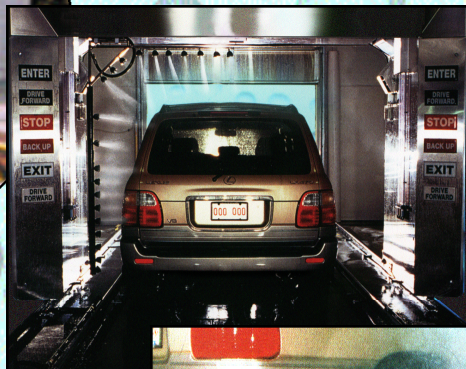


Triangular Wave Technologies Inc. (TWT®)

CHEMICAL-FREE FLUID MANAGEMENT SOLUTIONS FOR THE CAR WASH INDUSTRY...

HARD WATER PROBLEMS SOLVED EASILY! Your Simple and Safe Solution!
Enhance water quality, improve operating efficiency and equipment life cycle of pumps, hand wash guns, spray nozzles, reclamation systems, heaters and plumbing lines throughout the car wash process.

Control Scale Deposits, Bacteria
Corrosion, Algae and Colloids In
Your Car Wash from Start to finish



TWT® Fluid Conditioning & Treatment Systems, Effectively Meeting The Needs Of Any Application
Products Can Be Custom Designed To Meet Your Specific Needs

- *Lower Maintenance Costs*
- *Less Down Time*
- *Fewer Re-Washes*
- *Lower Product Costs*
- *Maximize Profits with Enhanced Water Quality*
- *Use Less Detergents/Wax with Enhanced Results*
- *Reduce Spotting on Viewing Windows and Vehicles*
- *Water and Energy Savings*

Advanced microprocessor-driven deposit control systems for commercial and industrial environments. TWT systems use Technologically Advanced Methods to restore and maintain a clean, corrosion-free delivery system in an environmentally safe and chemical-free manner... The result is clean pipes and tubing with no biofilm and bacterial contamination.



For Bus, Truck and other large vehicle washing system applications contact your distributor or TWT, Inc. for products and installation guidelines to meet your specific needs.

Conserve Water and Save Energy



Email: info@triangularwave.com • triwaveinc@aol.com
Websites: www.triangularwave.com • www.twtwatertreatment.com



Versatile Fluid Management Systems To Effectively Meet The Needs Of Any Application

Designed especially for the car wash industry, TWT illustrated water treatment systems provide an end-to-end solution to hard water woes . . .

How the Process Technology works!

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 commercial, industrial facilities, where the source of water may be ponds, wells, streams or municipal 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. Filters used in staged filter housings are configured as illustrated. 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. Deposit Control (maintenance free)

TWT® Patented Deposit Control Technology

The basic component in 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 other 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. 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 contaminants with a 99.9% kill rate". The output water is thus disinfected and offers exceptionally high quality for process and/or consumption.

- **Pumps run more efficiently, using less energy**
- **Pump packings and volutes remain in operation longer and cleaner, with reduced abrasion and occlusion**
- **Nozzles, triggers, and transfer lines stay clean, not clogged**
- **Vehicle and window spotting easily wiped off, decreasing labor and time spent per vehicle**
- **No need for expensive RO systems or water softeners—eliminate recurring salt/chemical/maintenance costs**
- **Reduced overall operating costs**
- **Reduced time spent problem-solving**
- **Improve the operating efficiency and life cycle of process infrastructure and equipment**
- **TWT treatment equipment is a reusable investment and retains its value—if you move your facility or reconfigure your plumbing system, TWT equipment moves with you**

Triangular Wave Technologies, Inc. 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 any industry, site or application.

BUS • TRUCK • CAR WASH FLUID MANAGEMENT SYSTEMS

Email: info@triangularwave.com • triwaveinc@aol.com • Websites: www.triangularwave.com • www.twtwatertreatment.com

TWT POINT-OF-ENTRY (P.O.E) WATER TREATMENT SYSTEM FOR THE CAR WASH INDUSTRY

TWT-SMD-1007-4M Multi-Stage Fluid Management System
4-Stage Filtration • TWT® Deposit Control • 50 GPM UV Disinfection/Purification System

Can Be Custom Engineered
To Meet Your Specific Need...
Application, Installation and Footprint



Application/Installation near or In Utility Mechanical Room

Factory Assembled Skid Mounted, Fork Lift Fluid Management Treatment System

This fluid management system is a compact, self-contained, skid-mounted unit for the treatment of water (P.O.E./P.O.U.).

