EdgeSmith™ Knowledge®

Sharpening Terms & Descriptions

Abrasive Categories

Diamonds

Because diamonds are the hardest substance known to man, diamond abrasive sharpeners are fast, durable, and very effective. Diamonds are captured in a nickel plating process and are bonded in a metal substrate. Premium diamond sharpening surfaces are characterized by a unique interrupted surface that collects and hold the metal filings that ordinarily build-up on the sharpening surface and obscure the diamond abrasive. Excellent for use on very hard tools or stainless steel. Diamond stones always remain flat and will even sharpen carbides.

Coarse Diamond (325 Grit) – Aggressive diamond surface that removes large amounts of metal. Takes a very dull or damaged edge and restores a good working edge.

Medium Diamond (400 Grit) – Less aggressive diamond surface that removes moderate amounts of metal. Good starting point for blades that are somewhat, but not overly, dull and still have a consistent edge.

Fine Diamond (750 Grit) – Least aggressive diamond surface that removes any remaining burrs and puts a razor sharp edge on the blade. Excellent for maintaining an already sharp edge.

Carbides

Carbide cutting blades quickly and easily restore very dull or damaged edges in 3 or 4 strokes. They remove large amounts of metal and are great for quickly restoring a very dull or damaged edge to a good, working edge.

Ceramics

Ceramics are excellent for finishing and maintaining an already sharp edge. Removes very little metal. Can come in different grits, colors, or shapes.

Fine Ceramic (800 Grit) - Brown Stone

Extra Fine Ceramic (1,000 Grit) - White Stone

Precision Systems

Guided sharpening systems hold the knife blade at the correct angle to the sharpener.
Precision Systems provide **guaranteed results every time**.

Steels

Conventional steel rods are used to realign the edge. They are not used for honing.

Arkansas Stones

Natural Arkansas stones are made from "novaculite," which is indigenous to Arkansas. They are unique sharpeners because they hone and polish the edge or your blade at the same time. No other sharpener can perform both these tasks simultaneously. They remove the least amount of metal while polishing your edge to razor sharpness.

Medium (Soft) Arkansas Stone (600 Grit) – Most used, general purpose sharpening stone that removes moderate amounts of metal. It is molten gray in color with traces of black, and will produce a quick edge on blades or tools. Good starting point for blades that are somewhat, but not overly, dull and still have a consistent edge.

Fine (Hard) Arkansas Stone (1,000 Grit) – Produces an extremely fine edge and is used for touching up, finishing, or smoothing cutting edges to razor sharpness. This stone is usually white in color with traces of rust or orange. Excellent for maintaining an already sharp edge.

Bonded Synthetics
This man-made vitrified stone is made out of either aluminum oxide or silicon carbide grit and makes for a great sharpening stone for quick edge setting to final finishing.

Edge Descriptions

Straight Edge
The straight edge allows a smooth and clean cut. This edge can be used for firm and soft food like meat, vegetables, and fruit.

Serrated Edge
The serrated edge has notches or teeth like the cutting edge of a saw. In general, the serrated edge will work better for slicing cuts, especially through hard or tough surfaces, where the serrations tend to grab and bite (or pierce) through the surface quickly. Serrations have a grind on one side of the blade only. Sharpen the grind side only. Serrated Edge blades require a tapered rod or triangular-shaped surface to sharpen. If you use a flat stone to sharpen serrations, you can only sharpen the tips of the serrations.

Combination Edges
Blades with combination edges incorporate features of both straight and serrated edges. The back half of the blade will be the serrated edge portion of the blade and is used for heavy cutting or slicing. The front half of the blade will feature a straight edge for delicate trimming that requires smooth, clean cuts.

Straight Edge Blade with Gut Hook
A gut hook is used to cut open the abdomen. The hook prevents the user from "paunching" the animal and possibly affecting the quality of the meat. Like serrations, the gut hook requires a tapered rod or triangular-shaped surface to sharpen. Gut hooks may be ground on both sides of the blade or just one side of the blade. Whatever the case, any side of a gut hook with a grind should be sharpened.

Frequently Asked Questions

How often should I sharpen my knives?
All knives requires maintenance and sharpening. A sharp knife can easily be maintained by adhering to a few basic rules. Cut only on soft surfaces such as wood or poly boards. Hard surfaces like glass, granite, stainless steel, acrylic, or laminate counter tops will dull knives immediately on contact. Always avoid cutting frozen food, slicing into bones, or using a knife to pry things open. These uses may result in severely dulling, bending, or breaking your knife. Sharpen your knife before each use if you want to maintain a razor sharp edge.

