

Triangularwave Technologies, Inc. (TWT®)

EXPLORE INNOVATIVE SOLUTIONS IN FLUID MANAGEMENT

**TWT® Offers A Bold Series Of Chemical-Free Products & Systems
Designed To Meet The Demanding Challenge In Fluid Management
Technologically Advanced Methods for Water & Fluid Treatment
Providing Comprehensive End-To-End Solutions
Meeting The Needs Of Any Industry And Application**

TWT® “The Competitive Edge”

Eliminate Biofilm

Control Scale Deposits • Bacteria

Corrosion • Algae & Colloids

In All Water-Fed Systems



Ensure You Have An Effective Water Treatment System

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.**

Water lines in the residential, commercial & industrial sectors, **where clean water is essential**, commonly allow a contaminated interior environment conducive to the growth of bacteria, protozoa, and fungi. These initially arrive in small numbers through wells, and public waterline plumbing systems. Over time, these microorganisms bind to the sides of your water pipes and tubing, and equipment forming biofilm. As water flows through the pipes and tubes, the biofilm sheds microorganisms and bacterial endotoxins into the water, leading to these harmful conditions.

How the TWT All-In-One systems work!

1. Filtration Systems:

Filters are designed to trap various kinds of debris, dirt and organic particles that will otherwise enter your equipment and/or plumbing system, restrict your water flow and create a breeding ground for bacteria. Filtration is the first line of defense for residential, commercial, industrial facilities, where the source of water may be ponds, wells or streams that have high exposure to contamination from airborne pollutants, surface run-off, agricultural or industrial waste or similar dangers. The first step in achieving clean water is to install a filtration device that effectively removes particulate matter and similar debris. Filtration is an important step in water treatment, especially for water intended for human consumption. Filtration systems provide a bacteriostatic environment and are designed to remove, volatile organic chemicals, hydrogen sulfide and sulfur, herbicides, pesticides, chemical fertilizer residues, trihalomethanes and many other pollutants.

The filtration units utilized in TWT systems are comprised of several filter types and media that remove harmful chemicals, metals, and toxins from the water as it passes through these layers. 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.



2. TWT® Patented Deposit Control Technology

The basic component of the TWT systems is the deposit controller. It is comprised of a microprocessor, solenoid coil wrap and/or a reaction chamber. The microprocessor is a patented controller that functions like a computer to relay a continuous electrical power supply to the solenoid coil and/or reaction chamber. The reaction chamber is plumbed into the main water in-take line and/or just before each piece of vital processing equipment, and provides a factory wrapped wire coil forming a solenoid. The solenoid conveys the triangular wave signal at the appropriate power level (as allowed by the model chosen) to the water passing through the chamber.



This signal constantly changes the polarity, frequency, and amplitude of the current entering the water. This triangular wave treatment produces several benefits. It increases the capability of water to hydrate scale ions and other colloidal particles. In effect, the surface charge of the hydrogen molecules is enhanced and the water is made "wetter". This "hydrated" water can dissolve unwanted particles, suspend them in solution, and allow them to be easily filtered out or flushed from the system. Accordingly, the mineral and biological particles that cause scale, deposits, and corrosion are dissolved and washed away.

This means that the breeding environments for bacteria, such as bio-film and corrosion, are eliminated. The agitation created in the reaction chamber also disrupts the conditions essential for the normal reproduction of bacteria and they die, thus allowing them to be harmlessly flushed out of the system. If left untreated, scale build-up inside the reaction chamber and on the quartz sleeves containing the UV lamps may rapidly diminish the UV disinfection effectiveness by reducing the amount of UV light which is absorbed into the water stream. The TWT Deposit Control System will further condition the treated water stream so as to prevent this scale build up inside the UV reaction chamber, helping to maintain maximum UV life cycle and penetration into the water stream. TWT deposit control technology (treated fluid) maintains the ability to control deposits throughout the system with down-stream residual value.

