K2 ENGINEERING SUPPLIES AUSTRALIA

# TAPPING DRILL SIZES

## ISO METRIC (COURSE)

| TAP SIZE | PITCH | TAPPING DRILL (mm) |
|---|---|---|
| M2 | 0.4 | 1.6 |
| M2.5 | 0.45 | 2.05 |
| M3 | 0.5 | 2.5 |
| M3.5 | 0.6 | 2.9 |
| M4 | 0.7 | 3.3 |
| M4.5 | 0.75 | 3.7 |
| M5 | 0.8 | 4.2 |
| M6 | 1.0 | 5.0 |
| M7 | 1.0 | 6.0 |
| M8 | 1.25 | 6.8 |
| M9 | 1.25 | 7.8 |
| M10 | 1.5 | 8.5 |
| M11 | 1.5 | 9.5 |
| M12 | 1.75 | 10.2 |
| M14 | 2.0 | 12.0 |
| M16 | 2.0 | 14.0 |
| M18 | 2.5 | 15.5 |
| M20 | 2.5 | 17.5 |
| M22 | 2.5 | 19.5 |
| M24 | 3.0 | 21.0 |
| M27 | 3.0 | 24.0 |
| M30 | 3.5 | 26.5 |
| M33 | 3.5 | 29.5 |
| M36 | 4.0 | 32.0 |
| M39 | 4.0 | 35.0 |
| M42 | 4.5 | 37.5 |
| M45 | 4.5 | 40.5 |
| M48 | 5.0 | 43.0 |
| M52 | 5.0 | 47.0 |

## SPARK PLUG

| TAP SIZE | PITCH (mm) | TAPPING DRILL (mm) |
|---|---|---|
| M10 | 1.0 | 9.0 |
| M12 | 1.25 | 10.8 |
| M14 | 1.25 | 12.8 |
| M18 | 1.5 | 16.5 |

## METRIC (FINE)

| TAP SIZE | PITCH | TAPPING DRILL (mm) |
|---|---|---|
| M8 | 1.0 | 7.0 |
| M10 | 1.25 | 8.8 |
| M12 | 1.25 | 10.8 |
| M12 | 1.5 | 10.5 |
| M14 | 1.5 | 12.5 |
| M16* | 1.5 | 14.5 |
| M18 | 1.5 | 16.5 |
| M20* | 1.5 | 18.5 |
| M22 | 1.5 | 20.5 |
| M24 | 2.0 | 22.0 |

*METRIC CONDUIT

## METRIC CONDUIT

| TAP SIZE | PITCH (mm) | TAPPING DRILL (mm) |
|---|---|---|
| M16 | 1.5 | 14.5 |
| M20 | 1.5 | 18.5 |
| M25 | 1.5 | 23.5 |
| M32 | 1.5 | 30.5 |
| M40 | 1.5 | 38.5 |
| M50 | 1.5 | 48.5 |

## B.S. CONDUIT

| TAP SIZE | PITCH (mm) | TAPPING DRILL (mm) |
|---|---|---|
| 5/8 | 18 | 14.25 |
| 3/4 | 16 | 17.00 |
| 1" | 16 | 23.50 |
| 1-1/4 | 16 | 30.00 |
| 1-1/2 | 14 | 36.00 |
| 2" | 14 | 48.50 |

ALWAYS WEAR EYE PROTECTION WHEN USING CUTTING TOOLS

## UNC (UNIFIED NATIONAL COARSE)

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| 3(.099) | 48 | 2.0 |
| 4(.112) | 40 | 2.25 |
| 5(.125) | 40 | 2.6 |
| 6(.138) | 32 | 2.75 |
| 8(.164) | 32 | 3.4 |
| 10(.190) | 24 | 3.8 |
| 12(.216) | 24 | 4.4 |
| 1/4 | 20 | 5.1 |
| 5/16 | 18 | 6.6 |
| 3/8 | 16 | 8.0 |
| 7/16 | 14 | 9.4 |
| 1/2 | 13 | 10.8 |
| 9/16 | 12 | 12.2 |
| 5/8 | 11 | 13.5 |
| 3/4 | 10 | 16.5 |
| 7/8 | 9 | 19.5 |
| 1" | 8 | 22.0 |
| 1-1/8 | 7 | 25.0 |
| 1-1/4 | 7 | 28.0 |
| 1-1/2 | 6 | 34.0 |

