

ROTARY VALVE CLEANING

SYMPTOM - Chirping Noise or Fuse Keeps Blowing

Contaminants in the compressed air may cause residue to build up on the ROTARY VALVE and BUSHINGS. If this happens you will hear a chirping noise at first: this will later overheat the motor and blow the fuse. Instructions are provided below to assist you in cleaning the valve assembly.

Should you find an oily or watery residue when cleaning this valve, you must also address the source of the contamination. Almost all air powered engraving systems need clean, dry, oil-free air to operate correctly.

If you are using an oil-less compressor and are getting contamination, check to see the water trap on the regulator located in the rear of the GraverMax/GraverMate units is drained. Be sure to drain the air tank on your compressor periodically as well.

If you are using an oil type compressor, you MUST have a coalescing oil filter in the air supply line to remove this contamination. These are available from GRS or any paint supply house which deals in spray painting equipment. These are essential to use for long term reliability of your equipment.

Follow these steps to solve the problem:



IMPORTANT: Disconnect electrical and air supply first.

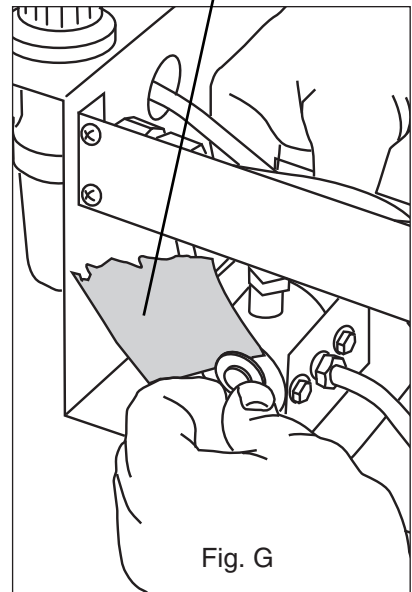
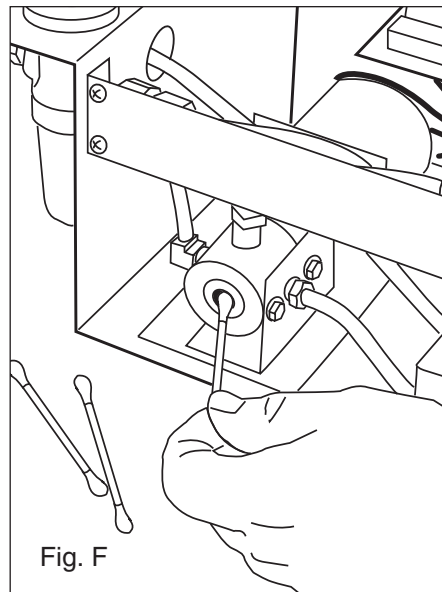
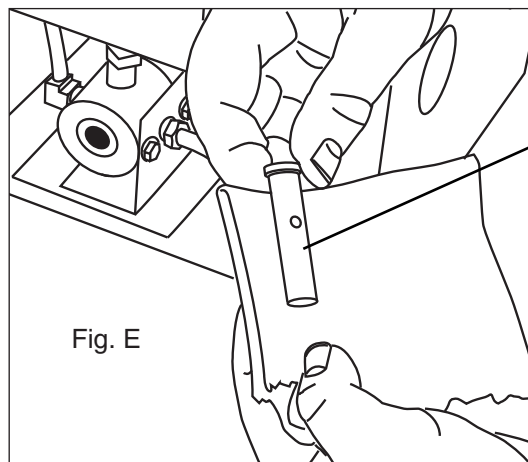
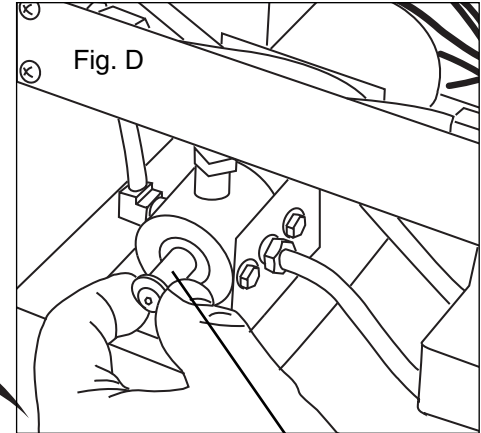
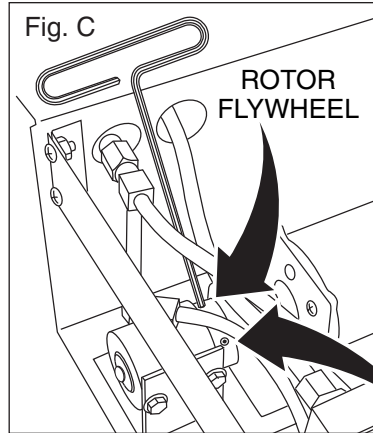
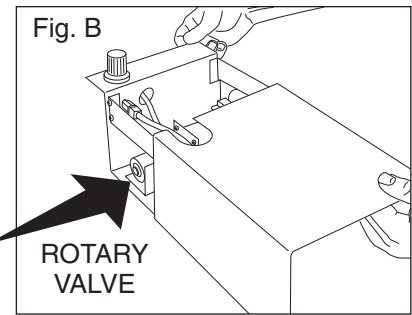
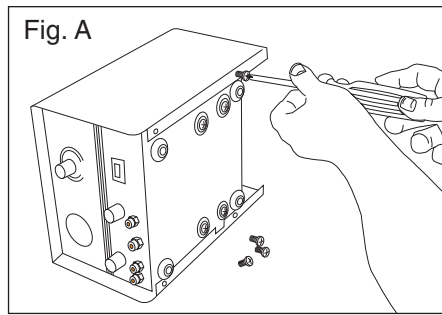
1. Remove the shell by removing the four screws located on the bottom. (See Fig. A) Slide the shell off. (See Fig. B - arrow is pointing at rotary valve for the GraverMax) **The Rotary Valve on the GraverMate is vertical and located in the top center.**

2. Loosen the two set screws located in the ROTARY FLYWHEEL at the back of the rotary valve with a hex wrench (See Fig C. - arrows are pointing at set screws).

3. After loosening the set screws, pull the ROTOR out of the valve. (See Fig. D) Clean the rotor with a NON-RESIDUE solvent (ie: acetone, denatured alcohol, etc.) Dry thoroughly - make sure NO moisture is on the rotary. (See Fig. E)

4. Clean the BUSHINGS inside of the valve with a cotton tipped swab and NON-RESIDUE solvent. (See Fig. F) MAKE SURE IT IS COMPLETELY DRY inside the valve before replacing the rotor.

5. Place the ROTOR into the VALVE. Align the ROTARY FLYWHEEL on it. **IMPORTANT:** Before tightening the set screws, the rotor must be spaced for free movement. It will need approximately .003" play. If you do not have a .003" shim, use a piece of writing or copy paper (20#). One layer of 20# paper is about .003". Inset the paper between the rotary washer and the valve. (See Fig. G) Hold the rotor and flywheel together with the paper spacing and tighten the set screws. Check to see that the flywheel turns freely by hand. Reassemble the shell and connect the air supply and electricity.



ROTARY VALVE

ROTOR FLYWHEEL

ROTOR

CLEAN ROTOR WITH NON-RESIDUE SOLVENT. MAKE SURE ROTOR IS COMPLETELY DRY BEFORE INSTALLING

NORMAL WRITING OR COPY PAPER FOR .003" SPACER