

# Attention: MEDICAL/DENTAL PRACTITIONERS:

“Eliminate the Biofilm, that serves as a breeding ground for disease causing bacteria, collecting in your pipes, tubing and equipment.”

The issue entered the public spotlight when the “The Dentist’s Dirty Little Secret” aired on ABC’s “20/20” February 18th. The television segment showed how the waterlines that feed dental tools are a host for bacteria and other contaminants. Left untreated, contaminated water from these lines can be transmitted to patients.

Waterlines provide an environment conducive to the growth of bacteria, protozoa and fungi that arrive initially in small numbers through the public waterline plumbing systems. Over time, these microorganisms bond to the sides of water pipes and tubing forming biofilm. As water flows through the tube, the biofilm sheds microorganisms and bacterial endotoxins into the water.

A common problem in medical/dental offices is the formation of biofilm and bacteria in water lines and tubing serving the instruments.

This Disinfection System, with the patented Triangular Wave Technology, is now, for the first time, available to the medical/dental community. The Triangular Wave System marries the filtration process with the deposit control power of the Triangular Wave Technology and the disinfection power of ultraviolet light.

**First**, the water is filtered to remove lingering sediments, chlorine, heavy metals and organic carbon compounds. The filtering process features a sediment filter, the dual filter media of patented KDF 55 and Granular Activated Carbon, and a final Carbon Block Filter. A patented Meter Valve is also included to provide an automatic signal and shut off when it is time to reset and/or change the filters.

**The three cartridge progressive filtration system: The incoming water flows through each of these filters in sequence:**

1. The sediment filter removes any particulate matter.

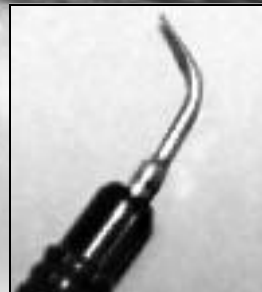
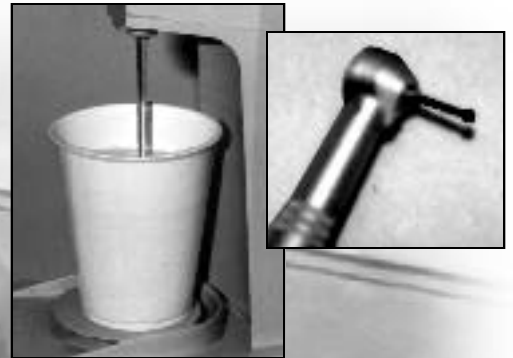
2. The dual media KDF/GAC provides state-of-the-art filtration. The KDF filter (a copper/zinc media) removes lead, mercury, iron and other heavy metals, plus chlorine, hydrogen sulfide, sulfur taste and odor and provides a bacteriostatic environment. The GAC filter (granular activated carbon) removes volatile organic chemicals, pesticides and herbicides, trihalomethane compounds, radon, solvents and hundreds of other man made chemicals found in tap water.

3. The carbon block filter cartridge provides a final assurance that any remaining pollutants are removed (such as cysts, remaining volatiles, chemicals and organic additives).

**Second**, the patented Triangular Wave Deposit Control System conditions the water before it enters the water lines for the equipment and instruments. The bacteria and scale particles in the water are conditioned so that they remain suspended and unable to attach to the water line walls or the medical/dental instruments. In addition, the conditioned water will attack the biofilm on the walls of the water lines and cause the biofilm to detach from the walls and remain suspended in the water. By eliminating the habitat provided by the biofilm, the bacteria will ultimately die off. The result is clean water lines and tubing with no biofilm and reduced bacterial contamination.

**The deposit control feature (micro-processor and reaction chamber) provides the following benefits:**

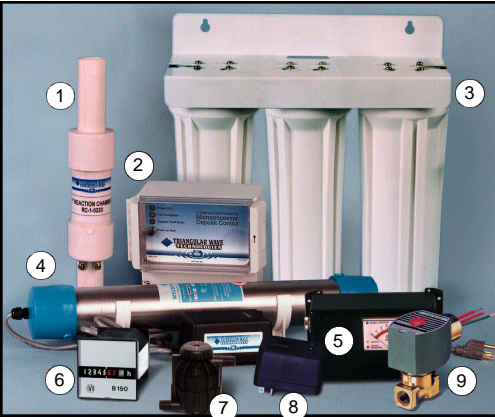
1. Removes and prevents scale build up and minerals deposits (descales the entire system over time)
2. Improves efficiency of all water feed equipment and extends the useful life of this equipment.
3. Provides the effects of softened water without chemicals.
4. Is totally safe and maintenance free.
5. Controls algae and bacteria (they are dispersed in the water and prevented from attaching to surfaces where they can feed and reproduce) thus they die.
6. Biofilm is removed and prevented from re-occurring; thus damage to vessel surfaces from bio-growth is eliminated.
7. In effect, a clean, corrosion free water delivery system is restored and maintained in an environmentally safe and chemical free manner.



