Warning: Cleaning agents that contain bleach or foam should not to be used in this system. These cleaners will leech mercury from amalgam and pollute our environment. Please use non-foaming, non leaching, and biodegradable Clean Stream (pn# 57850) for proper cleaning.

Initial Maintenance

After installation, clean the vacuum lines with Clean Stream Cleaner. This is especially necessary when a new system is being installed into existing dental system piping. Using Clean Stream Cleaner helps the STS system to remove any built up deposits in the piping system. Perform the initial cleaning by performing the daily maintenance procedure provided below.

Maintenance-Free STS Pumps

All STS pumps are designed for maintenance-free operation. The pump features a powerful permanent split capacitor motor, with a highly reliable contactor and powerful transformer. The motor is completely water and oil-free and provides a dependable operation requiring no scheduled maintenance.

Preventive Maintenance

Whenever a service technician fulfills a repair call at the customer site routine checks should also be performed to detect general overall wear, and replacement of parts should be made if necessary before a failure causes a prolonged shut-down. This preventive maintenance program will aid in dependable equipment operation and help reduce breakdown.

Scheduled Maintenance

Since a well-organized maintenance program aids dependable equipment operation and reduces breakdown to a minimum, it is essential that the maintenance instructions be followed completely. The routine cleaning will remove any built up deposits in the piping system and the tank inspection will verify proper drainage before a failure causes a prolonged shut-down.

Daily

1. Clean drain lines from the operatory to the Buffer tanks with Clean Stream Cleaner by performing the daily maintenance procedure provided next page.
2. Rinse out each tank with water via the wash-out fitting on the tank top cover

Yearly Inspection will verify proper drainage before a failure causes a prolonged shut-down. Perform yearly maintenance procedure provided below to inspect tank interior.

a. Check buildup at the base of the tank entering the drain.
b. Check for any evidence that liquids have reached the float assembly.

Important: Evidence of buildup at the base drain or liquids reaching the float assembly most likely means that a stricter adherence to the daily maintenance procedure is required.

If problems are found during tank inspection, perform the daily maintenance Tank Washout procedure as necessary to remove buildup at the base drain. Reinspect to verify proper tank drainage.

Warning: The following steps must be performed while wearing skin and eye protection designed for handling typical Haz-Mat material. Use care at all times to prevent spillage.

Caution: Use only Clean Stream Cleaner to maintain the system vacuum lines. Do not use chlorine bleach or solutions of sodium hypochlorite to disinfect the STS system. These materials may result in damage or destruction of equipment or loss of system performance.

Daily Maintenance - Clean Vacuum Lines

Clean all vacuum lines in the vacuum system with Clean Stream Cleaner **daily** as part of the overall preventive maintenance program. This helps to maintain the cleanliness of the CAS tank as well as the vacuum lines and tubing throughout the system. Using the 2.5 liter bottle of Clean Stream Cleaner, PN 57850 and the Clean Stream dispenser system, PN 57665.

Required - Not Supplied

Part No.	Description
57850	2.5 Liter Bottle Clean Stream Cleaner (125 applications)
57665	Clean Stream Dispenser System 1 Bottle with o-rings and caps 1 Saliver Ejector Adapter 1 High-Volume Actuator Adapter 1 Small Suction Hose Adapter 1 Large Suction Hose Adapter

