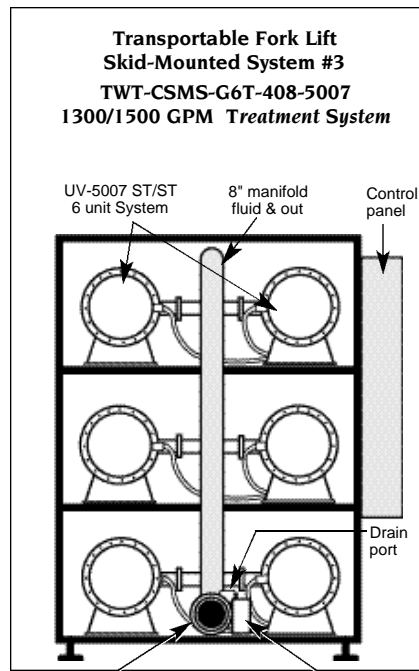
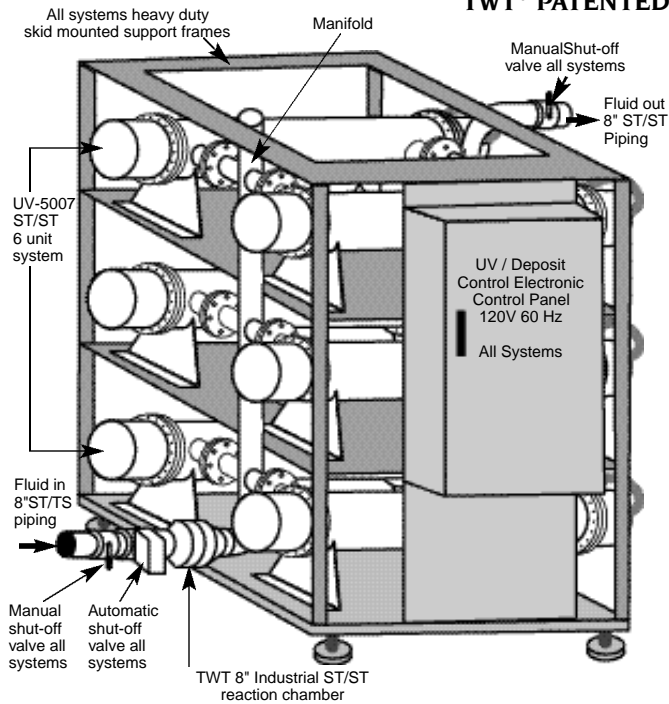
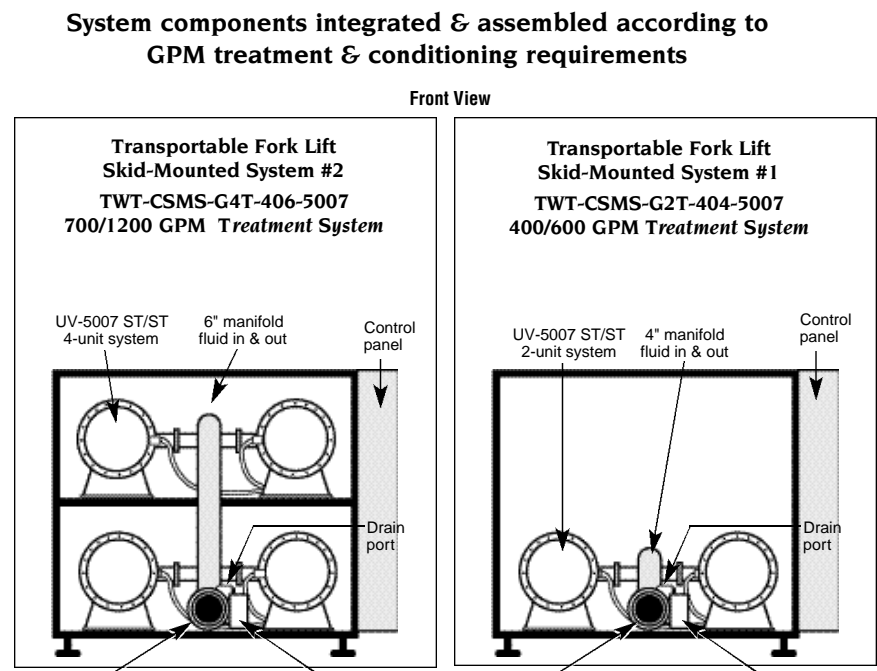


