



carbatec®

## Variable Speed Scroll Saw

SS-400C / SS-530C MANUAL

[CARBATEC.COM.AU](http://CARBATEC.COM.AU)

**3** YEAR  
WARRANTY

# THANK YOU FOR CHOOSING carbatec®

Carbatec has been a trusted brand for woodworking enthusiasts and professionals across Australia and New Zealand, since 1987.

Our quality woodworking products are designed and built to offer value and performance, making the latest features and technological advancements more accessible to Aussie woodworkers.

Backed by our no-fuss after-sales care and warranty support, you can trust Carbatec to keep you woodworking, as promised.

**We look forward to sharing in your woodworking journey!**

If you have any questions about our products or service, please call us on **1800 658 111** or email us at [info@carbatec.com.au](mailto:info@carbatec.com.au)

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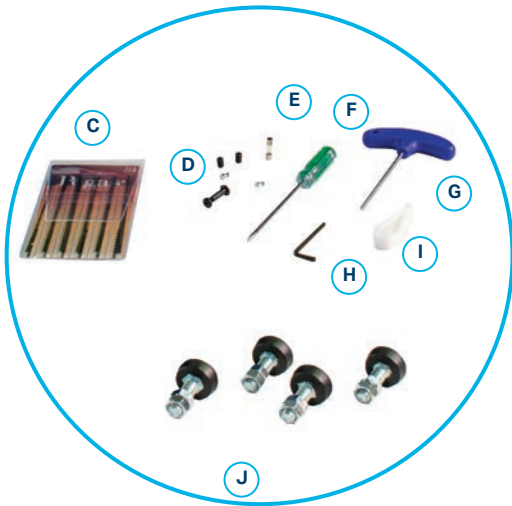
[instagram.com/Carbatec](https://instagram.com/Carbatec)



[youtube.com/CarbaTecToolsForWood](https://youtube.com/CarbaTecToolsForWood)

# WHAT'S IN THE BOX

The following items are provided in the shipping box:



- |                                                                                                                                                                                |                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>A. Scroll saw</li> <li>B. Power cord (attached)</li> <li>C. Blade pack</li> <li>D. Assembly screws and nuts</li> <li>E. Fuse</li> </ul> | <ul style="list-style-type: none"> <li>F. Screwdriver</li> <li>G. Hex driver</li> <li>H. 3 mm Allen key</li> <li>I. Spare blade tension lever</li> <li>J. Rubber feet</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

This scroll saw will require a minimal amount of assembly.

1. Remove parts from all of the cartons and lay them on a clean work surface.
2. Remove any protective materials and coatings from all of the parts and the scroll saw. The protective coatings can be removed by spraying WD-40 on them and wiping it off with a soft cloth. This may need to be redone several times before all of the protective coatings are removed completely.
3. Compare the items above to verify that all items are accounted for before discarding the shipping box.

**! CAUTION**

**DO NOT** use acetone, gasoline or lacquer thinner to remove any protective coatings.

**! WARNING**


If any parts are missing, do not attempt to plug in the power cord and turn "ON" the scroll saw. The scroll saw can only be turned "ON" after all the parts have been obtained and installed correctly.

# IMPORTANT

**DUST COLLECTION:** All woodworking machines require effective dust extraction to ensure quality work and longevity of the machine itself. Failure to connect your machine to a suitable dust collector may affect your warranty. The collector required for your machine will depend on several factors including the type of machine and its dust port connection, distance between collector and machine, type and frequency of use and the material being worked. We recommend a dust collector that will provide you a minimum airflow of 500-CFM when measured at the machine connection.

4

Key information can be found on the inspection panel, found on the rear of the machine.




**QUALITY INSPECTED**

Model:
Voltage
Freq:
Phase:
Amp:
kW:
Speed:
Lot No.:
Serial No.:
Date:

Made in **AUSTRALIA** for:

**CARBATEC PTY LTD**

Brisbane - Australia





Record the serial number and date of purchase in your manual for future reference.

SERIAL NUMBER:

.....

DATE OF PURCHASE:

.....

# CONTENTS

<b>Introduction</b>	<b>2</b>
<b>What's in the box</b>	<b>3</b>
<b>Key information</b>	<b>4</b>
<b>Safety instructions - General</b>	<b>6-9</b>
<b>Safety instructions - Scroll Saw</b>	<b>10-11</b>
<b>Safety instructions - Electrical</b>	<b>12</b>
<b>Overview</b>	<b>13</b>
<b>Specifications</b>	<b>14</b>
<b>Assembly</b>	<b>15-18</b>
<b>Changing the saw blades</b>	<b>19-20</b>
<b>Operation</b>	<b>21-25</b>
<b>Maintenance</b>	<b>26-28</b>
<b>Wiring diagram</b>	<b>29</b>
<b>Parts diagrams</b>	<b>30-35</b>
<b>Troubleshooting</b>	<b>36</b>
<b>Warranty</b>	<b>37</b>
<b>Replacement blades</b>	<b>38-39</b>

**NOTE:** The specifications, photographs, drawings and information in this manual represent the current machine model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Carbatec to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

# SAFETY INSTRUCTIONS

**IMPORTANT!** Safety is the single most important consideration in the operation of this equipment. The following instructions must be followed at all times. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury. There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.



**WARNING**

Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

6

## SYMBOL MEANING



A safety alert symbol Indicates **DANGER**, **WARNING**, or **CAUTION**. May be used in conjunction with other symbols or pictographs.



**DANGER**

Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



**CAUTION**

Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.

**NOTICE**

(Without Safety Alert Symbol) Indicates a situation that may result in property damage.



Carbatec products bearing the Regulatory Compliance Mark (RCM) have been tested in accordance with applicable Australian/New Zealand Standards to ensure their compliance with all mandatory standards and regulations (applicable at time of original sale). Carbatec Pty Ltd are registered as a responsible supplier with relevant Australian government departments and our products are registered on the EESS & ACMA database.

# GENERAL SAFETY

Operating a power tool can be dangerous if safety and common sense are ignored. The operator must be familiar with the operation of this machine. Read this manual to understand this machine. **DO NOT OPERATE** this machine **IF YOU DO NOT FULLY UNDERSTAND** the limitations of this tool. **DO NOT MODIFY** this machine in any way.

## BEFORE USING THIS MACHINE



### WARNING

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the machine.



### WARNING

- SOME DUST CREATED BY USING POWER TOOLS CONTAINS CHEMICALS** known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead-based paints.
  - Crystalline silica from bricks, cement, and other masonry products.
  - Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- 2. READ** this entire manual. **LEARN** how to use the tool for its intended applications.
- 3. GROUND ALL TOOLS.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The third prong is used to ground the tool and provide protection against accidental electric shock.
- 4. AVOID A DANGEROUS WORKING ENVIRONMENT.** Do not use electrical tools in a damp environment or expose them to rain.
- 5. DO NOT USE** electrical tools in the presence of **FLAMMABLE** liquids or gases.
- 6. ALWAYS KEEP THE AREA CLEAN,** well lit, and organized. Do not work in an environment with floor surfaces that are slippery from debris, grease, and wax.
- 7. KEEP VISITORS AND CHILDREN AWAY.** Do not permit people to be in the immediate work area, especially when the electrical tool is operating.
- 8. DO NOT FORCE THE TOOL** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.

## GENERAL SAFETY

- 9. WEAR PROPER CLOTHING.**  
Do not wear loose clothing, gloves, neckties, or jewellery. These items can get caught in the machine during operations and pull the operator into the moving parts. The user must wear a protective cover on their hair, if hair is long, to prevent it from contacting any moving parts.
- 10. CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.
- 11. ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE** when making adjustments, changing parts or performing any maintenance.
- 12. KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**
- 13. AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.
- 14. REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning "ON" the machine.
- 15. USE ONLY RECOMMENDED ACCESSORIES.** Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.
- 16. NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to the "OFF" position. Do not leave the tool until it has come to a complete stop.
- 17. DO NOT STAND ON A TOOL.** Serious injury could result if the tool tips over, or you accidentally contact the tool.
- 18. DO NOT STORE ANYTHING ABOVE OR NEAR** the tool where anyone might try to stand on the tool to reach it.
- 19. MAINTAIN YOUR BALANCE.** Do not extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.
- 20. MAINTAIN TOOLS WITH CARE.** Always keep tools clean and in good working order. Keep all blades and tool bits sharp, dress grinding wheels and change other abrasive accessories when worn.
- 21. EACH AND EVERY TIME, CHECK FOR DAMAGED PARTS PRIOR TO USING THE TOOL.** Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.
- 22. DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.**



- 23. SECURE ALL WORK.** Use clamps or jigs to secure the work piece. This is safer than attempting to hold the work piece with your hands.
- 24. STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL.** A moment of inattention while operating power tools may result in serious personal injury.
- 25. ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST OR AIRBORNE PARTICLES,** including wood dust, crystalline silica dust and asbestos dust. Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting AS/NZS approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.
- 26. USE A PROPER EXTENSION CORD IN GOOD CONDITION.** Use of extension cords should be avoided where possible. When using an extension cord, be sure to have a cord heavy enough to carry the current your product will draw, and with compatible pin configuration and connections (NEVER use an extension cord rated at less than your machine). Longer run extensions will need heavier duty extension cords. Only connect your extension cord or machine to a receptacle that accepts your plug and never modify your plug to suit a receptacle.

# SPECIFIC SCROLL SAW SAFETY

**NOTE:** According to the applicable product liability law the manufacturer of this device is not liable for damages which arise on or in connection with this device in case of:

- Improper handling
- Non-compliance with the instructions for use
- Repairs by third party, non authorised skilled workers
- Installation and replacement of non-genuine spare parts
- Improper use

## RECOMMENDATIONS:

- Read the entire text of the operating instructions prior to the assembly and operation of the device. These operating instructions are intended to make it easier for you to get familiar with your device and utilise its intended possibilities of use.
- The operating instructions contain important notes on how to work safely with your machine and how to avoid dangers, and increase the reliability and working life of the machine.
- Retain and store these instructions near the machine. The instructions must be read and carefully observed by each operator prior to starting the work.
- In addition to the safety notes contained in the present operating instructions and the special regulations of your country, the generally recognised technical rules for the operation of wood working machines must be observed.



**The device and packaging materials are not toys! Children must not be allowed to play with plastic bags, film and small parts! There is a risk of swallowing and suffocation!**

## INTENDED USE

- The machine must only be used in technically perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately. The safety, work and maintenance instructions of the manufacturer as well as the technical data given in the calibrations and dimensions must be adhered to.
- Relevant accident prevention regulations and other, generally recognised safety-technical rules must also be adhered to.
- The machine may only be used, maintained, and operated by persons familiar with it and instructed in its operation and procedures. Arbitrary alterations to the machine release the manufacturer from all responsibility for any resulting damages.
- The machine may only be used with original accessories and tools made by or recommended by the manufacturer.
- Any other use exceeds authorisation. The manufacturer is not responsible for any damages resulting from unauthorized use; risk is the sole responsibility of the operator.

## SAFETY FOR SCROLL SAWS

- This scroll saw is intended for use in dry conditions, and for indoor use only.
- Do not cut pieces of material too small to hold by hand outside the blade guard.
- Avoid awkward hand positions where a sudden slip could cause a hand to move into the blade.
- Always use the blade guard to avoid possible injury due to blade breakage.
- Never leave the work area with the power connected, or before the machine has come to a complete stop.
- Do not perform layout, assembly or set up work on the table while the cutting tool is in operation.
- Never turn your scroll saw on before clearing the table of all objects: (tools, scraps of wood, etc) except for the workpiece and related feed or support devices for the operation planned.
- The use of incorrect or damaged mains cables can lead to injuries caused by electricity.
- Even when all safety measures are taken, some remaining hazards which are not yet evident may still be present.
- Remaining hazards can be minimised by following the instructions in Safety Precautions, Proper Use and in the entire operating manual.
- Do not force the machine unnecessarily: excessive cutting pressure may lead to rapid deterioration of the blade and a decrease in performance in terms of finish and cutting precision.
- Avoid accidental starts: do not press the start button while inserting the plug into the socket.

