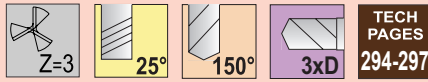


TOLERANCES

| | | |
|-----------|-------------------------------------|-----------------------------------|
| <i>d</i> | +.0000" - .0005" (+.0000 - .0127mm) | |
| <i>l1</i> | ≤ 1/8" | +.125" - .062" (+3.175 - 1.588mm) |
| | > 1/8" | +.125" - .125" (+3.175 - 3.175mm) |
| <i>l2</i> | ≤ 1/8" | +.125" - .062" (+3.175 - 1.588mm) |
| | > 1/8" | +.125" - .125" (+3.175 - 3.175mm) |

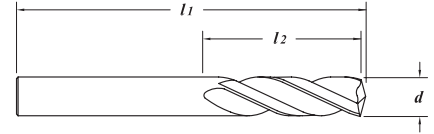


Series 1120

.1094" - .2165"
(2.779mm - 5.500mm)

Recommended for cast iron, tungsten, and materials with high silicon content

- Solid submicron grain carbide drill
- Self-centering drill point
- Near reamer finishes
- Can be used as a core drill
- Stub length reduces deflection and vibration
- Tighter tolerance holes
- Improved roundness and straightness
- Live tooling recommended on lathe processes
- Hardlube Coating - page 69



