

**INSTALLATION AND OPERATIONS
MANUAL
MODEL 890-1000 for WETPUMP OUTLET
INSTALLATION**



Will never reduce suction, even if filled to over-capacity!

211 Grover Street, Lynden, WA 98264 Tel 800-817-6704
www.amalgamseparation.com
info@amalgamseparation.com

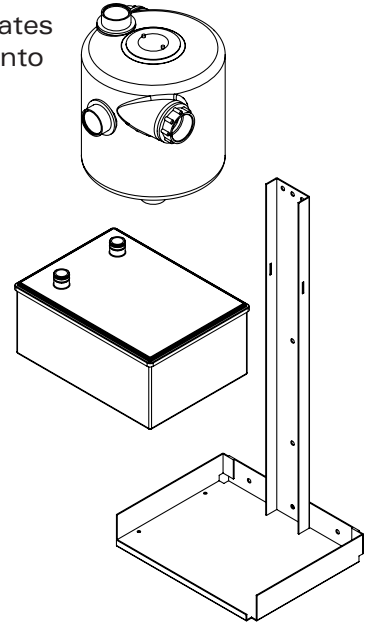
LEAVE THIS MANUAL ON-SITE FOR FUTURE REFERENCE

MASTER ASSEMBLY NOTES

Model 890-1000 Amalgam Separator

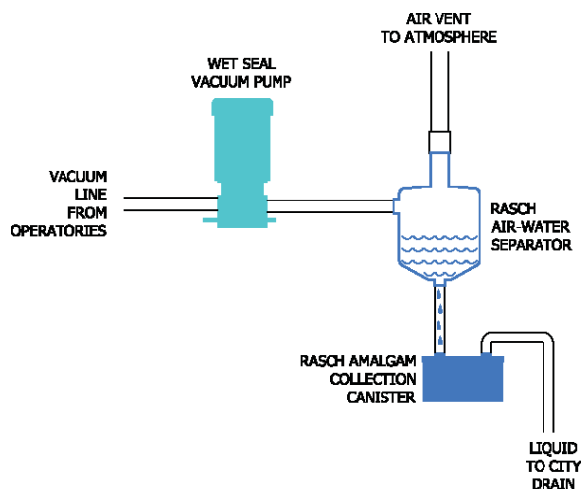
The separator consists of three primary components:

- 1) A Blue Buffer Tank which vents air to atmosphere, and separates fluids and solids from the wet-pump outlet and routes them into the Amalgam Collection Canister.
- 2) The Amalgam Collection Canister which separates amalgam through the combined processes of sedimentation, filtration, and ion-exchange. An inlet port receives untreated fluid from the Blue Buffer Tank, and treated fluid is routed into the sanitary sewer system.
- 3) The racking system, designed to wall or floor mount, provides support to both the Blue Buffer Tank and the Amalgam Collection Canister.



PRE-INSTALLATION NOTES

- √ THIS UNIT IS DESIGNED TO INSTALL ON THE OUTLET OF A WET PUMP. WHERE IT IS NOT POSSIBLE TO MAKE AN INSTALLATION PRIOR TO THE PUMP. Use the 890-1500 for all other installations.
- √ Consideration should be given to converting continuous rinse cuspidors to timed rinse, and gravity drain to vacuum drain.
- √ Air abrasion will reduce canister life of all amalgam separators. Please take this into consideration when determining replacement schedule of the canister.



SPECIFICATIONS

Height 28"
Depth 10.25"
Width 12.75"
Weight 19 Lbs (empty)

CAUTIONS

The Rasch System 890 is designed to be placed directly on the floor. Where floor space is at a premium, it may be mounted on a sturdy wall capable of supporting 100 lbs. Use all provided holes when fastening the bracket to the wall.

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.

