

The *Robert Sorby* ProEdge Sharpening System

Thank you for purchasing the *Robert Sorby* ProEdge Sharpening System, it has been designed using hundreds of years of tool manufacturing experience.

The simple setup and operation of the ProEdge makes sharpening tools a pleasure and gives the woodworker great satisfaction in achieving a perfect sharp edge every time.

Please take time to read and understand instructions before using this system.

Safety first

It is highly recommended that eye protection and a form of dust mask are ALWAYS worn and a dust extraction system is in operation.

Ensure loose clothing and long hair are kept well away from any moving parts.

Maintain a clean working environment when operating grinding and sharpening systems as sparks from this type of equipment are extremely hot and can cause fire if they get onto wood dust.

Always switch off and disconnect from the wall socket mains electric supply before making any adjustments to the system.

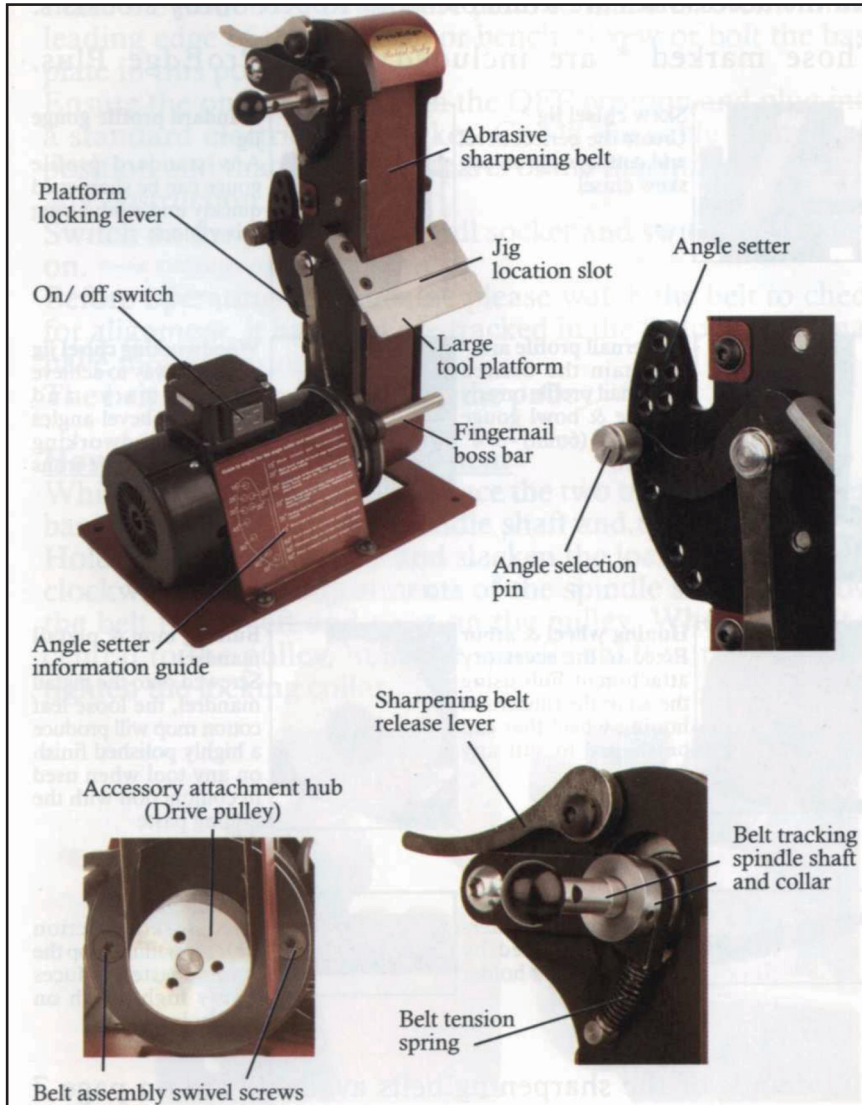
Robert Sorby

Instruction/Data Sheet

PROEDGE SHARPENING SYSTEM

ProEdge Components

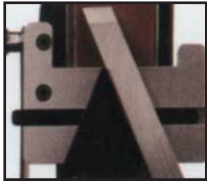
To achieve the best results from your system, please familiarise yourself with all of its parts and accessories.



Accessories

A full list of all the accessories and sharpening belts is on the back page of this booklet.