## NPTF (TAPER) DRYSEAL

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| 1/8 | 27 | 8.4 |
| 1/4 | 18 | 11.0 |
| 3/8 | 18 | 14.5 |
| 1/2 | 14 | 17.5 |
| 3/4 | 14 | 23.0 |
| 1" | 11-1/2 | 29.0 |
| 1-1/4 | 11-1/2 | 37.5 |

## UNF (UNIFIED NATIONAL FINE)

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| 3(.099) | 56 | 2.1 |
| 4(.112) | 48 | 2.35 |
| 5(.125) | 44 | 2.65 |
| 6(.138) | 40 | 2.9 |
| 8(.164) | 36 | 3.5 |
| 10(.190) | 32 | 4.1 |
| 12(.216) | 28 | 4.6 |
| 3/16* | 32 | 4.0 |
| 1/4 | 28 | 5.5 |
| 5/16 | 24 | 6.9 |
| 3/8 | 24 | 8.5 |
| 7/16 | 20 | 9.8 |
| 1/2 | 20 | 11.5 |
| 9/16 | 18 | 12.8 |
| 5/8 | 18 | 14.5 |
| 3/4 | 16 | 17.5 |
| 7/8 | 14 | 20.5 |
| 1" | 12 | 23.5 |
| 1"* | 14 | 24.0 |
| 1-1/8 | 12 | 26.5 |
| 1-1/4 | 12 | 29.5 |
| 1-1/2 | 12 | 36.0 |

*UNS

## NPTF (STRAIGHT) DRYSEAL

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| 1/8 | 27 | 8.5 |
| 1/4 | 18 | 11.0 |
| 3/8 | 18 | 14.5 |
| 1/2 | 14 | 18.0 |

TAPER PIPE THREADS OF IMPROVED QUALITY ARE OBTAINED WHEN TAPER IS PRE-FORMED

## BSW (BRITISH STANDARD WHITWORTH)

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| *3/32 | 48 | 1.9 |
| 1/8 | 40 | 2.55 |
| *5/32 | 32 | 3.2 |
| 3/16 | 24 | 3.7 |
| *7/32 | 24 | 4.5 |
| 1/4 | 20 | 5.1 |
| 5/16 | 18 | 6.5 |
| 3/8 | 16 | 8.0 |
| 7/16 | 14 | 9.3 |
| 1/2 | 12 | 10.5 |
| 9/16 | 12 | 12.2 |
| 5/8 | 11 | 13.5 |
| 3/4 | 10 | 16.5 |
| 7/8 | 9 | 19.5 |
| 1" | 8 | 22.0 |
| 1-1/8 | 7 | 25.0 |
| 1-1/4 | 7 | 28.0 |
| 1-1/2 | 6 | 34.0 |
| 1-3/4 | 5 | 39.0 |
| 2" | 4-1/2 | 45.0 |

*WHIT. FORM

## Rc SERIES (BSPT) ISO Rc TAPER SERIES

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| Rc1/8 | 28 | 8.2 |
| Rc1/4 | 19 | 10.8 |
| Rc3/8 | 19 | 14.5 |
| Rc1/2 | 14 | 17.5 |
| Rc3/4 | 14 | 23.0 |
| Rc 1" | 11 | 29.5 |
| Rc1-1/4 | 11 | 38.0 |
| Rc1-1/2 | 11 | 43.5 |
| Rc 2" | 11 | 55.0 |

## G SERIES (BSPF) ISO G PARALLEL SERIES

| TAP SIZE | T.P.I. | TAPPING DRILL (mm) |
|---|---|---|
| G1/8 | 28 | 8.8 |
| G1/4 | 19 | 11.8 |
| G3/8 | 19 | 15.0 |
| G1/2 | 14 | 19.0 |
| G5/8 | 14 | 21.0 |
| G3/4 | 14 | 24.5 |
| G7/8 | 14 | 28.0 |
| G1" | 11 | 30.5 |
| G1-1/4 | 11 | 39.0 |
| G1-1/2 | 11 | 45.0 |
| G1-3/4 | 11 | 51.0 |
| G2" | 11 | 57.0 |

