

SOLID SHANK TOOLS

| | Turning | Sharp Point Vee | Flycutting | Boring | Form Tools |
|-----------------------------------|---|-----------------|-------------------|---------------|-------------|
| Diamond Types | CVD Pure Diamond (Poly-crystal) | Yes | Yes | Yes | Yes |
| | E-diamond synthetic (Dodec 110 orientation) | Yes | Yes | Yes | No |
| | MCC synthetic (Dodec 110 orientation) | Yes | Yes | Yes | No |
| | Mono-Die synthetic (Dodec 110 orientation) | Yes | Yes | Yes | No |
| | Natural (Dodec 110 orientation) | Yes | Yes | Yes | No |
| | Sumitomo synthetic (Cubic 100 orientation) | Yes | Yes | Yes | Yes |
| Minimum Radius | 1.0 micron* | NA | 1.0 mm | < 0.1 mm | 60 micron |
| Maximum Radius | 2.0 mm | NA | 100 mm | > 100 mm | > 100 mm |
| Arc | 1° to 160° | NA | Diamond dependent | > 100° | > 180° |
| Included Angle (Top Angle) | 20° to 179° | 15° to 179° | NA | 30° to 90° | 30° to 179° |
| Rake Angle | +2.5° to -35° | +2.5° to -35° | +2.5° to -35° | +2.5° to -35° | 0° |
| Front Clearance Angle | 0° to 40° | 0° to 45° | 5° std | 15°-20° | 15° |
| Cutting Edge Waviness | 2.0µm to <50nm | NA | 2.0µm | 1.0µm | 1.0µm |

Shank Options

6.35 mm sq x 51.0 mm long (example)
 8.05 mm sq x 51.0 mm long (example)
 Other sizes available on request
 Round shanks 3.0, 3.17, 4.0, 6.0 & 6.35mm Diameter
 35.0 mm minimum length recommended

| | | | | | | |
|----------------------------|-----------------------------------|---|-----|-----|-----|-----|
| Tool Shank Material | Steel | Yes | Yes | Yes | Yes | Yes |
| | Tungsten | Yes | Yes | Yes | Yes | Yes |
| | Molybdenum | Yes | Yes | Yes | Yes | Yes |
| | Titanium | Yes | Yes | Yes | Yes | Yes |
| Tool Shank Type | Square or Rectangular | Yes | Yes | Yes | Yes | Yes |
| | Round | Yes | Yes | Yes | Yes | Yes |
| | Other sizes provided upon request | Ask a Contour engineer to design a tool for your application. | | | | |

* CVD Diamond minimum radius dependent on included angle