715 West Colton Avenue
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10" TRIM SAW INSTRUCTIONS

SAFETY

Your safety is very important to us. Please carefully read all of these instructions and safety precautions before using your unit. In addition to these 10" Trim Saw specific instructions, there is an additional **Covington Safety Demands** sheet included. If you have any questions about safely using your unit, please do not hesitate to give us a call at 909-793-6636. **Correctly using your unit and taking all safety precautions will not only keep users safe, but will maximize the lifespan of the unit itself, the motor, and the consumable parts.**

- **NEVER LEAVE THE MACHINE UNATTENDED WHILE TURNED ON**. This unit is **not** designed to cut without being closely monitored.
- Dress your blade often. There is a silicon carbide dressing block included with the unit. Cutting thin slices off this block will re-expose the diamond on your blade, so it can continue to cut efficiently without stopping while the motor is running.
- DO NOT overtighten the clutch. This can also cause the blade to stop while the motor is still running.
- Secure the rock in the vise properly. If the rock is not secured carefully, it can cause the rock to slip out and potentially jam the blade.
- NEVER run saw blade dry. Always use with a koolerant to prevent overheating.
- If your blade stops in the middle of a cut, **IMMEDIATELY TURN THE SAW OFF.** Once it is off, unjam the rock by sliding it out, and then restart the unit and resume cutting. If you leave the motor running while the blade is stopped, it will cause the motor to prematurely fail. This is why it is especially important not to leave the saw unattended while it is cutting.

DESCRIPTION

Covington's 8" and 10" Trim Saws use the same tabletop and tank; however, the blade guard on the 8" unit is smaller. Sawing operations remain the same.

These ruggedly built units are constructed out of heavy cast aluminum. Vise jaws hold up to a 3-3/4" high rock without blocks or shims. The cross feed screw and scale permit easy adjustment for

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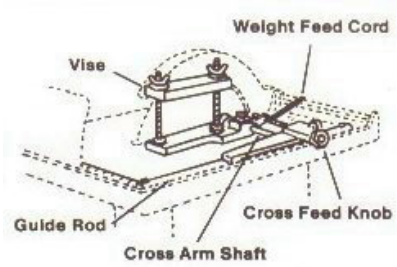
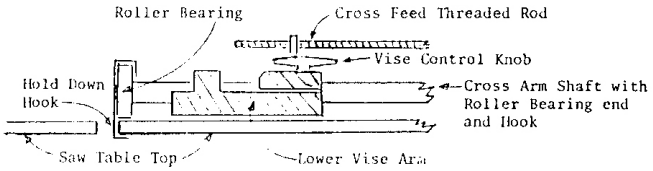
obtaining desired slab thickness. The cross feed adjusts up to 3-1/2" before the stone must be repositioned in the vise. The end of the cross arm shaft has a "no bind" roller bearing and hook which ensures a smooth feed and prevents rocks from "riding up" the blade.





Weight feed action for slabbing utilizes a scale, cord, and weights fastened to vise. Deluxe power feed models with overrunning clutch and cut-off switch are available.

Unit comes with 5/8" hardened steel arbor. Piggyback motor mounts directly in back of unit making it portable and easy to store. Twin drains allow for quick and easy cleaning of Koolerant sump.

Weight feed unit includes: scale, nylon cord, and weight feed roller. All units come with a front shield and Covington Gold Blade.

Units ordered without Lam-I-Cushion base will receive rubber cushions for mounting which allow for quiet operation.

Complete unit includes Lam-I-Cushion base, power feed, and hood.

INSTALLATION

REMEMBER:** Before plugging saw unit into an electrical supply, please ensure you have completely read and understand both the ***Safety section at the beginning of these instructions as well as the general ***Covington Safety Demands*** sheet included with the unit.

Weight feed saws should be located with the roller past the rear of the table to enable the feed weight to hang freely.

Motor Replacement: Unit is equipped with a 1/3hp, 1725rpm, 115V, 60Hz or 220V, 50Hz motor on a 56 NEMA frame with the shaft rotation set counterclockwise. Change the shaft rotation by switching the black and red wires inside motor (per schematic plate). Turn the motor 180 degrees in its mount so the shaft protrudes out the short side. This enables both pulleys to align properly and ensures that the motor shaft does not interfere with the installed belt guard. Check for proper motor assembly before mounting. Mount

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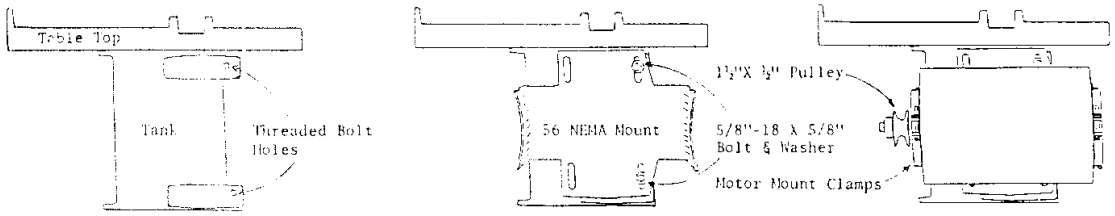
motor on the rear of the tank. Control v-belt tension by adjusting the height of the pulley/motor or adding washers.



