

# Bäumr-AG



## Scroll Saw - SS16 Series II

### User Manual

[Revision 3.0 June 2020]

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READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

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# Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:



You **WILL** be **KILLED** or **SERIOUSLY INJURED** if you do not follow instructions.



You **CAN** be **KILLED** or **SERIOUSLY INJURED** if you do not follow instructions.



You **CAN** be **INJURED** if you do not follow instructions or equipment damage may occur.

It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference.

Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage.

Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.

- **Before Use** - If you are not familiar with the safe operation/handling of the equipment or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.
- Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. The equipment may create sparks or heat that may ignite flammable substances.
- Keep clear of moving parts.
- Equipment may be a potential source of electric shock or injury if misused.
- Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do NOT allow others to use the equipment unless they have read this manual and are adequately trained.
- Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

## General Work Area Safety

- Work areas should be clean and well lit.
- Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.
- If devices are provided for connecting dust extraction / collection facilities, ensure these are connected and used properly. Dust collection can reduce dust-related hazards.

## General Personal Safety

- Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.
- Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance.
- Do not use the equipment if tired or under the influence of drugs, alcohol or medication.
- This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

## General Fuel Safety

- Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources.
- Do not spill fuel. If you spill fuel, wipe it off the equipment immediately – if fuel gets on your clothing, change clothing.
- Do NOT smoke near fuel or when refuelling.
- Always shut off the engine before refuelling.
- Do NOT refuel a hot engine.
- Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly.
- Always refuel in well ventilated areas.
- Always check for fuel leakage. If fuel leakage is found, do not start or run the engine until all leaks are fixed.

## General Carbon-Monoxide Safety

- Using a combustion engine indoors **CAN KILL IN MINUTES**. Engine exhaust contains carbon-monoxide – a poison you cannot smell or see.
- Use combustion engines **OUTSIDE** only, and far away from windows, doors and vents.

## General Equipment Use and Care

- The equipment is designed for domestic use only.
- Handle the equipment safely and carefully.
- Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use.
- Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.
- Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters.
- Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.
- Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated.
- Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases or liquids etc.
- The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.
- For specific equipment safety use and care, see Equipment Safety.

## General Electrical Safety

- Inspect electrical equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately.
- Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting or disconnecting equipment.
- When wiring electrically powered equipment, follow all electrical and safety codes.
- Wherever possible, use a residual current device (RCD).
- High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.

## General Electrical Safety

- Electrically grounded equipment must have an approved cord and plug and be connected to a grounded electrical outlet.
- Do NOT bypass the ON/OFF switch and operate equipment by connecting and disconnecting the electrical cord.
- Do NOT use equipment that has exposed wiring, damaged switches, covers or guards.
- Do NOT use electrical equipment in wet conditions or in damp locations.
- Do NOT use electrical cords to lift, move or carry equipment.
- Do NOT coil or knot electrical cords, and ensure electrical cords are not trip hazards.

## General Service Information

- The equipment must be serviced or repaired at authorised service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to ensure equipment safety is maintained.
- Do NOT attempt any maintenance or repair work not described in this manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before adjusting, changing accessories or performing repair or maintenance.
- Do NOT adjust while the equipment is running.
- Perform service related activities in suitable conditions, such as a workshop.
- Replace worn, damaged or missing warning/safety labels immediately.

## Scroll Saw Safety

- This scroll saw is designed for operating under ambient temperatures between +5°C and 40°C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should be less than 50% at 40°C. It can be stored or transported under ambient temperatures between -25°C and 55°C.
- Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be resorted, taken to the local recycling centre and disposed of in an environmentally safe way.

## Understand your Machine

- Read this manual and labels affixed to the machine to understand its limitations and potential hazards.
- Be thoroughly familiar with the controls and their proper operation. Know how to stop the machine and disengage the controls quickly.
- Do not attempt to operate the machine until you fully understand how to properly operate and maintain the engine and how to avoid accidental injuries and/or property damage.
- If the unit is to be used by someone other than original purchaser or loaned, rented, or sold, always provide this manual and any needed safety training before operation. The user can prevent and is responsible for accidents or injuries that may occur to themselves, other people, and property.
- Do not force the machine. Use the correct machine for your application. The correct machine will do the job more efficiently and safer at the rate it was designed.

## Personal Safety

- Do not permit children to operate this machine at any time.
- Keep children, pets, and other people not using the unit away from the work area. Be alert and shut off unit if anyone enters work area. Keep children under the watchful care of a responsible adult.
- Do not operate the machine while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.
- Dress properly. Do not wear loose clothing, short pants, or jewellery of any kind. Secure long hair so it is above shoulder level. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery, or long hair can be caught in moving parts.
- Protect eyes, face, and head from objects that may be thrown from the unit. Always wear safety goggles or safety glasses with side shields when operating.
- Wear appropriate hearing protection. Wear respiratory protection to avoid the risk of inhaling harmful dust.
- Always keep hands and feet away from all moving parts during operation. Moving parts can cut or crush body parts.
- Always keep hands and feet away from all pinch points.
- Do not touch parts that might be hot from operation. Allow parts to cool before attempting to maintain, adjust, or service.
- Stay alert, watch what you are doing, and use common sense when operating the machine.
- Do not overreach. Do not operate the machine while barefoot or when wearing sandals or similar lightweight footwear. Wear protective footwear that will protect your feet and improve your footing on slippery surfaces. Keep proper footing and balance at all times. This enables better control of the machine in unexpected situations.

## Inspect your Machine

- Check your machine before starting it. Keep guards in place and in working order. Make sure all nuts, bolts, etc., are securely tightened.
- Never operate the machine when it is in need of repair or is in poor mechanical condition. Replace damaged, missing, or failed parts before using it. Keep the machine in safe working condition. Regularly check to see that keys and adjusting wrenches are removed from the machine area before starting it. A wrench or a key that is left attached to a rotating part of the machine may result in personal injury. Avoid accidental starting. Be sure the motor switch is off before transporting the machine or performing any maintenance or service on the unit.

- Transporting or performing maintenance or service on a machine with its switch on invites accidents. If the machine should start to vibrate abnormally, stop the motor and check immediately for the cause. Vibration is generally a warning sign of trouble.

#### **Electric Safety**

- Protect yourself from electric shock. Do not plug or unplug the motor while standing in or around damp or wet ground. Do not use the unit in wet or damp areas or expose it to rain. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures. Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the unit.
- Avoid inadvertent starting. Make sure that the switch is switched off when plugging the plug into an outlet.
- Only use approved and appropriately identified extension cables for use outdoors. Only use cable reels in the unrolled state.
- Do not use the cable for purposes for which it is not intended. Do not use the cable to pull the plug out of the outlet. Protect the cable from heat, oil and sharp edges.
- Have your electric tool repaired by a qualified electrician. This electric tool conforms to the applicable safety regulations. Repairs may only be performed by an electrician using original spare parts. Otherwise accidents can occur.

#### **Work Area & Store Area**

- Keep the work area orderly. Disorder in the work area can lead to accidents.
- Take environmental influences into account. Do not expose electric tools to rain. Do not use electric tools in a damp or wet environment. Make sure that the work area is well-illuminated. Do not use electric tools where there is a risk of fire or explosion.
- Securely store unused electric tools. Unused electric tools should be stored in a dry, elevated or closed location out of the reach of children.

#### **Safety Precautions**

- Connect the dust extraction device. If connections for dust extraction and a collecting device are present, make sure that they are connected and used properly.
- Operation in enclosed areas is only permitted with a suitable extraction system.