How can I tell if my knife is sharp?
Use it to slice or cut. If the knife does not slice or cut with ease, it needs additional sharpening.

What is the best sharpener?
The best sharpener is the one that does what you want it to do. You should choose your sharpener based on your sharpening needs, your sharpening expertise, and type of sharpening material needed to achieve the edge sharpness required. No matter what sharpener you choose, they all will work, but in their own unique way.

Electric Sharpeners

My knife is not sharp and I've gone through the whole knife sharpening process. What am I doing wrong?
Although unusual, there are times when you have to repeat both sharpening stages more than once or make more passes through the sharpening slots. This may occur during the first sharpening of a knife or if a knife was sharpened incorrectly by another process. It may also occur when sharpening blades made of tempered steel, which are extremely hard, such as some hunting knives.

You can use the Diamond Edge Pro™ Electric Knife & Scissors Sharpener to sharpen these type of knives, but you may have to repeat the process several times or make numerous passes through the sharpening slots (in excess of 10 times or more for extreme cases). This extended process will only be necessary the first time you use the sharpener for this type of blade. Thereafter, you will be able to sharpen the blade following the normal sharpening procedures.

Sometimes the sharpening wheel stalls when I am drawing the knife through the blade guides. What causes this?
The knife sharpener is designed so that very little effort is needed to draw the blade through the sharpening slots. If excessive downward pressure is applied to the knife as it is being pulled through the sharpening slots, the sharpening wheel may stall.

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How do I get an even edge on my blade?

It is important that you keep the proper orientation of the knife blade to the wheels, carbides, and/or ceramic stones. Always keep the knife blade parallel to the counter top and in the center of the sharpening slot, so that the blade contacts both diamond wheels, carbides, or ceramic stones equally. Make sure the blade does not touch either side of the sharpening slot. It should be straight up and down in the center of the sharpening slot at all times. Always sharpen from heel to tip, never back and forth. Remember to lift up slightly on the handle as the curved portion of the blade is drawn through the sharpening slots.

Occasionally I see sparks when sharpening my knives in the electric sharpening slot. What causes this?

At a professional knife sharpening service, certain blades with high carbon content (usually higher quality knives) sometimes will spark or produce a stream of sparks when they come in contact with the sharpening wheel. Your Diamond Edge Pro™ Electric Knife & Scissors Sharpener uses the same type of sharpening wheel that the professionals use. Therefore, you can expect to see similar sparking when you sharpen blades with high carbon content. This is normal.

Can I sharpen serrated blades, scissors, or other blades with my Diamond Edge Pro™ electric knife & scissors sharpener?

Your Diamond Edge Pro™ Electric Knife & Scissors Sharpener will sharpen straight and serrated edge blades of alloy, carbon, or stainless steel. It is designed to sharpen the knives used every day such as hunting/fishing knives, pocket knives, outdoor sport knives, and common kitchen knives. Common household scissors are sharpened manually using the Pull-To-Lock scissors sharpener. Do not attempt to sharpen any blade that does not fit freely in the sharpening slots.

My sharpener produces a loud vibrating sound. Why is this?

Your Diamond Edge Pro™ Electric Knife & Scissors Sharpener uses rapidly rotating diamond sharpening wheels to sharpen knives. Because of the speed of rotation, a vibrating sound may be heard. This is normal and to be expected.

Manual Sharpeners

What is the best angle to sharpen your knife?

You can use whatever angle you wish or feel comfortable using, but the consistency of your angle is more important than the degree of the angle that you use. Keeping a consistent sharpening angle on both sides gives you the sharpest possible edge. We recommend a **23-degree angle** (46 degrees combined) as the best general purpose sharpening angle for most sporting and hunting knives.

How do I sharpen small edges or tools?

Small edges or tools require sharpening on an uninterrupted surface. Flat Arkansas stones or the "Micro-Tool Sharpening Pad™" of a Smith's diamond stone work best for these implements. Small edges and tools will not catch on the uninterrupted surface of the "Micro-Tool Sharpening Pad™."

How do I sharpen fish hooks and small, pointed objects?

Sharpening fish hooks and other small, pointed objects requires a straight-line "sharpening groove." Do not use a flat sharpening stone.

How do I sharpen Gut Hooks?

Gut hooks are sharpened using a round abrasive rod that is tapered to a point on the end.

How do I sharpen curved blades?

For best results, we recommend using a sharpening rod to sharpen curved blades. Precision Kits and Bench Stones may also be used, but more skill is required and the results may vary.