CUSTOM ENGINEERED, DESIGNED, INTEGRATED & ASSEMBLED SKID-MOUNTED HIGH VOLUME FLUID TREATMENT SYSTEMS

TWT® PATENTED DEPOSIT CONTROL TECHNOLOGY • UV DISINFECTION/PURIFICATION



Unit Dimensions Approximate:
48" W x 65" D x 75" H
1300/1500 (GPM) UV Disinfection/Purification Treatment System
TWT-5C8-408 Deposit Control System
TWT-UV-5007 Disinfection/Purification Systems
Efficiency: Expected 3 Log Reduction (99.9) for drinking water
Expected 1-2 Log Reduction for wastewater applications



Unit Dimensions Approximate:
48" W x 65" D x 55" H
700/1200 (GPM) UV Disinfection/Purification Treatment System
TWT-5C8-406 Deposit Control System
TWT-UV-5007 Disinfection/Purification Systems
Efficiency: Expected 3 Log Reduction (99.9) for drinking water
Expected 1-2 Log Reduction for wastewater applications

Unit Dimensions Approximate:
48" W x 65" D x 55" H
400/600 (GPM) UV Disinfection/Purification Treatment System
TWT-5C8-404 Deposit Control System
TWT-UV-5007 Disinfection/Purification Systems
Efficiency: Expected 3 Log Reduction (99.9) for drinking water
Expected 1-2 Log Reduction for wastewater applications

Easy to ship anywhere in the world

The system is fully self-contained and mounted on transportable skid. The total dimensions are within allowable limits, making it possible to ship by air-freight to any international airport.

Easy to follow care, maintenance & operational procedures and other basic informational labels will be permanently affixed to the TWT system. This information will ensure owners of a long and

reliable lifecycle if system is properly cared for (system requires minimal maintenance).

TWT water treatment systems are ruggedly constructed for exceptional performance. The rugged self-contained design of these systems ensure that the system will enjoy a long and reliable life cycle when properly cared for.

Please Note:

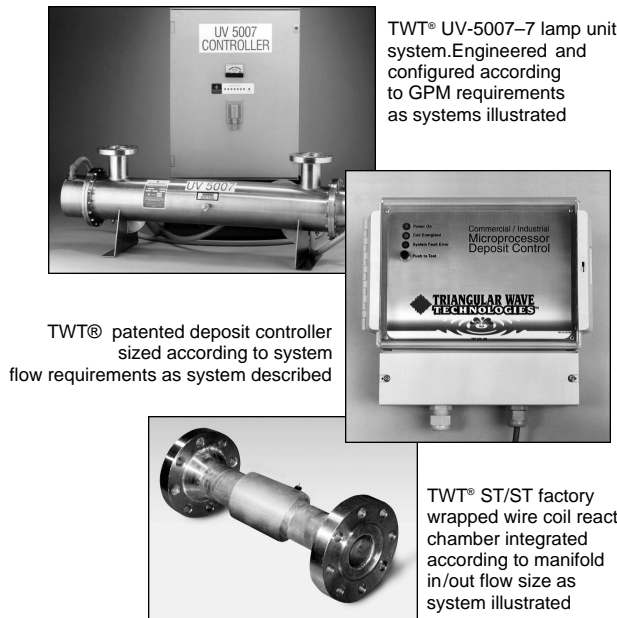
System engineering design, weight, size and system component assembly can vary based on TWT engineering review, water conditions, application, industry and/or customer specific needs

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

Schematic rendering for reference only, final rendering will be provided (if requested) upon proposal/P.O. acceptance

Other voltage source available upon request

ST/ST: Stainless Steel



The basic functions & components of Triangular Wave Technologies, Inc. (TWT) fluid treatment systems can be designed, integrated and assembled to combine various treatment methods that meet your industry specific process needs.