#### **Machine Use and Care**

- Do not use low-output electric tools for heavy work. Do not use the electric tool for purposes for which it is not intended. For example, do not use hand-held circular saws for the cutting of branches or logs. Do not use the electric tool to cut firewood.
- When the saw blade is blocked due to abnormal feed force during cutting, turn the machine off and disconnect it from power supply. Remove the work piece and ensure that the saw blade runs free. Turn the machine on and start new cutting operation with reduced feed force.
- Do not remove any cutting residues or other parts of workpieces from the cutting zone while the machine is running, and the saw unit is not at rest.
- Never remove loose splinters, chips or jammed pieces of wood while the saw blade is running.
- Switch off the machine to troubleshoot or remove jammed pieces of wood.
- Refitting, including adjusting and measuring works, and cleaning must be carried out only when the motor is switched off. – Disconnect the main power plug -
- Before switching on again, ensure that keys and adjustment tools have been removed.
- This electric tool generates an electromagnetic field during operation. This field can impair active or passive medical implants under certain conditions. In order to prevent the risk of serious or deadly injuries, we recommend that persons with medical implants consult with their physician and the manufacturer of the medical implant prior to operating the electric tool.
- Take care of your tools. Keep cutting tools sharp and clean in order to be able to work better and more safely. Follow the instructions for lubrication and for tool replacement.
- Check the connection cable of the electric tool regularly and have it replaced by a recognized specialist when damaged. Check extension cables regularly and replace them when damaged. Keep the handle dry, clean and free of oil and grease.
- Check the electric tool for potential damage. Protective devices and other parts must be carefully inspected to ensure that they are fault-free and function as intended prior to continued use of the electric tool. Check whether the moving parts function faultlessly and do not jam or whether parts are damaged. all parts must be correctly mounted, and all conditions must be fulfilled to ensure fault free operation of the electric tool. The moving protective hood may not be fixed in the open position. Damaged protective devices and parts must be properly repaired or replaced by a recognised workshop, insofar as nothing different is specified in the operating manual. Damaged switches must be replaced at a customer service workshop. Do not use any faulty or damaged connection cables. Do not use any electric tool on which the switch cannot be switched on and off.

#### **Additional Safety Rules 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 scroll saw work area with the power, 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.

**Maintenance and Repair**





















- Pull out the mains plug for any adjustment or repair tasks.
- The generation of noise is influenced by various factors, including the characteristics of saw blades, condition of saw blade and electric tool. Use saw blades which were designed for reduced noise development, insofar as possible. Maintain the electric tool and tool attachments regularly and if necessary, initiate repairs in order to reduce noise.
- Report faults on the electric tool, protective devices or the tool attachment to the person responsible for safety as soon as they are discovered.
- Check the electric tool for potential damage. Protective devices and other parts must be care-fully inspected to ensure that they are fault-free and function as intended prior to continued use of the electric tool. Check whether the moving parts function faultlessly and do not jam or whether parts are damaged. All parts must be correctly mounted, and all conditions must be fulfilled to ensure fault free operation of the electric tool. The moving protective hood may not be fixed in the open position. Damaged protective devices and parts must be properly repaired or replaced by a recognized workshop, insofar as nothing different is specified in the operating manual. Damaged switches must be replaced at a customer service workshop. Do not use any faulty or damaged connection cables. Do not use any electric tool on which the switch cannot be switched on and off.















**Residual Risks**

- The machine has been built using modern technology in accordance with recognized 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 hair net and tight-fitting work clothes.
- Saw dust and wood chips can be hazardous. Wear personal protective gear such as safety goggles and a dust mask.
- The use of incorrect or damaged mains cables can lead to injuries caused by electricity. lead to injuries caused by electricity, maiming hazards which are not yet evident may still be present.
- 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.

## Safety Symbols

The product may have safety warning labels attached to it, explained below. Understand the symbols on your product and their meanings. If any stickers become unreadable, unattached etc., replace them.

 <p><b>Flammable Material Hazard</b> Flammable liquids, gases or substances etc may present. Avoid ignition sources and open flames. Danger of fire.</p>	 <p><b>Read User Manual</b> Read and fully understand product safety warnings, operation, procedures etc before using the product.</p>	 <p><b>Use Hand Protection</b> Wear appropriate hand protection and take due care as the product or use of the product may present hand hazards.</p>	 <p><b>Carbon-Monoxide Hazard</b> Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.</p>
 <p><b>Electrocution / Electrical Shock Hazard</b> High voltage or high current electricity may be present or required by the product. Take due care when handling electrical products, cables, plugs and leads. Electrical shock can be fatal.</p>	 <p><b>Toxic Fumes / Dust Hazard</b> Using the product or by-products from use may produce fumes, smoke or particles that could be harmful if inhaled. Wear appropriate breathing protection and have adequate ventilation.</p>	 <p><b>Explosive Material Hazard</b> Combustible liquids, gases or substances etc may be present. Avoid ignition sources and open flames. Danger of explosion.</p>	 <p><b>Cutting / Amputation Hazard</b> The product may have blades, edges or mechanical devices that can cause severe cut injury to fingers, limbs etc. Take due care when handling and using the product.</p>
 <p><b>Crush Hazard</b> The product may have blades, edges or mechanical devices that can cause severe crush injury to fingers, limbs etc. Take due care when handling and using the product.</p>	 <p><b>Single Operator Only</b> The product must be operated by a single person only. More than one person operating the product may introduce additional hazards.</p>	 <p><b>Use Face Protection</b> Wear appropriate full-face protection and take due care as the product or use of the product may present face and eye hazards.</p>	 <p><b>Use Foot Protection</b> Wear appropriate foot protection and take due care as the product or use of the product may present foot hazards.</p>
 <p><b>Use Eye / Ear / Head Protection</b> Wear appropriate eye and / or ear and / or head protection and take due care as the product or use of the product may present eye, hearing and head hazards.</p>	 <p><b>Running Hazard</b> Do not run on or near the product as doing so may present a fall hazard.</p>	 <p><b>Diving Hazard</b> Do not dive into the product as doing so may present a neck / head injury hazard.</p>	 <p><b>Adult Supervision Required</b> Always supervise children and other users of a product to prevent drowning or injury.</p>
 <p><b>Skin Penetration / Puncture Hazard</b> The product may produce pressure, emit liquids or objects that can cause severe injury to fingers, limbs, blood etc. Take due care when handling and using the product.</p>	 <p><b>Hot Surface Hazard</b> Be aware that the product may produce high temperatures and hot surfaces that can cause burn injuries.</p>	 <p><b>Flying Debris Hazard</b> Be aware that the product or use of the product may present hazards produced by flying debris. Wear appropriate clothing and protective devices.</p>	 <p><b>Moving Parts Hazard</b> Be aware that the product contains or uses mechanical devices that move or rotate. Always wait for moving parts to stop fully before handling the product, adjusting, maintenance etc.</p>