3. Ultra-Violet Disinfection/Purification:

The UV disinfection technology used in the system provides safe process and potable 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 contaminant's with a 99.9% or greater kill rate". The output water is thus disinfected and offers exceptionally high quality for human consumption and use.



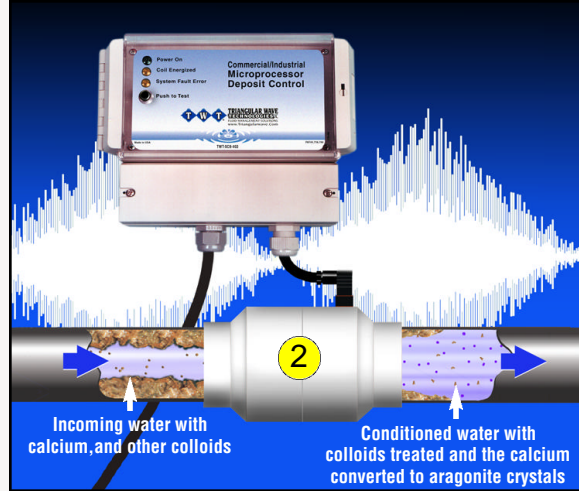
TWT® Deposit Control Technology, Ultra Violet Lamp Protection (cleaning) with Down-Stream Residual Benefits.

Multi-Process Filtration, Conditioning, Treatment and Purification Technology “TWT® The Smart Treatment Method”

Rendering of system components assembly in order of application and process flow



Water out to Deposit Control Technology (Electro-magnetic fluid conditioning)



The Second Step in achieving clean water is the TWT Chemical-Free Deposit Control Technology (hard water problems solved easily)



Water out for it's intended use



In effect, a clean, corrosion-free delivery system is restored and maintained in an environmentally safe and chemical-free manner. The result is clean water, pipes and tubing with no biofilm and bacterial contamination.

TWT® Filtration • Deposit Control Technology • Ultra Violet (UV) Disinfection & Purification Combined for Maximum Effectiveness

TWT® All-In-One Fluid Treatment Systems:

TWT water treatment systems are ruggedly constructed for exceptional performance. These systems are ideally suited for Wells, Homes, Offices, Factories, Farms, Medical/Dental, Laboratory Environments, Hospitals, Restaurants, Schools, irrigation and anywhere the need for cleaner water to use and drink is required. The rugged self-contained design of these systems ensure that the system will enjoy a long and reliable lifecycle when properly cared for.

All-in-One Integrated Water Treatment Systems P.O.E./P.O.U. Applications

Chemical-Free • Multi-Stage Filtration Electro-Magnetic Fluid Conditioning • UV Disinfection/Purification

TWT-MD-1001 (2 GPM)

Specifications:

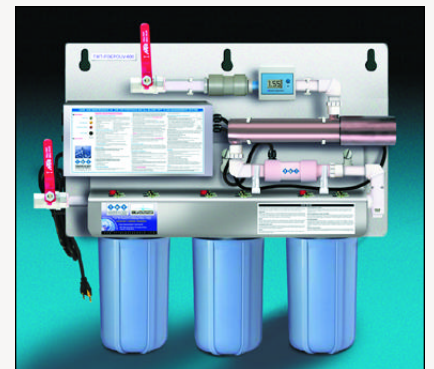
- Approx Size: 30"W x 30"H x 8"D • Approx Weight: 40 lbs
- Piping: 1/2" In/Out of system • 2 GPM
- **Wall Mounted Water Treatment System**
- **2-Stage Filtration-10"- Sediment, Carbon**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV-1 Sterilizer**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



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)
- Piping: 1/2" In/Out of system • 1-2 GPM
- **Wall Mounted Water Treatment System**
- **3-Stage Filtration: 10" Big Blue: Sediment, Carbon, GAC (resin optional)**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV-1 Sterilizer**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



TWT-MD-1002 (4 GPM)

Specifications:

