OPERATION AND
SERVICE GUIDE
O-930C
JULY 1998

SERIES 'S'
BULK RESIN CHAMBER

MODELS	PRICE CODE NOS.
CL630RS-1	78-1637 2
CL640RS-1	78-1638 2
CL660RS-1	78-1639 2

MODELS	PRICE CODE NOS.
PL630RS-1	78-1637
PL640RS-1	78-1638
PL660RS-1	78-1639

Refer to Bulletins R-201, R-208, TF-133 and Parts List P-4800.

CAUTION: Do not mix ion exchange resins with strong oxidizing agents. Nitric acid and other strong oxidizing agents can cause explosive reactions when mixed with organic materials such as ion exchange resins.

Also, regeneration of resins used on cyanide solution is not recommended since acid and cyanides produce poisonous gas.

SAFETY PRECAUTIONS

1. Read operating instructions and instructions supplied with chemicals to be used.
2. Refer to a 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: face 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 of Safety Precautions above.
2. Flush chamber thoroughly with a neutralizing solution to prevent possible harm to personnel.
3. Verify compatibility of materials as stated in Item 2 of Safety Precautions above.

DESCRIPTION

Chamber has non-metallic solution contact and is constructed of the following materials:

MODELS

CL - CPVC with EPDM "O"-rings
CUL - CPVC base and cover, acrylic shell with EPDM "O"-rings.
PL - PVC with EPDM "O"-rings.

GOLD RECOVERY

These resin units can recover gold from plating operations easily and economically. Select the proper resin for gold recovery from acid or cyanide rinse water. Depth of resin column assures good solution contact for maximum gold recovery. Gold is recovered by incinerating the resin.

PRECIOUS METAL RECOVERY

Resin units can be used for recovery of other precious metals such as rhodium, silver, iridium, platinum and palladium from either acid or alkaline solutions.

D.I. WATER

Resin units provide high quality deionized water when filled with a strong base mixed-bed resin. Product water is low in dissolved solids, CO_2 and silica, with a resistivity of 10 megohms or higher. Note the resin is not included with the chamber and must be ordered separately.

HEAVY METAL REMOVAL

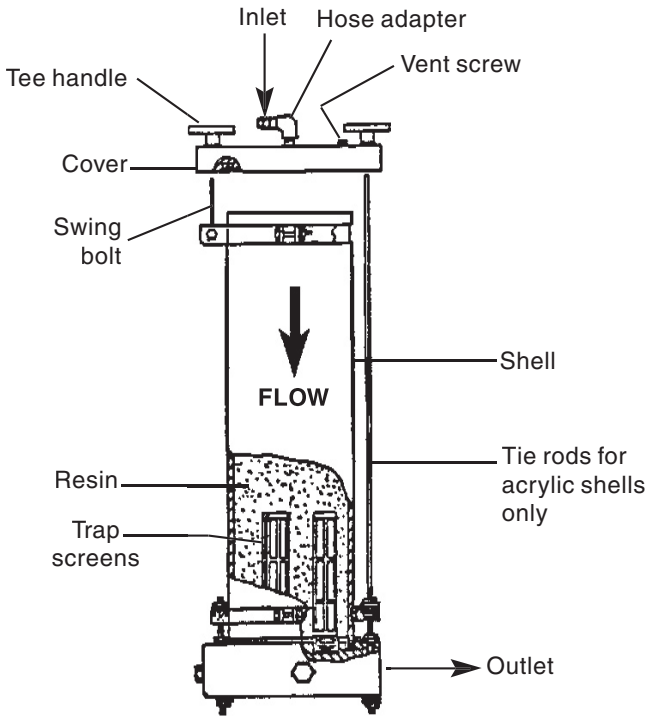
Resin units can remove copper, nickel, chrome, zinc, lead and mercury from waste streams.

EDM

Resin units can remove metallic ions from EDM fluids.

PRE-START-UP

1. Note trap screens in bottom of chamber which are removable for cleaning when necessary.
2. Remove cover and pour in resin to within 3 inches of top of chamber. This level will allow for resin expan-



sion and space for solution dispersion under the cover.

3. Replace cover, tighten tee handles. Complete all inlet and outlet connections.
4. Securely seal excess resin in plastic bag to prevent its drying out and becoming ineffective. Properly identify and store resin.
5. PVC and CPVC chambers have hold-down & swing bolt brackets, with shells cemented to base. Acrylic chambers, CUL, use stainless steel tie rods for leak-tight assembly.
6. It is recommended that a pre-filter be installed ahead of the resin chamber to remove suspended solids that could decrease resin performance.
7. Install all hoses (disconnected for shipping) and tighten hose clamps. Siphon breakers in the suction line to the pump and filter discharge to the tank should be installed as a further precautionary measure to limit and minimize the amount of liquid lost by back siphoning. An effective siphon breaker is a small hole drilled in suction & discharge lines approximately 2" to 4" below normal solution level.

OPERATION

1. Prime pump system. Refer to Operating Instructions furnished with pump, or use priming bulb.
2. Solution enters resin chamber at inlet connection in cover and flows down through resin to exit at base.

RESIN

Refer to Bulletins R-201, R-208 and TF-133 for the various resins available and their specific applications.

RESIN REPLACEMENT

1. Remove hoses from process tank. Drain resin chamber and hoses.
2. Remove cover.
3. Tip chamber or assembly on side and dump resin into a vinyl or plastic bag. Seal and return to refinery with pre-filters if for precious metal recovery. If for heavy metal removal, the resin is a hazardous waste; it must be properly manifested and shipped to a licensed waste treat processor.
4. Unscrew, remove trap screen, clean and replace.
5. Clean "O"-ring and edge of chamber shelf.
6. Fill chamber with new resin per START-UP instructions.
7. Replace & tighten cover.

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