

Governor Tony Evers Dan Hereth, Secretary Designee

Department of Safety and Professional Services
Dental water vision of Industry Services
Plumbing Product Review
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December 4, 2024

Crosstex International Inc. Christine Meaney 1733 Parkside Ln. Phoenix, AZ 85027

Re: Description: Health Care Plumbing Appliance, Dental Water System

Manufacturer: Crosstex International Inc.
Product Name: Vista Clear DP: CVV 1000-DP
Model Number(s): Vista Clear DP: CVV 1000-DP
eSLA PTO No.: PP-122400020-PTOHCPA

The specifications and/or plans for this dental water system have been reviewed and determined to conform to pertinent aspects of chapters SPS 382 through 384, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of December 2029.

This approval is contingent upon compliance with the following stipulation(s):

- 1. A copy of this approval letter shall be submitted with all plans using this dental water system. Plans submitted without a copy of this approval letter may be denied.
- 2. This dental water system shall be installed, maintained and used in strict accordance with the manufacturer's published instructions, Chapters 382-384 Wis. Adm. Code and this product approval. If there is a conflict between the manufacturer's instructions and the Wis. Adm. Code or this Plumbing Product Approval, then the Wis. Adm. Code and this Plumbing Product Approval shall take precedence.
- 3. A site-specific plan review shall be required in accordance with s. SPS 382.20 (a) Wis. Adm. Code for each installation of this dental water system in accordance with Table SPS 382.20-1, #10, Wis. Adm. Code.
- 4. This dental water system shall be installed by persons holding the proper license or registration in accordance with Wis. Stats. § 145.
  - Set up, start-up and maintenance procedures shall be performed only by personnel trained and authorized by Crosstex International Inc., as specified in the attached manual.
- 5. The influent water to this dental system shall be protected with an ASSE 1013 compliant assembly, or other cross connection control device or assembly, suitable for high hazard under backpressure and back siphonage conditions, acceptable under s. SPS 382.41 Wis. Adm. Code.
  - Cross-connection control devices or assemblies shall be registered and tested as required by s. SPS 382.22 (8) Wis. Adm. Code.
- 6. All potable water contacting materials installed downstream of this dental system shall be compatible with high purity water.
- 7. The drain line emanating from this dental water system shall terminate with an air gap that conform to ASME A112.1.2 or ASME A112.1.3.

Crosstex International Inc. December 4, 2024

Page 2 of 2

eSLA PTO No.: PP-122400020-PTOHCPA

8. A complete copy of the use, installation and maintenance instructions for this dental system shall be provided to the owner and remain onsite. See attached.

#### Technical notations:

- a. Manufacturer's website: <a href="https://www.hufriedygroup.com/en/continuous-waterline-treatment/vistacleartm-dp-centralized-waterline-treatment-system">https://www.hufriedygroup.com/en/continuous-waterline-treatment/vistacleartm-dp-centralized-waterline-treatment-system</a>
- b. This device contains iodated resin which releases low levels of iodine into the treated water stream

The department is in no way endorsing this dental water system, or any advertising, and is not responsible for any situation which may result from their use.

Sincerely,

**APPROVED** 

By Glen Schlueter at 11:57 am, Dec 04, 2024

Glen W. Schlüter

**Plumbing Product Reviewer** 

Glen Schliter

Department of Safety and Professional Services

**Dental water vision of Industry Services** 

**Bureau of Technical Services** 

(608) 267-1401 Phone

glen.schlueter@wi.gov E-mail

7:45AM-4:30PM CST M-F Work Hours

# VistaClear<sup>™</sup> DP

# **Centralized Waterline Treatment System**



# Powerful protection and convenience, centralized.

The VistaClear™ Centralized Waterline Treatment System provides filtered procedural water directly to dental operatories—eliminating the need for bottle systems and storage tanks! The system's micron-level filtration, built-in backflow prevention and patented method for waterline cleaning save practices time and money while protecting dental equipment.

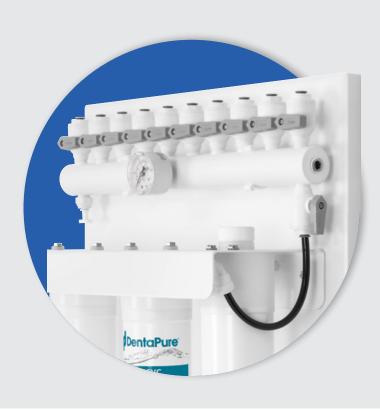
The DentaPure™ Cartridge and carbon block filter are used with the VistaClear™ DP Centralized Waterline Treatment System.

# **DentaPure™ Cartridge**

The EPA-registered DentaPure™ Cartridge provides safe and compliant dental unit water for up to 10 operatories for 365 days (or 2,400L of water, if usage records are kept), ensuring practices meet or exceed water quality with a maximum of 200 CFU/mL.



CVV1000-DP



# Saves time

The system's on-demand filtration eliminates wait time and the need for storage tanks and bottle systems. And its onboard DentaPure™ Cartridge eliminates the need for regular shocking protocols to make waterline maintenance much easier and more efficient.

# Saves money

The system includes QAI-certified backflow preventers that eliminate the need for reduced pressure zone (RPZ) devices and the ongoing cost of annual inspections. It also eliminates the need for purchased water and daily maintenance products.

