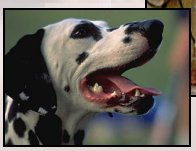
Triangular Wave Technologies, Inc. (TWT®)

Technologically advanced methods for water/ fluid management

Bacteria & Biofilm Control for Medical, Dental and Laboratory Environments



CHEMICAL FREE

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

Versatile, efficient & cost-effective products to solve fluid management problems end-to-end.

Filtration • Deposit Control Technology • Ultra Violet Disinfection & Purification

TWT® The Ultimate in Water Treatment & Conditioning

The green way

TWT TRIANGULAR WAVE TECHNOLOGIES, INC. FLUID MANAGEMENT SOLUTIONS www.Triangularwave.Com

ATS102

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

TWT® technologically advanced method for water management. Triangular Wave Technologies, Inc. integrated treatment systems.

TWT® systems are factory engineered, applying all of the needed elements for maximum fluid protection, management, and peace of mind Filtration, Microprocessor Deposit Controller, Reaction Chamber, and UV Disinfection units can be integrated to provide a start-to-finish answer to simplified prevention, treatment and management of water line contamination dangers.

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.

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 & applications.

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.

Deposit Control Technology:

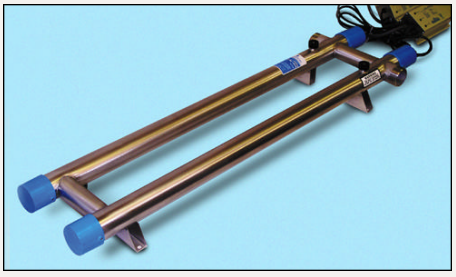
The patented Triangular Wave Deposit Control System conditions the water before it enters the waterlines feeding equipment and instruments. The colloids in the water are conditioned so that they remain suspended and unable to attach to waterline walls or equipment and instruments. In addition, the conditioned water will attack the existing biofilm on the walls of the waterlines 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 water-lines and tubing with no biofilm and reduced bacterial contamination.

The deposit control subsystem (microprocessor and reaction chamber) provides 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.

Ultra Violet Disinfection:

Triangular Wave Ultraviolet Disinfection subsystem will then kill 99.9% of 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.



Email:info@triangularwave.com • triwaveinc@aol.com • website:www.Triangularwave.com

TWT, Inc. offers a full range of products & systems design0ed to address fluid problems wherever fluid flows. From patented deposit control technology to pre and post filtration needs, ionization, disinfection, and ultra violet purification treatment and conditioning. Components and subsystems chosen from across the range of treatment methods can be combined in different configurations to provide custom solutions specific to any industry, site or application. TWT has the versatile, efficient, cost-effective methods to solve your fluid management problems end to end.

Filtration

TWT-SYS700-FS
3/4" pipe size

Slim Line Filter Housing

Filter Set Systems Specs: Filter Housings 20" sediment filter 20" carbon filter, Mounting Bracket Filter Wrench Pressure Tested

TWT-SYS1200-FS
1" pipe size

Big Blue Filter Housing

Filter Set Systems Specs: Filter Housings 20" sediment filter 20" carbon filter Mounting Bracket Filter Wrench Pressure Tested

Custom Filtration Systems

Commercial / Industrial Stainless Steel Filter Housings

High volume application

Available in various sizes to meet almost any application requirements

Patented Deposit Control Technology

TWT-5C8-472
Residential / Commercial Deposit Control System For Pipes 1 inch or less in diameter 9 vdc transformer

TWT-5C8-473
Residential / Commercial Deposit Control System For Pipes 1 inch or less in diameter

TWT-RC **TWT-SRC**

TWT-RC-1–PVC Reaction Chamber for pipes 1" or less in diameter

TWT-SRC-1–Stainless Steel Reaction Chamber for pipes 1" or less in diameter

TWT-5C8-401
Commercial / Industrial Deposit Control System For Pipes 1 1/2" inch or less in diameter

TWT-IRC-01.5 **TWT-ISRC-01.5**

TWT-IRC-01.5–Industrial PVC Reaction Chamber for pipes 1 1/2" or less in diameter

TWT-ISRC-01.5–Industrial Stainless Steel Reaction Chamber for pipes 1 1/2" or less in diameter

TWT-5C8-402
Commercial / Industrial Deposit Control System For Pipes 2" inch or less in diameter

TWT-IRC-02 **TWT-ISRC-02**

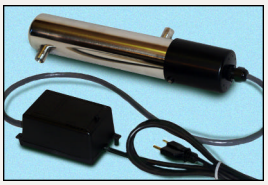
TWT-IRC-01.5–Industrial PVC Reaction Chamber for pipes 2" or less in diameter