| EDP# | <i>d</i> [†] | | <i>l1</i> | <i>l2</i> | 1-11 | 12-24 | 25-49 | 50-100 | |
|-------|-----------------------|--------------------|-----------|-----------|---------|-------|-------|--------|-------|
| | Decimal | Diameter Metric | | | | | | | |
| 78275 | .1094 | 7/64" | 2.779 | 1-13/16" | 13/16" | 12.16 | 11.63 | 11.10 | 10.57 |
| 78280 | .1100 | #35 | 2.794 | 1-7/8" | 7/8" | 12.31 | 11.77 | 11.24 | 10.70 |
| 78285 | .1110 | #34 | 2.819 | 1-7/8" | 7/8" | 12.44 | 11.90 | 11.36 | 10.82 |
| 78290 | .1130 | #33 | 2.870 | 1-7/8" | 7/8" | 12.67 | 12.12 | 11.57 | 11.02 |
| 78300 | .1181 | | 3.000 | 48 | 22 | 12.96 | 12.40 | 11.83 | 11.27 |
| 78305 | .1200 | #31 | 3.048 | 1-7/8" | 7/8" | 13.05 | 12.49 | 11.92 | 11.35 |
| 78310 | .1250 | 1/8" | 3.175 | 1-7/8" | 7/8" | 13.21 | 12.64 | 12.06 | 11.49 |
| 78315 | .1285 | #30 | 3.264 | 1-15/16" | 15/16" | 13.56 | 12.97 | 12.38 | 11.79 |
| 78320 | .1360 | #29 | 3.454 | 1-15/16" | 15/16" | 13.92 | 13.31 | 12.71 | 12.10 |
| 78325 | .1378 | | 3.500 | 49 | 24 | 14.38 | 13.75 | 13.13 | 12.50 |
| 78330 | .1405 | #28 | 3.569 | 1-15/16" | 15/16" | 14.55 | 13.92 | 13.28 | 12.65 |
| 78335 | .1406 | 9/64" | 3.571 | 1-15/16" | 15/16" | 14.73 | 14.09 | 13.45 | 12.81 |
| 78340 | .1440 | #27 | 3.658 | 2-1/16" | 1" | 15.88 | 15.19 | 14.50 | 13.81 |
| 78345 | .1470 | #26 | 3.734 | 2-1/16" | 1" | 16.10 | 15.40 | 14.70 | 14.00 |
| 78350 | .1495 | #25 | 3.797 | 2-1/16" | 1" | 16.24 | 15.53 | 14.83 | 14.12 |
| 78355 | .1520 | #24 | 3.861 | 2-1/16" | 1" | 16.27 | 15.57 | 14.86 | 14.15 |
| 78360 | .1540 | #23 | 3.912 | 2-1/16" | 1" | 16.42 | 15.71 | 14.99 | 14.28 |
| 78365 | .1562 | 5/32" | 3.967 | 2-1/16" | 1" | 16.49 | 15.77 | 15.06 | 14.34 |
| 78370 | .1570 | #22 | 3.988 | 2-1/8" | 1-1/16" | 17.54 | 16.78 | 16.01 | 15.25 |
| 78375 | .1575 | | 4.000 | 54 | 27 | 17.54 | 16.78 | 16.01 | 15.25 |
| 78380 | .1590 | #21 | 4.039 | 2-1/8" | 1-1/16" | 17.95 | 17.17 | 16.39 | 15.61 |
| 78385 | .1610 | #20 | 4.089 | 2-1/8" | 1-1/16" | 17.95 | 17.17 | 16.39 | 15.61 |
| 78390 | .1660 | #19 | 4.216 | 2-1/8" | 1-1/16" | 18.10 | 17.31 | 16.53 | 15.74 |
| 78395 | .1695 | #18 | 4.305 | 2-1/8" | 1-1/16" | 18.22 | 17.42 | 16.63 | 15.84 |
| 78400 | .1719 | 11/64" | 4.366 | 2-1/8" | 1-1/16" | 18.33 | 17.53 | 16.74 | 15.94 |
| 78405 | .1730 | #17 | 4.394 | 2-3/16" | 1-1/8" | 19.18 | 18.35 | 17.51 | 16.68 |
| 78410 | .1770 | #16 | 4.496 | 2-3/16" | 1-1/8" | 19.38 | 18.54 | 17.69 | 16.85 |
| 78415 | .1772 | | 4.500 | 56 | 29 | 19.48 | 18.63 | 17.79 | 16.94 |
| 78420 | .1800 | #15 | 4.572 | 2-3/16" | 1-1/8" | 19.57 | 18.72 | 17.87 | 17.02 |
| 78425 | .1820 | #14 | 4.623 | 2-3/16" | 1-1/8" | 20.01 | 19.14 | 18.27 | 17.40 |
| 78430 | .1850 | #13 | 4.700 | 2-3/16" | 1-1/8" | 20.13 | 19.25 | 18.38 | 17.50 |
| 78435 | .1875 | 3/16" | 4.763 | 2-3/16" | 1-1/8" | 20.13 | 19.25 | 18.38 | 17.50 |
| 78440 | .1890 | #12 | 4.801 | 2-1/4" | 1-3/16" | 20.27 | 19.39 | 18.51 | 17.63 |
| 78445 | .1910 | #11 | 4.851 | 2-1/4" | 1-3/16" | 20.50 | 19.61 | 18.72 | 17.83 |
| 78450 | .1935 | #10 | 4.915 | 2-1/4" | 1-3/16" | 21.46 | 20.53 | 19.59 | 18.66 |
| 78455 | .1960 | #9 | 4.978 | 2-1/4" | 1-3/16" | 21.99 | 21.03 | 20.08 | 19.12 |
| 78460 | .1969 | | 5.000 | 57 | 30 | 22.13 | 21.16 | 20.20 | 19.24 |
| 78465 | .1990 | #8 | 5.055 | 2-1/4" | 1-3/16" | 22.29 | 21.32 | 20.35 | 19.38 |
| 78470 | .2010 | #7 | 5.105 | 2-1/4" | 1-3/16" | 22.95 | 21.96 | 20.96 | 19.96 |
| 78475 | .2031 | 13/64" | 5.159 | 2-1/4" | 1-3/16" | 23.82 | 22.78 | 21.75 | 20.71 |
| 78480 | .2040 | #6 | 5.182 | 2-3/8" | 1-1/4" | 23.97 | 22.92 | 21.88 | 20.84 |
| 78485 | .2055 | #5 | 5.220 | 2-3/8" | 1-1/4" | 24.07 | 23.02 | 21.98 | 20.93 |
| 78490 | .2090 | #4 | 5.309 | 2-3/8" | 1-1/4" | 24.48 | 23.42 | 22.35 | 21.29 |
| 78495 | .2130 | #3 | 5.410 | 2-3/8" | 1-1/4" | 24.90 | 23.82 | 22.73 | 21.65 |
| 78500 | .2165 | | 5.500 | 60 | 32 | 25.10 | 24.01 | 22.92 | 21.83 |

continued →

Series 1120 (continued)

.2188" - .5000"
(5.558mm - 12.700mm)