# Protects equipment.

With micron-level filtration and no harmful chemicals, the system protects expensive handpieces and turbines from the wear-and-tear typical water supplies can inflict. The system removes virtually all contaminants that often reside in city water supplies.

crosstex is now a proud member of .:: HuFriedyGroup

# VistaClear™ DP Centralized Waterline Treatment System





# **Source Water Input Specifications**

Operating Temperature Range 45 to 100°F (7.22-37.78°C)

Operating Pressure Range 40 to 100 psi (2.07-6.89 bar)

Maximum Influent Chlorine / Chloramine 5 ppm

Maximum Continuous Flow Rate / Filter 0.2 gpm (0.76 Lpm)

#### **Additional Information**

Filter Element Service Life 12 months

Filter and Cartridge
Requirements
DP365VC(CA) DentaPure™
Cartridge CVR9725 Carbon
Block Filter

**Dimensions (W x H x D)** 16 in x 24 in x 5 7/8 in

**Approximate Ship Weight** 28 lbs.

#### **Installation Requirements**

System requires access to cold, potable water supply, compressed air and drain connection. Electricity is NOT required.

Use only 1/4 in O.D. (soft) copper tubing for dedicated lines to each operatory. If copper tubing is unable to be installed for some reason, use only 1/4 in O.D. LLDPE tubing. Do NOT use standard plumber's PEX tubing, which is usually 3/8 in O.D. Do not exceed 90 ft in length for runs to any operatory.

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Use of a VistaClear™ Centralized Waterline Treatment System does not, by itself, eliminate the need for proper user maintenance. Due to the nature and complex design of dental delivery units, the periodic use of waterline cleaners and antimicrobials is extremely important for proper dental waterline care. For this reason, Crosstex makes specific bacteria-reduction claims for output water from dental delivery units connected to DentaPure™ Cartridges. To obtain maximum bacteriological reduction, dental unit waterlines are to be cleaned with an approved dental unit waterline agent prior to initial installation of DentaPure™ Cartridges.



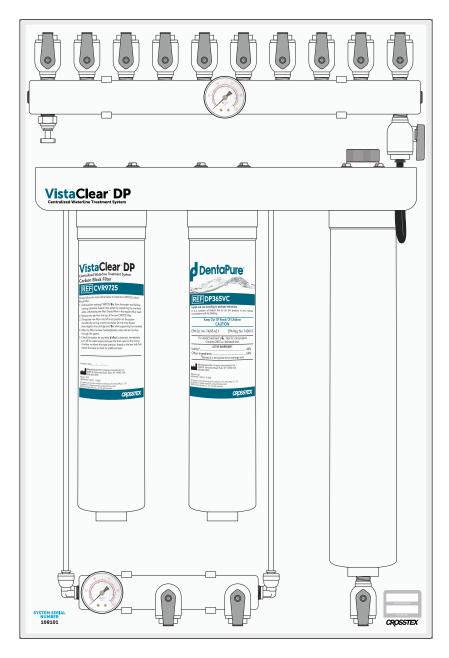
#### For more information visit HuFriedyGroup.com

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# VistaClear<sup>™</sup> DP

Centralized Waterline Treatment System Installation Guide & Owner's Manual



Model CVV1000-DP (V1000-DP)



#### **Table of Contents**

Introduction	2
Important Information	3
Preparation	4
System Overview	5
Typical System Configurations	6
System Installation System Installation	
Location	7
Tools & Supplies Required	7
Mounting the System	
Regulating Water & Air Pressure	7
Connecting the System	8
Installing System Filters	8
Testing the System	
Optional: Multiple-Outlet Connection Instructions	9
System Maintenance	
Maintenance Summary	10
Purge & Clean Procedure Diagram	10
Purge & Clean Procedure	11
Alternative Cleaning Procedures	
Annual Filter & Cartridge Replacement	13
Backflow Prevention Testing	
Optional: Bypassing the System	14
Limited Warranty	15
System Information	16

### Introduction

The VistaClear™DP Centralized Waterline Treatment System is a patented dental waterline treatment system that is designed to provide centralized backflow prevention and micron-level filtration for water used for general dentistry applications including irrigation, cooling, lubrication and scaling procedures.

A DentaPure<sup>™</sup> Cartridge EPA Reg. No.. 74245-5 (Cat. No. DP365VC) is a separate component to be used along with the VistaClear DP Centralized Waterline Treatment System.

The DentaPure Cartridge (EPA Reg. No. 74245-5) is for use on dental unit waterlines attached to dynamic dental instruments.

Please refer to the labeling included with the DentaPure Cartridge for the instructions for use.

It is important never to use water from a standard dental delivery system during surgical procedures. Instead, use sterile water or saline delivered by sterile means, such as autoclavable bulb syringes, or autoclavable or disposable sterile tubing (per CDC MMWR Guidelines for Infection Control in Dental Health-Care Settings – 2003).

The VistaClear DP Centralized Waterline Treatment System can be installed in an equipment room, hallway or cabinetry located centrally in an office to provide filtered water to all handpieces, air/water syringes, scalers and quick-disconnects in each dental operatory. The system provides a centralized delivery method for periodic antimicrobial treatments for dental unit waterlines. The system also includes third-party-certified VistaCheck™ Dual Check Valve Backflow Preventers, which can eliminate the need for RPZ valves and other backflow prevention devices in most municipalities.

#### **Please Note:**

Use of a VistaClear DP™ Centralized Waterline Treatment System does not, by itself, eliminate the need for proper user maintenance. Due to the nature and complex design of dental delivery units, the periodic use of waterline cleaners is extremely important for proper dental waterline care.

