Solmetex

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SolmeteX Hg5®-HV Amalgam Separator Type 2 – Maximum Flow 2000 ml/min Maximum Fillable Volume 1900 ml Installation and Maintenance Instructions

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Thoroughly read and understand instructions prior to installing, operating and servicing the Hg5®-HV Amalgam Separator. These instructions are also available on our website at www.solmetex.com

The waste stream treated by the SolmeteX Hg5®-HV is generated by a dental vacuum system and as such may contain concentrations of solid and soluble mercury and silver. Because of this, any spills should be considered hazardous and should be handled in accordance with standard hazardous materials (HAZMAT) handling procedures.

Full Collection Containers are a HAZMAT and should be handled, stored and disposed of according to regulations applying to hazardous waste containing mercury. Always wear protective gear when handling full SolmeteX Hg5®-HV collection containers (latex gloves, safety glasses or face shield) and dispose of per local regulations and codes.

SolmeteX Warranty

Solmetex Hg5®-HV Air Water Separators are warranted against defects in material and workmanship for a period of two (2) years from the date of purchase, established by proof of purchase or formal warranty registration. During the warranty period SolmeteX will at its option repair or replace products that prove to be defective.

Solmetex Hg5®-HV Collection Containers are warranted against defects in material and workmanship for a period of one (1) year from the date of purchase, established by proof of purchase or formal warranty registration. During the warranty period SolmeteX will at its option repair or replace products that prove to be defective.

Labor, transportation and service charges are not included.

Limitations of Warranty

The warranty shall not apply to defects resulting from improper installation, maintenance, abuse, unauthorized modification, or operation outside of the environmental specifications for the product or damages that occur due to improper repackaging of equipment for return to SolmeteX.

USE OF THIRD PARTY COLLECTION CONTAINERS OR LINE CLEANERS HAVING A pH LESS THAN 6 OR GREATER THAN 10 WILL VOID THESE WARRANTIES.

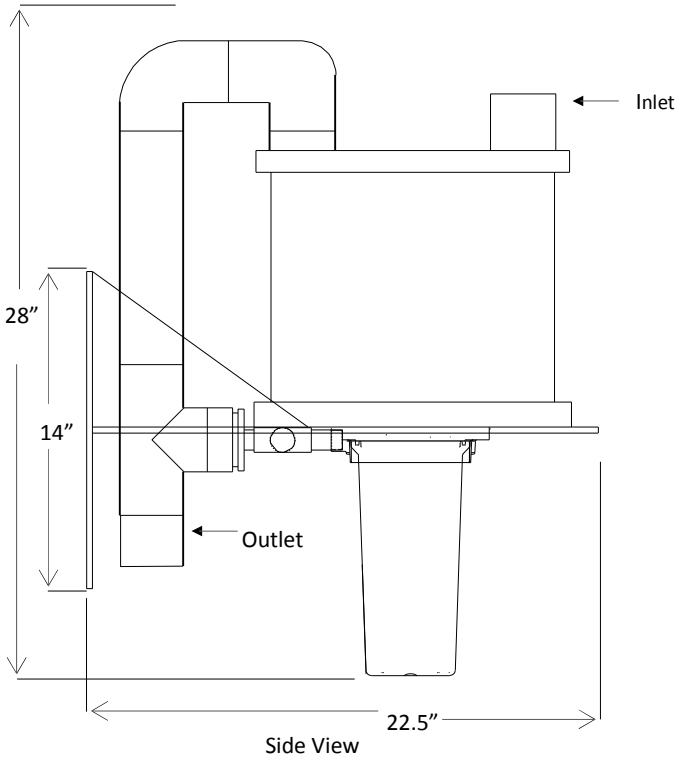
For a complete list of recommended cleaners, visit our web site www.solmetex.com.

No other warranty is expressed or implied. SolmeteX specifically disclaims the implied warranties of merchantability and fitness for particular purpose.