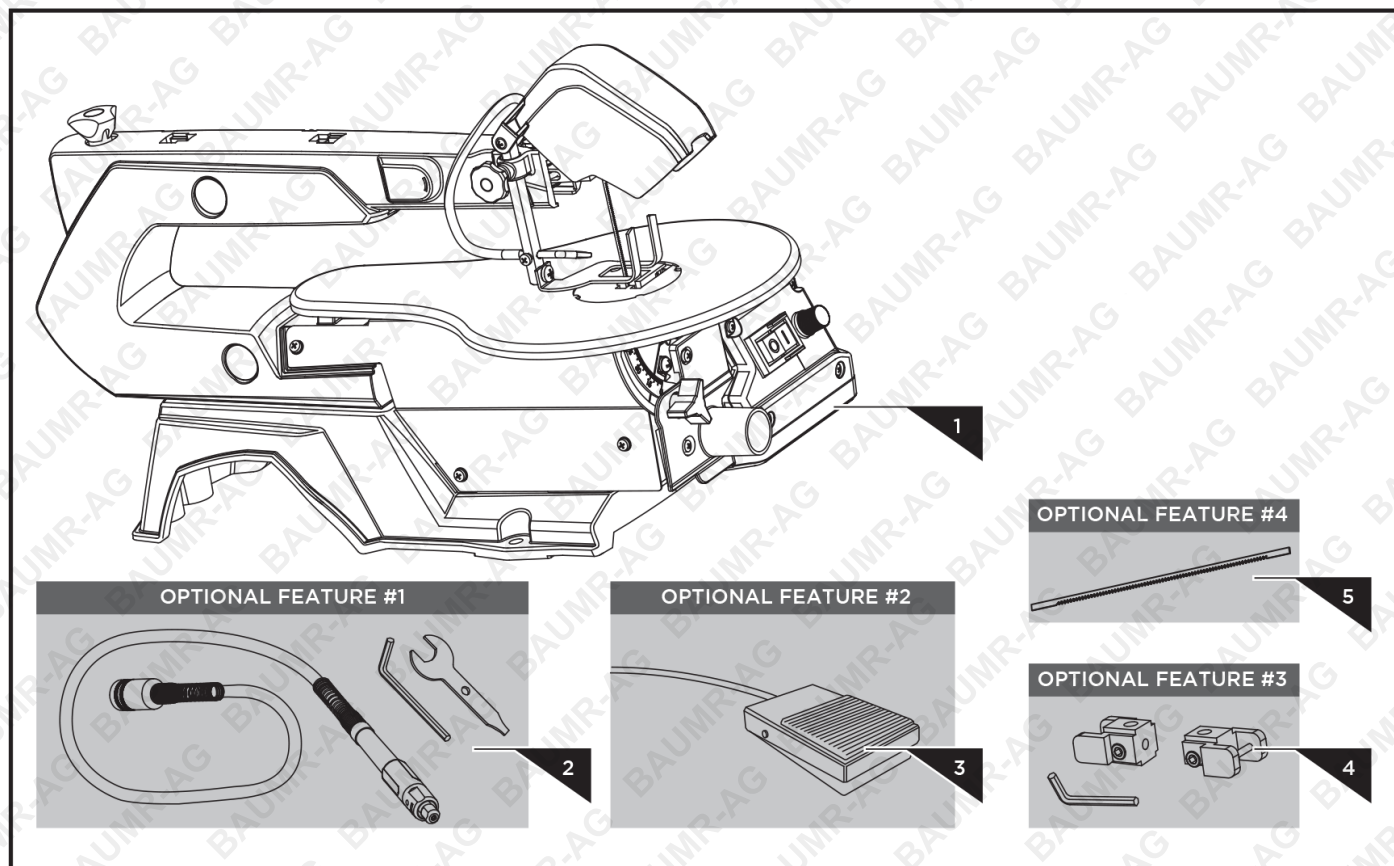
 <p><b>Carbon-Monoxide Hazard</b> Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.</p>	 <p><b>Pull Hazard</b> Be aware that the product contains or uses mechanical devices that can pull in objects and can cause severe injury to fingers, limbs etc. Take due care when handling and using the product.</p>	 <p><b>Slope / Fall Injury Hazard</b> Be aware that using the product on sloping surfaces or in slippery conditions may present additional dangers from falls and contact with blades, moving parts, hot surfaces etc.</p>	 <p><b>"Slam Dunk" Warning</b> Do NOT attempt "slam dunk" manoeuvres as this may result in severe injury due to falling, product breakage or collapse etc.</p>
 <p><b>Electrocution / Electrical Shock Hazard - Outdoor</b> High voltage or high current electricity may be present or required by the product. Do NOT use in rain, damp or wet conditions. Electrical shock can be fatal.</p>	 <p><b>Electrocution / Electrical Shock Hazard - Disconnect</b> High voltage or high current electricity may be present or required by the product. Always disconnect the product from the electrical supply before handling the product, adjusting, maintenance etc.</p>	 <p><b>Power Line Electrocution Hazard</b> High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.</p>	 <p><b>"Kick-Back" Hazard</b> High level of "kick-back" hazard that can cause the machine to suddenly rotate towards operator. Kick-back injury can be fatal.</p>
 <p><b>Winch Operator Position Hazard</b> Do NOT stand between winch and load. Do NOT use winch to move people.</p>	 <p><b>Winch Lift Hazard</b> Do NOT LIFT load vertically. Use machine to PULL only.</p>	 <p><b>Cable Hazard</b> Ensure that load bearing cable is not kinked or knotted.</p>	 <p><b>Winch Cable Hazard</b> Ensure that there is a minimum number of cable coils on winching mechanism.</p>
 <p><b>Winch Hook Hazard</b> Carry hook to load – do NOT throw or run.</p>	 <p><b>Flash / Blinding Hazard</b> Wear appropriate eye protection for welding. Direct exposure to weld arcs may cause permanent eye injury.</p>	 <p><b>Laser Hazard</b> Laser may be in use – do NOT look directly at laser or allow others to.</p>	

# Table of Contents

<b>Safety .....</b>	<b>2</b>
Safety Symbols .....	6
<b>Parts Identification .....</b>	<b>9</b>
<b>Know Your Machine .....</b>	<b>10</b>
<b>Operation.....</b>	<b>11</b>
Mounting the Machine on a Work Bench .....	11
Setting the Saw Bench .....	12
Setting the Angle Scale .....	12
Horizontal Saw Bench and Diagonal Cuts .....	12
Inside Cuts.....	14
Continuous Operation.....	14
Lighting System .....	14
Flexible shaft (Optional Feature 1) .....	15
Foot Switch (Optional Feature 2).....	16
<b>Maintenance and Storage .....</b>	<b>17</b>
General .....	17
Changing the Saw Blade with Pins.....	17
Changing the flat saw-blade (Optional Feature 3 & 4) .....	18
Lubrication .....	19
Carbon Brushes Inspection .....	20
Storage .....	20
<b>Troubleshooting .....</b>	<b>21</b>
<b>Specifications .....</b>	<b>22</b>