Remember: When facing the saw, the blade must turn down and toward the operator.

Saw Table: To remove the saw table from the tank, remove two bolts from the back and one from the center front of the table and lift up.

Blade Mounting: The flange must fit snugly and evenly against the blade. Make sure there is no dirt between the flanges and the blade as this may cause misalignment and warping. *Note: New blades may need to be dressed prior to cutting.*

Table & Blade Alignment: Measure the distance between the leading edge of the blade and the edge of the saw table (at 90 degree angle). Mark the measure spot on the blade. Rotate the blade 180 degrees. Again measure the back part (measured spot) of the blade with the opposite edge of the saw table (at 90 degree angle); the distance should be the same.

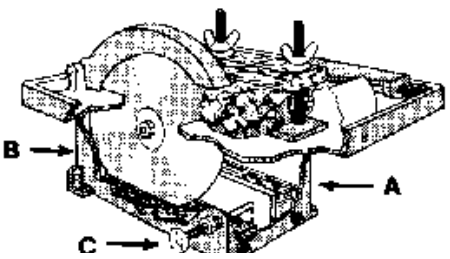
Koolerant Mixture: NEVER run diamond saw blade dry. Always use with a koolerant to prevent heat build-up, keep diamond intact, and wash out fine rock cuttings. Water alone, or with detergent, is not a good koolerant as water in any form eventually causes rust on steel parts.

This unit features the "immersion" method wherein the diamond blade runs in a reservoir of cooling fluid. Fill the reservoir until koolerant mix stands ¼" to ⅜" on the bottom of the blade when standing still. Blade guard and front shield control excess spray. An optional clear plastic hood is available to cover the entire trim saw table.

For cutting rocks with a Mohs scale hardness of 5 or less, use Covington Koolerant #1 (add 9 parts water). Mix well before pouring into the saw reservoir.

For cutting rocks with a Mohs scale hardness of 6 or more, use Rock Hound Oil.

Koolerant Kontrol: The tank is equipped with a control valve; open the valve (turn counterclockwise) and fill the reservoir by pouring Koolerant through the port in the table top while the unit is running. Fill slowly until the blade runs wet with a fine spray on the table at the cutting edge. Screw the valve in part way to get



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the proper cooling for your blade without excess spray.

Koolerant Kontrol virtually eliminates splash. Valve “C” adjusts flow from reservoir “A” into blade compartment “B” to maintain proper level. Excess koolerant from cutting area is returned to the reservoir.

MAINTENANCE

Lubrication: Parts such as threaded rod, shafts and steel guide inside the saw should be greased to prevent rust.

Do not grease the saw arbor bearings or the motor. The bearings are sealed and greased for life.

Blade: Sharpen the blade occasionally to prevent glazing over. Make several cuts into a 220g silicon carbide dressing block or a soft, porous, red brick. Reverse blade periodically. Stopping and restarting unit during a cut almost always leaves a blade mark.

PREPARATION

Load Vise: Move vise away from blade and clamp rock between vise jaws tightly. Secure the rock with wood wedges if necessary.

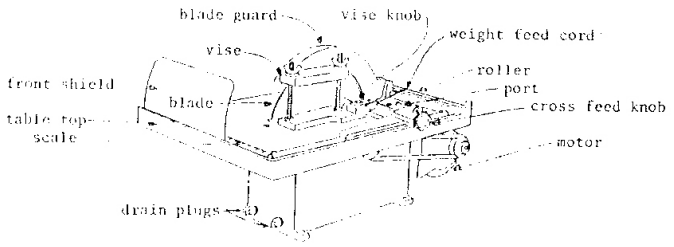
Weight Feed: Saw is designed to feed the rock to the saw blade using weight. Assemble the system by fastening nylon cord to vise arm and lay cord over weight feed roller located at rear of table. Tie the other end to a small scale. The scale should hang between the tank and motor. Suspend an empty bucket from the scale.

Weight Rule: For each inch of blade contact add approximately four pounds of weight to the bucket. Do not exceed a total of ten pounds.

Weight Feed Slab Operation: After loading vise, adjust cross feed to align cut and move vise so that the blade does not quite touch the rock. Start the motor using the switch cord.

Feed the first half-inch by hand to ensure a good groove is established. Cut the last half-inch by hand also. This may not be necessary if the gemstone material is compact and uniform in shape.

