</b> | <b>0.06693</b> |                |    |                     |            |            |  |

|               |                |      |    |                             |            |            |          |  |
|---------------|----------------|------|----|-----------------------------|------------|------------|----------|--|
| <b>1.7018</b> | <b>0.06700</b> |      | 51 | #2-56                       | 0.08900 in | 0.09600 in |          |  |
| <b>1.7500</b> | <b>0.06890</b> |      |    | M2.2×0.45                   | 2.25 mm    |            |          |  |
| <b>1.7780</b> | <b>0.07000</b> |      | 50 | #2-56, #2-64                | 0.08900 in | 0.09600 in |          |  |
| <b>1.8000</b> | <b>0.07087</b> |      |    |                             |            |            |          |  |
| <b>1.8500</b> | <b>0.07283</b> |      |    |                             |            |            |          |  |
| <b>1.8542</b> | <b>0.07300</b> |      | 49 |                             |            |            |          |  |
| <b>1.9000</b> | <b>0.07480</b> |      |    |                             |            |            |          |  |
| <b>1.9304</b> | <b>0.07600</b> |      | 48 |                             |            |            |          |  |
| <b>1.9500</b> | <b>0.07677</b> |      |    |                             |            |            |          |  |
| <b>1.9600</b> | <b>0.07717</b> |      |    | #3-48                       | 0.10400 in | 0.11000 in | 81       |  |
| <b>1.9700</b> | <b>0.07756</b> |      |    | #3-48                       | 0.10400 in | 0.11000 in | 79       |  |
| <b>1.9844</b> | <b>0.07813</b> | 5/64 |    | #3-48                       | 0.10400 in | 0.11000 in | 78       |  |
| <b>1.9939</b> | <b>0.07850</b> |      | 47 | #3-48                       | 0.10400 in | 0.11000 in | 76       |  |
| <b>2.0000</b> | <b>0.07874</b> |      |    | #3-48                       | 0.10400 in | 0.11000 in | 75       |  |
| <b>2.0100</b> | <b>0.07913</b> |      |    | #3-48                       | 0.10400 in | 0.11000 in | 74       |  |
| <b>2.0200</b> | <b>0.07953</b> |      |    | #3-48                       | 0.10400 in | 0.11000 in | 72       |  |
| <b>2.0300</b> | <b>0.07992</b> |      |    | #3-48                       | 0.10400 in | 0.11000 in | 71       |  |
| <b>2.0400</b> | <b>0.08031</b> |      |    | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 69<br>81 |  |
| <b>2.0500</b> | <b>0.08071</b> |      |    | #3-48<br>#3-56<br>M2.5×0.45 | 0.10400 in | 0.11000 in | 68<br>79 |  |
| <b>2.0574</b> | <b>0.08100</b> |      | 46 | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 66<br>77 |  |
| <b>2.0700</b> | <b>0.08150</b> |      |    | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 65<br>75 |  |
| <b>2.0828</b> | <b>0.08200</b> |      | 45 | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 66<br>74 |  |
| <b>2.0900</b> | <b>0.08228</b> |      |    | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 62<br>72 |  |
| <b>2.1000</b> | <b>0.08268</b> |      |    | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 60<br>70 |  |
| <b>2.1100</b> | <b>0.08307</b> |      |    | #3-48<br>#3-56              | 0.10400 in | 0.11000 in | 59<br>69 |  |
| <b>2.1200</b> | <b>0.08346</b> |      |    | #3-56                       | 0.10400 in | 0.11000 in | 67       |  |
| <b>2.1300</b> | <b>0.08386</b> |      |    | #3-56                       | 0.10400 in | 0.11000 in | 65       |  |
| <b>2.1400</b> | <b>0.08425</b> |      |    | #3-56                       | 0.10400 in | 0.11000 in | 63       |  |
| <b>2.1500</b> | <b>0.08465</b> |      |    | #3-56<br>M2.5×0.35          | 0.10400 in | 0.11000 in | 62       |  |

