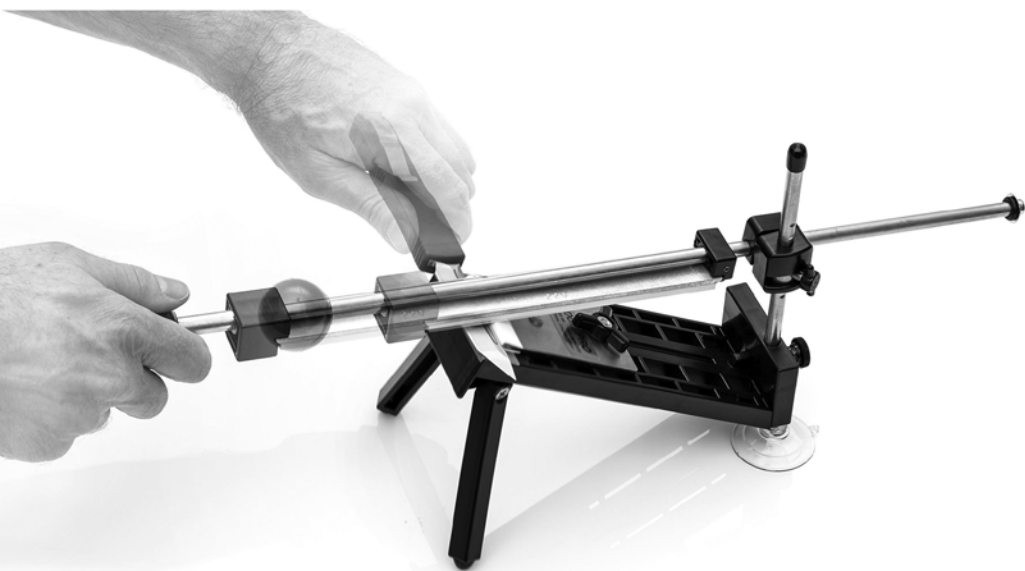


# *Edge Pro*

Sharpening Systems

## **APEX INSTRUCTIONAL MANUAL**



**Edge Pro Inc.**

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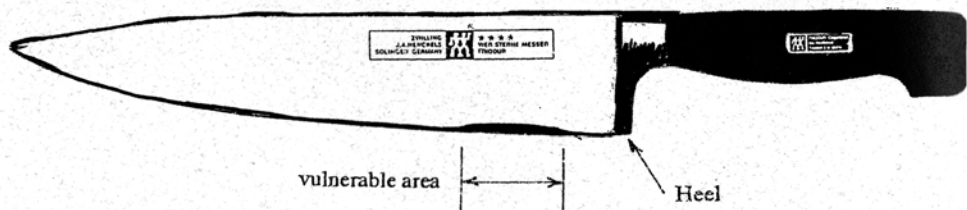
[www.edgeproinc.com](http://www.edgeproinc.com)

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541-387-2222

Thank you for choosing Edge Pro. Here are some additional tips:

- To keep things simple while you are learning to use your new EDGE PRO APEX, sharpen almost everything at 21 degrees Yellow. The exceptions are Japanese Kitchen knives at 18 Green and heavy blades at 24 Blue.
- If you are sharpening and can't get an edge, go to a higher angle or thin the blade. See page 11
- CAUTION: Do not sharpen anything except a bread knife below 18 degrees. On kitchen knives, you are putting a lower angle on the blade than you are reading on the PIVOT, because of the slope of the blade.
- If you have a set of forged knives, you should know that all forged knives will eventually develop a hollow spot in front of the heel, no matter what method you use to sharpen. However, if you sharpen correctly with the EDGE PRO, this problem can be avoided longer than with any other system. Here's how: Stroke the stone all the way to the heel just as you would with a stamped knife. But the instant that the edge starts to develop a burr a few inches down the blade, stop sharpening in this area. If you try to sharpen the edge all the way to the heel, the edge will hollow out just in front of the heel. This is just a result of the shape of the Forged Heel on these knives. If you do not Burr the Vulnerable Area you will prevent this from happening for a very long time.



If you have any questions about your EDGE PRO sharpening techniques, please call, best time to reach me is between Noon and 2 PM Pacific Time.

Sincerely,

Ben Dale

A handwritten signature in cursive script that reads 'Ben Dale'. The signature is written in black ink and is positioned below the printed name 'Ben Dale'.