**This fluid management system is a compact, self-contained, wall-mounted unit for the treatment of water in the medical / dental / laboratory environment.**

**Factory Assembled & Mounted Fluid Management Systems**

Applies all the needed elements for maximum fluid protection, management, and peace of mind in one simple packaged solution. State-of-the-art TWT Filtration, Microprocessor Deposit Controller, Reaction Chamber, and UV Disinfection units are combined to provide a start-to-finish answer to simplified prevention, treatment and management of water line contamination dangers. TWT solutions are scalable to fit the volume you need - ask us to specify the system that works best for you!



**Components\***

1. TWT Reaction Chamber
  2. TWT Deposit Controller
  3. TWT Filters
  4. Ultraviolet
- Optional Upgrades**
5. UV Monitor
  6. UV Hour Meter
  7. TWT-MV-Filter Meter
  8. UV Alarm
  9. Solenoid Shut-off Valve

\*System components may change for specific models

**Specifications**

**Model TWT-5C8-Series Deposit Controllers**

Residential/Commercial Deposit Control System with Reaction Chamber

**TWT-RC-1-0221 Reaction Chamber**

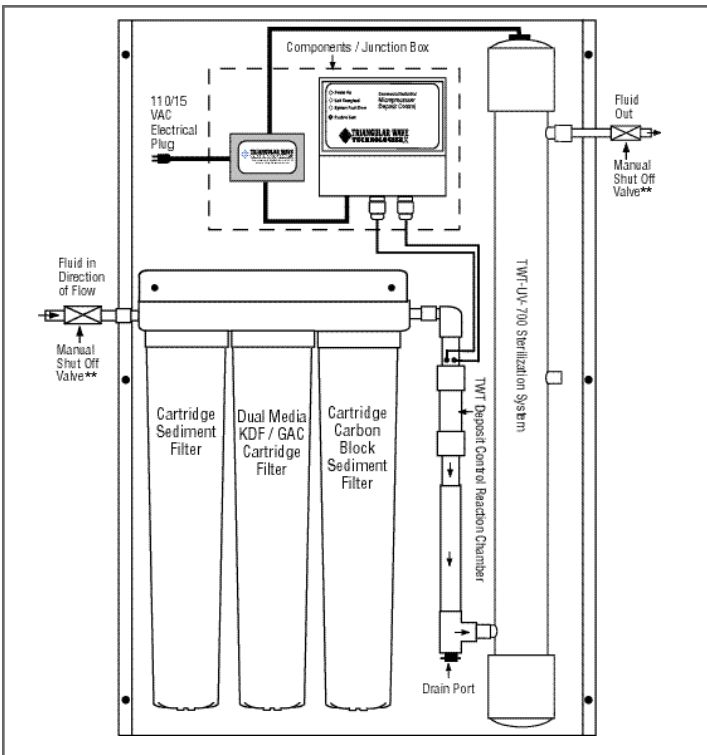
Factory wrapped 1 inch PVC pipe Solenoid Reaction Chamber for use with Microprocessor Deposit Control System.

**TWT-MUC-102**

Double Unit Water Filter System • Filtering capacity: 7500 gal.

**TWT-MUC-103**

Triple Unit Water Filter System • Filtering capacity: 7500 gal.



**TWT-MD-1003 12 and above operatories**

Rendering of Triangular Wave Technologies Fluid Management System. System consists of a Deposit Controller TWT-5C8-401 • TWT Reaction Chamber • UV-700 Disinfection System • TWT-MUC Filtration System

**TWT-UV-700**

Rated Flow: 30 Liters per minute / 8 Gallons per minute / U.V. Dose @ Maximum Flow: / 21,400 mw/sec/cm2  
 Electrical Supply: 120V/60Hz/3 Amp/240V/50Hz/2 Amp / Power Consumption: 36 Watt / Maximum Operating Temperature: 37C (98.6F) / Maximum Operating Pressure: 125 psi - 8 Bar / Plumbing: 3/4" N.P.T. In-Out / Size: 38" x 6" x 3" (97 cm x 15cm x 7.5cm) Weight: 8 lbs (3.5 kg) / Body: 316 Stainless Steel

**Specifications:** Factory assembled and mounted 40" H x 26.5" W x 8" D • Weight: approx. 40 lbs.

**Optional Upgrades upon request for units TWT-MD-1001 / 1002 / 1003\*\*\***

**TWT-MV Meter Valve – factory only upgrade\*\*\***

Provides an automatic signal and shut off when it is time to reset and/or change the filters.

**TWT-UV-Monitor lamp Output / TWT-UV-AA Alarm / TWT-UV-Hour Meter\*\*\***

Monitoring system "heads up" warning that the UV lamp is due for replacement.

