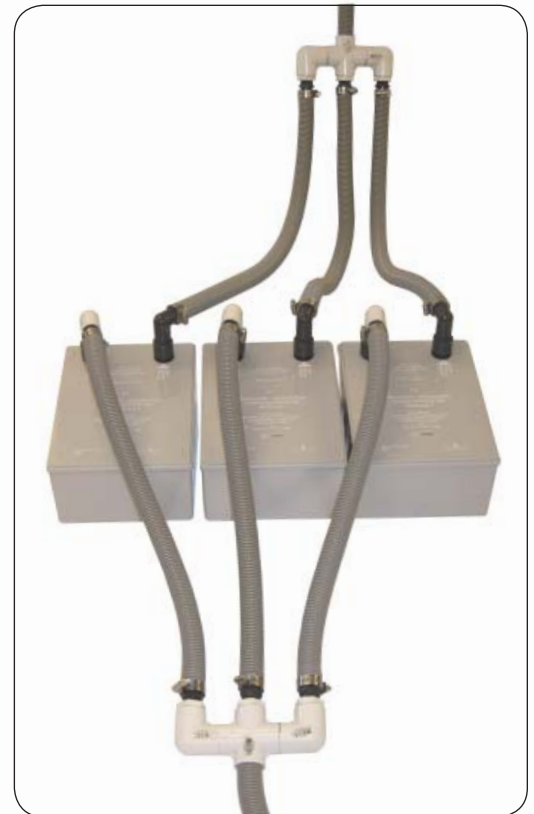


**INSTALLATION AND OPERATIONS
INSTITUTIONAL MANUAL
for MODEL 890-6000**



**THIS UNIT FOR
DRY PUMP INSTALLATIONS ONLY**

211 Grover Street, Lynden, WA 98264 Tel 800-817-6704
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LEAVE THIS MANUAL ON-SITE FOR FUTURE REFERENCE

MASTER ASSEMBLY NOTES

SPECIFICATIONS

Height (with fittings) 9.0"

Depth 9.0"

Width 12.25"

Weight 5.25 Lbs (empty)

Main canister
(always positioned ports up)



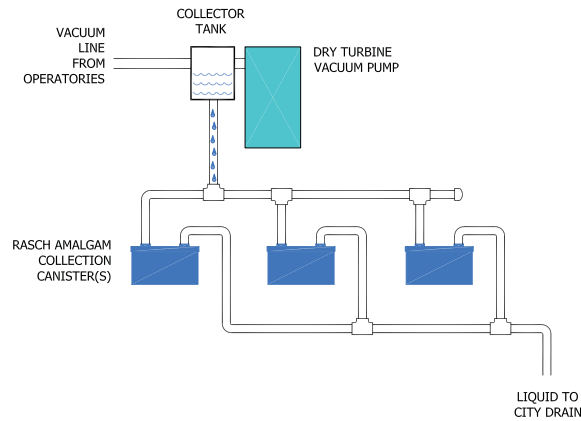
Model 890-6000

Amalgam Separator for Dry Systems Only

The 890-6000 is specifically designed for the demands of an institutional setting. Its flexible modular design adapts quickly and inexpensively to any size installation. World class facilities have chosen Rasch since 1987 as this unit is so versatile. It can be adapted to any gravity flow drainage system with no negative impact on suction and may be used in conjunction with wash stations, water venturis and single Op pumps with no degradation in performance.



Large facilities may use multiple 890-6000 separators linked in parallel using an intake and outlet manifold connected with flex tubing. Manifolds may be easily made on-site using off-the-shelf PVC fittings, or custom built in advance by AB Dental Trends. As each separator has a 4 liter/min (1 gal/min) flow capacity, multiple separators will increase flow rates from the pumps collection tank and help avoid debris collection while extending time between canister changes. One canister will last one full time doctor 18 months, two full time doctors 9 months, 3 full time doctors 6 months etc. (A full-time doctor is defined as one who generates on average 25 amalgam removals per week.) Both space availability and the number of doctors should be considered when calculating how many separators would be required. Red decals are provided as a reminder for when canisters should be replaced.



CUSTOM MANIFOLD INSTALLATION WITH DRY TURBINE PUMP

- In facilities where amalgam removal rates are difficult to establish, an 890-8000 electronic scale with warning system may be installed to advise when each bank of canisters is approaching capacity and needs to be exchanged.
- If cuspidors are continuous rinse and/or gravity drain, consideration should be given to conversion to Timed Rinse using available kit # C-2700 and Vacuum Drain with kit # S-1392 as this may be required by local regulations.
- An optional 890-6100 "Bypass with Alarm" may be installed to warn that the pump collector tank is filled above the anticipated maximum level.

INCLUDED ITEMS



A fitting kit which includes both inlet and outlet fittings, clamps, and additional drain line.

The Amalgam Collection Canister which separates amalgam through the combined processes of sedimentation, filtration, and ion-exchange. An inlet port receives untreated fluids from the dry-suction systems collection tank, and treated fluid drains into any existing drain line.