|               |                |                |    |                              |               |            |           |  |
|---------------|----------------|----------------|----|------------------------------|---------------|------------|-----------|--|
| <b>2.1600</b> | <b>0.08504</b> |                |    | <b>#3-56</b>                 | 0.10400 in    | 0.11000 in | 60        |  |
| <b>2.1700</b> | <b>0.08543</b> |                |    | <b>#3-56</b>                 | 0.10400 in    | 0.11000 in | 59        |  |
| <b>2.1844</b> | <b>0.08600</b> |                | 44 | <b>#4-36</b>                 | 0.11600 in    | 0.12850 in | 81        |  |
| <b>2.1900</b> | <b>0.08622</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 81        |  |
| <b>2.2000</b> | <b>0.08661</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 78        |  |
| <b>2.2100</b> | <b>0.08701</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 77        |  |
| <b>2.2200</b> | <b>0.08740</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 76        |  |
| <b>2.2300</b> | <b>0.08780</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 75        |  |
| <b>2.2400</b> | <b>0.08819</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 73        |  |
| <b>2.2500</b> | <b>0.08858</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 72        |  |
| <b>2.2600</b> | <b>0.08898</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 71        |  |
| <b>2.2606</b> | <b>0.08900</b> |                | 43 | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 71        |  |
| <b>2.2700</b> | <b>0.08937</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 70        |  |
| <b>2.2800</b> | <b>0.08976</b> |                |    | <b>#4-40</b>                 | 0.11600 in    | 0.12850 in | 68        |  |
| <b>2.2900</b> | <b>0.09016</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 67<br>81  |  |
| <b>2.3000</b> | <b>0.09055</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 66<br>79  |  |
| <b>2.3100</b> | <b>0.09094</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 65<br>78  |  |
| <b>2.3200</b> | <b>0.09134</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 64<br>76  |  |
| <b>2.3300</b> | <b>0.09173</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 63<br>75  |  |
| <b>2.3400</b> | <b>0.09213</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 61<br>74  |  |
| <b>2.3500</b> | <b>0.09252</b> |                |    | <b>#4-40</b><br><b>#4-48</b> | 0.11600 in    | 0.12850 in | 60<br>72  |  |
| <b>2.3749</b> | <b>0.09350</b> |                | 42 | <b>#4-48</b>                 | 0.11600 in    | 0.12850 in | 69        |  |
| <b>2.3813</b> | <b>0.09375</b> | $\frac{3}{32}$ |    |                              |               |            |           |  |
| <b>2.4000</b> | <b>0.09449</b> |                |    |                              |               |            |           |  |
| <b>2.4384</b> | <b>0.09600</b> |                | 41 |                              |               |            |           |  |
| <b>2.4500</b> | <b>0.09646</b> |                |    |                              |               |            |           |  |
| <b>2.4892</b> | <b>0.09800</b> |                | 40 |                              |               |            |           |  |
| <b>2.5000</b> | <b>0.09843</b> |                |    | <b>M3×0.5</b>                | <b>3.2 mm</b> |            | <b>75</b> |  |
| <b>2.5273</b> | <b>0.09950</b> |                | 39 | <b>#5-40</b>                 | 0.12850 in    | 0.13600 in | 78        |  |
| <b>2.5781</b> | <b>0.10150</b> |                | 38 | <b>#5-40</b>                 | 0.12850 in    | 0.13600 in | 72        |  |
| <b>2.6000</b> | <b>0.10236</b> |                |    |                              |               |            |           |  |

|               |                |                |    |                 |            |            |    |         |
|---------------|----------------|----------------|----|-----------------|------------|------------|----|---------|
| <b>2.6416</b> | <b>0.10400</b> |                | 37 | <b>#5-44</b>    | 0.12850 in | 0.13600 in | 71 |         |
| <b>2.7000</b> | <b>0.10630</b> |                |    |                 |            |            |    |         |
| <b>2.7051</b> | <b>0.10650</b> |                | 36 | <b>#6-32</b>    | 0.14400 in | 0.14950 in | 77 | 0.14 in |
| <b>2.7500</b> | <b>0.10827</b> |                |    |                 |            |            |    |         |
| <b>2.7781</b> | <b>0.10938</b> | $\frac{7}{64}$ |    |                 |            |            |    |         |
| <b>2.7940</b> | <b>0.11000</b> |                | 35 |                 |            |            |    |         |
| <b>2.8000</b> | <b>0.11024</b> |                |    |                 |            |            |    |         |
| <b>2.8194</b> | <b>0.11100</b> |                | 34 |                 |            |            |    |         |
| <b>2.8702</b> | <b>0.11300</b> |                | 33 | <b>#6-40</b>    |            | 0.1563 in  |    | 0.14 in |
| <b>2.9000</b> | <b>0.11417</b> |                |    | <b>M3.5×0.6</b> |            |            |    |         |
| <b>2.9464</b> | <b>0.11600</b> |                | 32 |                 |            |            |    |         |
| <b>3.0000</b> | <b>0.11811</b> |                |    |                 |            |            |    |         |
| <b>3.0480</b> | <b>0.12000</b> |                | 31 |                 |            |            |    |         |
| <b>3.1000</b> | <b>0.12205</b> |                |    |                 |            |            |    |         |
| <b>3.1750</b> | <b>0.12500</b> | $\frac{1}{8}$  |    |                 |            |            |    |         |
| <b>3.2000</b> | <b>0.12598</b> |                |    |                 |            |            |    |         |
| <b>3.2500</b> | <b>0.12795</b> |                |    |                 |            |            |    |         |
| <b>3.2639</b> | <b>0.12850</b> |                | 30 |                 |            |            |    |         |
| <b>3.3000</b> | <b>0.12992</b> |                |    | <b>M4×0.7</b>   | 4.10 mm    |            | 75 |         |
| <b>3.4000</b> | <b>0.13386</b> |                |    |                 |            |            |    |         |
| <b>3.4544</b> | <b>0.13600</b> |                | 29 | <b>#8-32</b>    | 0.16950 in | 0.17700 in | 69 |         |
| <b>3.5000</b> | <b>0.13780</b> |                |    | <b>M4×0.5</b>   | 4.10 mm    |            | 60 |         |
| <b>3.5687</b> | <b>0.14050</b> |                | 28 |                 |            |            |    |         |
| <b>3.5719</b> | <b>0.14063</b> | $\frac{9}{64}$ |    |                 |            |            |    |         |
| <b>3.6000</b> | <b>0.14173</b> |                |    |                 |            |            |    |         |
| <b>3.6576</b> | <b>0.14400</b> |                | 27 |                 |            |            |    |         |
| <b>3.7000</b> | <b>0.14567</b> |                |    |                 |            |            |    |         |
| <b>3.7338</b> | <b>0.14700</b> |                | 26 |                 |            |            |    |         |
| <b>3.7500</b> | <b>0.14764</b> |                |    |                 |            |            |    |         |
| <b>3.7973</b> | <b>0.14950</b> |                | 25 | <b>#10-24</b>   | 0.19600 in | 0.20100 in | 75 |         |
| <b>3.8000</b> | <b>0.14961</b> |                |    |                 |            |            |    |         |
| <b>3.8608</b> | <b>0.15200</b> |                | 24 |                 |            |            |    |         |
| <b>3.9000</b> | <b>0.15354</b> |                |    |                 |            |            |    |         |
| <b>3.9116</b> | <b>0.15400</b> |                | 23 |                 |            |            |    |         |