All the accessories are available from *Robert Sorby* stockists. Those marked * are included in the Proedge Plus.

**Skew Chisel Jig ***

Create the perfect bevel and cutting edge on any skew chisel.

**Fingernail Profile Arm***

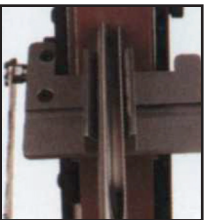
Maintain the desired fingernail profile on any spindle & bowl gouge from 1/4" (6mm) - 3/4" (19mm)

**Honing Wheel & Arbour**

Fixed to the accessory attachment hub using the arbour, the rubberised honing wheel can be shaped to suit any tool.

**Cutter Holder**

A multitude of cutters can be sharpened by using this cutter holder.

**Standard Profile Gouge Jig***

Any standard profile gouge can be sharpened quickly and easily using this v-block.

**Woodworking Chisel Jig**

A simple way to achieve any primary and secondary bevel angles on all woodworking chisels and plane irons.

**Buffing Mop & Pigtail Mandrel**

Screwed onto the pigtail mandrel, the loose leaf cotton mop will produce a highly polished finish on any tool when used in conjunction with the honing paste.

**Honing Paste**

Used in conjunction with the buffing mop the honing paste produces a very high polish on any tool.

Preparing the ProEdge for use**Sharpening Belt Alignment**

Place the front edge of the base plate so that it is level with the leading edge of the worktop or bench. Screw or bolt the base plate in this position.

Ensure the on/off switch is in the OFF position and plug into a standard electric wall socket.

Check the cable is in a safe position and that all moving parts of the machine are clear of any obstruction.

Switch on the power at the wall socket and switch the system on.

Before operating the machine please watch the belt to check for alignment, it has been pre-tracked in the factory but it may have moved during transit. The belt should run central to the pulley.

How to adjust the belt alignment

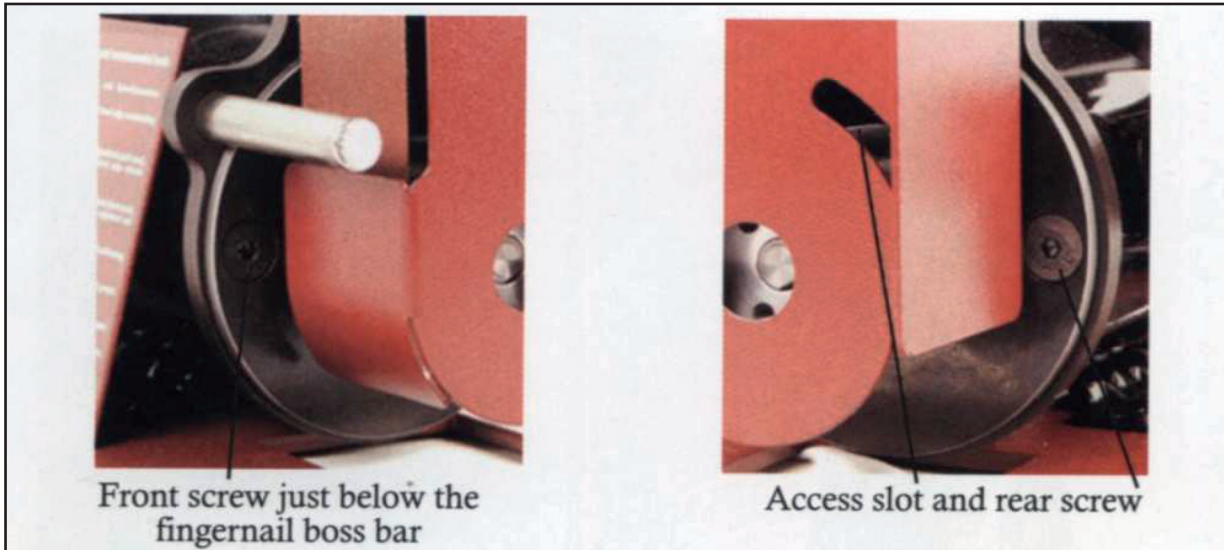
While the system is running, place the two tracking adjustment bars into the holes in the spindle shaft and the locking collar. Hold the shaft stationary and slacken the locking collar (anti-clockwise). Small adjustments of the spindle shaft will move the belt to the left and right on the pulley. When the belt is central to the pulley, hold the spindle shaft in place and re-tighten the locking collar.