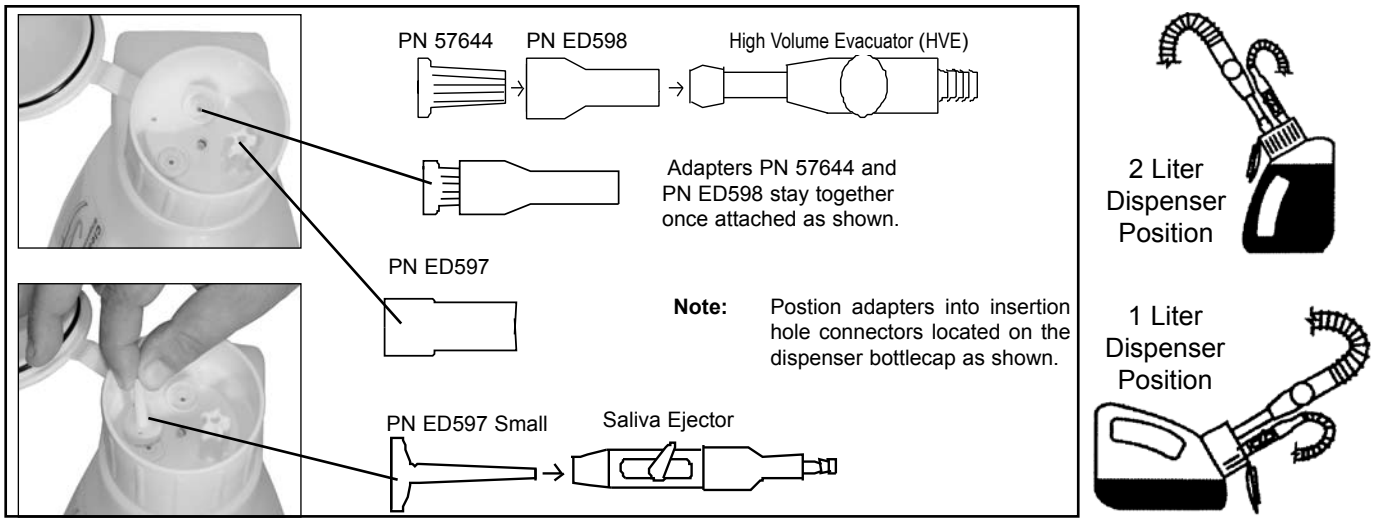
Part No. 57850

Clean Stream Dispenser System, Part No. 57665

Procedure. Prepare the cleaning solution and clean the system daily by performing the following steps.

Note: The Clean Stream Dispenser can hold a maximum of 2 liters of solution for cleaning up to 2 operatories. Mix solution quantity as necessary.

1. Fill the Clean Stream dispenser with tap water as applicable;
   a. to the line marked 1 L for 1 operatory
   b. to the line marked 2 L for 2 operatories
2. Using the 20ml measuring line in the Clean Stream Cleaner bottlecap, add the Clean Stream Cleaner concentrate to the dispenser as applicable;
   a. for 1 operatory, add 20ml of Clean Stream concentrate to the 1 liter of water
   b. for 2 operatories, add 40ml of Clean Stream concentrate to the 2 liters of water
3. As shown below, the interior of the Clean Stream dispenser bottlecap is configured with three holes for the insertion of HVEs and SEs via provided adapters as follows.
   a. attach saliva ejector to smallest atomizing adapter
   b. attach 1 or 2 high volume ejectors to respective adapter(s)
4. Refer to illustrations below and place dispenser in the 2-liter vertical position or the 1-liter horizontal position as necessary.
5. With the vacuum pump on and handpiece valves open, aspirate the Clean Stream solution from dispenser.
6. After each cleansing procedure, disconnect the handpieces and rinse the dispenser.
7. Record task completion on Operatory System Task Log provided on page 16.



Daily Maintenance Procedure - Tank Washout

Refer to Figure 8 and perform the procedures to remove any solids trapped in the CAS tank.

1. Turn OFF the power to the STS.
2. Remove the plug from the wash-out port fitting on the top cover of the CAS tank.
3. Connect the 3/8-inch tubing from the water supply to the CAS wash-out port fitting.
4. Turn the water on and run the water through the CAS for approximately 2 minutes.
5. Turn off the water making sure to completely close the water valve.
6. Prior to restarting the STS do one of the following:
   a. Leave the 3/8-inch tubing connected to the wash-out port fitting. Make sure water valve is completely closed.
   b. Disconnect 3/8-inch tubing from the wash-out port fitting and making sure to replace plug.