|        |         |                 |    |                   |            |            |    |  |
|--------|---------|-----------------|----|-------------------|------------|------------|----|--|
| 3.9688 | 0.15625 | $\frac{5}{32}$  |    |                   |            |            |    |  |
| 3.9878 | 0.15700 |                 | 22 |                   |            |            |    |  |
| 4.0000 | 0.15748 |                 |    |                   |            |            |    |  |
| 4.0386 | 0.15900 |                 | 21 | #10-32            | 0.1960 in  | 0.2010 in  |    |  |
| 4.0894 | 0.16100 |                 | 20 |                   |            |            |    |  |
| 4.1000 | 0.16142 |                 |    |                   |            |            |    |  |
| 4.2000 | 0.16535 |                 |    | M5×0.8            | 5.10 mm    |            | 75 |  |
| 4.2164 | 0.16600 |                 | 19 |                   |            |            |    |  |
| 4.2500 | 0.16732 |                 |    |                   |            |            |    |  |
| 4.3053 | 0.16950 |                 | 18 |                   |            |            |    |  |
| 4.3656 | 0.17188 | $\frac{11}{64}$ |    |                   |            |            |    |  |
| 4.3942 | 0.17300 |                 | 17 |                   |            |            |    |  |
| 4.4000 | 0.17323 |                 |    |                   |            |            |    |  |
| 4.4958 | 0.17700 |                 | 16 | #12-24            | 0.22100 in | 0.22800 in | 72 |  |
| 4.5000 | 0.17717 |                 |    |                   |            |            |    |  |
| 4.5720 | 0.18000 |                 | 15 |                   |            |            |    |  |
| 4.6000 | 0.18110 |                 |    |                   |            |            |    |  |
| 4.6228 | 0.18200 |                 | 14 |                   |            |            |    |  |
| 4.6990 | 0.18500 |                 | 13 |                   |            |            |    |  |
| 4.7000 | 0.18504 |                 |    |                   |            |            |    |  |
| 4.7500 | 0.18701 |                 |    |                   |            |            |    |  |
| 4.7625 | 0.18750 | $\frac{3}{16}$  |    |                   |            |            |    |  |
| 4.8000 | 0.18898 |                 |    |                   |            |            |    |  |
| 4.8006 | 0.18900 |                 | 12 |                   |            |            |    |  |
| 4.8514 | 0.19100 |                 | 11 |                   |            |            |    |  |
| 4.9000 | 0.19291 |                 |    |                   |            |            |    |  |
| 4.9149 | 0.19350 |                 | 10 |                   |            |            |    |  |
| 4.9784 | 0.19600 |                 | 9  |                   |            |            |    |  |
| 5.0000 | 0.19685 |                 |    | M6×1.0            | 6.10 mm    |            | 75 |  |
| 5.0546 | 0.19900 |                 | 8  |                   |            |            |    |  |
| 5.1000 | 0.20079 |                 |    |                   |            |            |    |  |
| 5.1054 | 0.20100 |                 | 7  | $\frac{1}{4}$ -20 | 0.25700 in | 0.26600 in | 72 |  |
| 5.1594 | 0.20313 | $\frac{13}{64}$ |    |                   |            |            |    |  |

|        |         |       |   |   |            |            |    |  |
|--------|---------|-------|---|---|------------|------------|----|--|
| 5.1816 | 0.20400 |       | 6 |   |            |            |    |  |
| 5.2000 | 0.20472 |       |   | M6×0.75 [11]  | 6.10 mm    |            | 60 |  |
| 5.2197 | 0.20550 |       | 5 |   |            |            |    |  |
| 5.2500 | 0.20669 |       |   |   |            |            |    |  |
| 5.3000 | 0.20866 |       |   |   |            |            |    |  |
| 5.3086 | 0.20900 |       | 4 |   |            |            |    |  |
| 5.4000 | 0.21260 |       |   |   |            |            |    |  |
| 5.4102 | 0.21300 |       | 3 | 1/4-28  | 0.25700 in | 0.26600 in | 80 |  |
| 5.5000 | 0.21654 |       |   | 1/4-28  | 0.25700 in | 0.26600 in | 70 |  |
| 5.5563 | 0.21875 | 7/32  |   | 1/4-28<br>1/4-32<br>(1/4-32 UNEF<br>for glow plugs) | 0.25700 in | 0.26600 in | 68 |  |
| 5.6000 | 0.22047 |       |   | 1/4-28  | 0.25700 in | 0.26600 in | 63 |  |
| 5.6134 | 0.22100 |       | 2 | 1/4-28  | 0.25700 in | 0.26600 in | 60 |  |
| 5.7000 | 0.22441 |       |   |   |            |            |    |  |
| 5.7500 | 0.22638 |       |   |   |            |            |    |  |
| 5.7912 | 0.22800 |       | 1 |   |            |            |    |  |
| 5.8000 | 0.22835 |       |   |   |            |            |    |  |
| 5.9000 | 0.23228 |       |   |   |            |            |    |  |
| 5.9436 | 0.23400 |       | A |   |            |            |    |  |
| 5.9531 | 0.23438 | 15/64 |   |   |            |            |    |  |
| 6.0000 | 0.23622 |       |   |   |            |            |    |  |
| 6.0452 | 0.23800 |       | B |   |            |            |    |  |
| 6.1000 | 0.24016 |       |   | M7×1.0  |            |            | 75 |  |
| 6.1468 | 0.24200 |       | C |   |            |            |    |  |
| 6.2000 | 0.24409 |       |   |   |            |            |    |  |
| 6.2484 | 0.24600 |       | D |   |            |            |    |  |
| 6.2500 | 0.24606 |       |   |   |            |            |    |  |
| 6.3000 | 0.24803 |       |   |   |            |            |    |  |
| 6.3500 | 0.25000 | 1/4   | E |   |            |            |    |  |
| 6.4000 | 0.25197 |       |   |   |            |            |    |  |
| 6.5000 | 0.25591 |       |   | M7×0.5  |            |            |    |  |