**Tilting the Sharpening belt assembly**

To assist in sharpening tools the ProEdge has a very useful feature in that the sharpening belt assembly can be angled backwards to allow for a much more comfortable position when sharpening at shallow angles.



This is done by loosening the two screws next to the drive pulley and gently moving the belt assembly to your desired angle. When the belt assembly is tilted backwards the rear screw is accessed via the access slot in the side guard as shown below. When the desired angle is achieved, re-tighten the screws to secure the belt assembly in place.

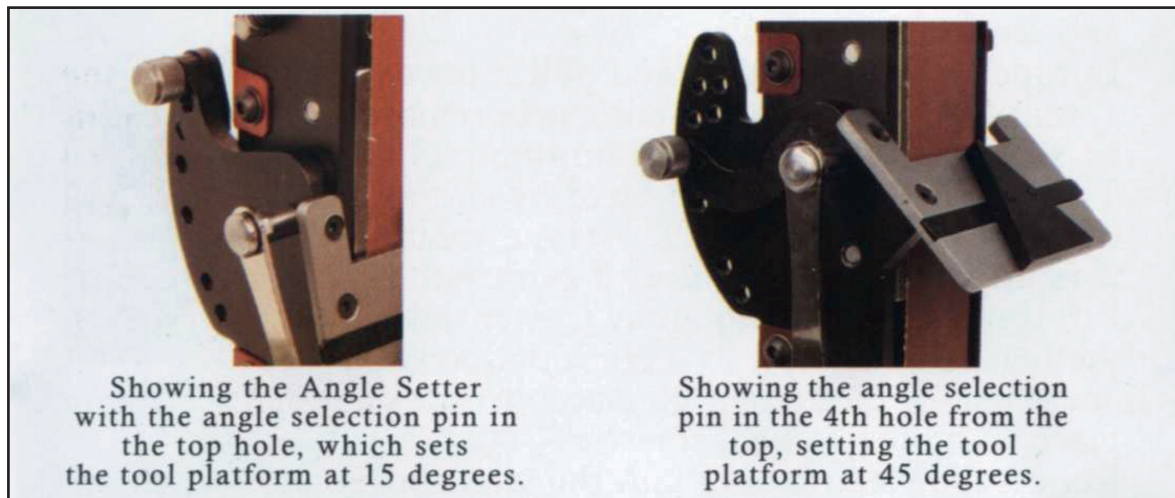


Front screw just below the fingernail boss bar

Access slot and rear screw

Using the Angle Setter

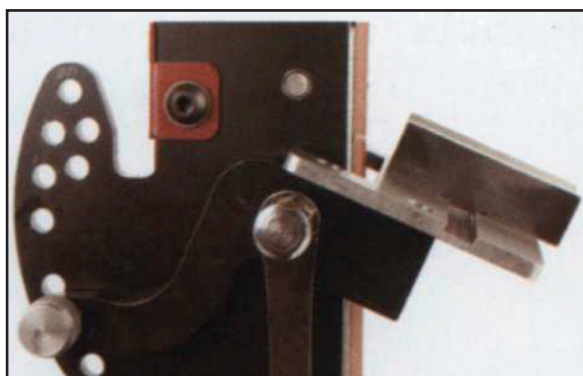
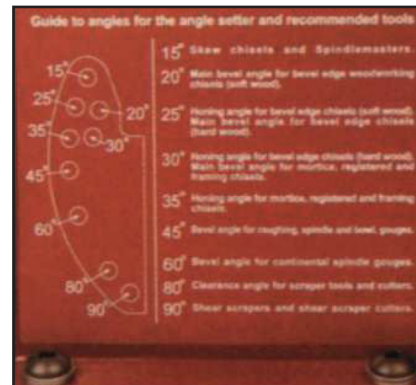
The unique Angle Setter allows the large tool platform to be set at any angle.



Showing the Angle Setter with the angle selection pin in the top hole, which sets the tool platform at 15 degrees.

Showing the angle selection pin in the 4th hole from the top, setting the tool platform at 45 degrees.

If a pre-set angle is required, for example 45 degrees, place the captive spanner over the hexagonal locking bolt and loosen. Then loosen the angle selection pin and move the arm so that the selection pin locates into the 4th hole down from the top, as shown on the Angle Setter guide.



If a non pre-set angle is required, wind the angle location pin back so that it is clear of the location holes. Then position the tool platform where it is required and tighten the locking lever.

