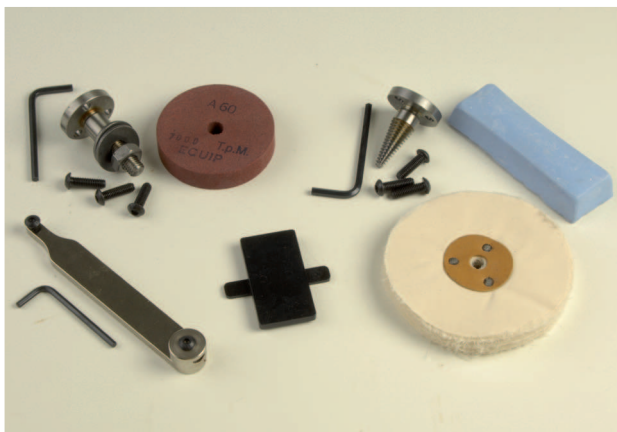


# LOOK SHARP

*How to create the ultimate cutting edge using the Robert Sorby Pro Edge Sharpening System*



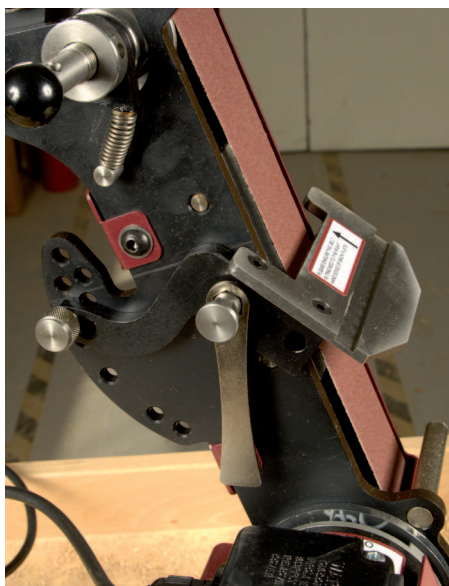
A selection of the Pro Edge Sharpening System accessories

The Pro Edge Sharpening System from Robert Sorby has caused quite a stir amongst the turning fraternity. Commonly accepted sharpening methods have, for some time, been either a bench grinder – with appropriate wheels – or a wet grinding system such as the Tormek.

Robert Sorby looked at the positive aspects of these previously mentioned methods, made note of the negatives, and developed a system based around a belt liner that provides the user with more flexibility in their approach to

sharpening and is also one that is easier to use.

The Pro Edge sports the facility to adjust and tilt the sharpening surface to a position that is comfortable for the user, has a fully adjustable integrated sharpening rest and, with the addition of various jigs, provides a comprehensive package to suit different requirements. There is also the facility for easy repeatability of sharpening, to a professional standard. In effect, this is potentially the closest one can get to a one-stop sharpening set-up.



This image shows the sharpening rest adjustment bracket. Note that the sharpening surface has been tilted to a comfortable working position. The different belt types and grit grades available are aluminium oxide in 60, 120 and 240 grit, and zirconium and ceramic in 60 and 120 grit grades



These grits and grades ensure that each stage of sharpening is catered for: coarse grade for rapid metal removal; medium grade for edge refinement; and fine grade for sharpening. Simply release the belt tension, slide off the end casing, and slip on the required belt



The combination of a fine belt and a low belt speed creates a very controllable situation for the turner to work with. It minimises the risk of over-heating the surface, making this a great option for sharpening both HSS and carbon steel tools

## FINGERNAIL PROFILE, BOTH FREEHAND AND JIG SHARPENING METHOD

For both spindle and bowl gouges, the fingernail grind, of which there are many variant forms, is the most versatile grind but one that frequently vexes the turner when it comes to sharpening.

The gouge is not only swung from left to right during the cut, but is also rotated during the cut. It is the combination of the two that creates the characteristic form of the cutting edge and it is necessary to find a method that works for the turner time and time again. Some may choose to freehand grind, but there is the inevitable risk of subtle variance of the profile every time it is sharpened. Alternatively, use a jig that, once set to your preferred option, is easily repeatable.

It will take a little while to work out what head setting, blade projection and stem height creates your preferred fingernail profile.

In this case, (see illustrations, right) the head is set at setting '3', the height is set just beyond '3' and the blade is projected 65mm (2<sup>5</sup>/<sub>16</sub>in) from the head.