## REMAINING HAZARDS

The machine has been built using modern technology in accordance with recognised safety rules. Some remaining hazards, however, may still exist.

- Long hair and loose clothing can be hazardous when the work piece is rotating. Wear personal protective gear such as a hair net and tight fitting work clothes.
- Saw dust and wood chips can be hazardous. Always wear AS/NZS approved personal protective gear such as safety goggles, dust mask and hearing protection.

# ELECTRICAL SAFETY

## WARNING

**This tool must be grounded while in use to protect the operator from electric shock. IN THE EVENT OF A MALFUNCTION OR BREAKDOWN,**

grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool may be equipped with an electric cord that has an equipment grounding conductor and a grounding plug. **The plug MUST Be plugged** into a matching electrical receptacle 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 electrical receptacle, have the proper electrical receptacle installed by a qualified electrician.

**IMPROPER ELECTRICAL CONNECTION** of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. **DO NOT** connect the equipment grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

### **CHECK WITH A QUALIFIED ELECTRICIAN**

or service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

**Use only a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the tool's plug. Replace a damaged or worn cord immediately.**

Power tools and machinery are intended for use on a circuit that has an electrical receptacle as shown in **FIGURE A** that shows a 10 Amp 3-wire electrical plug and corresponding electrical receptacle that has a grounding conductor.

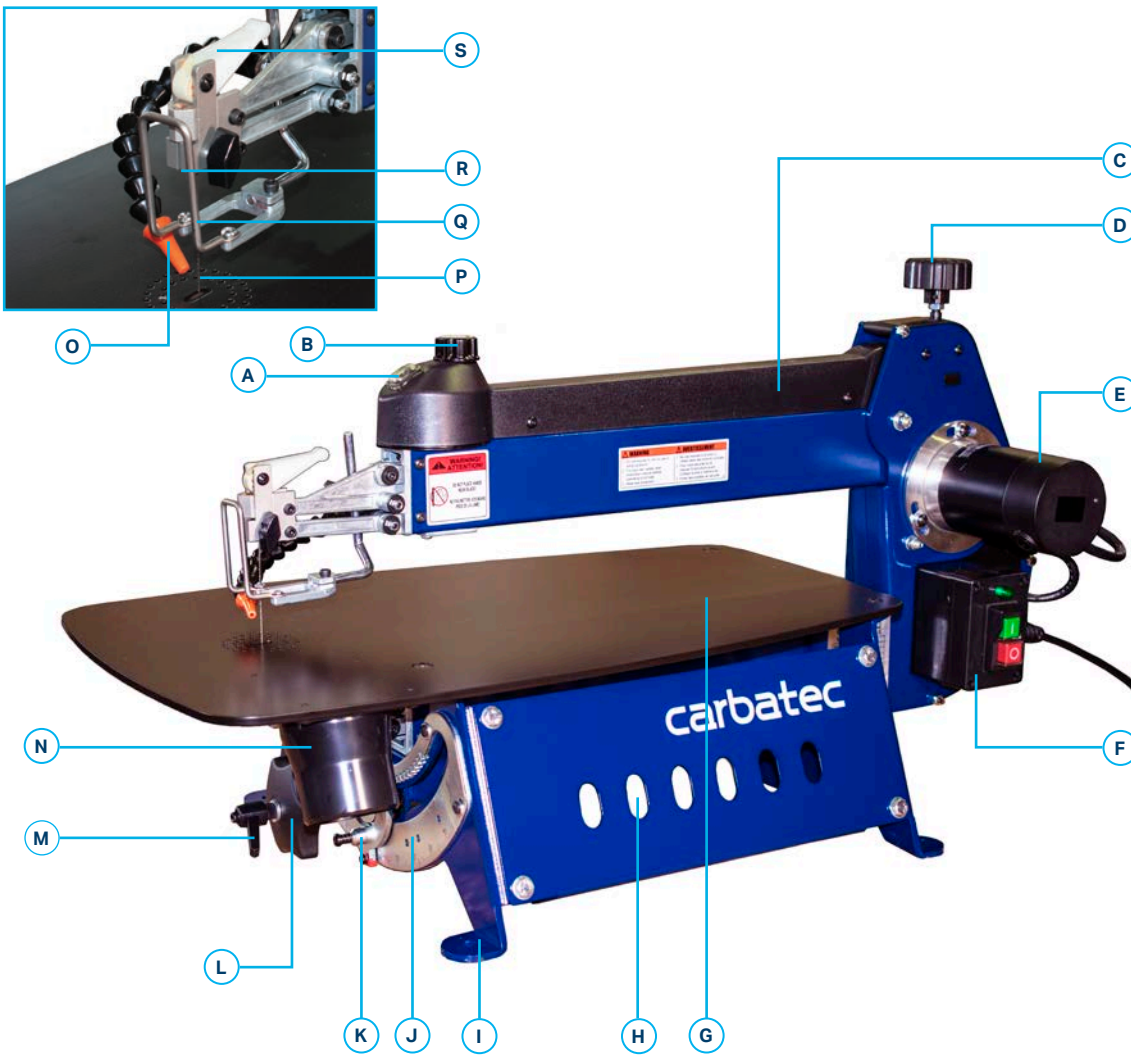
If this particular tool has been designed and fitted with a two prong electrical plug, ensure it displays the 'Double Insulated' logo shown in **FIGURE B**, before connecting to a 3-wire receptacle.

## WARNING

**Never modify the standard fitted electrical plugs to fit your receptacle.**



# OVERVIEW



## SPEED SCROLL SAW OVERVIEW

- |                                                        |                                       |
|--------------------------------------------------------|---------------------------------------|
| <b>A.</b> ON/OFF Switch                                | <b>J.</b> Angle adjustment scale      |
| <b>B.</b> Variable blade speed control knob            | <b>K.</b> Angle indicator             |
| <b>C.</b> Upper arm                                    | <b>L.</b> Head tilt handle            |
| <b>D.</b> Tensioner                                    | <b>M.</b> Head tilt locking lever     |
| <b>E.</b> Motor                                        | <b>N.</b> Dust port                   |
| <b>F.</b> NVR Power isolating switch & Power indicator | <b>O.</b> Blower                      |
| <b>G.</b> Table                                        | <b>P.</b> Blade                       |
| <b>H.</b> Spare blades holders (12)                    | <b>Q.</b> Workpiece hold down         |
| <b>I.</b> Mounting holes (4)                           | <b>R.</b> Blade chuck                 |
|                                                        | <b>S.</b> Blade quick tension release |

## SPECIFICATIONS

<b>CODE</b>	SS-400C	SS-530C
<b>BRAND</b>	Carbatec	Carbatec
<b>MODEL</b>	Left/Right Tilting Head Scroll Saw	Left/Right Tilting Head Scroll Saw
<b>RATING</b>	Commercial	Commercial
<b>POWER</b>	230 V / 50 Hz Reg. 10A Plug	230 V / 50 Hz Reg. 10A Plug
<b>MOTOR</b>	150 W (1/5 HP)	150 W (1/5 HP)
<b>THROAT</b>	406 mm	535 mm
<b>STROKE</b>	18 mm	18 mm
<b>CUTS PER MINUTE</b>	400 – 1,550	400 – 1,550
<b>MAX. DEPTH OF CUT</b>	51 mm	51 mm
<b>TABLE SIZE</b>	305 x 470 mm	345 x 597 mm
<b>WORKSHOP FOOTPRINT (WxDxH)</b>	380 x 686 x 432 mm	380 x 825 x 432 mm
<b>WEIGHT</b>	24.5 kg	29.5 kg
<b>TABLE MATERIAL</b>	Steel	Steel
<b>DUST PORT</b>	60 mm	60 mm

# MOUNTING TO WORK SURFACE

## A. MOUNTING TO A WORK BENCH OR STAND

**NOTE:** It is strongly recommended that you mount the machine to a workbench or to a purpose built stand. A pad between the scroll saw and the workbench/stand is also recommended to reduce vibration.

### Order of assembly:

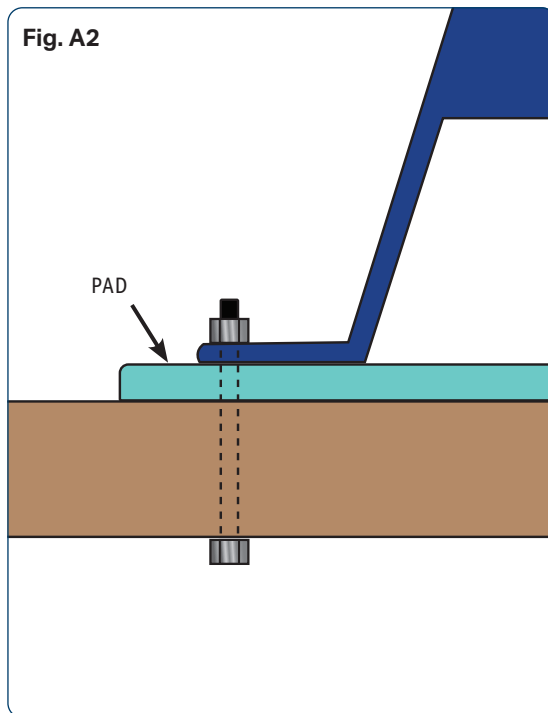
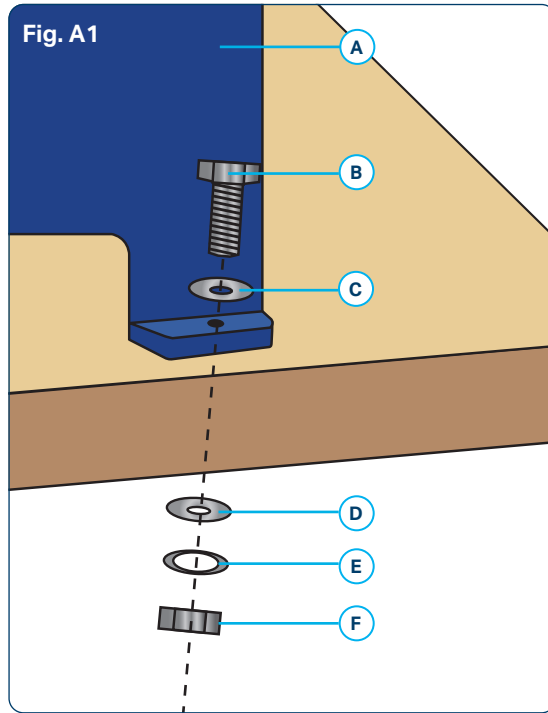
- A. Saw
- B. Hex head bolt
- C. Flat washer
- D. Workbench or stand
- E. Flat washer
- F. Lock washer
- G. Hex nut

**Fig. A1**

1. Drill four 8 mm holes in your workbench/stand
2. Secure using nuts bolts washers (Not included).

If you are not mounting to a stand or a table, ensure you fit the supplied four feet

**Fig. A2**



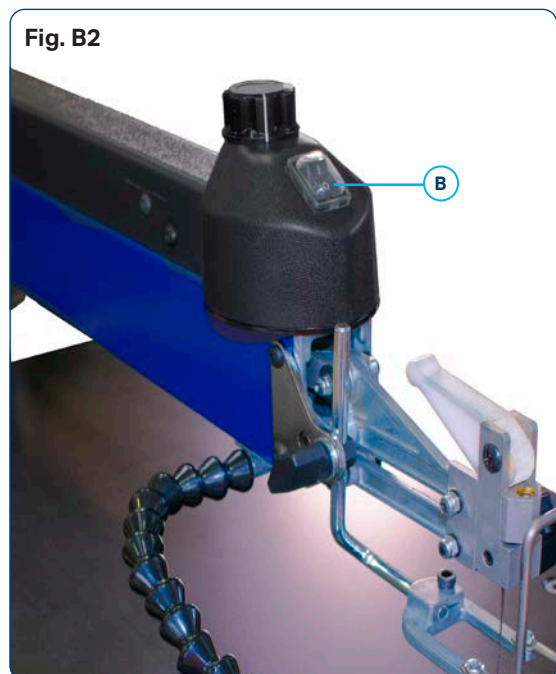
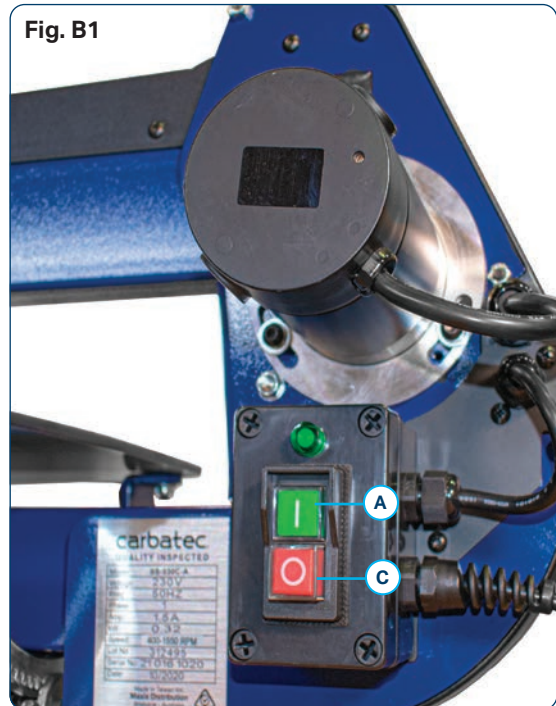


# NVR SWITCH ASSEMBLY

## B. NVR

A power NVR switch has been attached to isolate the scroll saw while not in use. The green light indicates mains power is connected and switched on.

