

Specifications for the Hallmark Mark 3000 Silver Recovery Unit

Capacity	De-silvers up to 45 gallons of effluent in a 24-hour period. (The practical capacity is 30 - 45 gallons per day as limited by the size of the reagent tanks and the filter module capacity.)
Dimensions	Height - 38 inches Width - 32 inches Depth - 22 inches
Weight	Empty - 86 pounds Full - 310 pounds
Connections	Feed - ½" NPT to accept a variety of fittings (or solution is manually added to the collection tank) Discharge - 3/8" inch ID flexible tubing routed to the drain Overflow - ½" NPT to accept a variety of fittings Power - 3 prong grounded 110 V AC outlet
Volumes	Feed Tank - 9.8 gallons above the control level switch Reagent Tanks - SRS Part A and SRS Part B: 3.9 gallons above the low-level switches Stabilizer Tank 5.7 gallons
Access	Hinged tank hatches, removable top cover. Unit may be positioned along walls in the back and on the left or right side. Portability - Mounted on swivel casters
Site Specifications	Floor Space - Approximately 10 ft ² (4-5 ft ² footprint plus 5 - 6 ft ² to allow access to the front) Power - 110 VAC, 60 Hertz, 15 amp service Effluent Feed - Flexible tubing from the process overflow, or silver-bearing solutions are manually added from top Unit Discharge - To drain where permitted Emergency Overflow - To an overflow collection vessel

Performance Specifications

Recommended starting point flow rates in mL/min (pump calibration) for feed silver concentrations of approximately 2.1 g/L:

- Effluent Feed -** 174 mL/min (adjustable)
- SRS Part A -** 3.0 mL/min (fixed)
- SRS Part B -** 4 mL/min (fixed)

Note: When the silver concentration varies from 2.1 g/L, the flow rate of the effluent feed may be adjusted for more economical operation. See Illustration 3 on page 21 for more details.

Supplies

Silver Recovery Solutions

Part Number

Silver Recovery Solution Part A

2 ½ gallons ready to use

SRSPARTA

Silver Recovery Solution Part B

Ten 10 mL concentrated packets
(Each packet is enough to make 2 ½ gallons of working strength solution – approximately two packets of SRS Part B should be used for each 2 ½ gallon container of SRS Part A)

SRSPARTB

Silver Recovery Filter Cartridge

Each filter may treat up to 180 gallons of effluent

MK3000FILT

Mark 3000 Accessory Kit

The kit includes equipment to start and maintain the Mark 3000:

A mixer, a 3 Liter pitcher, a 2.5 gallon container for mixing Part B, 2 quick-serve cubitainer taps, a graduated cylinder, a beaker, two sets of poppet valves, instructions for mixing Part B and tubing for peristaltic pump maintenance.

TMTACC3000