**TOLERANCES**

| | |
|---|---|
| $d_1$ | +.000" –.002" (+.000mm –.050mm) |
| $d_2$ | h6 |

Z=4 | VAR | TECH PAGES 276-277

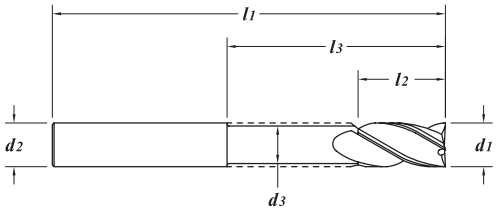
Recommended for Titanium, Inconel, and Steels

## Variable Helix End Mill - Square End

### AlCrN Coating

Solid submicron grain carbide end mill - center cutting
Helix geometry varies over length of flutes
Variable flute design helps with chip evacuation in slots and pockets
Variable rake aids in chip formation
PCT (Polish Carbide Treatment) enhances tool life by 20%
Minimizes burr on part
Can be modified with a flat within 48 hours
V4 Corner Radius - page 150
V4 Ball End - page 153

*The combination of an extended flute length with a weldon flat may cause the flute washout to reach inside some end mill holders*




| EDP# (plain) | EDP# (weldon) | $d_1$ † Diameter Decimal | Diameter | Metric | $d_2$ Shank Diameter | $l_1$ Overall Length | $l_2$ Flute Length | $l_3$ Reach Length | $d_3$ Neck Diameter | 1-11 | 12-24 | 25-49 | 50-100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50236 | - | .2362 | | 6.000 | 6.0 | 65 | 12 | - | - | 22.64 | 21.66 | 20.67 | 19.69 |
| 50237 | - | .2362 | | 6.000 | 6.0 | 65 | 19 | - | - | 22.64 | 21.66 | 20.67 | 19.69 |
| 50540 | - | .2500 | 1/4" | 6.350 | 1/4" | 2" | 3/8" | - | - | 19.37 | 18.53 | 17.69 | 16.84 |
| 50238 | - | .2500 | 1/4" | 6.350 | 1/4" | 2-1/2" | 3/4" | - | - | 21.85 | 20.90 | 19.95 | 19.00 |
| 50541 | - | .3125 | 5/16" | 7.937 | 5/16" | 2" | 7/16" | - | - | 26.75 | 25.59 | 24.42 | 23.26 |
| 50239 | - | .3125 | 5/16" | 7.937 | 5/16" | 2-1/2" | 13/16" | - | - | 31.15 | 29.80 | 28.44 | 27.09 |
| 50240 | - | .3150 | | 8.000 | 8.0 | 65 | 22 | - | - | 32.28 | 30.88 | 29.47 | 28.07 |
| 50542 | - | .3750 | 3/8" | 9.525 | 3/8" | 2" | 1/2" | - | - | 31.56 | 30.19 | 28.82 | 27.44 |
| 50241 | - | .3750 | 3/8" | 9.525 | 3/8" | 2-1/2" | 1" | - | - | 36.77 | 35.17 | 33.57 | 31.97 |
| 50242 | - | .3937 | | 10.000 | 10.0 | 70 | 22 | - | - | 44.07 | 42.15 | 40.24 | 38.32 |
| 50450 | 50449 | .4724 | | 12.000 | 12.0 | 75 | 26 | - | - | 57.27 | 54.78 | 52.29 | 49.80 |
| 50243 | 50283 | .4724 | | 12.000 | 12.0 | 75 | 32 | - | - | 57.27 | 54.78 | 52.29 | 49.80 |
| 50564 | - | .4724 | | 12.000 | 12.0 | 100 | 42 | - | - | 76.53 | 73.20 | 69.87 | 66.55 |
| 50543 | - | .5000 | 1/2" | 12.700 | 1/2" | 2-1/2" | 5/8" | - | - | 51.59 | 49.35 | 47.10 | 44.86 |
| 50452 | 50453 | .5000 | 1/2" | 12.700 | 1/2" | 3" | 1" | - | - | 54.98 | 52.59 | 50.20 | 47.81 |
| 50244 | 50284 | .5000 | 1/2" | 12.700 | 1/2" | 3" | 1-1/4" | - | - | 54.98 | 52.59 | 50.20 | 47.81 |
| 50578 | 50579 | .5000 | 1/2" | 12.700 | 1/2" | 4" | 1-5/8" | - | - | 74.39 | 71.16 | 67.92 | 64.69 |
| 50245 | 50285 | .5000 | 1/2" | 12.700 | 1/2" | 4" | 2-1/8" | - | - | 74.39 | 71.16 | 67.92 | 64.69 |
| 50235 | - | .5000 | 1/2" | 12.700 | 1/2" | 6" | 5/8" | 4-1/8" | .470" | 118.28 | 113.14 | 107.99 | 102.85 |
| 50545 | 50546 | .6250 | 5/8" | 15.875 | 5/8" | 3" | 3/4" | - | - | 95.93 | 91.76 | 87.59 | 83.42 |
| 50246 | 50286 | .6250 | 5/8" | 15.875 | 5/8" | 3-1/2" | 1-1/4" | - | - | 101.44 | 97.03 | 92.62 | 88.21 |
| 50547 | - | .6299 | | 16.000 | 16.0 | 75 | 19 | - | - | 100.30 | 95.94 | 91.58 | 87.22 |
| 50247 | 50287 | .6299 | | 16.000 | 16.0 | 88 | 32 | - | - | 105.83 | 101.23 | 96.63 | 92.03 |
| 50549 | 50550 | .7500 | 3/4" | 19.050 | 3/4" | 4" | 1" | - | - | 144.80 | 138.50 | 132.21 | 125.91 |
| 50248 | 50288 | .7500 | 3/4" | 19.050 | 3/4" | 4" | 1-1/2" | - | - | 144.80 | 138.50 | 132.21 | 125.91 |
| 50551 | 50552 | .7500 | 3/4" | 19.050 | 3/4" | 4" | 1-3/4" | - | - | 144.80 | 138.50 | 132.21 | 125.91 |
| 50553 | 50554 | .7500 | 3/4" | 19.050 | 3/4" | 5" | 2-1/8" | - | - | 194.35 | 185.90 | 177.45 | 169.00 |
| 50555 | - | .7874 | | 20.000 | 20.0 | 100 | 25 | - | - | 195.64 | 187.13 | 178.63 | 170.12 |
| 50249 | 50289 | .7874 | | 20.000 | 20.0 | 100 | 38 | - | - | 195.64 | 187.13 | 178.63 | 170.12 |
| 50250 | 50290 | 1.000 | 1" | 25.400 | 1" | 4" | 1-1/2" | - | - | 216.33 | 206.92 | 197.52 | 188.11 |