1. Plug the unit in to mains power, turn on then press the green button (A) to put power to the scroll saw.
2. Ensure the speed dial setting is on slow, then press the rocker switch (B) to ON – setting 'I' to start the saw.
3. Once the operation has been completed, press the rocker switch (B) to setting 'O' OFF, followed by the scroll saws NVR power using the red button (C).





# CHOOSING A SAW BLADE

## C. CHOOSING AND INSTALLING A SAW BLADE

Blade selection is dependent on the type and thickness of the material being cut, but is also a matter of experience and personal preference. There are numerous types of blades available on the market specifically suited for various cutting applications such as metal-cutting and spiral blades which cut in all directions. Try test cutting with a sample of each to determine which blade works best for you with different materials.

Replacement and specialty blades can be purchased from a variety of sources. Ask your local tool or scroll saw dealer for suggestions for unpinned 5" scroll saw blades based on what is available in your area.

### Some general guidelines to consider when choosing blades:

- Wide, thick blades with coarse teeth are suited to cutting straight lines and sweeping curves, but will not turn tight corners. They will cut aggressively and leave a fairly smooth finish, but may leave burn marks if the work piece is turned too tightly.
- Narrower, thinner blades with finer teeth will cut more slowly, but will turn much tighter corners for cutting very intricate work. They will impart a very smooth, burnished finish that requires no sanding.
- Consider material thickness when selecting blades. Ensure that a minimum of two or three teeth are in contact with the workpiece at all times. For example, when cutting  $\frac{1}{8}$ " thick material, use a blade with a minimum of 16-20 teeth per inch.

#### 28 - 25 teeth / inch

For extremely intricate sawing. Very tight cuts in  $\frac{1}{16}$ " -  $\frac{1}{4}$ " wood veneer, plastic, hard rubber, pearl, etc.

#### 20 - 15 teeth / inch

For tight radius work with thin material,  $\frac{3}{32}$ " -  $\frac{1}{2}$ " wood veneer, wood bone, fiber, plastic, etc.

#### 12.5 teeth / inch

For close radius work in materials  $\frac{1}{8}$ " or thicker. Good for sawing hard and soft woods, bone, horn, plastic, etc.

#### 11.5 - 9.5 teeth / inch

Popular sizes for cutting hard and soft woods,  $\frac{3}{16}$ " up to 2". Also cuts plastic, paper, felt, bone, etc.

### SKIP TOOTH



Regular evenly spaced tooth pattern. Considered the most common of scroll saw blades, they are available in the widest range of sizes and provide a good combination of fast cutting action with good chip clearance and a relatively smooth finish.

BLADE	WIDTH	THICKNESS	TEETH / INCH
# 2/0	.022	.010	28
# 0	.024	.011	25
# 2	.029	.012	20
# 4	.035	.015	15
# 5	.038	.016	12.5
# 6	.041	.016	12.5
# 7	.045	.017	11.5
# 9	.053	.018	11.5
# 11	.059	.019	9.5
# 12	.062	.024	9.5

18

### REVERSE TOOTH



Reverse teeth at the bottom of the blades prevent splintering to the underside of the workpiece.

# 2/0 R	.026	.011	28/20
# 2R	.029	.012	20/13
# 5R	.038	.016	12.5/9
# 7R	.049	.018	11.5/8
# 9R	.054	.019	11.5/8
# 12R	.062	.062	9.5/6

### DOUBLE TOOTH



Fast, clean cutting and very efficient chip clearance.

# 1D	.026	.013	30
# 3D	.032	.014	23
# 5D	.038	.016	16
# 7D	.044	.018	13
# 9D	.053	.018	11
# 12D	.061	.022	10

# CHANGING BLADES

## D. INSTALLING OR CHANGING SAW BLADES

### ! CAUTION

Always turn off and unplug the machine before removing, handling or changing blades.

To remove an installed, worn or broken blade:

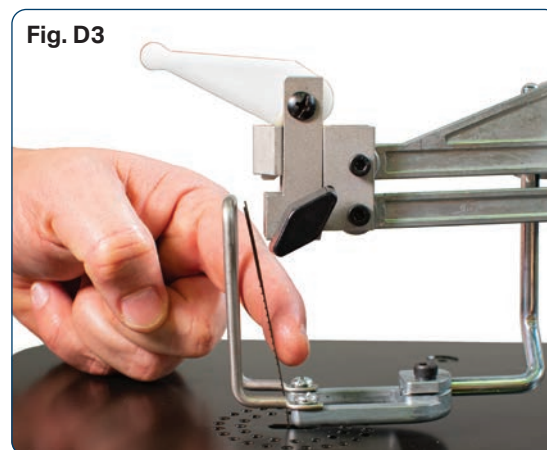
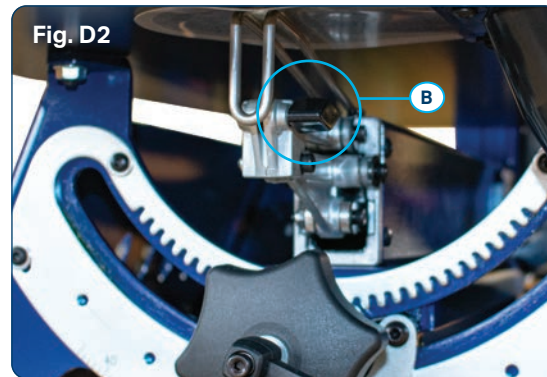
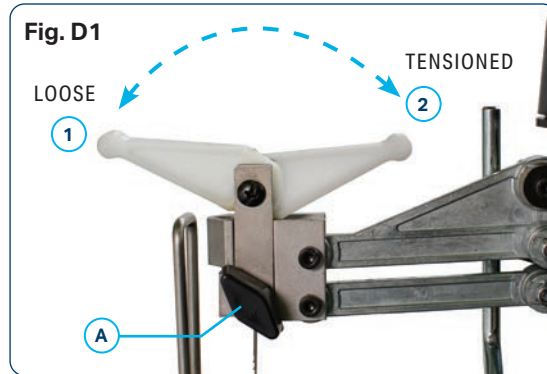
1. Flip the blade tension lever forward position 1.  
**Fig. D1**
2. Loosen the thumbscrews (A) and (B) on the upper and lower blade mounts.  
**Fig. D1 & D2.**
3. Remove the blade.  
**Fig. D3**
4. With the blade teeth facing forward, slip one end of the new blade through the hole in the table and fit each end of the blade into the corresponding upper and lower blade mounts, then tighten the thumbscrews firmly by hand only – do not use tools.

**NOTE:** Overtightening the blade clamp thumbscrews can cause premature wear to the blade's gripping surface and result in blade slippage.

5. Push the blade tension lever back (position 2) to apply tension on the blade.  
**Fig. D1**

**NOTE:** Blade holders on both sides of the scroll saw keep the spare blades in upright position.

**Fig. D4**



## E. HELPFUL HINTS ON BLADE TENSION

Determining correct blade tension is somewhat subjective. It is learned through experience and is dependent on personal preference. A properly tensioned blade will last longer and be much less likely to break prematurely.

Assuming the blade has been properly installed in the blade mount, when the blade tension lever is pushed fully back towards the rear of the saw, the blade should be properly tensioned. Test the blade tension by lightly plucking on the blade, like you would a guitar string, with your finger. If the blade is tight and tensioned correctly you will get a clear and even note. If so, you are ready to proceed to operating and cutting with the saw.

## F. ON/OFF SWITCH

A simple, dust protected rocker style on/off switch (B) is located on the top of the saw.

**Fig. G4**

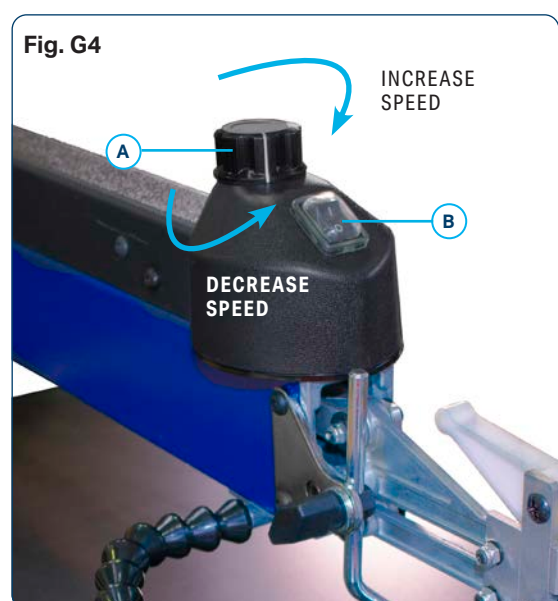
## G. ADJUSTING THE BLADE SPEED

This scroll saw is equipped with a variable blade speed control which allows you to select or fine-tune to the exact blade speed required (from 400 – 1550 strokes per minute) for best results on the type and thickness of material and type of blade being used.

The blade speed control knob (A) is located on the top of the machine.

**Fig. G4**

- to increase blade speed, turn the control knob clockwise.
- to decrease blade speed, turn the control knob counter clockwise.



# OPERATING INSTRUCTIONS

Blade speed selection is subjective and is dependent on a variety of factors: type and thickness of material being cut, type of blade being used, feed rate, required finish quality as well as experience, personal preference and comfort level of the user. There are no hard and fast rules. Be patient – practice and experience will be your best teacher.

## Here are some general guidelines to consider when selecting/adjusting blade speed:

- For best results and smoothest most efficient cutting, always select the highest blade speed that you are comfortable using based on your experience and skill level.
- Generally speaking, harder or denser workpiece material requires slower blade speeds.
- Slower speeds also work better with very thin blades, or when cutting most metals as well as for brittle or delicate material such as fine veneers.
- Some wood species will have a tendency to burn quicker at higher blade speeds. To avoid additional sanding later, reduce blade speed and feed speed at the first signs of burn marks of the workpiece.

## H. ADJUSTING THE BLOWER

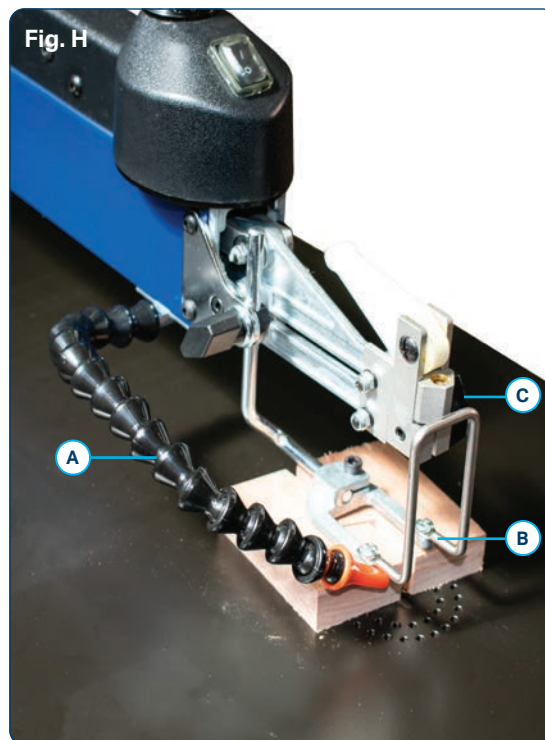
This scroll saw is equipped with a built-in blower to help clear cutting dust from the workpiece surface in front of the blade and on any reference lines. Adjust the blower tube (A) as needed to point the nozzle at the blade to set it at a comfortable distance so as not to obstruct your hand movement as you work.