DRILLS

| EDP# | d^{\dagger} Diameter | | l_1 Overall Length | l_2 Flute Length | 1-11 | 12-24 | 25-49 | 50-100 | |
|-------|---------------------------|----------|-------------------------|-----------------------|----------|-------|-------|--------|-------|
| | Decimal | Metric | | | | | | | |
| 78505 | .2188 | 7/32" | 5.558 | 2-3/8" | 1-1/4" | 25.31 | 24.21 | 23.11 | 22.01 |
| 78510 | .2210 | #2 | 5.613 | 2-7/16" | 1-5/16" | 25.92 | 24.79 | 23.67 | 22.54 |
| 78515 | .2280 | #1 | 5.791 | 2-7/16" | 1-5/16" | 26.06 | 24.93 | 23.79 | 22.66 |
| 78525 | .2344 | 15/64" | 5.954 | 2-7/16" | 1-5/16" | 26.34 | 25.19 | 24.05 | 22.90 |
| 78530 | .2362 | | 6.000 | 64 | 35 | 26.39 | 25.25 | 24.10 | 22.95 |
| 78535 | .2380 | B | 6.045 | 2-1/2" | 1-3/8" | 26.51 | 25.36 | 24.20 | 23.05 |
| 78540 | .2420 | C | 6.147 | 2-1/2" | 1-3/8" | 26.70 | 25.54 | 24.38 | 23.22 |
| 78545 | .2460 | D | 6.248 | 2-1/2" | 1-3/8" | 26.88 | 25.71 | 24.54 | 23.37 |
| 78550 | .2500 | 1/4" / E | 6.350 | 2-1/2" | 1-3/8" | 27.07 | 25.89 | 24.72 | 23.54 |
| 78555 | .2559 | | 6.500 | 67 | 37 | 27.75 | 26.54 | 25.34 | 24.13 |
| 78560 | .2570 | F | 6.528 | 2-5/8" | 1-7/16" | 28.31 | 27.08 | 25.85 | 24.62 |
| 78565 | .2610 | G | 6.629 | 2-5/8" | 1-7/16" | 28.75 | 27.50 | 26.25 | 25.00 |
| 78570 | .2656 | 17/64" | 6.746 | 2-5/8" | 1-7/16" | 29.30 | 28.03 | 26.75 | 25.48 |
| 78575 | .2660 | H | 6.756 | 2-11/16" | 1-1/2" | 30.16 | 28.85 | 27.54 | 26.23 |
| 78580 | .2720 | I | 6.909 | 2-11/16" | 1-1/2" | 30.53 | 29.21 | 27.88 | 26.55 |
| 78590 | .2770 | J | 7.036 | 2-11/16" | 1-1/2" | 31.02 | 29.67 | 28.32 | 26.97 |
| 78595 | .2810 | K | 7.137 | 2-11/16" | 1-1/2" | 31.30 | 29.94 | 28.58 | 27.22 |
| 78600 | .2812 | 9/32" | 7.142 | 2-11/16" | 1-1/2" | 32.41 | 31.00 | 29.59 | 28.18 |
| 78605 | .2900 | L | 7.366 | 2-3/4" | 1-9/16" | 33.61 | 32.15 | 30.69 | 29.23 |
| 78610 | .2950 | M | 7.493 | 2-3/4" | 1-9/16" | 34.58 | 33.08 | 31.57 | 30.07 |
| 78615 | .2953 | | 7.500 | 70 | 40 | 34.58 | 33.08 | 31.57 | 30.07 |
| 78620 | .2969 | 19/64" | 7.541 | 2-3/4" | 1-9/16" | 34.58 | 33.08 | 31.57 | 30.07 |
| 78625 | .3020 | N | 7.671 | 2-15/16" | 1-5/8" | 35.96 | 34.40 | 32.83 | 31.27 |
| 78630 | .3125 | 5/16" | 7.938 | 2-15/16" | 1-5/8" | 36.11 | 34.54 | 32.97 | 31.40 |
| 78635 | .3150 | | 8.000 | 75 | 43 | 38.72 | 37.04 | 35.35 | 33.67 |
| 78645 | .3230 | P | 8.204 | 2-15/16" | 1-11/16" | 38.72 | 37.04 | 35.35 | 33.67 |