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**Riser Block for short blades** *If the blade does not reach across the Blade Table you can sharpen it without having to move the blade by using a RISER BLOCK (RB). Find a scrap of wood that is thicker than one side of the handle of the knife. Cut a piece the length and width of the blade. Lay the knife on the RB and mark the shape of the tip, cut to this shape. If the blade has thumb studs, notch out the back corners. Tape the block to the end of the BLADE TABLE. Put on the GUIDE CLIP and bring the KNIFE GUIDE up against the RB. If the GUIDE CLIP isn't high enough, put a piece of cardboard under the KNIFE GUIDE. Now, you can set the knife on the RB and sharpen the whole blade without moving the knife.*

## **RECOMMENDATIONS**

1. **PAINTERS TAPE**-Keep a clean piece of PAINTERS TAPE on the end of BLADE TABLE. It helps to keep from scratching the blade. There is more on this on pg. 12. It also keeps you from cutting into the end of the BLADE TABLE while you are learning to use the machine. It is not noticeable if the stone cuts into the plastic, but you can easily see when you hit the tape because the tape turns from blue to black.
2. **SUCTION CUPS**- If you have textured counter tops the APEX will not stick. You can fix this by sticking the APEX down in a glass baking dish or smooth cookie sheet. Put down a damp towel & set the dish on the towel so it won't slide around.
3. **GUIDE CLIP**- This is the plastic clip on the edge of the KNIFE GUIDE. It allows you to sharpen a double edge knife. It also makes the knife easier to hold. Slide it off if it gets in your way when sharpening a small knife.

## **Set up instructions**

1. *Rotate the legs out to 90 degrees. Stick the suction cups down dry, onto a smooth, non-porous surface. If they won't stick, put just a drop of water on each cup and spread it with your finger. If you add too much water, they will slide around.*
2. *Remove STONE ARM from case & remove the rubber band. Rotate PIVOT so PIVOT SHAFT is on your right. Insert PIVOT shaft into the back of the APEX with the INDICATOR MARKS facing you.*
3. *To set the angles- Line the top of the PIVOT with the bottom of the INDICATOR MARK. Place PIVOT LOCK KNOB in the center of its slot and tighten.*
4. *To change the stones- Turn the knob a couple of turns counter clockwise. Grasp the STONE ARM, with one STONE HOLDER in each hand. Pull the front STONE HOLDER until the stone snaps free, and slide the stone out sideways. Slide a new stone in and tighten the knob firmly, but not hard.*

## **Choose the Appropriate stone for the task**

*120 Grit- For extreme metal removal. We only use this stone for thinning at a much lower angle than you are sharpening. If you are going to use it on a single bevel, lower the angle just a little, and do not go to a burr. Remove some metal, then go back to your sharpening angle, and your 220 to get a burr.*

*220 Grit- This is the stone you start with on most dull knives.*

*400 Grit- Use this stone to start sharpening knives that are in good shape. Also, the next step on the way to finishing the edge.*

*600 Grit- This can be your finish stone on most kitchen knives.*

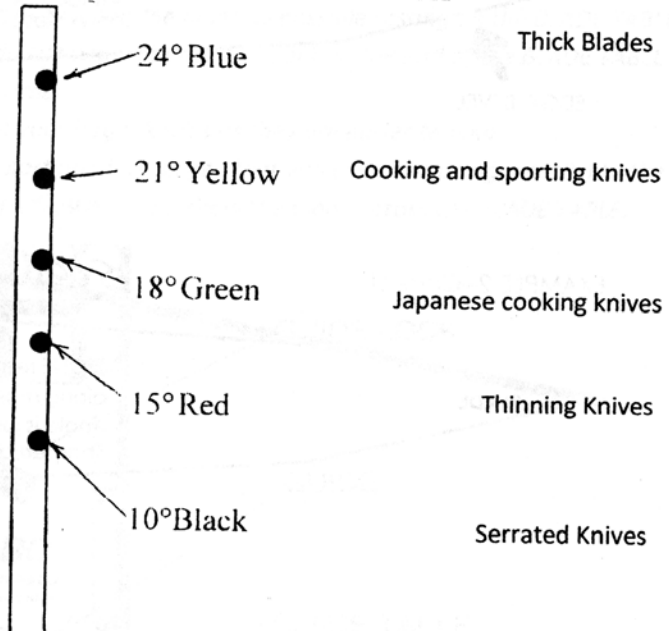
*1000 Grit- Also a finish stone for kitchen knives and the next step toward polish.*

*2000 and 3000 Polish Tapes. Used to finish the edge on all sporting and pocket knives and Japanese cooking knives. This is the strongest and longest lasting edge you can put on a knife.*

## Set the sharpening angle

We have changed our angle recommendations. 21 degrees is the best angle for most knives. The exceptions are very thick blades at 23 or 24 degrees, Japanese Cooking Knives 17 or 18 degrees, 15 degrees for thinning and 10 degrees or lower for serrated knives.

