

## Tap Drill Sizes Probable Percentage of Full Thread Produced in Tapped Hole Using Stock Sizes of Drill

| Tap   | Tap Drill | Decimal Equiv. of Tap Drill | Theoretical % of Thread | Probable Oversize (Mean) | Probable Hole Size | Percentage of Thread |
|-------|-----------|-----------------------------|-------------------------|--------------------------|--------------------|----------------------|
| 0-80  | 56        | .0465                       | 83                      | .0015                    | .0480              | 74                   |
|       | 3/64      | .0469                       | 81                      | .0015                    | .0484              | 71                   |
| 1-64  | 54        | .0550                       | 89                      | .0015                    | .0565              | 81                   |
|       | 53        | .0595                       | 67                      | .0015                    | .0610              | 59                   |
| 1-72  | 53        | .0595                       | 75                      | .0015                    | .0610              | 67                   |
|       | 1/16      | .0625                       | 58                      | .0015                    | .0640              | 50                   |
| 2-56  | 51        | .0670                       | 82                      | .0017                    | .0687              | 74                   |
|       | 50        | .0700                       | 69                      | .0017                    | .0717              | 62                   |
|       | 49        | .0730                       | 56                      | .0017                    | .0747              | 49                   |
| 2-64  | 50        | .0700                       | 79                      | .0017                    | .0717              | 70                   |
|       | 49        | .0730                       | 64                      | .0017                    | .0747              | 56                   |
| 3-48  | 48        | .0760                       | 85                      | .0019                    | .0779              | 78                   |
|       | 3/64      | .0781                       | 77                      | .0019                    | .0800              | 70                   |
|       | 47        | .0785                       | 76                      | .0019                    | .0804              | 69                   |
|       | 46        | .0810                       | 67                      | .0019                    | .0829              | 60                   |
|       | 45        | .0820                       | 63                      | .0019                    | .0839              | 56                   |
| 3-56  | 46        | .0810                       | 78                      | .0019                    | .0829              | 69                   |
|       | 45        | .0820                       | 73                      | .0019                    | .0839              | 65                   |
|       | 44        | .0860                       | 56                      | .0019                    | .0879              | 48                   |
| 4-40  | 44        | .0860                       | 80                      | .0020                    | .0880              | 74                   |
|       | 43        | .0890                       | 71                      | .0020                    | .0910              | 65                   |
|       | 42        | .0935                       | 57                      | .0020                    | .0955              | 51                   |
|       | 3/32      | .0938                       | 56                      | .0020                    | .0958              | 50                   |
| 4-48  | 42        | .0935                       | 68                      | .0020                    | .0955              | 61                   |
|       | 3/32      | .0938                       | 68                      | .0020                    | .0958              | 60                   |
|       | 41        | .0960                       | 59                      | .0020                    | .0980              | 52                   |
| 5-40  | 40        | .0980                       | 83                      | .0023                    | .1003              | 76                   |
|       | 39        | .0995                       | 79                      | .0023                    | .1018              | 71                   |
|       | 38        | .1015                       | 72                      | .0023                    | .1038              | 65                   |
|       | 37        | .1040                       | 65                      | .0023                    | .1063              | 58                   |
| 5-44  | 38        | .1015                       | 79                      | .0023                    | .1038              | 72                   |
|       | 37        | .1040                       | 71                      | .0023                    | .1063              | 63                   |
|       | 36        | .1065                       | 63                      | .0023                    | .1088              | 55                   |
| 6-32  | 37        | .1040                       | 84                      | .0023                    | .1063              | 78                   |
|       | 36        | .1065                       | 78                      | .0026                    | .1091              | 71                   |
|       | 3/4       | .1094                       | 70                      | .0026                    | .1120              | 64                   |
|       | 35        | .1100                       | 69                      | .0026                    | .1126              | 63                   |
|       | 34        | .1110                       | 67                      | .0026                    | .1136              | 60                   |
|       | 33        | .1130                       | 62                      | .0026                    | .1156              | 55                   |
| 6-40  | 34        | .1110                       | 83                      | .0026                    | .1136              | 75                   |