| 78650 | .3281 | 21/64" | 8.334 | 2-15/16" | 1-11/16" | 40.41 | 38.65 | 36.90 | 35.14 |
| 78655 | .3320 | Q | 8.433 | 3" | 1-11/16" | 41.35 | 39.56 | 37.76 | 35.96 |
| 78660 | .3346 | | 8.500 | 76 | 43 | 41.73 | 39.92 | 38.10 | 36.29 |
| 78665 | .3390 | R | 8.611 | 3" | 1-11/16" | 43.02 | 41.15 | 39.28 | 37.41 |
| 78670 | .3438 | 11/32" | 8.733 | 3" | 1-11/16" | 44.80 | 42.86 | 40.91 | 38.96 |
| 78675 | .3480 | S | 8.839 | 3-1/16" | 1-3/4" | 48.24 | 46.15 | 44.05 | 41.95 |
| 78680 | .3543 | | 9.000 | 78 | 44 | 48.56 | 46.45 | 44.34 | 42.23 |
| 78685 | .3580 | T | 9.093 | 3-1/16" | 1-3/4" | 48.73 | 46.61 | 44.49 | 42.37 |
| 78690 | .3594 | 23/64" | 9.129 | 3-1/16" | 1-3/4" | 49.12 | 46.98 | 44.85 | 42.71 |
| 78695 | .3680 | U | 9.347 | 3-1/8" | 1-13/16" | 52.43 | 50.15 | 47.87 | 45.59 |
| 78700 | .3740 | | 9.500 | 79 | 46 | 53.34 | 51.02 | 48.70 | 46.38 |
| 78705 | .3750 | 3/8" | 9.525 | 3-1/8" | 1-13/16" | 53.34 | 51.02 | 48.70 | 46.38 |
| 78710 | .3770 | V | 9.576 | 3-1/4" | 1-7/8" | 53.97 | 51.62 | 49.28 | 46.93 |
| 78715 | .3860 | W | 9.804 | 3-1/4" | 1-7/8" | 57.48 | 54.98 | 52.48 | 49.98 |
| 78720 | .3906 | 25/64" | 9.921 | 3-1/4" | 1-7/8" | 58.33 | 55.79 | 53.26 | 50.72 |
| 78725 | .3937 | | 10.000 | 84 | 49 | 60.42 | 57.79 | 55.17 | 52.54 |
| 78730 | .3970 | X | 10.084 | 3-5/16" | 1-15/16" | 62.23 | 59.52 | 56.82 | 54.11 |
| 78735 | .4040 | Y | 10.262 | 3-5/16" | 1-15/16" | 62.70 | 59.97 | 57.25 | 54.52 |
| 78740 | .4062 | 13/32" | 10.317 | 3-5/16" | 1-15/16" | 64.98 | 62.15 | 59.33 | 56.50 |
| 78755 | .4219 | 27/64" | 10.716 | 3-3/8" | 2" | 66.40 | 63.51 | 60.63 | 57.74 |
| 78760 | .4331 | | 11.000 | 87 | 52 | 71.36 | 68.26 | 65.15 | 62.05 |
| 78765 | .4375 | 7/16" | 11.113 | 3-7/16" | 2-1/16" | 71.36 | 68.26 | 65.15 | 62.05 |
| 78770 | .4528 | | 11.500 | 91 | 54 | 77.41 | 74.04 | 70.68 | 67.31 |
| 78775 | .4531 | 29/64" | 11.509 | 3-9/16" | 2-1/8" | 77.41 | 74.04 | 70.68 | 67.31 |
| 78780 | .4688 | 15/32" | 11.908 | 3-5/8" | 2-1/8" | 81.90 | 78.34 | 74.78 | 71.22 |
| 78785 | .4724 | | 12.000 | 94 | 56 | 82.16 | 78.58 | 75.01 | 71.44 |
| 78790 | .4844 | 31/64" | 12.304 | 3-11/16" | 2-3/16" | 82.44 | 78.86 | 75.27 | 71.69 |
| 78795 | .4921 | | 12.500 | 95 | 56 | 83.85 | 80.20 | 76.56 | 72.91 |
| 78800 | .5000 | 1/2" | 12.700 | 3-3/4" | 2-1/4" | 84.32 | 80.65 | 76.99 | 73.32 |