

## INSTRUCTIONS: CARBIDE RUNNER SHARPENING TOOL - PRO SERIES

*Congratulations on the purchase of your BITEHARDER® Diamond Coated - Professional Series Carbide Runner Sharpening Tool.* This product is handmade in the U.S.A. with quality materials. All components are carefully machined from stainless steel to the highest quality standards, on state of the art manufacturing equipment, and diamond coated using a proprietary braze, to assure you get the most life out of your tool.

This product has been designed to allow you to **maintain** the sharp edge on a new set of carbide runners, without the need to remove them from your snowmobile.

Our Professional Series tools are designed to run at significantly higher speeds than our Standard Series tools (10,000 RPM's plus). Running your tool at less than the recommended RPM's will only shorten its useable life.

Like all cutting tools, the product will wear out over time and will need to be replaced. By following these simple instructions, you will maximize the effectiveness and longevity of your BITEHARDER® Professional Series Carbide Runner Sharpening Tool.

### INSTRUCTIONS:

1. Properly attach your sharpening tool to the chuck of a corded or cordless electric die grinder which will accommodate a 1/4 inch shank. Set the grinder's speed to 10,000 RPM's or greater.
2. Securely position your snowmobile on its side and firmly hold the ski from moving.
3. With the grinder spinning, gradually contact the carbide runner with the BITEHARDER® sharpening tool and using only light pressure, slowly move the tool back and forth along the carbide runner in a continuous and uniform motion. After 10 - 20 seconds of sharpening, review the carbide runners edge. Once your carbide runner is sharp, the process is complete.

### FOR BEST RESULTS:

- BITEHARDER® recommends you start with a new set of carbide runners. To get the most useable life out of your tool, **sharpen your runners more frequently than less**. Never try to re-sharpen a significantly worn set of runners, as this will prematurely wear out your tool.
- The BITEHARDER® sharpening tool should be held perpendicular to the carbide runner at all times.
- Do not twist or angle the grinder during the sharpening process.
- A smooth and consistent motion of the grinder attached to the BITEHARDER® sharpening tool is important to achieve the best possible edge. Light pressure is all that is required – **LET THE DIAMONDS DO THE CUTTING!** Too much pressure will only help to wear your tool prematurely.
- If required, keep the BITEHARDER® sharpening tool cool by adding water or snow to the process.
- Never bounce or skip the tool across the surface being sharpened. This could damage the tool and the carbide runner.
- BITEHARDER® Professional Series Tools require the use of a corded or cordless style die grinder that will operate at 10,000 RPM's or greater. BITEHARDER® does not recommend the use of pneumatic die grinders due to the amount of air pressure required.
- Frequently inspect your BITEHARDER® sharpening tool for wear. A worn tool is not effective.
- You can also check out our YouTube Channel for updated videos detailing the sharpening process.

### **SAFETY WARNINGS:**

- Never place any part of your body in contact with the **BITEHARDER**<sup>®</sup> sharpening tool during use.
- Never wear jewelry, neckties, or loose-fitting clothing when using the **BITEHARDER**<sup>®</sup> sharpening tool.
- Long hair should be tied back before using the **BITEHARDER**<sup>®</sup> sharpening tool.
- The **BITEHARDER**<sup>®</sup> sharpening tool can produce excessive noise during operation and hearing protection may be required. See "Carbide Dust Warning" below.
- The **BITEHARDER**<sup>®</sup> sharpening tool and carbide runner may become hot during use and can cause burns if touched.
- Improper use of the **BITEHARDER**<sup>®</sup> sharpening tool may cause it or the carbide runner to fracture.
- Always wear proper protective clothing and equipment, including face, eye, and tight fitting hand protection.

### **CARBIDE DUST WARNING:**

Grinding or sharpening carbide will produce a dust of potentially hazardous ingredients which can cause nose, throat, skin and eye irritation and possible temporary or permanent respiratory disease in a small percentage of exposed individuals. Permanent respiratory disease can lead to disability or death. Take precautions and avoid breathing dust. Avoid prolonged skin contact with dust. Always use adequate ventilation when grinding or sharpening. The use of a dust mask is recommended. Use protective devices such as an appropriate mask/respirator and appropriate eyewear at all times. Immediately wash hands thoroughly, after each use.