### BASIC METHOD FOR SETTING THE ANGLE

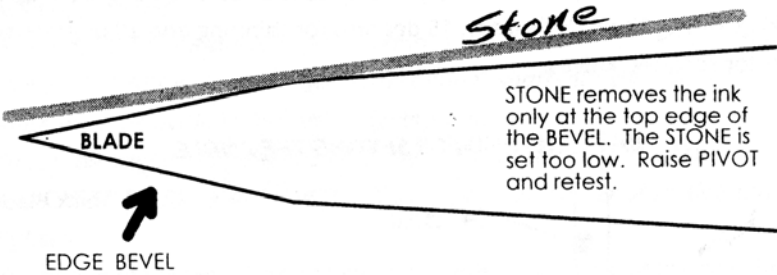


### Set to match the angle on sporting and pocket knives

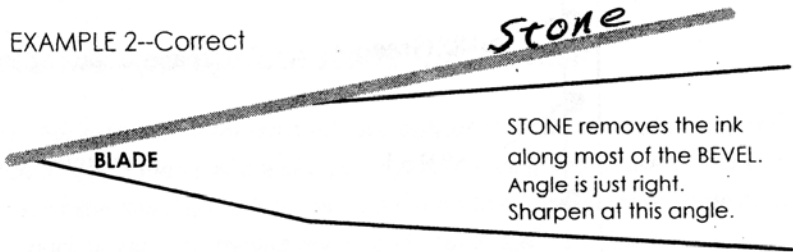
Start at an angle you are sure is lower than the angle on the knife. You want to start at the back of the bevel and work up. Put some marker on the bevel. Touch a dry 400 to the bevel. Keep moving the PIVOT up until the stone cleans the marker off all the way to the edge. Next, wet the 400 and start sharpening. If I do not get a burr in 3 or 4 passes I will go to the 220, but usually the 400 is the coarsest stone you will need on these knives. However, there are exceptions to everything.

## EXACT METHOD FOR SETTING THE ANGLE

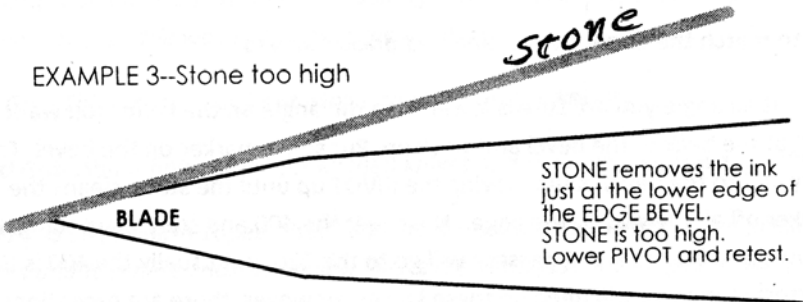
EXAMPLE 1--Stone too low



EXAMPLE 2--Correct



EXAMPLE 3--Stone too high



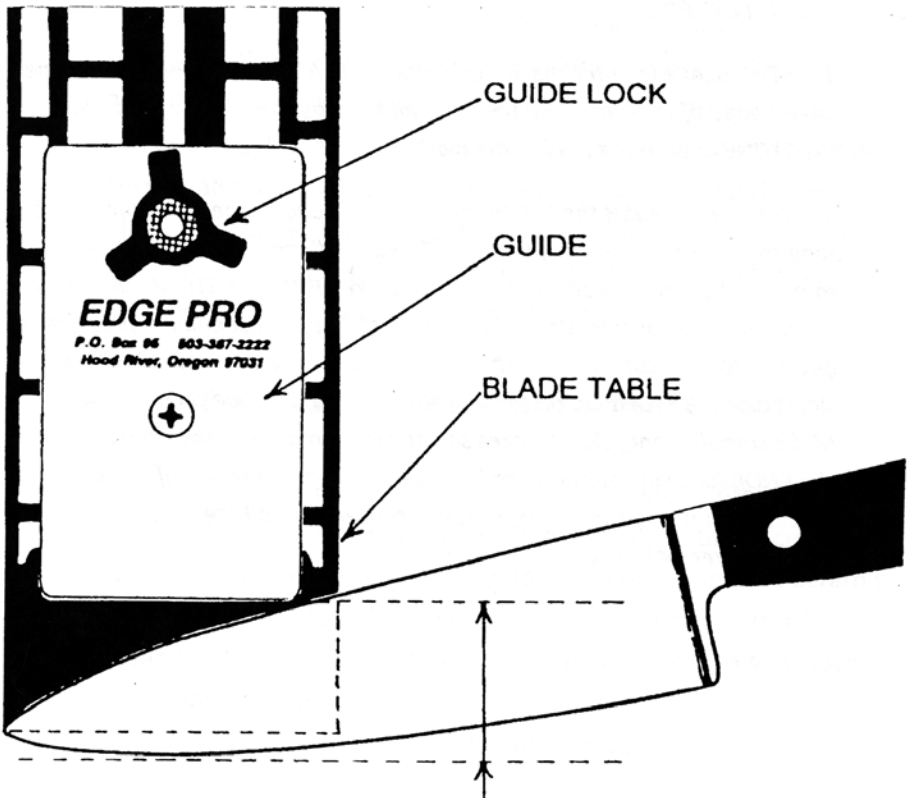
## Set the knife guide

**Flexible Blades** Position the blade so that the narrowest part of the blade is parallel to and just over the end of the BLADE TABLE. Position the GUIDE against the back of the blade and tighten the GUIDE LOCK.