## Parts Identification

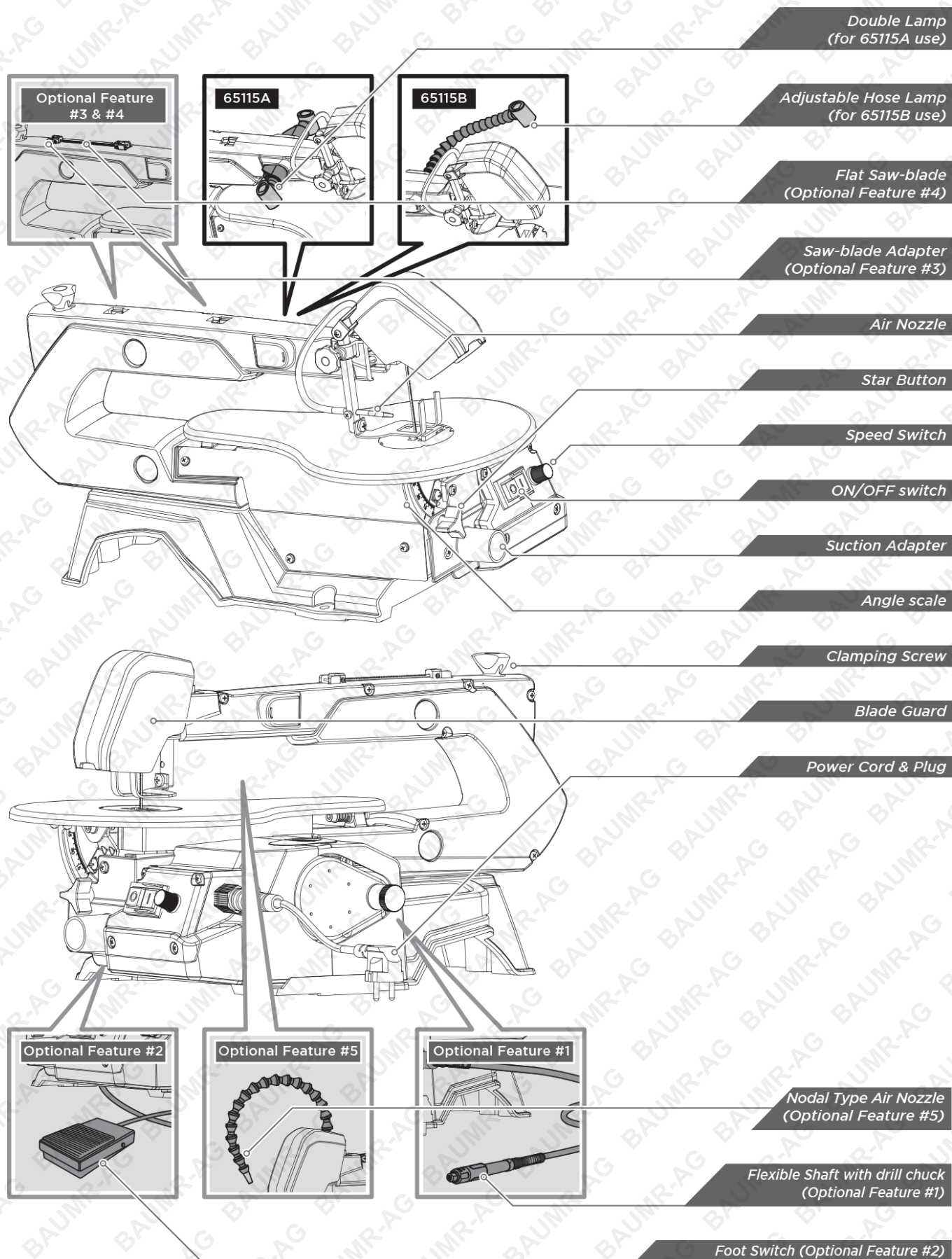
The scroll saw comes partially assembled and is shipped in carefully packed carton. After all the parts have been removed from the carton, you should have:



No.	Name
1	Main Machine
2	Flexible Shaft with Drill Chuck (Optional Feature #1)
3	Foot Switch (Optional Feature #2)
4	Saw-blade Adapter & Allen Wrench (Optional Feature #3)
5	Flat Saw-blade (Optional Feature #4)

*Please note that the optional features are not included with this unit.*

# Know Your Machine

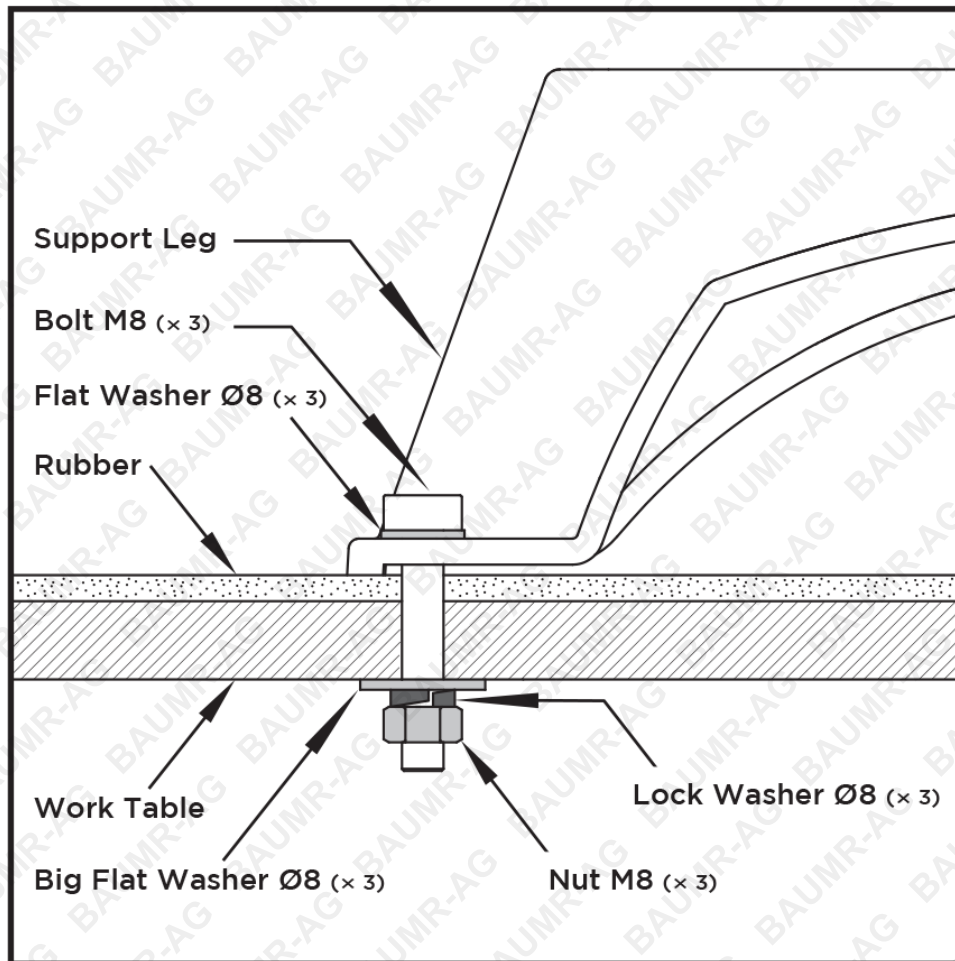


# Operation

## Mounting the Machine on a Work Bench

A workbench made from solid wood is better than one made of plywood, as interfering vibrations and noise are more noticeable with plywood.

The necessary tools and small parts for assembling the saw on a workbench are not supplied with the saw. However, use equipment of at least the following:



1. Machine
2. Bolt M8 (x3)
3. Flat Washer Ø8 (x3)
4. Rubber Pad
5. Work Table
6. Big Flat Washer Ø8 (x3)
7. Lock Washer Ø8 (x3)
8. Nut M8 (x3)

First, drill holes into the seating surface and then Insert the screws.

A foam rubber base for reduction of noise is not supplied with the saw either. However, we expressly recommend that you use such a base to keep vibration and noise to a minimum. Ideal size 400 x 240 mm.

