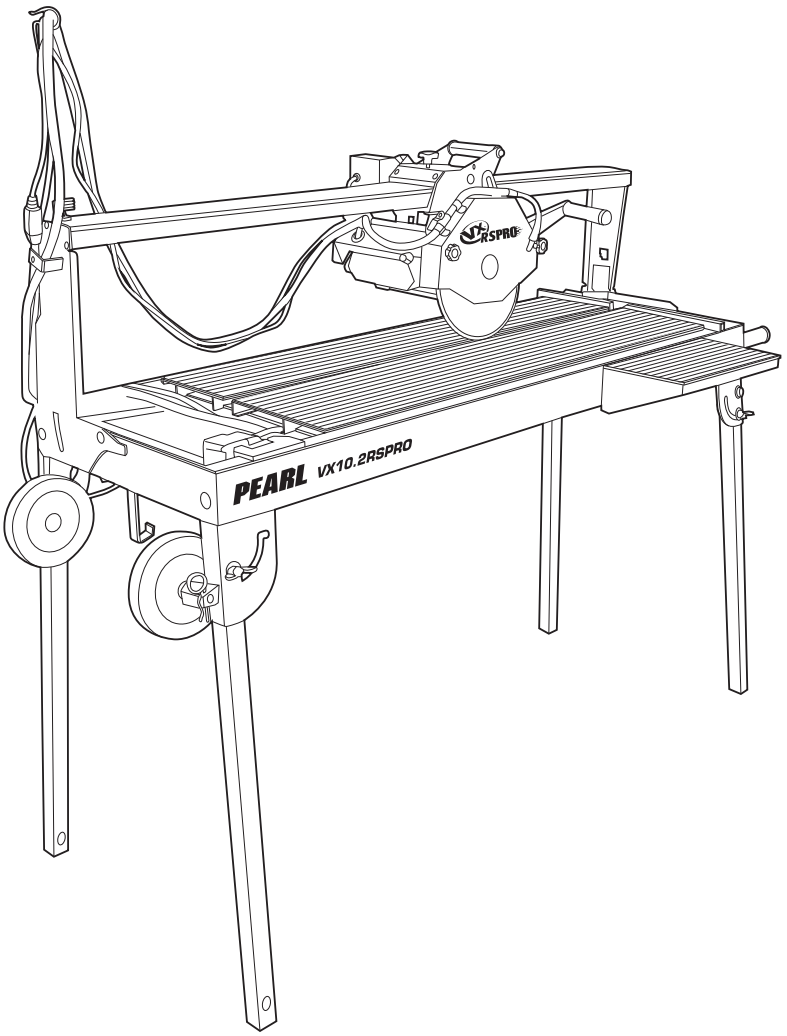
PEARL®

VX RSPRO

MODEL VX10.2RSPRO RAIL SAW

OWNER'S/OPERATOR'S MANUAL



SERIAL NUMBER -

You should record the Serial Number of your saw on this Owner's/Operator's Manual and on the Warranty Card.
The Warranty Card must be sent back with all the required pertinent information for the warranty to take effect.

Caution! **Read Safety and General Instructions carefully before using saw for the first time.**

⚠ **WARNING:** This product can potentially expose you to chemicals that are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to: **www.P65Warnings.ca.gov**

REV. 2

Patents Pending
Assembled in U.S.A.

PEARL ABRASIVE CO. VX RSPRO RAIL SAW

i. TABLE OF CONTENTS

ii. GENERAL SAFETY RULES AND PRECAUTIONS

WARNING! Read all instructions. As with all machinery there are certain hazards involved with operation and use of the machine. The following basic safety precautions should be followed at all times to reduce the risk of fire, electric shock and serious personal injury to you or others. Keep these important operating instructions with this product.

1. Know your power tool - read owner's/operator's manual carefully. Learn its applications and limitations as well as the specific potential hazards unique to this tool.

2. Keep guards in place - and in working order.

3. Ground all tools - if tools are equipped with three prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.

4. Remove wrenches - Form a habit of checking to see that adjusting wrenches are removed from tool before turning it "on".

5. Keep work area clean. Cluttered areas and benches invite accidents.

6. Do not use in dangerous environment. Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted. Do not use tool in the presence of flammable liquids or gasses.

7. Keep children and visitors away. All children and visitors should be kept at a safe distance from work area.

8. Make workshop childproof with padlocks, master switches or by removing starter keys.

9. Do not force tool. It will do the job better and be safer at the rate for which it was designed.

10. Use right tool. Do not force tool or attachment to do a job for which it was not designed.

11. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

12. **Always use safety glasses.** Wear safety glasses (must comply with ANSI Z87.1) at all times. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Use face or dust mask if cutting operation is dusty, and ear protectors (plugs or muffs) during extended periods of operation.

13. Do not overreach. Keep proper footing and balance at all times.

14. Maintain tools in top condition. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility.

15. Disconnect tools. When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.

16. Avoid accidental starting. Make sure switch is in "off" position before plugging in power cord.

17. Use recommended accessories only. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.

18. Never stand on tool. Serious **injury** could occur if the tool is tipped or if the cutting tool is accidentally contacted.

19. Check Damaged Parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform it's intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect it's operation. A guard or part that is damaged should be properly repaired or replaced.

20. Never leave tool running unattended. Turn power "off". Do not leave tool until it comes to a complete stop.

21. Extension cords. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. If in doubt, use the next heavier gage. The smaller the gage numbers the heavier the cord.

22. Do not abuse cord. Never carry tool by cord or pull it to disconnect from receptacle, Keep cord from heat, oil, and sharp edges.

23. Guard against electric shock. Prevent body contact with grounded surfaces. For example, pipes, radiators, ranges and refrigerator enclosures.

24. Outdoor use extension cords. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.

25. Stay alert. Watch what you are doing. Use common sense. Do not operate tool when you are tired.

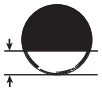
26. Drugs, alcohol, medication. Do not operate tool while under the influence of drugs, alcohol or any medication.

27. Store idle tool. When not in use, tool should be stored in a dry and locked place, out of reach of children.

WARNING! CALIFORNIA PROPOSITION 65: Sawing and drilling generates dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment always employ dust controls and protection suitable to the material being saw or drilled in accordance with OSHA (29 CFR Part 1910.1). Diamond blades improperly used are dangerous. Comply with ANSI Safety Code B7.1 and OSHA covering speed, safety guards, flanges, mounting procedures, general operating rules, handling, storage and general machine condition.


KEEP GUARD IN PLACE


DIAMOND BLADE


BLADE CUTTING DEPTH


ELECTRIC SWITCH OFF


ELECTRIC SWITCH ON


ELECTRICAL HAZARD


REMOVE TOOLS


PAY EXTREME ATTENTION


REPAIRS TO BE DONE


MACHINE HAZARD


FLAMMABLE


READ INSTRUCTIONS CAREFULLY


WARNING


FRAGILE


KEEP DRY


DO NOT STEP ON


WEAR HEARING PROTECTION

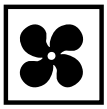

WEAR EYE PROTECTION


WEAR BREATHING PROTECTION


WEAR HARD HAT


WEAR PROTECTIVE CLOTHING


WEAR SAFETY SHOES


WELL VENTILATED


NO NON-WORKING PERSONNEL

iii. SILICA DUST WARNING

Grinding/cutting/drilling of tile, masonry, concrete, metal and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When cutting such materials, always follow respiratory precautions.

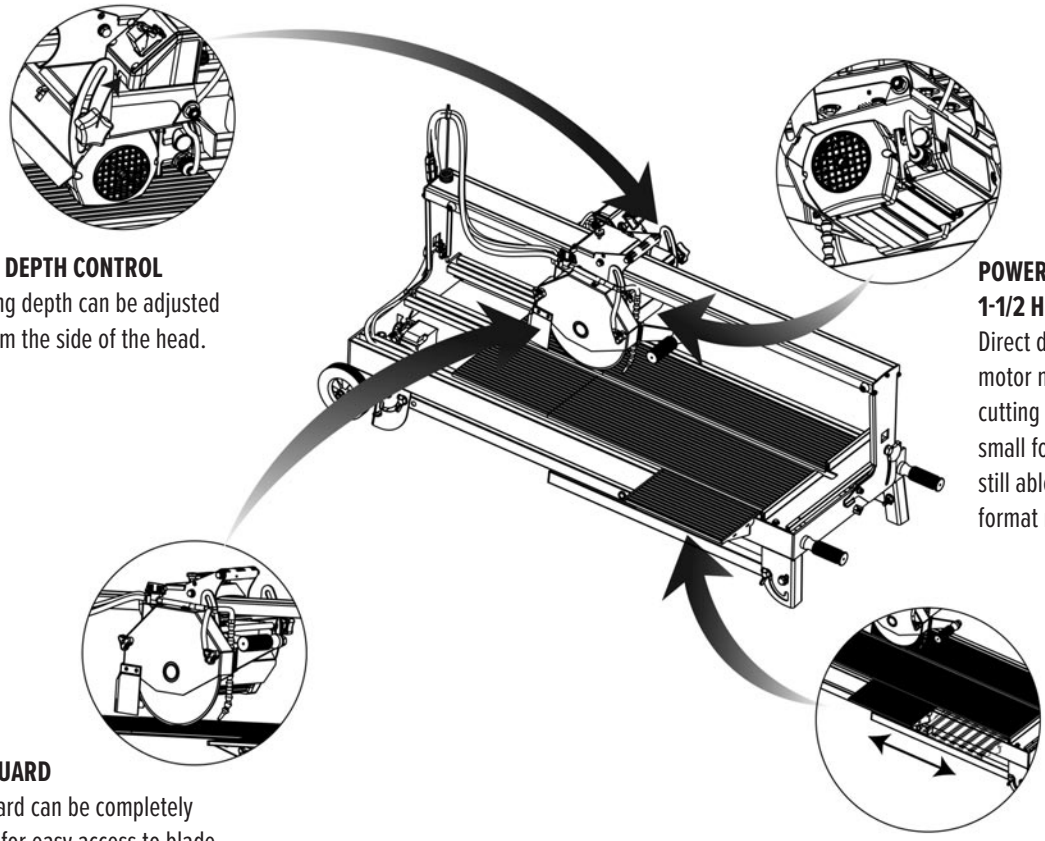
Use appropriate NIOSH-approved respiratory protection where dust hazard may occur. Paper masks or surgical masks without NIOSH approval number are not recommended because they do little to protect the worker. For more information about respirator programs, including what respirators have received NIOSH approval as safe and effective, please visit the NIOSH website at http://www.cdc.gov/niosh/topics/respirators

Observe OSHA regulations for respirator use (29 C.F.R.§1910.134).