According to the CDC, even sterile water introduced to a typical dental delivery system can be contaminated quickly due to a combination of factors, including: low-volume, slow flow rates; the use of small-diameter tubing that contributes to laminar water flow; acquiescence to room temperature; and the use of quick-connect fittings, handpieces and other devices that can introduce contamination from the environment to the waterlines.

IMPORTANT! While the unit will perform above these limits, it is recommended that the dental unit water have a pH level of less than 8 and not have a chlorine level greater than 1ppm. Do not use heated water. Heated water will promote the growth of bacteria and the buildup of biological film in the waterline leading to the DentaPure™ Cartridge. Water pressure must not exceed 45psi.

#### IMPORTANT INFORMATION

# **For System Owners**



We recommend that a professional technician or plumber familiar with dental/medical offices perform the system installation since interface with a cold water supply line, drain, and air supply line is involved. He/she should be familiar with local plumbing codes and techniques for successful dental/medical equipment installations.

**Please keep the Installation Guide & Owner's Manual handy for future reference** and ensure that anyone responsible for operation and maintenance of the system is familiar with all the details contained in this manual.

The Carbon Block Filter included with this system helps to protect the filter, system and waterlines from microbiological colonization. Both the Carbon Block Filter (CVR9725) and DentaPure™ Cartridge (DP365VC) should be changed at least once per year, or after 2,400 liters of use, whichever occurs first. Do not operate the system unless both elements are installed in their proper locations.

The VistaClear DP™ Centralized Waterline Treatment System can be bypassed in an emergency or in case maintenance ever needs to be performed during business hours. Please see instructions on page 14.

Please return the Warranty Registration form or register online at vrg.support/register upon installation.

#### IMPORTANT INFORMATION

# For System Installers



Please read this entire manual before proceeding with installation and operation, and always follow local plumbing codes.

Use only 1/4" O.D. (soft) copper tubing for dedicated lines to each operatory. If copper tubing is unable to be installed for some reason, use only 1/4" O.D. LLDPE tubing. Do NOT use standard plumber's PEX tubing, which is usually 3/8" O.D. Do not exceed 90' in length for runs to any operatory.

Please locate the system label on the corner of the mounting board and record the installation date using a fine-tipped permanent marker or some other writing instrument that will not smear.

For any questions regarding the installation or operation of the system, please see our online support resources at **vrg.support** or call us at (800) 531-2221.

### **Preparation**

Every VistaClear™DP Centralized Waterline Treatment System comes in one box containing the assembled board, one Carbon Block filter (CVR9725), one DentaPure™ Cartridge (DP365VC), two accessory kit boxes and an individually packaged box of VistaTab™ Dental Waterline Cleaner Tablets. Make sure all items needed for installation are present and undamaged. If any damage is evident, contact the shipping company or your distributor immediately.

Filter and cartridge elements should be replaced after one year of use (or 2,400 liters of water, if usage records are kept). Additionally, the cartridge element should be replaced if the level of iodine output falls to less than 0.5ppm.

Use iodine sensitive test strips to verify performance.

Iodine Test strips pn# DPTEST.

#### **Filter and Cartridge requirements**

#### **CVR9725**

Carbon Block Filter

#### DP365VC

DentaPure™ Cartridge EPA Reg. No. 74245-5

#### **Included Components**

#### **CVS1040**

**Emergency Bypass Kit** 

#### **CVS2500**

Quick-Disconnect Drain Accessory

#### CVS6115

Union Tee - 1/4" Tubing

x2 CVS6121

Male Adapter 1/8" NPT x 1/4" Tubing

#### **CVS6130**

Plug - 1/4" Tubing

x2 CVS7205

Air & Water Regulator

#### CVS7210

Back-Mount Pressure Gauge

x2 CVS7215

Adapter for Regulator 1/8" NPT x 3/8" Tubing

#### CVS9145

Air Gap Drain Fitting with 1/4" Tubing Adapter

3 CVTU901

Clear Transparent Poly Tubing ¼" O.D. x 1/8" I.D.

3 CVTU903

Yellow Transparent Poly Tubing 1/4" O.D. x 1/8" I.D.

### **3 CVTU904**

Red Transparent Poly Tubing ¼" O.D. x 1/8" I.D.

#### 6 CVTU944

Black LLDPE Tubing 1/4" O.D. x 0.17" I.D.

#### x12 CVVC250-A

VistaCheck™ Dual Check Valve Backflow Preventer

#### **Shock Treatment**

#### **IMS-1451**

Box of VistaTab™ Dental Waterline Cleaner Tablets by Hu-Friedy\* EPA Reg. No. 70060-25-75372

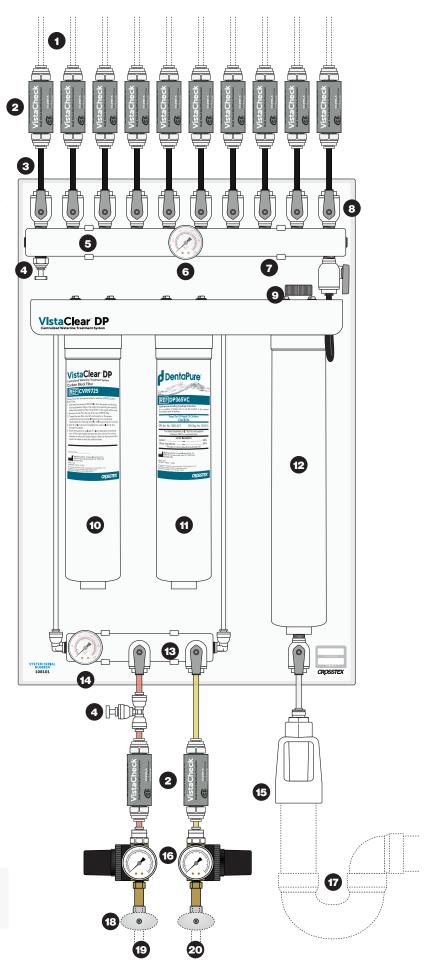
\* Approved for use in the United States only. Outside the U.S., please follow Alternative Cleaning Procedures outlined on page 12.