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## "THREDFLO" FLUTELESS TAPS

| THREAD SIZE | | | ISO COARSE | | UNC | | UNF | | BSW | |
|---|---|---|---|---|---|---|---|---|---|---|
| METRIC | FRACTION | M/C SCREW GAUGE | PITCH (mm) | TAPPING DRILL (mm) | T.P.I. | TAPPING DRILL (mm) | T.P.I. | TAPPING DRILL (mm) | T.P.I | TAPPING DRILL (mm) |
| M3 | | | .5 | 2.75 | | | | | | |
| | 1/8 | | | | | | | | 40 | 2.90 |
| M3.5 | | | .6 | 3.20 | | | | | | |
| | | 6 | | | 32 | 3.10 | 40 | 3.20 | | |
| | 5/32 | | | | | | | | 32 | 3.60 |
| M4 | | | .7 | 3.70 | | | | | | |
| | | 8 | | | 32 | 3.80 | 36 | 3.80 | | |
| | 3/16 | | | | | | | | 24 | 4.30 |
| | | 10 | | | 24 | 4.30 | 32 | 4.40 | | |

| THREAD SIZE | | | ISO COARSE | | UNC | | UNF | | BSW | |
|---|---|---|---|---|---|---|---|---|---|---|
| METRIC | FRACTION | M/C SCREW GAUGE | PITCH (mm) | TAPPING DRILL (mm) | T.P.I. | TAPPING DRILL (mm) | T.P.I. | TAPPING DRILL (mm) | T.P.I | TAPPING DRILL (mm) |
| M5 | | | .8 | 4.60 | | | | | | |
| | | 12 | | | 24 | 5.00 | 28 | 5.10 | | |
| M6 | | | 1.0 | 5.50 | | | | | | |
| | 1/4 | | | | 20 | 5.70 | 28 | 5.90 | 20 | 5.80 |
| | 5/16 | | | | 18 | 7.30 | 24 | 7.40 | 18 | 7.30 |
| M8 | | | 1.25 | 7.40 | | | | | | |
| | 3/8 | | | | 16 | 8.80 | 24 | 9.00 | 16 | 8.80 |
| M10 | | | 1.50 | 9.30 | | | | | | |

