

## When Possible Grind Wet

A good flow of coolant at the grinding wheel/workpiece interface will extend the life of your superabrasive wheel and improve the surface finish of the parts being ground.

When grinding with diamond wheels, a water based coolant with a rust inhibitor is good for most light to medium applications. For heavy duty grinding, the added lubricity of water soluble or straight oil coolants, may be necessary.

When using a CBN wheel to grind hardened tool steels or hard cast irons, a heavy duty soluble oil coolant at 5 to 10% concentration will extend wheel life. Sulfurized or sulfochlorinated mineral oils are recommended when grinding superalloys (ie) nickel or cobalt based alloys.

Never use a water based coolant with rust inhibitors or detergents with CBN wheels as the reaction will adversely affect the grinding wheel.

## Surface Finish

Use the following as a starting point in selection of the mesh size for your superabrasive resin bonded grinding wheel. Factors such as machine type and condition, material type, table speed, and coolant will influence eventual finish.

Mesh Size	Surface Finish RMS
60-120	16 to 36
120-150	15 to 18
180-320	8 to 14
320-500	6 to 8

## Suggested Operating Speeds For Resin Bonded Grinding Wheels

	Dry Grinding	Wet Grinding
Diamond Wheels	3000 To 4500 SFPM 15 To 22 M/S	4500 To 6500 SFPM 22 to 32 M/S
CBN Wheels	3000 TO 6000 SFPM 15 TO 30 M/S	6000 TO 7500 SFPM 30 TO 37 M/S

SFPM = Surface Feet Per Minute

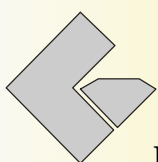
M/S = Meters Per Second

To find SFPM knowing RPM

$$\frac{\text{RPM} \times 3.142 \times \text{Diameter of Wheel}}{12}$$

To find RPM knowing SFPM

$$\frac{\text{SFPM} \times 12}{\text{Diameter of Wheel} \times 3.142}$$



# Graff

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**RESIN BONDED DIAMOND  
& CBN GRINDING WHEELS**