|               |                |                 |   |                    |            |            |    |  |
|---------------|----------------|-----------------|---|--------------------|------------|------------|----|--|
| <b>6.5278</b> | <b>0.25700</b> |                 | F | $\frac{5}{16}$ -18 | 0.32300 in | 0.33200 in | 77 |  |
| <b>6.6000</b> | <b>0.25984</b> |                 |   |                    |            |            |    |  |
| <b>6.6294</b> | <b>0.26100</b> |                 | G |                    |            |            |    |  |
| <b>6.7000</b> | <b>0.26378</b> |                 |   |                    |            |            |    |  |
| <b>6.7469</b> | <b>0.26563</b> | $\frac{17}{64}$ |   | $\frac{5}{16}$ -18 |            |            | 74 |  |
| <b>6.7500</b> | <b>0.26575</b> |                 |   |                    |            |            |    |  |
| <b>6.7564</b> | <b>0.26600</b> |                 | H |                    |            |            |    |  |
| <b>6.8000</b> | <b>0.26772</b> |                 |   |                    |            |            |    |  |
| <b>6.9000</b> | <b>0.27165</b> |                 |   | M8×1.25            |            |            | 75 |  |
| <b>6.9088</b> | <b>0.27200</b> |                 | I | $\frac{5}{16}$ -24 | 0.32300 in | 0.33200 in | 75 |  |
| <b>7.0000</b> | <b>0.27559</b> |                 |   |                    |            |            |    |  |
| <b>7.0358</b> | <b>0.27700</b> |                 | J | $\frac{5}{16}$ -18 |            |            | 50 |  |
| <b>7.1000</b> | <b>0.27953</b> |                 |   | M8×1.0             |            |            | 75 |  |
| <b>7.1374</b> | <b>0.28100</b> |                 | K |                    |            |            |    |  |
| <b>7.1438</b> | <b>0.28125</b> | $\frac{9}{32}$  |   | $\frac{5}{16}$ -32 |            |            |    |  |
| <b>7.2000</b> | <b>0.28346</b> |                 |   |                    |            |            |    |  |
| <b>7.2500</b> | <b>0.28543</b> |                 |   |                    |            |            |    |  |
| <b>7.3000</b> | <b>0.28740</b> |                 |   |                    |            |            |    |  |
| <b>7.3660</b> | <b>0.29000</b> |                 | L |                    |            |            |    |  |
| <b>7.4000</b> | <b>0.29134</b> |                 |   |                    |            |            |    |  |
| <b>7.4930</b> | <b>0.29500</b> |                 | M |                    |            |            |    |  |
| <b>7.5000</b> | <b>0.29528</b> |                 |   |                    |            |            |    |  |
| <b>7.5406</b> | <b>0.29688</b> | $\frac{19}{64}$ |   |                    |            |            |    |  |
| <b>7.6000</b> | <b>0.29921</b> |                 |   |                    |            |            |    |  |
| <b>7.6708</b> | <b>0.30200</b> |                 | N |                    |            |            |    |  |
| <b>7.7000</b> | <b>0.30315</b> |                 |   |                    |            |            |    |  |
| <b>7.7500</b> | <b>0.30512</b> |                 |   |                    |            |            |    |  |
| <b>7.8000</b> | <b>0.30709</b> |                 |   |                    |            |            |    |  |
| <b>7.9000</b> | <b>0.31102</b> |                 |   |                    |            |            |    |  |
| <b>7.9375</b> | <b>0.31250</b> | $\frac{5}{16}$  |   | $\frac{3}{8}$ -16  | 0.38600 in | 0.39700 in | 77 |  |
| <b>8.0000</b> | <b>0.31496</b> |                 |   |                    |            |            |    |  |
| <b>8.0264</b> | <b>0.31600</b> |                 | O |                    |            |            |    |  |
| <b>8.1000</b> | <b>0.31890</b> |                 |   |                    |            |            |    |  |

