

Hurricane CBN Grinding Wheels Instructions for Installation and Use



Check Out Installation Instructions Tool Grinding Tips

Visit our website at:

* www.thewoodturningstore.com

Thank you for purchasing this Hurricane CBN Grinding Wheel. Your wheel requires proper installation on your grinder before use. Please read and understand the instructions below before using your tool. If you have any questions, please feel free to call for assistance (631) 421-TOOL (8665).

Safety Warning - For All Woodturning Activities

Serious injury can occur through improper use of tools and the lathe. Make sure you fully understand how to sharpen and use your tools to minimize the risk of injury. In addition:

- ALWAYS wear eye and face protection when sharpening and using your tools.
- ALWAYS wear respiratory protection when sharpening tools on your grinder.
- Utilize all of the safety equipment that came with your equipment, particular safety shields on your grinder.
- Understand how to use your tools properly. This may require the assistance of a teacher. Local woodturning clubs are a great source of education.
- Never sharpen your tools around flammable materials and / or wood shavings. Sparks from the grinder could ignite flammable materials.
- Where proper protection when handling chemicals such as CA glue, solvents, oils and paint.

The CBN Wheel On Your Grinder

Boron Nitride is a compound composed of the elements Boron and Nitrogen. In its "Cubic" form, CBN, it is a crystalline structure very similar to diamond. In fact, it is suprassed in hardness only by diamond. As woodworkers, we are familiar with diamond hones for sharpening, but for high speed grinding of steel, diamond wheels are completely unsuitable because they break down very quickly, rendering them useless. CBN does not break down while sharpening steel, and is a superior material for high speed grinding of woodworking tools.

CBN wheels have been used in industrial grinding applications for many years. In the last few years, CBN wheels have been created to be used on small bench grinders, which most craftsmen already own and use in their shops.

Hurricane Turning Tools offers a line of CBN wheels in various grits, diameters and widths to suit most bench grinders.

If you are familiar with using a stone grinding wheel, you will see very quickly that using a CBN wheel is a vast improvement over stone wheels.

The wheel diameter is constant, where stone wheels reduce over time as you dress them. Therefore, your time at the grinding wheel is minimized because you will have full contact with the facet previously created on your tool the last time it was sharpened. There is less time for the tool to heat up, so your tool will stay cooler during sharpening

The CBN wheel grit of 180 is much finer than standard abrasive stone wheels, so the edge on your tool will be much sharper.

Please note that these wheels are in industrial product and will run best on good quality grinding equipment. Bear that in mind when installing a heavy CBN wheel on a low cost grinder. ANY heavy grinding wheel will put a strain the bearings and shaft of low quality equipment. We recommend purchasing a high quality grinder from a USA manufacturer like Baldor. When you are already spending a lot of money on your lathe and tools ... why buy a \$99 grinder?

Call or email us if you have any questions about the performance of your wheel on your grinder.

Installing the CBN Wheel On Your Grinder

Verify that you have the proper wheel diameter, wheel width and arbor hole size for you grinder. Follow the steps below to install your wheel

- 1. Remove the grinder cover
- 2. Loosen the nut which holds your old wheel on to your grinder shaft
- 3. Remove the nut
- 4. Remove the outer flange which held your old wheel in place from the grinder shaft
- 5. Remove your old grinding wheel
- 6. Remove the inner flange from the grinder shaft
- Using sandpaper, polish the shaft to remove any rust or debris which may affect the installation of the wheel. Our wheels are manufactured to a bore tolerance of -0.000"/+0.001" so any debris may cause the wheel not slide on to the shaft of the grinder.
- 8. Install the new wheel on to the grinder shaft and position the grinding wheel up against the shoulder flange of the grinder shaft. Grinders vary greatly by manufacturer and it is quite common that when the grinding is first installed on to the grinder shaft that it interferes with the inner guard of the grinder.
- 9. If it does, you will need to remove the wheel
- 10. Install the included precision steel shims on the grinder shaft to space the wheel away from the shaft shoulder. Several shims are included with your grinding wheel, if you need additional shims, they can be purchased from our online store or by calling (631) 421-TOOL. Do not use standard hardware store washers. They will cause wobble when running the wheel
- 11. Reinstall the wheel on the grinder shaft.
- 12. You may want to add shims until the wheel is centered in the grinder opening but it is not necessary.
- 13. Reinstall the outer flange against the grinding wheel. If you do not have enough room, you can use a thin fender washer (not included)

















- 14. Tighten the nut on your grinder shaft against the wheel15. Replace the grinder cover over your wheel.
- Note that many customers choose to purchase a wheel width which may not allow for the outer cover to be installed. While the wheel will not shatter, extreme caution should be used when grinding because of the exposed wheel surface.



















Additional Tips for using your CBN Wheel

Your CBN wheel will provide years of use when used properly

- Only sharpen High Speed Steel tools on your CBN wheels. Do not place soft steels against the CBN wheel because the soft steel may clog the CBN grit and PERMANENTLY DAMAGE your wheel.
- You may notice a slight "settling in" of the grit during the first month of use. This is not a cause for concern.
- The 180 grit wheel provides an outstanding finish for woodturning tools. The 80 grit wheel is best for scrapers. If you need to make large changes to the profile of your tool, try not to use the 180 grit wheel because doing bulk removal of steel with a finishing grit make cause the tool to overheat and may cause premature wear of the CBN Wheel
- Use a quality jig system such as the Oneway Wolverine system, with the Vari-Grind fixture. Also check out the Grinding Solutions system from Don Geiger. If your grinding fixture is solid and repeatable, you can sharpen your tools in one or two "swipes" across the CBN wheel.
- Occasionally clean the steel grit out of your wheel by applying WD40 or Kroil lubricant to the wheel (with the grinder powered off) and then scrub the wheel surface with a toothbrush or steel brush by hand with the power off.
- If you feel that the wheel has wobble, check your grinder. Many inexpensive grinders bearings simply can't handle these heavy industrial wheels. Check the shaft shoulder for debris or inaccurate machining. Our wheel bores are manufactured and checked in-house to be within -0.000" / +0.001"
- Do not use hardware store washers to space out your wheel away from the inner grinder guard. Standard washers are not flat and will introduce wobble. Check our website for additional shims.
- Do not use the "stamped steel" flanges that come with inexpensive grinders. they are not flat and will introduce wobble.
- Check our website and YouTube channel for the latest tips and information on our CBN wheels





Visit our website at:

www.thewoodturningstore.com

Call us at (631) 421-8665 or email at sales@thewoodturningstore.com

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