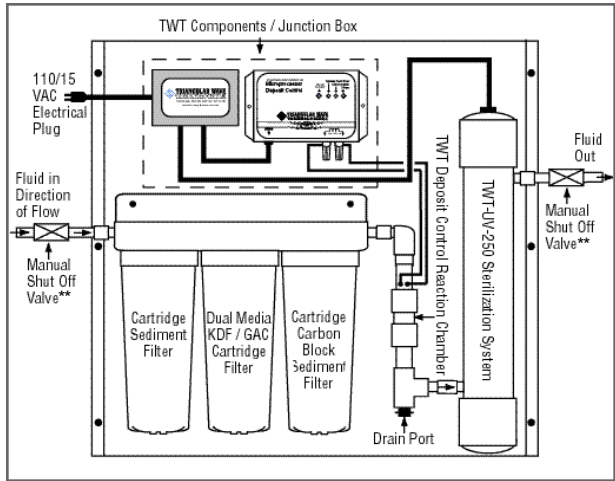
**TWT-SV Solenoid Shut-Off Valve\*\*\***

The Solenoid Shut-Off Valve is a backflow cutoff for use as a safety measure in the event of a system shutdown. Its use is strongly recommended for the medical and dental environments, and anywhere else that the highest degree of disinfection protection is required.

\*\*\*Factory only upgrade - specify at time of purchase only

*Triangular Wave Technologies, Inc. is dedicated to complete fluid management solutions, utilizing state-of-the-art technology and products. All components of our systems are selected and assembled to conform with universally recognized design standards for electrical, plumbing and environmental needs. Long term performance is ensured by our strict Quality Control methods.*

For additional information visit our Web Site at [www.triangularwave.com](http://www.triangularwave.com)



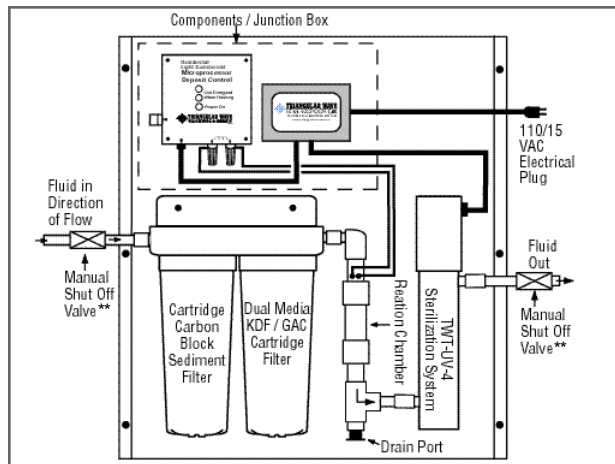
**TWT-MD-1002 Up to 12 operatories**

Triangular Wave Technologies Fluid Management System. System consists of a Deposit Controller TWT-5C8-472 • TWT Reaction Chamber • UV-250 Disinfection System and TWT-MUC Filtration System

**TWT-UV-250**

Rated Flow: 16 Liters per minute / 4 Gallons per minute • U.V. Dose @ Rated Flow: 31,500 mw/sec/cm2  
 Maximum Flow: 22 liters per minute / 5 Gallons per minute • U.V. Dose @ Maximum Flow: 22,500 mw/sec/cm2  
 • Power Consumption: 72 Watt • Maximum Operating Temperature: 37C (98.6F) • Maximum Operating Pressure: 100psi - 7 Bar • Plumbing: N.P.T. • Body: 316 Stainless Steel

**Specifications:** Factory assembled and mounted 24" H x 26.5" W x 8" D • Weight: approx. 30 lbs.



**TWT-MD-1001 Point of use**

Triangular Wave Technologies Water Fluid Management System. System consists of a Deposit Controller TWT-5C8-471 • TWT Reaction Chamber • UV-4 Disinfection System and TWT-MUC Filtration System

**TWT-UV-4**

Rated Flow: 3.75 Liters per minute/1 Gallon per minute • U.V. Dose @ Rated Flow: 29,500 mw/sec/cm2  
 Maximum Flow: 5.8 Liters per minute • U.V. Dose @ Maximum Flow: 18,500 mw/sec/cm2  
 • Power Consumption: 12 Watt • Maximum Operating Temperature: 37C Maximum Operating Pressure: 100 psi - 7 Bar • Plumbing: 1/4" N.P.T. In-Out • Body: 316 Stainless Steel

**Specifications:** Factory assembled and mounted 24" H x 22" W x 8" D • Weight: approx. 25 lbs.

**Note:** Above systems are fully integrated and factory assembled and mounted, offering end to end fluid management and treatment solutions, systems are designed for installation on pipes 1-inch or less

System engineering design, weight and system component assembly may vary based on application and industry specific needs

**\*\*Shut off valves owner/plumber installation**