## Setting the Saw Bench

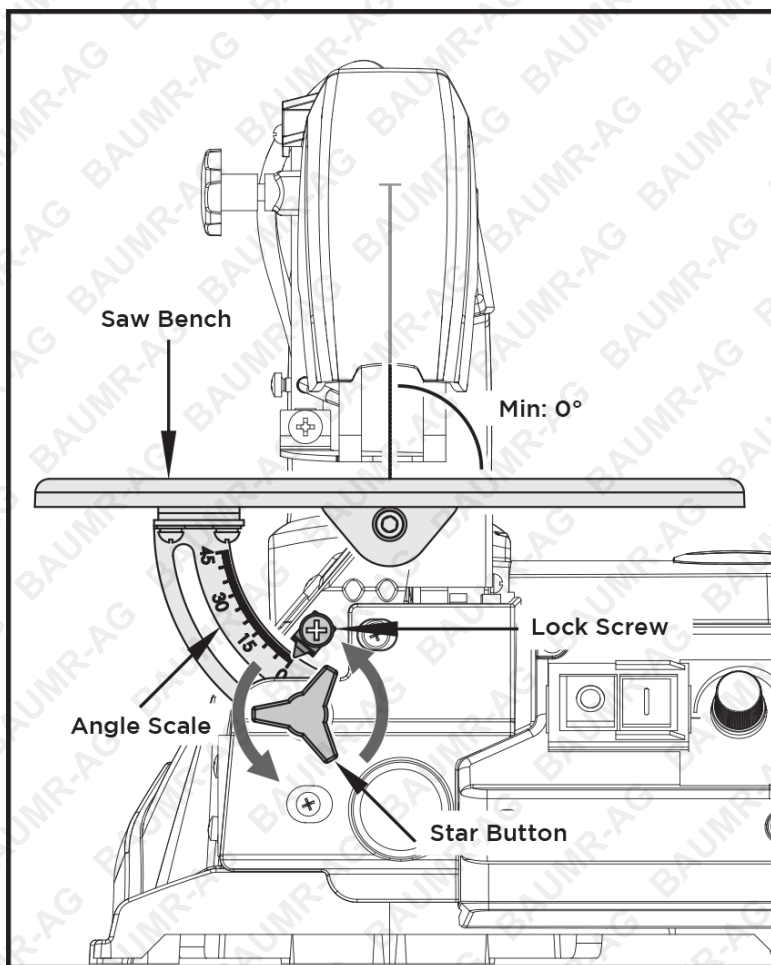
- Release the star button and bring the saw bench to a right angle in relation to the saw blade. Use a 90° angle L-square measure the right angle between the blade and the bench. The saw blade be at 90° to the angle.
- Close the star button when the distance between the blade and the 90° angle is at a minimum. The bench should then be at 90° to the saw blade.

## Setting the Angle Scale

Release the lock screw and bring the indicator to the zero position. Fasten the screw.



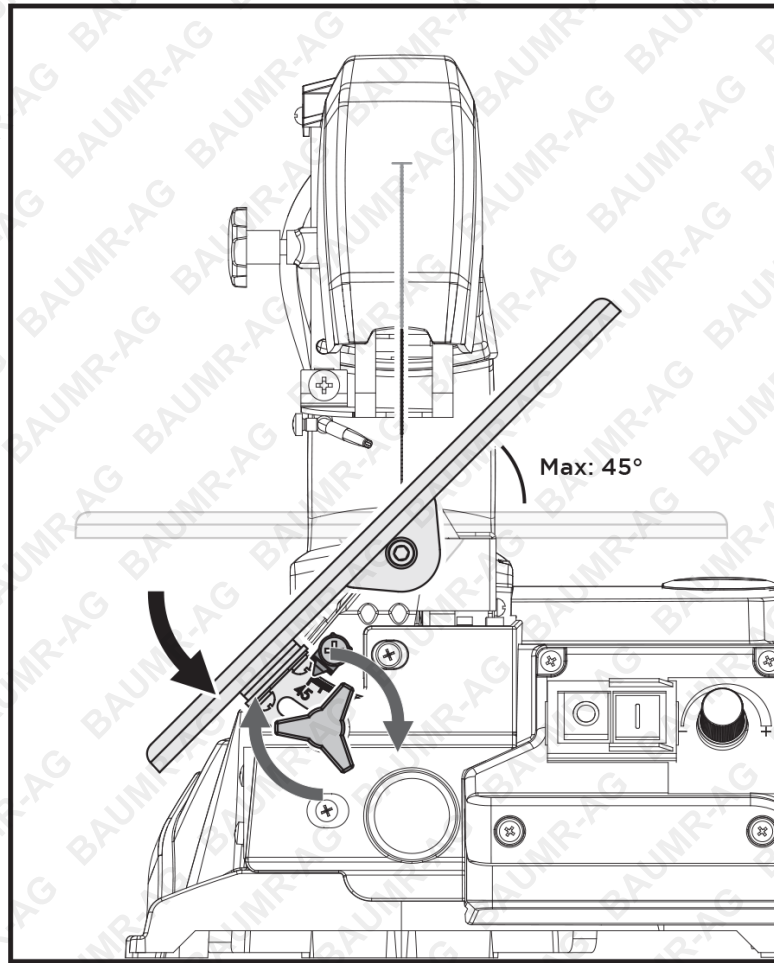
The angle scale is a useful piece of supplementary equipment but should not be used for precision work. Use scrap wood for saw tests, adjust the bench if necessary.



## Horizontal Saw Bench and Diagonal Cuts

The saw bench can be positioned into a 45° diagonal position or be left in the horizontal position.

You can read off the approximate slope angle by using the angle scale located under the work bench. For more exact adjustment, use scrap wood for some saw tests; adjust the bench if necessary.



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.
  - The cutting process occurs only while the blade is moving downwards.
  - Feed the wood slowly against the saw blade as the saw blade teeth are small and cut only while moving downwards.
  - 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 2.5 cm thick.
- Feed the wood especially 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 become blunt over time, saw blades must be replaced. The saw blades are enough for 1/2 to 2 operating time depending upon the type of wood.
  - 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.

## Inside Cuts



**WARNING:** Switch off the saw and remove the mains supply plug before doing inside cuts in order to avoid injuries caused by unintentional activation of the saw.

This saw is suited also to inside cuts cut not starting at the edge of the work piece. Proceed as follows:

- Drill a 6 mm hole in the work piece.
- Loosen the clamping screw (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.
- When you have completed the inside cut, remove the saw blade and then remove the work piece from the bench.