# **System Overview**

- Dedicated ¼" O.D. lines to each operatory We recommend using only ¼" O.D. (soft) copper tubing for dedicated lines to each operatory. If copper tubing is unavailable or unable to be installed, use ¼" O.D. LLDPE tubing. Do NOT use standard plumber's PEX tubing, which is usually ¾" O.D. Do not exceed 90' in length for runs to any operatory.
- VistaCheck™ Dual Check Backflow Preventers QAI-certified
- 3 1/4" O.D. LLDPE tubing
- Bypass fittings
- 5 Distribution manifold
- 6 Distribution manifold pressure gauge
- Mounting clips
- 8 Operatory ball valves
- 9 Mixing chamber access port
- 10 Carbon Block Filter (CRV9725)
- DentaPure™ Cartridge (PN# DP365VC EPA Reg. No. 74245-5)
- Mixing chamber
- 13 Control manifold
- 14 Control manifold pressure gauge
- Drain air gap assembly (meets ASME A112.1.2-1991, BOCA P-201.0 and P-1505.11)
- 16 Pressure regulators (set at 40 psi)
- 1½" drain with trap
- 18 Shutoff valves
- 19 Cold water from main supply, after shutoff solenoid
- 20 Compressed air

#### Note:

items 1, 17, 18, 19, and 20 to be provided prior to installation by plumbing contractor  $\,$ 



# **Typical System Configurations**

The VistaClear™ DP Centralized Waterline Treatment System standardly serves up to 10 operatories. For offices with more than 10 operatories, multiple systems for distribution "zones" can be used based on need.

#### Note:

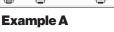
Connect operatory lines starting from the LEFT end of the distribution manifold to prevent "dead legs" where water could become stagnant. Unused or disconnected lines should always be at the right end of the manifold.

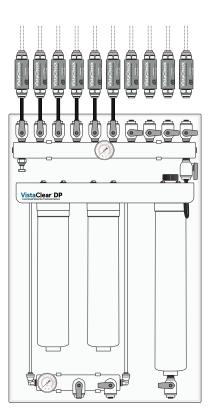
**Standard 10-Operatory Installation** 

VistaClear DP Centralized Waterline Treatment System serving 10 operatories.

- Installation for 6 Operatories, Pre-plumbed for 4-Operatory Expansion 10-operatory installation serving only six operatories currently. In this case, the plumbing contractor has already run the copper lines from the system location to operatories #7-10 for future expansion. When ready, all that is required for expansion is the jumper tubing from the distribution manifold to the VistaCheck™ Dual Check Valve Backflow Preventers before opening the lines.
- Installation for (Only) 6 Operatories Six-operatory office requiring only six dedicated lines. Outlet valves on the distribution manifold are simply turned off and plugged permanently, and the two unused VistaCheck Dual Check Valve Backflow Preventers can be stored for replacement at a later date if required.







**Example B** 



Example C

## **System Installation**

#### Location

The VistaClear™DP Centralized Waterline Treatment System should be installed centrally in the dental office—often in an equipment room, sterilization center or hallway—either mounted on a wall or inside cabinetry.

The system should be installed near a pressurized (not to exceed 45 psi) supply of cold, potable municipal water, compressed air, and a drain. Make sure that dedicated 1/4" O.D. soft copper lines are run to each operatory from the desired location for the centrally installed system.

#### **Tools & Supplies Required**

Measuring tape	Adjustable wrench	Assorted drill bits & screws	Cotton swabs
Drill	Screwdriver	Tubing cutter or sharp knife	Clean rags

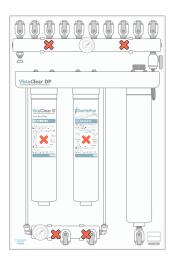
#### **Mounting the System**

Always install the system board vertically. The system weighs approximately 25 pounds (11 kg), so use a minimum of two (2) lag screws to mount the system board—ideally into at least one stud or support structure. If no studs are available, be sure to use appropriate anchors.

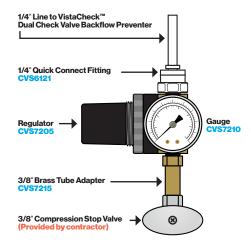


#### Tip:

"Hide" anchors behind filters or manifolds near the spots marked with an "X" for a cleaner appearance. Simply remove the filter(s) and/or manifold(s) from their clips, drill pilot hole(s), anchor and replace.



### Regulating Water & Air Pressure



Each water and air inlet line should be regulated to 40 psi. Two complete regulator assemblies are included with the system for this purpose.

Assemble each regulator assembly as shown or as required for the plumbing provided by the contractor. To ensure leak-free connections, use Teflon™ Tape or Sealant. Be sure to use the small brass regulator plug on the unused port on the brass body of the regulator.

After connecting regulator assemblies to plumbing shut-off valves, adjust regulator knobs until the outbound pressure for both air and water inlet lines to the system is 40 psi.

Install an included VistaCheck™ Dual Check Valve Backflow Preventer on both the air and water inlet lines above the regulators and before the VistaClear DP Centralized Waterline Treatment System. Make sure that each backflow preventer is oriented in the correct flow direction!