Visit http://www.osha.gov for more information.

iv. FEATURES

The Pearl VX10.2RSPRO is a professional saw for cutting tiles, paving stones, large-sized natural stones, and similar materials.



CUTTING DEPTH CONTROL
The cutting depth can be adjusted easily from the side of the head.

POWERFUL 1-1/2 HP MOTOR
Direct drive induction motor mounted under the cutting head to maintain a small form factor while still able to cut large format material.

BLADE GUARD
Blade guard can be completely removed for easy access to blade.

SIDE EXTENSION TABLE
Solid aluminum and steel construction that can be positioned anywhere along the frame of the saw.

v. SPECIFICATIONS

VX10.2RSPRO RAIL SAW					
MOTOR	**BLADE CAPACITY**	**CUTTING LENGTH**	**CUTTING DEPTH**	**WEIGHT**	**DIMENSIONS*** (legs folded)
1-1/2 HP 115 v, 60 Hz, 3,450 rpm with thermal overload protection	8 and 10" Blade 5/8" arbor blade	48" rip cut, 32" diagonal with plunge cut	8": 1-1/2" 10": 2-5/8"	172 lbs.	L: 60" W: 25" H: 24"

*Dimensions do not include extension tables and drip trays.

vi. UNPACKING, ASSEMBLY & SET-UP

⚠ **CAUTION!** When lifting saw out of the box, two people are required. Practice safe lifting behavior when carrying heavy objects. Wear back brace as necessary. DO NOT use open toe shoes.

UNPACKING

Open the carton box cover by lifting the top portion. Locate the accessory box and check its content for the following items before discarding any packaging:

- Saw
- 180˚ adjustment angle guide
- Side extension table
- Universal wrench
- Lifting handle (2)
- Pin (2)
- Wheel Assemblies (2)
- Blade
- Drain plug
- Water Pump
- Manual

Proceed to the following section to complete assembly of the saw.

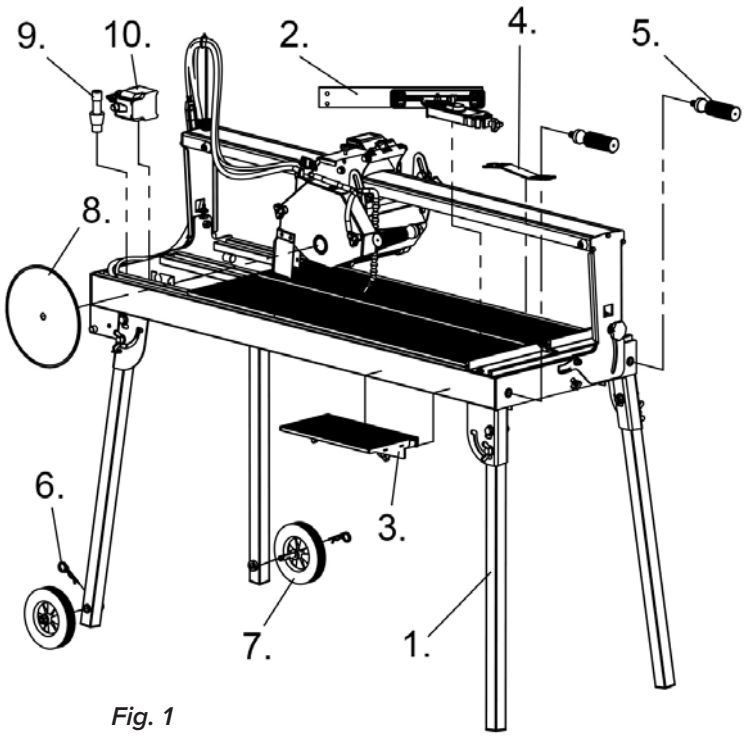


Fig. 1

⚠ **WARNING!** Read all instructions written below. Failure to follow the warningsand instructions may result in electric shock, fire and or/serious injury.

ASSEMBLY & SET-UP

1. Remove the carton box cover by lifting the upper cover.
2. Locate the accessory box and open it. Obtain the two lifting handles and install one on each end of the saw. Install it in the side furthest from the post.
3. Loosen the lock knob on top of the cutting head.
4. Deploy the stand legs by following the "Folding Legs Assembly" section.
5. Install the side extension table, side splash guard and back splash guard.
6. Install the spring holder on top of the sliding rail to hold the power cable and the water hose.
7. Fill the tray with water before operating the saw.

FOLDING LEGS ASSEMBLY

CAUTION! Practice safe lifting behavior when carrying heavy objects. Wear back brace as necessary. DO NOT attempt to lift the saw by yourself, two people are required. DO NOT wear open toe shoes.

1. It is recommended that adjusting the folding leg be done by at least two people.
2. Remove the detachable wheel assembly and stow it as necessary. (see figure 1 and 3)
3. Shift the cutting head away from the end of the frame where the leg is being adjusted. Tighten the cutting head carriage knob (see figure 2) to hold the head in place.
4. Loosen the wing screw (see figure 2) that is locking the leg in place.
5. Lift the saw slightly to give the leg room to rotate into stow/deployed postion as shown in figure 2.
6. Slide the leg in place and tighten the wing screw.
7. Repeat steps 2-4 as required to the remaining legs.

CAUTION! Always lock the cutting head when transporting the saw to prevent damage or injury.

EASY TRANSPORT

1. Attach the detachable wheel assembly as necessary to roll the saw on the ground. (see figure 1 and 3)

Fig. 2

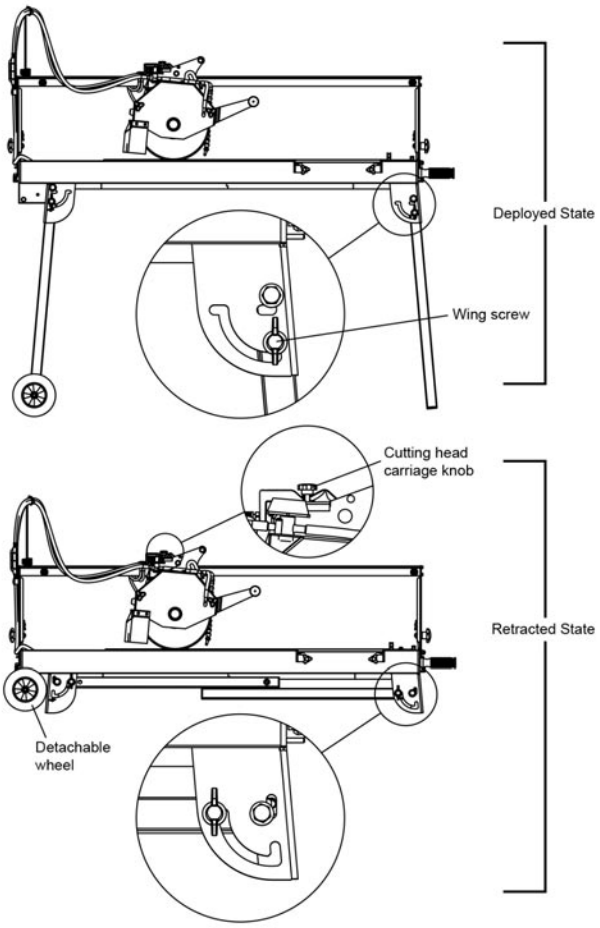
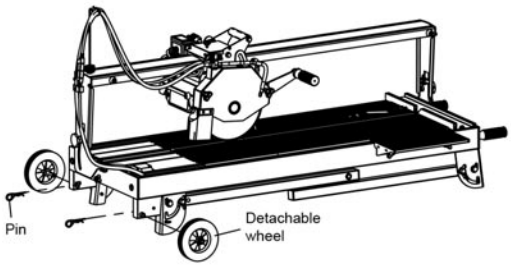


Fig. 3



BLADE INSTALLATION

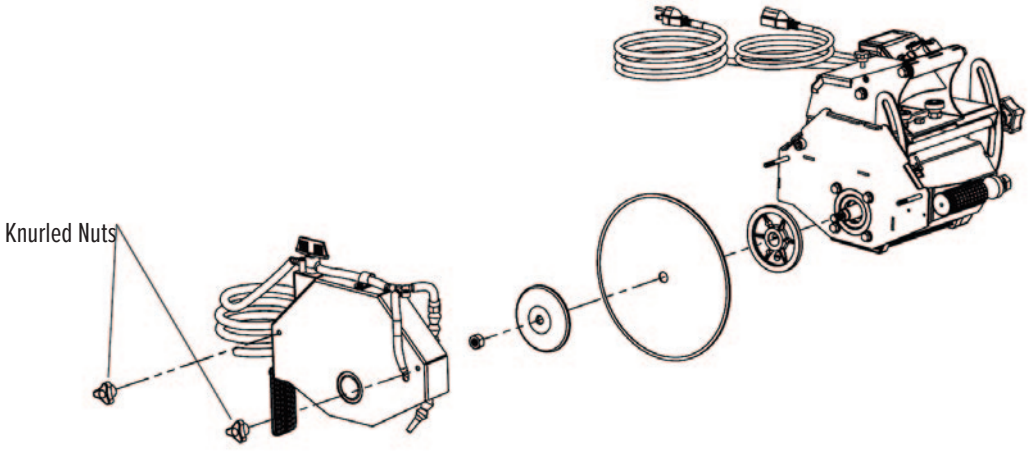
WARNING! For your safety turn off the saw and disconnect the power plug before installing or Removing the blade or accessories, and before adjusting or making repairs to the power tool.

WARNING! ALWAYS inspect the blade, flanges and shaft for damage before installing the blade. Failure to thoroughly inspect the blade can result in damage to the saw and serious personal injury.

CAUTION! Setting the blade too high may cause the blade to grab the material being cut, causing damage and possibly injury.

NOTICE! ALWAYS match the arbor on the inner flange to the bore size on the blade. It is important that the blade fits snugly onto the inner flange to prevent serious blade damage. Poor blade seating will result in lopsided wear and burnt or oblong bore hole. If the arbor shoulder of the inner flange becomes worn from blade slippage, replace the flange.

1. Loosen the knobs securing the blade guard and remove the guard.
2. Loosen the cutting shaft nut (left-hand thread); while loosening the nut, block the cutting shaft from turning.
3. Remove the blade clamping flange. Check that the contact area between the blade holder assembly and the diamond saw blade is clean.
4. Install the saw blade on the supporting flange. Ensure the blade rotation arrow matches the clockwise rotation of the saw blade shaft.
5. Install the blade clamping flange.
6. Re-tighten the cutting shaft nut. Block the cutting shaft from turning while tightening the nut.
7. Lightly turn the installed saw blade by hand and check the blade for true running.
8. Mount the blade guard.