- Approx Size: 30"W x 30"H x 8" D • Approx Weight: 70 lbs
- Piping: 3/4" In/Out of system • 4 GPM
- **Wall Mounted Water Treatment System**
- **Stainless Steel Wall Mount Frame**
- **3-Stage Filtration: 10" Sediment, Carbon, GAC**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV-250 sterilizer**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



TWT-MD-1003 (8 GPM)

Specifications:

- Approx Size: 37"W x 45"H x 8"D • Approx Weight: 77 lbs
- Piping: 3/4" In/Out of system • 8 GPM
- **Stainless Steel Wall Mount Frame**
- **3-Stage Filtration: 20" Slim Line: Sediment, Carbon, GAC**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV-700 Sterilizer**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



All-in-One Integrated Water Treatment Systems P.O.E./P.O.U. Applications

Chemical-Free • Multi-Stage Filtration Electro-Magnetic Fluid Conditioning • UV Disinfection/Purification

TWT-MD-1004 (12 GPM)

Specifications:

- Approx Size: 40"W X 43"H X 10"D • Approx Weight: 93 lbs
- Piping: 1" In/Out of system • 12 GPM
- **Wall Mounted Water Treatment System**
- **Stainless Steel Wall Mount Frame**
- **3-Stage Filtration: 20" BB-Sediment, Carbon, GAC**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV1200**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



TWT-MD-1005 (15 GPM)

Specifications:

- Approx Size: 58"W x 49"H x 10"D • Approx Weight: 122 lbs
- Piping: 1" In/Out of system • 15 GPM
- **Wall Mounted Water Treatment System**
- **Stainless Steel Wall Mount Frame**
- **3-Stage Filtration: 20" BB-Sediment, Carbon, GAC**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV1500**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



TWT-MD-1006 (30 GPM)

Specifications:

- Approx Size: 58"W x 49"H x 10"D • Approx Weight: 141 lbs
- Piping: 1 1/2" In/Out of system • 30 GPM
- **Wall Mounted Water Treatment System**
- **Stainless Steel Wall Mount Frame**
- **3-Stage Filtration: 20" BB-Sediment, Carbon, GAC**
- **TWT® Deposit Control Technology**
- **Ultraviolet Disinfection & Purification UV3000**
- **And other related components that provide for easy installation and operation**
- **Filters used in system are interchangeable allowing you to meet your specific water treatment requirements at all times**



All-in-One Integrated Water Treatment Systems P.O.E./P.O.U. Applications

Chemical-Free • Multi-Stage Filtration Electro-Magnetic Fluid Conditioning • UV Disinfection/Purification

TWT-SMD-1007 (50 GPM) Point-Of-Entry/Point-Of-Use Treatment System

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 68" W x 52"H x 30"D
- Approx Weight:TBD (may vary according component assembly)
- Piping: 2" In/Out of system • 50 GPM
- Filter bags, filter mediums and micronic sizes used in staged filter housings is based upon input water quality, customer and/or industry specific treatment requirements. To be determined (TBD) at time of purchase.

- **Skid Mounted Water Treatment System • Stainless Steel Filter Housings**
- **2-Stage Filtration • TWT® Deposit Control Technology • Ultra Violet Disinfection & Purification**
- **And other related components that provide for easy installation and operation • Stainless Steel Skid**



TWT-SMD-1007+1 (50 GPM) Point-Of-Entry/Point-Of-Use Treatment System

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 80" W x 60"H x 32"D
- Approx Weight: TBD (may vary according component assembly)
- Piping: 2" In/Out of system • 50 GPM
- Filter bags, filter mediums and micronic sizes used in staged filter housings is based upon input water quality, customer and/or industry specific treatment requirements. To be determined (TBD) at time of purchase.