# **System Installation (Continued)**

#### **Connecting the System**

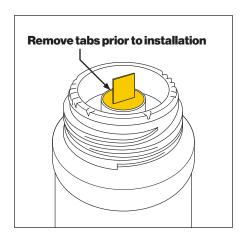
After mounting the system, connect the water and air supply lines, the drain line and all individual operatory lines to the VistaClear™ DP Centralized Waterline Treatment System as shown in this manual. A supply of tubing has been included for cutting short transitional pieces to connect the valves on the upper (distribution) manifold of the system to the VistaCheck™ Dual Check Valve Backflow Preventers.

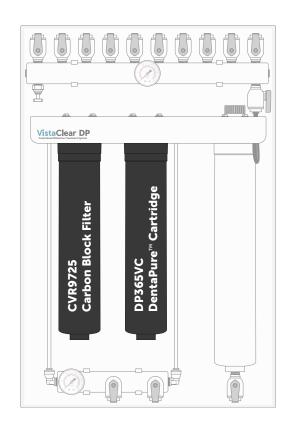


- Use a tubing cutter or sharp razor knife to make sure all tubing cuts are square and clean. Burrs can damage the internal "O" rings of push-to-connect fittings, and scratches on the surface of the tubing can create leak paths.
- 2 Mark tubing 11/16" back from the end—this is the plunge depth into the fitting.
- To install, push tubing firmly into fittings until it stops (a slight twist while pushing helps). The mark on the tubing will help to confirm that you have achieved full plunge depth.
- To remove tubing (if necessary), simply push in on the collet while pulling the tubing out of the fitting. A gentle twist while pulling helps the fitting release the tubing.

#### **Installing System Filters**

- Remove the tabs from the top of the Carbon Block Filter (CVR9725) and the DentaPure™ Cartridge (DP365VC).
- Thread the filter and cartridge onto the system manifold in the appropriate locations (see diagram) by turning counter-clockwise. Do not cross thread. Hand-tighten the cartridge and filter while supporting the metal manifold.





#### **Testing the System**

- Temporarily close all outlet valves on the upper (distribution) manifold by turning the handles 90 degrees relative to the waterlines.
- Confirm that both the Carbon Block Filter and DentaPure™ Cartridge are in position, then turn on the water supply to the system by turning the handle on the water valve on the lower (control) manifold. Water will start to flow through the system.
- Open the drain valve on the bottom of the mixing chamber to allow air to be purged from the system. Water will begin to flow to the drain. Allow the water to run to the drain for 10 minutes to flush the Carbon Block Filter and DentaPure Cartridge before use.
- Close the drain valve on the mixing chamber, then check the system for any leaks. If a leak is detected, turn off the water supply and open the drain valve to relieve pressure. Attend to the leak (see "Connecting the System"), then repeat these steps to check for additional leaks.
- If the system and attached plumbing fittings are leak-free and the dental delivery units in each operatory have been connected to the feed lines from the VistaClear™ DP Centralized Waterline Treatment System, open each of the valves on top of the upper (distribution) manifold of the system that is connected to a dental operatory. Water will flow to each operatory. Check for leaks at the operatory-end of each line.
- If all connections are leak-free, begin the "Purge & Clean" procedure as described on page 11 of this manual to ensure all waterlines are clean and ready for use. Only upon initial installation, this cleansing procedure should be performed twice.

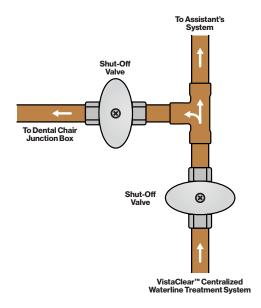
#### **Optional: Multiple-Outlet Connection Instructions**

Some operatories have more than one dental delivery system. For example, a dental assistant's system might be located at a side or rear-delivery position, while the doctor might have an "over-the-patient" system.

It is possible to provide filtered water to two delivery systems in the same operatory by using multiple shut-off valves configured as shown here. Never split lines between operatories, only within an individual operatory.

Usually the main valve after the filtration system would be located inside cabinetry at the rear or side delivery position, with the secondary waterline running under the floor in a trench or conduit system to the dental chair. An additional valve will be needed in the junction box at the chair.

Both dental delivery systems will be able to be purged with air and flushed with proper cleaning agents if this design is utilized. If, for some reason, the main (assistant's) dental unit will be in constant use but the secondary (chair) line out of service or disconnected for long periods, the secondary line should be purged of all water and the valve serving the chair in the cabinetry shut off. If water stagnates in such a "dead leg," it could encourage the growth of organisms.



## **System Maintenance**

As with any piece of equipment, proper installation and maintenance of your VistaClear™ DP Centralized Waterline Treatment System is critical. After installation, the dental waterlines will need to be cleaned to remove any contamination following the "Purge & Clean" procedure outlined on page 11 twice. The installer or service technician should perform the initial line cleaning.

#### **DAILY**

Refer to the DentaPure™ Cartridge IFU packaged with the cartridge for directions for daily use following installation.

These directions are also available at Crosstex.com.

- Discharge all water-bearing lines at the beginning of each work day for a minimum of two (2) minutes. This should include all handpiece, syringe and quick-disconnect lines with handpieces and tips removed.
- Purge all water-bearing lines for a minimum of 20-30 seconds after each patient.