Applies all the needed elements for maximum fluid protection, management, and peace of mind in one simple packaged solution. Filtration, TWT® Microprocessor Deposit Controller, Reaction Chamber, and UV Disinfection / Purification 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 gpm's and water conditions you need.

- Skid mounted water treatment system (2" In/Out)
- Stainless Steel skid (110/20 VAC Control panel & Monitor)
- 4-Stage Filtration (Mesh and/or Cartridge Filters)
- Stainless Steel Filter Housings
- TWT® Deposit Control Technology
- Ultra Violet Disinfection & Purification

Specifications:

Factory assembled and skid mounted on stainless steel frame, Size approx. 80"W X 50"H X 32"D, weight 740 lbs. (may vary according to custom design) Filter (Mesh and/or Cartridge Filters) mediums and micron sizes used in 4-stage filter housings is 50M, 20M, 10M, 5M.

Other filter mediums and micron sizes are available and are based upon input water quality and customer and/or industry specific treatment requirements (medium TBD).

Please Note: Other voltage sources available upon request (must specify). 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 related material needed to and from system owners responsibility

UV lamp replacement: To ensure adequate disinfection/purification of water line contamination, replace UV lamps every 10 to 12 months (or sooner depending on water use, quality and conditions).

Sediment, Carbon other Media Cartridge Replacement: Generally twice a year, depending on water use, quality, & conditions.

Mesh Filters: Empty and clean according to pressure gauge monitoring

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.

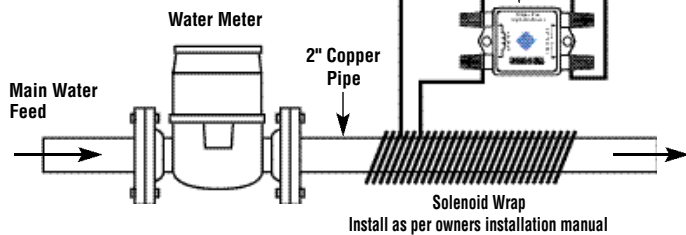
Installation: Licensed plumber and/or contractor is recommended. Must have enough room on all sides for filter and UV replacement & maintenance



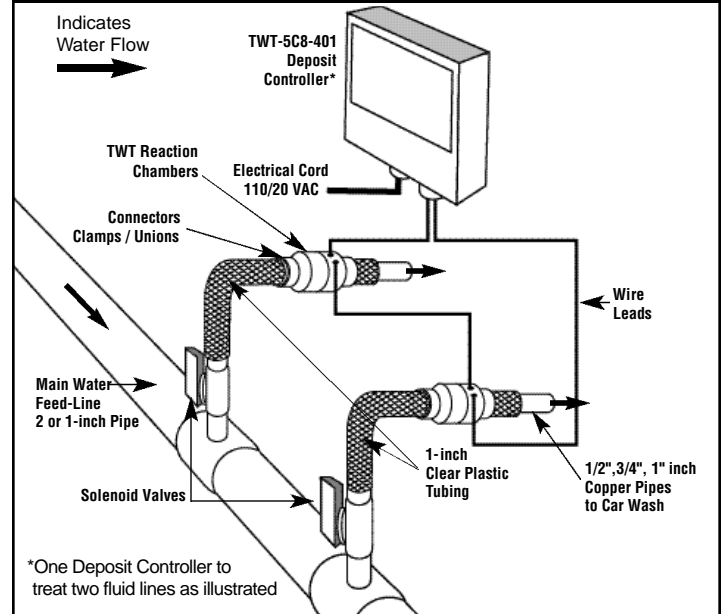
Deposit Controller with Onsite Solenoid Wrap

TWT Deposit Controller and onsite Solenoid Wrap sizes vary according to pipe material* and diameter. Contact your distributor or the TWT website for additional information. For further instructions regarding the completion of the installation, please refer to your Owner/Installation Manual before installation.