How to change a sharpening belt

First ensure the electric wall socket is switched off and remove the plug to ensure personal safety.

Remove the two *Robert Sorby* t-bar screws from the belt assembly and remove the guard.

Lift the belt release lever and pull it towards the front of the system. The belt is now free and can be removed by sliding it off the top and bottom pulleys.

The new belt can now be fitted by sliding it over the two pulleys at the same time, ensuring it is lined up in the centre of both pulleys. Lift the release lever to apply the tension on the belt and return it to its original position at the rear of the system. Replace the side guard and secure in place with the two t-bar screws.

Return the electric plug into the wall socket and switch on. Now switch on the ProEdge and check for the belt alignment. If it is not correct, adjust as described on page 4.

Choosing the correct sharpening belt

Abrasive belts cut cleaner and more efficiently than a grinding wheel and will produce a much cleaner cutting edge.

There are three options available to use with the ProEdge system.

1. Aluminium Oxide 60,120* & 240* grit: Ideal for sharpening woodworking chisels, carving tools and plane irons.
2. Zirconium 60* & 120 grit: Designed for HSS tools, drill and router bits.
3. Ceramic 60 & 120 grit: Very hardwearing and longlasting suitable for heavy material removal.

For a full accessory parts and sharpening belt list please see the back page.

Using the accessories

The relevant jigs fit into the slot of the tool platform. This allows the jig to slide from side to side so that all of the sharpening belt can be utilised.

The accessories marked * are included in the ProEdge Plus.

Sharpening a skew chisel

The skew chisel needs to be extremely sharp to work correctly and safely, using the skew jig * makes this achievable in seconds.

Tilt the belt assembly backwards as instructed on page 3.

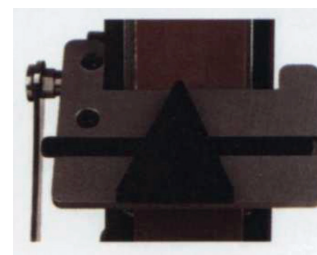
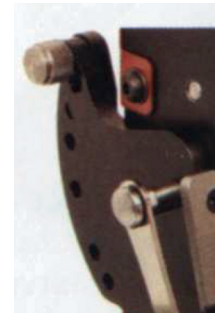
Now set the angle setter (page 5) to the top hole (15 degrees) or the desired angle and re-tighten using the locking lever.

The tool platform is now set to the desired angle and the skew jig can be placed as shown. Ensure there is nothing to obstruct the jig from sliding sideways.

Switch on the ProEdge and ensure the belt is aligned correctly.

If it is not then refer to page 4 'Abrasive belt alignment'.

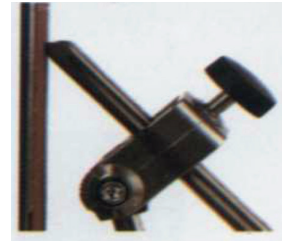
If the belt is correctly aligned, place the skew onto the jig as shown and slowly push the skew chisel forward so this it makes contact with the belt. Hold the skew chisel against the jig to maintain the correct cutting angle and slowly slide the jig and skew chisel side to side moving across the width of the belt. When the first side has been sharpened turn the skew over and place it against the other side of the jig and continue as before, until the tool is razor sharp.



Sharpening fingernail profile bowl & spindle gouges

Sharpening a fingernail profile bowl or spindle gouge can be one of the most difficult jobs for any woodturner. The fingernail profile arm* will produce a fingernail profile on any spindle or bowl gouge from a 1/4" (6mm) to 3/4 (19mm), and it allows for any combination of bevel angle and wing sweep to be readily achieved.

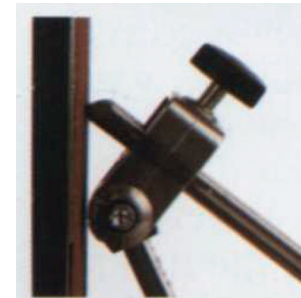
Slide the boss over the fingernail boss bar and place the arm into the location hole. The arm is factory set at 120 degrees to give a normal fingernail profile.



To produce a fingernail profile, slide the gouge into the clamp until the bevel is flat against the abrasive belt. Tighten the clamp screw to hold the gouge in place and allow the gouge to move away from the belt prior to switching on the ProEdge.