Freehand sharpening, stage 1: Adjust the rest to the required bevel angle and switch on. DO NOT SHARPEN THE TIP AT THIS STAGE. Stage 2: Swing the gouge to the right and using the rolling arc motion, form the right-hand wing once satisfied. Repeat this process on the left-hand wing. Once formed, swing the blade, rotating it through this movement from left to right to fully form the fingernail profile.



Having already mentioned the height, blade projection and head setting, everything is in place for effortless sharpening. Simply work each of the wings first to the required profile and then rotate from side to side to create the full form. Please note – adjust either height, head setting or blade projection – in any combination – and you will create a different fingernail profile form so it is important to make note of the settings used for future reference.

## STANDARD GRIND GOUGES



Standard grind gouges are easier to create than standard fingernail gouges. Most people can master this type of grind freehand. Simply by rotating the blade from right to left, or vice versa, whilst the blade is at 90° to the sharpening surface. The angle of the rest will dictate the bevel angle. Depending on how far you rotate the blade over – i.e. the flute pointing horizontally or rotated further still – will create the difference between a square-across grind and one whereby the wings are swept back a little. The 'standard gouge jig' allows the user to lay the gouge in the provided groove, taking the guesswork out and maintaining the correct presentation angle. All one has to do is rotate the blade to the required position to form the required cutting edge.



## SKEW CHISELS

Skew chisels, as with parting tools, can be sharpened freehand, as shown, but require a skewed presentation angle to the surface to create the skewed cutting edge.

Set the rest to the required position for the bevel angle, keep the blade at the required angle and traverse along the rest. Once one face is sharp, flip the blade, and sharpen the other side.

The 'skew jig' makes life easier as it guarantees the correct presentation angle. The tool is placed against the angled edge and then traversed along the rest.

## TIPPED TOOLS

Tips/cutters from replaceable-tipped tools are tricky to sharpen. You can leave them attached to the tools, but since most of the shafts are round, manipulating them against the sharpening surface may result in a non-uniform bevel angle.

Taking the tips off is the better option but placing fingers so close to the sharpening face is fraught with risk. The safest method is to use the cutter-holder to hold them. Set the tool



rest to the required angle, screw the tip to the holder, place flat on the rest and sharpen the tip. Simple, safe and effective.



## HONING WHEEL

Some people prefer to hone tools. This can be done by hand using a diamond file, or similar such tool. A fast method is to use a honing wheel in conjunction with a honing paste. The wheel is fitted on to a pigtail mandril, and once secured and loaded with paste, it can be used to sharpen turning and carving tools. NB: Always have the cutting edge running away from the oncoming rotation of the wheel.

## STRAIGHT CHISELS

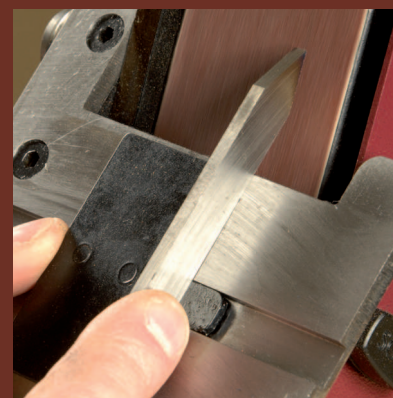
Tools such as the beading & parting tool, and parting tools can be sharpened freehand, as shown, or use the 'woodworking chisel jig'.

Simply set the rest to the required position for the bevel angle, and keep the blade square to the cutting surface and traverse along the rest. Once one face is sharp, flip the blade, and sharpen the other side.

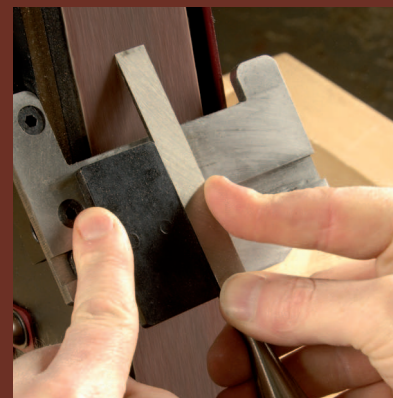
The jig is easier still. It guarantees squareness of grind – place the tool against the square edge and traverse the jig along the rest. This can be used for both turning chisels and general woodworking chisels.



Freehand sharpening and a parting tool



Using the woodworking chisel jig to sharpen a parting tool



Using the woodworking chisel jig to sharpen a woodworking chisel