|               |                |                 |   |                         |            |            |    |  |
|---------------|----------------|-----------------|---|-------------------------|------------|------------|----|--|
| <b>8.2000</b> | <b>0.32283</b> |                 |   |                         |            |            |    |  |
| <b>8.2042</b> | <b>0.32300</b> |                 | P |                         |            |            |    |  |
| <b>8.2500</b> | <b>0.32480</b> |                 |   |                         |            |            |    |  |
| <b>8.3000</b> | <b>0.32677</b> |                 |   |                         |            |            |    |  |
| <b>8.3344</b> | <b>0.32813</b> | $\frac{21}{64}$ |   |                         |            |            |    |  |
| <b>8.4000</b> | <b>0.33071</b> |                 |   |                         |            |            |    |  |
| <b>8.4328</b> | <b>0.33200</b> |                 | Q | $\frac{3}{8}$ -24       | 0.38600 in | 0.39700 in | 79 |  |
| <b>8.5000</b> | <b>0.33465</b> |                 |   | M10×1.5                 |            |            |    |  |
| <b>8.6000</b> | <b>0.33858</b> |                 |   |                         |            |            |    |  |
| <b>8.6106</b> | <b>0.33900</b> |                 | R |                         |            |            |    |  |
| <b>8.7000</b> | <b>0.34252</b> |                 |   |                         |            |            |    |  |
| <b>8.7313</b> | <b>0.34375</b> | $\frac{11}{32}$ |   |                         |            |            |    |  |
| <b>8.7500</b> | <b>0.34449</b> |                 |   | M10×1.25                |            |            |    |  |
| <b>8.8000</b> | <b>0.34646</b> |                 |   |                         |            |            |    |  |
| <b>8.8392</b> | <b>0.34800</b> |                 | S |                         |            |            |    |  |
| <b>8.9000</b> | <b>0.35039</b> |                 |   |                         |            |            |    |  |
| <b>9.0000</b> | <b>0.35433</b> |                 |   | M10×1.0<br>(spark plug) |            |            |    |  |
| <b>9.0932</b> | <b>0.35800</b> |                 | T |                         |            |            |    |  |
| <b>9.1000</b> | <b>0.35827</b> |                 |   |                         |            |            |    |  |
| <b>9.1281</b> | <b>0.35938</b> | $\frac{23}{64}$ |   |                         |            |            |    |  |
| <b>9.2000</b> | <b>0.36220</b> |                 |   |                         |            |            |    |  |
| <b>9.2500</b> | <b>0.36417</b> |                 |   |                         |            |            |    |  |
| <b>9.3000</b> | <b>0.36614</b> |                 |   |                         |            |            |    |  |
| <b>9.3472</b> | <b>0.36800</b> |                 | U | $\frac{7}{16}$ -14      | 0.45310 in | 0.46870 in | 75 |  |
| <b>9.4000</b> | <b>0.37008</b> |                 |   |                         |            |            |    |  |
| <b>9.5000</b> | <b>0.37402</b> |                 |   |                         |            |            |    |  |
| <b>9.5250</b> | <b>0.37500</b> | $\frac{3}{8}$   |   |                         |            |            |    |  |
| <b>9.5758</b> | <b>0.37700</b> |                 | V |                         |            |            |    |  |
| <b>9.6000</b> | <b>0.37795</b> |                 |   |                         |            |            |    |  |
| <b>9.7000</b> | <b>0.38189</b> |                 |   |                         |            |            |    |  |
| <b>9.7500</b> | <b>0.38386</b> |                 |   |                         |            |            |    |  |
| <b>9.8000</b> | <b>0.38583</b> |                 |   |                         |            |            |    |  |
| <b>9.8044</b> | <b>0.38600</b> |                 | W |                         |            |            |    |  |

|                |                |                 |   |                               |            |            |          |  |
|----------------|----------------|-----------------|---|-------------------------------|------------|------------|----------|--|
| <b>9.9000</b>  | <b>0.38976</b> |                 |   |                               |            |            |          |  |
| <b>9.9219</b>  | <b>0.39063</b> | $\frac{25}{64}$ |   | $\frac{7}{16}$ -20            | 0.45313 in | 0.46785 in | 72       |  |
| <b>10.0000</b> | <b>0.39370</b> |                 |   |                               |            |            |          |  |
| <b>10.0838</b> | <b>0.39700</b> |                 | X |                               |            |            |          |  |
| <b>10.2616</b> | <b>0.40400</b> |                 | Y |                               |            |            |          |  |
| <b>10.3188</b> | <b>0.40625</b> | $\frac{13}{32}$ |   | $\frac{7}{16}$ -40            |            |            |          |  |
| <b>10.4902</b> | <b>0.41300</b> |                 | Z |                               |            |            |          |  |
| <b>10.5000</b> | <b>0.41339</b> |                 |   | M12×1.75                      |            |            | 75       |  |
| <b>10.7000</b> | <b>0.42126</b> |                 |   | M12×1.5                       |            |            | 75       |  |
| <b>10.7156</b> | <b>0.42188</b> | $\frac{27}{64}$ |   | $\frac{1}{2}$ -13             | 0.51563 in | 0.53125 in | 78       |  |
| <b>10.900</b>  | <b>0.42913</b> |                 |   | M12×1.25<br>(spark plug)      |            |            |          |  |
| <b>11.0000</b> | <b>0.43307</b> |                 |   |                               |            |            |          |  |
| <b>11.1125</b> | <b>0.43750</b> | $\frac{7}{16}$  |   |                               |            |            |          |  |
| <b>11.5000</b> | <b>0.45276</b> |                 |   |                               |            |            |          |  |
| <b>11.5094</b> | <b>0.45313</b> | $\frac{29}{64}$ |   | $\frac{1}{2}$ -20             | 0.51563 in | 0.53125 in | 72       |  |
| <b>11.9063</b> | <b>0.46875</b> | $\frac{15}{32}$ |   | $\frac{9}{16}$ -12            | 0.56250 in |            | 87       |  |
| <b>12.0000</b> | <b>0.47244</b> |                 |   |                               |            |            |          |  |
| <b>12.2000</b> | <b>0.48031</b> |                 |   | M14×2                         |            |            | 75       |  |
| <b>12.3031</b> | <b>0.48438</b> | $\frac{31}{64}$ |   | $\frac{9}{16}$ -12            | 0.56250 in |            | 68       |  |
| <b>12.5000</b> | <b>0.49213</b> |                 |   |                               |            |            |          |  |
| <b>12.7000</b> | <b>0.50000</b> | $\frac{1}{2}$   |   | $\frac{9}{16}$ -18<br>M14×1.5 | 0.56250 in |            | 87<br>75 |  |
| <b>12.8000</b> | <b>0.50393</b> |                 |   | M14×1.25<br>(spark plug)      |            |            |          |  |
| <b>13.0000</b> | <b>0.51181</b> |                 |   |                               |            |            |          |  |
| <b>13.0969</b> | <b>0.51563</b> | $\frac{33}{64}$ |   | $\frac{9}{16}$ -18            | 0.56250 in |            | 65       |  |
| <b>13.4938</b> | <b>0.53125</b> | $\frac{17}{32}$ |   | $\frac{5}{8}$ -11             | 0.62500 in |            | 79       |  |
| <b>13.5000</b> | <b>0.53150</b> |                 |   |                               |            |            |          |  |
| <b>13.8906</b> | <b>0.54688</b> | $\frac{35}{64}$ |   | $\frac{5}{8}$ -11             | 0.62500 in |            | 66       |  |
| <b>14.0000</b> | <b>0.55118</b> |                 |   |                               |            |            |          |  |
| <b>14.2000</b> | <b>0.55906</b> |                 |   | M16×2                         |            |            | 75       |  |
| <b>14.2875</b> | <b>0.56250</b> | $\frac{9}{16}$  |   | $\frac{5}{8}$ -18             | 0.62500 in |            | 87       |  |

