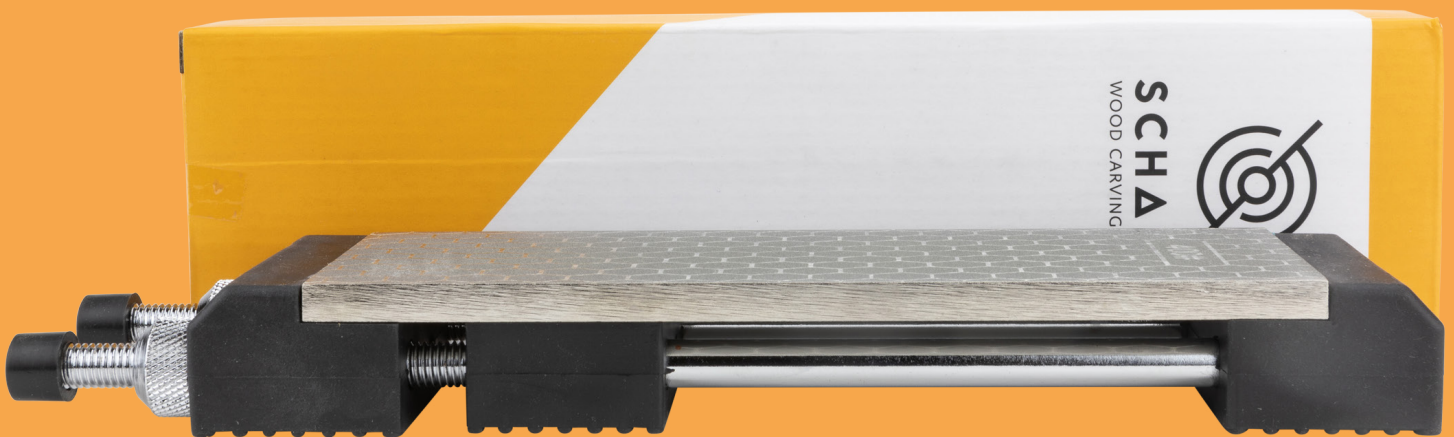


Schaaf Tools Double Sided Diamond Stone 400# / 1000# Grit

Sharpening Guide and User Manual



Congratulations on your purchase! Let's get those tools sharp and ready to use so you can get to the fun part.

But first, if you have a second head over to our website and subscribe to receive discounts and special offers on other Schaaf Tools products and stay up to date on what we're doing.



[SCHAAFTOOLS.COM](https://www.schaaftools.com)

FAQs about using your diamond stone

Why are Diamond Stones Popular?

For two main reasons – they work quickly and they are easy to maintain. Many tools can be sharpened with just one double sided diamond stone and a leather strop. Also, diamond stones don't have to be soaked during use, meaning your work area will tend to remain much cleaner.

Do I ever need to re-flatten my diamond stone?

No! Unlike other types of sharpening stones you may have experience with, diamond stones don't become dished out when you use them, meaning you don't have to re-flatten them between uses.

We do recommend using the whole plate when you sharpen, as opposed to just one section. The diamonds on all stones will eventually wear out, and using the whole plate will greatly prolong a stone's life.

Should I use my diamond stone dry?

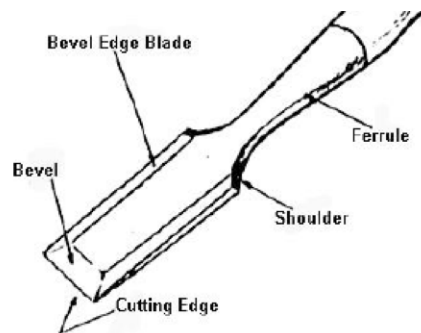
You can use your diamond stone dry (it won't harm the diamond) however, **we recommend using a lubricant**, which will carry away the materials from your blade as you sharpen.

Can I use water as a lubricant?

