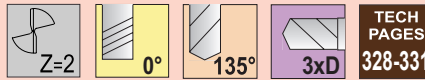


**TOLERANCES**

|                      |                                     |                                   |
|----------------------|-------------------------------------|-----------------------------------|
| <b>d</b>             | +.0000" - .0005" (+.0000 - .0127mm) |                                   |
| <b>l<sub>1</sub></b> | ≤ 1/8"                              | +.125" - .062" (+3.175 - 1.588mm) |
|                      | > 1/8"                              | +.125" - .125" (+3.175 - 3.175mm) |
| <b>l<sub>2</sub></b> | ≤ 1/8"                              | +.125" - .062" (+3.175 - 1.588mm) |
|                      | > 1/8"                              | +.125" - .125" (+3.175 - 3.175mm) |

**Series 1500**

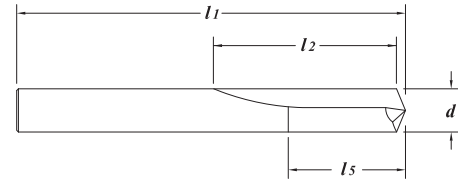
.0625" - .1660"  
(1.588mm - 4.216mm)



Recommended for high nickel, cobalt-based, and powdered metals

**Hard Metal**

Solid submicron grain carbide drill  
Straight flute design provides excellent rigidity  
Materials 40 Rc and higher  
Live tooling recommended on lathe processes  
Durana Coating - page 63



| EDP#  | d †<br>Diameter |        | l <sub>1</sub><br>Overall Length | l <sub>2</sub><br>Flute Length | l <sub>5</sub><br>Max Drill Depth | LIST PRICE |       |
|-------|-----------------|--------|----------------------------------|--------------------------------|-----------------------------------|------------|-------|
|       | Decimal         | Metric |                                  |                                |                                   |            |       |
| 59165 | .0625           | 1/16"  | 1.588                            | 1-3/4"                         | 5/8"                              | .200"      | 10.05 |
| 59180 | .0700           | #50    | 1.778                            | 1-3/4"                         | 3/4"                              | .224"      | 10.05 |
| 59185 | .0730           | #49    | 1.854                            | 1-3/4"                         | 3/4"                              | .234"      | 10.05 |
| 59190 | .0760           | #48    | 1.930                            | 1-3/4"                         | 3/4"                              | .244"      | 10.05 |
| 59195 | .0781           | 5/64"  | 1.984                            | 1-3/4"                         | 3/4"                              | .250"      | 10.05 |
| 59200 | .0785           | #47    | 1.994                            | 1-3/4"                         | 7/8"                              | .252"      | 10.05 |
| 39000 | .0787           |        | 2.000                            | 50                             | 22                                | 6          | 10.05 |
| 59210 | .0810           | #46    | 2.057                            | 2"                             | 7/8"                              | .260"      | 10.05 |
| 59215 | .0820           | #45    | 2.083                            | 2"                             | 7/8"                              | .263"      | 10.05 |
| 59220 | .0860           | #44    | 2.184                            | 2"                             | 7/8"                              | .276"      | 10.05 |
| 59225 | .0890           | #43    | 2.261                            | 2"                             | 7/8"                              | .285"      | 10.05 |
| 59230 | .0935           | #42    | 2.375                            | 2"                             | 7/8"                              | .300"      | 10.05 |
| 59235 | .0938           | 3/32"  | 2.383                            | 2"                             | 7/8"                              | .301"      | 10.05 |
| 59240 | .0960           | #41    | 2.438                            | 2"                             | 7/8"                              | .308"      | 11.46 |
| 59245 | .0980           | #40    | 2.489                            | 2"                             | 7/8"                              | .314"      | 11.46 |
| 39050 | .0984           |        | 2.500                            | 50                             | 22                                | 8          | 11.46 |
| 59255 | .0995           | #39    | 2.527                            | 2"                             | 7/8"                              | .319"      | 11.46 |
| 59260 | .1015           | #38    | 2.578                            | 2"                             | 7/8"                              | .326"      | 11.46 |
| 59265 | .1040           | #37    | 2.642                            | 2"                             | 7/8"                              | .334"      | 11.46 |
| 59270 | .1065           | #36    | 2.705                            | 2"                             | 7/8"                              | .342"      | 11.46 |
| 59275 | .1094           | 7/64"  | 2.779                            | 2"                             | 1"                                | .351"      | 11.46 |
| 59280 | .1100           | #35    | 2.794                            | 2"                             | 1"                                | .353"      | 11.91 |
| 59290 | .1130           | #33    | 2.870                            | 2"                             | 1"                                | .362"      | 11.91 |
| 59295 | .1160           | #32    | 2.946                            | 2"                             | 1"                                | .372"      | 11.91 |
| 39100 | .1181           |        | 3.000                            | 50                             | 25                                | 10         | 11.91 |
| 59305 | .1200           | #31    | 3.048                            | 2"                             | 1"                                | .385"      | 11.91 |
| 59310 | .1250           | 1/8"   | 3.175                            | 2"                             | 1"                                | .401"      | 10.99 |
| 59315 | .1285           | #30    | 3.264                            | 2"                             | 1"                                | .412"      | 12.96 |
| 59320 | .1360           | #29    | 3.454                            | 2"                             | 1"                                | .436"      | 12.96 |
| 39150 | .1378           |        | 3.500                            | 50                             | 25                                | 11         | 12.96 |
| 59330 | .1405           | #28    | 3.569                            | 2"                             | 1"                                | .451"      | 12.96 |
| 59335 | .1406           | 9/64"  | 3.571                            | 2"                             | 1"                                | .451"      | 12.96 |
| 59340 | .1440           | #27    | 3.658                            | 2"                             | 1"                                | .462"      | 13.31 |
| 59345 | .1470           | #26    | 3.734                            | 2"                             | 1"                                | .471"      | 13.98 |
| 59350 | .1495           | #25    | 3.797                            | 2"                             | 1"                                | .479"      | 13.98 |
| 59355 | .1520           | #24    | 3.861                            | 2"                             | 1"                                | .487"      | 13.98 |
| 59360 | .1540           | #23    | 3.912                            | 2"                             | 1"                                | .494"      | 13.98 |
| 59365 | .1562           | 5/32"  | 3.967                            | 2-1/2"                         | 1-1/8"                            | .501"      | 13.98 |
| 59370 | .1570           | #22    | 3.988                            | 2-1/2"                         | 1-1/8"                            | .504"      | 15.15 |
| 39200 | .1575           |        | 4.000                            | 63                             | 28                                | 13         | 15.15 |
| 59380 | .1590           | #21    | 4.039                            | 2-1/2"                         | 1-1/8"                            | .510"      | 15.51 |
| 59385 | .1610           | #20    | 4.089                            | 2-1/2"                         | 1-1/8"                            | .516"      | 15.51 |
| 59390 | .1660           | #19    | 4.216                            | 2-1/2"                         | 1-1/8"                            | .532"      | 16.09 |