# DRILL SIZE & DECIMAL EQUIVELANT (mm) CHART

| mm | FRACT | GAUGE | DEC. EQUIV |
|---|---|---|---|
| | | 80 | .0135 |
| 0.35 | | | .0138 |
| | | 79 | .0145 |
| 0.38 | | | .0150 |
| | 1/64 | | .0156 |
| 0.40 | | | .0157 |
| | | 78 | .0160 |
| 0.42 | | | .0165 |
| 0.45 | | | .0177 |
| | | 77 | .0180 |
| 0.48 | | | .0189 |
| 0.50 | | | .0197 |
| | | 76 | .0200 |
| 0.52 | | | .0205 |
| | | 75 | .0210 |
| 0.55 | | | .0217 |
| | | 74 | .0225 |
| 0.58 | | | .0228 |
| 0.60 | | | .0236 |
| | | 73 | .0240 |
| | | 72 | .0250 |
| 0.65 | | | .0256 |
| | | 71 | .0260 |
| 0.70 | | | .0276 |
| | | 70 | .0280 |
| | | 69 | .0292 |
| 0.75 | | | .0295 |
| | | 68 | .0310 |
| | 1/32 | | .0312 |
| 0.80 | | | .0315 |
| | | 67 | .0320 |
| | | 66 | .0330 |
| 0.85 | | | .0335 |
| | | 65 | .0350 |
| 0.90 | | | .0354 |
| | | 64 | .0360 |
| | | 63 | .0370 |
| 0.95 | | | .0374 |
| | | 62 | .0380 |
| | | 61 | .0390 |
| 1.00 | | | .0394 |
| | | 60 | .0400 |
| | | 59 | .0410 |
| 1.05 | | | .0414 |
| | | 58 | .0420 |
| | | 57 | .0430 |
| 1.10 | | | .0433 |
| 1.15 | | | .0453 |
| | | 56 | .0465 |
| | 3/64 | | .0469 |
| 1.20 | | | .0472 |
| 1.25 | | | .0492 |
| 1.30 | | | .0512 |
| | | 55 | .0520 |
| 1.35 | | | .0532 |
| | | 54 | .0550 |
| 1.40 | | | .0551 |
| 1.45 | | | .0571 |
| 1.50 | | | .0591 |
| | | 53 | .0595 |
| 1.55 | | | .0610 |
| | 1/16 | | .0625 |
| 1.60 | | | .0630 |
| | | 52 | .0635 |
| 1.65 | | | .0650 |
| 1.70 | | | .0669 |
| | | 51 | .0670 |
| 1.75 | | | .0689 |
| | | 50 | .0700 |
| 1.80 | | | .0709 |
| 1.85 | | | .0729 |
| | | 49 | .0730 |
| 1.90 | | | .0748 |
| | | 48 | .0760 |
| 1.95 | | | .0768 |
| | 5/64 | | .0781 |
| | | 47 | .0785 |
| 2.00 | | | .0787 |
| 2.05 | | | .0807 |
| | | 46 | .0810 |
| | | 45 | .0820 |
| 2.10 | | | .0827 |
| 2.15 | | | .0847 |
| | | 44 | .0860 |
| 2.20 | | | .0866 |
| 2.25 | | | .0886 |
| | | 43 | .0890 |
| 2.30 | | | .0906 |
| 2.35 | | | .0926 |
| | | 42 | .0935 |
| | 3/32 | | .0938 |
| 2.40 | | | .0945 |
| | | 41 | .0960 |
| 2.45 | | | .0965 |
| | | 40 | .0980 |
| 2.50 | | | .0984 |
| | | 39 | .0995 |
| 2.55 | | | .1004 |
| | | 38 | .1015 |
| 2.60 | | | .1024 |
| | | 37 | .1040 |
| 2.65 | | | .1043 |
| 2.70 | | | .1063 |
| | | 36 | .1065 |
| 2.75 | | | .1083 |
| | 7/64 | | .1094 |
| | | 35 | .1100 |
| 2.80 | | | .1102 |
| | | 34 | .1110 |
| 2.85 | | | .1122 |
| | | 33 | .1130 |
| 2.90 | | | .1142 |
| | | 32 | .1160 |
| 2.95 | | | .1162 |
| 3.00 | | | .1181 |
| | | 31 | .1200 |
| 3.10 | | | .1220 |
| | 1/8 | | .1250 |
| 3.20 | | | .1260 |
| | | 30 | .1285 |
| 3.30 | | | .1299 |
| 3.40 | | | .1339 |
| | | 29 | .1360 |
| 3.50 | | | .1378 |
| | | 28 | .1405 |
| | 9/64 | | .1406 |
| 3.60 | | | .1417 |
| | | 27 | .1440 |
| 3.70 | | | .1457 |
| | | 26 | .1470 |
| | | 25 | .1495 |
| 3.80 | | | .1496 |
| | | 24 | .1520 |
| 3.90 | | | .1535 |
| | | 23 | .1540 |
| | 5/32 | | .1562 |
| | | 22 | .1570 |
| 4.00 | | | .1575 |
| | | 21 | .1590 |
| | | 20 | .1610 |
| 4.10 | | | .1614 |
| 4.20 | | | .1654 |
| | | 19 | .1660 |
| 4.30 | | | .1693 |
| | | 18 | .1695 |
| | 11/64 | | .1719 |
| | | 17 | .1730 |
| 4.40 | | | .1732 |
| | | 16 | .1770 |
| 4.50 | | | .1772 |
| | | 15 | .1800 |
| 4.60 | | | .1811 |
| | | 14 | .1820 |
| 4.70 | | 13 | .1850 |
| | 3/16 | | .1875 |
| 4.80 | | 12 | .1890 |
| | | 11 | .1910 |
| 4.90 | | | .1929 |
| | | 10 | .1935 |
| | | 9 | .1960 |
| 5.00 | | | .1969 |
| | | 8 | .1990 |
| 5.10 | | | .2008 |
| | | 7 | .2010 |
| | 13/64 | | .2031 |