We recommend lubricating with water and a few drops of dishwashing liquid in a spray bottle. **Be sure to wipe the sharpened tool with a paper towel and apply a little WD-40 or light oil to complete the process and prevent the tool from rusting.** If stone cleaning is required, wash it using dishwashing liquid and a scrub pad. They won't rust (any rust that may appear is rusting of the metal particles generated during sharpening, not the diamond stone itself.)

Sharpening Basics

A cutting edge is comprised of the intersection of two planes to form an edge. The angle formed by these two planes is the bevel angle. **No matter the blade type, sharpening is the removal of material from a bevel face to keep a well-defined edge.** maintaining a sharp edge allows for a safer easier working environment.



Keeping a sharp edge on your tools is quick and simple when using your Schaaf Tools diamond stone. The diamonds remove material from the blade as it slides across the sharpener. The material is swept away by a lubricant (water with a little dish-soap will do just fine) and caught in the recessed holes of the honeycomb pattern and washed off after use. This honeycomb pattern is extremely efficient and great for blades with long cutting edges.

Schaaf Tools double sided stone comes with both a coarse 400# grit side and a fine 1000# grit side. For heavy stock removal, to create a new bevel or for rougher work, like cutting rope, you'll need to use the coarser grit (400#).

For regular maintenance and honing, and also for fine cutting tasks, such as carving or planing wood, or slicing tomatoes, you'll need to use the finer 1000# grit side.

Many beginners using a diamond stone for the first time tend to over sharpen their edges. A few quick passes of the blade on the 1000# grit side of the stone, followed by a leather strop when you notice the edge starting to dull will keep your tools sharp and ready to use.