**Stiff Blades** Center the blade across the BLADE TABLE. Set the GUIDE so the edge of the knife is even with the end of the BLADE TABLE. Sharpen the whole blade without moving the knife. See SPORT KNIVES on page 10

### TIPS-

1. You want as much of the blade as possible resting on the BLADE TABLE, but you do not want the stone to cut into the end of the BLADE TABLE as you sharpen.
2. Start with your larger knives as they are easier to hold.
3. Keep the portion of the edge, that you are sharpening, parallel to the front of the GUIDE as you draw the blade across the BLADE TABLE.

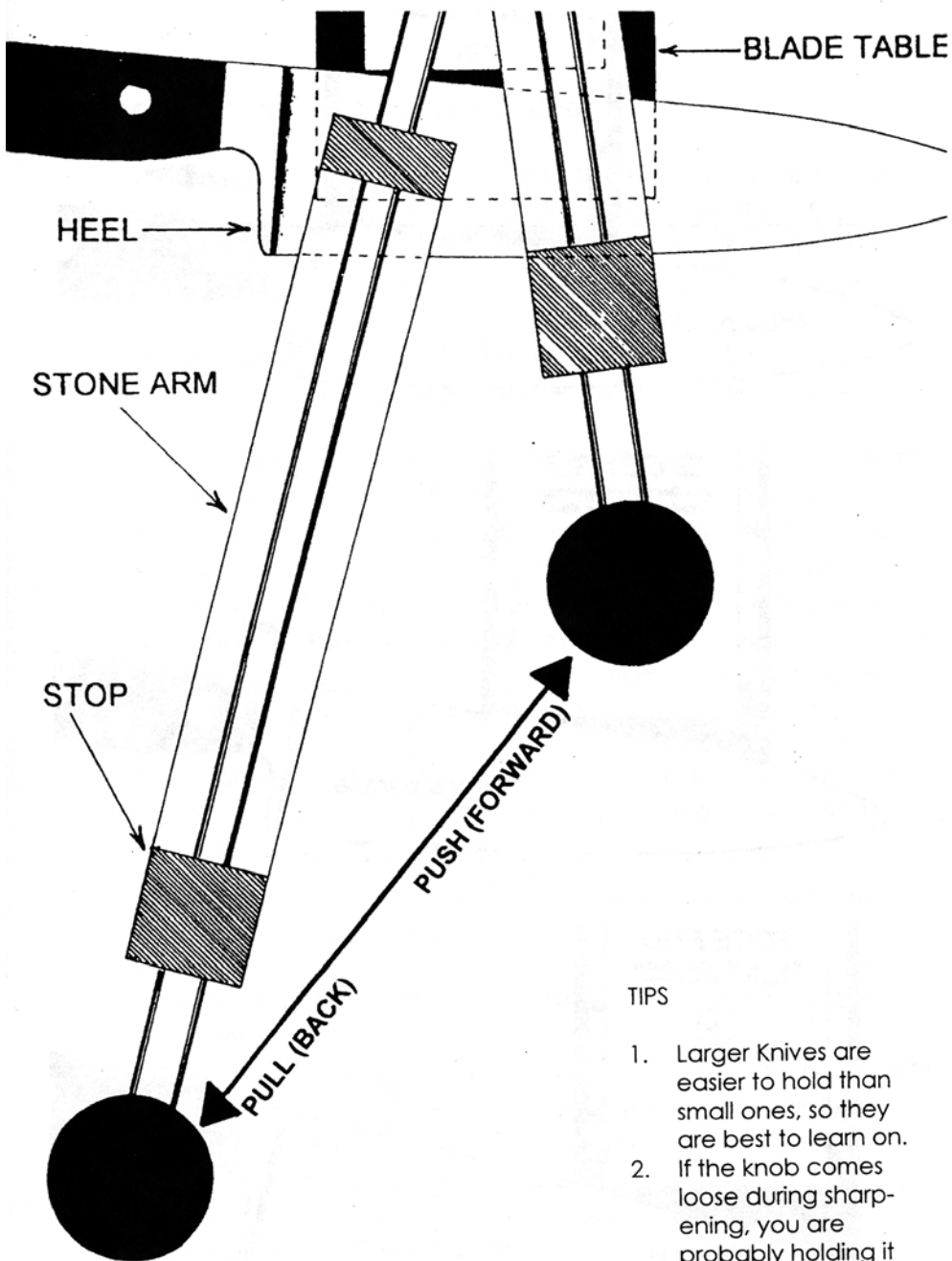


## **Operating instructions**

Overview of how the machine works: With one hand you move the **STONE ARM** forward and back. With the other hand, you draw the knife blade under the moving stone, keeping the portion of the edge that you are sharpening parallel to the front of the **GUIDE**. On stiff blades the knife does not move. At first you will hold the knife tighter than necessary. But as you get comfortable, try to relax your hands. You only need a small amount of pressure on the back of the knife blade to keep it locked into the **KNIFE GUIDE**, and a little pressure on the stone to get it to cut. You can leave the **GUIDE CLIP** on if it is not in the way.

