

Chef'sChoice® Diamond Sharpening Steel

The Chef'sChoice® Diamond Sharpening Steel contains a coating of 100% ultrafine diamond crystals that mildly hones the knife edge while it is being steeled. The number of diamond crystals and their size have been carefully adjusted to optimize the relative amount of honing and edge straightening that occurs when the Diamond Sharpening Steel is properly used. Conventional steels do not hone but merely restraighten the cutting edge.

Well sharpened edges dull under the stress of cutting because the cutting edge bends over. It ultimately folds over on itself, and when this happens the edge cannot be straightened or sharpened with conventional steels. If the edge is steeled frequently as the blade is used, on the order of every few minutes or so of normal cutting, much of the bent edge along the blade lengths can be restraightened by conventional steels. However, because of the random nature of cutting, edges become bent more or less at different points along the blade edge. At some point or areas along the blade, the edge may as a result of use have broken off. In other areas it commonly becomes bent-over excessively and cannot be restraightened. When this happens it becomes necessary to lightly hone the edge in order to sharpen those points along the edge that are broken or irrecoverably bent over. The Chef'sChoice® Diamond Sharpening Steel is designed to add an optimum amount of honing to the conventional steeling action.

Correct Use of the Chef'sChoice® Sharpening Steel

Warning: Use the Diamond Sharpening Steel only on the edge of the knife. If the steel accidentally strikes other portions of the blade or bolster it will scratch the polished surface.

Because you generally do not know the angle at which any knife has been previously sharpened and because of the difficulty of controlling by hand the angle at which you are "steeling", we suggest several different stroking procedures. Choose that procedure which is best for you - considering your experience and proficiency in the use of sharpening steels.

Success with any sharpening steel depends on three key considerations: (1) developing a good consistent and comfortable stroking procedure; (2) establishing the correct angle between the edge on the blade and the sharpening steel; and (3) applying only light pressure to the knife edge as it is steeled.

Note: Sharpen only on the oval shaped surfaces of the Sharpening Steel. **Do Not** use the sharp corners where the oval shaped surfaces meet.

Stroking Procedures

The experienced chef or butcher can use the Chef'sChoice® Diamond Sharpening Steel following the same procedures he has been accustomed to in sharpening with conventional steels. This generally involves one of the following methods of stroking the knife-edge.

Only the highly experienced user should attempt to use Method C. Because this requires skill and training, and involves moving the sharpening edge toward your hand, this method can be dangerous, and it should not be attempted by the inexperienced.

Those with less experience should use stroking Method A, B or D where the knife edge does not move towards your hand holding the Sharpening Steel. In Method A the steel held vertically can be pressed and steadied against a non-slipping surface or towel laid on a table. The blade edge is moved with your other hand down the Sharpening Steel as the blade is pulled toward you as illustrated. Method B is also a relatively safe method. Regardless of method used, alternate strokes should be on opposite sides of the edge in order to create a sharper and more balanced edge.

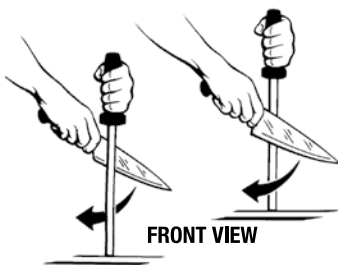
Method D is very easy and more comfortable for the less experienced. It is somewhat slower but safer to use. In this method the knife is held still while the Chef'sChoice® Sharpening Steel is moved along and across the edge.

This method like method B has the advantage that you are making strokes with the steel moving along and away from the edge - not into the edge. This will create a better edge.

To sharpen optimally with any of these methods there must be relative motions between the knife edge and the Sharpening Steel so that the Sharpening Steel moves along the edge and simultaneously moves across the edge. This is true whether you move the knife or move the Sharpening Steel.

Use only light pressure as the knife and Sharpening Steel come into contact. Excessive pressure can remove too much metal, damage the edge, and make it more difficult to maintain a consistent angle.

