



# MASONRY SAW

(Electric)

## OPERATING INSTRUCTIONS



### **WARNING**

To reduce the risk of injury, all operators and maintenance personnel must read and understand these instructions before operating, changing accessories, or performing maintenance on this power equipment. All possible situations cannot be covered in these instructions. However care must be exercised by everyone using, maintaining or working near this equipment.

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## CONTENTS

Introduction	2
Applications	2
Function and controls	2
Accessories	2
Safety	2
Operation	3-4
Care and preventive maintenance	4
Cleaning and storage	4
Specifications	4
Trouble shooting	4
Spare parts and service	4

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## INTRODUCTION

Thank you for your selection of equipment supplied by Parchem.

Should service or spare parts be required, prompt and efficient service is available from our branches.

It is essential that the operator takes particular care to use the machine properly and minimise any potential hazards to themselves or others. We recommend that all operators and service personnel read, understand and follow this manual.

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## APPLICATIONS

- Ceramic tiles
- Slate
- Concrete blocks and pavers
- Marble
- Geological core samples
- Quarry tiles
- Clay bricks and pavers
- Sandstone
- Fibreglass pipe
- Granite

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## FUNCTION AND CONTROLS

All references to the right and left side of the machine are as viewed by the operator in the working position.

### Depth of cut

The blade cutting depth (max. 125mm) is controlled by adjusting the height of the bolt mounted below the swing arm belt guard on the left hand side.

### Water supply

Diamond blades must be kept cooled whilst cutting.

Water keeps the blade cool, removes cuttings and keeps dust down. A continuous flow of water is critical to ensure that no blade damage occurs whilst cutting.

Water is directed to both sides of the blade, the supply is controlled by a stop cock at the rear of the blade guard. The water supply is provided by connection to the town supply or the optional water pump.

For town water connection a flexible hose with a quick action connector may be attached to the machine.

When using the optional water pump, the tray acts as a reservoir and water is recirculated.

## TABLE

The table has four rollers, which run along the edge of the tray.

## LEGS

The scissor legs are removable and fold up for transport.

The tray should be secured to the legs by inserting the long pin attached to the return spring at the rear of the unit through the lugs on the tray and the scissor legs.

## FOOT PEDAL

The unit can be operated by foot pedal operation or the head can be secured in a stationary position by the lock down adjusting bracket at the back of the saw.

The foot pedal is engaged in the machine by the use of the short securing pin attached to the lug on the rear of the unit. To aid transportation the foot pedal can be removed from the legs.

## CUTTING BLADE

A "diamond" blade with diamond impregnated segments on its outer edge should be used. Slots in the blade accommodate thermal expansion of the segments, flexing of the blade under pressure and allow water cooling.

## DRAIN HOLE

The drain hole is located in the bottom right of the tray at the rear. It is sealed by a removable rubber plug which permits draining, flushing and cleaning.

## POWER SUPPLY

Electrical power is controlled by an ON/OFF switch which is mounted on the front of the motor. A thermal overload protection device is fitted to the single phase motor. It is located below the switch. If the motor stops, switch the machine OFF, determine the cause of the problem, allow the motor to cool, then press the reset button. If the motor fails to start, check the power supply, fuses or circuit breaker and leads.

## DRIVE BELT

Tension of the drive belt is adjustable. Loosen the four bolts that secure the motor to the frame. Tighten the bolts after achieving the desired belt tension.

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## ACCESSORIES

### DIAMOND BLADE

When purchasing diamond blades seek the guidance of your supplier. Select a grade of blade to suit the material to be cut, e.g. bitumen, clay paving bricks and reinforced concrete, each requires a different grade of blade.

For a diamond blade to work properly, the diamond type, quality and grit size must be selected for the material to be cut. The metal matrix must also be "matched" to the material. Blades for cutting hard, dense (less abrasive) materials such as, hard brick, stone or hard cured concrete require a softer metal matrix. The softer metal matrix wears faster, replacing worn out diamonds fast enough for blades to keep cutting.

Blades for cutting soft, abrasive materials (such as green concrete or asphalt) must have a hard metal matrix to resist abrasion and "hold" the diamonds longer.

Diamond blades with grades for specific applications are available from your Parchem branch.

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## SAFETY

NEVER allow any person to operate machine without adequate instruction.

ENSURE all operators read, understand and follow the operating instructions.

SERIOUS INJURY may result from improper or careless use of this machine.

WARNING! Serious injury or blade damage may result from improper use of a diamond blade.