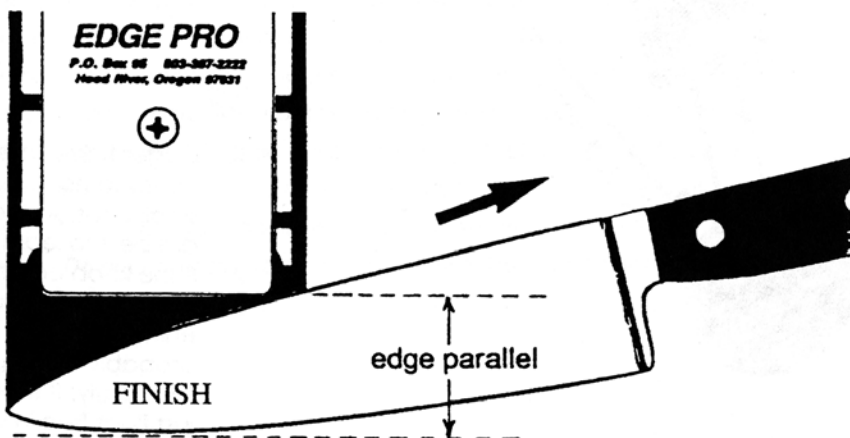
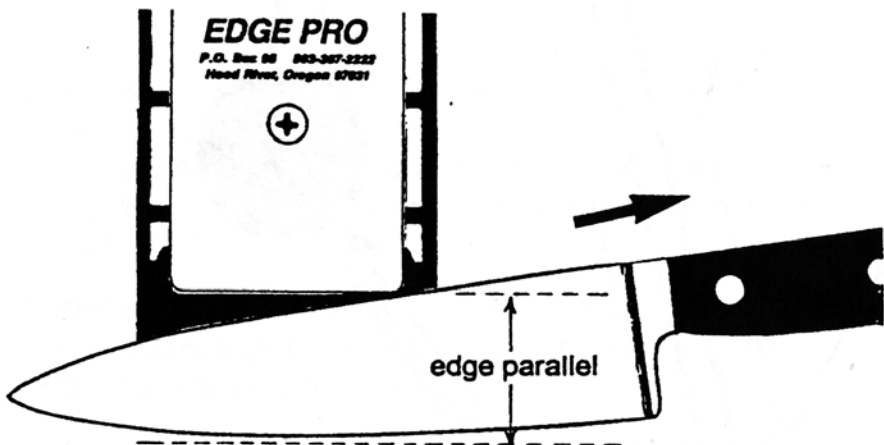
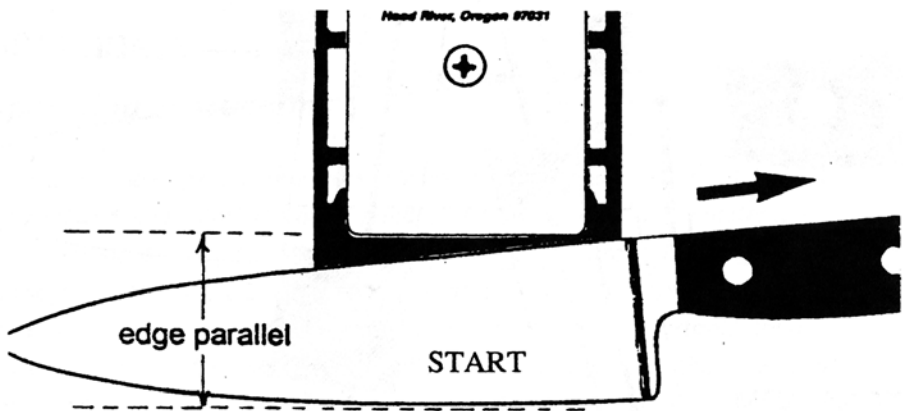
1. Put a little dish soap in the water bottle. Put enough water on the stone to cover the surface and let it sink in.
2. **FLEXIBLE BLADE**-Position the blade on the **BLADE TABLE** with the knife handle near the **BLADE TABLE** and the edge parallel to the front of the **KNIFE GUIDE**.
3. **STIFF BLADE**- Center the knife across the **BLADE TABLE**. Place the stone on the edge of the knife. Pull the knob all the way toward you, and slide the **STONE** over to the heel of the blade.
4. The stroke: **PUSH** the **STONE ARM** forward and at the same time let it slide to the opposite side of the **BLADE TABLE** (diagonal motion.) You want to make about a 2" wide cut with each stroke. **PULL** the **STONE ARM** back to the starting position along the same path. Apply just enough pressure to get the stone to cut. Most of the sharpening is done on the push stroke. Don't pick the **STONE** up on the pull stroke, just let it slide on the edge. Make smooth, long, slow strokes so you just bump the stops gently. Hold the **KNOB** loose in your hand so it is free to follow the shape of the knife blade. Do not move in circles, as it will concentrate all the sharpening in only one area of the edge.