If a different bevel angle is required it is just a matter of sliding the tool further through the clamp and more material will be taken from the heel of the tool making the bevel angle shallower. If a steeper bevel angle is required then the tool needs to be drawn back in the clamp so that more material is removed from the nose. When the correct angle has been established switch on the system and move the gouge to roll with the arm to produce the fingernail profile with a perfect cutting edge.



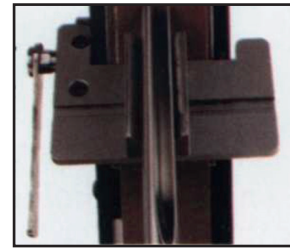
Useful tip

Measure the distance the tool protrudes from the clamp and make a distance stop on the bench so that the setting can be easily replicated.

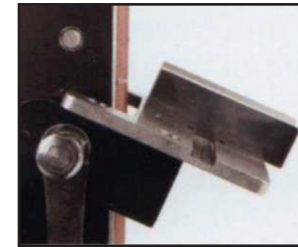
Sharpening standard profile gouges

Keeping a gouge in a consistent position whilst maintaining the required bevel angle takes many hours of practice with a lot of frustration along the way.

The Standard Profile gouge jig* allows the gouge to sit in the same position and allows it to roll in a constant axis giving a single-faced bevel. Set the angle setter to the required pre-set or preferred angle and lock into place with the locking lever.



Sit the locating key of the block into the slot in the tool platform. Switch on the ProEdge and gently place the gouge into the v-shape of the block. Push the tool up against the abrasive belt and slowly roll it from one side to the other.

**Sharpening woodworking chisels and plane irons**

Used in conjunction with the very fine abrasive sharpening belts, the woodworking chisel jig will give a perfect cutting edge on any woodworking chisel and plane iron. The Angle Setter has all the recommended bevel angles, depending on the wood being used, for woodworking chisels such as bevel edge, paring and framing chisels. Ensure that the desired sharpening belt is fitted, the angle setter is set to the required angle and tighten the locking bolt. Check that the slot in the tool rest is clean and place the key of the straight edge jig into it.

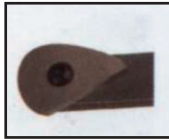


Switch on the ProEdge and carefully place the tool to be sharpened against the guide bar of the jig. Carefully push the tool forward until the bevel makes contact with the sharpening belt. Hold the blade against the jig and slowly slide it from side to side.



Sharpening cutters and tips

Sharpening a tool cutter is normally done using a diamond file or honing stone across the top face. This is a simple and convenient way to maintain a good cutting edge while keeping the cutter attached to its respective tool.



Using the ProEdge and the cutter holder, allows the cutter to be sharpened, giving a consistent crisp edge whilst maintaining the original shape of the cutter. It can also be used to re-profile cutters and tips to a preferred shape. The Cutter-holder is double ended allowing many different types of cutter to be sharpened with it. One end has a small screw to allow for many different cutters to be attached directly to it. It is finger shaped to give access all round the cutter's profile, so that one continuous cutting edge can be achieved.

The other end has a clamp attached to it to hold

cutters from the *Robert Sorby* Multi-tipped Hollowing tool (RS200KT) and the Hollowmaster (RS230KT).

How to sharpen a cutter using the cutter holder

Lay the cutter to be sharpened flat onto the top face of the holder and secure in place with the screw. Set the angle location pin on the Angle Setter at the correct position for angle required and tighten the platform locking lever. Slowly push the cutting edge up to the abrasive belt and carefully follow the profile of the cutter until the desired edge is achieved .

Using the clamp

Place the cutter into the clamp and secure by tightening the screw. Set the Angle Selection pin into the second from last hole at the bottom which will give 80 degrees and tighten the platform locking lever to secure. Switch on the ProEdge and lay the cutter holder flat onto the platform and slowly push the cutting edge up to the abrasive belt and carefully follow the profile of the cutter.

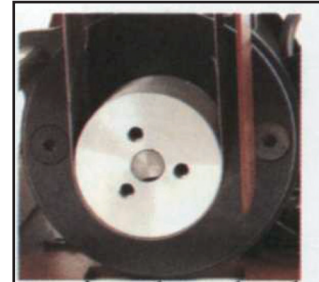
Honing Tools**Safety**

The abrasive belt should be removed before using the honing wheel to reduce moving parts. Ensure the electric wall socket is switched off to ensure personal safety.

