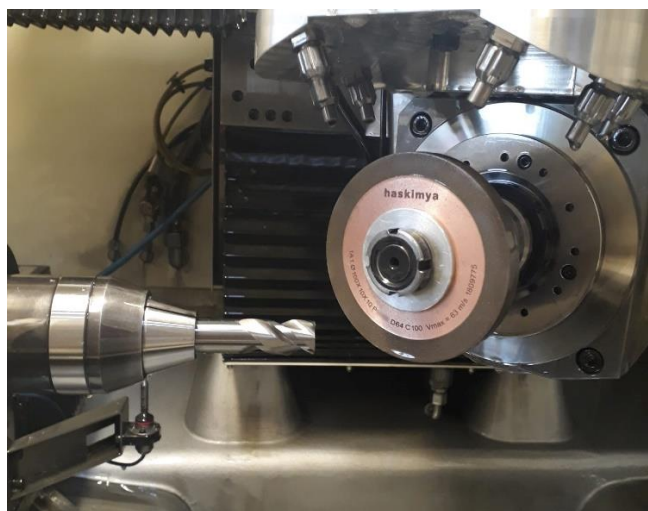


Solid Carbide Endmill or Drill Flute Grinding on CNC Machines



Hybrid bonded wheel specification

1A1 125 8 10 20 D64 SQ 125 P109 (a)
1A1 125 12 10 20 D64 SQ 125 P110 (b)

Operation: Helical Flute Grinding
Workpiece: Endmills/Drills Ø6-12 P109 (a)
Endmills/Drills Ø12-32 P110 (b)
Material: Solid Carbide

Dressing:

Stick: White
Use: Manual

Machine:

Brand: -
Spindle: ≥12 kW
Coolant: Well filtered neat oil
Pressure: ≥8 bar

Grinding Parameters:

Wheel (a) 18 : 20 m/s
Speed: (b) 18 : 20 m/s
Depth of Up to 8 mm
Pass:
Feed: Up to 120 mm/min

Parameters	Resin Bonded Diamond Wheel Performance	Hybrid Bonded Diamond Wheel Performance
Depth of pass (mm)	0,3 : 2,0	2,0 : 8,0
Feed (mm/min)	120 : 40	160 : 30
Surface Quality	Frequent burns at the end of pass	Bright and homogeneous
Dressing Interval	Frequent	Less frequent

Notes:

The extremely high hybrid bonds removal ability with high diamond concentration allows to work with very high depths of pass, not possible with resin bonds, getting the same time an exceptionally good finishing quality. It is necessary, however, to dispose of a sufficiently rigid machine with adequate spindle power and a well suited neat oil cooling system. Under such premises, the fluting operation turns out to become very easy and economic, furthermore you save a dramatic amount of time (at least half of the time you get with other bonding systems) inducing much lower stresses in the workpiece material.