# Triangular Wave Technologies, Inc. **UV-Series-Ultra Violet Purifiers**

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.

**Residential • Commercial • Industrial Applications** 

# Point-of-Entry and/or Point-of-Use Disinfection & Purification System



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-1 is as part of a water cooler at point-of-use. The UV-1 is ideally designed for use in cottages, on board ships or in RV's. In areas where standard electricity is not available, the UV-1 can be ordered as a 12V DC unit. The ultra-violet sterilizer destroys bacteria and viruses to a 99.9% kill rate.

#### TWT-UV-1 (1-2 GPM)

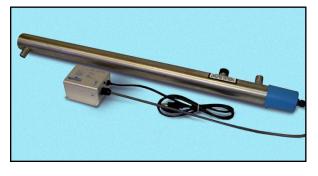
- Rated Flow: 4 Liters per minute/1 Gallon per minute U.V. Dose @ Rated Flow: 42,000 mw/sec or 42 mJ/cm² at 1 GPM Maximum Flow: 5.8 Liters per minute Electrical Supply: 120 VAC/60Hz\*.2 Amp Power Consumption: 12 Watt
- Maximum Operating Temperature: 37C Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 1/4" N.P.T. In-Out
- Size: 12.5"x 2.75 x 2.5" Weight: 4lbs (1.8 kg) Body: 304 or 316 Stainless Steel



The TWT-UV-250 sterilizer is ideally sized to provide safe disease and pathogenfree water at point-of-entry to any average size household. The effective kill rate of microorganisms, including bacteria and viruses is 99.9%. 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 12 months. This is a simple ten minute procedure.

#### TWT-UV-250 (4 GPM)

- Rated Flow: 15 Liters per minute / 4 Gallons per minute Rated Flow UV Dose: 38,000 mw/sec or 38 mJ/cm2 at 4 GPM
- Electrical Supply: 120 VAC/60Hz\*.36 Maximum Operating Temperature: 37C (98.6F)
   Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: N.P.T. In-Out 3/4 Size: 23"L x 5.5"W x 2.5"H
- Weight: 7 lbs(3.2 kg)
   Body: 304 or 316 Stainless Steel



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% 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 12 months and is a simple ten minute procedure.

## TWT-UV-700 (8 GPM)

- Rated Flow: 30 Liters per minute 8 Gallons per minute Rated Flow UV Dose: 60,000 mw/sec or 60 mJ/cm2 at 8 GPM
- Electrical Supply:120VAC/60Hz \*.55 Amp Maximum Operating Temperature: 37C (98.6F)
- Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 3/4" N.P.T. In-Out Size: 41"L x 4.75"W x 3.25"H
- Weight: 8 lbs (3.5 kg) Body: 316 Stainless Steel





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### TWT-UV-1200 (12 GPM)

- Rated Flow: 45 Liters per minute /12 Gallons per minute Rated Flow UV Dose: 45,800 mw/sec or 45.8 mJ/cm<sup>2</sup> at 12 GPM • Electrical Supply: 120V/60Hz\*.68 Amp • Maximum Operating Temperature: 37°C (98.6°F) • Maximum Operating Pressure: 125 psi - 8.6 Bar • Plumbing: 1" N.P.T. In-Out
- Size: 41"L x 6"W x 3.25H" Weight: 8lbs (3.5kg) Body: 304 or 316 Stainless Steel

These two 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-1500 (15 GPM)

- Rated Flow: 57 Liters per minute 15 Gallons per minute Rated Flow UV Dose: 34,000
- mw/sec or 40 mJ/cm² at 15 GPM Maximum Flow: 80 Liters per minute / 21 Gallons per minute Electrical Supply: 120VAV/60Hz\* 2 Amp Maximum Operating Temperature: 37C (98.6F)
- Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 1" N.P.T. In-Out
- Size: 50"L x 6"W x 8"H Weight: 21 lbs (9.5 kg) Body: 316 Stainless Steel



## TWT-UV-2000 (21 GPM)

- Rated Flow: 80 Liters per minute 21 Gallons per minute Rated Flow UV Dose: 31,000 mw/sec or 31 mJ/cm<sup>2</sup> at 21 GPM • Maximum Flow: 108 Liters per minute / 29 Gallons per minute
- Electrical Supply: 120V/60Hz\* 2 Amp 240V/50Hz/2 Amp
- Maximum Operating Temperature: 37 C (98.6F)
- Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 1.25" N.P.T. In-Out
- Size 50"L x 6"W x 8"H Weight: 21 lbs. (9.5 kg) Body: 316 Stainless Steel

