

GOLD RINSE PLATER

MODELS:	PRICE CODE NOS.
GRP-A	2752
GRP-A-PRV	2753

SAFETY PRECAUTIONS

1. Read operating instructions and instructions supplied with chemical to be used.
2. Refer to Chemical Resistance Data Chart in Serfilco Product Catalog 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 pump.
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 pump thoroughly with a neutralizing solution to prevent possible harm to personnel.
3. Verify compatibility of materials as stated in item 2 above.

DESCRIPTION

The Serfilco "Gold Rinse Plater" is a self-contained piece of equipment which electrolytically reclaims precious metals from dragout water rinse tanks, following the electroplating process. Incorporated in the system is an electrolytic chamber complete with 2 anodes and 1 cathode, variable D.C. power supply, pump and motor and all the necessary hardware along with a hooded vinyl coated steel base. The following instructions should be read carefully prior to start-up.

PRE-START-UP

The Gold Rinse Plater incorporates an APS3000A pump and motor which requires the same basic start-up procedure regarding priming and operation as a Labmaster Filter System. Refer to the following literature for this basic information: O-390, O-10 and P-2700. In addition to the procedure mentioned in the referenced literature, the following steps are to be followed which are applicable only to the Gold Rinse System.

1. In order to more easily remove the accumulated metallic gold from the cathode, it can be gold plated and passivated with a 1:1 mixture of nitric acid and water at room temperature by simply submersing the cathode for 1-1/2 to 2 hours prior to start-up. (Additional 316SS cathode can be purchased to keep on hand if you wish to send the cathode to the refiner along with the gold instead of stripping).

2. Weigh the cathode on a gram scale before operating system in order to assure proper determination of the amount of precious metals being reclaimed.
3. Prior to start-up, check all terminal connections to be sure proper electrical contact is being made. Red anode lead is (+) and black cathode is (-).
4. 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 line approximately 2" to 4" below normal solution level. Refer to Bulletin A-202, pg. 2.

START-UP

1. Prime the pump per instructions and allow the system to begin recirculation on the rinse tank before energizing the D.C. power supply.
2. After the system is primed and recirculating, plug in the D.C. power supply and turn the rheostat to zero. Turn the switch of the power supply to the "ON" position and slowly adjust the rheostat until the ampere meter registers 3/4 of an amp.
3. Once the system is totally operational, it should be allowed to run as long as the plating line is being used and/or overnight to assure total removal of any gold present.
4. The rate of gold deposited will vary with the metallic concentration of the rinse tank. The amount of gold which can be deposited on the cathode would depend on how even a build-up is distributed over the cathode surface. Care should be taken to eliminate the chance of the gold build-up from bridging the anode and cathode spacing causing a direct short. A new cathode should be installed when the spacing is questionable.
5. Systems incorporating the optional pre-filter and resin chamber can be used in applications where the water rinse is flowing, rather than a still rinse, or if occasionally tank clean-out is desired and the water is to be disposed of by flowing through the system and down the drain. Consult factory for specific recommendations.