|       | 33        | .1130                       | 77                      | .0026                    | .1156              | 69                   |
|       | 32        | .1160                       | 68                      | .0026                    | .1186              | 60                   |
| 8-32  | 29        | .1360                       | 69                      | .0029                    | .1389              | 62                   |
|       | 28        | .1405                       | 58                      | .0029                    | .1434              | 51                   |
| 8-36  | 29        | .1360                       | 78                      | .0029                    | .1389              | 70                   |
|       | 28        | .1405                       | 68                      | .0029                    | .1434              | 57                   |
|       | 3/4       | .1406                       | 68                      | .0029                    | .1435              | 57                   |
| 10-24 | 27        | .1440                       | 85                      | .0032                    | .1472              | 79                   |
|       | 26        | .1470                       | 79                      | .0032                    | .1502              | 74                   |
|       | 25        | .1495                       | 75                      | .0032                    | .1527              | 69                   |
|       | 24        | .1520                       | 70                      | .0032                    | .1552              | 64                   |
|       | 23        | .1540                       | 67                      | .0032                    | .1572              | 61                   |
|       | 3/32      | .1563                       | 62                      | .0032                    | .1595              | 56                   |
|       | 22        | .1570                       | 61                      | .0032                    | .1602              | 55                   |
| 10-32 | 3/32      | .1563                       | 83                      | .0032                    | .1595              | 75                   |
|       | 22        | .1570                       | 81                      | .0032                    | .1602              | 73                   |
|       | 21        | .1590                       | 76                      | .0032                    | .1622              | 68                   |
|       | 20        | .1610                       | 71                      | .0032                    | .1642              | 64                   |
|       | 19        | .1660                       | 59                      | .0032                    | .1692              | 51                   |

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| Tap     | Tap Drill | Decimal Equiv. of Tap Drill | Theoretical % of Thread | Probable Oversize (Mean) | Probable Hole Size | Percentage of Thread |
|---------|-----------|-----------------------------|-------------------------|--------------------------|--------------------|----------------------|
| 12-24   | 1 1/64    | .1719                       | 82                      | .0035                    | .1754              | 75                   |
|         | 17        | .1730                       | 79                      | .0035                    | .1765              | 73                   |
|         | 16        | .1770                       | 72                      | .0035                    | .1805              | 66                   |
|         | 15        | .1800                       | 67                      | .0035                    | .1835              | 60                   |
|         | 14        | .1820                       | 63                      | .0035                    | .1855              | 56                   |
| 12-28   | 16        | .1770                       | 84                      | .0035                    | .1805              | 77                   |
|         | 15        | .1800                       | 78                      | .0035                    | .1835              | 70                   |
|         | 14        | .1820                       | 73                      | .0035                    | .1855              | 66                   |
|         | 13        | .1850                       | 67                      | .0035                    | .1885              | 59                   |
|         | 3/16      | .1875                       | 61                      | .0035                    | .1910              | 54                   |
| 1/4-20  | 9         | .1960                       | 83                      | .0038                    | .1998              | 77                   |
|         | 8         | .1990                       | 79                      | .0038                    | .2028              | 73                   |
|         | 7         | .2010                       | 75                      | .0038                    | .2048              | 70                   |
|         | 3/4       | .2031                       | 72                      | .0038                    | .2069              | 66                   |
|         | 6         | .2040                       | 71                      | .0038                    | .2078              | 65                   |
|         | 5         | .2055                       | 69                      | .0038                    | .2093              | 63                   |
|         | 4         | .2090                       | 63                      | .0038                    | .2128              | 57                   |
| 1/4-28  | 3         | .2130                       | 80                      | .0038                    | .2168              | 72                   |
|         | 7/32      | .2188                       | 67                      | .0038                    | .2226              | 59                   |
|         | 2         | .2210                       | 63                      | .0038                    | .2248              | 55                   |
| 3/16-18 | F         | .2570                       | 77                      | .0038                    | .2608              | 72                   |
