

SureAngle SAM (Sure Angle Management) Knife Sharpener – User Instructions

(For the parabolic rod-guided system with interchangeable diamond hones in 240, 600, and 1000 grit)

The SureAngle SAM sharpener features a patent-pending parabolic rod guide that automatically maintains a consistent bevel angle from tip to heel — no angle drift at the ends like in standard center-pivot systems. The clamp is made of durable plastic, so overtightening is not a concern for blade damage, but always tighten just enough to secure the knife firmly. Work on a stable, non-slip surface. Diamond hones perform best dry (no oil or water unless specified for your hones). Wear cut-resistant gloves for safety.

1. Assemble the Hone Wand (Key Step!)

One wand/handle with a spring-loaded mechanism; diamond honing bars in various grits will swap in/out.

- Hold the wand horizontally.
- Select the desired honing bar (begin with a lower grit for damaged edges or reprofiling).
- The wand is spring-loaded — pull back or depress the spring-loaded component (collar, button, or end cap) to open/align the insertion slot.
- Align the guide rod bar on the honing wand with the slot (rotate/turn 90° and push the guide rod bar as far into the slot as possible. The guide rod and hone should ideally be on the same plane. It might take a strong push or tap to seat fully. The guide rod bar is not intended to be folded afterwards. We only ship them folded to fit into the box.
- To change grits: Pull back on the spring-loaded trigger to release the current bar, remove it, insert the next bar, and lock it in the same way. Always verify full insertion and lock before use.

2. Mount the Knife in the Clamp

2a. Loosen clamp screws fully to open jaws.

2b. Position the knife with the center of the blade (midway heel to tip) aligned in the clamp for best balance. The patent-pending parabolic design enables full-edge sharpening without repositioning. The knife edge should be about ½” from the clamp jaws. Please center the knife blade as much as possible (left/right) to ensure a consistent angle.

2c. Place the clamp and knife into the sharpener base.

2d. Tighten screws evenly and just enough to secure the blade firmly — since the clamp is plastic, it won't harm the knife blade even if tightened a bit more, but avoid excessive force (snug hand-tight is ideal; the knife should not move at all).

3. For wider blades (e.g. heavy chef's knives): You may need to increase the height of the angle adjustment on the parabolic guide (if your model allows variable height settings) to accommodate the thicker geometry and maintain proper contact.

4. It's always good practice to verify the set angle with an inclinometer (digital angle finder or level app/tool): Place it on the blade bevel or against the honing rod in the guide to confirm the actual angle matches your chosen setting (e.g., ~20°). Adjust if needed for precision.

5. For double-bevel knives: Sharpen one side completely a single grit at a time, then flip clamp/knife 180° and repeat on opposite side. Try to aim for the same number of strokes on each side of the knife blade .

6. Sharpening Sequence & Technique (240 → 600 → 1000 grit)

Progress coarse to fine. Use light pressure — diamonds cut fast; hone weight suffices.

- 240 grit (coarse): Chipped/dull/reprofiling. 8–12 strokes per side.
- 600 grit (medium): Main sharpening. 6–10 strokes per side.
- 1000 grit (fine): Polishing. 4–8 strokes per side.

Sharpening Steps:

a) Choose angle on parabolic guide (e.g., ~20° slot for everyday knives — check unit markings). The sharpener may be clamped to a table for convenience.

b) With wand assembled (bar locked via spring), insert guide rod into parabolic curve guide on one side. It glides smoothly at set angle.

c) Grip wand; place diamond surface flat on bevel near heel.

d) Smoothly push/pull hone full length to tip (constant light pressure, rod in guide). Work your way to the tip of the knife sliding the guide rod to the tip side as appropriate.

e) Return to heel; repeat recommended strokes this side, making sure to slide the guide rod to the heel side as needed.

f) Flip clamp/knife 180° (or switch guide side).

g) Repeat strokes on other bevel.

- h) Wipe blade; check for slight burr (wire edge opposite side).
- i) Switch grit: Release spring, swap bar, lock new one, repeat steps 2–8 (fewer strokes on finer grits).
- j) Post-1000 grit: Burr minimal/gone. Strop on leather or add light passes if needed.

Tips for Best Results

- Stroke: Pull or push — whichever controls best (pushing into the blade is the most effective and preferred). A stroke into the blade, then a light drag backwards and stroke into the blade again trying to cover as much blade in a single stroke as possible and overlapping sections of the blade as you move from tip to heel.
- Consistency: Patent-pending parabolic guide auto-compensates; full heel-to-tip strokes yield uniform bevels — no repositioning for most blades.
- Check: Clean blade after each grit; test on paper. Use inclinometer periodically to double-check angle accuracy.
- Cleaning: Wipe bars/blade dry. Store bars inserted or separate.
- Blades: Ideal for straight edges; short/curved/serrated may need tweaks. Wider blades benefit from height adjustment and angle verification.
- Safety: Fingers clear of edge; no thumb-testing.

The spring-loaded wand simplifies grit swaps, and the patent-pending parabolic curve delivers reliable, consistent edges across the full blade. Enjoy factory-quality sharpening! Check packaging/insert for model-specific angle details. Happy sharpening!