continued →

## Series 1500 (continued)

.1695" - .5000"  
(4.305mm - 12.700mm)

| EDP#  | $d^{\dagger}$<br>Diameter |        | $l_1$<br>Overall Length | $l_2$<br>Flute Length | $l_5$<br>Max Drill Depth | LIST PRICE |       |
|-------|---------------------------|--------|-------------------------|-----------------------|--------------------------|------------|-------|
|       | Decimal                   | Metric |                         |                       |                          |            |       |
| 59395 | .1695                     | #18    | 4.305                   | 2-1/2"                | 1-3/16"                  | .544"      | 16.09 |
| 59400 | .1719                     | 11/64" | 4.366                   | 2-1/2"                | 1-3/16"                  | .551"      | 16.09 |
| 59405 | .1730                     | #17    | 4.394                   | 2-1/2"                | 1-3/16"                  | .555"      | 16.44 |
| 59410 | .1770                     | #16    | 4.496                   | 2-1/2"                | 1-3/16"                  | .568"      | 16.44 |
| 39250 | .1772                     |        | 4.500                   | 63                    | 28                       | 14         | 16.44 |
| 59420 | .1800                     | #15    | 4.572                   | 2-1/2"                | 1-3/16"                  | .577"      | 16.44 |
| 59425 | .1820                     | #14    | 4.623                   | 2-1/2"                | 1-3/16"                  | .584"      | 17.35 |
| 59430 | .1850                     | #13    | 4.700                   | 2-1/2"                | 1-3/16"                  | .593"      | 17.35 |
| 59435 | .1875                     | 3/16"  | 4.763                   | 2-1/2"                | 1-3/16"                  | .601"      | 16.68 |
| 59440 | .1890                     | #12    | 4.801                   | 2-1/2"                | 1-3/16"                  | .606"      | 17.23 |
| 59445 | .1910                     | #11    | 4.851                   | 2-1/2"                | 1-3/16"                  | .613"      | 17.23 |
| 59450 | .1935                     | #10    | 4.915                   | 2-1/2"                | 1-1/4"                   | .621"      | 18.26 |
| 59455 | .1960                     | #9     | 4.978                   | 2-1/2"                | 1-1/4"                   | .629"      | 18.26 |
| 39300 | .1969                     |        | 5.000                   | 63                    | 32                       | 16         | 18.26 |
| 59465 | .1990                     | #8     | 5.055                   | 2-1/2"                | 1-1/4"                   | .638"      | 18.87 |
| 59470 | .2010                     | #7     | 5.105                   | 2-1/2"                | 1-1/4"                   | .645"      | 18.87 |
| 59475 | .2031                     | 13/64" | 5.159                   | 2-1/2"                | 1-1/4"                   | .651"      | 18.87 |
| 59485 | .2055                     | #5     | 5.220                   | 2-1/2"                | 1-1/4"                   | .659"      | 19.90 |
| 59490 | .2090                     | #4     | 5.309                   | 2-1/2"                | 1-1/4"                   | .670"      | 19.90 |
| 59495 | .2130                     | #3     | 5.410                   | 2-1/2"                | 1-1/4"                   | .683"      | 19.90 |
| 39350 | .2165                     |        | 5.500                   | 63                    | 32                       | 18         | 19.90 |
| 59505 | .2188                     | 7/32"  | 5.558                   | 2-1/2"                | 1-1/2"                   | .702"      | 19.90 |
| 59510 | .2210                     | #2     | 5.613                   | 2-1/2"                | 1-1/2"                   | .709"      | 21.29 |
| 59515 | .2280                     | #1     | 5.791                   | 2-1/2"                | 1-1/2"                   | .731"      | 21.29 |