Instructions

For Curved Gouges

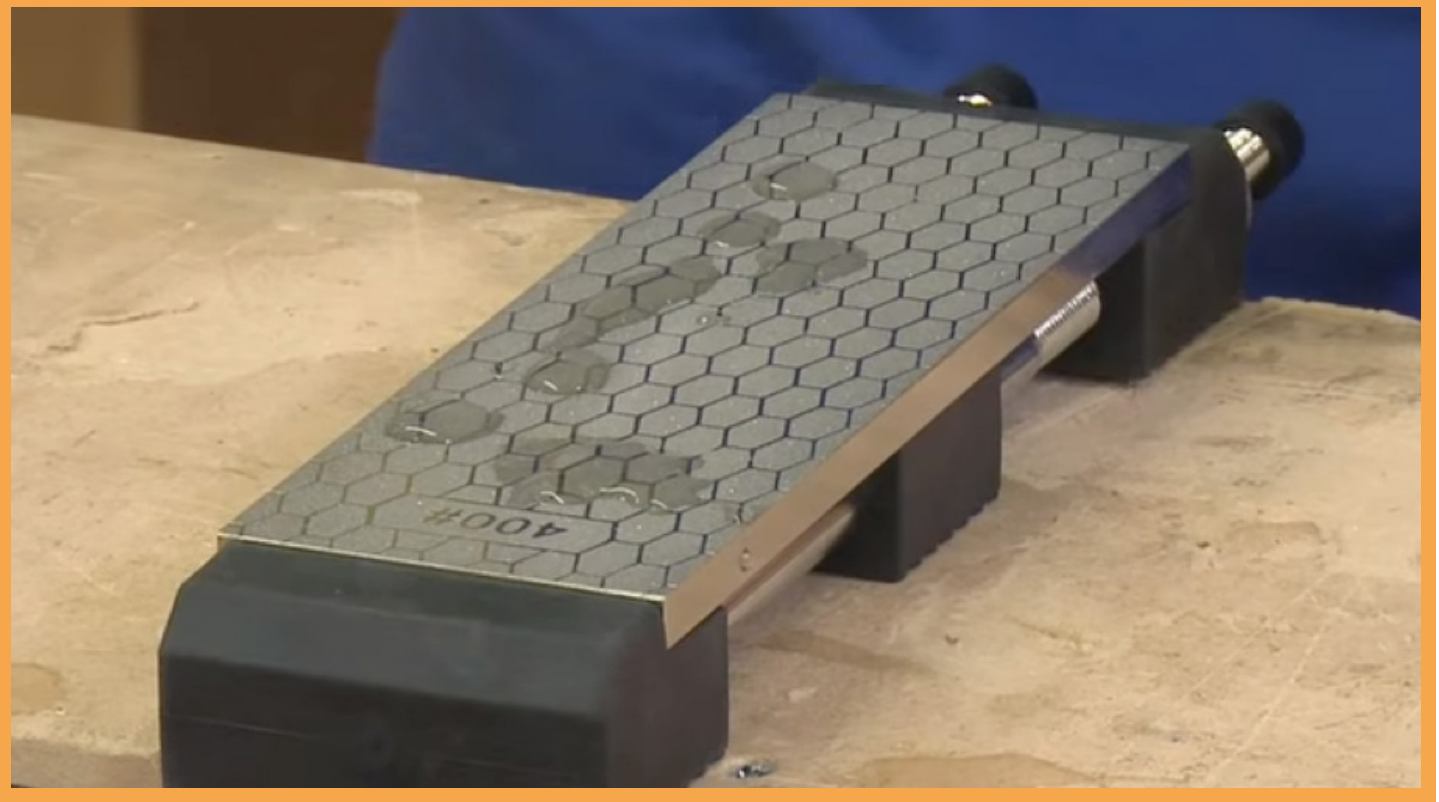


NOTE:

For light honing and normal maintenance, you can start on the 1000# side. Otherwise start on the 400# side.

Step 1 - Prepare your Schaaf Tools Diamond Stone

Lubricate either the 400# grit or 1000# grit side of your diamond stone (remember, are you sharpening a beat up edge or is it normal maintenance?) with a little bit of water, water and dishsoap or other lubricant. This “lapping fluid” will float away the debris.

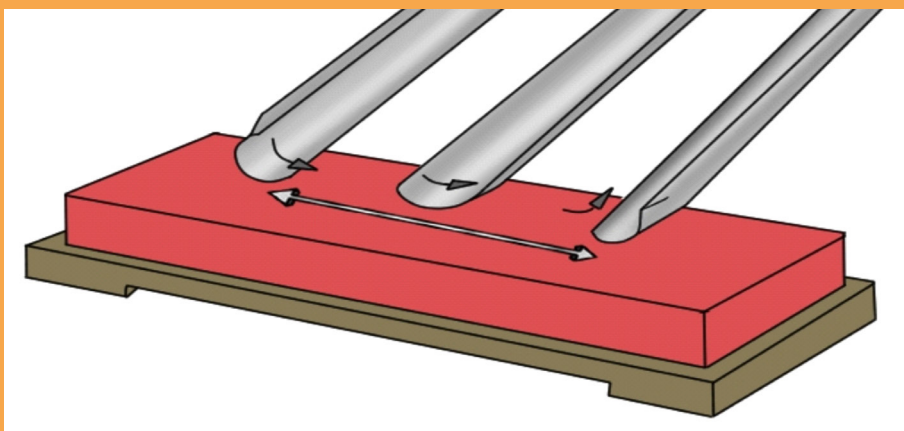


Step 2 - Sharpen the outer bevel

Rest the back of the gouge on your sharpening stone. Raise the handle until the outer bevel is lying flat on the stone. Move the blade back and forth, twisting as you go to sharpen evenly along the entire bevel. Be sure not to twist too much or you will round the corners of the blade.



Continue this until you see a small metal burr (the small fold of metal that forms at the apex of the cutting-edge during sharpening) on the inside edge of your gouge.



Step 3 - Sharpen the inner bevel

Use a slip stone to hone the inside of the blade (inner bevel). Holding the gouge firmly in one hand, move the slip stone up and down against the inside of the bevel. Continue until the burr has been pushed to the other side of the blade.