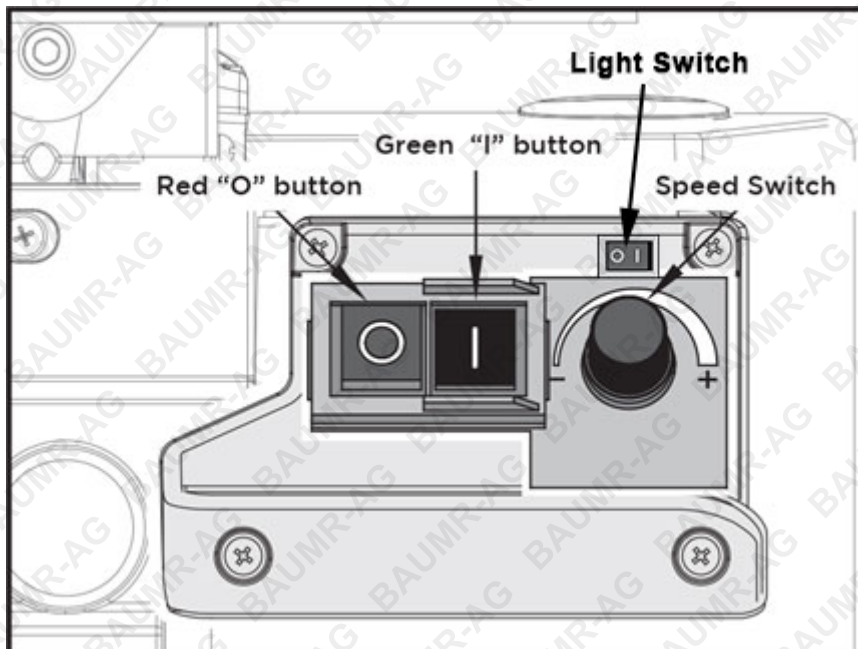
## Continuous Operation

It is possible to switch the saw on by pressing the green "I" button for continuous operation. In order to switch the saw off, it is necessary to press the red "O" button.

With the continuously variable electronic speed control, the cutting speed can be increased by turning to the right or reduced by turning to the left.

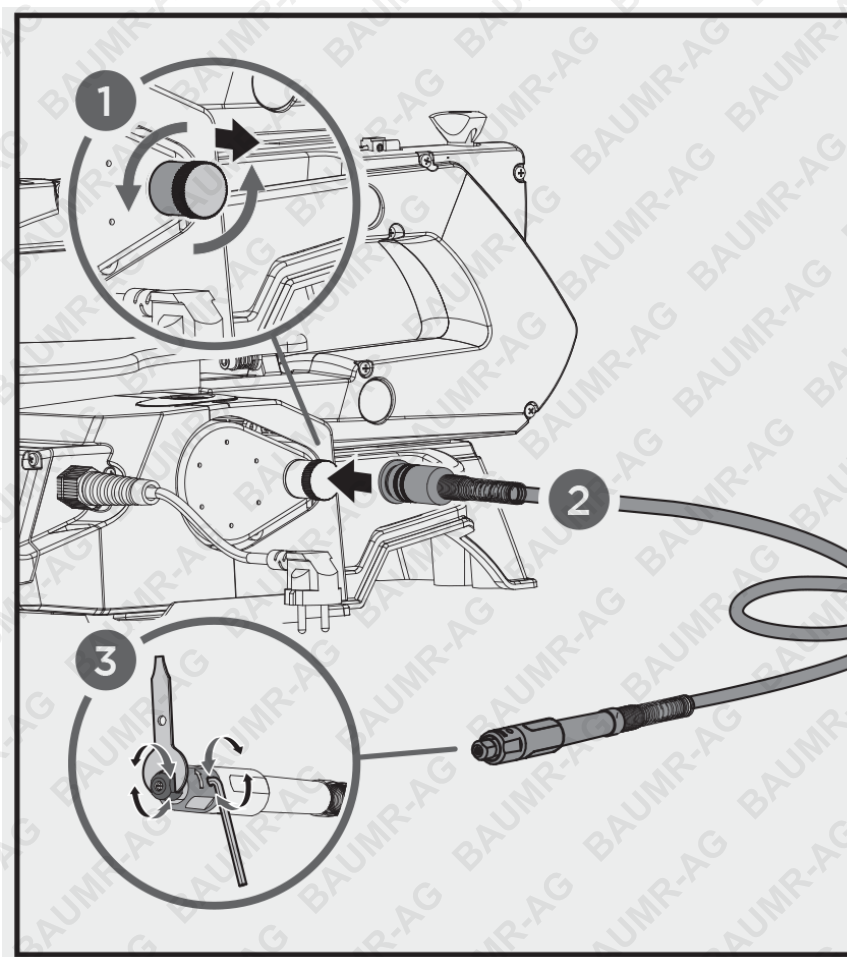
## Lighting System

The lighting system can be switched on by pressing the red "O" button.



## Flexible shaft (Optional Feature 1)

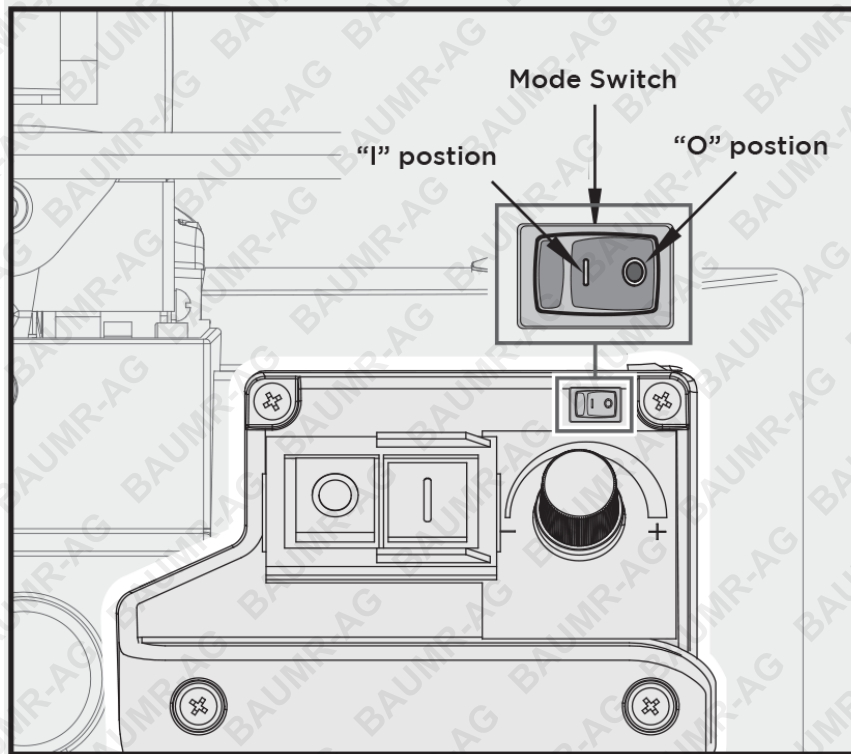
- Remove protective cap from the threaded bushing.
- Place flexible shaft onto the threaded bushing.
- Clamp tool in the drill chuck.
- Firmly hold threaded shaft at the handle and switch on the speed control.
- Having finished the work, remove the flexible shaft and place the protective cap in place.



**When working with the flexible shaft, cover the saw blade with the blade guard.**

## Foot Switch (Optional Feature 2)

The machine can be operated in continuous operation or with the additional foot switch. The switch is used to select between the operating modes. The operating mode should always be selected when the machine is switched off. The machine is in the foot switch mode when the switch is at the "O" position. The machine is in the continuous mode when the switch is at the "I" position.



**The machine may start due to unintentional actuation of the foot switch in the foot switch mode. Attention! Never leave the machine unattended while it is switched on.**

With the continuously variable electronic speed control, the cutting speed can be increased by turning to the right or reduced by turning to the left.

# Maintenance and Storage



**WARNING!** In the interests of operational safety, always switch off the saw and remove the mains plug before carrying out maintenance work.