TWT-ISRC-01.5–Industrial Stainless Steel Reaction Chamber for pipes 2" or less in diameter

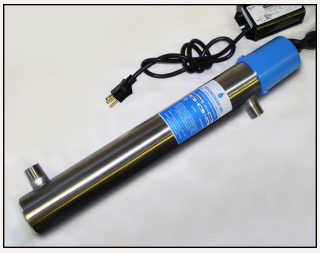
Email:info@triangularwave.com • triwaveinc@aol.com • website:www.Triangularwave.com

Ultra Violet Disinfection & Purification

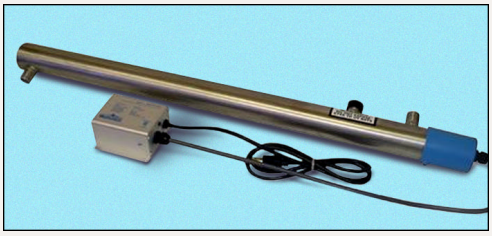
Ultra violet disinfection & purification technology, provides safe water, free of disease-causing pathogens. As water passes through the UV chamber, UV light will attack and render harmless any bacterial, viral or spore contamination present in the treated water. "High intensity UV light destroys these contaminats with a 99.9% or greater kill rate" The output water is thus disinfected and offers exceptionally high quality for human consumption and use.



TWT-UV-1 (1-2 GPM)
This point of use sterilizer is designed for many different applications. It can be combined with filtration systems or a reverse osmosis system. A popular application for the UV-4 is as part of a water cooler at point-of-use. The UV-4 is ideally designed for use in cottages, on board ships or in RV's. In areas where standard electricity is not available, the UV-4 can be ordered as a 12V DC unit. The ultra-violet sterilizer destroys bacteria and viruses to a 99.9% kill rate.



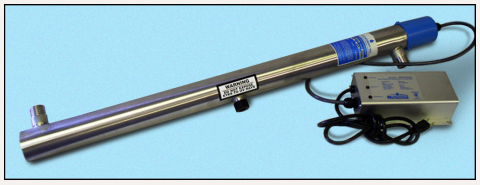
TWT-UV-250 (4 GPM)
The TWT-UV-250 sterilizer is ideally sized to provide safe disease and pathogen-free water at point-of-entry to any average size household. The effective kill rate of microorganisms, including bacteria and viruses is 99.9% or greater. No chemicals are added and the pH balance of the water is unchanged. TWT sterilizers operate continuously, automatically and are inexpensive to run. Source water does not require heating or cooling prior to sterilization. TWT sterilizers are easy to install and only require lamp replacement every 10 to 12 months. This is a simple ten minute procedure.



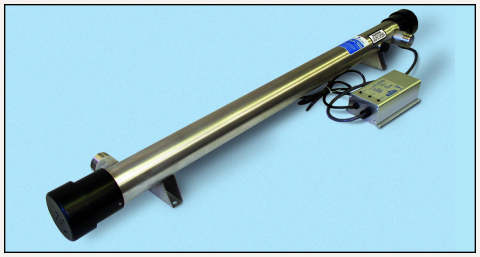
TWT-UV-700 (8 GPM)
The TWT-UV-700 sterilizer is best suited for large households. Both the UV-700 and UV-1200 are efficient for small commercial and restaurant applications too. As water passes through the ultra-violet chamber, the powerful UV rays kill disease causing microorganisms, including bacteria and viruses with a 99.9% or greater kill rate. No chemicals are added and the PH of the water remains unchanged. TWT sterilizers operate continuously and automatically with no need to heat or cool the source water. They are inexpensive to operate, simple to install and practically maintenance free. Lamp replacement is necessary every 10 to 12 months and is a simple ten minute procedure.

Products and systems for larger volume / GPM applications to meet your treatment requirements available upon request

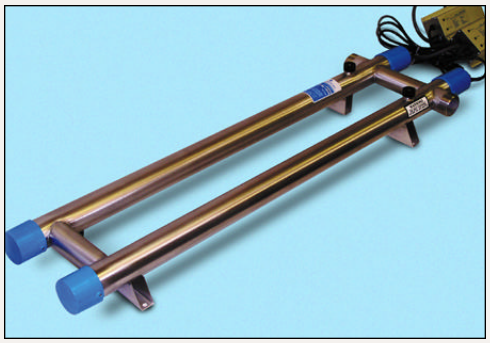
These three units are all similar in appearance, but have different capacities. The need for different flow rates will depend on the application and the nature of the installation. These TWT sterilizers provide clean, safe water to large operations for manufacturing processes or human consumption. All of our units are expertly constructed of # 316 stainless steel to high quality control standards. The units operate continuously, automatically and inexpensively. Installation is easy and there is no need to heat or cool the water prior to sterilization. The germicidal lamp is effective for approximately 8,000 hours which means extremely cost effective water sterilization over the long term.