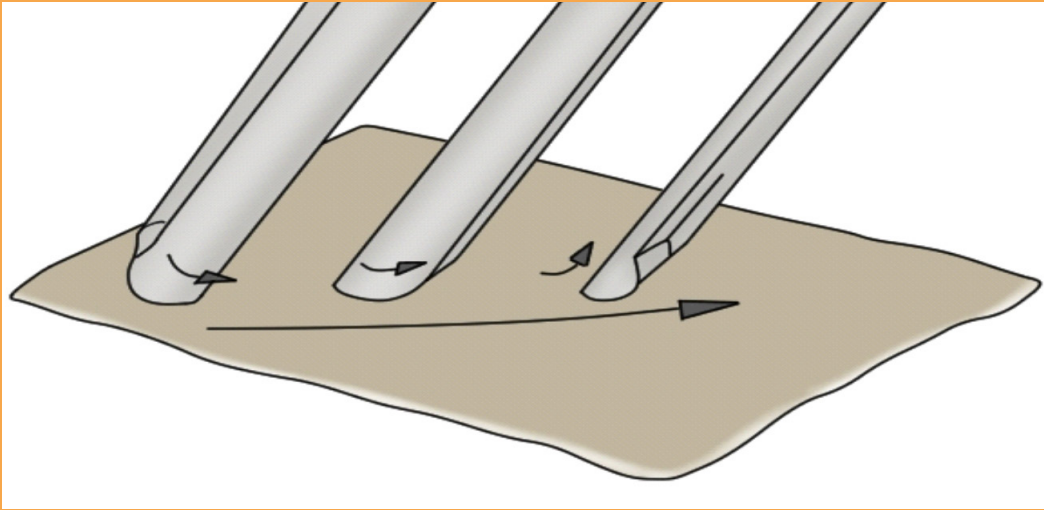
Repeat steps 2 and 3 until the burr has been reduced to nothing

What if I don't have a slip stone?

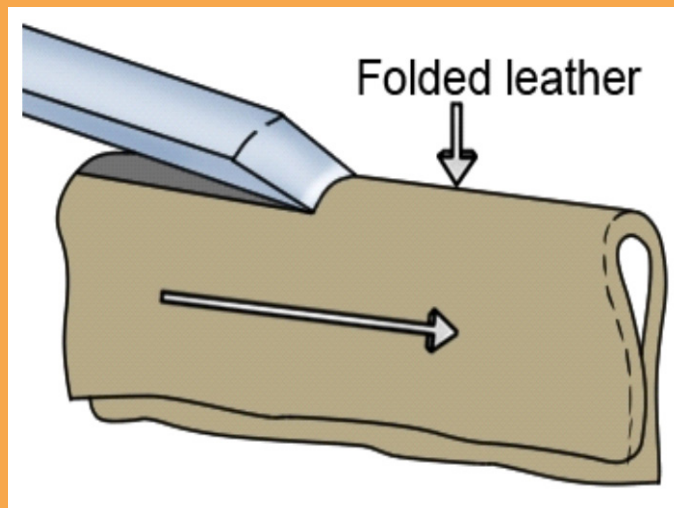
If you don't have a slip stone yet, find something with a rounded edge, like a long, rounded piece of wood, and put some leather over it. Grip the two together in a vice, like shown below to create a slip strop:



Step 4 - Polish the gouge



Use your strop to remove any final burrs and polish your finished blade. Remember to strop both the inside and outside of the gouge.



Tips and Sharpening Standards

As you sharpen your gouges, remember these four sharpening standards from wood carving legend Chris Pye:

- Cutting edges should be at right angles to the blade (unless sharpening a skew chisel)
- Tools should have straight cutting edges
- Sharpness should be maintained all the way to and including the edges' corners
- Thickness should be even across the width of the carving blade

Another helpful trick to keep in mind: A blunt edge can be seen reflecting light, and appears as a thick, shiny line. This line of light will be your guide to the state of your cutting edge. By always checking the distribution and thickness of the line, you'll be able to monitor the state of your blade. The thicker the line of light, the duller the edge, and vice versa. Once your edge is sharpened, your line of light will be gone. Make sure you strive for evenness as you sharpen.