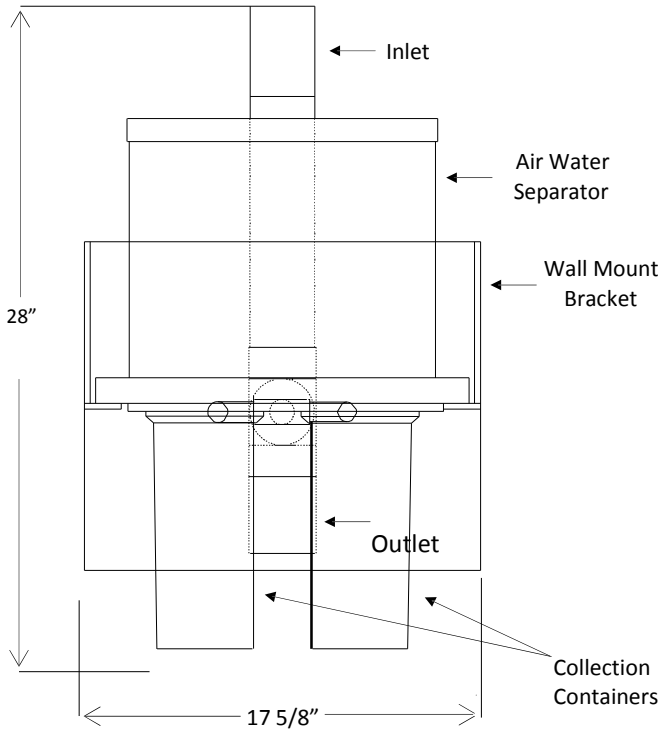
Exclusive Remedies

The remedies provided herein are the buyer's sole and exclusive remedies. SolmeteX shall not be liable for any direct, indirect, special, incidental or consequential damages, whether based on contract, tort or any other legal theory.

Hg5®-HV Installation



Side View



Front View

Instructions

When choosing the location to mount the Hg5®-HV, remember that you must leave room to:

- Complete the piping.
- Access the front and sides of the unit for collection container replacement.
- Have the unit mounted higher than the pump and drain.

The wall mounted support bracket must be mounted to the wall prior to installation of the Hg5®-HV unit.
The support bracket should be stud mounted in order to support the filled weight of approximately 100 pounds.
The inlet and outlet connections are 3” Schedule 40 PVC Pipe. It is recommended that flexible pipe couplings be used to connect the unit to the existing vacuum lines. Since pipe sizes can vary from site to site, bushings may be required to adapt the unit to the vacuum line piping at your facility.

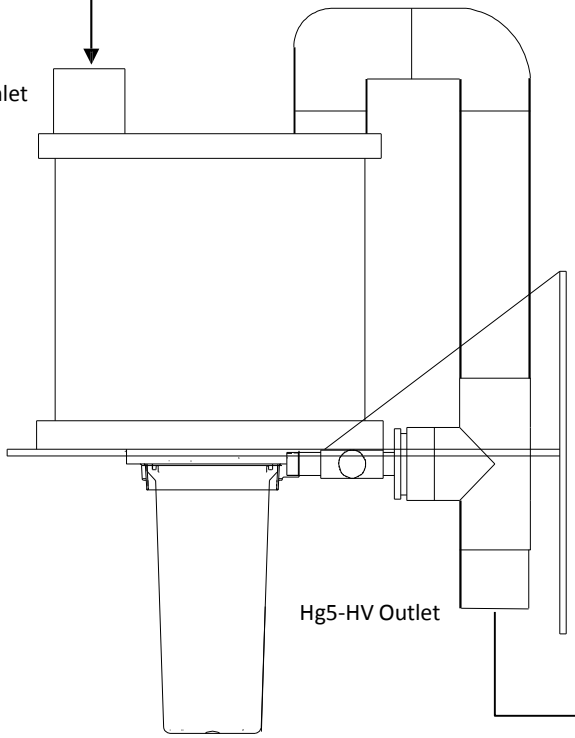
- Remove all components from package(s) make sure you have everything, prior to proceeding.
- The unit is piped into the vacuum line between the treatment rooms and the vacuum source. The line from the treatment rooms is piped to the inlet of the Hg5®-HV and the outlet is piped to the vacuum source. **DO NOT** connect the unit to the outlet of the separating tank (dry vacuum system) or water ring pump (wet vacuum system).
- Determine the location of unit with respect to existing plumbing; pump location, drain and ease of collection container change out.
- Mount the back plate to an existing wall using lag bolts. The structure and bolts should be capable of supporting 100 pounds. Mount directly into the studs using the pre-drilled holes in the backplate. If no studs are available, molly bolts may be used providing they and the wall are capable of supporting the load.
- After mounting the bracket, lower the Hg5®-HV onto the bracket. It will sit between the two side supports. Use the four ¼-20 bolts supplied with the unit to secure the unit to the bracket.
- After the unit is installed, the two collection containers can be installed. (See included installation instructions).
- Write the installation date on each collection container.
- Complete the registration form and return to SolmeteX.