| | | 6 | .2040 |
| 5.20 | | | .2047 |
| | | 5 | .2055 |
| 5.30 | | | .2087 |
| | | 4 | .2090 |
| 5.40 | | | .2126 |
| | | 3 | .2130 |
| 5.50 | | | .2165 |
| | 7/32 | | .2188 |
| 5.60 | | | .2205 |
| | | 2 | .2210 |
| 5.70 | | | .2244 |
| | | 1 | .2280 |
| 5.80 | | | .2283 |
| 5.90 | | | .2323 |
| | | A | .2340 |
| | 15/64 | | .2344 |
| 6.00 | | | .2362 |
| | | B | .2380 |
| 6.10 | | | .2402 |
| | | C | .2420 |
| 6.20 | | | .2441 |
| | | D | .2460 |
| 6.30 | | | .2480 |
| | 1/4 | E | .2500 |
| 6.40 | | | .2520 |
| 6.50 | | | .2559 |
| | | F | .2570 |
| 6.60 | | | .2598 |
| | | G | .2610 |
| 6.70 | | | .2638 |
| | 17/64 | | .2656 |
| | | H | .2660 |
| 6.80 | | | .2677 |
| 6.90 | | | .2717 |
| | | I | .2720 |
| 7.00 | | | .2756 |
| | | J | .2770 |
| 7.10 | | | .2795 |
| | | K | .2810 |
| | 9/32 | | .2812 |
| 7.20 | | | .2835 |
| 7.30 | | | .2874 |
| | | L | .2900 |
| 7.40 | | | .2913 |
| | | M | .2950 |
| 7.50 | | | .2953 |
| | 19/64 | | .2969 |
| 7.60 | | | .2292 |
| | | N | .3020 |
| 7.70 | | | .3031 |
| 7.80 | | | .3071 |
| 7.90 | | | .3110 |
| | 5/16 | | .3125 |
| 8.00 | | | .3150 |
| | | O | .3160 |
| 8.10 | | | .3189 |
| 8.20 | | | .3228 |
| | | P | .3230 |
| 8.30 | | | .3268 |
| | 21/64 | | .3281 |
| 8.40 | | | .3307 |
| | | Q | .3320 |
| 8.50 | | | .3346 |
| 8.60 | | | .3386 |
| | | R | .3390 |
| 8.70 | | | .3425 |
| | 11/32 | | .3438 |
| 8.80 | | | .3465 |
| | | S | .3480 |
| 8.90 | | | .3504 |
| 9.00 | | | .3543 |
| | | T | .3580 |
| | 23/64 | | .3593 |
| 9.20 | | | .3622 |
| | | U | .3680 |
| 9.50 | | | .3740 |
| | 3/8 | | .3750 |
| | | V | .3770 |
| 9.80 | | | .3858 |
| | | W | .3860 |
| | 25/64 | | .3906 |
| 10.00 | | | .3937 |
| | | X | .3970 |
| 10.20 | | | .4016 |
| | | Y | .4040 |
| | 13/32 | | .4062 |
| | | Z | .4130 |
| 10.50 | | | .4134 |
| | 27/64 | | .4219 |
| 10.80 | | | .4252 |
| 11.00 | | | .4331 |
| | 7/16 | | .4375 |
| 11.20 | | | .4409 |
| 11.50 | | | .4528 |
| | 29/64 | | .4531 |
| 11.80 | | | .4646 |
| | 15/32 | | .4688 |
| 12.00 | | | .4724 |
| 12.20 | | | .4803 |
| | 31/64 | | .4844 |
| 12.50 | | | .4921 |
| 12.70 | 1/2 | | .5000 |
| 12.80 | | | .5039 |
| 13.00 | | | .5118 |
| | 33/64 | | .5156 |
| | 17/32 | | .5312 |
| 13.50 | | | .5315 |
| | 35/64 | | .5469 |
| 14.00 | | | .5512 |
| | 9/16 | | .5625 |
| 14.50 | | | .5709 |
| | 37/64 | | .5781 |
| 15.00 | | | .5905 |
| | 19/32 | | .5937 |
| | 39/64 | | .6094 |
| 15.50 | | | .6102 |
| | 5/8 | | .6250 |
| 16.00 | | | .6299 |
| | 41/64 | | .6406 |
| 16.50 | | | .6496 |
| | 21/32 | | .6562 |
| 17.00 | | | .6693 |
| | 43/64 | | .6719 |
| | 11/16 | | .6875 |
| 17.50 | | | .6890 |
| | 45/64 | | .7031 |
| 18.00 | | | .7087 |
| | 23/32 | | .7187 |
| 18.50 | | | .7284 |
| | 47/64 | | .7344 |
| 19.00 | | | .7480 |
| | 3/4 | | .7500 |
| | 49/64 | | .7656 |
| 19.50 | | | .7677 |
| | 25/32 | | .7812 |
| 20.00 | | | .7874 |
| | 51/64 | | .7969 |
| 20.50 | | | .8071 |
| | 13/16 | | .8125 |
| 21.00 | | | .8268 |
| | 53/64 | | .8281 |
| | 27/32 | | .8437 |
| 21.50 | | | .8465 |
| | 55/64 | | .8594 |
| 22.00 | | | .8661 |
| | 7/8 | | .9750 |
| 22.50 | | | .8858 |
| | 57/64 | | .8906 |
| 23.00 | | | .9055 |
| | 29/32 | | .9062 |
| | 59/64 | | .9219 |
| 23.50 | | | .9252 |
| | 15/16 | | .9375 |
| 24.00 | | | .9449 |
| | 61/64 | | .9531 |
| 24.50 | | | .9646 |
| | 31/32 | | .9687 |
| 25.00 | | | .9842 |
| | 63/64 | | .9844 |
| 25.40 | 1 | | 1.0000 |

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