Method A



Method A –
Stroking toward Edge

Method B



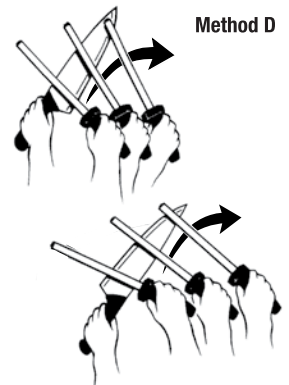
Method B –
Stroking Away From Edge

Method C



Method C – CAUTION!
Stroking Toward
Stationary Hand
Can Be Dangerous
For Professionals ONLY

Method D



Stroking Method D –
A Safer Method
Stroking Away From Edge

Control of Sharpening Angle

It will take practice to simultaneously control the sharpening angle while stroking the edge along and across the Sharpening Steel as described above.

Since the edge angle of knives varies widely from one brand to another and sometimes between blades of the same manufacturer, the correct sharpening angle for each blade must be established by trial and error.

Start steeling with an angle of approximately 20° which is really a very small angle. (See Figure above). An angle of 45° (half way to perpendicular angle) is too large. If you can imagine a 45° angle and then cut that in half you will have 22½°. That will be about the right angle to start with. Stop steeling after a few strokes and inspect along the edge or along the shoulder of the edge.

Angle Control is Key to Success

If you are striking only the edge as in Figure E, decrease the sharpening angle slightly until you are stroking along both the edge and facet as in Figure G. If you are striking the shoulder, as in Figure F increase the angle until you are striking the edge and facet simultaneously.

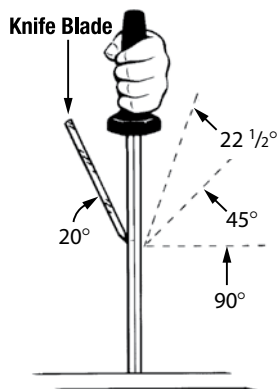
It is important to try to keep the angle relatively consistent stroke after stroke. This sounds difficult but with experience you will find it becomes easier. You do not want to err on the side of too small an angle because you will not be sharpening the edge and you can accidentally scratch the face of your blade. It is better to err on the side of a slightly larger angle to insure you are sharpening the edge itself.

If you become confused about the angle, take a marking pen and color the beveled facets along both sides of the edge. After sharpening for a few strokes you will be able to quickly see where the Sharpening Steel is sharpening by noting where the ink has been removed. If the sharpening marks do not contact the edge or the facet, increase the angle slightly. If you see marks only at the very edge and there are none on the facet, decrease the angle slightly as needed until there are light sharpening strokes on the facet extending to the edge itself. Continue steeling until the edge is sharpened. With experience, only a few strokes on each side of the edge will resharpen the edge.

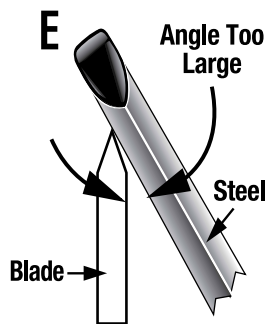
As a reminder use only light pressure between the Sharpening Steel and the blade edge.

Steeling is relatively fast once you gain experience. It is a convenient means of sharpening when working at a remote table or work area. Remember to sharpen often in order to keep the edge in good condition.

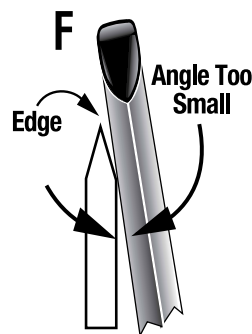
We recommend periodic resharpening of all of your knives with one of the professional Chef'sChoice® electric sharpeners. These will restore your edges to perfection - better than new - and create a new edge better than available from conventional sharpening services. Chef'sChoice® electric sharpeners sharpen to incredible sharpness with minimal removal of metal, giving extended life to all of your fine cutlery. Each is a multistage sharpener that will create arch-like edges that are ultra-sharp and will stay sharp longer.



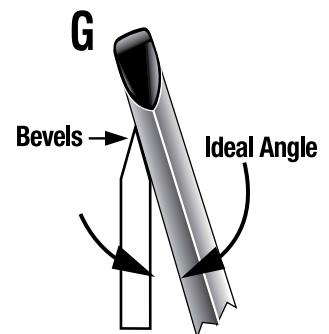
An easy way to estimate angles
 Start with approx. 20°



Steel rests on edge
 can damage edge



Steel rests on shoulder
 edge is not sharpened



Sharpening angle closely
 matches bevel angle