**Fig. H**

## I. WORKPIECE HOLD-DOWN

The workpiece hold-down (B) can be adjusted to assist in preventing the blade from lifting the workpiece up from the table during the cut. Loosen the thumbscrew (C) to set the height to your convenience based on the thickness of the workpiece. Before cutting, test to make sure that the hold-down is not adjusted too tightly to the workpiece or that it obstructs the movement of the workpiece.

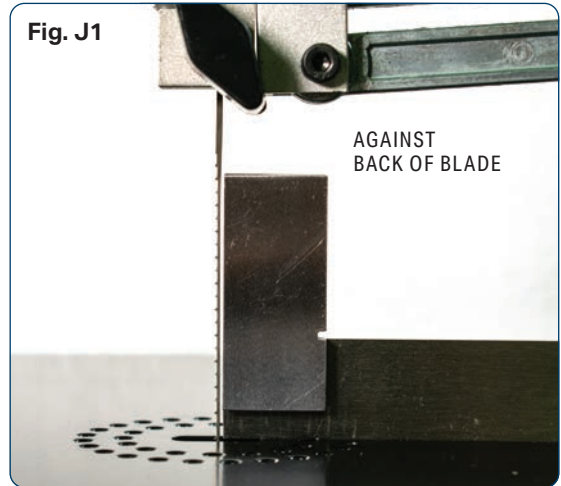
**Fig. H**



## J. ADJUSTING OSCILLATION (FRONT TO BACK)

1. Place a 90° square up-against the back of the blade. The blade movement can be set between course and fine for different cutting tasks. This can be adjusted by rotating the motor within its mounts.

**Fig. J1**



2. Loosen the motor mounting cap head bolts, enough to be able to rotate the motor – this can be quite stiff to turn.

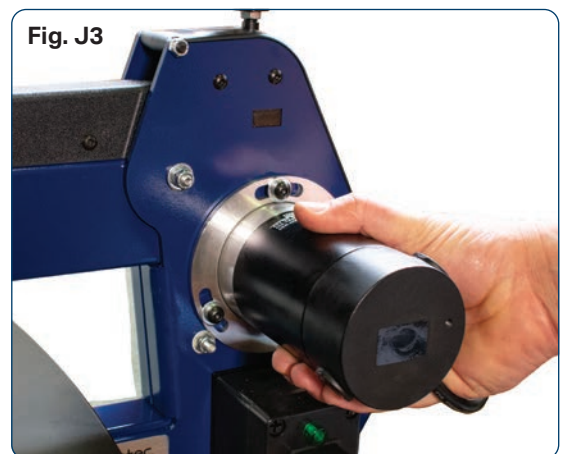
**Fig. J2**



3. Start the machine and run at approximately 1/4 speed.
4. By rotating the motor, and carefully observing the blade, you will be able to see the blade changing its setting. The finest setting is where the blade moves vertically with the least amount of movement backward and forward horizontally.

**Fig. J3**

5. Re-tighten the motor mounting bolts.



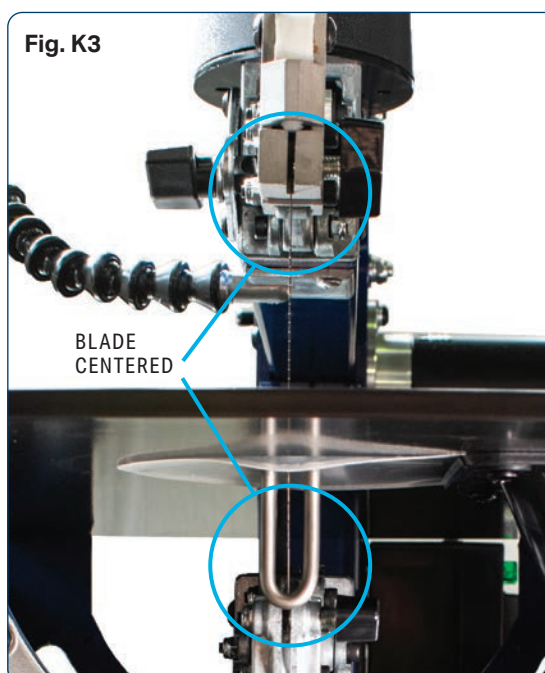
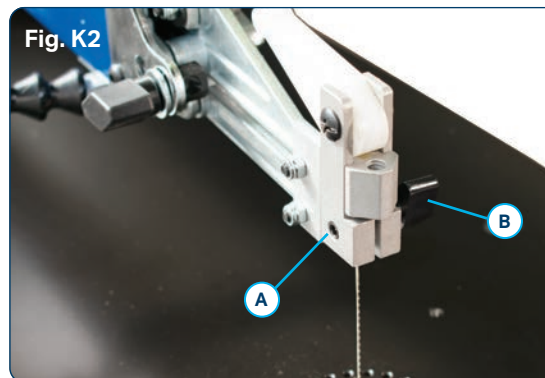
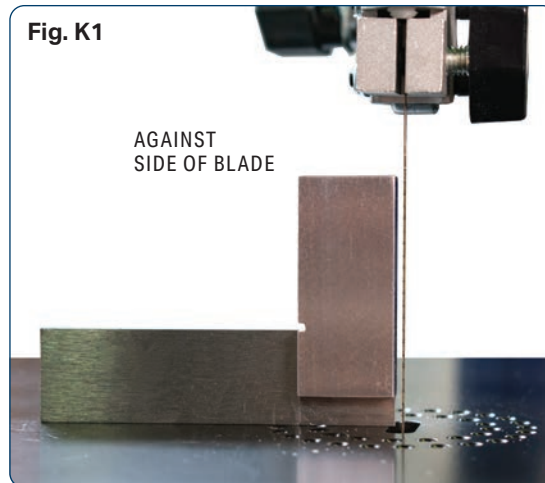


# BLADE HOLDER ALIGNMENT

## K. TOP & BOTTOM BLADE HOLDER ALIGNMENT

If the blade is out of alignment please follow the procedure below for adjusting the top and bottom blade holders:

1. Place a 90° square up-against the side of the blade.  
**Fig. K1**
2. Using a 4 mm Hex key, adjust the grub screw (A) and thumbscrew (B) until the blade is parallel with the square and centered in the top and bottom clamps.  
**Fig. K2 & K3**



## L. GENERAL RECOMMENDATIONS

A scroll saw is fundamentally a curve cutting tool but which can also carry out straight and angled edge cuts. Familiarise yourself with the following important points prior to commissioning the saw.

- The saw does not automatically cut wood. You must feed the wood against the saw blade manually.
- Feed the wood slowly against the saw blade as the saw blade teeth are small and cut only while moving.
- All persons carrying out work with the saw require training. The saw blade may break easily during this training time while the operator is still unfamiliar with the saw.
- The saw is best suited for sheets of wood less than 25 mm thick.
- Feed the wood slowly against the blade and avoid abrupt curves to prevent the saw blade from breaking, if you wish to cut wood sheets thicker than 2.5 cm.
- Saw blade teeth blunt over time, saw blades must be replaced when they become blunt.
- Try and make sure that the saw blade follows the grain of the wood in order to obtain a clean cut.
- The saw speed must be reduced to minimum when cutting precious and non-ferrous metals. Appropriate specialty blades MUST be used.

### WARNING

**Switch off the saw and remove the mains supply plug before installing saw blades in order to avoid injuries caused by unintentional activation of the saw.**

## M. INSIDE CUTS

This saw is suited also to inside cuts, cuts not starting at the edge of the work piece.

Proceed as follows:

- Drill a 6 mm hole in the work piece.
- Loosen the blade tensioner and release the tension in the blade.
- Place the bore hole over the saw blade slot in the work bench.
- Install the saw blade through the hole in the work piece and through the work blade slot, and fasten the blade to the holders and re tension.
- When you have completed the inside cut, remove the saw blade and then remove the workpiece from the bench.



# ANGLE OR BEVEL CUTTING

## N. ANGLE OR BEVEL CUTTING

One of the unique features of these two model scroll saws is the ability to tilt the head of the saw in order to make angle or bevel cuts. The table and the workpiece always stay horizontal (parallel to the floor) while the blade tilts, keeping your hands in the same comfortable cutting position as they would normally be for regular right angle cuts. Because you are not fighting gravity or working with your hands or wrists bent in awkward positions, it can be a huge advantage and makes it easier and safer to make accurate bevel cuts.

The blade tilt controls are located under the table at the front of the saw.

**Fig. N1**

To tilt the blade for bevel cutting:

1. Release the locking lever (A) by turning counter-clockwise.

**Fig. N1**

2. Turn the tilting handle (B) left or right to set the blade to the desired angle.

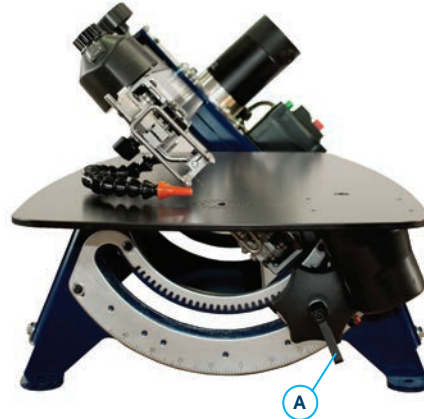
**Fig. N2**

3. Push in and hold the spring leaded indexing pin (C) to locate the following common angles: 90°, 45°, 30° & 22.5° both left and right.

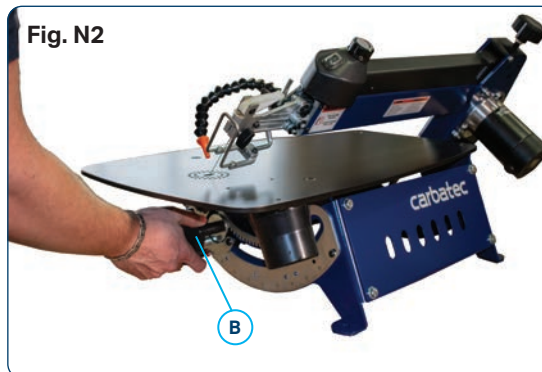
**Fig. N3**

**NOTE:** When tilting the blade to the left at extreme angles, it may be necessary to remove and reverse the lower blade mount thumbscrew assembly in order to maximize clearance under the table.