#### TIPS

1. Larger Knives are easier to hold than small ones, so they are best to learn on.
2. If the knob comes loose during sharpening, you are probably holding it too tightly. It should just float free in your hand, so the stone is free to follow the shape of the blade. If it still comes loose, tighten the knob a little lighter.



As the blade moves across the BLADE TABLE, you want the edge to remain **parallel** to the end of the BLADE TABLE.

## **Operating instructions continued:**

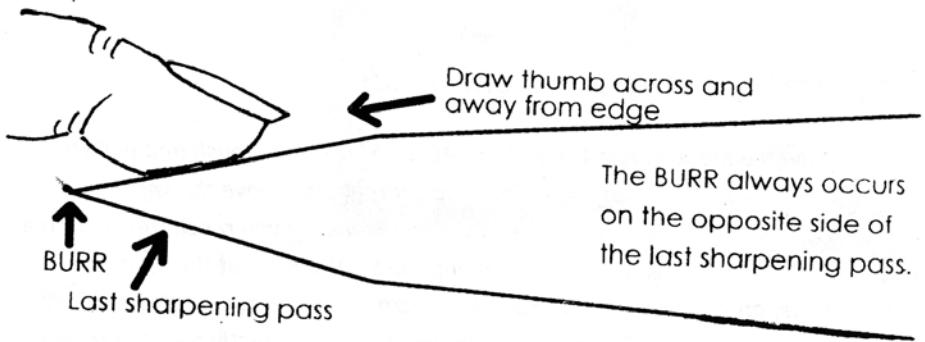
5. *Draw the blade across the BLADE TABLE. Make 3 or 4 push and pull strokes starting at the heel of the knife. Stop sharpening. Move the knife 1". Make 3 or 4 strokes. Continue in this manner until you reach the TIP of the blade. If you have trouble controlling the STONE ARM at the tip of the blade, only sharpen on the FORWARD stroke, and lift the STONE ARM off the blade on the AFT stroke. Make sure the TIP is directly over the corner of the BLADE TABLE for support as you sharpen it.*

*Hint 1: Keep the STONE ARM operating over the BLADE TABLE. Do not let it wander down the blade. The exception to this rule is if you are sharpening a stiff blade like a hunting knife. If the blade is 3" to 6" long you may position it so that it is centered on the BLADE TABLE, equal amounts of the blade overhanging each side. Now you can sharpen the whole blade without moving it, because the blade is stiff enough so it won't flex. You will have to move longer blades enough to bring the tip of the knife in so that it is only overhanging the BLADE TABLE by 1" or 1 1/2".*

*Hint 2: Go slowly. The STONES cut faster and are easier to control when they are moving slowly. If you go fast, they just slide over the blade and do not cut and will not stay clean.*

*Hint 3: With practice you will not need to stop sharpening to move the blade. Instead, just inch it along as you sharpen.*

6. *Switch the knife and STONE ARM to opposite hands and repeat the process on the opposite side of the blade.*
7. *Clean the STONE and wipe the knife blade off every one or two passes (with the STONE ARM off to the side, so the water runs away from the PIVOT.) Put just enough water on the STONE to cover the surface, then wipe the STONE off with a microfiber towel.*
8. *Bring the edge to a BURR. Continue making equal passes down each side of the blade. When the two sharpening cuts come together at the edge, the metal breaks down and forms a BURR, which can be felt by drawing your thumb across and away from the edge on the opposite side of the last pass.*



9. Check the edge for a BURR each time you switch sides. The BURR will begin to form in some areas but not others. Concentrate your sharpening in areas with no BURR and pass lightly over the areas that have started to BURR. When you have an even BURR down both sides of the edge, switch to a finer STONE, make a few light passes to remove the scratches from the previous stone. Keep progressing through the stones until you reach the one you want to finish with.
10. Remove the BURR. Wipe the stone and knife off. Make two or three passes down each side of the blade with NO PRESSURE on the STONE, just the weight of the STONE ARM. **DO NOT HIT THE STOP**. Just sweep lightly once over each area of the blade. Check to see that the BURR is gone. If you use too much pressure or too many strokes, you will keep making new BURR.