Following the weight rule, add weight to the bucket and proceed to cut. The container should seat itself



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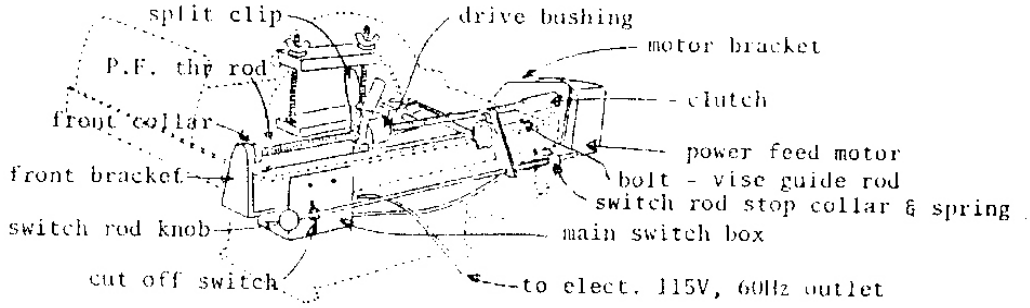
before the last part of the cut is made.

Power Feed Slab Operation: After loading vise, adjust cross feed to align the cut and move vise so that the blade does not quite touch the rock. Pull the knob on power feed switch rod to start the motor. The rock will cut automatically.

Stop cutting after a depth of ¼" to ⅜" is reached. Back the vise away and re-start the cut. This relieves the cut of misalignment caused by rough exterior surface. This may not be necessary if the material is smooth and uniform.



TRIM OPERATION

Move Vise Assembly: Loosen the vise control knob on the lower vise arm. Raise and move the vise assembly to the rear to clear the cutting area on the tabletop.

Rough Material: Trim small pieces of rough gem material by placing a reasonably flat side on the trim saw table. Grip both sides of the material firmly and gently push the material into the revolving blade. Saw only in straight lines. Avoid letting the blade strike an uneven rock or slanting surface. This can cause the blade to make a slanting cut and dish the blade. It is safer to use a sawing jig or small vise to hold the gemstone material.

Slabs: Slabs are much easier to trim than rough material. First, make the design you wish to cut on the bottom side of the gem slab. Mark straight lines around the design; cut along the lines with firm but gentle pressure. If you must make an angling cut, cut a slight notch at the edge of the slab, then turn the slab to the angle desired and continue cutting.

POWERFEED

Automatic Clutch: The clutch will slip if the power feed is too fast for a large or hard rock. This action is designed to prolong the life of the saw blade.

Clutch Check: The threaded rod should have enough torque to turn the installed split clip. If gripped tightly by hand, the rod should turn slightly or stop.

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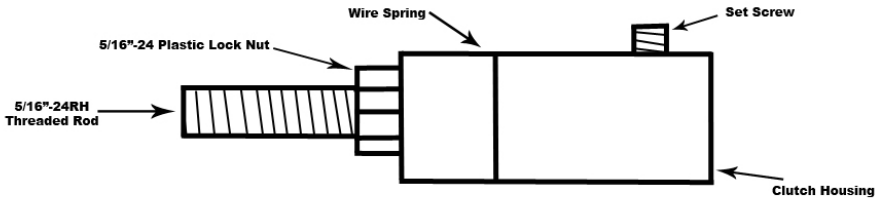
Clutch Adjustment: If the threaded rod turns in spite of a tight handgrip, back the plastic lock nut away from the clutch housing. This allows the clutch to overrun if too much forward pressure is applied on the vise while cutting.

If the threaded rod can be stopped easily, the power feed will not move the vise with stone into the blade and the cutting action will stall. To improve the torque, move the plastic lock nut forward into the clutch housing. Make a clutch check to determine that the proper nut adjustment has been made.



CAUTION: DO NOT OIL THE CLUTCH ASSEMBLY

HELPFUL HINTS AND HARMFUL ERRORS

REMEMBER: NEVER LEAVE THE UNIT UNATTENDED WHILE RUNNING.

If the vise does not remain horizontal when slabbing, tighten the vise knob mounted in the lower metal arm of the vise.

If cutting a rock in half, clamp it in the vise so the cut is close to the vise jaws. If cutting several slabs, clamp the rock in a position to get as many cuts as possible without re-clamping the rock.

REMEMBER: Not securing your piece properly can result in it slipping out which could cause the blade to jam while the motor is still running.

One of the most common mistakes is to force the blade into the material faster than the diamond rim cuts through the material. Generally, the harder or thicker the material is the slower the feed rate should be. This mistake can result in dished and bent blades.

Preventative measures can be taken but there is no substitute for judgment. Check the blade for alignment and the arbor for loose bearings. Ascertain that the koolerant solution permits the blade to "flush" itself. Dress the blade regularly. Run a fingertip around the rim of the stopped blade. You should be able to feel the exposed diamond. No amount of skill can make a blade with too little diamond cut properly.

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REMEMBER: If you do not dress your blade often or sufficiently enough, it can cause the blade to stop cutting while the motor is still running, which could possibly result premature motor failure.

Estimated Power Feed Speed Per Hour	Saw with 1725rpm Motor				
	Blade Size	Motor Pulley	Blade Pulley	Blade rpm	Blade SFPM
“15”	8”	1-1/2”	2”	1230	2575
“15”	10”	1-1/2”	2”	1230	3220