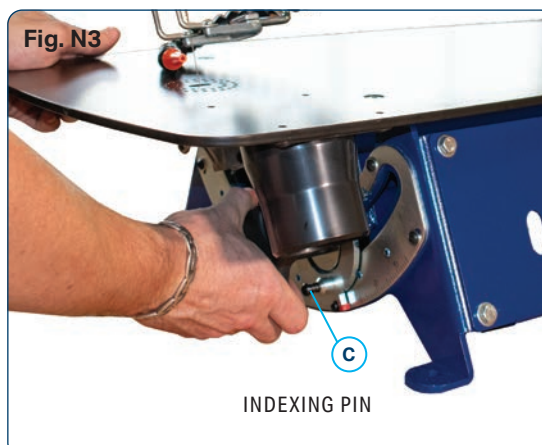
**Fig. N1**



**Fig. N2**



**Fig. N3**

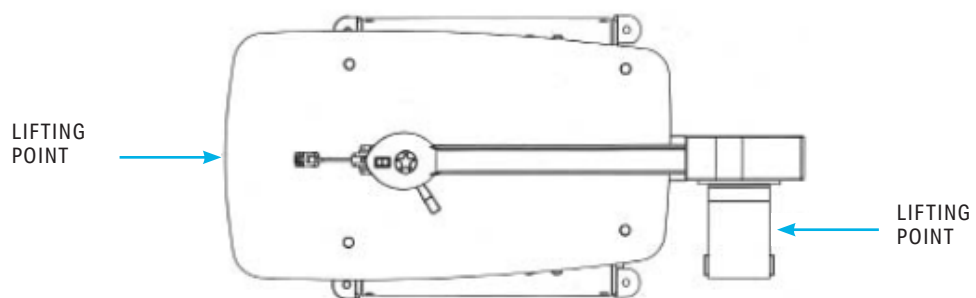


# MAINTENANCE & SERVICING

## O. HANDLING

**! CAUTION**

DO NOT LIFT BY THE UPPER ARM



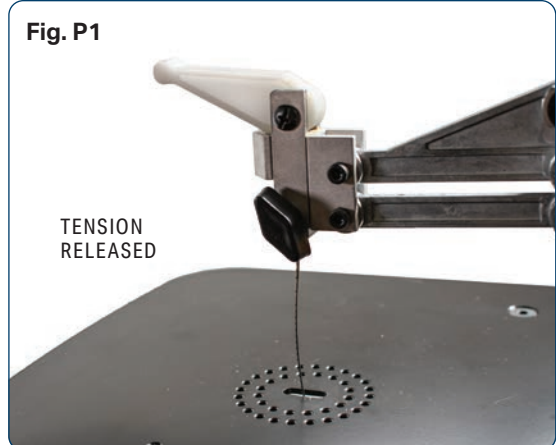
26

## P. MAINTENANCE

- Always release tension on the blade when the saw is not in use.

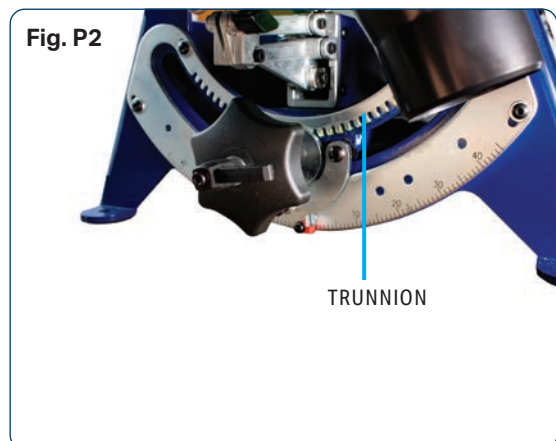
**Fig. P1**

- Clean the saw regularly with a soft bristle brush or by vacuuming to keep cutting dust from accumulating.
- An occasional application of a light dab of grease on the front and rear trunnions. (Fig. P2) will keep the tilting mechanism working smoothly. If you find the tilting mechanism becoming more difficult to operate, thoroughly wipe off any built-up cutting dust on the trunnions and re-apply a little grease.
- The bearings in the drive mechanism are sealed and permanently lubricated and do not need to be oiled or greased.



**Fig. P1**

TENSION  
RELEASED



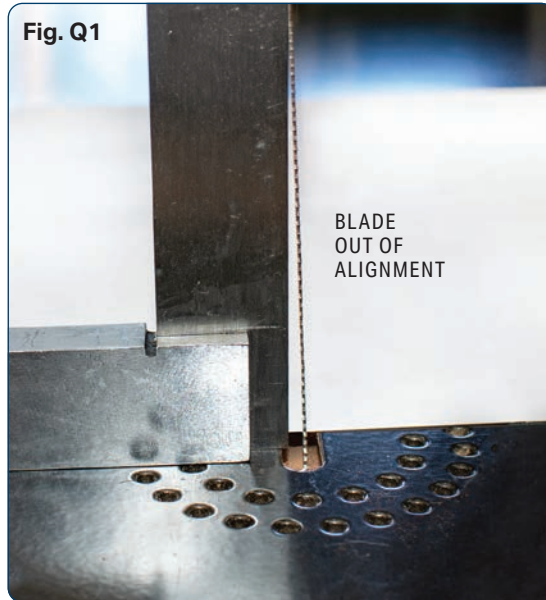
**Fig. P2**

TRUNNION

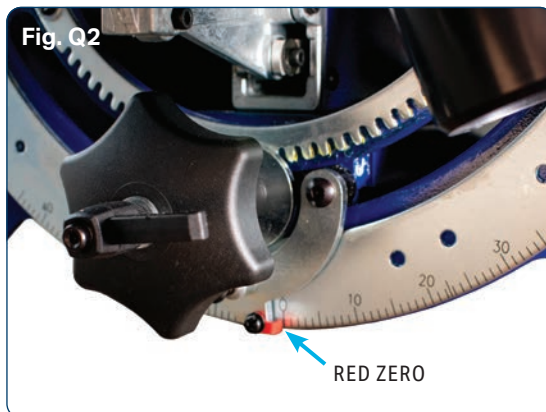
## Q. SQUARING THE BLADE TO THE TABLE

Depending on frequency of use and how much the tilting mechanism is used, normal wear will over time cause the trunnion or blade to come slightly out of alignment with the table. When needed, adjust as described in the following steps to realign the blade square to the table.

1. Turn off and unplug the saw.
2. Ensure the blade position within the blade holder clamping heads, is centered between the grub screw and thumb screw (see Blade Holder Alignment page 23).
3. Set a small machinist square on the table close to the tensioned saw blade.



4. Use the blade tilting mechanism to align the blade to the machinist square as required.
5. Lock blade tilt mechanism and check that the red zero marker aligns to the red zero marking on the front trunnion.



6. If adjustment is required, loosen the four trunnion screws on front and rear trunnions.



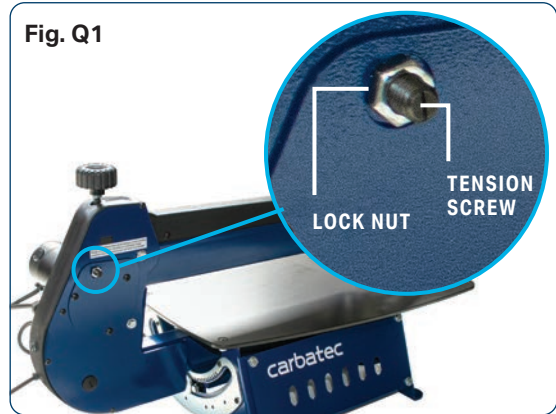
7. Unlock the blade tilt mechanism lever, taking care not to shift the blade position.
8. Carefully rotate the front trunnion plate to align the red marker and 0 (zero) and recheck blade to table with square.
9. Tighten all eight trunnion hex screws.

## Q. UPPER ARM TENSION ADJUSTMENT

Over time and with normal wear, the upper arm tension will require adjustment to hold the arm in the raised position.

To adjust the upper arm tension:

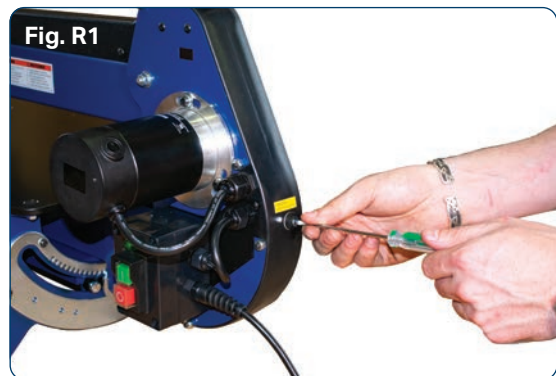
- Loosen the lock nut (Fig. Q1).
- Adjust the tension screw until the arm stays in raised position.
- Re-tighten the lock nut.



## R. CHANGING THE FUSE

The SS Series Scroll Saws take a 5 Amp 20x5 mm glass fuse. Follow the instructions below on how to change the fuse.

1. Unplug the scroll saw from the mains.
2. Unscrew the fuse cap to the rear of the scroll saw and remote the 5 Amp fuse.  
**Fig. R1**



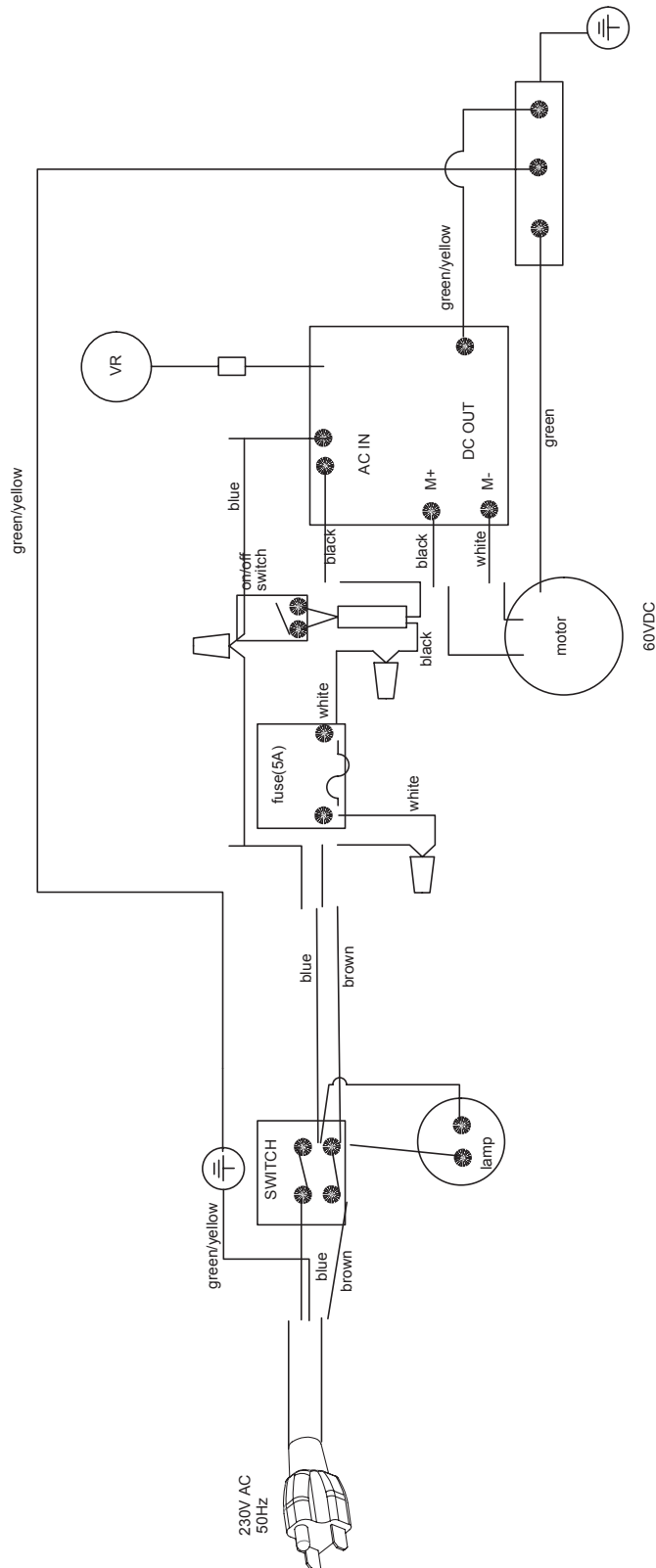
3. Insert a new 5 Amp fuse into the end cap holder.  
**Fig. R2**