WATER PUMP INSTALLATION

WARNING! Disconnect the water pump before attempting to handle it. Never operate the pump without water in the tray.

WARNING! For your safety turn off the saw and disconnect the power plug before installing or removing the blade or accessories, and before adjusting or making repairs to the power tool.

1. Remove the water pump from the box and check that it is not damaged.
2. Place the water pump into the bracket at the corner of the water tray. (see figure 4)
3. Position the water outlet of the pump so that it lays horizontally. Connect the water hose from the blade guard to the water pump.
4. Plug the power cord into the 3-prong receptacle coming from the power switch housing.

*Water pump is usually installed.

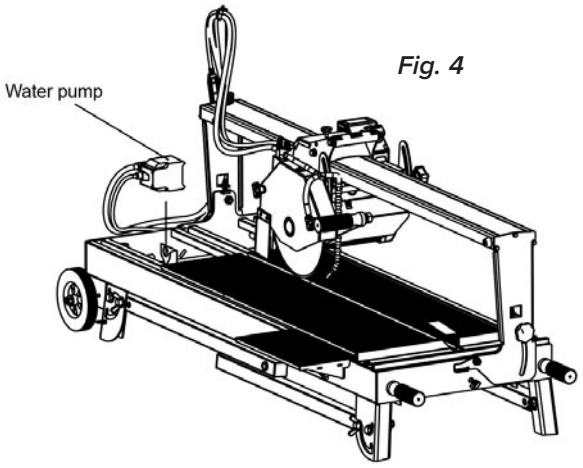


Fig. 4

OVERFLOW PLUG INSTALLATION

WARNING! For your safety turn off the saw and disconnect the power plug before installing or removing the blade or accessories, and before adjusting or making repairs to the power tool.

A tube at the rear end of the saw filters the debris from the water produced during the cutting operation. Debris settles in the water tray while the water is allowed to pass through the tube and into the water bucket, where fresh and filtered water reside.

1. Remove the water level tube from the plastic bag.
2. Insert the thin end of the tube into the rear hole next to the water pump. (see figure 5)
3. Fill the water tray with water.

*Overflow plug is usually installed.

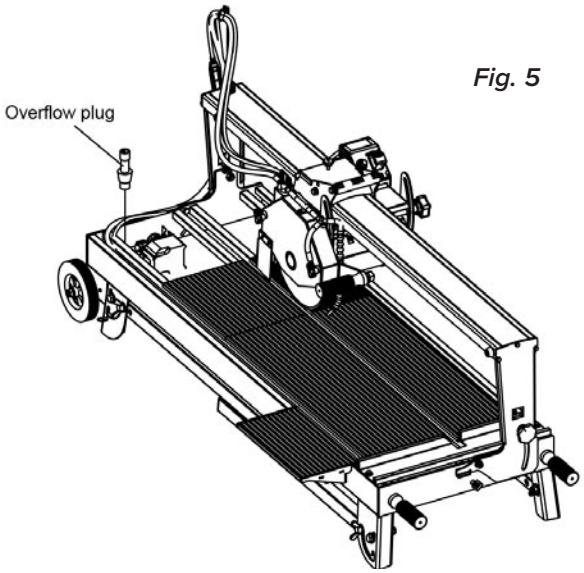


Fig. 5

EXTENSION TABLE INSTALLATION

WARNING! For your safety turn off the saw and disconnect the power plug before installing or removing the blade or accessories, and before adjusting or making repairs to the power tool.

1. Install the side extension table as shown in figure 6.
2. Position the table anywhere along the frame of the water tray.
3. Rotate the knobs (2) underneath the extension table clockwise until its upper surface is level with the main table.

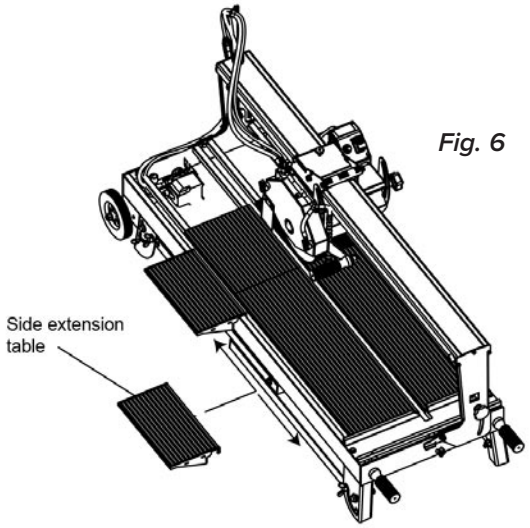


Fig. 6

THE ADJUSTABLE ANGLE GUIDE

WARNING! For your safety turn off the saw and disconnect the power plug before installing or removing the blade or accessories, and before adjusting or making repairs to the power tool.

CAUTION! Always lock the adjustable angle guide prior to transporting the saw.

The 180° adjustable angle guide is an assembly consisting of a base and a rotatable brace sub-assembly. This guide will support cutting angles between 0° to 90°. The attachment sub-assembly has a casted angle indicator that show what angle the angle guide is current set to support. In addition the attachment sub-assembly extension plate, meant to support large format material, can be removed to be installed to extend in the opposite direction using the alternate mountings holes on the plate.

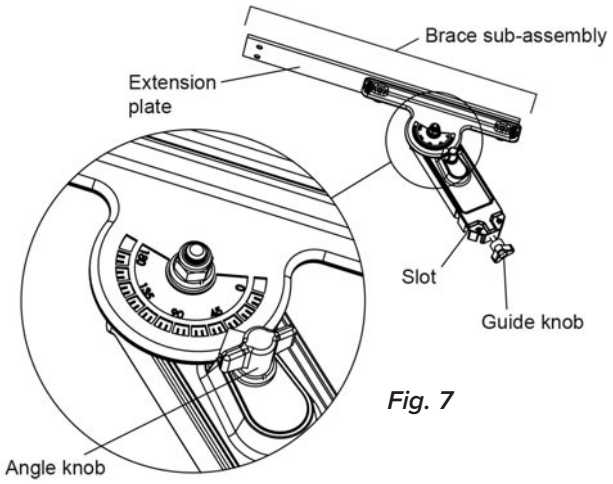


Fig. 7

1. Remove the 180 degree adjustable angle guide from the box and check that it is not damaged.
2. Insert the slot (see figure 7) on the guide and slide onto the cutting fance as shown in figure 1 and 14.
3. Adjust attachment sub-assembly to the required angle and tighten the angle knob. (see figure 7)
4. Move the adjustable angle guide to the correct position on the table of the saw and tighten the guide knob. (see figure 7)

CUTTING DEPTH

CAUTION! The motor must be turned off while adjusting the saw.

CAUTION! Only release the plunge handle when FINISHED adjusting the cutting head position.

CAUTION! Setting the blade too high, the blade may grab the material being cut, causing damage and possibly injury.

The VX10.2RSPRO rail saw is designed to cut by plunge cutting, plunge rip cutting for extended cutting, cutting at constant depth and miter cutting.

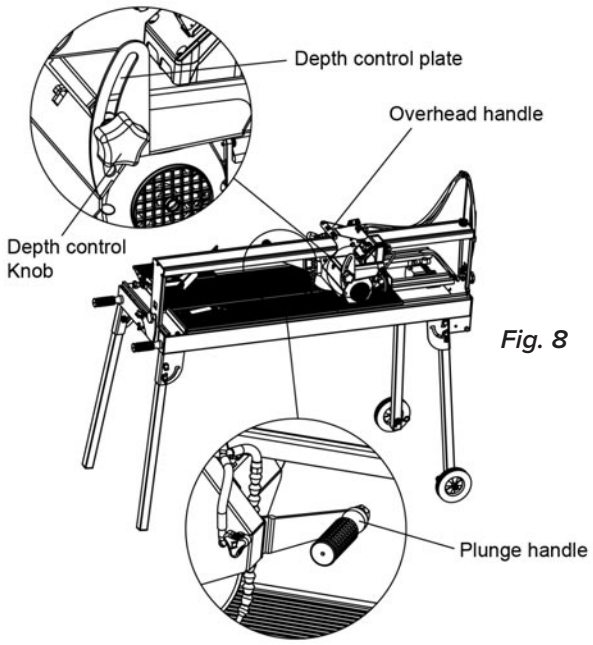


Fig. 8

BLADE DIAMETER	CUTTING DEPTH
8 inch	1-1/2 inch
10 inch	2-5/8 inch

To set the cutting depth do the following:

1. While holding the plunge handle, loosen the depth control knob at the depth control plate. (see figure 8)
2. Adjust the blade position to the correct depth.
3. Retighten the depth control knob.

CUTTING AT CONSTANT DEPTH

CAUTION! The motor must be turned off while adjusting the saw.

When cutting at constant depth the cutting head must be pulled against the work piece. The motor should be turned off when adjusting the cutting depth.

1. Before starting the cut, set the cutting head at the desired cutting depth.
2. Make sure the depth control knob is tight. (see figure 8)
3. Place the workpiece securely on the cutting table. Have it positioned to achieve the desired cut.
4. Turn on the saw and steadily pull the head along the rail and across the workpiece.
5. Slowly return the cutting head to the original starting position and turn off the motor.

PLUNGE CUTS

CAUTION! Do not adjust the material being cut on the table while blade is in motion!

The handling of long or partial cuts can be made using the plunge cutting method. In this case, the cutting head will not be set to a fixed cutting depth/clearance but is free to travel up and down.

1. Before starting the cut, the cutting head must be fully raised. Be sure to grasp the plunge handle extending from the blade guard. (see figure 8)
2. Place the workpiece securely on the cutting table. Have it positioned to achive the desired cut.
3. Loosen the depth control knob. (see figure 8)
4. With the head fully raised, move to the desired start of cut along the path of the blade. Plunge the head so the blade cuts through the workpiece and pull until the desired cut is complete.
5. Slowly return the cutting head to the original starting position and turn off the motor.

MITER CUTS

CAUTION! The motor must be turned off while adjusting the saw.

The VX1.2RSPRO rail saw is equipped with a hinged guide rail that allows the user to make accurate miter/45-degree cuts.

1. To pivot the bridge, slightly loosen the post knobs at both ends of the saw.
2. Set the bridge to the desired angle by using both hands to firmly hold it and rotate it until it stops. While still holding the bridge at the desired angle, tighten each post knob. (see figure 9)
3. Place the workpiece securely on the cutting table. Have it positioned to achieve the desired cut.
4. Before starting the cut, set the cutting head at the desired cutting depth.
5. Make sure the depth control knob is tight. (see figure 8)
6. Turn on the saw and steadily pull the head along the rail and across the work piece.
7. Slowly return the cutting head to the original startging position and turn off the motor.

