

NEW SERIES

| TOLERANCES | |
|------------|------------------------------------|
| $d1$ | +0.000" - .002" (+.000mm - .050mm) |
| $d2$ | h6 |
| r | +0.001" - .001" (+.025 - .025mm) |

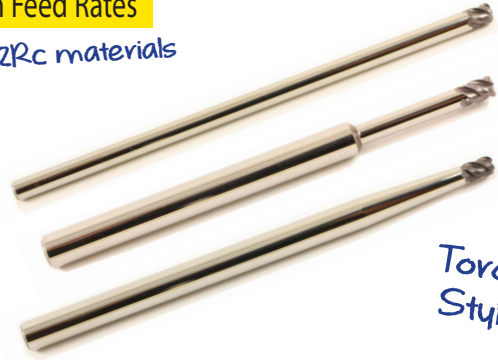


Recommended for Light Depths of Cut at High Feed Rates

Corner Radius
AlTiN Coating

Solid submicron grain carbide end mill - center cutting
High performance tool for use on light axial depths of cut
Modified reach lengths available within 48 hours

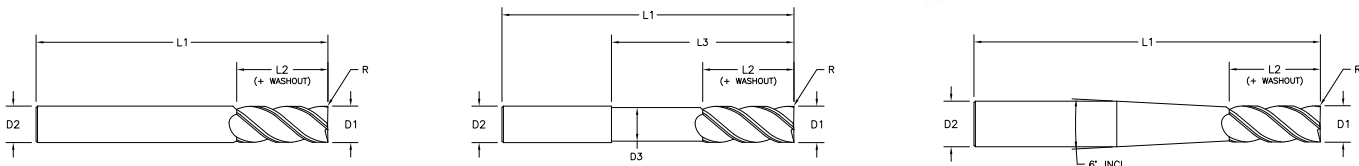
Can be used in 28Rc - 62Rc materials



Toroid Style

UNIQUE DESIGN

- * - tool has 3° blend angle to shank
- * - tool has reduced diameter shank



| EDP# | $d1$ † Diameter | | $d2$ Shank Diameter | $l1$ Overall Length | $l2$ Flute Length | r Corner Radius | $l3$ Reach Length | $d3$ Neck Diameter |
|---------|--------------------|--------|------------------------|------------------------|----------------------|----------------------|----------------------|-----------------------|
| | Decimal | Metric | | | | | | |
| 48300 | .1181 | 3.000 | 6.0 | 65 | 3 | 0.75 | 15.0 | 2.80 |
| 48305 | .1250 | 1/8" | 3.175 | 1/8" | 3" | 1/8" | .015" | - |
| 48310 | .1250 | 1/8" | 3.175 | 1/8" | 3" | 1/8" | .030" | - |
| 48315 | .1250 | 1/8" | 3.175 | 3/16" | 2-1/2" | 1/8" | .010" | 3/4" |
| 48320 | .1250 | 1/8" | 3.175 | 3/16" | 2-1/2" | 1/8" | .015" | 3/4" |
| 48325 | .1250 | 1/8" | 3.175 | 3/16" | 2-1/2" | 1/8" | .020" | 3/4" |
| * 48330 | .1250 | 1/8" | 3.175 | 3/16" | 3" | 1/8" | .030" | * |
| 48335 | .1575 | | 4.000 | 6.0 | 65 | 4 | 1.00 | 20.0 |
| 48340 | .1875 | 3/16" | 4.763 | 3/16" | 3" | 3/16" | .015" | - |
| 48345 | .1875 | 3/16" | 4.763 | 3/16" | 3" | 3/16" | .030" | - |
| 48350 | .1875 | 3/16" | 4.763 | 3/16" | 3" | 3/16" | .060" | - |
| 48355 | .1875 | 3/16" | 4.763 | 1/4" | 2-1/2" | 3/16" | .020" | 7/8" |
| 48360 | .1875 | 3/16" | 4.763 | 1/4" | 2-1/2" | 3/16" | .030" | 7/8" |
| 48365 | .1875 | 3/16" | 4.763 | 1/4" | 2-1/2" | 3/16" | .060" | 7/8" |
| 48370 | .1875 | 3/16" | 4.763 | 1/4" | 4" | 3/16" | .020" | 1-1/2" |
| 48375 | .1875 | 3/16" | 4.763 | 1/4" | 4" | 3/16" | .030" | 1-1/2" |
| * 48380 | .1875 | 3/16" | 4.763 | 1/4" | 4" | 3/16" | .030" | * |
| * 48385 | .1969 | | 5.000 | 6.0 | 100 | 5 | 1.20 | * 10.0 |
| 48390 | .2362 | | 6.000 | 6.0 | 100 | 6 | 1.50 | 30.0 |
| 48395 | .2500 | 1/4" | 6.350 | 1/4" | 3" | 1/4" | .015" | - |
| 48400 | .2500 | 1/4" | 6.350 | 1/4" | 3" | 1/4" | .030" | - |
| 48405 | .2500 | 1/4" | 6.350 | 1/4" | 3" | 1/4" | .060" | - |
| * 48410 | .2756 | | 7.000 | 6.0 | 100 | 7 | 1.50 | * |
| 48415 | .3125 | 5/16" | 7.938 | 5/16" | 2-1/2" | 5/16" | .020" | - |
| 48420 | .3125 | 5/16" | 7.938 | 5/16" | 3" | 5/16" | .078" | 1-5/8" |
| 48425 | .3125 | 5/16" | 7.938 | 5/16" | 3" | 5/16" | .094" | 1-5/8" |
| 48430 | .3150 | | 8.000 | 8.0 | 75 | 8 | 2.00 | - |
| 48435 | .3150 | | 8.000 | 8.0 | 100 | 8 | 2.00 | 40.0 |
| 48440 | .3750 | 3/8" | 9.525 | 3/8" | 3" | 3/8" | .015" | - |
| 48445 | .3750 | 3/8" | 9.525 | 3/8" | 3" | 3/8" | .030" | - |
| 48450 | .3750 | 3/8" | 9.525 | 3/8" | 3" | 3/8" | .060" | - |
| 48455 | .3750 | 3/8" | 9.525 | 3/8" | 3" | 3/8" | .094" | 2.00" |
| 48460 | .3750 | 3/8" | 9.525 | 3/8" | 4" | 3/8" | .030" | 2-1/2" |
| 48465 | .3750 | 3/8" | 9.525 | 3/8" | 4" | 3/8" | .094" | 2-1/2" |
| 48470 | .3937 | | 10.000 | 10.0 | 100 | 10 | 2.00 | 50.0 |
| 48475 | .4724 | | 12.000 | 12.0 | 100 | 12 | 3.00 | 60.0 |
| 48480 | .5000 | 1/2" | 12.700 | 1/2" | 3" | 1/2" | .015" | - |
| 48485 | .5000 | 1/2" | 12.700 | 1/2" | 3" | 1/2" | .030" | - |
| 48490 | .5000 | 1/2" | 12.700 | 1/2" | 3" | 1/2" | .060" | - |
| 48495 | .5000 | 1/2" | 12.700 | 1/2" | 3" | 1/2" | .125" | - |
| 48500 | .5000 | 1/2" | 12.700 | 1/2" | 4" | 1/2" | .125" | - |

