



UV-5007 System

All-in-One Water Treatment System

Description

The UV-5007 System is a robust, efficient and cost-effective water sterilizer designed for the disinfection of drinking and/or process water in commercial and industrial applications at flow rates up to 383 GPM (1450 LPM).

The UV-5007 System contains an array of 7 low-pressure, high output UV lamps in a 316L stainless steel reaction chamber. It comes 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 a 4-20 mA output for remote signaling and operations log.

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*, *Vibrio cholerae*, *Legionella*, *Salmonella*, *Shigella*, *Streptococcus* and many others)



Similar to image.
Skid Mount option pictured.

Features

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



Also available with Sanitary Fittings

Benefits

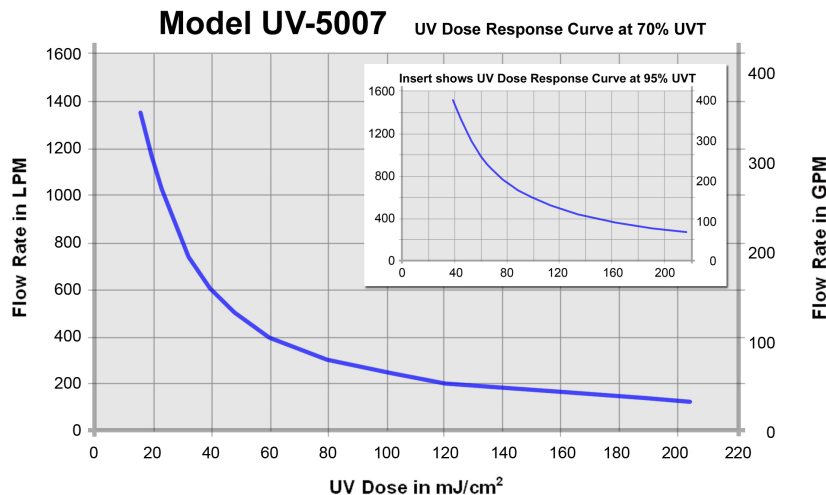
- ▶ High Volume Disinfection, Low Cost per Litre
- ▶ Extreme UV Dose Available for Many Applications
- ▶ Larger Flow Rates Possible with Manifolding
- ▶ Can be Configured for Redundant Operations
- ▶ Systems May be Skid Mounted for Ease of Transport and Installation
- ▶ Extremely Simple to Use and Maintain

Flow Range Indication: (Depending on UVT*)	110 - 1450 litres per minute (29 - 383 GPM / 6.6 - 87 m ³ /h)
UV Dose Applied: (1 mJ/cm ² = 1,000 μWsec/cm ²)	30 mJ/cm ² @ 750 LPM / 198 GPM / 45 m ³ /h, UVT = 70% 40 mJ/cm ² @ 575 LPM / 152 GPM / 34.5 m ³ /h, UVT = 70% 40 mJ/cm ² @ 1,450 LPM / 383 GPM / 87 m ³ /h, UVT = 95% 200 mJ/cm ² @ 110 LPM / 29 GPM / 6.6 m ³ /h, UVT = 70%
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:	888 VA @ 120 V, 1680 VA @ 240 V
Ballast:	Electronic Ballast (7) (Part # 4-13-PN) w/ Lamp Out Alarm (1), Power LED (7)
Lamps, Wattage, Current:	7 Lamps (at 110 Watts each, 800 mA) (Part # RL-110/1197T5)
UV Monitor:	Integrated (Part # 4-MCB-V3) with Sensor (Part # 4-35-3)
Size and Weight (Chamber):	50x18x12 inches, 130 lbs / 59 kg
Max. Operating Temperature:	40 °C (104 °F)
Max. Operating Pressure:	125 psi - 8.6 bar
Plumbing:	3" Flanges In/Out (Sanitary Tri-Clamps Optional)
Chamber Material:	316L Stainless Steel
Control Panel:	NEMA IV Enclosure, 18x18x12 inches, Non-Metallic Includes Lamp LEDs, Power Switch, UV Monitor Meter Face
Size and Weight of shipment:	1 skid (crated) 54x23x37 inches, 230 lbs / 105 kg

Specifications subject to change

Dose Chart

*UVT = Ultraviolet Transmittance



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 or 4-20 mA Output on Control Panel for Remote Signaling
- Thermosensitive Purge Valve for Overheat Protection
- Pre-Assembled and Mounted on SS Skid

Important Considerations

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 and additional cleaning and maintenance of the UV system will be required.

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

TDS (Total Dissolved Solids): Must not exceed 500 ppm