ProEdge THE ULTIMATE SHARPENING SYSTEM



INSTRUCTION MANUAL



MADE IN SHEFFIELD, ENGLAND - SINCE 1828

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 set-up and operation of the **ProEdge** makes sharpening tools a pleasure and gives the woodworker great satisfaction in achieving a perfect sharp edge every time.

EC DECLARATION OF CONFORMITY

Business Name & Address Of Responsible Person:

- Robert Sorby, Athol Road, Sheffield, S8 OPA England.

Capacity /Role of Responsible Person:

- Manufacturer

Description of Machine:

- ProEdge Sharpening System

Serial Number:

- Affixed to machine and box lid

Relevant EC Directives & Regulations Complied with for Above Machine:

- Supply of Machinery (Safety) Regulations 1992 - Amended 1994: Machinery Directive 98/37 / EEC

Relevant EC Transposed Harmonised Standards

- BS.EN 1050; BS.EN 292; (ISO14121); BS.EN 953;

National Standards Used:

- BS.EN 5304 - Safety of Machinery

DECLARATION:

I certify that on completion of manufacture of the machine detailed above that a full conformity assessment has been completed and relevant essential health & safety requirements complied with:

Name:

lan Finkill

Status within Company:

General Manager

Signature:

I Fuilie

WARNING

THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD BEFORE OPERATING THE MACHINE

GROUNDING INSTRUCTIONS

All grounded, cord-connected tools:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. Repair or replace damaged or worn cord immediately.



WARNING

- RISK OF INJURY DUE TO ACCIDENTAL STARTING Do not use in an area where children may be present
- · KEEP GUARDS IN PLACE and in working order
- REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and wrenches are removed from tool before turning it on
- · KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents
- DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lit
- · KEEP CHILDREN AWAY. All visitors should be kept a safe distance from work area
- MAKE WORKSHOP CHILD PROOF with padlocks, master switches, or by removing starter keys
- DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed
- · USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed
- USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When
 using an extension cord, be sure to use one heavy enough to carry the current your product
 will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and
 overheating

Amphere Rating		Volts	Total length of cord in feet				
		120 V	25 ft.	50 ft.	100 ft.	150 ft.	
		240 V	50 ft.	100 ft.	200 ft.	300 ft.	
More Than	Not More Than		AŴG				
0	6		18	16	16	14	
6	10		18	16	14	12	
10	12		16	16	14	12	
12	16		14	12	Not Recommended		

Table 1 - Minimum gauge for cord

*Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.

WEAR PROPER APPAREL. Do not wear loose clothing, necktie's, rings, bracelets, or other jewellery which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain hair.

ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

WARNING

- SECURE WORK. Use clamps or a vice to hold work when practical. It's safer than using your hand and it frees both hands to operate tool
- · DON'T OVERREACH. Keep proper footing and balance at all times
- MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories
- · DISCONNECT TOOLS before servicing: when changing accessories and belts
- REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off
 position before plugging in
- USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons
- NEVER STAND ON TOOL. Serious injury could occur if tipped or if the cutting tool is unintentionally contacted
- CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other art that is damaged should be properly repaired or replaced
- **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only
- NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool
 until it comes to a complete stop



RESIDUAL HAZARDS

1. Friction and abrasion arising from contact with the belt surface at the point where it is exposed for use.

Precaution - no further enclosure is deemed to be practicable and therefore the appropriate guides should be used when completing the sharpening operation and, furthermore, care should be exercised by adopting safe working practice.

2. Trap point in-between the belt and pulley.

Precaution - fix side guard in position on delivery. This must always be replaced prior to use whenever belts are changed.

During the belt changing operation, the machine should be disconnected from the electrical supply with full isolation being retained until the guard is affixed.

The moulded plastic retaining nuts must always be replaced prior to usage.

3. Machines moving or toppling over during usage.

Precaution - secure the machine to the workbench utilising the four holes in the base plate.

4. Ejection hazards. Small particles may be ejected from the belt and the tool during the sharpening operation or in the unlikely event of the belt breaking during usage.

Precaution - wear suitable approved eye protection during usage.

- 5. Entanglement with buffing and polishing attachments. Precaution remove jewellery and watches and avoid loose clothing.
- 6. Inhalation of dust arising from the abrasive coating on the belt and the tool being sharpened.

Precautions - the normal usage of the **ProEdge** is such that it is highly unlikely that the dust hazard would become a health risk. Not withstanding this, repeated and consistent use may lead to significant volumes of dust arising and it is therefore recommended that for high levels of usage, the machines should be connected to an appropriate local exhaust ventilation system (LEV) via the port at the bottom of the existing enclosure guard. Should the machine not be fitted to LEV, an appropriate cover plate should be fitted over the aperture. Suitable EC approved (or equivalent) respiratory protection (dust mask) should be worn when grinding tools.

7. Manual handling - each ProEdge weighs approximately 31lbs (14kg).

Precaution - Care should be exercised when lifting.



Technical Details

Motor: 1/2hp Belt Width: 2" Belt Speed 1400ft (440m) per minute 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 dealers. 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)



Standard Profile Gouge Jig* Any standard profile gouge can be sharpened quickly and easily using this v-block skew chisel

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

Short Tool Platform This tool platform allows tools with short blades to be

sharpened

Honing Wheel & Arbor Fixed to the accessory attachment hub using the arbor. 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



Long Grind Jig Allows 3 different types of profile on bowl and spindle gougesfingernail, long and extra long



ProSet Enables exact bevel angles to be set







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 too

Knife Sharpening Jig for sharpening carving, hunting, pocket and kitchen knives





Preparing 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.

Those marked* are included in the ProEdge Plus.