| 59525 | .2344                     | 15/64" | 5.954                   | 2-1/2"                | 1-1/2"                   | .752"      | 23.73 |
| 39400 | .2362                     |        | 6.000                   | 63                    | 38                       | 19         | 23.73 |
| 59550 | .2500                     | 1/4"   | 6.350                   | 2-1/2"                | 1-1/2"                   | .802"      | 22.35 |
| 59570 | .2656                     | 17/64" | 6.746                   | 2-1/2"                | 1-1/2"                   | .852"      | 27.09 |
| 39500 | .2756                     |        | 7.000                   | 63                    | 38                       | 22         | 27.76 |
| 59600 | .2812                     | 9/32"  | 7.142                   | 2-1/2"                | 1-1/2"                   | .902"      | 27.76 |
| 39520 | .2953                     |        | 7.500                   | 63                    | 41                       | 24         | 29.17 |
| 59620 | .2969                     | 19/64" | 7.541                   | 2-1/2"                | 1-5/8"                   | .952"      | 29.17 |
| 59630 | .3125                     | 5/16"  | 7.938                   | 2-1/2"                | 1-5/8"                   | 1.002"     | 29.17 |
| 39540 | .3150                     |        | 8.000                   | 63                    | 41                       | 26         | 30.67 |
| 59650 | .3281                     | 21/64" | 8.334                   | 3"                    | 1-5/8"                   | 1.052"     | 31.58 |
| 39560 | .3346                     |        | 8.500                   | 76                    | 41                       | 27         | 35.27 |
| 59670 | .3438                     | 11/32" | 8.733                   | 3"                    | 1-5/8"                   | 1.103"     | 35.27 |
| 39580 | .3543                     |        | 9.000                   | 76                    | 41                       | 29         | 38.30 |
| 59690 | .3594                     | 23/64" | 9.129                   | 3"                    | 1-3/4"                   | 1.153"     | 38.30 |
| 59705 | .3750                     | 3/8"   | 9.525                   | 3"                    | 1-3/4"                   | 1.203"     | 41.76 |
| 59720 | .3906                     | 25/64" | 9.921                   | 3"                    | 1-3/4"                   | 1.253"     | 47.20 |
| 39620 | .3937                     |        | 10.000                  | 76                    | 44                       | 32         | 47.20 |
| 59740 | .4062                     | 13/32" | 10.317                  | 3"                    | 1-3/4"                   | 1.303"     | 52.75 |
| 59755 | .4219                     | 27/64" | 10.716                  | 3"                    | 1-3/4"                   | 1.353"     | 58.08 |
| 39660 | .4331                     |        | 11.000                  | 76                    | 44                       | 35         | 59.12 |
| 59765 | .4375                     | 7/16"  | 11.113                  | 3"                    | 1-3/4"                   | 1.403"     | 59.12 |
| 59775 | .4531                     | 29/64" | 11.509                  | 3"                    | 1-3/4"                   | 1.453"     | 61.99 |
| 59780 | .4688                     | 15/32" | 11.908                  | 3"                    | 1-3/4"                   | 1.503"     | 61.99 |
| 39700 | .4724                     |        | 12.000                  | 76                    | 44                       | 38         | 61.99 |
| 59790 | .4844                     | 31/64" | 12.304                  | 3"                    | 1-3/4"                   | 1.554"     | 61.99 |
| 39720 | .4921                     |        | 12.500                  | 76                    | 44                       | 40         | 63.39 |
| 59800 | .5000                     | 1/2"   | 12.700                  | 3"                    | 1-3/4"                   | 1.604"     | 63.39 |