|                |                |                 |  |                         |            |  |    |
|----------------|----------------|-----------------|--|-------------------------|------------|--|----|
| <b>14.5000</b> | <b>0.57087</b> |                 |  |                         |            |  |    |
| <b>14.6844</b> | <b>0.57813</b> | $\frac{37}{64}$ |  | $\frac{5}{8}$ -18       | 0.62500 in |  | 65 |
| <b>14.7000</b> | <b>0.57874</b> |                 |  | M16×1.5                 |            |  | 75 |
| <b>15.0000</b> | <b>0.59055</b> |                 |  |                         |            |  |    |
| <b>15.0813</b> | <b>0.59375</b> | $\frac{19}{32}$ |  |                         |            |  |    |
| <b>15.4781</b> | <b>0.60938</b> | $\frac{39}{64}$ |  |                         |            |  |    |
| <b>15.5000</b> | <b>0.61024</b> |                 |  |                         |            |  |    |
| <b>15.8750</b> | <b>0.62500</b> | $\frac{5}{8}$   |  |                         |            |  |    |
| <b>16.0000</b> | <b>0.62992</b> |                 |  |                         |            |  |    |
| <b>16.2719</b> | <b>0.64063</b> | $\frac{41}{64}$ |  | $\frac{3}{4}$ -10       |            |  | 84 |
| <b>16.5000</b> | <b>0.64961</b> |                 |  |                         |            |  |    |
| <b>16.6688</b> | <b>0.65625</b> | $\frac{21}{32}$ |  | $\frac{3}{4}$ -10       |            |  | 72 |
| <b>16.8000</b> | <b>0.66141</b> |                 |  | M18×1.5<br>(spark plug) |            |  |    |
| <b>17.0000</b> | <b>0.66929</b> |                 |  |                         |            |  |    |
| <b>17.0656</b> | <b>0.67188</b> | $\frac{43}{64}$ |  |                         |            |  |    |
| <b>17.4625</b> | <b>0.68750</b> | $\frac{11}{16}$ |  | $\frac{3}{4}$ -16       |            |  | 77 |
| <b>17.5000</b> | <b>0.68898</b> |                 |  |                         |            |  |    |
| <b>17.8594</b> | <b>0.70313</b> | $\frac{45}{64}$ |  |                         |            |  |    |
| <b>18.0000</b> | <b>0.70866</b> |                 |  |                         |            |  |    |
| <b>18.2563</b> | <b>0.71875</b> | $\frac{23}{32}$ |  |                         |            |  |    |
| <b>18.5000</b> | <b>0.72835</b> |                 |  |                         |            |  |    |
| <b>18.6531</b> | <b>0.73438</b> | $\frac{47}{64}$ |  |                         |            |  |    |
| <b>19.0000</b> | <b>0.74803</b> |                 |  |                         |            |  |    |
| <b>19.0500</b> | <b>0.75000</b> | $\frac{3}{4}$   |  |                         |            |  |    |
| <b>19.4469</b> | <b>0.76563</b> | $\frac{49}{64}$ |  | $\frac{7}{8}$ -9        |            |  | 76 |
| <b>19.5000</b> | <b>0.76772</b> |                 |  |                         |            |  |    |
| <b>19.8438</b> | <b>0.78125</b> | $\frac{25}{32}$ |  | $\frac{7}{8}$ -9        |            |  | 65 |
| <b>20.0000</b> | <b>0.78740</b> |                 |  |                         |            |  |    |
| <b>20.2406</b> | <b>0.79688</b> | $\frac{51}{64}$ |  | $\frac{7}{8}$ -14       |            |  | 84 |
| <b>20.5000</b> | <b>0.80709</b> |                 |  |                         |            |  |    |

