



⚠ SAFETY PRECAUTIONS BEFORE STARTING PUMP

1. Read operating instructions and instructions supplied with chemicals to be used.
2. Refer to a chemical resistance data chart for compatibility of materials in pump with solution to be used.
3. Note temperature and pressure limitations of all system components.
4. Personnel operating system should always wear suitable protective clothing: face mask or goggles, apron and gloves.
5. All piping must be supported and aligned independently of the system.
6. Always close valves slowly to avoid hydraulic shock.
7. Ensure that all fittings and connections are properly tightened.
8. Flush pump thoroughly with a neutralizing solution to prevent possible harm to personnel from previous use.
9. ⚡ To avoid electrical shock, never handle this equipment when wet or standing in water. When handling equipment for any reason, make sure power supply is disconnected. Refer to motor manufacturer operating instructions for proper wiring.
10. Do not grab unit by motor. During normal operation, motor becomes "hot to the touch".
11. Keep power supply cord out of contact with hot, sharp, highly corrosive and other potentially damaging objects and solutions.

BEFORE CHANGING APPLICATION OR PERFORMING MAINTENANCE

1. Wear protective clothing as described in item 4 above.
2. Flush system thoroughly with a neutralizing solution to prevent possible harm to personnel or equipment.
3. Verify compatibility of materials as stated in item 2 of Safety Precautions.

PRE-START-UP

1. Review accompanying pump motor operating instructions to assure proper start-up. Connect motor and/or motor starter to power source and check motor rotation as described in pump operating instruction
2. Never energize motor without flooding pump suction case with liquid.
3. Re-secure all hardware holding filter assembly and base together. These fasteners may have loosened during shipment.

4. All piping must be aligned and supported independently of the system. Use siphon breakers in the suction line to the pump and in the filter discharge to the tank. This is a necessary precaution limiting the amount of liquid which may be lost by siphoning. An effective siphon breaker is a small hole drilled in the suction and discharge lines inside of the tank approximately 2-4" below normal solution level.

FILTER CARTRIDGE INSTALLATION/CHANGING

1. Make certain pump motor is de-energized and power is locked out.
2. Close suction and discharge piping valves.
3. Open chamber vent valve to release pressure from chamber.
4. Loosen T-handles on chamber cover.
5. Remove cover assembly.
6. Turning counterclockwise, remove the filter cartridge hold down caps.
7. The cross posts are threaded into the chamber base. Removal is not necessary when changing the cartridges. Grasp the end of the filter cartridge, and lift straight up to remove the chamber. Set aside for cleaning or disposal.
8. Insert new filter cartridges and replace the filter. Hold down caps making sure that the caps are firmly seated into the cartridges.
9. Replace cover assembly.
10. Tighten swing bolts in a diametrically opposed fashion till snug.
11. Open valves.
12. Make certain pump is primed.
13. Check all piping and fasteners. See "START-UP".

START-UP

1. Check power source for correct voltage and phase.
2. Verify correct pump rotation.
3. Make certain that all piping is properly supported and connected to the tank.
4. Prime pump according to pump operating instructions and energize motor.
5. Open air vent valve in cover to release air from filter chamber. Close vent valve when solution level rises to the top of chamber.
6. Check for leaks at pump, chamber and fittings.

⚠ CAUTION: Liquid may squirt from vent valve. Vinyl hose is supplied to direct flow or mist from vent valve to bucket or tank.

Mega-Flo Carbon Chamber

A carbon purification chamber offers a simple, low cost, effective method of removing organic impurities from plating baths and other chemical solutions. The carbon chamber is in series with the filter chamber which traps particulate matter. The granular activated carbon in the carbon chamber removes the organic impurities. Partial flow of the filtered solution is diverted to the carbon chamber by use of discharge valve on the filter chamber and controlled by the carbon inlet valve. System performance should be established to determine optimum adsorbency vs. flow rate relationship.

TO REPLACE CARBON IN CARBON CANISTER

NOTE: Be sure that all of the solution has been completely drained out of the chamber and canister before trying to remove the canisters. Failure to drain both the canisters and chamber will result in a loss of solution.

1. Make certain pump motor is de-energized and power is locked out.
2. Close off inlet and outlet valve to the carbon chamber. Open drain valve and allow the canister to drain so that all of the solution is removed.
3. Loosen T-handles on carbon chamber cover.
4. Remove cover assembly.
5. Remove the canister by grasping the tee handle inside the canister and pulling straight up.
6. Place the canister on a table or suitable support where the carbon can be conveniently discarded.
7. To replace the cartridge filter in the carbon canister, unscrew the standpipe assembly at the top end of the cartridge which can then be removed and replaced.
8. After replacing the cartridge filter, place the canister in a vertical position with the top up. Refill each canister with activated granular carbon. 7lbs for Model (528), 12lbs for Model (548). Tap the sides of the shell gently to settle the carbon.
9. Lower the canister into the shell and insert the hole in the center pipe over the pipe adapter in the base. There is an "O"-ring seal that will prevent by-passing of solution.
10. Replace the canister cover and spring. Place the cover on the shell and tighten the tee handles.

START-UP

1. Flush the carbon with a volume of water or process solution until the discharge runs clear. Take sample from the outlet to verify the quality of the discharge.
2. Open valve between the carbon chamber and filtration system. Bleed air from chamber by loosening the vent screw on the cover. Adjust outlet valve on the filtration system until the desired flow is obtained from the carbon chamber. Flow through carbon is adjusted to approximately 1 to 5 GPM per canister. Continuous recirculation by this method should eliminate or significantly postpone batch treatment with powdered carbon.
3. A regular analysis of the carbon chamber discharge will establish the ideal flow rate and indicate when carbon replacement is necessary. Carbon requires replacement when it no longer has its adsorbency property.
4. A pressure gauge on the carbon chamber inlet will permit valve adjustment for repeatedly obtaining identical flow rate.