

2-Flute Ball Nose Long Length — Typhoon



Typhoon ball nose end mills are designed for contour milling in hardened materials. The long length allows for milling tougher materials in longer reach applications.



Speeds & Feeds > P. A37

| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Code No. | Price \$ |
|--------------------|------------------|--------------------|----------------------|----------|----------|
| Inch | | | | | |
| 1/8 | 1/8 | 3/4 | 2-1/4 | 104652 | 16.99 |
| 3/16 | 3/16 | 3/4 | 2-1/4 | 104656 | 17.73 |
| 1/4 | 1/4 | 1-1/8 | 3 | 104660 | 37.63 |
| 5/16 | 5/16 | 1-1/8 | 3 | 104663 | 47.98 |
| 3/8 | 3/8 | 1-1/8 | 3 | 104667 | 52.89 |
| 1/2 | 1/2 | 2 | 4 | 104671 | 81.01 |
| 3/4 | 3/4 | 2-1/4 | 5 | 104679 | 257.87 |
| 1 | 1 | 2-1/4 | 5 | 104683 | 313.10 |

2-Flute Mold Mill — Typhoon



The Typhoon Mold Mill offers excellent performance and tool life in mold milling applications on tougher materials.



Speeds & Feeds > P. A38

| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Code No. | Price \$ |
|--------------------|------------------|--------------------|----------------------|----------|----------|
| Inch | | | | | |
| 1/8 | 1/8 | 5/16 | 2-3/8 | 104034 | 30.34 |
| 3/16 | 3/16 | 3/8 | 3-1/8 | 104036 | 30.34 |
| 1/4 | 1/4 | 1/2 | 3-1/2 | 104038 | 46.86 |
| 5/16 | 5/16 | 15/32 | 4 | 104040 | 63.19 |
| 3/8 | 3/8 | 3/4 | 4 | 104042 | 67.65 |
| 1/2 | 1/2 | 7/8 | 4-1/4 | 104044 | 88.07 |
| 5/8 | 5/8 | 15/16 | 6 | 104046 | 166.46 |
| 3/4 | 3/4 | 1-1/8 | 6 | 104048 | 256.61 |
| 1 | 1 | 1-1/2 | 6 | 104050 | 368.62 |

2-Flute Spherical Ball End — Typhoon



- High performance ball nose plus end mills are used in the mold industry and have a full 220 degree arc cutting capability
- Modified AlTiN coated for improved tool life and increased production output
- Made from premium sub-micron grain carbide



Speeds & Feeds > P. A37

| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Code No. | Price \$ |
|-----------------------|------------------|--------------------|----------------------|----------|----------|
| Regular Length | | | | | |
| 1/8 | 1/8 | 3/32 | 1-1/2 | 153110 | 28.94 |
| 3/16 | 3/16 | 9/64 | 2 | 153112 | 29.25 |
| 1/4 | 1/4 | 3/16 | 2-1/2 | 153114 | 42.56 |
| 3/8 | 3/8 | 9/32 | 2-1/2 | 153116 | 59.89 |
| 1/2 | 1/2 | 3/8 | 3 | 153118 | 88.64 |
| Long Length | | | | | |
| 1/8 | 1/8 | 3/32 | 3 | 153120 | 32.77 |
| 3/16 | 3/16 | 9/64 | 3 | 153122 | 33.29 |
| 1/4 | 1/4 | 3/16 | 4 | 153124 | 57.78 |
| 3/8 | 3/8 | 9/32 | 4 | 153126 | 67.46 |
| 1/2 | 1/2 | 3/8 | 6 | 153128 | 126.35 |

Tolerances - Inch

| Size | Diameter | Shank Diameter |
|--------------|----------------|------------------|
| 3/32 thru 1" | +0.000"-0.002" | +0.0000"-0.0005" |

Tolerances - Metric

| Size | Diameter | Shank Diameter |
|----------|------------------|------------------|
| 1mm-25mm | +0.000mm-0.051mm | +0.000mm-0.013mm |

| | | | |
|-------|-----------------|--------------------|----------|
| Steel | Stainless Steel | Cast Iron/Hardened | Aluminum |
|-------|-----------------|--------------------|----------|

4-Flute Regular Length — Typhoon



These end mills are manufactured with premium sub-micron carbide and are designed to cut hardened materials. The unique geometry of the Typhoon end mill combined with its modified AlTiN coating make it an excellent choice for demanding applications.