*If pipe is steel or magnetic you must use TWT Reaction Chamber

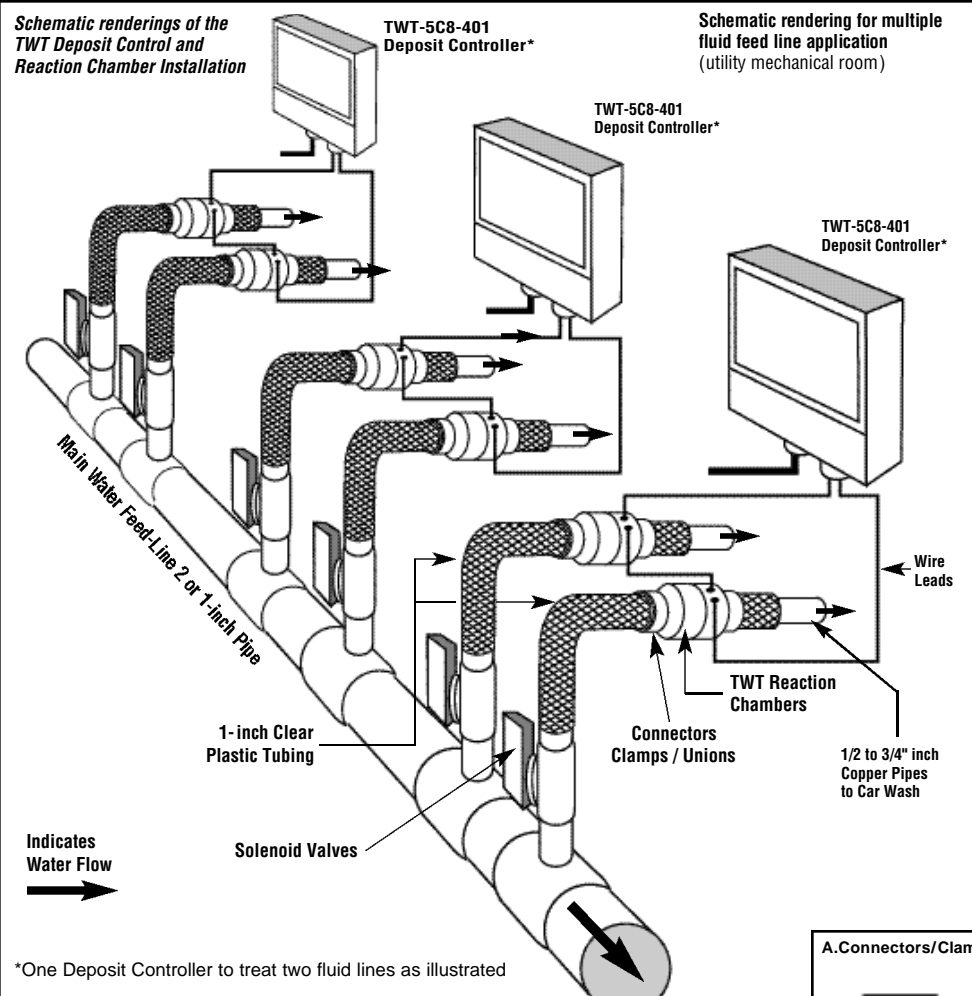


Deposit Controller with Reaction Chambers



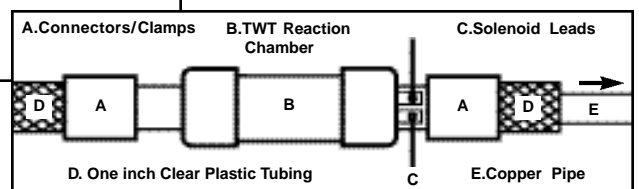
1. Treatment Area: main water feed line (after water meter/ pressure tank) at facility (when P.O.E.TWT-SMD1007-4M multi-process treatment system is not required)

2. Treatment Area: rinse, soap, wax, fluid feed lines for car wash process. Note: Review owners manual before installation



Optimal installation of the TWT Deposit Control System:

1. Cut clear plastic tubing and insert Reaction Chamber with connectors as illustrated
2. Attach Deposit Controller to wall or adjacent to water-fed lines in a safe location.
3. Attach wire leads from pipe lines to terminals on Deposit Controller.
4. Plug power supply into a standard 110 VAC protected outlet.



Schematic Rendering of TWT Reaction Chamber

3. Treatment Area: feed lines, pipe material and size vary in number according to car wash system needs: (hybrid, cloth, brushless, drive through and other systems) Other current source available for TWT systems, must specify.

Illustrations not to scale, for reference only