Triangular Wave Technologies, Inc. has extensive design, engineering, and manufacturing ability to work with customers to use its products in whole or component form, as a component assembly, or as an accessory to their primary product. TWT offers custom designs, at cost effective pricing schedules.

TWT will work together with your technical staff to develop fluid management systems, system enhancements and training to make your treatment needs the priority. The TWT team is driven by a simple but challenging goal - to build superior products and systems to continually innovate to be the leader in fluid management solutions.

The basic functions and components to be used for aquaculture, water bottling plants, breweries, waste water applications or any other type of liquid processing (fluid based) requiring high volume, high water quality applications, are as illustrated (front page) and as follows.

• For waste water applications use, double flow rate equals GPM system requirements for maximum UV dose and efficiency

Factory Assembled & Mounted Fluid Management Systems. These fluid management systems are compact, self-contained, skid-mounted unit for the treatment of water.

TWT systems applies all the needed elements for maximum fluid protection, management, and peace of mind in a simple packaged solution. Technologically advanced method for water & fluid management, Separator/Filtration (optional), 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 Patented Deposit Control System: Stage #1

The basic component in the TWT systems is the deposit controller. It is comprised of a microprocessor, and reaction chamber. The microprocessor is a patented controller that functions like a computer to relay a continuous electrical power supply to the solenoid coil 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 the 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 sleeve 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 filtered 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 Systems have no moving parts and minimal maintenance requirements. The Triangular Wave Deposit Control remain on all of the time. The control panels have indicator lights and alarm circuits to show any problems caused by external forces; such as damage to the coils or insulation or damage to the electrical connections.

Ultra-Violet Disinfection: Stage#2

The UV disinfection/purification technology used in the system 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 contaminants with a 99.9% kill rate” The output water is thus disinfected and offers exceptionally high quality conditioned water.

All units are expertly constructed of # 316 stainless steel to high quality control standards. The units operate continuously, automatically and inexpensively. UV lamp replacement is easy. The germicidal lamp is effective for approximately 8,000 hours which means extremely cost effective water sterilization over the long term.

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).

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

Benefits of TWT® Fluid Treatment Systems:

- Short payback period (pays for itself)
- Prevents scale buildup • Eliminates toxic chemicals
- Reduces corrosion • Controls algae and bacteria
- Less downtime for equipment repairs and maintenance
- Unpolluted discharge - environmental compliance
- TWT water treatment systems are ruggedly constructed for exceptional performance and long service life.

TWT treatment equipment is a reusable investment and retains its value – if you move your facility or re-engineer your plumbing system, TWT equipment moves with you.

Separator/Filtrations: Optional (not illustrated or included)

Filters/separators 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.

- The centrifugal separator has no moving parts or filter media. it is a precisely engineered vessel through which the system liquid passes and is cleaned by generating maximum centrifugal force.
- The separator is installed in a vertical position to allow full gravitational force to quickly pull the solids downward past the spin plate and into the collection chamber.
- Liquids and solids tangentially enter the separator creating a circular flow, velocity pad in the inlet increases velocity fast enough to create centrifugal force on the solids.
- Separators have a unique full-flow tangential entry chamber without any baffles or slots which can clog and result in frequent maintenance.
- Centrifugal force pulls the particles heavier than the liquid out toward the walls of the separator.
- Gravity pulls the solids gradually down into the separators' collection chamber.
- Cleansed liquids rises up through the center vortex of the separator and continues through the system.
- The collection chamber is purged depending upon the rate of collection and the quantity of solids.

Additional filtration can be provided if required.