4. Re-insert the fuse assembly and finger tighten.  
**Fig. R3**

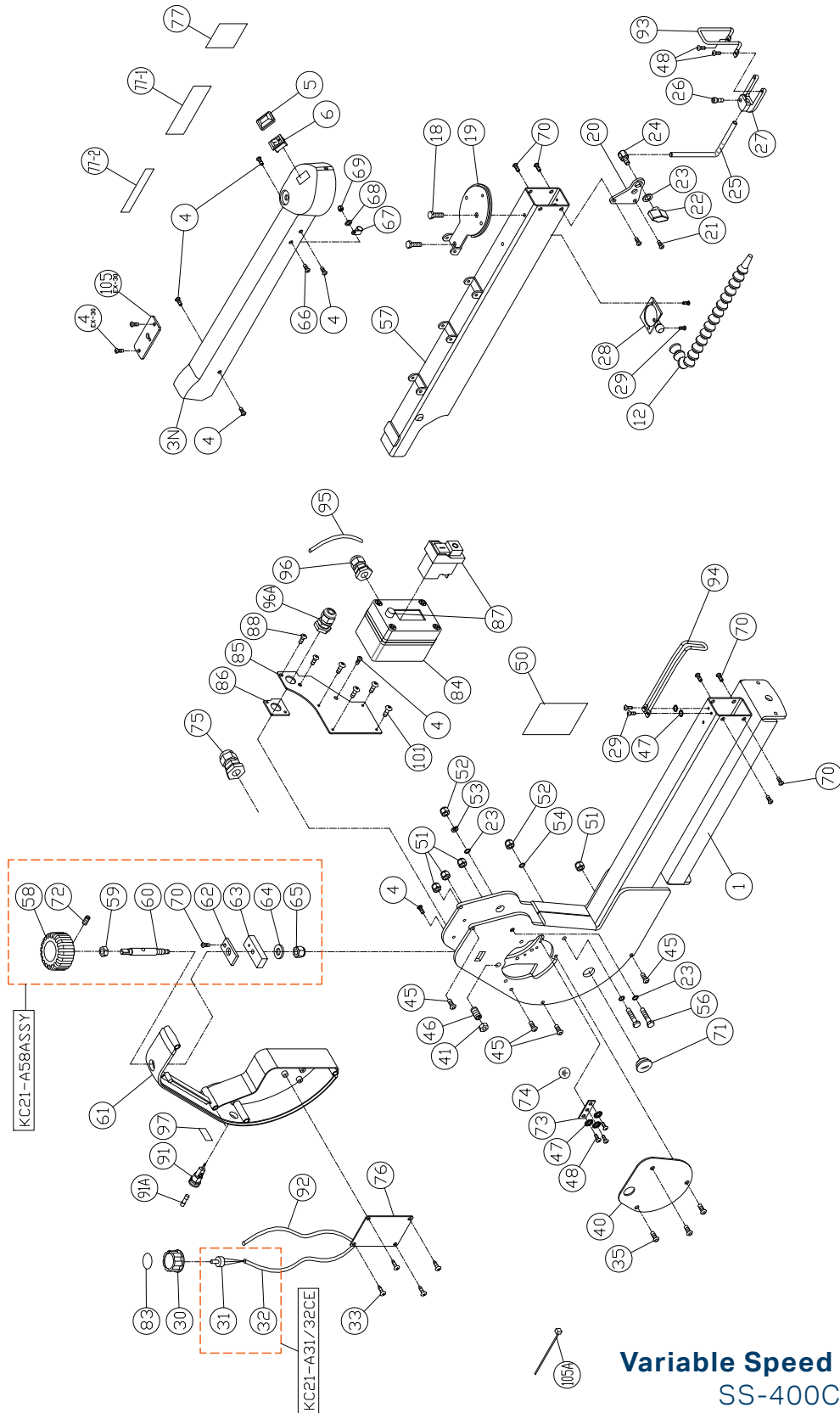


# WIRING DIAGRAM





# PARTS DIAGRAM - A

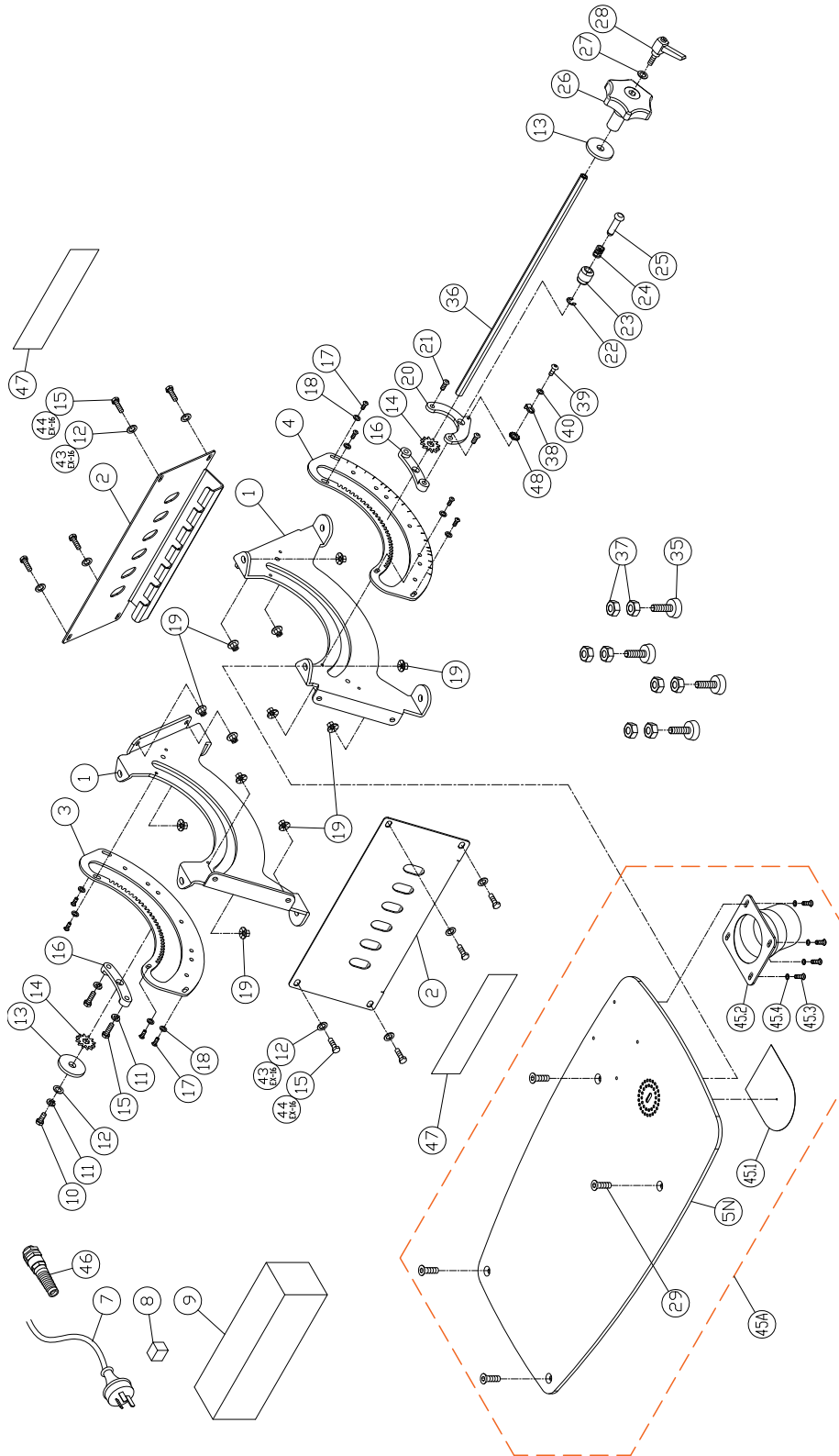


**Variable Speed Scroll Saw**  
SS-400C / SS-530C

## PARTS LIST - A

PART REF.	PART #	DESCRIPTION	PART REF.	PART #	DESCRIPTION	PART REF.	PART #	DESCRIPTION
1	A01	Main Body 21" model	45	A45	Allen Screw #10-32x2-1/4" (x4)	76	A76	Motor Control Set Suit 21"
1	A78	Main Body 16" model	46	A46	Screw 3/8"x5/8"	76	A82	Motor Control Set Suit 16"
1	A01	Main Body 30" model	47	A47	Washer #8 (x5)	76	A76	Motor Control Set Suit 30"
03N	A03N	Top Cover 21" model	48	A48	Screw #8-32x1/4" (x5)	77	A77	Warning Label A
03N	A79	Top Cover 16" model	50	50	ID Label Suit 21" model	77	A77-1	Warning Label B
03N	A03	Top Cover 30" model	50	50	ID Label Suit 16" model	77	A77-2	Warning Label C
4	A04	Allen Screw Suit 21" model #10-32x1/4" (x7)	50	50	ID Label Suit 30" model	83	A83	Label
5	A05	Switch Cover	51	A51	Nylon Nut #10-32 (x4)	84	A84	Switch Box
6	A06	Switch	52	A52	Nylon Nut 1/4-20UNC (x2)	85	A85	Control Plate
12	A12	Air Nozzle	53	A53	Lock Washer 1/4"	86	A86	Fixing Plate
18	A18	Bolt 1/4"-20x1/2" (x2)	54	A54	Flat Washer 1/4" (O. D. 13)	87	A87	Switch #10-24UNCx3/8" (x2)
19	A19	Upper & Lower Tension Plate	56	A56	Screw 1/4*2-1/2 (x2)	88	A88	Round Head Screw
20	A20	Hold Down Mount Plate	57	A57	Upper Arm Suit 21" model	91	A91	Fuse Holder
21	A21	Allen Screw #10-32x3/8" (x2)	57	A80	Upper Arm Suit 16" model	91A	A91A	Fuse
22	A22	Hold Down Clamp Knob	57	A57	Upper Arm Suit 30" model	92	A92	Power Cord Suit 21" model
23	A23	Washer 1/4"x16x1.8 (x4)	58	A58	Knob	92	A92	Power Cord Suit 16" model
24	A24	Hold Down Clamp Screw		A58 ASSY	Upper Arm Rising Knob Assembly	92	A92	Power Cord Suit 30" model
25	A25	Hold Down Bar	59	A59	Nut M8	93	A93	Protection Bracket-Up
26	A26	Cap Screw #10-32x1/2"	60	A60	Adjusting Lever	94	A94	Protection Bracket-Down
27	A27	Hold Down Forks	61	A61	Control Box	95	A95	Short Power Cord
28	A28	Dust Blower	62	A62	Cross Block Retainer	96	A96	Strain Relief PG9
29	A29	Tap Screw #8-32UNC3/8" (x4)	63	A63	Housing Cross Block	96	A96A	PG9SL
30	A30	VR Knob	64	A64	Flat Washer M6x16x2	97	A97	Fuse Holder Label
31	A31	VR	65	A65	Nylon Nut M6	101	A101	Round Head Screw M4x8 (x4)
32	A32	Control Cable Suit 21" model	66	A66	Allen Screw #10-32x1/2"	105	A105	Switch Plate
32	A81	Control Cable Suit 16" model	67	A67	EXR Fastener ACC9	105A	A105A	Cable tie
32	A32	Control Cable Suit 30" model	68	A68	Washer #10			
31/32	A31/32	VR-With Control Cable Suit 21"	69	A69	Nylon Nut #10-32			
31/32	A31/32	VR-With Control Cable Suit 16"	70	A70	Allen Screw #10-32x5/16" (x7)			
31/32	A31/32	VR-With Control Cable Suit 30"	71	A71	Button			
33	A33	Screw M3.5x8" (x4)	72	A72	Set Screw M4x10			
35	A35	Allen Screw 1/4"-20x1/2" (x3)	73	A73	Ground Plate			
40	A40	Gear Cover	74	A74	Ground Label			
41	A41	Nut 3/8xT5.5	75	A75	Strain Relief FGA17-10B(3/8")			