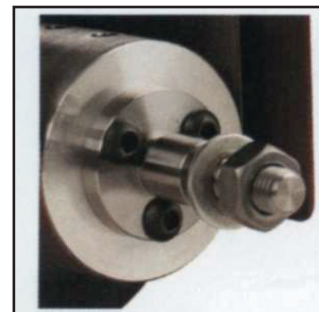
Ideal for honing the flutes of carving chisels and other gouges, this rubberised abrasive wheel can be shaped to suit the tool to be sharpened.

Fitting the arbour and wheel

Undo and remove the two t-bar screws and remove the side guard from the belt assembly then remove the belt as described on page 4. Place the arbour against the accessory hub and secure with the three screws. Remove the nut, place the wheel over the arbour and replace the nut securing the wheel upto the shoulder.

**Using the honing wheel**

The outside face and the outer diameter of the wheel can be used to achieve the high polish that is required. Manufactured in a rubber compound it is easy to shape the edge using a sharp tool or abrasive paper such as the belts from the ProEdge. This is ideal for honing the flutes of gouges.



When sharpening tools on the outside diameter ensure that the cutting edge is facing away from the direction of rotation so it is recommended that the tool is underneath the wheel.

When using the face of the wheel to flat hone the bevel of any tool always use the bottom portion to avoid the tool cutting edge digging into the wheel.



Polishing tools and wooden projects**Safety**

The abrasive belt should be removed (see page 9) before using the buffing mop to reduce moving parts. Ensure the electric wall socket is switched off and the plug is removed to ensure personal safety.

Please remove the cotton buffing mop when using the abrasive belt due to the potential fire risk from sparks.

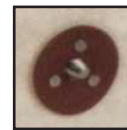
Fitting the pigtail mandrel and mop

Unscrew and remove the two t-bar screws and remove the side guard from the belt assembly, then remove the belt as described on page 4.

Place the mandrel against the accessory hub and secure with the three screws. The mop has a thick leather washer on one side and a fibre washer on the other holding the loose leaves together. Screw the leather washer side onto the mandrel to ensure a good tight fit.

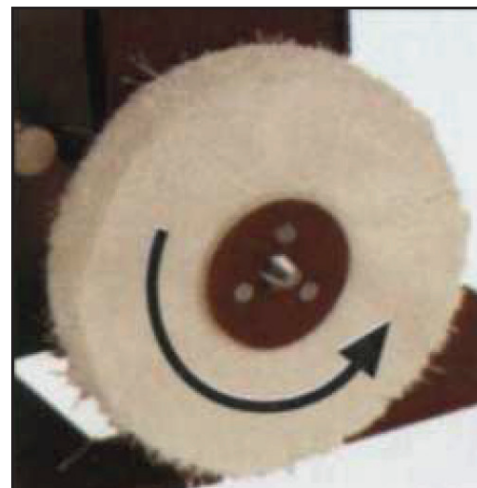


The blue honing paste contains a variety of materials within it and is specifically designed to give a highly polished cutting edge to carbon and High Speed Steel Tools.



When applying the honing or other polishing compound and also when using the mop, always use the bottom portion of it, so that the direction of rotation is away from you.

Apply the buffing paste little and often. Replace the electric plug into the wall socket, switch on the power and switch on the ProEdge. Apply a small amount of honing paste to the mop as mentioned above, now the tool or project can be polished. Maintaining a good hold of the tool, apply a light pressure onto the mop with the tool, so that the mop does not displace too much and gently move around the mop to ensure the desired effect.