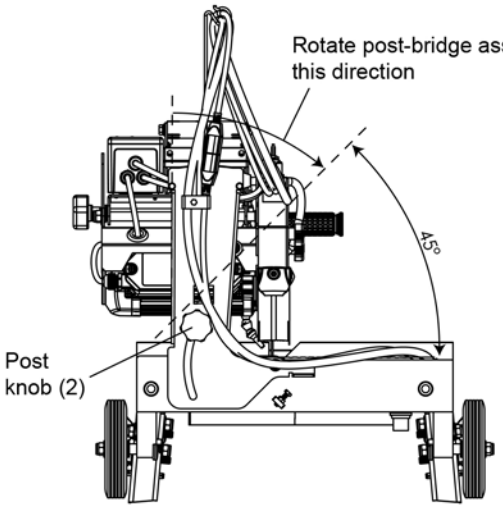


Fig. 9

vii. ELECTRICAL MOTOR SPECIFICATIONS

DANGER! Disconnect the power plug before modifying/servicing the saw.

Horse Power	1-1/2 hp
Volts	115 V/ 60hz
Amps	15 amps
Motor RPM	3,450 rpm
Cycle	60
Phase	1

EXTENSION CORD CHART

DANGER! ALWAYS use a grounded (3-prong) extension cord and MAKE SURE the motor is connected to a properly grounded electrical outlet. Whenever possible, use a GFCI receptacle to reduce the risk of electrical shock.

DANGER! NEVER use a damaged or worn extension cord when connecting to a power source. A defective cord can cause damage to the electrical motor and electrical shock to the operator.

NOTICE! When using extension cable follow the chart shown below. Table shows the correct size to use depending on cord length, If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

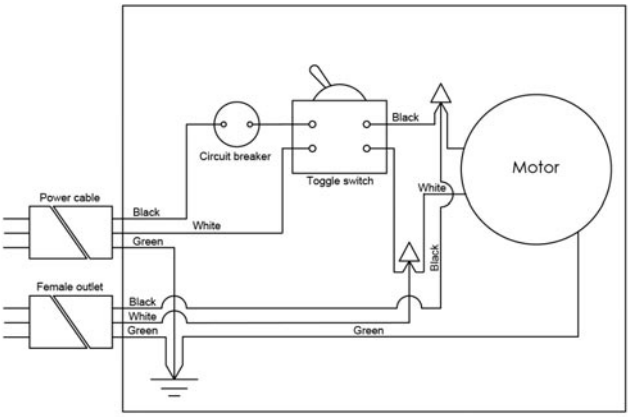
NOTICE! ONLY plug the saw power cable or if using an extension cable, the free end into a standard 120V AC power receptacle.

WIRE GAUGE	LENGTH OF CORD
No. 12	25'
No. 10	50'
No. 8	75'

Recommendations:

- It is recommended that a 15 amp circuit be used while operating this saw. This will prevent possible power interruption or loss.
- Always plug saw as close as possible to the power source while operating. This will allow you to receive optimum electricity.

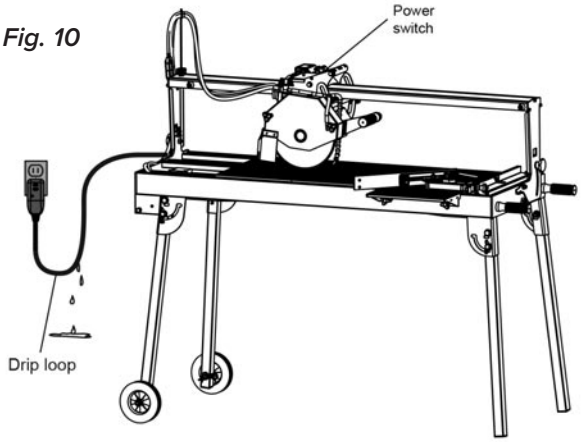
ELECTRICAL WIRING DIAGRAM



WARNING! Water may travel along the power cable and come into contact with the receptacle. The user should arrange a "drip loop" in the cord that is connecting the power tool to the receptacle such that the "drip loop" hangs lower than the receptacle itself (see figure 10).

CAUTION! Before plugging in tool, always check to see that the switch is in the OFF position.

Fig. 10

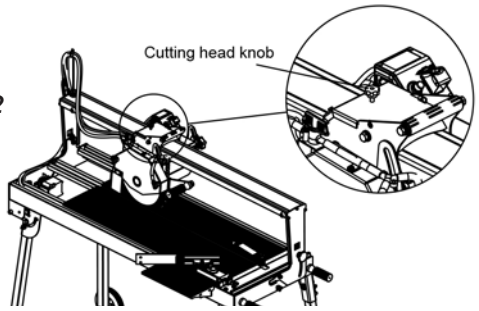


viii. OPERATING THE SAW

WET CUTTING

1. After you made yourself familiar with the components of your saw, the machine has been properly setup, the water tray is filled with water and the electrical connection is established in accordance with the relevant safety regulations, the saw is ready to use.
2. Before you start cutting operation open the water valve on the water pump (if applicable). Water should be flowing onto the blade when the motor is turned on, but do not turn on the motor yet.
3. Place the cutting material on the table and position it such that the face of the material sits flush against the cutting fence. Use a 180 degree adjustable angle guide as necessary.
4. Adjust the cutting depth as necessary, explained in the "preparation for use" section.
5. Line up the cutting material such that the desired cut lines up with the blade.
6. Turn on the saw and begin cuting. Do not force feed the blade for best cut results.
7. Dress the blade occasionally so the diamonds on the blade do not glaze over.
8. Always turn off the saw before you leave the machine unattended. Unplug the power cable and lock the head at the end of the job by tightening the cutting head knob. (see figure 12)

Fig. 12



ix. DO'S AND DONT'S FOR BLADES

WET CUTTING

DO'S

- Inspect blades daily for cracks or uneven wear.
- Always use appropriate blade for material being cut.
- Inspect arbor shaft for uneven wear before mounting blade.
- Always use blades with the correct arbor shaft size.
- Ensure that blade is mounted in the correct direction.
- Secure the blade to the arbor with a wrench.
- Use proper safety equipment when operating the saw.
- Periodically check the blade for cracks or bond fatigue.
- Always have a continuous flow of water on both sides of blade.

DONT'S

- Do not operate the saw without safety guards in position.
- Do not operate the saw with blades larger than 10".
- Do not cut dry with blades marked "Use Wet".
- Do not exceed manufacturer's recommended max RPM.
- Do not force blade into material let blade cut at its own speed.

DRY CUTTING

DO'S

- In addition to the following, always follow wet recommendations.
- Use appropriate blade for material being cut.
- Inspect segment blades for segment cracking or loss.
- Do not use damaged blades.
- Use proper safety equipment when operating the saw.

DONT'S

- Do not make long cuts with dry blades--allow them to air cool.
- Do not use the edge or side of blade to cut or grind.
- Do not attempt to cut a radius or curve.
- Do not cut too deep or too fast into the material.
- Do not cut any material not recommended by blade manufacturer.

x. CARE AND MAINTENANCE

WARNING! For your safety turn off the saw and disconnect the power plug before installing or removing the blade or accessories, and before adjusting or making repairs to the power tool.

WARNING! Wear ANSI Z87.1 approved eye protection when servicing this power tool.

CLEANING THE SAW AFTER USE

The VX10.2RSPRO should always be cleaned after use. Steps to follow when cleaning the saw:

1. Do not use aggressive cleaners (i.e. containing solvents). Do not use high-pressure water jets, aggressive detergents or solutions and liquids with a temperature exceeding 86 F! Use lint-free cloth only.
2. Use a cloth which may be lightly moistened only for removing dust and dirt. Hard packed dirt can be removed with a soft brush.
3. For the sake of safety, water/cleaning liquid/vapor may penetrate into the electric motor, connectors/plugs, switches, etc. therefore cover/seal all aperatures, holes in the housing, connectors, plugs, with adhesive tape.
4. Use a soft, low-pressure water jet and a brush to rinse dirt and incrustations away. Be particularly careful when near hazardous parts of the machine (i.e. switch, motor, etc...). Clean the vulnerable parts with a moist lint-free cloth.
5. Do not "rinse" the bearings of the drive elements to prevent them from running dry. The ball bearings of the machine are permanently lubricated.
6. After cleaning, remove all areas that were covered/seal by tape! All screws/nuts which you may have loosened must be tightened again!
7. After wet cleaning, plug the machine to a power outlet which is equipped with a ground fault current interrupt (GFCI). If the device cuts power, the machine must be inspected by an authorized dealer prior to use!

DAILY INSPECTION BEFORE USE

Before using the saw it should be checked for any issues. Steps to follow when inspecting the saw:

1. Tighten any loosened threads or bolts and replace any worn or damaged parts.
2. Inspect the blade lock bolt and retighten it if necessary.
3. Check that the roller table is rolling on the rails and that it moves securely back and forth.
4. Check the alignment of the saw head with respect to the table.
5. Check that the air filter is installed.
6. Connect the saw to an electrical power outlet connected to a GFCI. If the device cuts power, DO NOT operate the saw. Have the saw checked by a qualified professional.

TEMPERATURE CHANGES

When ambient temperature drops beflore 32˚ F / 0˚ C (winter), ALWAYS drain all water from the system including the water tray and pipes. The water pump should not have any water as well.

LONG TERM STORAGE

Before storing the saw for long-term storage, follow these steps:

1. Unplug the saw and secure the power cable to the saw frame with cable ties.
2. Make sure the cutting head is locked in fixed lower position.
3. Clean and lubricate all movings parts. DO NOT grease the guide rails or sealed bearings.
4. Flush out the water system with fresh water and allow all water tubes and trays to dry completely.
5. Unplug the water pump and stow the pump in the water tray.
6. Lock the cutting table.

AFTER LONG TERM STORAGE

After storing the saw for long-term storage, follow these steps:

1. Inspect the wheels for excessive wear, cracks, or other damage. Make sure they are properly attached to the saw.
3. Inspect all fastening nuts and bolts for tightness. Inspect the cutting head. Make sure it is properly seated on the guide rails and slides easily along the entire length of the rails.
4. Remove the saw blade and connect the AC power cable and turn the motor ON and OFF quickly. If the motor does not respond, have the saw serviced by an authorized dealer prior to use!

WATER PUMP

When the machine has not been used for a long period of time, hard packed dirt may build up inside the pump and block the pump fan from rotating. If the machine is activated with the fan blocked, the electric motor inside the pump will overheat within a few minutes! Please follow the steps listed below to clean the pump before operating the saw.