ALWAYS make sure the operator is stable and on level ground before attempting to use the foot pedal. By using the foot pedal the operator has to raise a foot off the ground when cutting and this is not recommended as this will affect the balance of the operator.

### ELECTRICAL HAZARDS !

THE RISK OF SERIOUS OR LETHAL INJURY FROM

ELECTRICAL SHOCK may arise from the combination of electricity and moisture. ELECTRICAL HAZARDS may be high due to the careless use of equipment and extension leads.

USE AN ELECTRICAL SUPPLY EQUIPPED WITH A RESIDUAL CURRENT DEVICE (RCD) for protection against electrocution. ARCD is an electronic protection device that is available for connection between the power source and the equipment. It is designed to monitor the balance of the current flow in the active and neutral wires of the plugged-in equipment and immediately trips before a fatal amount of power can pass through the operator. The RCD can be permanently wired at the supply switchboard or inserted as a removable plug-in device in the electric cable, in which case it should be located as close to the supply as possible with the RCD located before any extension leads

INSPECT electrical leads, plugs and sockets regularly for damage.

DO NOT operate the machine using coiled or tangled extension leads. ENSURE that repairs to the electric motor and wiring are carried out immediately by QUALIFIED personnel.

DO NOT hose or drain the water from the machine while the electrical supply is connected.

### MECHANICAL HAZARDS !

DO NOT operate the machine unless all protective guards are in place. ENSURE that the motor operation switch is in the OFF position and the power lead is unplugged before removing or refitting the diamond blade or making adjustments to the vee belt tension.

KEEP hands and feet clear of rotating and moving parts as they will cause injury if contacted. ENSURE both the machine and the operator are stable by setting up on level terrain and the machine will not move or fall while in operation or unattended.

DO NOT leave the machine in operation while it is unattended.

ONLY use a diamond impregnated saw blade. Never use abrasive or woodworking blades. ALWAYS support the material to be cut on the table. Never hold the work to be cut by hand alone.

ENSURE that the ribbed mat is fixed to the table at all times as it provides a non skid surface to support the work.

ENSURE that the rubber splash apron is fitted at all times as it functions to keep water spray off the motor. DO NOT allow waste water to accumulate under foot. ENSURE that the nut securing the blade flange is locked tight (left-hand thread on shaft and nut).

BEFORE mounting the blade ensure that the correct blade flanges are fitted to the machine and the blade and flange faces are clean, flat, free from warping and grit. ENSURE that the mounting hole in the blade matches the diameter of the machine spindle and that the blade does not rattle or wobble.

CHECK that the blade is clear of the material to be cut before

starting the machine. DO NOT stand in line with the blade when starting the machine. KEEP bystanders and animals clear of the work area. ENSURE that the material to be cut will remain stable and will not move or fall while cutting.

### NOISE

EXCESSIVE NOISE can lead to temporary or permanent loss of hearing.

WEAR an approved hearing protection device to limit noise exposure as required by Occupational Health and Safety regulations. Noise levels in excess of 85dB(A) may be produced by diamond cutting blades.

### PROTECTIVE CLOTHING

Always wear approved hearing protection, safety glasses, face & head protection, and respirators.

Protective clothing & footwear may also be necessary.

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## OPERATION

To set up the legs, open them fully and make sure they are stable and on level terrain. Using the lifting handles provided on the machine, along with correct lifting techniques, two people of appropriate strength can then position the unit onto the legs. Place the rubber stoppers mounted on the underside of the tray into the sockets provided on the legs.

When the town water supply is available the water supply can be connected to the water connector. This will ensure an adequate supply of clean water.

When the optional water pump is in use fill the tray with water to a depth of approximately 50 mm. Keep the water supply clean by draining and refilling the tray regularly.

Remove sediment when it covers the bottom of the tray by more than 10 - 15 mm. Check that the table rollers are aligned on the tray and that the table moves freely. Check the blade depth stop to ensure that the table does not collide with the blade. The operator should stand with feet apart facing the machine.

Ensure that the material to be cut is resting securely on the table and is placed against the backstop.

Before starting the motor make sure either the town water supply is connected or the tray is filled and the water pump is ready. Open the water stop cock before commencing cutting.

When an extension lead is used, select the shortest length and heaviest conductor size available to minimise voltage drop and prevent motor "burn out". Start the electric motor by turning the switch mounted on the front of the motor to ON.

ALWAYS maintain good footing so that you do not slip and lose control when starting or operating the machine.