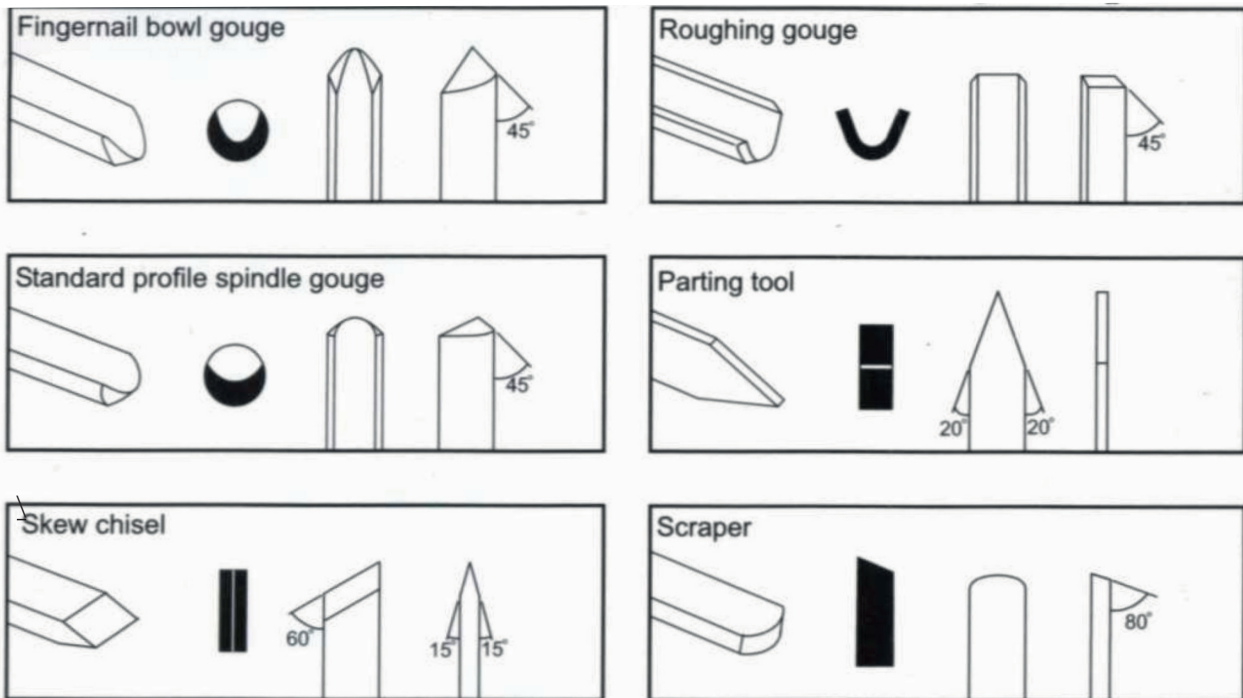


Woodturning tool bevel and clearance angles

The diagrams on this page show details of the angles and profiles supplied on *Robert Sorby* tools.

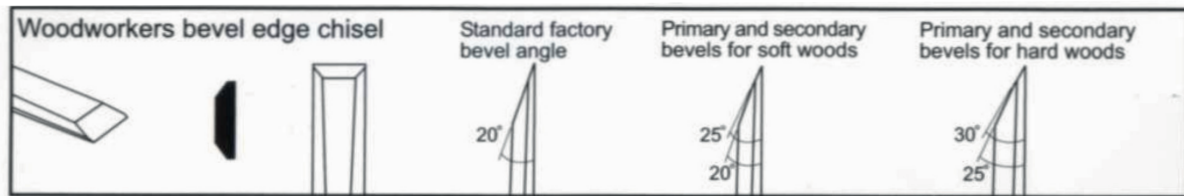
The images are broken into four sections from left to right.

1. A general view of what the tool looks like.
2. An end view showing the actual cutting edge profile.
3. A top view showing the shape of the cutting edge as seen when using the tool, together with any relevant profile angle.
4. A side view with the recommended bevel or clearance angle depending on the type of tool being sharpened.



Woodworking chisel and plane iron bevel angles

The diagrams below show all the views as described above but with the addition of the two showing the primary and secondary bevel angles depending on the type of wood to be worked.



Please refer to the angle setter information guide on the front of the system for more recommended bevel angles.

Useful Information

Parts List				
Jigs & Accessories		Sharpening Belts		
Description	Product Code	Description	Grit	Product Code
Skew Jig	PESKEW	Aluminium Oxide	60	PE60A
Fingernail Profiler	446/447UPG	Aluminium Oxide	120	PE120A
Standard Gouge Jig	PEVB	Aluminium Oxide	240	PE240A
Woodworking Chisel Jig	PESQ	Zirconium	60	PE60Z
Pigtail mandrel	PEPIG	Zirconium	120	PE120Z
Buffing mop	PEMOP	Ceramic	60	PE60C
Wheel arbour	PEARBOR	Ceramic	120	PE120C
Honing Wheel	PEBOND			
Cutter Holder	472			
Honing Paste	475			

The **ProEdge** is just one of many innovative ideas from on *Robert Sorby*.

For all the latest tools and products as well as a large selection of useful and informative video clips and information on demonstrations and exhibitions with *Robert Sorby* staff will be attending, log on to our website.

www.robert-sorby.co.uk

For more details on additional accessories as well as replacement and additional sharpening belts, contact your local stocklist or *Robert Sorby*.