Chisels and Plane Irons



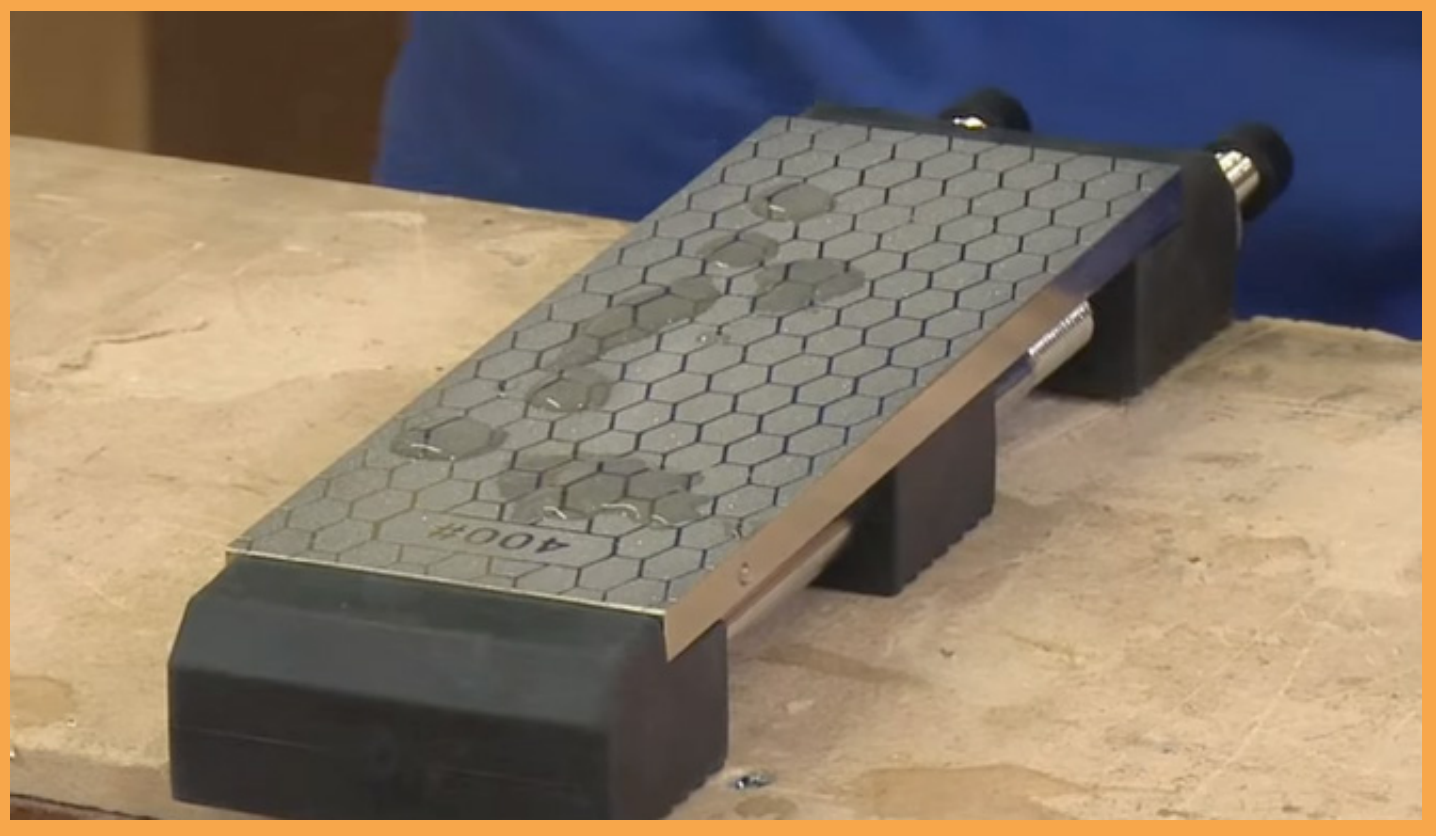
NOTE: If your chisel or plane iron is new or damaged...