#### **ANNUALLY**

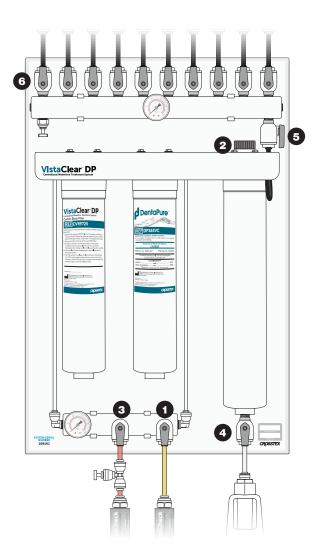
**Change Carbon Block Filter and DentaPure Cartridge** as outlined on page 13.

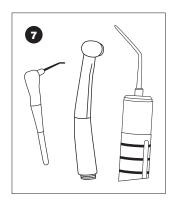
Test VistaCheck™ Dual Check Valve Backflow Preventer backflow preventers as outlined on page 14.

**Perform "Purge & Clean" procedure** outlined on page 11 only upon initial system installation and if Dental Unit Waterline mail-in, or in-office waterline testing results are higher than the current EPA potable water standard of <500 CFU/mL.



- 4 Drain valve
- 5 Distribution manifold valve
- 6 Operatory valves





### **Purge & Clean Procedure**

#### Step 1: Purging the System & Waterlines

- Close the water inlet valve 3.
- 2. Slowly open the drain valve 4.
- 3. Open the air valve 1.
- 4. Close the drain valve 4 when water stops running to the drain.
- Discharge all dental appliance lines 7 in each operatory into sink, cup or bucket until all water is evacuated and air emerges. Begin by discharging the quick-disconnect fitting on the delivery unit, if present, to speed the process considerably.
- 6. Close the air valve 1.
- 7. Open the drain valve 4 to relieve all pressure from the system.
- 8. Close the drain valve 4.
- 9. Close all operatory valves 6.

#### **Step 2: Adding Line Cleaner**

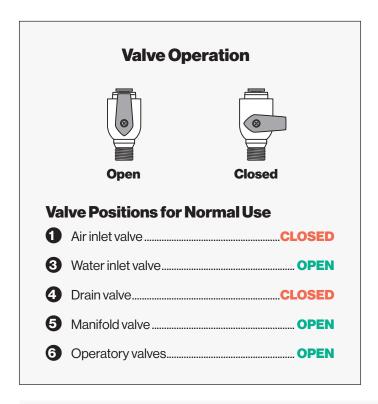
You will need to follow this procedure for each operatory, one at a time. Never attempt to add cleaner if there is pressure on the system!

- Remove the mixing chamber cap 2 from the top of the mixing chamber.
- Add one Vista Tab™ Dental Waterline Cleaner Tablet (EPA# 70060-25-75372)\* to the chamber and thread the cap back into place. (Use two tabs per operatory for initial cleaning after system installation.)
- 3. Open the water inlet valve 3 to fill the mixing chamber with water to dissolve the tablet.
- 4. Close the water inlet valve 3 when the two gauges read the same pressure and the mixing chamber is full. Wait at least one minute for the tab to dissolve completely.
- 5. Open the air inlet valve 1.
- 6. Open one of the valves 6 for the operatory to be treated.
- 7. Go to operatory and discharge all dental appliance lines in that operatory into sink, cup or bucket until all air is evacuated and cleaning solution emerges from each appliance line, then stop. Again, start with the quickdisconnect fitting on the delivery unit to speed the process.
- 8. Return to the central system board and close the air valve 1.
- 9. Open the drain valve 4 to relieve all pressure from the system and both system pressure gauges read zero, then close the drain valve 4.

Repeat Steps 1–9 for all remaining operatories (one operatory at a time) and allow solution to remain in water lines for at least five minutes.

#### **Step 3: Line Rinsing Procedure**

- 1. Slowly open the air valve 1.
- 2. Slowly open the drain valve 4 to remove remaining cleaner from the mixing chamber.
- 3. Close the drain valve 4 when air emerges from the drain.
- 4. Discharge all dental appliance lines 7 in each operatory into sink, cup or bucket until all cleaner is evacuated and air emerges.
- 5. Return to the system and close the air valve 1.
- 6. Open the drain valve 4 to relieve all pressure from the system.
- 7. Close the drain valve 4.
- 8. Open the water inlet valve 3 to fill the mixing chamber.
- Return to each operatory and discharge all dental appliance lines into sink or cup until all air is evacuated and clear water emerges. Rinse each line for at least 10 seconds (or a total of 500 mL of clear water for each operatory).



#### Please note:

Never flush waterline cleaner into any vacuum or drain system that contains an amalgam separator.

<sup>\*</sup> VistaTab™ Dental Waterline Cleaner Tablet approved for use in the United States only. Outside the U.S., please follow Alternative Cleaning Procedures outlined on page 12.

# **Alternative Cleaning Procedures**

#### Using bleach instead of VistaTab™ Dental Waterline Cleaner Tablets

We recommend using VistaTab™ Dental Waterline Cleaner Tablets by Hu-Friedy (IMS-1451) upon initial system installation and for as-needed "shock" treatments. This product is available from dental dealers throughout the United States.

However, if for some reason VistaTab Dental Waterline Cleaner Tablets are unavailable, **household bleach (Sodium Hypochlorite) may be used as an alternative solution.** However, it is important not to flush bleach into any vacuum or drain system that contains an amalgam separator. Also, do not leave any bleach solution in dental waterlines for more than 10 minutes.

