

# Chef'sChoice® EdgeCrafter® Diamond Stone

## INSTRUCTIONS



### Introduction

The EdgeCrafter®, Diamond Stone with 100% diamond crystals, is the ideal knife sharpener for those who take pride in sharpening manually with a “stone.” Diamond abrasives sharpen more rapidly, replacing the age-old conventional sandstone and carborundum stones that are slower and wear unevenly, leaving a rough, ineffective sharpening surface. The EdgeCrafter® Diamond Stone will stay flat, giving you an ideal sharpening surface. Because diamonds are the hardest known material, this stone will sharpen any blade regardless of its composition.

If you are accustomed to hand sharpening, you’ve no doubt developed your own techniques for using sharpening stones. For those less skilled, we offer some suggestions to get you started.

### General recommendations

- EdgeCrafter has selected the ideal grit size for those who wish to sharpen with only one grit size. Coarser grits are needed only if the knife is extremely dull or damaged. Finer grits can refine the edge further but the resulting edge commonly has slightly less “bite.”
- We do not recommend the use of a liquid or lubricating agent to produce a sharp edge with the EdgeCrafter®.
- To develop a good edge, it’s essential, to maintain a consistent sharpening angle, stroke after stroke, at a fixed half-angle preferable within the range of 20 to 25 degrees (°).
- It’s nearly impossible to create a precise angle without some sort of guide. But there’s a simple way to create a guide to establish an angle of 22½°. This particular angle is

suggested only because it is within the recommended range and it is relatively easy to make a guide for this angle.

- You can elect to start with a guide set at a smaller angle, (preferably not less than 15°) however, you will find that it takes much longer to sharpen at smaller angles because more metal must be removed on each side of the edge.

### Making a sharpening guide

For a quick sharpening guide, start with a small, square piece of paper with four truly square (90° angle) corners (Figure 1a.) Fold this square diagonally in half to form a 45° degree angle (Figure 1b.) Then fold it diagonally in half, once more, to form an angle of 22½° (Figure 1c.) You now have a convenient sharpening guide!

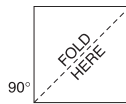


Figure 1a.

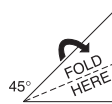


Figure 1b.



Figure 1c.

### Initial sharpening

Hold the paper guide in one hand placing it on the diamond stone with the point away from you. Hold the knife with your other hand, placing the edge of the blade on the stone with the blade face resting lightly on the guide (Figure 2). If you tilt the paper guide slightly away from the vertical, you’ll ensure that the knife rests on the guide at an angle of 22½° or less (Figure 2.)

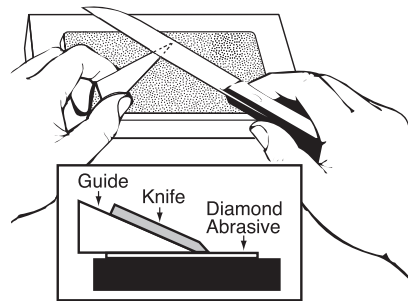


Figure 2.

It will be awkward to hold the guide under the blade during the entire sharpening process. However, it’s wise to check periodically during sharpening to make sure you’re maintaining a consistent angle. Diamonds are such an efficient abrasive that significantly changing the angle may quickly dull the edge. Pause during sharpening, leaving the blade edge on the pad, and insert the paper guide under the blade. If the angle is incorrect, reposition the blade and continue sharpening.

The best sharpening motion is a small-orbit circular polishing motion. Holding the proper angle as consistently as possible, the blade is gently stroked on the abrasive pad making small circles. Practice until this motion becomes comfortable. Make sure to sharpen the entire length of the blade. As you move from one portion of the edge to the next, you can use the paper guide to make sure you’re maintaining a consistent sharpening angle. If the blade is very dull, continue sharpening for several minutes.

Now turn the knife over and sharpen the other side of the edge. Make sure to use your guide to position the blade at the correct angle.

The angle should be identical for both sides. Continue sharpening on this second side until a burr forms along the edge. The burr will form only on the side of the edge opposite the side being sharpened. You can feel the burr by gently running your finger from the spine of the blade, across the blade, toward the edge. The burr will feel like a roughness on one side of the edge (Figure 3). (BE CAREFUL! Don't run your finger along the edge!) Continue sharpening until you've produced a burr along the entire edge. Then turn the knife over again and to the first side, check that you've established the correct angle, and sharpen until a small burr is formed along the entire edge of the final side.