You'll need to flatten the back before you sharpen the bevel.



Step 1 - Prepare your Schaaf Tools Diamond Stone

Lubricate the coarse 400# grit side of your Diamond stone with little bit of water, water and dish soap or other lubricant. This “lapping fluid” will float away the debris



Step 2 - Sharpening

Push downward on the back and move the chisel from one end of the diamond stone to the other the long way with long fluid strokes.

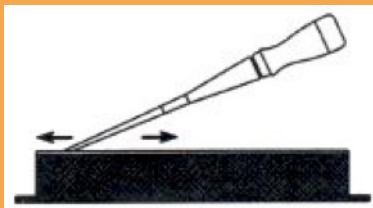
Once you've established a uniform scratch pattern, turn the stone over and do the same thing with the fine 1000# side until the coarse scratch pattern is replaced by the much finer scratch pattern.

PRO TIP: Use the whole surface of the plate when sharpening to maximize the stone's life. If you always sharpen in one place, you'll wear out that part of the stone faster.



Step 3 - Sharpening the Bevel

Now that the back is flat, it's time to sharpen the bevel. Flip the stone back over the coarse 400# side. You'll want to sharpen the bevel at about a 25-degree angle.



If you have a honing guide, great. Otherwise you can stack two quarters on top of each other and lay the blade on them to provide an estimate, or just estimate it yourself.

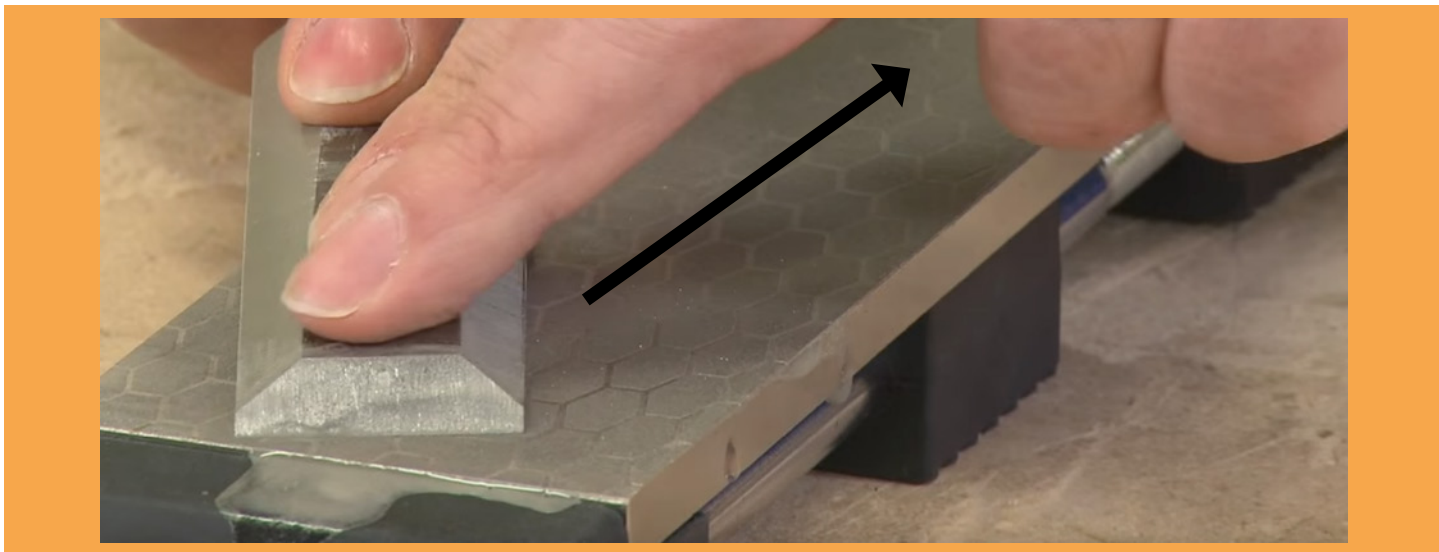


Pull the bevel back along the 400# grit side of the stone, putting pressure on it with your fingers. Continue that until you have a nice straight pattern of scratches running along the bevel. You should be able to feel a burr across the whole width of the edge.



