

Carbide End Mills

YOUR #1 SOURCE FOR AMERICAN-MADE PREMIUM CUTTING TOOLS



2 FLUTE - LONG LENGTH - BALL NOSE - 30° HELIX



SERIES 160
UNCOATED

SERIES 161
ALTiN COATED

SERIES 960
TiCN COATED

| DIA | SHANK | LOC | OAL | UNCOATED | LIST PRICE | ALTiN | LIST PRICE | TiCN | LIST PRICE |
|------|-------|-------|-------|----------|------------|---------|------------|---------|------------|
| 1/8 | 1/8 | 3/4 | 2-1/4 | TC16008 | 24.97 | TC16108 | 32.11 | TC96008 | 32.11 |
| 3/16 | 3/16 | 3/4 | 2-1/2 | TC16012 | 28.72 | TC16112 | 36.90 | TC96012 | 36.90 |
| 1/4 | 1/4 | 1-1/8 | 3 | TC16016 | 40.39 | TC16116 | 51.99 | TC96016 | 51.99 |
| 1/4 | 1/4 | 1 | 4 | TC16017 | 44.59 | TC16117 | 57.48 | TC96017 | 57.48 |
| 5/16 | 5/16 | 1-1/8 | 3 | TC16020 | 47.50 | TC16120 | 64.11 | TC96020 | 64.11 |
| 3/8 | 3/8 | 1-1/8 | 3 | TC16024 | 54.83 | TC16124 | 74.05 | TC96024 | 74.05 |
| 3/8 | 3/8 | 1 | 4 | TC16025 | 67.16 | TC16125 | 87.27 | TC96025 | 87.27 |
| 7/16 | 7/16 | 2 | 4 | TC16028 | 91.84 | TC16128 | 119.42 | TC96028 | 119.42 |
| 1/2 | 1/2 | 1 | 4 | TC16032 | 94.05 | TC16132 | 119.60 | TC96032 | 119.60 |
| 1/2 | 1/2 | 2 | 4 | TC16033 | 94.97 | TC16133 | 120.52 | TC96033 | 120.52 |
| 5/8 | 5/8 | 2-1/4 | 5 | TC16040 | 216.37 | TC16140 | 274.81 | TC96040 | 274.81 |
| 3/4 | 3/4 | 2-1/4 | 5 | TC16048 | 301.28 | TC16148 | 381.63 | TC96048 | 381.63 |
| 7/8 | 7/8 | 2-1/4 | 5 | TC16056 | 517.95 | TC16156 | 636.48 | TC96056 | 636.48 |
| 1 | 1 | 2-1/4 | 5 | TC16064 | 596.16 | TC16164 | 733.14 | TC96064 | 733.14 |

2 FLUTE - EXTRA LONG LENGTH - BALL NOSE - 30° HELIX



SERIES 180
UNCOATED

SERIES 181
ALTiN COATED

SERIES 980
TiCN COATED

| DIA | SHANK | LOC | OAL | UNCOATED | LIST PRICE | ALTiN | LIST PRICE | TiCN | LIST PRICE |
|------|-------|-------|-----|----------|------------|---------|------------|---------|------------|
| 1/8 | 1/8 | 1 | 3 | TC18008 | 27.95 | TC18108 | 37.71 | TC98008 | 37.71 |
| 3/16 | 3/16 | 1-1/8 | 3 | TC18012 | 33.50 | TC18112 | 39.36 | TC98012 | 39.36 |
| 1/4 | 1/4 | 1-1/2 | 4 | TC18016 | 49.11 | TC18116 | 54.64 | TC98016 | 54.64 |
| 1/4 | 1/4 | 1-1/2 | 6 | TC18017 | 56.44 | TC18117 | 64.18 | TC98017 | 64.18 |
| 5/16 | 5/16 | 1-5/8 | 4 | TC18020 | 59.36 | TC18120 | 76.63 | TC98020 | 76.63 |
| 3/8 | 3/8 | 1-3/4 | 4 | TC18024 | 63.89 | TC18124 | 81.67 | TC98024 | 81.67 |
| 3/8 | 3/8 | 1-1/2 | 6 | TC18025 | 90.03 | TC18125 | 110.50 | TC98025 | 110.50 |
| 7/16 | 7/16 | 3 | 6 | TC18028 | 135.14 | TC18128 | 173.47 | TC98028 | 173.47 |
| 1/2 | 1/2 | 1-1/2 | 6 | TC18032 | 143.35 | TC18132 | 183.52 | TC98032 | 183.52 |
| 1/2 | 1/2 | 3 | 6 | TC18033 | 144.23 | TC18133 | 184.44 | TC98033 | 184.44 |
| 5/8 | 5/8 | 3 | 6 | TC18040 | 227.34 | TC18140 | 279.37 | TC98040 | 279.37 |
| 3/4 | 3/4 | 3 | 6 | TC18048 | 322.38 | TC18148 | 435.21 | TC98048 | 435.21 |
| 7/8 | 7/8 | 3 | 6 | TC18056 | 570.60 | TC18156 | 711.08 | TC98056 | 711.08 |
| 1 | 1 | 3 | 6 | TC18064 | 575.17 | TC18164 | 740.50 | TC98064 | 740.50 |

For coating information see page 6. For technical information, please see pages 224, 228-229.

| TOLERANCES | DIAMETER | SHANK | RADIUS |
|-------------|---------------|------------------------|---------------|
| 1/8" - 1/2" | + .000, -.002 | - .0001, -.0004 ISO H6 | + .001, -.001 |
| 5/8" - 1" | + .000, -.003 | - .0001, -.0004 ISO H6 | + .001, -.001 |