# TWT-UV-3000 (30 GPM)

- Rated Flow: 117 Liters per minute 30 Gallons per minute
- Rated Flow: UV Dose: 44,400 mw/sec or 44 mJ/cm² at 30 GPM
- Electrical Supply: 120V/60Hz\* 2.1 Amp Maximum Operating Temperature: 37°C (98.6°F)
- Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 1.25" N.P.T. In-Out • Size: 52"L x 8"W x 8"H • Weight: 45 lbs (20.5 kg) • Body: 316 Stainless Steel
- TWT-UV-5000 (50 GPM) Rated Flow: 189 Liters per minute 50 Gallons per minute • Rated Flow UV Dose: 46,200 mw/sec or 46 mJ/cm² at 50 GPM • Maximum Flow: 290 Liters per minute 77 Gallons per minute
- Number of lamps: 2 Electrical Supply: 120V/60 Hz\* 3 Amp

  Maximum Operating Temperature:37°C (98.6°F) Maximum Operating Pressure: 125 psi 8.6 Bar
- Plumbing: 2" N.P.T. In-Out Size: 50"L x 13"W x 8"H
- Weight: 46 lbs (21kg) Body: 316 Stainless Steel



- Rated Flow: 375 Liters per minute 100 Gallons per minute Rated Flow UV Dose: 25,000 mw /sec or 25 mJ/cm² at 100 GPM • Number of lamps: 2 • Lamp wattage: 79 Watts
- Electrical Supply: 120V / 60Hz\* 1.5 Amp Maximum Operating Temperature: 37°C (98.6°F)
   Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 2 1/2" flange In-Out
- Size: 50"L x 16.5"W x 8"H Weight: 52 lbs Body: 316 Stainless Steel



<sup>\*</sup>Other voltage sources available upon request: 100V / 120V / 220/240V



# Triangular Wave Technologies, Inc. **UV-Series-Ultra-Violet Purifiers**



The industrial size TWT-UV-5007 sterilizer can assure a ready supply of safe, pathogen-free water for manufacturing processes or human consumption. Applications include water bottling plants, breweries or any other type of liquid processing. With the capacity to remove disease-causing microorganisms effective to a 99.9% kill rate at 200 G.P.M. (820 L.P.M.). you can eliminate the need for chemicals and reduce high overhead costs. TWT has the technical expertise to assess your water problems and when needed, prefiltration systems may be added to the TWT-UV-5007 sterilizer. Environmental safety is our priority, therefore no chemicals are added and the PH balance of the water is unaffected by UV sterilization.

# TWT-UV-5007 (200 GPM)

Rated Flow: 833 Liters per minute 200 Gallons per minute • Rated Flow UV Dose: 40,400 mw/sec or 40.4 mJ/cm<sup>2</sup> at 200 GPM • Number of lamps: 7 • Lamp wattage: 79 Watts

- Electrical Supply: 120V/60Hz\* 3 Amp Maximum Operating Temperature: 37°C (98.6°F)
- Maximum Operating Pressure: 125 psi 8.6 Bar Plumbing: 3" flange In-Out
   Unit Dimensions: 56"L x 12.5"W x 20"H Controller Dimensions: 33.6"x25.2" x 12"
- Unit Weight: 130 lbs (59 kg) Controller Weight: 60 lbs (27 kg) Body: 316 Stainless Steel



These systems are ideally suited for commercial/industrial and marine effluent applications. The Quattra UV has an automatic integrated pneumatic wiper system (external air supply required) to maintain lamp efficiency and a proprietary UV reaction chamber, designed to increase the dwell time inside the chamber. Engineered and designed to provide a very high UV dose, extended dwell time at rated flow of 50 / 100 GPM.