Apply light steady pressure to feed the work past the blade. Excessive force should not be used. The most efficient cutting method is to use several shallow cuts (not one deep cut).

Check the water flow rate regularly to ensure that the town supply has not been interrupted or the tray supply has not become choked with sediment.

Wet cutting diamond blades must be kept cooled whilst cutting. Water keeps the blade cool, removes cuttings and keeps dust down.

Ensure that there is an adequate flow of water onto both sides of the blade. If too little water is supplied to the cutting area steam may be seen rising. A continuous flow of water is critical to ensure that no blade damage occurs whilst cutting. A blade that is used for even a brief time dry may be damaged or destroyed.

Locate the work so that when the cut is completed the cut surfaces do not bend and foul the sides of the blade.

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES AND CORRECTION
Motor will not start	<ul style="list-style-type: none"> <li>■ Check the ON/OFF switch to ensure that it is switched 'ON'.</li> <li>■ Check the power supply and fuse or circuit breaker.</li> </ul>
Excessive Vibration	<ul style="list-style-type: none"> <li>■ Faulty blade.</li> <li>■ Check for a missing or damaged segment.</li> </ul>
Water flow stops	<ul style="list-style-type: none"> <li>■ Insufficient water supply.</li> <li>■ Water hose is blocked or is broken.</li> </ul>
Motor stops	<ul style="list-style-type: none"> <li>■ Thermal overload has tripped (single phase only) - switch the power supply OFF and reset the thermal overload after the motor has cooled.</li> <li>■ Check the power supply and fuse or circuit breaker</li> </ul>
Excessive pressure is required to feed the work.	<ul style="list-style-type: none"> <li>■ Worn blade.</li> </ul>
Table is not moving freely.	<ul style="list-style-type: none"> <li>■ Dirty rollers or rails.</li> <li>■ Rollers are out of adjustment.</li> <li>■ Roller bearing/s require replacement.</li> </ul>
Table is unstable.	<ul style="list-style-type: none"> <li>■ Rollers are out of adjustment.</li> <li>■ Rails are damaged or distorted.</li> </ul>
Electric Motor lacks power.	<ul style="list-style-type: none"> <li>■ Rollers are out of adjustment.</li> <li>■ Rails are damaged or distorted.</li> </ul>
Cut is not accurate.	<ul style="list-style-type: none"> <li>■ Check the local power supply for voltage drop.</li> <li>■ Use a shorter or a heavy duty extension lead.</li> </ul>
Excessive blade wear.	<ul style="list-style-type: none"> <li>■ Check the blade spindle bearings for wear.</li> <li>■ Check the machine for damage or distortion.</li> </ul>
Slow cutting	<ul style="list-style-type: none"> <li>■ Check that the grade of the blade is suitable for the material being cut.</li> <li>■ The blade matrix may be too hard for the material being cut.</li> <li>■ If the blade is marked with a direction arrow ensure that it is mounted to give the correct direction of rotation.</li> </ul>

## CARE AND MAINTENANCE

ENSURE that repairs to the motor and machine are carried out by COMPETENT personnel.

Do not transport spare diamond blades without suitable protection as they are easily damaged. Inspect the diamond blade for chipped or missing segments. If damage is found, replace the blade or return to the supplier for repair. Inspect the blade drive belt for wear or cracking.

Check the blade spindle bearings and the motor for loose mounting bolts or screws. Inspect and lubricate the two blade arm bearings and two blade spindle bearings with grease regularly. Inspect the water hose and its connections to ensure that they do not leak and spray water onto the motor. Clean the table roller grooves and the top of the guide rails.

Check the electric motor switch and the capacitor covers for damage and "water tightness" each week. Apply grease to the blade flange locking nut threads regularly.

## CLEANING AND STORAGE

Drain the water from the tray and clean out the sediment daily after use. Remove the table from the rails or secure it while the machine is in transit. Before storing the machine, spray the blade flanges and fasteners with a rust inhibitor.



Sales Office  
Spare Parts Hotline

1800 801 108  
1300 996 796

## SPECIFICATIONS

### Brick Saw

Part No.: F09503

Electric Supply: 240V AC, 50Hz

Description: Brick & Masonry Saw

Motor: 240V AC, 10A, 1.7Kw (2.3hp) output

Speed: 2880rpm

Max. Depth of Cut: 125 mm

Max. Length of Cut: 500 mm

Shipping Weight: 130 kg

Dry Weight: 110 kg

Packaging Dimensions: 1220 mm x 720mm x 950mm



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