## General

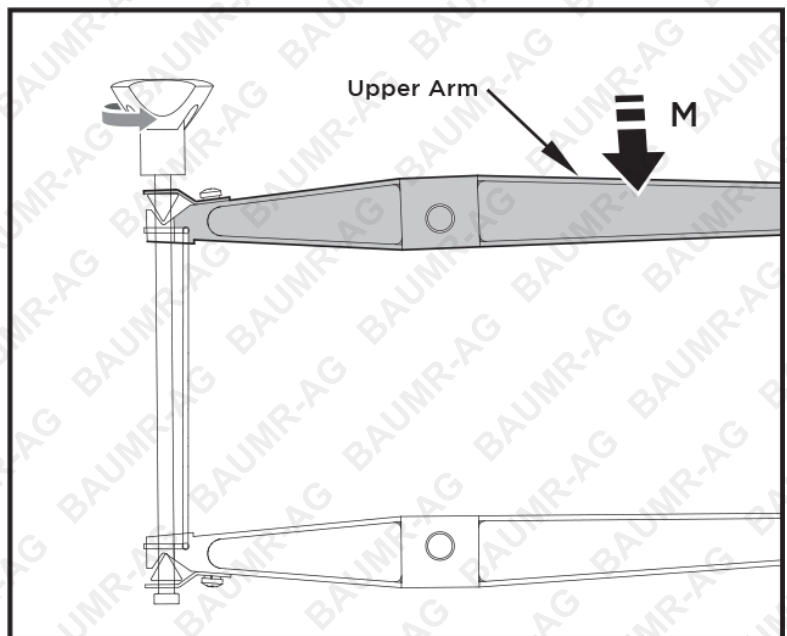
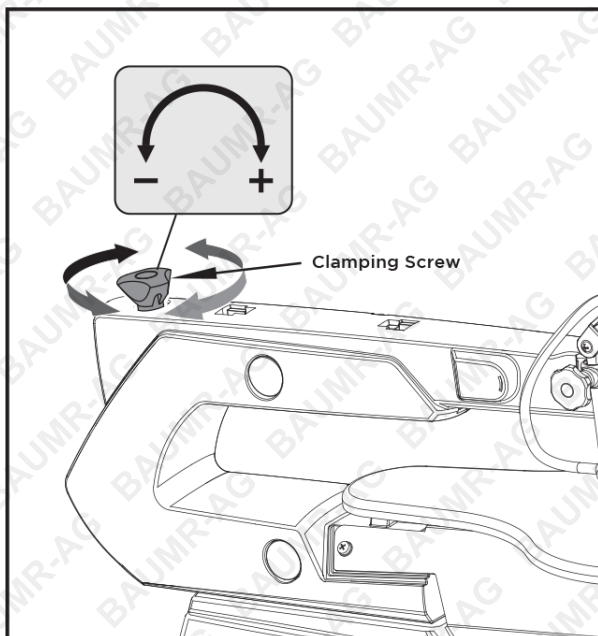
- Wipe chips and dust off the machine from time to time using a cloth.
- Re-application of the wax coating on the workbench makes feeding the workpiece to the blade easier.
- The mains cable should be replaced immediately if pulled out, cut or damaged in any other way. Do not lubricate the motor bearings or internal parts!

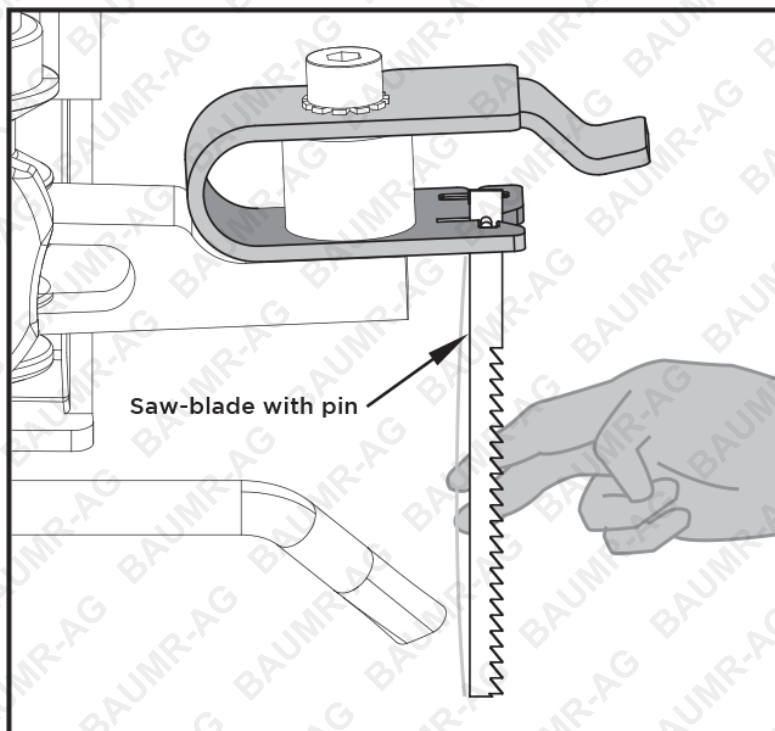
## Changing the Saw Blade with Pins



**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.**

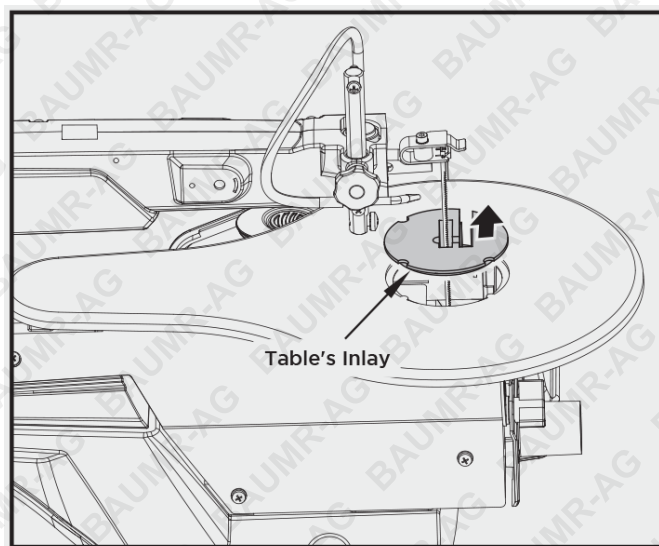
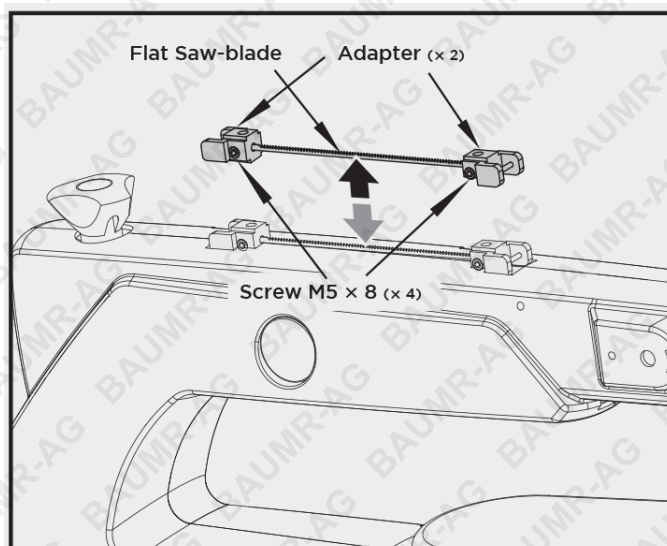
1. Saw blade removal. Extract the saw-blade by unscrewing the Clamping screw. Remove the saw-blade from the upper and lower support by slightly pressing the upper arm down.
2. Inserting the new saw-blade. Lead one end of the saw-blade through the perforation in the table and insert the saw-blade pins into the notch. Repeat this procedure at the upper blade support. Before hooking it in. Slightly press the upper arm down. Check the position of the blade pins at the supports. Tighten the blade by means of the Clamping screw. Check the blade's tightness. Keep on rotating clockwise in order to tighten the blade even more.