A "Dry" system is defined as one in which dental operator fluids are separated from suction lines prior to reaching the suction pump. Dry systems include a suction pump (called a "turbine" or "windmill") that creates vacuum. Typically, fluids are collected in an in-line collection tank prior to reaching the turbine. The turbine expels only exhaust air and the collection tank drains when the system is shut down. If your suction system does not meet this criteria, please use the Rasch Model 890-1500 dual-use system.

INSTALLATION STEPS

Select an installation site directly on the floor or other flat stable surface next to the dry-system collection tank. Refer to the information provided in PRE-INSTALLATION NOTES and CAUTIONS. Try to encourage a natural gravity assisted fluid flow from the suction systems collection tank, through the amalgam collector, and into the sewer.

If manifolding is required, careful attention must be made to plan the final layout to design the inlet and outlet manifolds appropriately. A manual shut-off valve prior to the inlet manifold will facilitate exchange of canisters when needed by allowing for the complete shut down and drainage of the entire manifold and attached tubings.

Apply silicone o-ring lube (Parker O-Lube or equivalent) to the inlet and outlet o-rings. Test fit the adaptors onto the canister by pushing down with a twisting motion. Caution : Ensure the lock screws on the side of the adaptors are either removed, or backed out so as not to tear the o-rings during insertion. If fit is satisfactory, twist and push them down to their detent, and insert lock-screws into place carefully. Screws need only to engage with recessed groove to prevent fitting from sliding up.

Turn power off to the Clinic Suction System. Ensure that drain lines and waste collection tank are empty. Use new or existing line to connect the drain port of the pump waste collection tank to the inlet of the Amalgam Separator using an appropriate fitting from the installation kit provided. The outlet adaptor is PVC and must be solvent welded to a fitting of your choice.

Use an appropriate length of flexible drain line to route expelled fluids from the Amalgam Separators outlet fitting into the buildings sewer system. Always use silicone sealant when connecting spirallock hose to barbed fittings and firmly hose-clamp in place.

RED Decals in the bagged parts kit are provided as reminders for canister exchange. Determine when each canister should be exchanged and peel the appropriate month and year from the decal and stick on the canister. Place another decal on the doctor's appointment calendar and make a note for the salesman to call back at that time as a courtesy.

Remove inlet/outlet hoses and slowly fill the canister with tap-water to the following procedure;

- a) Fill canister with cool tapwater. A funnel is provided for your convenience
- b) Stand canister on end with inlet/outlet on top and vibrate to release air bubbles.
- c) Top-up with water and replace canister inlet/outlet hoses.
- d) Canister must sit and soak 24 hours to obtain maximum flow.

CAUTIONS

The Rasch System 890-6000 is designed to be placed directly on the floor or other strong flat surface. Prior to installation, review the condition of the existing hoses and tubing. Replace any which are cracked or show signs of leakage or deterioration. Use silicone sealant when connecting spirallock hose to barbed fittings. Use teflon tape on all threaded fittings.

Air abrasion will add unavoidable mass to all Amalgam Separator collection canisters.

Give consideration to changing continuous drain cuspidors to timed rinse, and gravity drain to vacuum drain.

Do not attempt to open amalgam canisters. Used canisters may contain silver, mercury, metal amalgams and bio-toxins that may be hazardous to your health. Spills of contents should be handled in accordance with HAZMAT procedures.

Dispose of used canisters only by following shipping instructions provided with replacement canisters.

WARRANTY

This unit is Warranted against defects in material and workmanship for a period of five years. Warranty claims must be made directly to AB DENTAL TRENDS INC. 211 Grover St, Lynden, WA 98264 Tel: 360-354-4722 Fax: 360-354-7460

TECHNICAL SERVICE

Installation Assistance is available at no charge by calling
1-800-817-6704 or 360-354-4722 and asking for
Amalgam Separation Technical Assistance.

Hours are 8 am to 5 p.m. Pacific Time. Fax is 1-800-817-6705 or 360-354-7460. E-mail info@amalgamseparation.com

AMALGAM SEPARATOR OPERATION GUIDELINES

REGULATORY

AB Dental Trends Inc. strongly suggests contacting the ADA and obtaining and incorporating into the practice their Best Management Practices (BMP's).

Ensure all state and local regulations and codes are adhered to.

MAINTENANCE

Flush suction lines daily with an appropriate (see notes below) cleanser. Proper suction-line cleaning protocol is imperative when amalgam separators are installed as a separator provides an environment conducive to algae and bacteria growth when idle. Excessive colonies of micro-organisms may restrict flow.

Step 1 - Aspirate a maximum of one quart/liter warm water through each vacuum valve.

Step 2 - Following the cleanser directions, aspirate the recommended mixture through each of the vacuum valves. Ensure that each valve draws air before closing and replacing into the hanger.

FOLLOW A DAILY PROTOCOL FOR CLEANING SUCTION LINES

Desirable characteristics of evacuation line cleaners:

1. Detergent action to break up and move solid materials.
2. Neutral pH. Acids and bleach may liberate mercury from amalgam.
3. Non-foaming or low-foaming. Foam may reduce efficiency of pumps and amalgam separators.

Instrument soaking cleaners and are not effective for line cleaning.

Ensure that Amalgam Separator canisters are replaced in accordance with the dated red decal applied to the outside.

If an alarm is installed, ensure that the battery is replaced and the alarm function is tested annually.