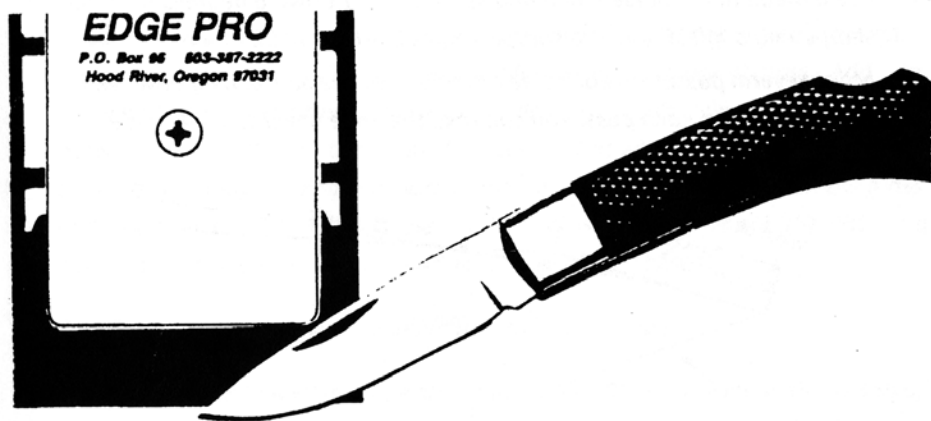
**Finishing the edge—CERAMIC HONE**--After removing the BURR use the knife until the edge starts to fade. In a home kitchen this is usually 2 or 3 weeks. Stand the ceramic hone vertically against the counter. Starting at the heel of the knife and the top of the ceramic, draw the knife toward you, and let it slide down the ceramic. Angle the blade away from the ceramic at a few degrees more than the angle you used to sharpen. **DO NOT USE ANY PRESSURE**. Just let the edge lightly touch the Hone. You can see the Micro Bevel the Ceramic Hone is putting on the edge by putting a spot of marker on the edge bevel. Run the knife on the Hone and look at the marker. You should see a small shiny bead at the edge of the blade. The Micro Bevel is only .001" wide so you have to look close. Use the Ceramic Hone to bring the edge back between sharpening.

\*We do not use the ceramic hone on a polished edge.

**DO NOT USE A REGULAR STEEL.** This tool is too coarse and will damage the edge.

## Short Blades

Sharpen the main part of the **BLADE** as usual. As you reach the tip, draw the knife out and pivot the **TIP** out over the end of the **BLADE TABLE** so you can sharpen it. **GO SLOWLY**. Do not let the **STONE** slide off the **BLADE** and cut into the **BLADE TABLE**. (The blade table will get cut up over time. But you can keep it to a minimum.) Try to pivot the **BLADE** in the same manner on each pass for a more consistent **EDGE BEVEL**.



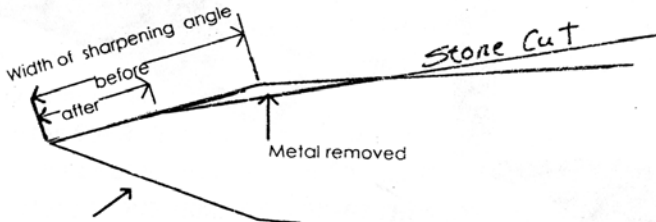
## Sport knives and all stiff blades

If the blade will not bend as you sharpen, you do not have to move it along as you sharpen. Blades 3" to 6": Center the knife on the **BLADE TABLE** and sharpen without moving it. Longer knives, just slide far enough to bring the tip close to the side of the **BLADE TABLE**, and sharpen around the tip. Rest the knife on the widest surface on the blade. That is usually the second bevel or **FACE**. **Optional**- If you want a specific angle on the edge, let's say 21 degrees, there is usually enough **FLAT** near the handle to get a bevel started at your desired angle. Then lower the knife on to the **FACE**, put marker on the bevel you just cut, and re-set the **PIVOT** to that angle. Now you will be sharpening up around 25 degrees but you know the angle you are putting on the knife is exactly 21. **FLAT** is the same surface that the handle is attached.