|         | G         | .2610                       | 71                      | .0041                    | .2651              | 66                   |
|         | 1 1/64    | .2656                       | 65                      | .0041                    | .2697              | 59                   |
|         | H         | .2660                       | 64                      | .0041                    | .2701              | 59                   |
| 3/16-24 | H         | .2660                       | 86                      | .0041                    | .2701              | 78                   |
|         | I         | .2720                       | 75                      | .0041                    | .2761              | 67                   |
|         | J         | .2770                       | 66                      | .0041                    | .2811              | 58                   |
| 3/8-16  | 3/16      | .3125                       | 77                      | .0044                    | .3169              | 72                   |
|         | O         | .3160                       | 73                      | .0044                    | .3204              | 68                   |
|         | P         | .323                        | 64                      | .0044                    | .3274              | 59                   |
| 3/8-24  | 2 1/64    | .3281                       | 87                      | .0044                    | .3325              | 79                   |
|         | Q         | .3320                       | 79                      | .0044                    | .3364              | 71                   |
|         | R         | .3390                       | 67                      | .0044                    | .3434              | 58                   |
| 7/16-14 | T         | .3580                       | 86                      | .0046                    | .3626              | 81                   |
|         | 2 3/64    | .3594                       | 84                      | .0046                    | .3640              | 79                   |
|         | U         | .3680                       | 75                      | .0046                    | .3726              | 70                   |
|         | 3/8       | .3750                       | 67                      | .0046                    | .3796              | 62                   |
|         | V         | .3770                       | 65                      | .0046                    | .3816              | 60                   |
| 7/16-20 | W         | .3860                       | 79                      | .0046                    | .3906              | 72                   |
|         | 2 3/64    | .3906                       | 72                      | .0046                    | .3952              | 65                   |
|         | X         | .3970                       | 62                      | .0046                    | .4016              | 55                   |
| 1/2-13  | 2 3/64    | .4219                       | 78                      | .0047                    | .4266              | 73                   |
|         | 7/16      | .4375                       | 63                      | .0047                    | .4422              | 58                   |
| 1/2-20  | 2 3/64    | .4531                       | 72                      | .0047                    | .4578              | 65                   |
| 3/16-12 | 1 3/32    | .4688                       | 87                      | .0048                    | .4736              | 82                   |
|         | 3 1/64    | .4844                       | 72                      | .0048                    | .4892              | 68                   |
| 3/16-18 | 1/2       | .500                        | 87                      | .0048                    | .5048              | 80                   |
|         | 2 3/64    | .5156                       | 65                      | .0048                    | .5204              | 58                   |
| 3/8-11  | 1 1/32    | .5313                       | 79                      | .0049                    | .5362              | 75                   |
|         | 2 3/64    | .5469                       | 66                      | .0049                    | .5518              | 62                   |
| 3/8-18  | 3/16      | .5625                       | 87                      | .0049                    | .5674              | 80                   |
|         | 2 3/64    | .5781                       | 65                      | .0049                    | .5831              | 58                   |
| 3/4-10  | 4 1/64    | .6406                       | 84                      | .0050                    | .6456              | 80                   |
|         | 2 1/32    | .6563                       | 72                      | .0050                    | .6613              | 68                   |
| 3/4-16  | 1 1/16    | .6875                       | 77                      | .0050                    | .6925              | 71                   |
| 7/8-9   | 4 3/64    | .7656                       | 76                      | .0052                    | .7708              | 72                   |
|         | 2 3/32    | .7812                       | 65                      | .0052                    | .7864              | 61                   |
| 7/8-14  | 3 1/64    | .7969                       | 84                      | .0052                    | .8021              | 79                   |
|         | 1 3/16    | .8125                       | 67                      | .0052                    | .8177              | 62                   |
| 1"-8    | 2 3/64    | .8594                       | 87                      | .0059                    | .8653              | 83                   |
|         | 7/8       | .875                        | 77                      | .0059                    | .8809              | 73                   |
|         | 2 3/64    | .8906                       | 67                      | .0059                    | .8965              | 64                   |
|         | 2 1/32    | .9063                       | 58                      | .0059                    | .9122              | 54                   |

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