Environmental Specifications

- Overall Dimensions: 17.625” W x 28” H x 22.5” D
- One Hg5-HV will serve up to 20 chairs
- Minimize water lift height.
- Maximum Temperature = 120^{O} F (52^{O} C).
- Maximum Vacuum = 15” Hg (51 kPa)
- For Dental Use ONLY

Hg5®-HV Installation Diagram

Treatment Rooms



Tank Inlet

Air Water Separating Tank

+

Any Dry Vacuum Unit

DO NOT connect Hg5-HV to outlet of tank.

OR

Pump Inlet

Any Water Ring Pump

DO NOT connect Hg5-HV to outlet of the water ring pump.

NOTE: The Hg5-HV should be installed so that the outlet of the Hg5-HV is higher than the tank or pump inlet.

MAINTENANCE

Line Rinsing & Vacuum Line Cleaners

Cleaners should have these qualities: Non-Foaming, De-Odorizing, Sanitizing & pH between 6 and 10.
USE OF LINE CLEANERS OUTSIDE OF THIS pH RANGE WILL VOID THE WARRANTY.

For a complete list of recommended cleaners, visit our web site www.solmetex.com.

WITH OTHER DENTAL VACUUM SYSTEMS: **Follow manufacturers instructions.**

Note: Plan to rinse no more than 5 rooms every 10 minutes. Limit the total maximum flow to the Hg5®-HV during rinsing to 2 liter per minute. Rinsing too much or too rapidly can overfill the Hg5®-HV and could affect the unit's efficiency.

Collection Container Replacement - Follow instruction packed with replacement collection container.
CHECK THE SEDIMENT LEVEL OF THE COLLECTION CONTAINER WEEKLY.

SERVICE

The Hg5®-HV is designed to provide years of trouble-free service, with minimal attention. In the unlikely event of system related problems, please consult the troubleshooting and maintenance chart below.

Problem: Little or No vacuum at the hand piece

1. Check sediment level of collection container, if full change the collection container.
2. If the vacuum gauge reads normally but there is little or no vacuum to the hand piece, there is probably a clog or a leak between the hand piece and the Hg5®-HV.
3. If the vacuum gauge reads lower than normal these are the possible causes:

   Did you just replace the collection container?

   Yes:

   Check installation of the new collection container. If the vacuum is low there is a possibility that the o-rings on the collection container did not seal into the receivers. Remove the collection container, check the o-rings and re-install per the collection container installation procedure.

   No:

   If you have a solids collection cup (installed by others) - Check & Clean or replace element/screen if necessary.

   Check operation of the vacuum pump.

   - Listen for vacuum leaks.
   - Check all connections for breaks or cracks.