# PARTS DIAGRAM – B

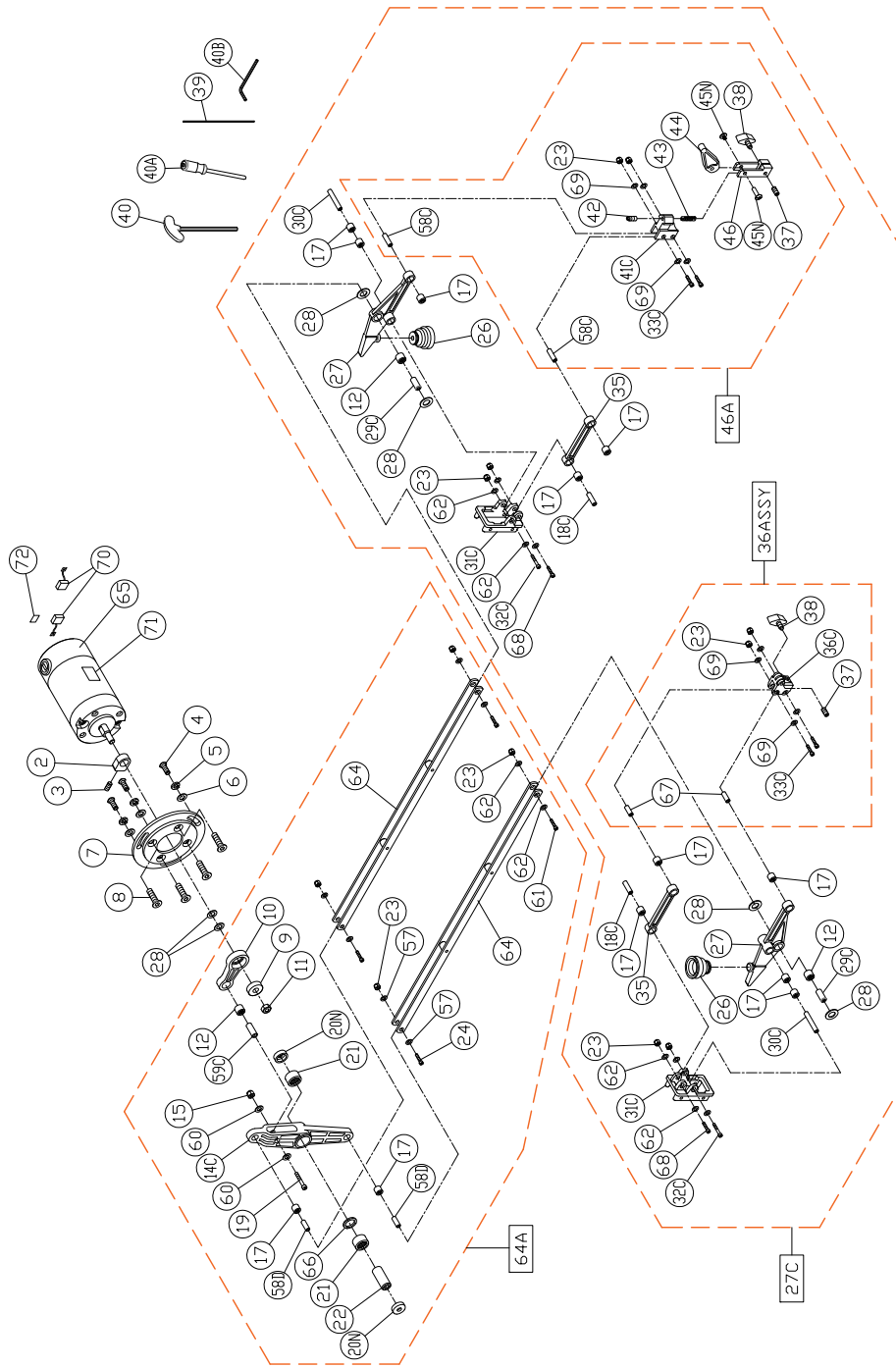




## PARTS LIST – B

PART REF.	PART #	DESCRIPTION	PART REF.	PART #	DESCRIPTION
1	B01	Trunnion (x2)	25	B25	Detent Plunger
2	B02	Side Panel Suit 21" model (x2)	26	B26	Tilt Handle
2	B41	Side Panel Suit 16" model (x2)	27	B27	Washer 1/4"x16X3
2	B02	Side Panel Suit 30" model (x2)	28	B28	Blade Tilt Locking Lever
3	B03	Rear Trunnion Plate	29	B29	Flat Head Screw 1/4"-20x3/4" (x4)
4	B04	Front Trunnion Plate	35	B35	Leveling foot 3/8"-16x1-1/4 (x4)
05N	B05N	Table Suit 21" model	36	B36	Tilt Lock Draw Rod Suit 21" model
05N	B42	Table Suit 16" model	36	B45	Tilt Lock Draw Rod Suit 16" model
05N	B05N	Table Suit 30" model	36	B36	Tilt Lock Draw Rod Suit 30" model
7	B07	Power Cord	37	B37	Nut 3/8"-16UNC (x8)
8	B08	Spong Block	38	B38	Pointer
9	B09	Polyfoam	39	B39	Round Head Screw M4x6mm
10	B10	Screw 1/4"-20UNC*1/2"	40	B40	Washer M4
11	B11	Lock Washer 1/4" (x3)	43	B43	Washer 1/4" (x8)
12	B12	Washer 1/4" (x9)	44	B44	Allen Screw 1/4"-20UNC*3/4" (x8)
13	B13	Blade Tilt Washer (x2)	45A	B45A	Dust Collector Table Kit Suit 21"
14	B14	Blade Tilt Drive Gear (x2)	45A	B45A	Dust Collector Table Kit Suit 16"
15	B15	Screw 1/4"-20UNC*3/4" (x10)	45A	B45A	Dust Collector Table Kit Suit 30"
16	B16	Angle Follower (x2)	45.1	B45.1	Plastic Shroud Suit 21"
17	B17	Screw #10-32x5/16" (x8)	45.1	B45.1	Plastic Shroud Suit 16"
18	B18	Washer #10x12x1 (x8)	45.2	B45.2	Dust Chute
19	B19	Nut 1/4"-20UNC (x12)	45.3	B45.3	Round Head Screw #8-32UNC-3/8" (x4)
20	B20	Angle Indicator	45.4	B45.4	Washer #8-32UNC (x4)
21	B21	Allen Screw 1/4"-20x1" (x2)	46	B46	Strain Relief
22	B22	E Ring ETW-3	47	B47	Label (x2)
23	B23	Tilt Detent Barrel	48	B47	External Tooth Washer M4
24	B24	Spring			

# PARTS DIAGRAM – C



## PARTS LIST – C

PART REF.	PART #	DESCRIPTION	PART REF.	PART #	DESCRIPTION	PART REF.	PART #	DESCRIPTION
2	C02	Balance Block	30C	C30C	Bearing Inner Sleeve Suit 21" 6.03x37mm (x2)	46A	C46A	Upper Blade Tension Assembly Suit 21"
3	C03	Set Screw M6*6	30C	C30C	Bearing Inner Sleeve Suit 16" 6.03x25.8mm (x2)	46A	C46A	Upper Blade Tension Assembly Suit 16"
4	C04	Allen Screw 1/4"-20x1/2" (x3)	31C	C31C	Rocker Mount Suit 21" (x2)	46A	C46A	Upper Blade Tension Assembly Suit 30"
5	C05	Lock Washer 1/4" (x3)	31C	C31C	Rocker Mount Suit 16" model (x2)	57	C57	Washer M4x10x1 (x4)
6	C06	Flat Washer 1/4"x16x1.8 (x3)	32C	C32C	Cap Screw Suit 21" M4*45 (x2)	58C	C58C	Inner Bearing Sleeve Suit 21" 6.03 x 16.5mm (x2)
7	C07	Motor Cover Plate	32C	C32C	Cap Screw Suit 16" M4*40 (x2)	58C	C58C	Inner Bearing Sleeve Suit 16" 6.03 x 9.8mm (x2)
8	C08	Screw M6x16 (x4)	33C	C33C	Cap Screw Suit 21" M4*24 (x4)	58D	C58D	Inner Bearing Sleeve 6.03 x 16.5mm (x2)
9	C09	Bearing 608ZZ	33C	C33C	Cap Screw Suit 16" M4*22 (x4)	59C	C59C	Bearing Inner Sleeve 8.03 x 21.5mm
10	C10	Motor Cam	35	C35	Strut (x2)	60	C60	Washer M5 (x2)
11	C11	Nut M8XP1.25 LH	36C	C36C	Blade Chuck Suit 21"	61	C61	Cap Screw M4*27 (x2)
12	C12	Bearing HK0810 (x3)	36C	C36C	Blade Chuck Suit 16"	62	C62	Washer M4x14x1 (x12)
14C	C14	Rocker Cam	36 ASSY	C36 ASSY	Blade Chuck Bottom Assembly Suit 21"	64	C64	Drive link Assy Suit 21"(x2)
15	C15	Lock Nut M5	36 ASSY	C36 ASSY	Blade Chuck Bottom Assembly Suit 16"	64	C64	Drive link Assy Suit 16"(x2)
17	C17	Bearing HK0609 (x12)	37	C37	Set Screw M6*8 (x2)	64	C64	Drive link Assy Suit 30"(x2)
18C	C18	Inner Bearing Sleeve Suit 21" 6.03x21 (x2)	38	C38	Blade Clamp Thumb Screw (x2)	64A	C64A	Complete drive link Assembly Suit 21"
18C	C18	Inner Bearing Sleeve Suit 16" 6.03x9.8 (x2)	39	C39	Blade	64A	C64A	Complete drive link Assembly Suit 16"
19	C19	Cap Screw M5*28	40	C40	Allen Wrench M3	64A	C64A	Complete drive link Assembly Suit 30"
20N	C20N	Bearing Cover (x2)	40A	C40A	Flathead Screwdriver	65	C65	Motor
21	C21	Bearing HK1412 (x2)	40B	C40B	L-Type Allen Wrench 1/8"	66	C66	Spacer
22	C22	Main Rocker Pivot 14.04x35.5	41C	C41C	Clamp Bracket Suit 21"	67	C67	Cylinder Suit 21" 6.03x16mm (x2)
23	C23	Nut M4 (x12)	41C	C41C	Clamp Bracket Suit 16"	67	C67	Cylinder Suit 16" 6.03x9.8mm (x2)
24	C24	Cap Screw M4*25 (x2)	42	C42	POM Set Screw 1/4"-20UNC	68	C68	Cap Screw Suit 21" M4x30 (x2)
26	C26	Air Pump Bellows (x2)	43	C43	Spring	68	C68	Cap Screw Suit 16" M4x25 (x2)
27	C27	Front Rocker	44	C44	Tension Lever Suit 21" 5mm	69	C69	Washer M4*8*1 (x8)
27C	C27C	Upper and Lower Rocker Assembly Suit 21"	44	C44	Tension Lever Suit 30" 7mm	70	C70	Motor Brush
27C	C27C	Upper and Lower Rocker Assembly Suit 16"	45N	C45N	Screw Post M4	71	C71	Motor Label Suit 21"
27C	C27C	Upper and Lower Rocker Assembly Suit 30"	45N	C45N	Round Head Screw M4x6	71	C71	Motor Label Suit 16"
28	C28	Washer M8*15*0.6 (x6)	46	C46	Sliding Bracket	72	C72	Black Label
29C	C29C	Inner Bearing Sleeve-Front Rocker 8.03x18.40mm (x2)						

# TROUBLESHOOTING

**TO PREVENT INJURY TO YOURSELF** or damage to the Scroll Saw, turn the switch to the **"OFF"** position and unplug the power cord from the electrical receptacle before making any adjustments.