|                |                |                 |  |                             |  |  |          |  |
|----------------|----------------|-----------------|--|-----------------------------|--|--|----------|--|
| <b>20.6375</b> | <b>0.81250</b> | $13/16$         |  | $7/8-14$                    |  |  | 67       |  |
| <b>21.0000</b> | <b>0.82677</b> |                 |  |                             |  |  |          |  |
| <b>21.0344</b> | <b>0.82813</b> | $53/64$         |  | $7/8-18$ NS<br>(spark plug) |  |  |          |  |
| <b>21.4313</b> | <b>0.84375</b> | $27/32$         |  |                             |  |  |          |  |
| <b>21.5000</b> | <b>0.84646</b> |                 |  |                             |  |  |          |  |
| <b>21.8281</b> | <b>0.85938</b> | $55/64$         |  | 1-8                         |  |  | 87       |  |
| <b>22.0000</b> | <b>0.86614</b> |                 |  |                             |  |  |          |  |
| <b>22.2250</b> | <b>0.87500</b> | $7/8$           |  | 1-8                         |  |  | 77       |  |
| <b>22.5000</b> | <b>0.88583</b> |                 |  |                             |  |  |          |  |
| <b>22.6219</b> | <b>0.89063</b> | $57/64$         |  | 1-8                         |  |  | 67       |  |
| <b>23.0000</b> | <b>0.90551</b> |                 |  |                             |  |  |          |  |
| <b>23.0188</b> | <b>0.90625</b> | $29/32$         |  | 1-12                        |  |  | 87       |  |
| <b>23.4156</b> | <b>0.92188</b> | $59/64$         |  | 1-12<br>1-14                |  |  | 72<br>84 |  |
| <b>23.5000</b> | <b>0.92520</b> |                 |  |                             |  |  |          |  |
| <b>23.8125</b> | <b>0.93750</b> | $15/16$         |  | 1-14                        |  |  | 67       |  |
| <b>24.0000</b> | <b>0.94488</b> |                 |  |                             |  |  |          |  |
| <b>24.2094</b> | <b>0.95313</b> | $61/64$         |  |                             |  |  |          |  |
| <b>24.5000</b> | <b>0.96457</b> |                 |  |                             |  |  |          |  |
| <b>24.6063</b> | <b>0.96875</b> | $31/32$         |  | $1\frac{1}{8}-7$            |  |  | 84       |  |
| <b>25.0000</b> | <b>0.98425</b> |                 |  |                             |  |  |          |  |
| <b>25.0031</b> | <b>0.98438</b> | $63/64$         |  | $1\frac{1}{8}-7$            |  |  | 76       |  |
| <b>25.4000</b> | <b>1.00000</b> | 1               |  | $1\frac{1}{8}-7$            |  |  | 67       |  |
| <b>25.5000</b> | <b>1.00394</b> |                 |  |                             |  |  |          |  |
| <b>25.7969</b> | <b>1.01563</b> | $1\frac{1}{64}$ |  |                             |  |  |          |  |
| <b>26.0000</b> | <b>1.02362</b> |                 |  |                             |  |  |          |  |
| <b>26.1938</b> | <b>1.03125</b> | $1\frac{1}{32}$ |  | $1\frac{1}{8}-12$           |  |  | 87       |  |
| <b>26.5000</b> | <b>1.04331</b> |                 |  |                             |  |  |          |  |
| <b>26.5906</b> | <b>1.04688</b> | $1\frac{3}{64}$ |  | $1\frac{1}{8}-12$           |  |  | 72       |  |
| <b>26.9875</b> | <b>1.06250</b> | $1\frac{1}{16}$ |  |                             |  |  |          |  |
| <b>27.0000</b> | <b>1.06299</b> |                 |  |                             |  |  |          |  |