   Check all flexible hose for kinks, breaks, or loose clamps.

Problem: Water in the Upper Chamber (Air Water Separator)

1. Check sediment level of collection container, if full change collection container.
2. Check the pH of vacuum line cleaner, if below 6 or above 10 change collection container and line cleaner. Visit www.solmetex.com for a recommended list of cleaners.
3. Call your dental dealer.
   - If the problem cannot be solved easily, call or e-mail your dealer for support.

Problems	Solution
Solids reach full line of collection container	Change the collection container Leave the vacuum running during process
Solids above full line of collection container	Change the collection container Inspect the top chamber for solids
Top chamber has some solids	System is backed up • Turn on vacuum • Remove pins • Tilt container towards manifold to allow air into top chamber • Place container back on and insert pins
Top chamber is full with solids	System is in bypass • Reduction in suction • Solids released into waste stream and environment • Top chamber needs to be replaced • Full top chamber needs to be recycled
Bring a flashlight	• Most equipment/utility rooms have poor lighting. Using a flashlight from the backside of the system and shining it forward will help determine the level of sedimentation. Also can be used to inspect the top chamber using the same procedure.

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Technical Bulletin – DEN-002A August 24, 2015

Vacuum Line Cleaning Solution pH and Hg5® Performance

According to the American Dental Association (ADA) and regulators requiring Amalgam Separators, oxidizing line cleaners should not be used. Oxidizing cleaners can breakdown amalgam particles. Cleaners containing bleach (chlorine bleach, sodium hypochlorite) should never be used as chlorine is known to cause mercury to be released from amalgam.

Regulators have also become aware of pH related to line cleaners. Sewage treatment plants require discharges from their users to be between 5.5 and 10 on a pH scale. Some new amalgam separator regulations now require the use of line cleaners with neutral pH. Acidic (low pH) line cleaners have been known to hinder the operation of Amalgam Separators. Basic (high pH) cleaners can cause premature wear on materials used in amalgam separators.

Recommendations:

SolmeteX recommends the use of vacuum line cleaners that have a pH between 6 and 10. There are several cleaners with a pH near neutral (pH 7). Most of these rely on enzymatic processes. Below is a list of readily available cleaners that have pH ranges most compatible with the Hg5®. If the line cleaner you are currently using is not on the list feel free to contact SolmeteX for further information.

NAME	MANUFACTURER	pH (a, b)	
PureVac SC	Sultan	9.4	Recommended
BioVac	Micrylium	8.5	Approved
Bio-Pure eVacuation System Cleaner	Bio-Pure Products	6.6 – 7.4	Approved
BLAST	Preferred Dist., Inc.	6 – 7	Approved
Citrizyme	Pascal Company	7.7	Approved
EmPower	Metrex	6.5 – 8.6	Approved
Enzymax	Hu-Friedy	8.5 - 9	Approved
FRESH-VAC	Ecolab, Inc/Huntington	6.5 – 8	Approved
Hayes Evacuation Cleaner	Hayes Hendpiece	7.5	Approved
Medical Enzyme Detergent	Enzyme Solutions	6.5 – 7	Approved
Microvac	Microbex	9 – 10	Approved
Neutravac	Biotrol	7 – 8	Approved
Precision Clense Plus	Midmark	9 – 10	Approved
ProEZ	Cetrol Internation	7.4 – 8.3	Approved
Quala	Enzyme Industries	7.3 – 9.3	Approved
Sani-Soak Ultra	Enzyme Industries	8.5	Approved
SRG Evacuation Line Cleaner	Mydent International	6.4	Approved
Super Vac 40 Plus	EPR Industries	7 – 7.5	Approved
VacuCleanse Evacuation	Infection Control Tech	7.1	Approved

a) The pH data is taken from manufacturer MSDS sheets.

b) The Massachusetts Department of Environmental Protection requires the use of line cleaners with pH between 6.5 and 9.