TWT-UV-1200 (12 GPM)

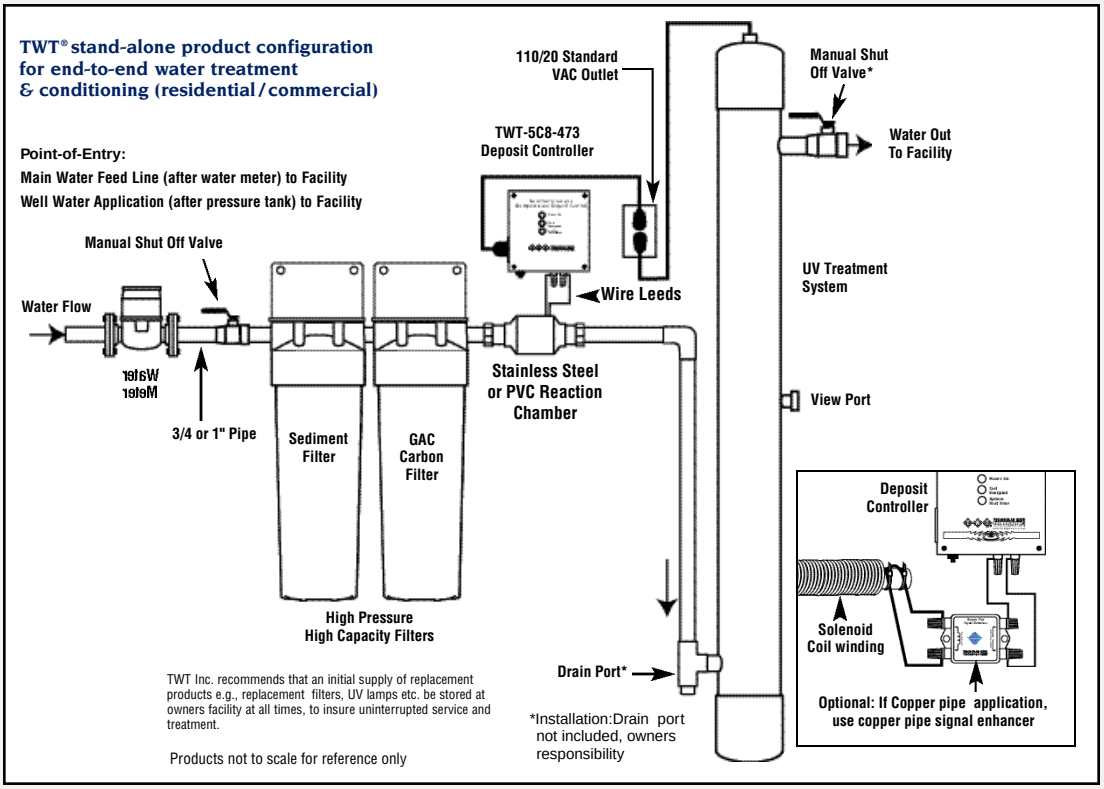


TWT-UV-1500 (15 GPM)
TWT-UV-3000 (30 GPM)



TWT-UV-5000 (50 GPM)
The TWT-UV-5000 sterilizer is a very cost effective unit that is suited to the larger industrial application requiring 50 gallons per minute of clean, sterilized water. The unique design of the two parallel germicidal lamps in a highly efficient low maintenance configuration provides clean water, free of disease-causing pathogens. All sterilizers are manufactured to strict tolerances of 316 stainless steel. Our germicidal lamps are effective for 8,000 hours and are replaced in a simple ten minute procedure.

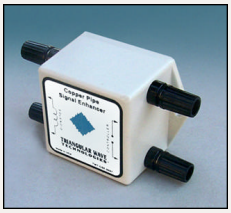
TWT® stand-alone product configuration for end-to-end water treatment & conditioning (residential / commercial)



TWT Inc. recommends that an initial supply of replacement products e.g., replacement filters, UV lamps etc. be stored at owners facility at all times, to insure uninterrupted service and treatment.

Products not to scale for reference only

*Installation:Drain port not included, owners responsibility



TWT-CSE-0227
for copper pipes only 2" or less in diameter

The copper signal enhancer is a passive signal / impedance matching circuit.This device provides a power boost to the conditioning signal in copper pipes.

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

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

TRIANGULAR WAVE TECHNOLOGIES, INC
FLUID MANAGEMENT SOLUTIONS
www.Triangularwave.Com

Email:info@triangularwave.com • triwaveinc@aol.com • website:www.Triangularwave.com