

Triangular Wave Technologies, Inc. (TWT®)

# Technologically advanced methods for water/fluid management

## Bacteria & Biofilm Control for Medical, Dental and Laboratory Environments



Eliminate the biofilm that serves as a breeding ground for disease causing bacteria, collecting in your water-lines, tubing and equipment.

**TWT® All-In-One Disinfection & Purification Systems.**

*TWT® The Ultimate in Water Treatment & Conditioning*

*The green way*



# Triangularwave Technologies All-In-One Disinfection & Purification Systems.

- Wall mounted water treatment system
- Stainless Steel wall mount frame
- 2 & 3-Stage Filtration
- TWT® Deposit Control Technology
- Ultraviolet Disinfection & Purification

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 your distributor to specify the system that works best for you!

**These fluid management systems are compact, self-contained, wall/skid mounted units for the treatment of water in the Medical, Dental and Laboratory environments.**

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.



**TWT-POEPOUV-600  
1-2 GPM**

**Specifications:**

Approx Size:  
26" W X 24" H X 10"D  
Approx Weight: 50 lbs.  
(will vary based on filters used)  
1/2" in/out  
110/20 VAC other current source available upon request

Filters used in system(s) Filters are interchangeable allowing you to meet your specific water treatment needs at all times.

- Sediment 5-10 Micron: Pleated Washable and reusable for sediment reduction/removal

- GAC: Granulated activated carbon for taste, odor, organic chemicals and chlorine reduction/removal.
- GAC/KDF-55: Granulated activated carbon with KDF-55, specially formulated copper/zinc alloy media designed to remove chlorine, lead, volatile organic chemicals, hydrogen sulfide, sulfur, herbicides, pesticides, chemical fertilizer residues and trihalomethanes
- Resin Filter: Water softening resin filter



**TWT-MD-1002-4 GPM**

**Specifications:**

Factory assembled and mounted on stainless steel frame with mounting brackets and/or holes provided, Size: Approx 25"W X 24"H X 8"D, Weight: Approx 49 lbs. (may vary according to custom design requirements). \*Filter mediums and micron sizes used in 3-stage filter housings is configured as illustrated. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and

materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.

**Optional:** Stainless steel piping in and out of system available upon request



**TWT-MD-1003-8 GPM**

**Specifications:**

Factory assembled and mounted on stainless steel frame with mounting brackets and/or holes provided, Size Approx: 37" W X 45"H X 8"D, Weight: Approx 67 lbs. (may vary according to custom design) \*Filter mediums and micron sizes used in 3-stage filter housings is configured as illustrated. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.

**Optional:** Stainless steel union and piping, in and out of system available upon request



**TWT-MD-1004-12 GPM**

**Specifications:**

Factory assembled and mounted on stainless steel frame with mounting brackets and/or holes provided, Size Approx. 40"W X 43"H X 8"D, Weight Approx 83 lbs. (may vary according to custom design) \*Filter mediums and micron sizes used in 3-stage filter housings is configured as illustrated above. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.

**Optional:** Remote sensor available upon request

\*Upon request if needed other filter mediums of filters used in system can be determined by a water quality analysis (purchaser responsibility)

\*\*Micronic sizes of filters are generally 10, 20 microns, unless otherwise specified



**TWT-MD-1005-15 GPM**

**Specifications:**

Factory assembled and mounted on stainless steel frame with mounting brackets and/or holes provided, Size Approx: 58"W X 49"H X 8"D, Weight Approx: 122 lbs. ( may vary according to custom design requirements) \*Filter mediums and micron sizes used in 3-stage filter housings is configured as illustrated above. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.

**Optional:** Remote sensor available upon request



**TWT-MD-1006-30 GPM**

**Specifications:**

Factory assembled and mounted on stainless steel frame with mounting brackets and/or holes provided, Size Approx: 58"W X 49"H X 8"D, Weight Approx: 141 lbs. ( may vary according to custom design requirements) \*Filter mediums and micron sizes used in 3-stage filter housings is configured as illustrated above. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.

**Optional:** Remote sensor available upon request

**Upgrade:** Customized skid-mounted systems 100 / 200 / 400 & higher GPM's to meet your treatment requirements available upon request

**Please Note:**

System engineering design, weight, size and system component assembly can vary based on TWT engineering review, water conditions, application, industry and/or customer specific needs Pumps, piping, fittings, valves, and other material needed to and from system owners responsibility



**TWT-MD-1007-50 GPM**

**Specifications:**

Factory assembled and skid mounted on stainless steel frame, Size approx. 68"W X 52"H X 30"D, weight TBD ( may vary according to custom design ) \*Filter mediums and micron sizes used in 2-stage filter housings is configured as illustrated above. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.