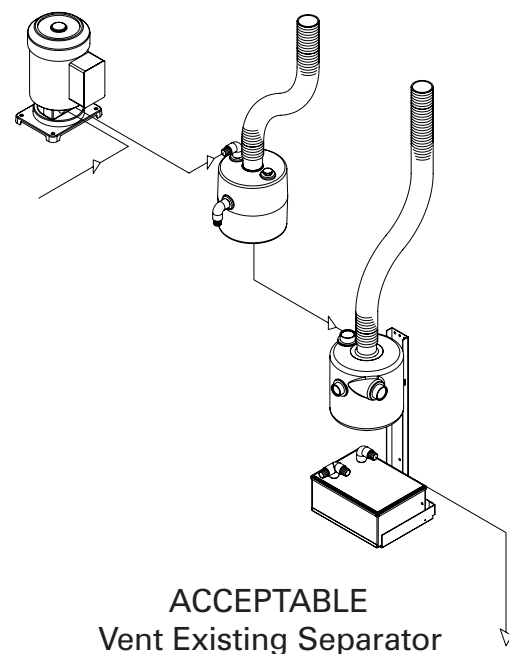
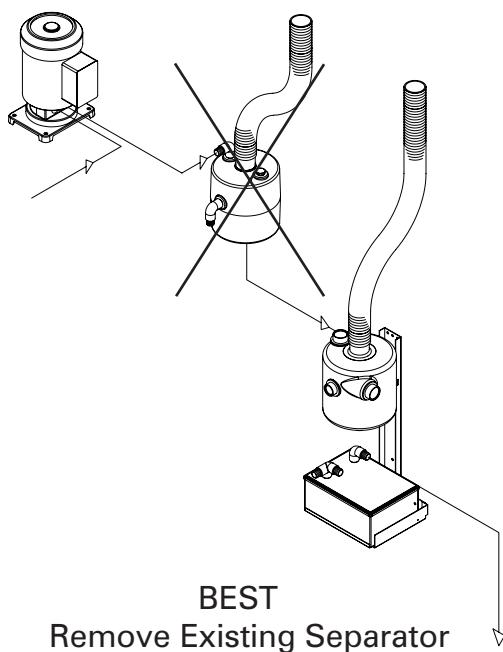
Do not attempt to open amalgam canisters. Used canisters may contain silver, mercury, metal amalgams and bio-toxins that may be hazardous to your health. Spills of contents should be handled in accordance with HAZMAT procedures.

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

PRIOR TO INSTALLATION, IT IS RECOMMENDED THAT YOU COPY THE BACK PAGE OF THIS MANUAL AND USE THE ILLUSTRATIONS AS A HANDY REFERENCE.

Select an installation site directly on the floor or on a wall that will support 100 pounds. Refer to the information provided in Pre-Installation Notes and Cautions. Ensure that the Amalgam Separator may be positioned to provide a gravity flow from its outlet to the sewer connection.

It is recommended that any pre-existing air-water separator be completely removed and that the wet-pump outlet be connected directly to the Buffer Tank inlet. If a pre-existing air-water separator is to be retained, ensure that fluids will gravity drain from it into the Buffer Tank inlet. If retained, always ensure that both the active air-water separator or the amalgam separators blue buffer tank are vented outside. Use teflon tape on all threaded fittings.



INSTALLATION STEPS

Locate the Amalgam Separator white steel frame in the shipping carton. If wall mounting, secure the frame in place with appropriate fasteners using at least 6 of the existing mounting holes to provide adequate support. Otherwise, set it in a location (on a table or open floor space) that provides room for assembly.



Transfer Tube



Transfer Tube Installed



Expansion Tee



Expansion Tee Installed

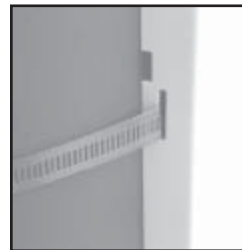
Locate the "overflow" tube and thread its elbow into the over-flow port of the buffer tank. (see images below)



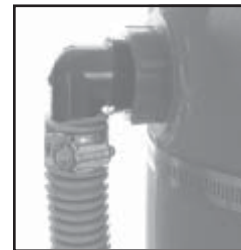
Overflow Tube



Overflow Tube Installed



Hose Slots



Hoseclamp Height

Thread the hose clamp through the two slots in the upright of the metal frame and clamp the Blue buffer tank into position, oriented as illustrated in the diagrams on the last page. The overflow port should rest just above the clamp and be facing the front.

If the 890-3000 expansion kit is being installed, you may bolt its bracket in place now beneath the Amalgam Separator's white steel frame. Ensure it is also bolted to the wall if wall mounting.

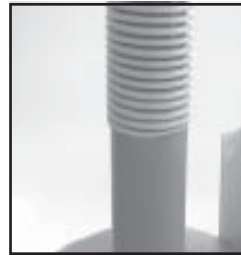
Turn off the electrical power supply to the clinic suction system and ensure that the drain lines are empty. Connect the out-flow from the wet seal vacuum pump to one of the two inlet ports near the top on the side of the buffer tank using the appropriate fittings from the bagged parts kit. If the second inlet is not used for a second pump then thread the plug provided into that inlet.

If the optional Alarm # 890-5000 is not to be installed, thread a plug provided into the alarm port.

Connect a vent line to the vent riser on top of the blue buffer tank. Use the included rubber connector and clamps for 2" PVC pipe, or clamp 2-3/8" ID flex tube directly over the vent riser. Venting must be routed to code, with outside venting preferable. If external venting is not possible, please refer to "Alternative Venting" following these directions.



Rigid Vent



Flex Vent

Place the gray amalgam canister onto the frame. 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.



Inlet Adaptor



Outlet Adaptor



Lube Adaptor



Lube O-rings

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.

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.

