



UV-5007 System

Ultra Violet Water Sterilizer

Description

The UV-5007 System is a robust, efficient and cost-effective sterilizer designed for the disinfection of drinking and/or process water in commercial and industrial applications at flow rates up to 220 GPM (833 LPM).

The UV-5007 System contains an array of 7 low-pressure, high output UV lamps in a 316L stainless steel reaction chamber. It is equipped with a control panel that has an integrated UV Monitor to monitor the UV light intensity in real time. The UV monitor will alarm if the UV power delivered to the water is inadequate. A powered contact on the monitor can be used to drive a solenoid-type valve to shut off the flow of water.

Additional features for this sterilizer can be ordered, such as a thermo-sensitive purge valve at the out port to prevent overheating in no-flow conditions, or volt-free contacts on the ballast for remote signaling.

This system may be connected in series or in parallel for high-dose or high-volume applications, and complete systems including high-volume pre-filtration can be configured.

The UV-5007 kills most harmful pathogens such as viruses, bacteria and protozoa with a powerful UV disinfection dose that will inactivate the pathogens at a kill rate of 99.99% (log 4) or more (*Giardia*, *E. coli*, *Cryptosporidium*, *Vibria cholera*, *Legionella*, *Salmonella*, *Shigella*, *Streptococcus* and many others)



Features

- ▶ 7 UV Lamp Array
- ▶ Single UV Monitor
- ▶ 316L Stainless Steel
- ▶ Compact Footprint
- ▶ Rugged Construction
- ▶ NEMA Control Panel
- ▶ Individual Lamp Indicators



Also available in 90° construction

Benefits

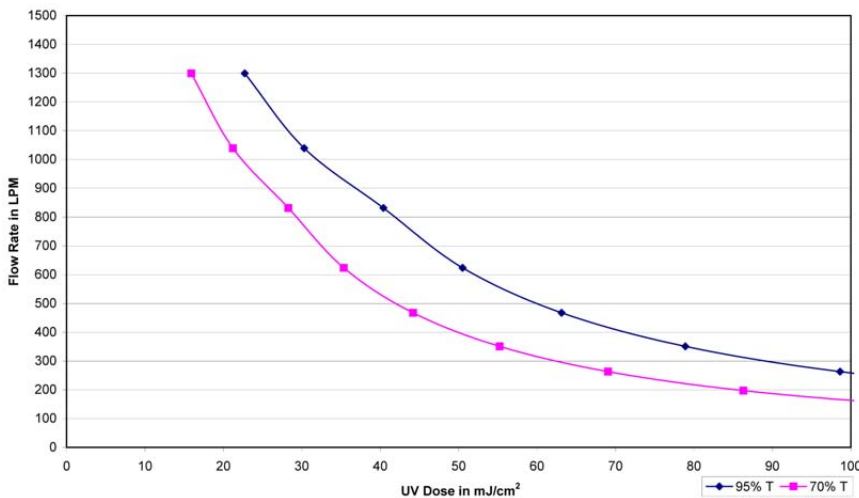
- ▶ High Volume Disinfection, Low Cost per Litre
- ▶ Extreme UV Dose Available for Many Applications
- ▶ Larger Flow Rates Possible with Manifolding
- ▶ May be Configured for Redundant Operations
- ▶ Systems May be Skid Mounted for Ease of Transport and Installation
- ▶ Extremely Simple to Use and Maintain



Rated Flow:	833 litres per minute (220 GPM) 50,000 litres/hour (50 m ³ /h), 1,200 m ³ /day (13,200 gallons/hour, 316,800 gallons/day)
Initial UV Dose at Rated Flow:	40 mJ/cm ² (40,000 μWsec/cm ²) @ 95% UVT 28 mJ/cm ² (28,000 μWsec/cm ²) @ 70% UVT
Electrical:	110-130 Volt AC / 50-60 Hz (Part # P5007/QS4E-1) 220-240 Volt AC / 50-60 Hz (Part # P5007/QS4E-2)
Power Consumption:	660 VA @ 120 V, 685 VA @ 230 V
Ballast:	Electronic Ballast (7) (Part # 4-13B-PN) w/ Lamp Out Alarm (1), Power LED (7)
Lamps, Wattage, Current:	7 (at 110 Watts each, 800 mA) (Part # RL-110/1197T5)
UV Monitor:	Integrated
Size and Weight (Chamber):	56x20x12.5 inches, 130 lbs / 59 kg
Max. Operating Temperature:	37 °C (98.6 °F)
Max. Operating Pressure:	125 psi - 8.6 bar (tested to 500 psi)
Plumbing:	3" Flanges In/Out
Chamber Material:	316L Stainless Steel
Control Panel:	NEMA IV Compl., 24x20x10 inches, Non-Metallic Includes Lamp LEDs, Power Switch, UV Monitor Meter Face

Dose Chart

UV-5007 UV Dose Response Curve



Additional Features (Optional):

- 3" Actuated Butterfly Valve (PVC or SS) for Fail-Safe Operation, Triggered by UV Monitor
- Electronic Deposit Control System with PVC or Stainless Reaction Chamber
- Volt-Free Contacts on Control Panel for Remote Signaling of Operations
- Integrated Surge Protector

Filtration

This UV System assumes certain water quality parameters to be met for proper operation. If the source water does not meet the following criteria, pretreatment has to be considered:

Turbidity (Suspended Solids): must be < 1 NTU at the time of disinfection. There must be a 5 micron or less sediment prefiltration system installed before the UV system.

Total Hardness (Sum of Calcium and Magnesium): Must be < 10 gpg (grains per gallon)

Iron: Must be < 0.3 ppm (parts per million)

Manganese: Must be < 0.05 ppm

Pre-Filtration for this UV system is available. Please inquire.