## Thinning the blade-Double bevels for very dull knives

As a knife is sharpened over and over, the sharpening cut keeps getting wider and wider as the edge moves up into the thicker portions of the blade. As this happens, the STONE cuts slower and slower until the knife becomes difficult to sharpen. To cure this problem, thin the blade by creating a second bevel. This procedure makes the knife easy to sharpen once again, plus it improves the shape of the blade so it cuts more easily.

1. Use a Medium or coarse stone and set the PIVOT down 6 degrees from the sharpening angle. If you are sharpening at 21- thin at 15.
2. Make several passes on each side of the blade. The sharpening bevel will get smaller with each pass. You can take the edge bevel to 1/64" wide



3. Return to the original angle and finish the edge. Last, finish the low angle with a finer stone or Polish Tape

## Sharpening serrated edges

You can only sharpen knives with serrations cut on one side. Knives with serrations on both sides are considered throw away knives. Only sharpen on the side opposite of the serrations (the flat side.) Put some magic marker on the flat side. Set the angle so the stone is making a cut all the way through the serration. If you can't get low enough, slide a piece of cardboard under the KNIFE GUIDE and let it stick out 1/4". Set the back of the blade on the cardboard and this will lower the angle further. Use a 400 or 600 stone. Make a few passes, then, turn the edge up into a good light. Look at the points on the serrations. If the knife is dull, there will be shiny spots on the points. Sharpen until the shiny spots just begin to disappear and stop before the points begin to burr. Turn the knife over and lightly run a Ceramic stick through each serration to remove the burr

### **Sharpening without scratching the blade (for polished or engraved knives)**

1. Cover both sides of the blade with Blue Painter's Tape, available at any hardware store). Then, trim the tape off the EDGE BEVEL, so it won't gum up the stone.
2. Sharpen as usual, but do not run the STONE all the way to the STOP. Sometimes the end of the STONE will make scratch marks on the edge.
3. Finish the edge and remove the tape.

### **Leveling the stones**

As soon as you can see that the STONE is no longer flat, it needs to be leveled. Put about a teaspoon of Silicon Carbide (SC) down on a piece of glass. Add some water and grind the STONE in a circular motion. You want the SC to run between the STONE and the Glass. The stone is flat when the surface is all one color. If you are not using the glass to mount your EP, leave the SC on the glass and store. Just re-wet for next use. SC powder is available from EDGE PRO. In a pinch you can use sand, dry, on concrete to level the stones.

### **Bonding a stone to a plate or using un-mounted stones**

Place the STONE BLANK in a vise so the top of the BLANK is even with the top of the vise or grab it with pliers. Heat the Blank with a Propane torch, heat gun or the stove for 20 seconds. Slide the stone off with a putty knife. Then coat the stone and the plate with 3M77 or any contact cement. If the glue bubbles up, it is too thick. Let them set for 1 minute, then press firmly together. Make sure they are lined up when they touch, the glue grabs hard instantly.

### **Sharpening tips**

If you get a lot of burr as soon as you start sharpening, the angle is too high. If you sharpen for 5-10 minutes and don't get a burr, the angle is too low. Switch the STONE end for end every few knives and it will stay flat longer.

### **Safety features**

1. The BLADE STOP- Prevents your hand from contact with the knife edge.
2. The PIVOT STOP- If you should jump over the blade stop, the stone arm will only go 1/4" before the stone holder stops against the pivot.

## ***Polish Tape Instructions***

1. Remove the backing from new tape. Holding it by the sides, lower it onto the blank. If you get air bubbles under the tape installing a new one, you can pull it up several times and it will adhere to the blank just fine. Press the tape in place use your finger and a clean paper towel. You don't want to use just your finger, you will get oil on the tape.
2. If you have a Pro Model, set the RAMP a little high. You do not need to use the RAMP when polishing, but if you slip on to the RAMP and it is not high enough, the knife will cut the tape off the blank when the edge comes back over the tape.
3. Wipe the knife clean of all stone grit.
4. Use a pull stroke on the first few passes. Don't use any pressure. Then after a few passes, you can use just a little pressure.
5. Polishing. If the knife is not as sharp as you want it, lower the PIVOT just enough to see it move. Make a few more passes. You can also check the Tape with a felt tip marker to make sure it is cutting all the way to the edge and not just polishing the bevel.
6. Clean the Tapes. Put a little dish soap in the water bottle. Wet the Tape and wipe with a clean paper towel after each knife. You can use the soapy water on all the stones.

## ***Directions for 1200 Grit Travel Ceramic***

7. Remove the Ceramic from the plastic tube. Insert the bare end into the taped end, and **push and twist** firmly until the ceramic is securely in place. Using the tube for a handle, stand the ceramic against the counter. Follow the instructions in the manual.
8. Clean the Ceramic often by scrubbing it with a damp soft cloth and cleanser (Ajax or Comet).
9. CAUTION: Ceramic will break if you drop it.