|                |                |                  |  |                    |  |    |  |
|----------------|----------------|------------------|--|--------------------|--|----|--|
| <b>27.5000</b> | <b>1.08268</b> |                  |  |                    |  |    |  |
| <b>28.0000</b> | <b>1.10236</b> |                  |  |                    |  |    |  |
| <b>28.1781</b> | <b>1.10938</b> | $1\frac{7}{64}$  |  | $1\frac{1}{4}$ -7  |  | 76 |  |
| <b>28.5000</b> | <b>1.12205</b> |                  |  |                    |  |    |  |
| <b>28.5750</b> | <b>1.12500</b> | $1\frac{1}{8}$   |  | $1\frac{1}{4}$ -7  |  | 67 |  |
| <b>29.0000</b> | <b>1.14173</b> |                  |  |                    |  |    |  |
| <b>29.3688</b> | <b>1.15625</b> | $1\frac{5}{32}$  |  | $1\frac{1}{4}$ -12 |  | 87 |  |
| <b>29.5000</b> | <b>1.16142</b> |                  |  |                    |  |    |  |
| <b>29.7656</b> | <b>1.17188</b> | $1\frac{11}{64}$ |  | $1\frac{1}{4}$ -12 |  | 72 |  |
| <b>30.0000</b> | <b>1.18110</b> |                  |  |                    |  |    |  |
| <b>30.1625</b> | <b>1.18750</b> | $1\frac{3}{16}$  |  | $1\frac{3}{8}$ -6  |  | 87 |  |
| <b>30.5000</b> | <b>1.20079</b> |                  |  |                    |  |    |  |
| <b>30.5594</b> | <b>1.20313</b> | $1\frac{13}{64}$ |  | $1\frac{3}{8}$ -6  |  | 79 |  |
| <b>30.9563</b> | <b>1.21875</b> | $1\frac{7}{32}$  |  | $1\frac{3}{8}$ -6  |  | 72 |  |
| <b>31.0000</b> | <b>1.22047</b> |                  |  |                    |  |    |  |
| <b>31.3531</b> | <b>1.23438</b> | $1\frac{15}{64}$ |  | $1\frac{3}{8}$ -6  |  | 65 |  |
| <b>31.5000</b> | <b>1.24016</b> |                  |  |                    |  |    |  |
| <b>32.0000</b> | <b>1.25984</b> |                  |  |                    |  |    |  |
| <b>32.5000</b> | <b>1.27953</b> |                  |  |                    |  |    |  |
| <b>32.5438</b> | <b>1.28125</b> | $1\frac{9}{32}$  |  | $1\frac{3}{8}$ -12 |  | 87 |  |
| <b>32.9406</b> | <b>1.29688</b> | $1\frac{19}{64}$ |  | $1\frac{3}{8}$ -12 |  | 72 |  |
| <b>33.0000</b> | <b>1.29921</b> |                  |  |                    |  |    |  |
| <b>33.3375</b> | <b>1.31250</b> | $1\frac{5}{16}$  |  | $1\frac{1}{2}$ -6  |  | 87 |  |
| <b>33.5000</b> | <b>1.31890</b> |                  |  |                    |  |    |  |
| <b>33.7344</b> | <b>1.32813</b> | $1\frac{21}{64}$ |  | $1\frac{1}{2}$ -6  |  | 79 |  |
| <b>34.0000</b> | <b>1.33858</b> |                  |  |                    |  |    |  |
| <b>34.1313</b> | <b>1.34375</b> | $1\frac{11}{32}$ |  | $1\frac{1}{2}$ -6  |  | 72 |  |
| <b>34.5000</b> | <b>1.35827</b> |                  |  |                    |  |    |  |
| <b>34.5281</b> | <b>1.35938</b> | $1\frac{23}{64}$ |  | $1\frac{1}{2}$ -6  |  | 65 |  |
| <b>35.0000</b> | <b>1.37795</b> |                  |  |                    |  |    |  |
| <b>35.5000</b> | <b>1.39764</b> |                  |  |                    |  |    |  |
|                |                |                  |  |                    |  |    |  |

|                |                |                |  |                  |  |  |    |  |
|----------------|----------------|----------------|--|------------------|--|--|----|--|
| <b>35.7188</b> | <b>1.40625</b> | $1^{13}/_{32}$ |  | $1^{1}/_{2}$ -12 |  |  | 87 |  |
| <b>36.0000</b> | <b>1.41732</b> |                |  |                  |  |  |    |  |
| <b>36.1156</b> | <b>1.42188</b> | $1^{27}/_{64}$ |  | $1^{1}/_{2}$ -12 |  |  | 72 |  |
| <b>36.5000</b> | <b>1.43701</b> |                |  |                  |  |  |    |  |

<sup>†</sup>If theoretical thread percentage not given, assume 75% ± 10%

*Theoretical percentage of thread* should not be relied upon for threads of included angles other than 60 degrees.

<sup>‡</sup>See <http://www.newmantools.com/taps/micro.htm> for more information.

## See also

- [AN thread](#)
- [British standard pipe thread](#)
- [British Association screw threads](#)
- [British Standard Whitworth](#)
- [Drill bit sizes](#), a similar page including center drill sizes
- [ISO metric screw thread](#)
- [National pipe thread](#)
- [Taps and dies](#)
- [United States Standard thread](#)
- [Unified Thread Standard](#)

## References

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- "Tap Drill Sizes for Universal and M-Profile Screw Threads" ([http://www.precisiontwistdrill.com/techhelp/help\\_pages/unified\\_metric\\_tap\\_sizes.asp](http://www.precisiontwistdrill.com/techhelp/help_pages/unified_metric_tap_sizes.asp)). *precisiontwistdrill.com* (<http://www.precisiontwistdrill.com/>). Retrieved 2006-08-04. External link in |work= ([help](#))
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- <http://www.littlemachineshop.com/reference/tapdrillsizes.pdf>

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## External links

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- [Tap Drill Sizes \(http://www.amesweb.info/Screws/TapDrillSizesForUnifiedScrewThread.aspx\)](http://www.amesweb.info/Screws/TapDrillSizesForUnifiedScrewThread.aspx)
  - [Metric Tap Drill Sizes \(http://www.amesweb.info/Screws/Tap-Drill-Size-Chart-Metric.aspx\)](http://www.amesweb.info/Screws/Tap-Drill-Size-Chart-Metric.aspx)
  - [Tap and drill chart \(http://www.lincolnmachine.com/tap\\_drill\\_chart.html\)](http://www.lincolnmachine.com/tap_drill_chart.html)
  - [BTA Drill Tube Reference Chart \(https://web.archive.org/web/20120320164025/http://www.unisig.com/gundrilling-education/bta-drill-tube-reference.pdf\)](https://web.archive.org/web/20120320164025/http://www.unisig.com/gundrilling-education/bta-drill-tube-reference.pdf)
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