1. Unscrew the pump filter.
2. Remove the water pump from the water tray/container.
3. Clean the water pump exterior.
4. Clean the interior where the fan is by removing the fan cover. If gasket is installed, be careful not to damage it.
5. The fan can be removed by using pliers to pull it off. Careful not to damage the fan or the motor shaft. With it removed, the entire volute can be cleaned easily.
6. Spin the pump shaft by hand. It should rotate almost effortlessly. Then press the cleaned fan back onto the shaft. Note to align the shaft geometry with that of the fan bore before pressing it back on. Do not press the fan too far down the shaft or it may not rotate. Spin the fan blade by hand to confirm it can spin effortlessly.
7. Reassemble the fan cover.
8. Plug the water pump into an outlet briefly to check whether it works properly, before connecting it back to the saw.

ALIGNMENT

There are three methods to adjust the VX10.2RSPRO's alignment:

1. Cutting fence 2. Bridge 3. Cutting head

NOTE: Usually adjustment method 1 and 2 are the most common.

Method 1:

1. Loosen the bolts that secure the cutting fence.
2. Using a steel square, as shown in figure 13, align the square's long arm with the blade. Both the front and the rear end of the blade's rim should have contact.

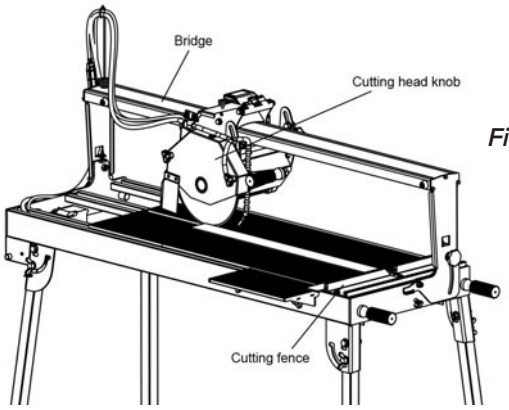


Fig. 13

3. Adjust the cutting fence such that the fence face sits flush with the steel square's short arm.
4. Now move the cutting head back and forth, along the bridge, to check for consistent blade contact with the steel square. Make sure the short arm does not move during this process. Interference from the blade may move the steel square away from the cutting fence.

Method 2:

1. Loosen the bolts that secure the bridge. (see figure 14) DO NOT REMOVE THE BOLTS AS THE BRIDGE AND CUTTING HEAD WILL FALL.
2. Repeat steps listed in method 1 to align the fence.
3. Now if the cutting fence does not move enough to align the cutting head, the bridge may be shifted as shown in figure 14.
4. Re-tighten the bolts that secure the bridge.

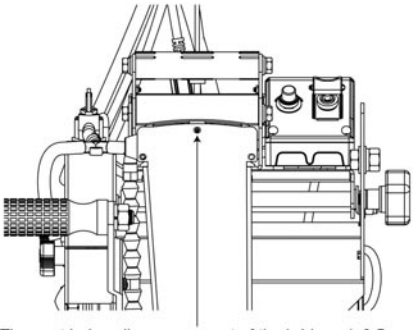


Fig. 14

The post holes allow movement of the bridge +/- 0.5mm (approx. 3/16") in either the left or right direction.

Method 3:

1. Underneath the carriage cover is four bolts (size 13) that hold the head's two sub-assembly together. The upper assembly is the carriage and the lower assembly is the actual cutting head. The three bolts highlighted by the balloon "C", as shown in figure 15, are the actual bolts that need to be loosened. Only loosen the bolts enough that the lower subassembly can move, changing the blade shaft's orientation. The fourth bolt is the pivoting bolt and does not have to be loosened.
2. If the blade is constantly shifting left, using figure 15 as reference, rotate the cutting head counterclockwise (left).
3. If the blade is constantly shifting right, using figure 15 as reference, the cutting head must be rotated clockwise (right).
4. Recheck alignment following directions in the method 1 section. Re-adjust accordingly.

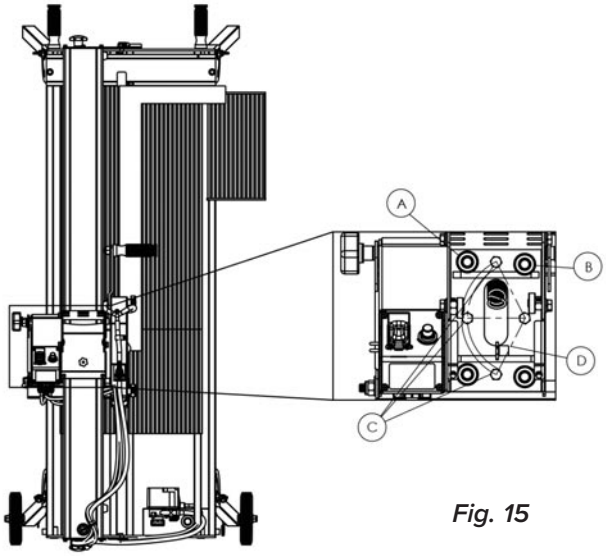


Fig. 15

*The carriage cover and bridge has been removed for better visibility of the rollers

NOTE: The cutting head should glide effortlessly across the bridge. Should the head be too tight or too loose, adjust the rollers on the left (balloon "A") using a size 17 wrench to rotate it (see figure 15). Rollers on the right (balloon "B") are fixed so they cannot be adjusted.

Figure 16 illustrates how aligning the blade with the steel square does not always mean the head is aligned with the bridge. As the user pushes/pulls the cutting head if the cutting head is not properly aligned with the bridge, the blade will always move away from the steel square.

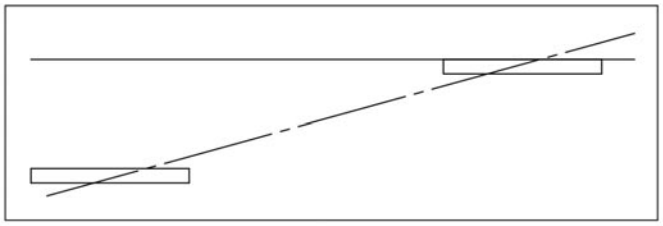


Fig. 16

1. The solid line represents the steel square.
2. The dotted line represents the bridge and ACTUAL travel direction of the cutting head.
3. The rectangular box represents the blade/cutting head orientation.

TRANSPORTING THE SAW

Steps to follow when preparing saw for transporting:

1. Make sure the water tray is empty and dry.
2. Unplug the AC power cable and store it in the water tray.
3. Lock the cutting head so it does not move on the rail. (see figure 17)
4. Fold the legs and lock the wing bolts.
5. Lift the saw using the lifting handles at the front of the saw and from the rear frame or position A in between the rear wheels. (see figure 17)
6. Once both people lifting the saw are standing, the person at the rear of the saw should transition to holding the folding legs or position B for better stability when moving.

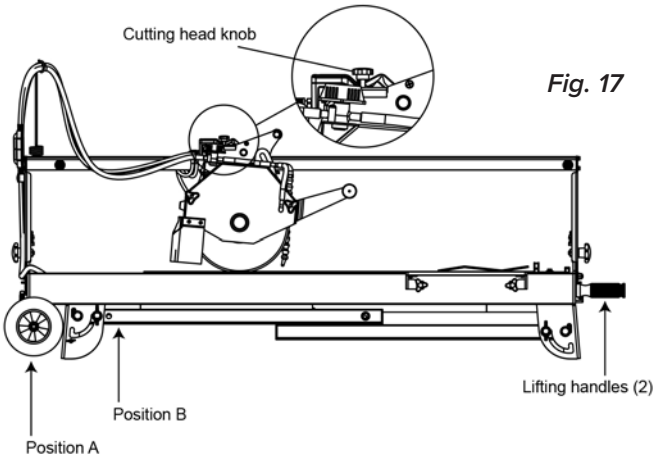
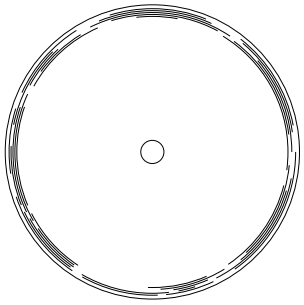


Fig. 17

xi. CHOOSING THE RIGHT BLADE



- The blade shaft speed of this saw is exclusively designed for cutting with diamond saw blades. The saw may only be used for cutting natural and artificial stone materials, do not cut wood or metal!
- The saw uses diamond saw blades with diameters up to 10". Saw blades with larger diameters must not be installed on the saw.
- Choose the correct type of saw blade for the material to be cut and the required cutting depth.

NOTICE! ALWAYS dress/sharpen the blade when cutting speed is reduced as it may lead to poor cutting accuracy. Always let the blade cut, do not force.

⚠ **CAUTION!** Wet cutting blades must be used with water to prevent premature/sudden failure.

THE RIGHT BLADE DOES THE RIGHT JOB

For the most effective cutting and blade life always use the recommended Pearl Abrasive Co. blade.

PEARL BLADE SERIES	APPLICATION							
	CERAMIC TILE	EXTRA HARD CERAMIC	PORCELAIN	MARBLE	GRANITE	HARDSTONE	GLASS TILE	MOSAIC METAL TILES
Reactor ADM	⊙	⊙	⊙	⊙	⊙	⊙		⊙
HPXL Series	⊙	⊙	⊙	⊙	⊙	⊙		
HP Series		⊙	⊙		⊙			
Turbo Mesh		⊙	⊙		⊙	⊙		
DTLB19 Series	⊙							
Pro-V Series	⊙	⊙	⊙					
Glass Blade							⊙	
SH Series	⊙			⊙				

xii. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
MACHINE DOES NOT RUN WHEN SWITCHED ON	- Power cord not properly fixed/plugged in.	- Check that the machine is properly connected to the power supply.
	- Power cord defective.	- Have the power cord checked, replace if necessary.
	- Main power switch defective.	- Have the main power switch checked and replace if necessary by a qualified electrician.
	- Loose electrical connection inside the electric system.	- Have the whole electric system of the machine checked by a qualified electrician.
	- Motor defective.	- Have the motor checked and replaced if necessary by a qualified technician.
MOTOR STOPS (POWER CUT OUT)	- Too much pressure exerted while cutting.	- Exert less pressure when cutting.
	- Incorrect specification for saw blade. - Saw has a defective electric system.	- Use a saw blade which corresponds to the material being cut.
		- Have the electric system of the saw checked by a qualified technician.
POOR MACHINE PERFORMANCE LITTLE POWER	- Power cord/extension cable too long or cable still wound up inside cable drum.	- Use a power cord/extension cable of the rated length, use a cable drum with cable fully extended.
	- Power network is insufficient.	- Observe the electrical ratings of the machine and connect it only to a power network which complies with these ratings.
	- Drive motor no longer runs at rated speed (r.p.m.).	- Have the motor checked by a quilified electrician and have it replaced if necessary.
INSUFFICIENT FLOW OF COOLING WATER OR NO COOLING WATER AT ALL	- The pump draws air.	- Fill the container with water.
	- Filter clogged.	- Clean the filter of the pump.
	- Pump wheel of the immersion pump blocked by dirt.	- Disassemble the immersion pump and clean.
IRREGULAR RUN OF THE SAW BLADE	- Poor tension in the blade material.	- Return the saw blade to the manufacturer.
SAW BLADE WOBBLES WHEN RUNNING	- Saw blade is damaged or bent.	- Have the saw blade aligned/ flattened. - Clean the receiving flange. - Solder the diamond segments of the old blade onto another saw blade or use a new blade.
	- Flange of the saw blade is damaged. Shaft of the motor bent.	- Replace the saw blade flange. - Replace the electric motor.
DIAMOND SEGMENT BECOMES LOOSE	- Overheating of the saw blade; cooling water not sufficient.	- Have the diamond segment soldered on the blade again; ensure optimum flow of cooling water.