Follow the "Purge & Clean" instructions for the system outlined on page 11, substituting the bleach solution for the VistaTab Dental Waterline Cleaner Tablet in Step 2 (Adding Line Cleaner).

- If using 8.25% bleach solution, add 2 ounces (or about 58 mL) to the mixing chamber in lieu of one (1) VistaTab Dental Waterline Cleaner Tablet.
- If using **5.25% bleach** solution, add **2.5 ounces** (or about **75 mL**) to the mixing chamber in lieu of one (1) VistaTab Dental Waterline Cleaner Tablet.

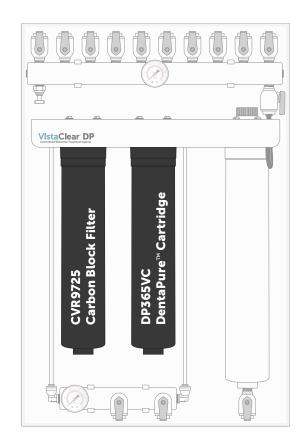
Note that you will need to follow this process for each operatory.

## **Annual Filter & Cartridge Replacement**

The VistaClear™ DP Centralized Waterline Treatment System Carbon Block Filter should be replaced at least annually, or more frequently as needed depending on local water conditions. If you noticed lower-than-usual water flow or that the "throughput" of the system appears to be restricted, it's likely necessary to change the Carbon Block Filter. Restricted water flow can require filter changes more frequently than once per year in areas with poor water quality or heavy sediment in the water supply (sometimes caused by nearby construction).

The DentaPure™ Cartridge should be replaced annually, or when iodine output falls below 0.5 ppm. Refer to the labeling and Instructions for Use included with the DentaPure Cartridge.

- Unthread both the expired DentaPure<sup>™</sup> Cartridge (DP365VC) and the expired Carbon Block Filter (CVR9725) from the system manifold by turning clockwise. Support the system by holding the manifold while unthreading the cartridge and filter.
- 2. Securely wrap cartridge in newspaper and discard in trash.
- Remove the tabs from the top of the new cartridge and filter, then thread both onto the system bracket in the appropriate locations (see diagram) by turning counter-clockwise. Do not cross thread. Hand-tighten the cartridge and filter while supporting the metal manifold.
- 4. After the DentaPure Cartridge (DP365VC) and Carbon Block Filter (CVR9725) have been hand-tightened, water will start to flow through the system. Open the drain valve on the bottom of the mixing chamber, and allow the water to run to the drain for 10 minutes to flush the new cartridge and filter.
- 5. Close the drain valve on the mixing chamber and check the system for any leaks. If a leak is detected, immediately turn off the water supply and open the drain valve on the mixing chamber to relieve the water pressure. Attend to the leak then repeat the steps to check for additional leaks.
  - A. If a DentaPure Cartridge has been previously installed and treatment water output from dynamic instruments has remained under 500 CFU/mL, no further steps are necessary and the system is now ready for use. If CFU counts are outside of the EPA current standard for potable water guidelines, begin the Purge & Clean procedure (page 11) to ensure all waterlines are clean and ready for the installation of your replacement DentaPure Cartridge.
- 6. Note the installation date to ensure replacement timing.





**Left Element:** Carbon Block Filter **CVR9725** (R9725) **Right Element:**DentaPure™ Cartridge

DP365VC

## **Backflow Prevention Testing**

All VistaCheck™ Dual Check Valve Backflow Preventer valves downstream from the upper (distribution) manifold of the system should be checked annually to ensure they are working properly.

For specific details on testing VistaCheck Dual Check Valve Backflow Preventers, go to VistaResearchGroup.com/VistaCheck to download or print the testing protocol document, including the step-by-step directions, Annual Test Record and Maintenance Record tables.



VistaResearchGroup.com/VistaCheck

# Bypassing the System

The VistaClear™ DP Centralized Waterline Treatment System includes an optional bypass feature. While the bypass tubing should NOT be connected during installation, the Carbon Block Filter and DentaPure™ Cartridge can be bypassed temporarily for either of these reasons:

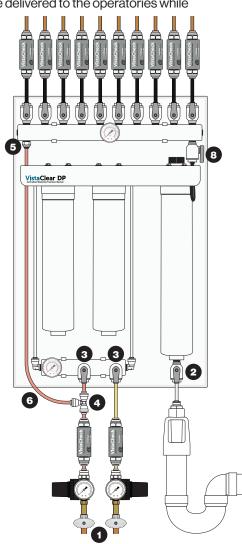
• In the event of a malfunction or leak in the system, the clinical staff can bypass the filter and cartridge temporarily while a service technician is en route to fix the problem.

A service technician can bypass the system to allow unfiltered municipal water to be delivered to the operatories while performing a repair, filter change, etc.

# Bypassing the filter system:

- 1. Turn off the master air and water supply valves 1 leaving the air and water supply valves on the system control manifold 3 open.
- 2. Open the drain valve 2 to relieve the system pressure.
- 3. Remove the plugs from the tee 4 and elbow fitting on the upper (distribution) manifold 5. Do not discard these tees, as you'll need to reinstall them.
- 4. Connect one end of the provided red tubing 6 to the elbow fitting 5, and the other end of the tubing to the tee 4.
- 5. Close the service valve 8 on the right end of the upper manifold.
- 6. Close both the air and water valves on the lower manifold 3.
- 7. Close the drain valve 2.
- 8. Open the master water supply valve, leaving the master air supply valve off. Unfiltered water will fill the distribution manifold and flow to the operatories.

