

## TROUBLESHOOTING RESIN BONDED DIAMOND AND CBN GRINDING WHEELS

Problem	Possible Cause	Solution
<b>Poor workpiece finish</b>	Chatter, vibration	1) Check to see that wheel mounting is tight 2) Check condition of spindle (replace bearings if necessary) 3) Check with dial indicator to ensure wheel running true (within .001" TIR.)
	Excessive crossfeed or downfeed	1) Reduce feeds for final finishing passes
	Wrong or dirty coolant	1) Check coolant for contaminants CBN wheels - Use 5 to 10% heavy duty soluble oil Diamond wheels - Water based coolant with rust inhibitor
	Excessive wheel dressing	Reduce pressure on dressing stick Stop dressing as soon as stick becomes quickly consumed
	Incorrect placement of coolant	Ensure there is a generous supply of coolant reaching the wheel-workpiece interface.
	Abrasive grit size too coarse	1) Use grinding wheel with finer abrasive grit size
	Spindle speed is too slow	CBN Wheels - 3,000 to 6000 SFPM (Dry) 6000 to 7500 SFPM (Wet) Diamond Wheels - 3,000 to 4500 SFPM (Dry) 4500 to 6500 SFPM (Wet) Inadequate horsepower may cause spindle to slow down
<b>Burning of workpiece Excessive heating</b>	Grinding wheel glazed or loaded	Use a dressing stick against abrasive surface to clear excess bond, and expose new cutting points
	Incorrect coolant	Use 5-10% heavy duty soluble oil for CBN wheels, for diamond wheels use water based coolant with rust inhibitor
	Wheel specification is too hard	1) Use a more free cutting wheel 2) Slow down wheel speed. Slower wheel speeds result in wheel acting softer
	Incorrect placement of coolant	Ensure there is a generous supply of coolant reaching the wheel-workpiece interface.
	Excessive material-removal rate	Reduce downfeed and or crossfeed
<b>Wheel won't grind</b>	Wheel glazed or loaded	Use an aluminum oxide dressing stick against abrasive rim to clear excess bond, and expose new cutting points. The sticks are recommended to be soaked in coolant or water for a few minutes and then fed into the grinding face of the revolving wheel. When the stick begins to wear more rapidly, the superabrasive wheel is ready for use.
<b>Short wheel life</b>	Undersized Wheel	Select wheel diameter based on available spindle speed to achieve best SFPM
	Wheel not true	True wheel
	Exceeding recommended grinding parameters	Double check wheel recommendations
	Excessive feed rates	Reduce downfeed and or crossfeed



**Give us a Call - We Can Help Toll Free 1 800 465 9021**

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