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) prior to moving the tracking shaft. Small adjustments of the tracking shaft will move the belt to the left and right on the pulley.

Please ensure the belt is tracked to the right hand edge of the backplate.







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 by a quarter of a turn, 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 (finger tight) to secure the belt assembly in place



Access slot

Front screw just below the fingernail boss bar - 1/4 of a turn



Rear screw
- 1/4 of a turn



Using the Angle Setter

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

The Angle Setter with the angle selection pin in the top hole, which sets the tool platform at 15 degrees (15°)



The angle selection pin in the 4th hole from the top, setting the tool platform at 45 degrees (45°)

If a pre-set angle is required, for example 45 degrees (45°), 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



Changing a Sharpening Belt

Firstly 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 9.

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.

- Aluminium Oxide 60, 120* & 240* grit: Ideal for sharpening woodworking chisels, carving tools and pirons.
- 2. Zirconium 60* & 120 grit: Designed for HSS tools, drill and router bits.
- 3. Ceramic 60 & 120 grit: Very hard-wearing and long-lasting suitable for heavy material removal.
- 4. Trizact 600, 1200, 3000 grit. Enables knives to be sharpened to a razor edge of 2 microns equivalent to a disposable razor blade.
- 5. The diamond abrasive grain achieves outstanding results on tungsten carbide, ceramic, glass and natural stone as well as many other resistant materials.





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 10.

Now set the angle setter (page 11) 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 9 '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 that 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.







ProEdge

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 (120°) 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 forward so that the right wing touches the abrasive belt.

With a small amount of pressure allow the gouge to roll with the arm to produce the fingernail profile with a perfect cutting edge.

Useful tip!

Using the Long Grind Jig on the fingernail profiler allows for three different types of profile. See page 18 **Useful tip!**

The sensibly priced **ProSet** enables exact repeatability of angles. See page 19



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.



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 Standard Profile Gouges

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 & Tips

To sharpen 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 also can be used to re-profile cutters and tips to a preferred shape.

At one end of the cutter holder there is a screw in a finger shape to allow different cutters to be held and the finger shape allows for all round access. In the other end is a clamp to hold cutters from the Robert Sorby Multi-tipped Hollowing tool (RS200KT) and the Hollowmaster (RS230KT).

Sharpening Cutters using the Cutter Holder

Lay the cutter to be sharpened flat onto the top face of the holder or into the clamp and secure in place with the screw. Set the angle location pin on the Angle Setter to the desired position and tighten the tool platform locking lever. Slowly push the cutting edge up to the 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 (80°) 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.

Sharpening Small & Short Bladed Tools with the Short Tool Platform

The Short Tool Platform allows for small tools like the micro range and short bladed tools such as many of the carving tools to be sharpened on the **ProEdge**.

To use the Short Tool Platform the original Tool Platform must be removed by completely unscrewing the locking lever and screw. Now place the locking lever and screw into the hole in the arm of the Short Platform Tool and tighten to hold the platform in place. Also unscrew the locating pin from the original arm and screw it into the hole in the Short Tool Platform arm to use the angle setter.

The Short Tool Platform can now be adjusted to the desired angle in the same way as the standard tool platform.

HONING TOOLS

SAFETY - The abrasive belt should be removed before using the honing wheel to reduce the number of 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 12.

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 up to 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. As the wheel is 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 12) 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 12. 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.



Fitting the Pigtail Mandrel & Mop (continued)

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.

The Robert Sorby Knife Sharpening Jig

The Robert Sorby Knife Sharpening Jig will enable the sharpening of carving, hunting, pocket and everyday kitchen knives.

There are two models available each consisting of a new back plate with a raised wear plattern attached, a universal arm and a choice of either a small or a large knife holder. The small one will hold knives upto 8" and the large will hold blades over 8". A set of instructions is also included. The jig can be easily fitted to the **ProEdge** in a matter of minutes and the only equipment needed is a 13mm wrench.

The versatility of the two different knife holders means that any type of knife can be brought back into life quickly and easily using this system.



Once the blade is clamped into the holder the knife is gently drawn across the surface of the abrasive belt following the desired bevel angle.

The knife holders are interchangeable and are available individually.



Using the long grind jig on the fingernail profiler allows for three different types of profile to be produced on bowl and spindle gouges. It will produce a fingernail profile, a long grind and an extra long grind depending on which location hole the profiling arm is placed in. It replaces the standard boss which is supplied with the **ProEdge**.





Achieving the exact bevel angle on any fingernail or long grind gouge has never been easier than with the **ProSet.**

By placing the gouge into the clamp of the profile arm and then extending the gouge upto the required stop and locking it into place the turner will be able to obtain precise and repeatable bevel angles.

Woodturning Tool Bevel & 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
- 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 & 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.



Parts List

Jigs & Accessorie	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
Woodworkers Square Guide	PESQW	Zirconium	120	PE120Z
Pigtail Madrel	PEPIG	Ceramic	60	PE60C
Buffing Mop	PEMOP	Ceramic	120	PE120C
Wheel Arbor	PEARBOR	Trizact	600	PE600T
Honing Wheel	PEBOND	Trizact	1200	PE1200T
Cutter Holder	472	Trizact	3000	PE3000T
Honing Paste	475	Diamond	200	PEDIA
Short Tool Platform	PESPC			
Knife Sharpening Jig - Small	PEKJIGS			
Knife Sharpening Jig - Large	PEKJIGL			
Knife Holder - Small	PEKHS			
Knife Holder - Large	PEKHL			
Long Grind Jig	PELGJ			
ProSet	PROSET			

The ProEdge is just one of many innovative ideas from 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, 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 stockist or Robert Sorby.





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