Reverse these steps to convert back to normal filtration mode. Disconnect, drain and store the bypass tubing. Follow the Purge & Clean procedure outlined on page 11 to clean waterlines, since they will have been exposed to unfiltered water.



## **Limited Warranty**

THIS WARRANTY POLICY APPLIES TO PRODUCTS AND/OR SERVICES SOLD IN THE UNITED STATES AND CANADA BY OR ON BEHALF OF THE FOLLOWING HUFRIEDYGROUP COMPANIES: HU-FRIEDY MFG. CO., LLC, CROSSTEX INTERNATIONAL, INC., SPS MEDICAL SUPPLY CORPORATION, ACCUTRON INC. AND PALMERO HEALTHCARE LLC (such products and services hereinafter referred to as "Products" and "Services" and such HuFriedyGroup selling company is hereinafter referred to as "Seller"). This Warranty Policy applies to all Products and Services purchased on or after April 1, 2022 and replaces and supersedes all other warranties, except for any written warranty that accompanies a Product and is specific to such Product and any warranty agreed to by the parties in a written agreement signed by both parties. In such event, all of the foregoing warranties will apply but in the event of any conflict, the descending order of priority will be the accompanying warranty, the signed agreement and this Warranty Policy. All warranty related questions and warranty claims should be sent to service and repairs@ hu-friedy.com.

**WARRANTY:** Seller warrants to the purchaser who is the end user of its Products ("User") that for the warranty periods provided in the Warranty Period Table attached hereto ("Warranty Period(s)"): (i) its Products will be free from defects in workmanship and materials and will conform to Seller's published specifications for such Product; and (ii) its Services will be performed in a workmanlike manner.

WARRANTY CLAIM: User must notify Seller in writing of any warranty claim promptly after it becomes aware of the failure of any Product or Service to conform to this Warranty Policy. Unless otherwise provided herein or instructed by Seller when making a warranty claim, User will obtain a Return Material Authorization number from Seller and return the Product to Seller at User's expense. User must also provide any information, documentation and materials requested by Seller when making a warranty claim, which may include proof of purchase and serial number. If User purchased the Product from a distributor, Seller may require User to make a warranty claim with such distributor instead of to Seller.

**WARRANTY SERVICES:** Only after Seller confirms the User has met all of the requirements and obligations in this Warranty Policy, Seller will, at its option, repair or replace the Product, or re-perform the Services, at its expense, which includes the cost of shipment of any repaired or replacement Product to User. Seller may instead choose to refund User the purchase price. The repair or replacement of any Product does not extend the original Warranty Period of the repaired or replaced Product. Seller may use refurbished material for repairs or replacements.

WARRANTY EXCLUSIONS: The remedies in this Warranty Policy do not cover, and are not available for, any defect or deficiency resulting from: (i) use, storage, handling, installation or maintenance of a Product by User, its employees, agents or contractors, which is negligent, inconsistent with normal use or maintenance conditions or that fails to comply with any instructions provided by Seller such as instruction manuals; (ii) damage not caused by Seller; (iii) absence of any product, component, or accessory recommended by Seller but omitted or removed by User; (iv) combining Products with any third party product without Seller's authorization; and (v) service, maintenance or repair performance by anyone other than Seller or its authorized providers.

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#### The following apply notwithstanding the Warranty Policy:

- Filtration elements subject to varying types of water conditions are warranted for defects in materials and workmanship but not for performance due to fouling by local water conditions.
- Crosstex disclaims all responsibility and liability for any cost of field labor or other charges incurred by customer in removing and/or re-affixing any Crosstex or third party product, part or component thereof.
- All warranties are disclaimed for any product that is not installed in accordance with applicable local codes, ordinances and good trade practices, and any product that is moved from its original installation location.
- Within ten (10) days of installation, please register the product by mailing in the completed warranty card that is provided with the product or registering online at vrg.support/register.
- 5. In the absence of suitable proof of installation date, the warranty period will commence on the date of manufacture plus one hundred eighty (180) days.

#### Direct all notices, etc. to:

Service Department: (800) 483-7433

**Services**: All Services are warranted for 30 days except as otherwise provided below. Warranty Periods will begin when the initial Service is completed by Seller if performed on User's site, otherwise they begin upon delivery of the serviced product to User.

**Products**: All Products are warranted for 1 year except: (i) for Products manufactured by a third party, Seller will flow down any transferable manufacturer's warranties to User in lieu of any other warranties; (ii) used or refurbished Products are provided AS-IS without any warranties; and (iii) as otherwise provided below. Warranty Periods will begin upon initial delivery of the Product to initial User from Seller or Seller's authorized distributor.

# **System Information**

Thank you for purchasing the VistaClear™ DP Centralized Waterline Treatment System for your practice. The following chart is for necessary information for future reference. Please complete the table below and keep this manual in a convenient place for future reference.

Be sure to register your system online at vrg.support/register.

VistaClear™ DP Centralized Waterline Treatment System			
System Model #	CVV1000-DP		
System Serial #			
Purchased From (Dealer)			
Dealer's Address			
Dealer's Telephone #			
Name of Installer			
Installer's Telephone #			
Date Installed			
Notes			

Filter Replacement Record			
Date	Date		

We recommend marking your calendar 11 months ahead to remind you to order and replace both Carbon Block Filter and Denta-Pure™ Cartridge filtration elements.



Manufactured for: Crosstex International, Inc. 6789 W. Henrietta Road, Rush, NY 14543 USA 800.483.7433

 $\mathsf{Made}\,\mathsf{in}\,\mathsf{USA}$ 

VM1069 / REV E - 03/2023

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