OPERATION AND
SERVICE GUIDE
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RESIN PURIFICATION CHAMBER

MODELS: R5(528P)RC 1-1/4F-G5
R10(528P)RC 1-1/4F-G5

SAFETY PRECAUTIONS

1. Read operating instructions and instructions supplied with chemicals to be used.
2. Refer to Chemical Resistance Data Chart for compatibility of materials with solution to be used.
3. Note temperature and pressure limitations.
4. Personnel should always wear suitable protective clothing; mask or goggles, apron and gloves.
5. All piping must be supported and aligned independently of the chamber.
6. Always close valves slowly to avoid hydraulic shock.
7. Ensure that all fittings and connections are properly tightened.

BEFORE CHANGING APPLICATION OR PERFORMING MAINTENANCE

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

INSTALLATION

These resin chambers are constructed of rubber lined steel. They contain either 5 or 10 PVC refillable cannisters for ion exchange resin with a 3 micron polypropylene fiber trap filter to prevent migration of resin into the system. The flanged inlet is at the side of the vessel and the flanged outlet is at the bottom.

The quality of solution purification is dependent upon several factors. Such as: type of solution, temperature and degree of impurities in solution, type of resin and solution contact time (flow rate). Controllable factors are flow rate and type of resin. A longer contact time between solution and resin requires a lower flow rate. System performance should be established to determine optimum purification vs flow rate relationships.

1. Install with proper size pipe of compatible material. It is recommended that flow control valves be installed on chamber inlet and outlet with a drain at the low point of either.

2. Check tightness of nuts on swing bolts holding down the cover. They should be down tight to seal the cover to the vessel. Lined vessels have a hard lining which requires high bolt pressures for proper sealing. Be sure to back off davit handwheel before tightening swing bolts.

START-UP

1. Fill canister with initial charge of resin. Refer to SERVICE instruction.
2. Adjust inlet flow control valve. The lower flow rates provide greater purification per gallon output.
3. Prior to exiting each canister the solution passes through a replaceable trap filter cartridge. Unless specified otherwise, these cartridges are 3 micron, polypropylene.
4. The resin requires replacement when it no longer has its purification capability. Trap filters require replacement when required minimum flow rate can not be maintained.

SERVICE (TO REPLACE RESIN)

1. Shut-off supply and discharge and drain vessel of all solution.
2. Remove vessel cover by loosening hex nuts on swing bolt and lifting cover off vessel exposing the re-usable canisters.
3. To remove canister from the chamber, remove top springs and cover of canisters, lift by "T" handle near top.
4. Place canister on a table or suitable support where resin can be conveniently dumped.
5. To replace the trap filter unscrew the "T" handle at the top end of the cartridge which then can be removed and replaced.
6. After replacing the trap cartridge, the canister can now be refilled with new resin and replaced into the chamber by positioning chamber over guide nipple in chamber. Then replace canister cover and top spring.

PURIFICATION TIPS

1. By-pass Purification: Chamber is installed on filter discharge with control valve on chamber inlet. Flow is adjusted to approximately 1 to 3 GPM per each 10 lb. canister.
2. Full Flow Purification: Valve "A" is closed, and valve "B" is opened to provide suitable flow. A low flow rate will provide optimum performance during transfer.
3. A regular analysis of chamber discharge will establish ideal flow rate and disclose when resin replacement is necessary.
4. Pressure gauge on chamber inlet permits valve adjustment for repeatedly obtaining indentical flow rates.
5. Replacement resin and trap filters should be ordered and placed in stock for immediate availability. Replacement 3 micron trap filter is SF-3U10U