

## Raptor® CBN Sharpening Wheel

### About the Raptor® CBN Sharpening Wheel...

CBN is superior to all other materials for grinding hardened steel such as that used in most of today's modern turning tools. Unlike traditional aluminum oxide grinding wheels, the Raptor® CBN Sharpening Wheel cuts fast, stays cool and never needs dressing or shaping. With only a very light amount of pressure when sharpening and proper care, you can sharpen your tools to a razor sharp edge and never need to buy another sharpening wheel again.

### Why is CBN superior to diamond for sharpening turning tools using a bench grinder?

Diamond is chemically pure carbon. When used as a grinding grit, it works extremely well with tungsten carbide or glass. With hardened steel on a grinder, this is a different matter altogether. When used on a bench grinder at common speed, the diamond (carbon) reacts to ingredients in the tool steel, which causes the diamond to break down which in turn ruins the wheel.

### What is CBN?

CBN is an acronym for Cubic Boron Nitride, which was originally developed by General Electric Company. CBN is nearly as hard as diamond and is 4 times harder than aluminum oxide thus revolutionizing the grinding of hardened steel.

### How is the Raptor® CBN Sharpening Wheel made?

Raptor® CBN wheel consists of a precision machined, solid steel body coated with an electro-plated layer of CBN abrasive grain. The CBN grain is only a few thousandths in diameter and will last a lifetime with proper care.

### Installing the Raptor® CBN Sharpening Wheel

Slide the wheel onto the grinder arbor and re-install factory washers, nut, and guards. Exercise care when handling the Raptor® CBN wheel during installation. Do not strike the grinding surface with a hard object as it may cause permanent damage to the wheel. Do not over tighten the nut it may damage the factory washers. If the wheel does not run true, check the washers to see if they are bent.

Recommended operating speed. Min - 1,100 Max - 2,200 rpm.

### How to use the Raptor® CBN Sharpening Wheel

- **Use Only Light Pressure-** When sharpening with the CBN wheel, use only very light pressure as this wheel cuts very fast. Too much pressure against the wheel will generate excessive heat that will damage the wheel.
- **Operate at a Lower Speed-** To improve control while sharpening, operate your grinder at a slower speed. Min - 1,100 Max - 2,200 rpm. is recommended.
- **For Hardened Tool Steel Only-** CBN wheels should only be used on hardened tool steel and tungsten carbide. Never grind carbon steel, aluminum or other soft metals as it will cause permanent damage to the Raptor® CBN wheel.
- **Make Your Wheel Last A Lifetime-** Be careful not to strike the wheel with a tool or object as the impact could break CBN particles free, causing permanent damage to the wheel surface.

### **CAUTION!**

*Do not grind non-heat treated steel such as carbon steel, aluminum or other soft metals as this will cause permanent damage to the wheel. Do not strike the wheel face with a hard object as permanent damage may also occur. Do not dress the wheel it will cause permanent damage to the wheel.*