- **Skid Mounted Water Treatment system • Stainless Steel Filter Housings • 3-Stage Filtration • TWT® Deposit Control Technology**
- **Ultra Violet Disinfection & Purification • And other related components that provide for easy installation and operation**
- **Stainless Steel Skid**



TWT-SMD-1007+2 (50 GPM) Point-Of-Entry/Point-Of-Use Treatment System

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 80" W x 52"H x 32"D
- Approx Weight: TBD (may vary according component assembly)
- Piping: 2" In/Out of system • 50 GPM
- Filter bags, filter mediums and micronic sizes used in staged filter housings is based upon input water quality, customer and/or industry specific treatment requirements. To be determined (TBD) at time of purchase.

- **Skid Mounted Water Treatment System**
- **Stainless Steel Filter Housings • 4-Stage Filtration**
- **TWT® Deposit Control Technology • Ultra Violet Disinfection & Purification**
- **And other related components that provide for easy installation and operation • Stainless Steel Skid**



All-in-One Integrated Water Treatment Systems P.O.E./P.O.U. Applications

Chemical-Free • Multi-Stage Filtration Electro-Magnetic Fluid Conditioning • UV Disinfection/Purification

TWT-SMD-1008 (100 GPM) Point-Of-Entry/Point-Of-Use Treatment System

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 72" W x 52"H x 34"D
- Approx Weight:TBD (may vary according component assembly)
- Piping: 2" In/Out of system • GPM: 100 GPM
- Filter bags, filter mediums and micronic sizes used in staged filter housings is based upon input water quality, customer and/or industry specific treatment requirements.To be determined (TBD) at time of purchase.
- **Skid Mounted Water Treatment System • Stainless Steel Filter Housings**
- **2-Stage Filtration • TWT® Deposit Control Technology**
- **Dual Ultra Violet Disinfection & Purification • And other related components that provide for easy installation and operation • Stainless Steel Skid**



TWT-SMD-1008+1 (100 GPM) Point-Of-Entry/Point-Of-Use Treatment System

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 80" W x 60"H x 34"D
- Approx Weight: TBD (may vary according component assembly)
- Piping: 2" In/Out of system
- 100 GPM
- Filter bags, filter mediums and micronic sizes used in staged filter housings is based upon input water quality, customer and/or industry specific treatment requirements. To be determined (TBD) at time of purchase.
- **Skid Mounted Water Treatment System • Stainless Steel Filter Housings • 3-Stage Filtration • TWT® Deposit Control Technology**
- **Dual Ultra Violet Disinfection & Purification • And other related components that provide for easy installation and operation**
- **Stainless Steel Skid**



TWT-SMD-1008+2 (100 GPM) Point-Of-Entry/Point-Of-Use Treatment System

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 80" W x 52"H x 34"D
- Approx Weight: TBD (may vary according component assembly)
- Piping: 2" In/Out of system
- GPM: 100 GPM
- Filter bags, filter mediums and micronic sizes used in staged filter housings is based upon input water quality, customer and/or industry specific treatment requirements. To be determined (TBD) at time of purchase.
- **Skid mounted water treatment system**
- **Stainless Steel Filter Housings • 4-Stage Filtration**
- **TWT® Deposit Control Technology • Dual Ultra Violet Disinfection & Purification**
- **And other related components that provide for easy installation and operation • Stainless Steel skid**



All-in-One Integrated Water Treatment Systems P.O.E./P.O.U. Applications

Chemical-Free • Multi-Stage Filtration Electro-Magnetic Fluid Conditioning • UV Disinfection/Purification

TWT-SMD-200-4 (200 GPM) Point-Of-Entry/ Point-Of-Use Treatment System

Specifications:

Factory Assembled Skid Mounted, Fork Lift/ Fluid Management System. This system is a compact, self-contained, skid-mounted unit for the treatment of water.

Specifications:

- Approx Size: 84"W X 72"H X 60"D (may vary according component assembly)
- Approx weight: 800 lbs. (may vary according to custom design)
- Piping: 3" In/Out of system
- 200 GPM
- Filter medium and micron sizes used in staged filter housings are configured as illustrated. Other filter medium and micron sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBT). Micronic sizes of filters are generally 20, 30, 50 microns, unless otherwise specified.