PROBLEM	POSSIBLE CAUSE	SOLUTION
EXCESSIVE WEAR	- Wrong type of saw blade. - Shaft of motor causes wobbling. - Overheating.	- Use harder saw blades. - Have bearings of the motor or the motor replaced. - Ensure optimum flow of cooling water. - Use appropriate type of saw blade.
SAW BLADE IS BLUNT	- Saw blade type is unsuitable for the material being cut.	
	- Saw blade ype is unsuitable for the machine performance. - Saw blade too hard.	
	- Diamond segments are blunt.	- Sharpen the diamond saw blade.
APPEARANCE OF CUT IS NOT OPTIMAL	- Poor tension in the blade material.	- Return the saw blade to the manufacturer. - Use a suitable saw blade.
	- Too much load placed on the saw blade.	
	- Diamond segments are blunt.	- Sharpen the saw blade.
THE CENTER HOLE IN THE SAW BLADE HAS BECOME WIDER DUE TO WEAR	- The saw blade has slipped on the motor shaft when running.	- The arbor of the saw blade must be fitted with an appropriate adator ring. - Check the receiving flange and have it replaced if necessary. - Ensure an optimum flow of cooling water.
SAW BLADE SHOWS BLOOMING COLORS	- Saw blade overheating due to a lack of cooling water.	- The material feed is too high; proceed more slowly.
	- Lateral friction when cutting.	- Ensure that the direction of feed is absolutely parallel to the saw blade.
GRINDING MARKS ON THE SAW BLADE	- Material is not being fed parallel to the saw blade	- Adjust the roller table or have it adjusted. - Have the saw blade tensioned.
	- Poor tension in the blade material.	- The material feed is too high, proceed more slowly.
	- Too much load on the saw blade.	

xiii. HOW TO ORDER PARTS

Please have the following information ready before calling: Model Number of the Tile Saw and Part Description
For warranty purpose, please have the following ready: Serial Number and When purchased and where

All parts listed may be ordered from your Local warehouses. If the part is not stocked locally, call our Corporate office and ask for our Customer Service Department. For Technical Support call 1-800-969-5561. In Canada, call 1-800-387-0008. There is a $25.00 minimum order.

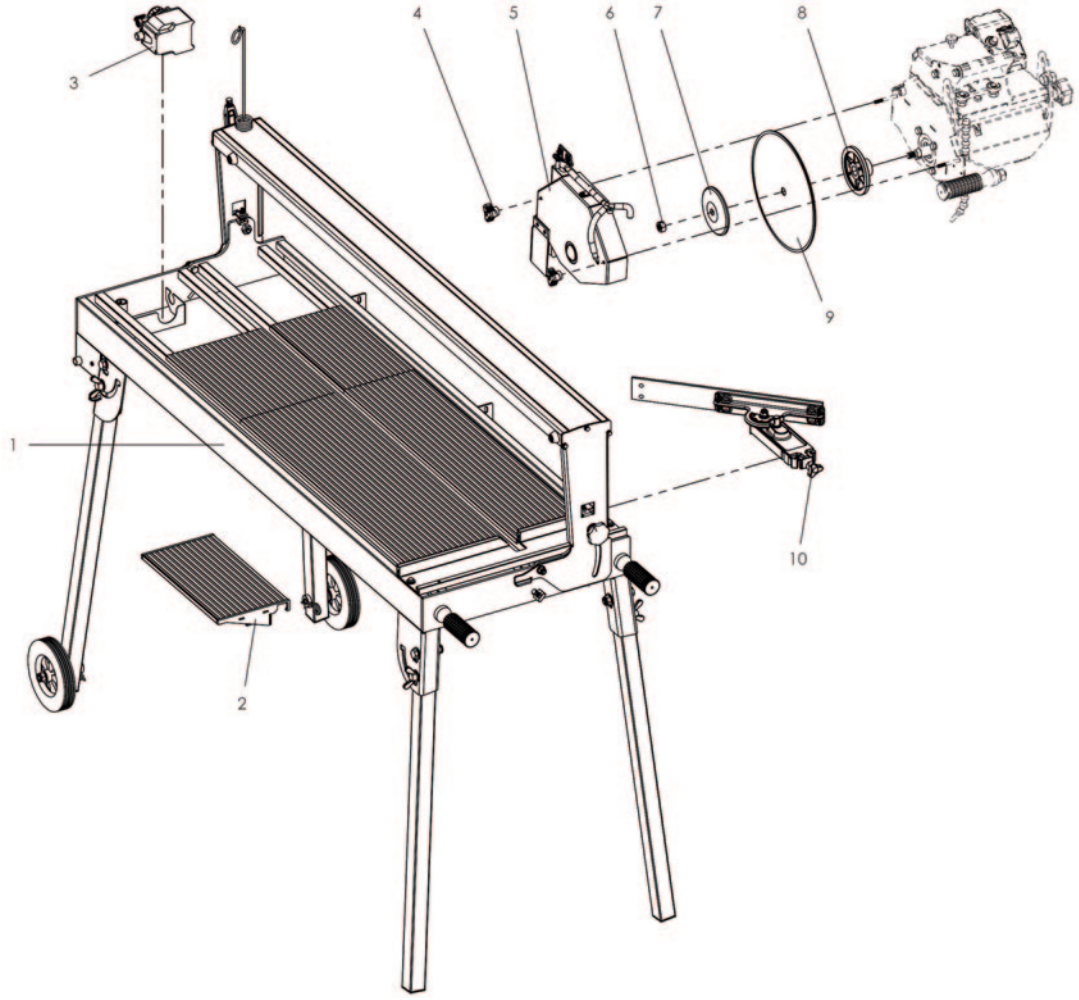
Return Policy: Return goods for credit or exchange on the basis of the following terms: (1) They must be current products; (2) Items returned for replacement or refund should be in original cartons and must be accompanied by a packing slip with the following information: Returned Goods Authorization (RGA) number obtainable from Customer Service Department • List of items returned • Reason(s) for return(s) • Copy of original invoice(s); (3) Freight charges must be assumed by sender; (4) Returning goods are subject to a 15% handling charge to cover our cost of repacking and restocking. All Prices are subject to change without notice.

Disclaimer: Pearl Abrasive Co. reserves the right to make changes or improvements on its products without incurring an additional obligation including any obligation to make corresponding changes or improvements to products previously manufactured or sold. Pearl reserves the right to discontinue products at any time without notice.

xiv. CUSTOMER SERVICE

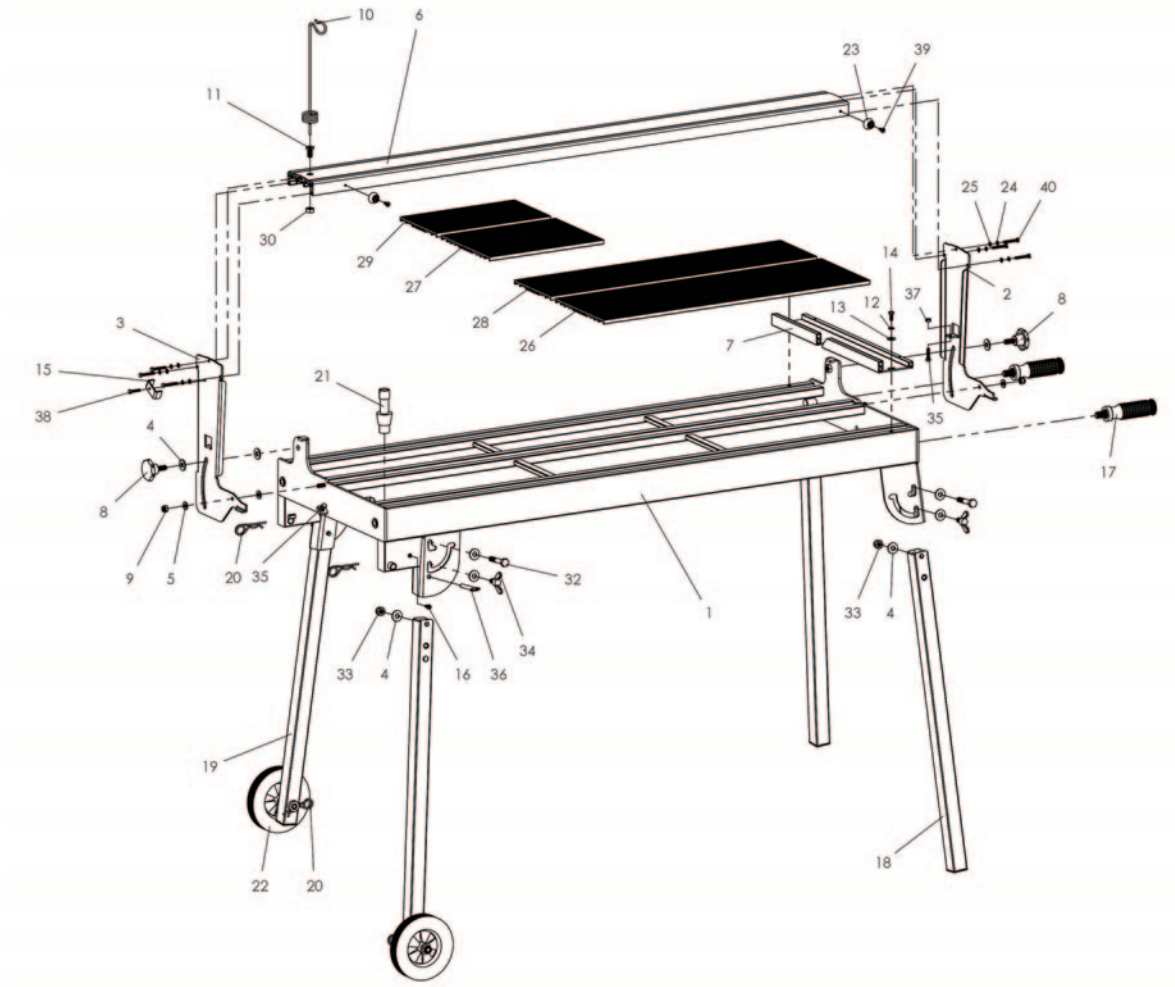
AFTER SALE SERVICE
All customer service (technical questions, re-order of parts, etc.) will be provided by our company. All spare parts for after sales service will be stocked and shipped from our warehouse. If requested, we may arrange for our sales representatives to hold a training class for product knowledge at dealer's location.

