

INSTRUCTIONS: CARBIDE RUNNER SHARPENING TOOL - STD SERIES

Congratulations on the purchase of your BITEHARDER® Diamond Coated - Standard Series Portable 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 longest life from your tool.

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

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®** Standard Series Carbide Runner Sharpening Tool.

INSTRUCTIONS:

1. Properly attach your sharpening tool to the chuck of a corded or cordless style drill, which will accommodate a ¼ inch shank. Set your drill to the fastest speed (RPM's) setting.
2. Securely position your snowmobile on its side and firmly hold the ski from moving.
3. With the drill spinning, gradually contact the carbide runner with the **BITEHARDER®** sharpening tool and using light pressure, slowly moving the tool back and forth along the carbide runner in a continuous and uniform motion.
4. After approximately 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 from your tool, **sharpen your runners after every, or every other ride.** This will extend the life of your tool as the more frequently you sharpen the less material the tool has to remove. 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 tool during the sharpening process.
- A smooth and consistent motion of the drill 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.
- The faster your **BITEHARDER®** sharpening tool spins (highest RPM setting on your drill), the more effective the tool will be at sharpening the carbide runner.
- 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:

- Our Standard Series tools are only designed to run at speeds that are achieved using a cordless drill (1,500 to 2,000 RPM's). Running these tools faster can cause them to break apart and fail prematurely.
- Never place any part of your body in contact with the **BITEHARDER®** sharpening tool during use.
- Never wear jewelry, neckties, or loose-fitting clothing when using the **BITEHARDER®** sharpening tool.
- Long hair should be tied back before using the **BITEHARDER®** sharpening tool.
- The **BITEHARDER®** sharpening tool can produce excessive noise during operation and hearing protection may be needed. See "Carbide Dust Warning" below.
- The **BITEHARDER®** sharpening tool and carbide runner may become hot during use and can cause burns if touched.
- Improper use of the **BITEHARDER®** sharpening tool may cause the tool 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 to avoid breathing the 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 eye-wear at all times. Wear gloves or immediately wash hands thoroughly, after each use.