PROBLEM	LIKELY CAUSE(S)	SOLUTION(S)
<b>Saw blades break.</b>	<ol style="list-style-type: none"> <li>1. Tension incorrectly set.</li> <li>2. Load too great.</li> <li>3. Incorrect saw blade variety.</li> <li>4. Workpiece not fed straight.</li> </ol>	<ol style="list-style-type: none"> <li>1. Set the correct tension.</li> <li>2. Feed the workpiece more slowly.</li> <li>3. Use the correct saw blades.</li> <li>4. Avoid exerting pressure from the side.</li> </ol>
<b>Motor does not function.</b>	<ol style="list-style-type: none"> <li>1. Mains cable faulty.</li> <li>2. Motor faulty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Change faulty parts.</li> <li>2. Call customer service. <b>Do not attempt to repair the motor yourself as this should be carried out by trained personnel.</b></li> </ol>
<b>Vibration (The saw vibrates slightly when the motor is running in normal operation.)</b>	<ol style="list-style-type: none"> <li>1. Saw incorrectly installed.</li> <li>2. Unsuitable underlay .</li> <li>3. The work bench is not screwed down or is on the motor.</li> <li>4. The motor is not secured.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to the instructions given earlier in this manual for information on installing the saw.</li> <li>2. The heavier the work bench is, the less the vibration. A bench made from ply wood always vibrates more than one made from solid wood. Select the work bench best suited to your working conditions.</li> <li>3. Tighten the locking lever.</li> <li>4. Securely screw the motor in place.</li> </ol>
<b>Saw blade swings out. Holders not aligned straight.</b>	<ol style="list-style-type: none"> <li>1. Holders not aligned.</li> </ol>	<ol style="list-style-type: none"> <li>1. Loosen the screws with which the holders are fastened to the arm. Align the holders so that they are perpendicular to each other and re-tighten the screws.</li> </ol>

# 3 YEAR WARRANTY


## WARRANTY

- A. We warrant that this Carbatec product will be free from defects caused by faulty workmanship or faulty materials for a period of 3 years from date of sale.
- B. This warranty is in addition to other rights and remedies you may have under a law in relation to the goods.
- C. This warranty does not apply in any of the following cases:
- i. Defects arising from:
    1. fair wear and tear;
    2. corrosive atmosphere;
    3. damage or injury caused by deliberate act, lack of care or failure to comply with the recommended care and maintenance for the goods;
    4. improper use of the goods;
    5. alterations or repairs (not made by us) to the goods;
  - ii. defects arising from an event outside of our control such as fire, flood, earthquake or other natural calamity, motor vehicle or other accident, strike, civil unrest, terrorism or war;
  - iii. to accessory items such as after-market jigs, accessories or other items which are not sold or serviced by us and which are not sold with or were not included with the main unit purchased; or
  - iv. to wearable parts such as drive belts/shafts, bearings, bandsaw tyres, motor brushes, blades or abrasive belts/discs or other cutting or machining implements.
  - v. damage caused to any electrical component, where connected to a power supply outside the country for which it was designed (namely Australia or New Zealand).
- D. If this warranty applies and you have complied with the procedure below for making a claim, we will, at our election, either repair the goods (or those parts of the goods recognised as defective) or will provide a replacement within a reasonable time at our expense.
- E. If this warranty applies, the procedure for making a claim is:
- i. you must contact us by email;
  - ii. you must include in the email the following information:
    1. a copy of the order or receipt for the goods;
    2. the serial or batch number printed on the machinery manufacturing plate; and
    3. a detailed description of the fault and how and when it arose; and
    4. If the fault is a type covered by this warranty, we will then make arrangements with you for the return of the goods to us (for repair or replacement) at our cost using our transport providers or we may decide to attend at your premises to repair or replace the goods.
- F. Our liability (and that of our resellers) under this warranty is wholly limited to repair or replacement of the goods (or those parts of the goods recognised as defective) in accordance with the procedure above and you have no right to other compensation, costs or damages under this warranty. But this does not mean that you may not have other rights under a law in relation to the goods.
- G. If following our inspection of goods returned by you under this warranty it is found that this warranty does not apply and you are not otherwise entitled to repair or replacement by us, you must, if requested by us, reimburse our costs including parts, labour and freight.
- H. This warranty is not transferable and only the person who purchased the goods may make a claim.
- Where the goods have been exported outside Australia or New Zealand, the Company may not require the Purchaser to return any allegedly faulty or defective Product for evaluation. However, the Company has the right to request the return for evaluation at purchasers cost.

## STATUTORY NOTICE

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

# REPLACEMENT BLADES



## SCROLL SAW BLADE SELECTION CHART

This scroll saw blade selection chart is a base for any woodworker, from someone who wants to begin scrolling and doesn't know which blade to select, to an experienced scroller looking for a perfect fit for their project. Additional technical information is available on our product packaging and online.

Pegas are blade manufacturing specialists from Switzerland. Their products are recognised by professionals and individuals alike as the best Scroll Saw blades available, outperforming and outlasting competition in testing. Carbatec are proud to offer these blades to the Australian market.

### SUPER-SKIP

Use the new Pegas® Super-Skip saw blade when you want to achieve a smooth finish from an aggressive blade. Specially designed for hard and medium-hardwoods, Super-Skip also works perfectly on Acrylic with a reduced speed. The spaces between the teeth of the Super-Skip blade are wider than the normal skip-tooth configuration. This enables the blade to cut very quickly, leaving a smooth finish. The surface sawdust is whisked away and the edge remains clean.

SKU	Universal #	Blade Thickness (mm)	Blade Width (mm)	TPI (in.)	Kerf (mm)	Hardwoods	Medium Hardwoods	Softwoods	Plywood	Corian - Plastics	Alum., Brass, Copper	Ferrous Materials	Optimal Material Thickness (mm)	Intricate Cuts	Tight Turns	Light Turns
PEG-90-581	1	0.26	0.76	17.2	0.29	■	■	■	■	■	■	■	2.5-8	●		
PEG-90-583	3	0.32	0.85	14.8	0.35	■	■	■	■	■	■	■	4-10	●		
PEG-90-585	5	0.36	1.02	12.8	0.4	■	■	■	■	■	■	■	8-15		●	
PEG-90-587	7	0.4	1.24	11.3	0.45	■	■	■	■	■	■	■	10-20		●	
PEG-90-589	9	0.44	1.3	10.1	0.49	■	■	■	■	■	■	■	12-25			●

### SKIP

Universal Scroll saw blade, very efficient in Hard and Medium-Hard woods. The wide range of skip allows the cutting of intricate patterns as well as rough-cut work. It will accept a fast feed rate and will leave a smooth finish.

SKU	Universal #	Blade Thickness (mm)	Blade Width (mm)	TPI (in.)	Kerf (mm)	Hardwoods	Medium Hardwoods	Softwoods	Plywood	Corian - Plastics	Alum., Brass, Copper	Ferrous Materials	Optimal Material Thickness (mm)	Intricate Cuts	Tight Turns	Light Turns
PEG-90-401	0	0.24	0.74	25.4	0.26	■	■	■	■	■	■	■	2-6	●		
PEG-90-403	2	0.3	0.78	21	0.33	■	■	■	■	■	■	■	3-10	●		
PEG-90-405	4	0.34	0.95	18.1	0.38	■	■	■	■	■	■	■	5-12		●	
PEG-90-407	6	0.38	1.12	15.9	0.42	■	■	■	■	■	■	■	8-18		●	
PEG-90-409	8	0.42	1.28	14.1	0.47	■	■	■	■	■	■	■	12-20			●
PEG-90-411	10	0.46	1.38	12.7	0.52	■	■	■	■	■	■	■	15-30			●
PEG-90-413	12	0.5	1.55	11.5	0.56	■	■	■	■	■	■	■	20-50			●

**PINNED BLADES**

Pegas offer a range of 'Pinned' blades, designed for use on Scroll Saw's with chuck heads suited to this style. Pinned blades have a cross pin at each end of the blade and are not suitable for 'Pinless' style chuck heads.

Pinned Regular  
 Pinned Skip  
 Pinned Hook



SKU	Blade Style	Blade Thickness (mm)	Blade Width (mm)	TPI (in.)	Kerf (mm)	Hardwoods	Medium Hardwoods	Softwoods	Plywood	Corian - Plastics	Alum., Brass, Copper	Ferrous Materials	Optimal Material Thickness (mm)	Intricate Cuts	Tight Turns	Light Turns
PEG-90-475	Reg.	0.5	3	20	0.72	Red	Red	Yellow	Yellow	Green	Yellow	Red	4-30			●
PEG-90-476	Reg.	0.5	3	15	0.72	Red	Red	Yellow	Yellow	Green	Yellow	Red	5-35			●
PEG-90-478	Reg.	0.25	2	25	0.4	Red	Red	Yellow	Yellow	Green	Yellow	Red	3-20			●
PEG-90-480	Skip	0.5	3	9	0.72	Red	Red	Yellow	Yellow	Green	Yellow	Red	10-60			●
PEG-90-481	Skip	0.25	2	18.5	0.36	Green	Green	Yellow	Yellow	Yellow	Red	Red	4-30			●
PEG-90-485	Hook	0.5	3	7	0.74	Green	Green	Yellow	Yellow	Yellow	Red	Red	10-75			●

**REGULAR PROGRESSIVE**



The Pegas® Regular Progressive Blade was particularly developed for use in a hand-held saw frame. It is resistant to breakage in this use due to its unique progressive tooth geometry, making for very smooth starting cuts without resistance. These blades are suited to non-ferrous metals and other materials harder than wood.

SKU	Blade Style	Blade Thickness (mm)	Blade Width (mm)	TPI (in.)	Kerf (mm)	Hardwoods	Medium Hardwoods	Softwoods	Plywood	Corian - Plastics	Alum., Brass, Copper	Ferrous Materials	Optimal Material Thickness (mm)	Intricate Cuts	Tight Turns	Light Turns
PEG-90-467	2	0.3	0.78	39.35	N/A	Yellow	Red	Red	Yellow	Green	Green	Red	2-6		●	
PEG-90-468	5	0.36	1.02	29.8	N/A	Yellow	Red	Red	Yellow	Green	Green	Red	3-10		●	

**GENERAL INFORMATION**

The smaller the blade number is, the smaller radius it will cut. The smaller the blade number is, the narrower the kerf will be.

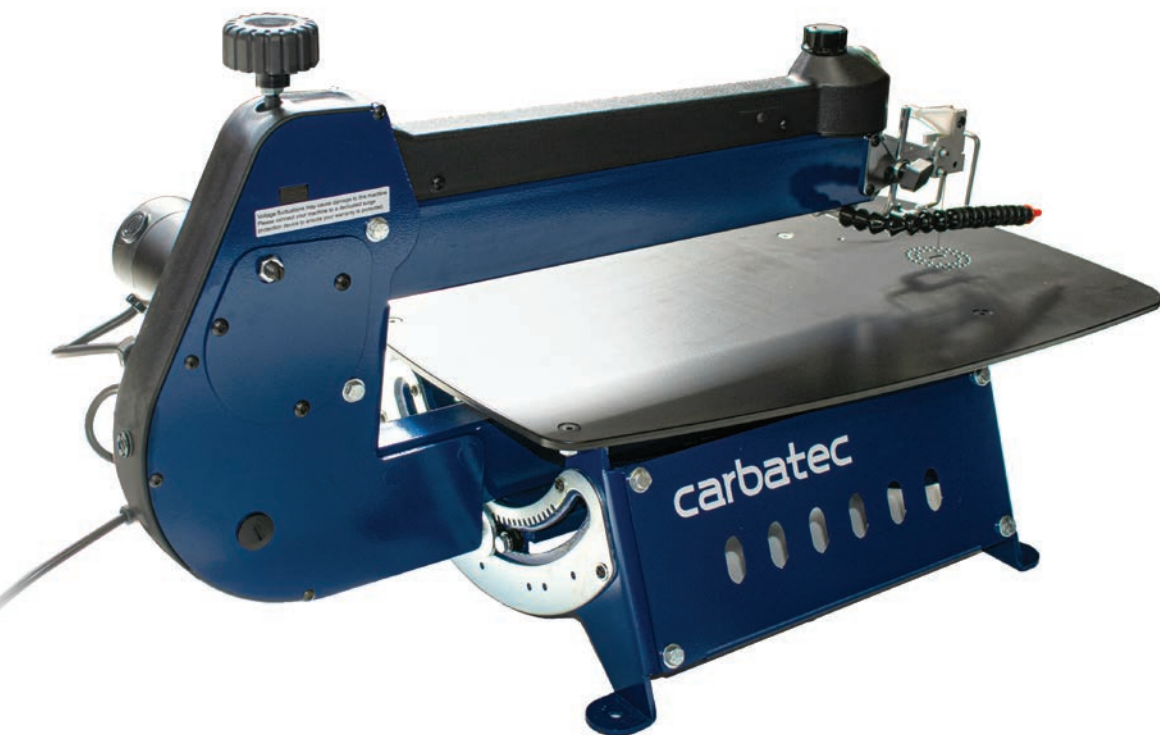
Before starting a new project, ask yourself these questions:

- What type of material am I cutting?
- How thick is the piece of material?
- How thin does the cut line need to be (Puzzle, Intarsia)?

**LEGEND**

RECOMMENDED	OK TO USE	NOT RECOMMENDED





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**3** YEAR  
WARRANTY