• Skid Mounted Water Treatment System

• 4-Filter Housings • Staged Filtration

• TWT® Deposit Control Technology • 7 Lamp Ultra Violet Disinfection & Purification

• And other related components that provide for easy installation and operation • Stainless Steel Skid



Installation: All systems are shipped with illustrated, easy to follow installation & application guidelines. Licensed plumber and/or contractor is recommended. Must have enough room on all sides for filter and UV replacement & maintenance.

Systems engineering design: Weight, size and system component assembly may vary based on TWT engineering review and/or customer request (systems are guaranteed to work as specified).

UV lamp replacement: To ensure adequate disinfection/purification of water line contamination, replace UV lamps every 12 months (or sooner depending on water use, quality and conditions).

Filter (media) Cartridge Replacement: Generally twice a year, depending on water use, quality & conditions.

Note: 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, that will insure uninterrupted service and treatment.

All TWT systems are shipped with 120 VAC/60 Hz current source. Other current source available upon request at no extra charge, Must specify current source requirements when placing order.

Installation: Pumps, piping, fittings, valves, and other material needed to and from system owners responsibility.



Triangular Wave Technologies, Inc. (TWT®) Technologically advanced method for water/fluid management & control. All-In-One Disinfection & Purification System.

TWT® products and systems provide technologically advanced methods for water and fluid management that are both efficient and cost-effective. Components and subsystems chosen from across the range of treatment methods can be combined in different configurations to provide custom solutions specific to GPM requirements and to any industry, site or application.

TWT systems work to consistently deliver high quality fluid/water, reduce scale and bio-fouling in plumbing systems, and to increase efficiency of both once-through and re-circulating HVAC, process cooling, agricultural, industrial processing, waste water and other fluid based systems. Each product line offers a variety of both stand-alone and comprehensive treatment solutions for end-to-end fluid management, for all types of applications.

TWT has extensive design, engineering, manufacturing, consulting and training ability to work with customers worldwide, and to use its products and/or systems in whole or component form, as a component assembly, or as an accessory to their primary product. Take advantage of our outstanding manufacturing and marketing expertise.

Let TWT custom design a product and/or system to meet your specific application (footprint), system integration, and/or retro-fit program needs.

At TWT, Inc. our unique capabilities and custom design expertise have and continue to successfully solve a wide variety of problems for a wide variety of customers world wide commercial, industrial, and residential.

- **FROM IDEAS TO FINAL PRODUCTION**
- **EFFICIENT ENGINEERING DESIGN TEAM**
- **STATE-OF-THE-ART PRODUCTION EQUIPMENT AND FACILITY TO MEET THE EVER CHALLENGING PRODUCTION REQUIREMENTS**
- **TECHNICAL AND TEST DEPARTMENT WITH OUTSTANDING QUALITY CONTROL GUARANTEED**
- **COST EFFECTIVE AND DELIVERED ON TIME**
- **IN ORDER TO ENSURE THE GREATEST LEVEL OF PERFORMANCE AND SATISFACTION WORKING WITH TWT PRODUCTS AND SYSTEMS, WE RECOMMEND THAT YOU CONTACT OUR ENGINEERING STAFF, WHO WILL BE PLEASED TO WORK CLOSELY WITH YOU TO DETERMINE THE OPTIMAL TREATMENT REQUIREMENTS, INSTALLATION AND APPLICATION FOR YOUR INDUSTRY SPECIFIC PROJECT.**

Sensing Environmental Needs with Intelligent Solutions

TWT® The Ultimate in Water Treatment & Conditioning

The green way



CHEMICAL FREE

Contact your Distributor or TWT today (info@Triangularwave.com) for information on what TWT system will meet your specific application needs and/or visit Triangular Wave Technologies, Inc. Comprehensive Website. The Valuable Technical Resource For All Involved In Water And Fluid Management. WWW.Triangularwave.com

We sincerely thank you for your time and interest in our products, and look forward to being a valued part of your operation.

**Bringing You The Best in
Fluid Management Solutions.**



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