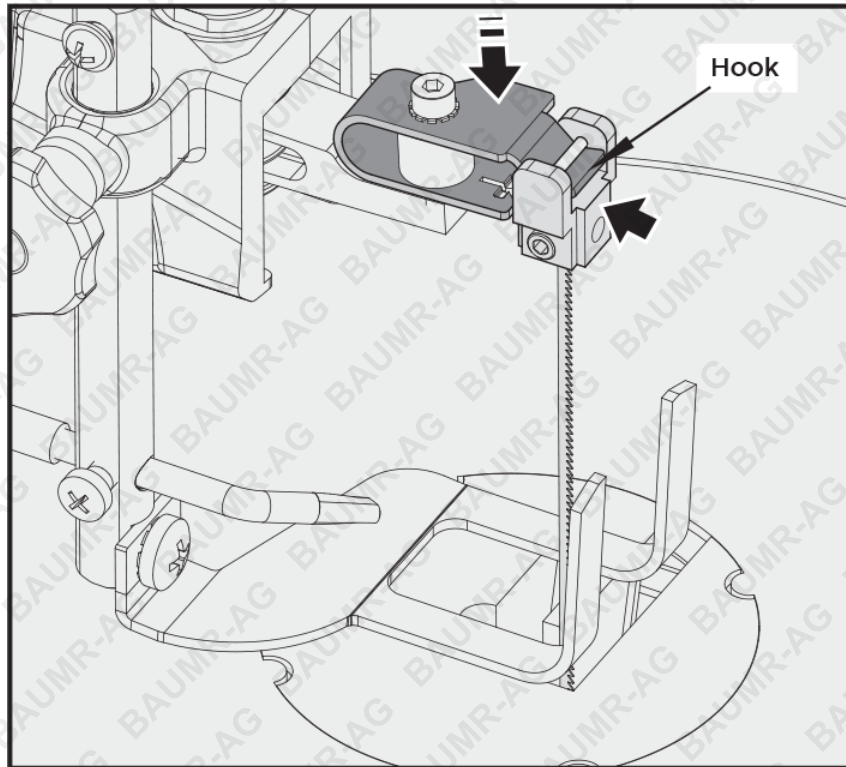


## Changing the flat saw-blade (Optional Feature 3 & 4)

1. Take out the adapter. Fix the saw-blade with allen screws using allen wrench.
2. Extract the saw-blade by sliding the table's inlay up, then unscrew the clamping screw.
3. Slightly press the upper arm down.
4. Then remove the saw-blade by pulling it forward out of the supports and through the access perforation in the table.



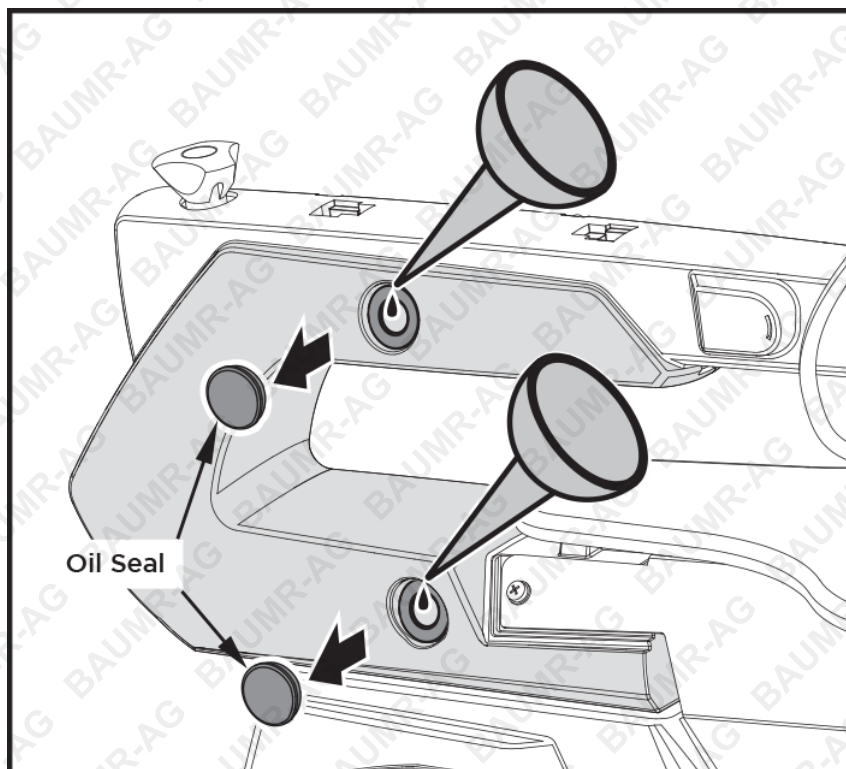
5. Put the saw-blade with the two adapters into the lower support, the other end into the upper support.
6. Slight press the upper arm down before hooking it in.
7. Tighten the blade with the tightening screw by rotating it clockwise. Check the tightness of the blade. Keep on rotating clockwise in order to tighten the blade even more.



## Lubrication

Lubricate the saw arm bearings every 50 hours. Proceed as above figure shown.

1. Turn the saw to the side.
2. Apply a generous amount of SAE 20 oil to the shaft end and bronze bearings.
3. Let the lubricant oil work in overnight.
4. Repeat the procedure the next day on the other side of the saw.



## Carbon Brushes Inspection

In case of excessive sparking, have the carbon brushes checked only by a qualified electrician.



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**DANGER!** The carbon brushes should not be replaced by anyone but a qualified electrician.

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## Storage

Store the equipment and accessories in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30°C. Store the electric tool in its original packaging. Cover the electric tool in order to protect it from dust and moisture.

# Troubleshooting



**In the interests of operational safety, always switch off the saw and remove the mains plug before carrying out maintenance work.**

Problem	Cause	Remedy
Saw blades break	Tension incorrectly set	Set the correct tension
	Load too great	Feed the workpiece more slowly
	Incorrect saw blade variety	Use the correct saw blades
	Workpiece not fed straight	Avoid exerting pressure from the side
Motor does not function	Mains Gable faulty	Change faulty parts
	Motor faulty	Call customer service. Do not attempt to repair the motor yourself as this should be carried out by a trained personnel.
Vibration (NOTE: The saw vibrates slightly when the motor is running in normal operation.)	Saw incorrectly installed	Set the correct tension
	Unsuitable underlay	Feed the workpiece more slowly
	The work bench is not screwed down or is on the motor	Use the correct saw blades
	The motor is not secured	Avoid exerting pressure from the side
Saw blade swings out., holders not aligned straight	Holders not aligned	Loosen the screws with which the holders are fastened to the arm. Align the holders so that they are perpendicular to each other and retighten the screws

# Specifications

<b>Motor</b>	240V / 50Hz
<b>Variable Speed Control</b>	550-1650 SPM
<b>Throat Depth</b>	16"
<b>Table Size</b>	255x415 mm
<b>Blades</b>	5" Pinned
<b>Blade Length</b>	127mm
<b>Cutting Depth</b>	50mm
<b>Table Tilt</b>	0° to 45°

*Note: Minimal Assembly required*



**Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

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