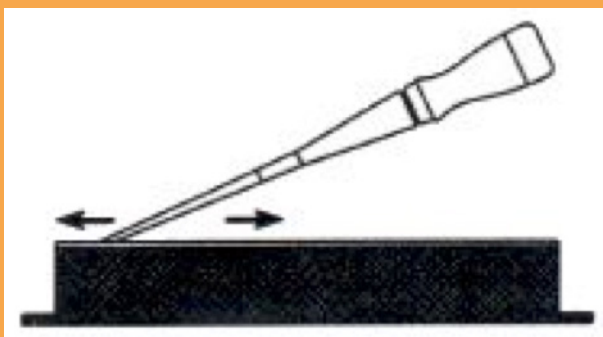
Step 4 - Removing the Burr

The next step is to take the burr off the back. Switch to the fine 1000# grit side of the stone. Remove the burr by pulling the chisel back flat on the fine stone.



Step 5 - Polish the Bevel

Once you've removed the burr, polish the bevel on the fine 1000# grit stone side. Again, lay the heel of the bevel on the stone and then raise it up until the bevel is laying flat on the stone. Then pull it back and forth (smaller back and forth motions work) until you've established a fine burr across the width of the blade.



When you've done that, flip the chisel over again, and pull backwards to remove the fine burr. You might find that another smaller burr is then created on the bevel side. Alternate between back and bevel until the burr is completely gone.

Step 6 - Rinse your diamond stone and dry it off.

Step 6 - Stropping

Repeat the process with your leather strop, polishing the bevel and the back. Place lots of pressure down and keep it pressed flat. You should find at the end of this process that any remaining tiny burr is gone and the tip of your blade is polished and sharp.

For Knives



For normal sharpening and honing you'll be using the finer 1000# grit side

Step 1 - Prepare your Schaaf Tools Diamond Stone

Lubricate the 1000# grit side of your Diamond stone with little bit of water, water and dishsoap or other lubricant. This “lapping fluid” will float away the debris.



Step 2 - Establish the bevel angle

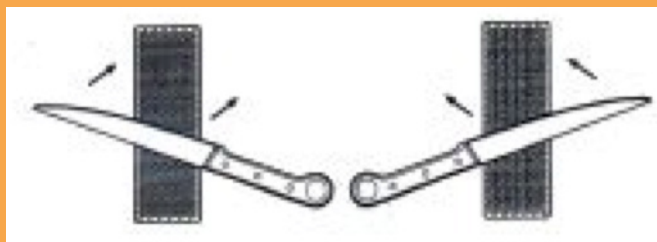
Practice holding the knife at a 20 degree angle (you can use the quarter trick again here). What you’re doing here is establishing the same angle as the knife bevel, which is 20 degrees for most knives.



Step 3 - Sharpen the knife

Hold the knife against the stone. The edge of the blade should be facing away from you. Hold the knife at that 20 degree angle with one hand, and use your fingers on your other hand to control the pressure and direction of the blade as you sharpen.

Stroke away from the body



Step 4 - Flip over the blade

Repeat step 2, and then continue to alternate on each side of the knife with an equal number of strokes until a fine edge is produced.

NOTE: If your knife is very dull or nicked up, start sharpening process outlined above on the 400# grit side before moving to the 1000# side.

Not everyone has the same sharpening process. Practice, practice, practice, and find what works for you. And feel free to check out other resources online as well, our feelings won't be too hurt. Youtube has some great sharpening videos!

Don't forget to head over to our website and become a subscriber for exclusive giveaways, discounts and news!

SUBSCRIBE