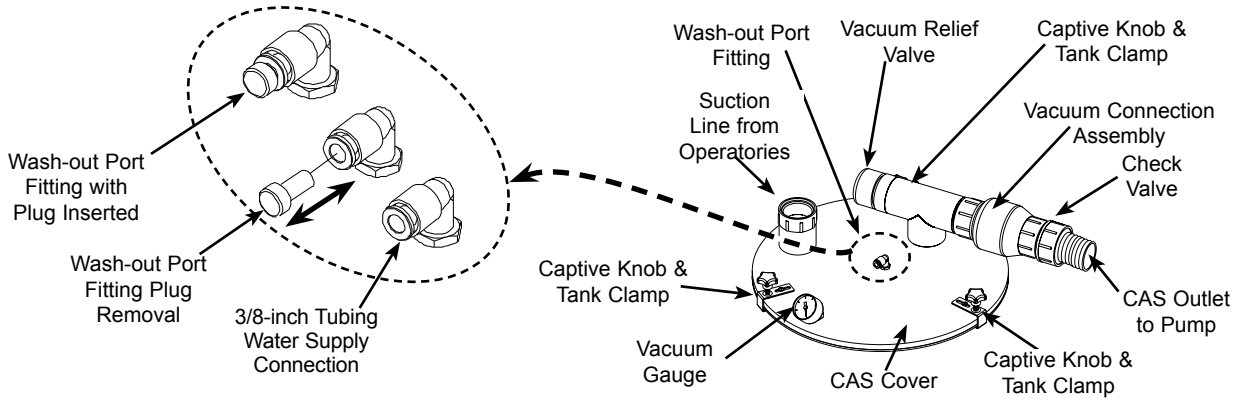


Figure 8. Stainless CAS Washout Port Detail

Yearly Maintenance Procedure - Tank Interior Inspection

1. Turn off the power to the CAS.
2. Loosen the 3 captive knobs holding the cover to the tank.
3. Carefully remove the cover ensuring that the gasket remains firmly attached to the tank flange.
4. Inspect tank interior for buildup at the base drain and/or any evidence that liquids have reached the float assembly.
5. Prior to replacing the cover, inspect the gasket to ensure a clean smooth surface.
6. Install cover and finger tighten the 3 captive knobs. Do not over tighten knobs.
7. Verify all hoses are securely connected.
8. Perform the daily maintenance Tank Washout procedure as necessary.

Note: Make copies of the maintained logs as necessary to insure availability to record completion of maintenance task.

Operatory System Clean Task Log

Daily Clean		***Daily Clean***		***Daily Clean***		***Daily Clean***		***Daily Clean***		***Daily Clean***		***Daily Clean***		***Daily Clean***	
Date	Initial	Date	Initial	Date	Initial	Date	Initial	Date	Initial	Date	Initial	Date	Initial	Date	Initial

Over or under adjustment of the Vacuum Relief Valve can degrade overall system operation. Adjustments should only be made to keep the suction level at the factory-set 10 InHg level, which is adequate to provide optimum operation.

Vacuum Relief Valve Adjustment

The STS system vacuum level is factory set at 10 InHg (inches of Mercury) as shown by the Vacuum Gauge. This suction level is more than adequate to provide a properly sized system service for a multiple-user dental facility. Whenever the suction level varies above or below the factory set point, adjustments can be made as necessary via the Vacuum Relief Valve. Refer to Figure 9 and adjust the system suction level by performing the following:

1. Access Vacuum Relief Valve by removing Vacuum Relief Valve Cap from the Vacuum Connection Assembly.
2. Hold Adjusting Nut with a 7/16-inch open-end wrench.
3. Using a flat screwdriver, adjust suction level as follows:
   a. Increase suction by turning adjusting screw clockwise in no more than 1/4 increments.
   b. Decrease suction by turning adjusting screw counterclockwise in no more than 1/4 increments.

Vacuum Relief Valve Cleaning

A dirty or clogged Vacuum Relief Valve degrades the STS system suction level. Clean the Vacuum Relief Valve by removing Vacuum Relief Valve Cap and carefully pulling the valve from the Vacuum Connection Assembly. Blow out accumulated solid deposits using clean low pressure compressed air.