Speeds & Feeds > P. A36

| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Code No. | Price \$ |
|--------------------|------------------|--------------------|----------------------|----------|----------|
| Inch | | | | | |
| 1/16 | 1/8 | 3/16 | 1-1/2 | 104702 | 14.00 |
| 3/32 | 1/8 | 5/16 | 1-1/2 | 104701 | 13.36 |
| 1/8 | 1/8 | 1/2 | 1-1/2 | 104700 | 12.56 |
| 5/32 | 3/16 | 9/16 | 2 | 104703 | 16.54 |
| 3/16 | 3/16 | 5/8 | 2 | 104704 | 15.83 |
| 7/32 | 1/4 | 5/8 | 2-1/2 | 104705 | 23.17 |
| 1/4 | 1/4 | 3/4 | 2-1/2 | 104708 | 21.36 |
| 9/32 | 5/16 | 3/4 | 2-1/2 | 104707 | 36.38 |
| 5/16 | 5/16 | 13/16 | 2-1/2 | 104712 | 30.44 |
| 3/8 | 3/8 | 1 | 2-1/2 | 104716 | 35.92 |
| 7/16 | 7/16 | 1 | 2-3/4 | 104718 | 43.20 |
| 1/2 | 1/2 | 1 | 3 | 104720 | 53.73 |
| 9/16 | 9/16 | 1-1/8 | 3-1/2 | 104722 | 89.34 |
| 5/8 | 5/8 | 1-1/4 | 3-1/2 | 104724 | 99.14 |
| 11/16 | 3/4 | 1-3/8 | 4 | 104730 | 159.03 |
| 3/4 | 3/4 | 1-1/2 | 4 | 104728 | 141.52 |
| 7/8 | 7/8 | 1-1/2 | 4 | 104731 | 211.41 |
| 1 | 1 | 1-1/2 | 4 | 104732 | 211.41 |
| Metric | | | | | |
| 1 | 3 | 3 | 39 | 101840 | 14.84 |
| 1.5 | 3 | 5 | 39 | 101841 | 14.84 |
| 2 | 3 | 7 | 39 | 101842 | 14.00 |
| 2.5 | 3 | 8 | 39 | 101843 | 13.45 |
| 3 | 3 | 10 | 39 | 101844 | 12.56 |
| 3.5 | 4 | 12 | 51 | 101845 | 23.56 |
| 4 | 4 | 14 | 51 | 101846 | 23.56 |
| 4.5 | 5 | 14 | 51 | 101847 | 25.21 |
| 5 | 5 | 16 | 51 | 101848 | 25.21 |
| 6 | 6 | 19 | 64 | 101849 | 22.11 |
| 7 | 8 | 19 | 64 | 101850 | 38.91 |
| 8 | 8 | 21 | 64 | 101851 | 31.56 |
| 9 | 10 | 22 | 70 | 101852 | 48.72 |
| 10 | 10 | 25 | 70 | 101853 | 43.08 |
| 11 | 12 | 25 | 70 | 101854 | 52.44 |
| 12 | 12 | 25 | 76 | 101855 | 55.95 |
| 14 | 14 | 30 | 89 | 101856 | 99.01 |
| 16 | 16 | 32 | 89 | 101857 | 103.42 |
| 18 | 18 | 35 | 102 | 101858 | 155.71 |
| 20 | 20 | 38 | 102 | 101859 | 191.19 |
| 22 | 22 | 38 | 102 | 101860 | 231.73 |
| 25 | 25 | 38 | 102 | 101861 | 218.34 |

4-Flute Long Length — Typhoon



These end mills are manufactured with premium sub-micron carbide and are designed to cut hardened materials. The unique geometry of the Typhoon end mill combined with its modified AlTiN coating make it an excellent choice for demanding and longer reach applications.



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| Cutting Dia. (in.) | Shank Dia. (in.) | Flute Length (in.) | Overall Length (in.) | Code No. | Price \$ |
|--------------------|------------------|--------------------|----------------------|----------|----------|
| Inch | | | | | |
| 1/8 | 1/8 | 3/4 | 2-1/4 | 104832 | 16.54 |
| 3/16 | 3/16 | 3/4 | 2-1/4 | 104834 | 17.73 |
| 1/4 | 1/4 | 1-1/8 | 3 | 104836 | 35.84 |
| 5/16 | 5/16 | 1-1/8 | 3 | 104838 | 45.70 |
| 3/8 | 3/8 | 1-1/8 | 3 | 104840 | 50.37 |
| 1/2 | 1/2 | 2 | 4 | 104842 | 72.70 |
| 5/8 | 5/8 | 2-1/4 | 5 | 104844 | 155.53 |
| 3/4 | 3/4 | 2-1/4 | 5 | 104846 | 189.94 |
| 1 | 1 | 2-1/4 | 5 | 104848 | 283.00 |