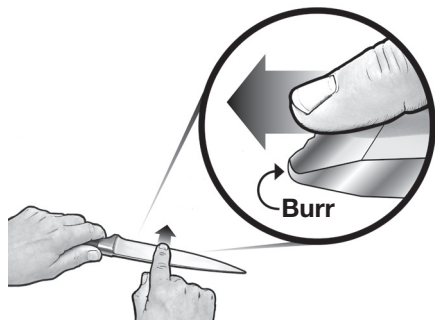


Figure 3.

### Finishing the edge

Use your guide to position the blade at an angle slightly greater than  $22\frac{1}{2}^{\circ}$  ( $25^{\circ}$  is good.) Using the same circular polishing motion, but using very light pressure, sharpen the first side of the edge. Now turn the knife over and sharpen the other side of the edge, at the same angle with only

light pressure. The burr should disappear. If you recreate the burr you are applying too much pressure. Continue the same circular scrubbing motion, steadily decreasing the pressure as you sharpen. Finish with even lighter, slower orbiting strokes, at the same angle, alternating sides, until you have a sharp edge.

To maintain edge symmetry, spend approximately the same amount of time on each side of the blade, alternating frequently.

There's another finishing technique which may help you develop a sharper edge. Holding the blade at the same angle (slightly more than  $22\frac{1}{2}^{\circ}$ ) slowly (and without applying any pressure) push the blade across the diamond abrasive pad, moving toward the blade edge. Do this several times, alternating sides, until you achieve a sharp edge. It might seem more logical to pull the knife away from its edge, but this has the disadvantage of forming a thin, weak "wire" burr on the edge.

### Testing for sharpness

From time to time, during the second stage of sharpening, you can test for sharpness. A quick method is to try cutting a piece of paper\*. The knife is sharp if it cuts smoothly without grabbing or tearing the paper.

### Further helpful hints

Generally the stone requires no maintenance. If filings collect on the stone you can remove them with an old tooth brush. Use water if necessary to help flush away such filings. Do not use water on the stone when sharpening.

If you wish to visually follow the sharpening process, coat the knife edge facets with a dark colored ink felt tip pen. As you sharpen you will be able to see where you are wearing off the ink and if necessary how the sharpening angle should be changed slightly to finish the job. With

experience you will find this very useful to speed the sharpening process. In the final finishing step be sure you are removing metal immediately adjacent to the edge and not further back on the facets. With a small change in angle you will see the sharpening move either toward the edge or back from the edge.

*\* Hold a sheet of paper by its edge, with the knife a short (but safe) distance from your fingers, carefully slice through the sheet. A sharp knife will cut smoothly without tearing the paper.*

### CAUTION!

#### For your safety and protection:

- Never use the Chef'sChoice® EdgeCrafter® Diamond Stone in or near moving machinery or electrically active equipment or any live electrical source.
- Use the Chef'sChoice® EdgeCrafter® Diamond Stone only for manual sharpening and filing.
- Use the Chef'sChoice® EdgeCrafter® Diamond Stone only as specified. Do not use it for any purpose not specified by the manufacturer.
- Knives and tools sharpened with the Chef'sChoice® EdgeCrafter® Diamond Stone may be sharper than you expect. To avoid injury, handle them with extreme care.
- Always wear eye protection when working with tools.
- Close supervision is necessary when any tool is used by or near children.

**Limited Warranty:** Used with normal care, this EdgeCraft product, designed for hand use only, is guaranteed against defective material and workmanship for a period of 30 days from the date of purchase ("Warranty Period"). We will repair or replace, at our option, any product or part that is defective in material or workmanship without charge if the product is returned to us postage prepaid, with dated proof of purchase, within the Warranty Period. This Limited Warranty does not cover replacement of abrasive pads necessitated by use of the product or product damage resulting from misuse. ALL IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD. EDGE-CRAFT CORPORATION SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some States do not allow limitations on how long an implied warranty lasts and some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty applies only to normal household use of this sharpener and is void for industrial or commercial use.

**MADE IN THE USA.**

by the makers of the acclaimed Chef'sChoice® Diamond Hone® Knife Sharpeners, sold worldwide.

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