xv. REPLACEMENT PARTS LIST



MAIN ASSEMBLY

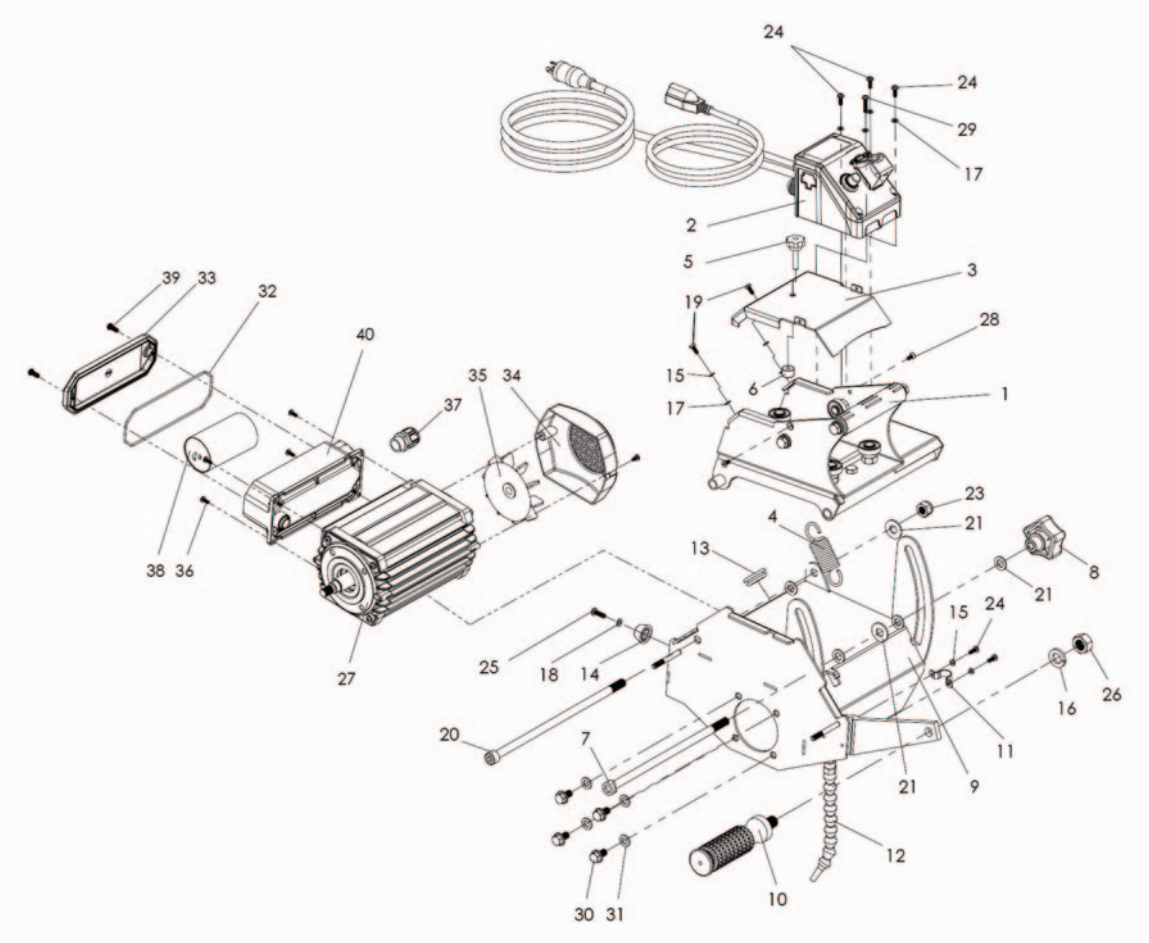
	PART NAME	QTY	PART NUMBER
1	Frame weldment only (Black)	1	PA103965
2	Extension table	1	PA103907
3	Water pump 1.8M	1	PA103831
4	Female M6 X 1.0 Knob	2	PA102725
5	Outer blade guard assembly (Black)	1	PA103930
6	M12 x 1.75 Nut (Left hand)	1	PA102728
7	10" Outer Flange	1	PA103834
8	10" Inner flange	1	PA103832
9	10" (254mm) Cont. general purpose blade	1	DTL10HPXL
10	180 Degree adjustment angle guide	1	PA103909



FRAME ASSEMBLY

	PART NAME	QTY	PART NUMBER
1	Frame weldment only (Black)	1	PA103965
2	Support post B	1	PA103896
3	Support post A	1	PA103894
4	M10 Wide Washer	16	PA0338
5	M8 Wide Washer	4	PA230166
6	Bridge/Rail	1	PA103934
7	Cutting Ruler Guide	1	PA103935
8	Male seven lobe T1 knob M10 x 1.5 x 25L	2	PA102705
9	M8 x 1.25 Nylon Nut	2	PA100086
10	Cable suspension sping	1	PA103924
11	Spring rest	1	PA103810
12	M6 Spring Lock Washer	2	PA3911090
13	M6 Very Big Washer	2	PA103904
14	M6 x 1.0 x 16L Hex bolt	2	PA11089
15	Cable clamp	1	PA140293
16	M4 x 0.7 x 10L Cross screw	2	V390353
17	35DX120L Handle with rubber	2	PA103833
18	Front folding leg	2	PA103899
19	Rear folding leg	2	PA103898
20	D4 X 45L hairpin cotter pin (25D shaft)	2	PA140229

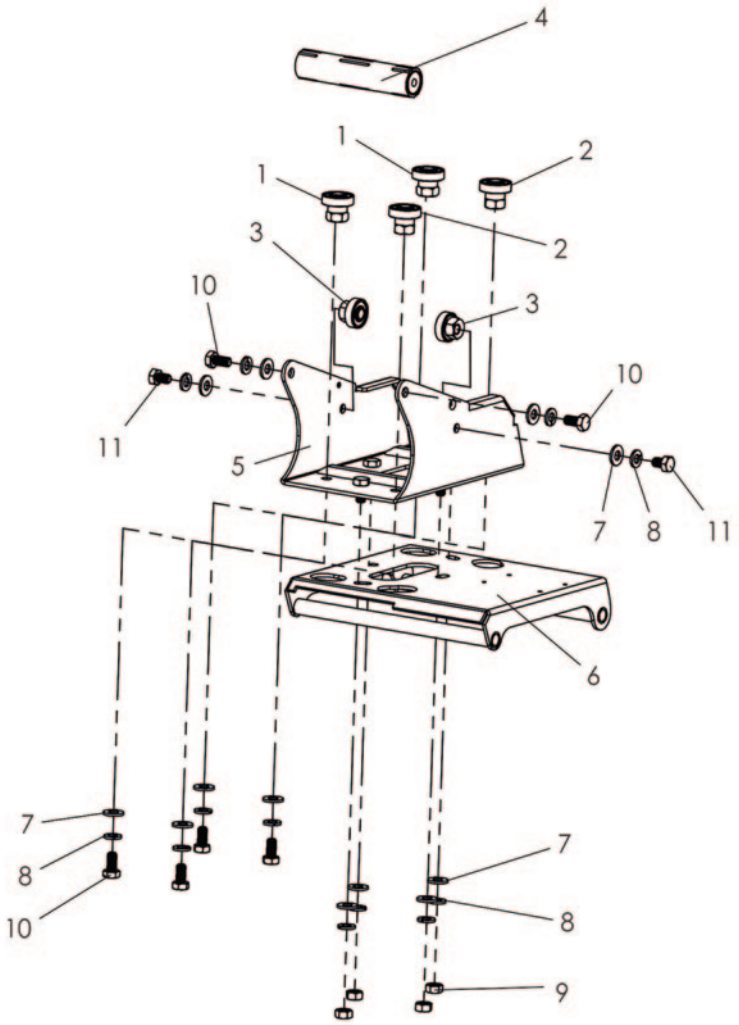
	PART NAME	QTY	PART NUMBER
21	Overflow plug assembly	1	PA103811
22	6 inch Wheel assembly	2	PA140381
23	Rubber stop 20D x 10L	2	PA102751
24	M5 Spring Lock Washer	6	V3925053
25	M5 Narrow washer	6	V3925054
26	Cuttin table on left side (Longer)	1	PA103928
27	Cuttin table on left side (Small)	1	PA103929
28	Cutting table on Right side (Longer)	1	PA103963
29	Cutting table on Right side (Small)	1	PA103964
30	M10 x 1.5 Nut	1	PA150289
31	Outer blade guard assembly(Black)	1	PA103930
32	M10 x1.5 x60L x26 Cap hex bolts	4	PA4291
33	M10 x 1.5 Nylon Nut	4	PA140267
34	M10 x 1.5 x 20L Wing screw	4	PA103820
35	M6 x 1.0 x 25L Hex bolt	4	PA420319
36	Safety pin with chain	2	PA42148
37	M 6 x 1.0 Nut	4	PA061001
38	M5 x 0.8 x 25L Hex bolt	1	PA140282
39	M5 x 0.8 x 15L Cross screw	2	V3925058
40	M5 x 0.8 x 35L Hex bolt	6	PA160081