**TWT-MD-1007-50 GPM**

**Specifications:**

Factory assembled and skid mounted on stainless steel frame, Size approx. 68"W X 52"H X 30"D, weight TBD ( may vary according to custom design ) \*Filter mediums and micron sizes used in 3-stage filter housings is configured as illustrated above. Other filter mediums and \*\*micronic sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). All electrical, piping, fittings, pumps, and materials (equipment) used in the system can be engineered and system integrated to conform to requirement of the submitted RFQ.

**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

**Installation:** Licensed plumber and/or contractor are recommended  
Must have enough room on all sides for filter and UV replacement & maintenance

\*Upon request if needed other filter mediums of filters used in system can be determined by a water quality analysis (purchaser responsibility)

\*\*Micronic sizes of filters are generally 10, 20 microns, unless otherwise specified

# Biofilm & Bacteria Control for Medical, Dental, Laboratory & Veterinary Environments

## **TWT® technologically advanced method for water management. Triangular Wave Technologies, Inc. All-In-One fluid management systems, the ultimate in water treatment & conditioning**

TWT® systems are factory engineered and assembled, applying all of the needed elements for maximum fluid protection, management, and peace of mind in one simple packaged solution. 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.

### **The TWT All-In-One Fluid management water disinfection / purification systems are unique, compact, self-contained units for the treatment of water.**

A common problem in medical, dental, lab, veterinary & pharmaceutical environments is the formation of biofilm and bacteria in waterlines and tubing serving equipment and instruments. Waterlines provide an environment conducive to the growth of bacteria, protozoa and fungi that initially arrive in small numbers through the plumbing system.

Over time, these microorganisms bond to the sides of water pipes and tubing forming biofilm. As water flows through the pipes and tubes, the biofilm sheds microorganisms and bacterial endotoxins into the water. To combat this, TWT introduces a system that marries the filtration process with the power of patented triangular wave deposit control and the disinfection power of ultraviolet light.

#### **First: Filtration**

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. Upon request if needed other filter mediums and filters used in system can be determined by a water quality analysis. If fluid conditions require additional micronic particle trapping for enhanced results, filters are available in various micronic sizes providing flexibility & adaptability to meet the needs of all fluid conditions & application.



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

- The sediment filter removes any particulate matter.
- 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.
- Optional post sediment filtration provides complete end-to-end protection. A final assurance that any remaining pollutants are removed (such as cysts, remaining volatiles, chemicals and organic additives).

Filters used in staged filter housings are configured as illustrated on system trade ads. Upon request if needed other filter mediums and filters used in system can be determined by a water quality analysis. If fluid conditions require additional micronic particle trapping for enhanced results, filters are available in various micronic sizes providing flexibility & adaptability to meet the needs of all fluid conditions & applications.



#### **Second: Deposit Control Technology**

The patented Triangular Wave Deposit Control System conditions the water before it enters the waterlines feeding equipment and instruments. The colloids in the water are conditioned so that they remain suspended and unable to attach to waterline walls or equipment and instruments. In addition, the conditioned water will attack existing biofilm on the



walls of the water-lines and cause it 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 waterlines and tubing with no biofilm and reduced bacterial contamination.

#### **The All-In-One Disinfection & Purification Systems provide the following benefits:**

1. Removes and prevents scale build up and mineral deposits (descales the entire system over time)
2. Improves efficiency of all water-fed equipment and extends the useful life of this equipment.
3. Provides the effects of softened water without sodium or chemical use.
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-forming, thus damage to vessel surfaces from bio-growth is eliminated.

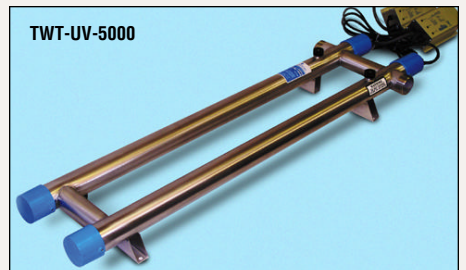
#### **Third: Ultra Violet Disinfection**

The Triangular Wave Ultraviolet Disinfection subsystem will then kill 99.9% or greater any remaining bacteria and viruses by disrupting the microbes' DNA with ultraviolet light rays. Ultraviolet disinfection has been proven to be a highly effective non-chemical disinfection & purification system.

TWT-UV-1200



TWT-UV-5000



**DON'T WAIT...Contact us today for a free consultation!**

And for information on what TWT system will meet your specific application needs cost effectively!