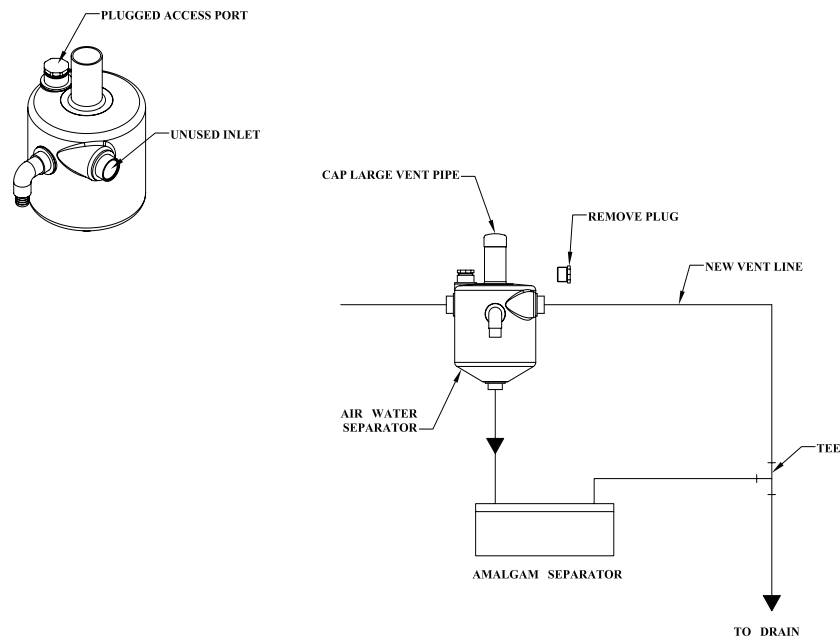
RED Decals in the bagged parts kit are provided as reminders for canister exchange. Determine when each canister should be exchanged (see below), peel the appropriate month and year from the decal and stick on the canister. Place another decal on the doctor's appointment calendar and make a note for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

The Rasch 890-1000 system has one canister and will last one full time doctor 18 months, two full time doctors 9 months, 3 full time doctors 6 months. (A full-time doctor is defined as one who generates on average 25 filling removals per week.)

ALTERNATIVE VENTING METHOD

If you are unable to use the large 2" stack vent on top of the Blue Air-Water Separator, it is required that you still vent the system using the alternative protocol illustrated below.

- 1 Locate the white plugged access/alarm port behind vent, or an unused inlet port on the side of the Blue Separator/Buffer tank.
- 2 Remove plug and insert an extra barbed fitting with a 1" barb.
- 3 Use any style of 1" drain tube to connect this barb directly to the floor vent, or tee it into the main drain between the Grey Amalgam Canister and the floor drain.



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:

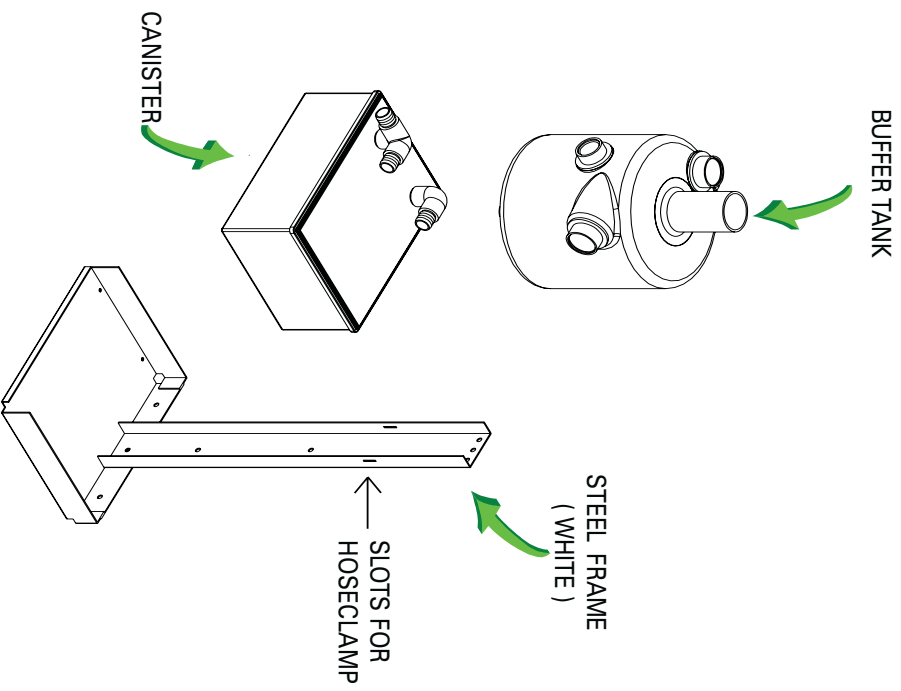
1. Detergent action to break up and move solid materials.
2. Neutral pH. Acids and bleach may liberate mercury from amalgam.
3. Non-foaming or low-foaming. Foam may reduce efficiency of pumps and amalgam separators.

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.

890-1000
Amalgam Separator



AIR-WATER SEPARATOR
(BUFFER TANK)