# TWT-Quattra UV50 Effluent Wastewater Treatment System (50 GPM)

- High-Efficiency Ultra-Violet System for the Treatment of Effluents
- Integrated Pneumatic Automatic Lamp Wiper System
- Compact Size High-Power 4 Lamp Array Efficient Cost Effective
- · 4 Lamp Array Inside Cylindrical Reaction Chamber
- 1.5" In-Out Piping-Other Sizes Available Upon Request
- Approx. Size of Sterilizer 31 X 8 X 10 Inches (not including controller)
- 316 St/St Chamber Body NEMA 4X Control Panel Available UPON RÉQUEST



# TWT-Quattra UV100 Effluent Wastewater Treatment System (100 GPM)

120V / 60 Hz 41"L x 8"W x 10.5"H • Weight 75 lbs



# TWT-UV100-6 System (100 GPM) Commercial UV Disinfection System

- Alarm System Fail Safe Rated Flow: 379 liters per minute (100 GPM) UV Dose @ Flow & 70%T 37 mJ/cm² (37,000 μwsec/cm 2 )
- Electrical: 100-240V / 50-60 Hz (Universal) Other voltage sources available upon request (must specify) Lamp Power: 65 W
- Number of Lamps: 6 Maximum Operating Temp: 37º C (98.6º F) Maximum Operating Pressure: 125 psi 8.6 bar (tested to 500 psi)
- Plumbing: 2" MNPT (3" optional) Size: L 117 cm x W 21 cm x H 27 cm
- L 46 in x W 8 in x H 10.5 in Weight: 41 kg (90 lbs) with controller Chamber Material: 316L SS

# **Partial List of UV Applications**

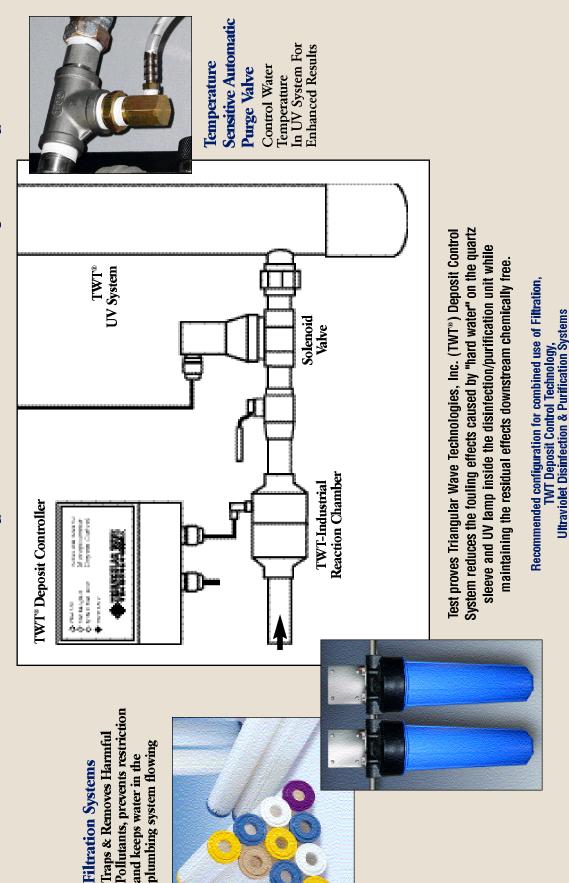
One of the most common uses of ultraviolet sterilization is the disinfection of domestic water supplies due to contaminated wells. Coupled with appropriate pre-treatment equipment, UV provides an economical, efficient and user-friendly means of producing potable water. The following list shows a few more areas where ultraviolet technology is currently in use: surface water, groundwater, cisterns, breweries, hospitals, restaurants, vending, cosmetics, bakeries, schools, boiler feed water, laboratories, wineries, dairies, farms, hydroponics, spas, canneries, food products, distilleries, fish hatcheries, water softeners, bottled water plants, pharmaceuticals, mortgage approvals, electronics, aquaria, boats and RV's, printing, buffer processing, petro-chemical, photography, and preand post-reverse osmosis.

Accessories available upon request: UV Monitoring system . Solenoid valve automatic shut-off system

\*Other voltage sources available upon request: 100V / 120V / 220/240V



# End-To-End Conditioning & Treatment, "TWT" The Competitive edge" Filtration, TWT Deposit Control Technology, Ultra Violet Purification and Other Components Integrated for Enhanced Results.





All the needed elements for maximum fluid protection, management, and peace of mind in one simple packaged solution. Filtration, Technologically Advanced Microprocessor Deposit Control System and

UV Purification units are combined to provide a start-to-finish answer to simplified prevention,

treatment and management of water line contamination dangers.