70

35

0

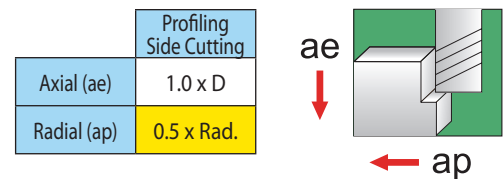
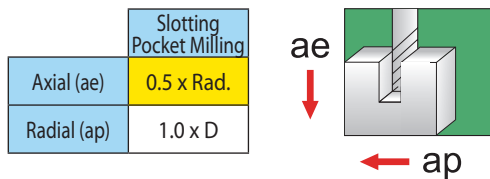
MATERIAL HARDNESS (Rc)

NEW SERIES
HIGH FEED
END MILLS

* for 3-axis, high speed, and multi-axis CNC machining



Run DRY, AIR BLAST, or MQL



| DIAMETER | UP TO 40 HRC | | | 40 to 45 HRC | | | 45 TO 55 HRC | | | 55 TO 60 HRC | | |
|----------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|
| | SPEED RPM | FEED IN/MIN | FEED MM/MIN | SPEED RPM | FEED IN/MIN | FEED MM/MIN | SPEED RPM | FEED IN/MIN | FEED MM/MIN | SPEED RPM | FEED IN/MIN | FEED MM/MIN |
| 3.0 | 16000 | 120 | 3100 | 13000 | 80 | 2032 | 11300 | 70 | 1778 | 9700 | 35 | 889 |
| 1/8" | 15200 | 120 | 3100 | 12000 | 80 | 2000 | 10700 | 70 | 1800 | 9200 | 35 | 900 |
| 4.0 | 12100 | 145 | 3700 | 9700 | 100 | 2540 | 8500 | 85 | 2159 | 7300 | 40 | 1016 |
| 3/16" | 10200 | 160 | 4100 | 8200 | 110 | 2800 | 7100 | 90 | 2300 | 6100 | 45 | 1200 |
| 5.0 | 9700 | 155 | 4000 | 7700 | 105 | 2667 | 6800 | 90 | 2286 | 5800 | 45 | 1143 |
| 6.0 | 8100 | 180 | 4600 | 6500 | 120 | 3048 | 5700 | 100 | 2540 | 4900 | 50 | 1270 |
| 1/4" | 7650 | 180 | 4600 | 6100 | 120 | 3100 | 5400 | 100 | 2600 | 4600 | 50 | 1300 |
| 5/16" | 6100 | 195 | 4950 | 4900 | 130 | 3300 | 4300 | 110 | 2800 | 3700 | 55 | 1400 |
| 8.0 | 6050 | 195 | 4950 | 4850 | 130 | 3302 | 4300 | 110 | 2794 | 3650 | 55 | 1397 |
| 3/8" | 5100 | 200 | 5200 | 4100 | 135 | 3400 | 3600 | 115 | 3000 | 3100 | 60 | 1550 |
| 10.0 | 4850 | 200 | 5100 | 3900 | 135 | 3429 | 3400 | 115 | 2921 | 2900 | 60 | 1524 |
| 12.0 | 4050 | 250 | 6400 | 3200 | 160 | 4064 | 2800 | 135 | 3429 | 2400 | 65 | 1651 |
| 1/2" | 3800 | 240 | 6100 | 3100 | 160 | 4100 | 2700 | 135 | 3500 | 2300 | 65 | 1700 |

"We have been using the 12mm diameter solid carbide high feed mill in our R&D projects. It really saves time doing those jobs that you cannot get an insert cutter into. Great find!"

- Lee H. - Machine Shop Manager, Utah, USA

NOTE: ABOVE ARE STARTING PARAMETERS ONLY.

To some, these numbers are fast, and for others, these numbers are slow. No matter where you are on this scale, we all started somewhere.