CUTTING HEAD ASSEMBLY

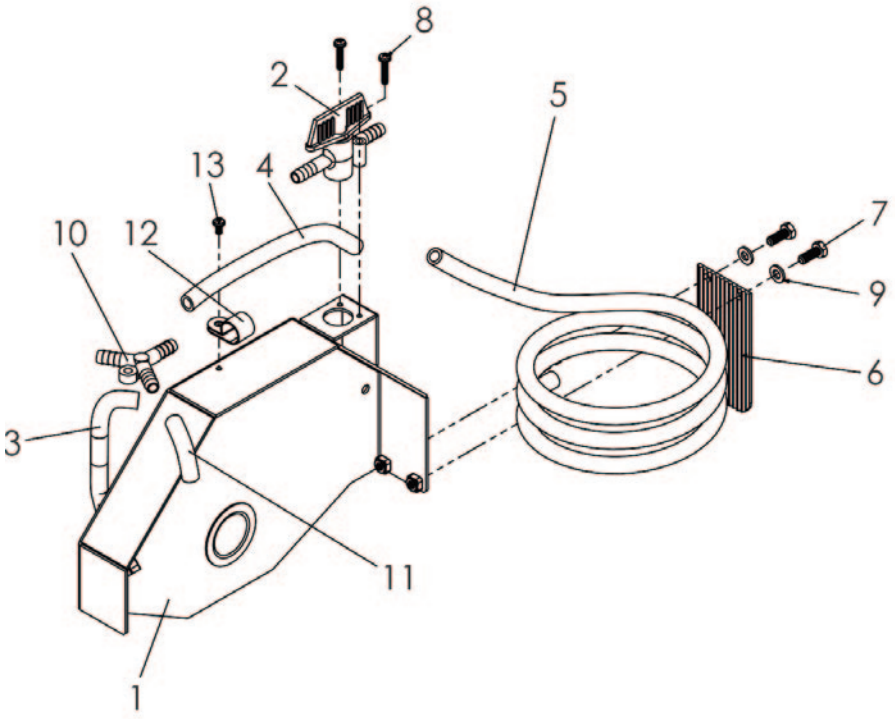
	PART NAME	QTY	PART NUMBER
1	Rail carriage assembly (Black)	1	PA103877
2	Power switch box assembly	1	PA103936
3	Head upper cover weldment (Black)	1	PA103881
4	Helical spring	1	PA103921
5	M6 X 1.0 X 40L Knob	1	PA0610040
6	Screw boot	1	PA103789
7	Modified M10 X 240 socket screw	1	PA103879
8	Female M10 X 1.5 Knob	1	PA102746
9	Cutting head welding (Black)	1	PA103874
10	Plunge handle	1	PA150313
11	16mm OD Hose clip	1	PA103783
12	12 Link 7.5 ID needle nose assembly.	1	PA103945
13	D23 d17 Rubber grommet	1	PA140281
14	Rubber stop 20D x 10L M5	1	PA102751
15	M4 Spring Lock Washer	4	PA00039
16	M14 Spring Lock Washer	1	PA103883
17	M4 Narrow washer	6	PA420044
18	M5 Narrow washer	1	V3925054
19	M4 x 0.7 x 10L Hex bolt	2	PA102549
20	M10 x 1.5 x 250L x 26S Socket head cap hex screw	1	PA103923

	PART NAME	QTY	PART NUMBER
21	3/8 x 25 x 2T Teflon big washer	4	PA140344
22	M10 Wide Washer	2	PA0338
23	M10 x 1.5 Nylon Nut	1	PA140267
24	M4 x 0.7 x 12L Cross screw	5	PA141113
25	M5 x 0.8 x 15L Cross screw	1	V3925058
26	M14 x 2.0 Nut	1	PA140345
27	1.5HP Induction motor	1	PA103876
28	M4 x 0.7 x 8L Countersunkcross screw	2	PA141127
29	M4 x 0.7 x 25L Cross screw	1	PA103884
30	M8 x 1.25 x 16L Hex bolt	4	PA103799
31	M8 Spring Lock Washer	4	PA00020
32	Gasket	1	PA103798
33	Capacitor housing cover	1	PA103792
34	Fan cover	1	PA103795
35	Fan	1	PA103796
36	M5 x 0.8 x 10L Cross screw	4	PA150336
37	Power cable gland	1	PA103876.1
38	80uF/250VAC 50/60Hz Capaciter	1	PA103791
39	M5 x 0.8 x 16L Cross screw	2	V3925058
40	Capacitor housing cover	1	PA103792



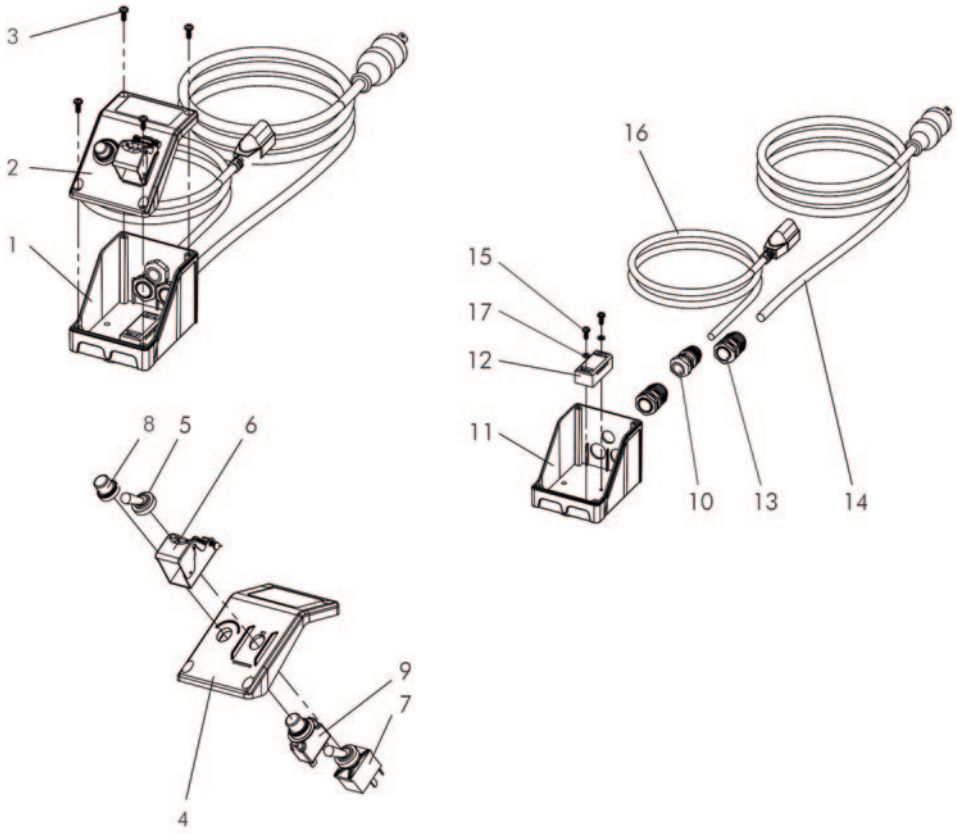
CUTTING HEAD SUB-ASSEMBLY

	PART NAME	QTY	PART NUMBER
1	Concentric flat rollers (2)	2	PA103800
2	Eccentric flat rollers (2)	2	PA103801
3	Upper eccentric flat rollers (2)	2	PA102745
4	Slide handle with rubber sleave	1	PA103888
5	Carriage A weldment - Black	1	PA103803VX
6	Carriage B weldment - Black	1	PA103802VX
7	M8 Wide Washer	12	PA230166
8	M8 Spring Lock Washer	12	PA00020
9	M 8 x 1.25 Nut	4	PA103799
10	M8 x 1.25 x 12L Hex bolt	2	PA00015
11	M8 x 1.25 x 16L Hex bolt	6	PA100087



BLADE GUARD ASSEMBLY

	PART NAME	QTY	PART NUMBER
1	Outer blade guard weldment (VX)	1	PA103868
2	Male 8D Straight valve adapter	1	PA00001JI
3	12D 8d X 120L Reinforced water hose	1	PA103870
4	12D 8d X 180L Reinforced water hose	1	PA103871
5	12D 8d X 2430L Reinforced water hose	1	PA103872
6	Splash guard	1	V370027
7	M6 x 1.0 x 16L Cross hex bolt	2	PA140347
8	M4 x 0.7 x 20L Cap cross screw	2	PA420046
9	M6x13x1T Wide Washer	2	PA00082
10	5/16 Barbed wye tube fitting	1	PA102723
11	12D 8d X 90L Reinforced water hose	1	PA103873
12	12D Hose clamp	1	PA140315



SWITCH BOX ASSEMBLY

	PART NAME	QTY	PART NUMBER
1	Lower power Housing with cables assembly	1	PA103836R
2	Upper power switch assembly	1	PA103837
3	M4 x 1.59 x 12L Cap cross tapping screw	4	PA130038
4	Switch box upper housing	1	PA103838
5	Power switch boot	1	PA100089
6	Power switch shield	1	PA100003
7	20A 125V Toggle switch	1	V390027
8	Reset button boot	1	PA100160
9	18A/125V Circuit breaker	1	PA141038
10	PG-9B Power cable gland	1	PA102744
11	Switch box lower housing	1	PA103839
12	Electrical junction box	1	PA420290
13	14AWG Cable Gland assembly	2	PA103856
14	14AWGx3C X 3M NEMA 5-15P Power plug	1	PA103928
15	M4 x 1.59 x 12L Cap cross tapping screw	2	PA130038
16	16AWG3C X 1.7M NEMA 5-15R Power cable (170 cm)	1	PA103920
17	M4 Spring lock washer (big)	2	PA00039

NOTES:

NOTES:

PEARL LIMITED WARRANTY

Every PEARL ABRASIVE CO. tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects in materials and workmanship for a period of ONE YEAR from the date of original purchase. Pearl will repair or (at our opinion) replace a product, or part thereof, found by PEARL ABRASIVE CO. to be defective, provided the defective product is returned to PEARL ABRASIVE CO., freight pre-paid, with proof of purchase.

RGA NUMBER IS REQUIRED. Prior to the return of any product or part, a Return Goods Authorization number must be obtained from PEARL ABRASIVE CO. by fax (562) 928-3857 or calling (562) 927-5561. The owner's name, address, phone number, as well as the serial number of the product, proof of purchase, and a brief statement detailing the nature of the claimed defect, are required for authorization.

This Warranty does not apply where:

- repairs have been made or attempted by others
- repairs are required because of normal wear and tear
- the tool has been abused, misused or improperly maintained
- alterations have been made to the tool
- the product is used in a manner or with a blade not recommended by the manufacturer

In no event shall Pearl Abrasive Co. be liable for any indirect, incidental or consequential damages from the sale or use of the equipment. This disclaimer applies both during and after the term of warranty.

Pearl Abrasive Co. disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose", after the one year term of this warranty.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

All parts replaced under warranty will be considered as part of the original product and any warranty on these parts will expire coincidently with the original product warranty.

This warranty supersedes all previous PEARL ABRASIVE product warranties. **EXCLUSION**: Water pump and motor warranty is through the original equipment manufacturer.

PEARL®

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