The EdgeCraft® Tactical Sharpener Model 442, features customized mixtures of 100% diamond abrasives specially designed to sharpen tactical blades, both straight-edge and serrated.

The EdgeCraft Model 442 is a 2-Stage sharpener designed to ensure consistent angle control - stroke after stroke - as the knife edge is presented to the diamond sharpening elements. Both sides of the edge are simultaneously shaped and sharpened. This construction ensures that the edges are well formed and very sharp every time.

The abrasives consist of selected 100% single-crystal diamonds embedded on unique interdigitating steel support plates. The Model 442 consistently outperforms conventional sharpeners that use less efficient abrasives and lack adequate control of the sharpening angle. Diamonds, the hardest known material, are extremely durable.

Straight-edge knives sharpened on the Model 442 will be “shaving sharp.” Straight-edge knives are sharpened first with diamonds in Stage 1 and then at a slightly larger angle with still finer diamond mixtures in Stage 2. This creates a double-beveled longer-lasting arch-shaped edge that is much stronger than conventional “v-shaped” or hollow ground edges. This unique arch structure ensures a sharper edge that will stay sharp longer.

Serrated knives sharpen in Model 442 using only the second sharpening stage. The special diamonds in that stage create razor-sharp “micro-blades” along the dominant teeth. Even new “factory-fresh” serrated knives frequently have poorly formed, dull saw teeth that can benefit from sharpening and shaping in the Model 442. The Model 442 restores dull teeth to better-than-new condition. The cutting effectiveness of the serrations depends almost entirely on the sharpness of the points (edges) of the teeth. It is not necessary to sharpen the sides and bottoms of the scallops between the teeth, since in general, they are not doing the cutting.
Now, make 20-40 back-and-forth strokes in Stage 2 to hone the edge to shaving sharpness. Apply only light downward pressure on the blade. Too much pressure can reduce the ultimate edge sharpness. Test sharpness by cutting a tomato, or by cutting paper*.

* To test periodically for sharpness, hold a sheet of paper by its edge, a short (but safe) distance from your fingers and carefully slice through the sheet. A sharp blade will cut smoothly without tearing the paper.

**Serrated Knives**

Serrated blades should be sharpened in Stage 2. Generally, 25 back-and-forth strokes in Stage 2 will be sufficient. Keep the blade centered in the slot but apply **light downward pressure on the blade**. Check sharpness by cutting a tomato, vegetable or fruit. Note the improved smoothness of the cut after the blade has been sharpened. (The paper cutting test is inappropriate for a serrated knife.)

If the blade needs further sharpening, continue back-and-forth strokes in Stage 2 until the desired sharpness achieved. Sharpening in Stage 1 can be helpful if the knife is very dull but that can, if used excessively, remove too much metal and shorten the life of the serrated blade, consequently use that stage only if the teeth are extremely dull.

**Resharpening**

Knives, straight edge and serrated, can be resharpened using the corresponding procedures described above. However, resharpening will be much faster and, in general, require only about 25 full back-and-forth strokes. You will be able to resharpen your serrated knives many times before the serrations become noticeably worn. Although the diamond abrasives used in the EdgeCraft® Tactical 442 are very fine, in time, serrations will be reduced in size.

**Suggestions**

- If left-handed, turn the sharpener around, hold the handle with your right hand and the knife with your left, and follow sharpening and honing instructions above.
- Straight edge knives that are extremely dull may require many strokes in Stage 1. Stop periodically and check the blade for sharpness by carefully cutting paper. Then hone the knife in Stage 2.
- The Model 442 is not designed to place an edge on unedged blades or previously unsharpened knives.