



# UV-5000

## Ultra Violet Water Sterilizer

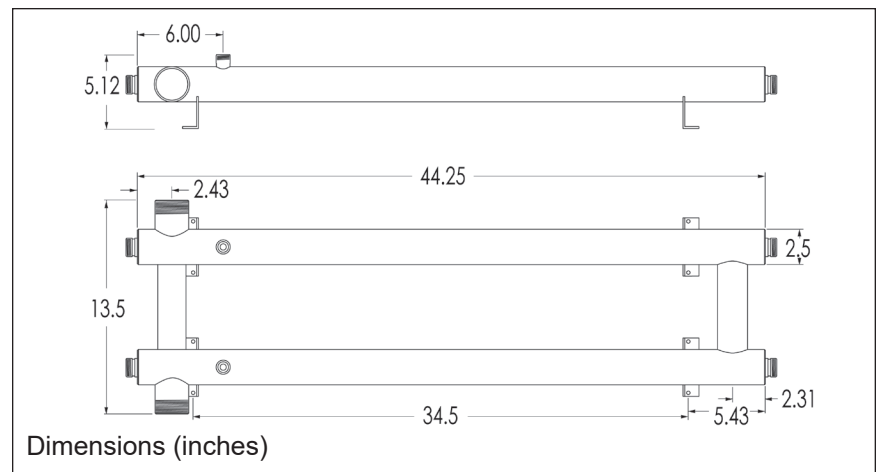
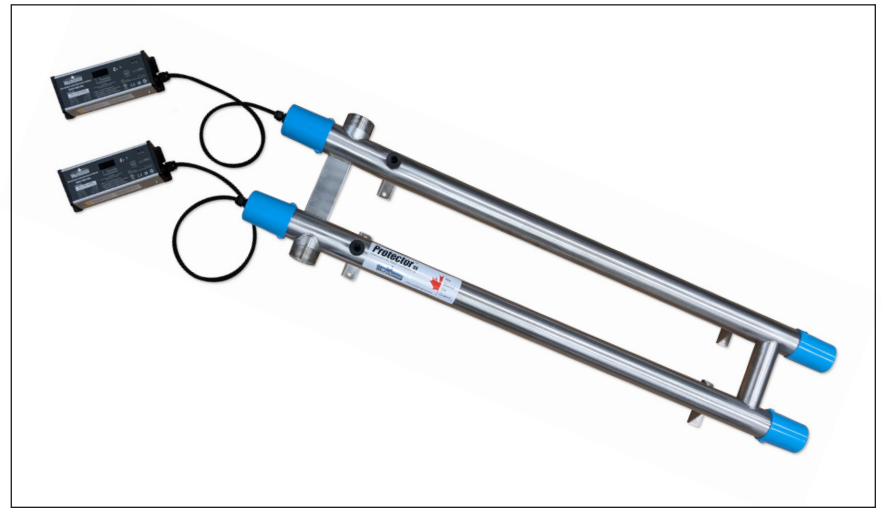
### Description

The UV-5000 is a robust, high quality ultra violet water sterilizer that provides very efficient treatment at a low cost per unit volume. Typically installed at the point of entry, it can treat municipal water as well as ground water from drilled or dug wells, and surface water from lakes, ponds or rivers (pre-filtration necessary). This sterilizer is perfectly sized to provide drinking water or purified process water for commercial and light industrial applications, including food and beverage processing, pharmaceutical manufacturing, or cooling towers. It is also a very popular system for the disinfection of pools and spa's.

The UV-5000 contains two low-pressure, high output UV lamps in a manifolded 316L stainless steel reaction chamber. It comes with two electronic ballasts that feature a lamp-out alarm if there is no power to the lamp.

Additional features for this sterilizer can be ordered, such as a UV-monitoring system for fail-safe operation, a thermo-sensitive purge valve at the out port to prevent overheating during no-flow conditions, and volt-free contacts or 4-20 mA output on the ballasts for remote signaling.

The UV-5000 kills most harmful microbiological contaminants, 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).



### Applications

- ▶ Potable Water, Process Water
- ▶ Water Bottling Plants
- ▶ Food Processing and Packaging Centres
- ▶ Hospitals and Health Clinics
- ▶ Vegetable Processors Irrigation Systems
- ▶ Pools and Spa's
- ▶ Beverage Production

### Benefits

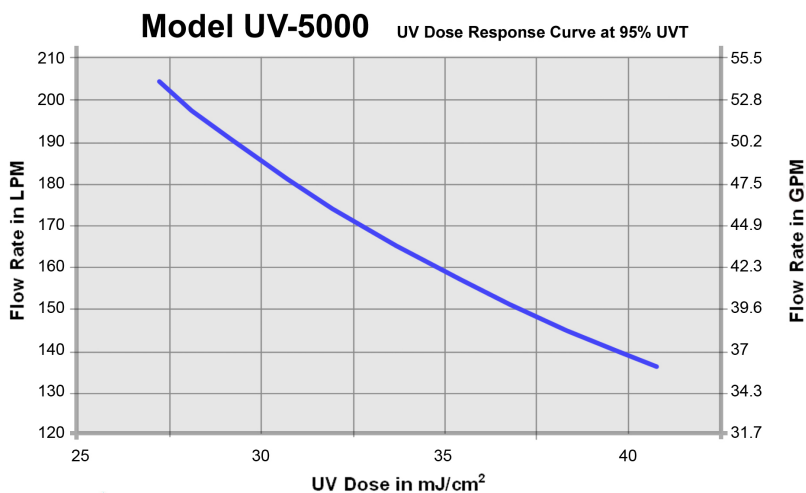
- ▶ Efficient Disinfection, Low Cost per Litre
- ▶ Exceptional High UV Dose
- ▶ Extremely Simple to Use and Maintain
- ▶ High Quality Stainless Steel Reaction Chamber
- ▶ Easily Upgradeable with Optional Features
- ▶ Made in Canada



<b>Flow Range:</b>	136 - 330 litres per minute (36 - 87.4 GPM) 8,200 l (8.2 m <sup>3</sup> ) - 19,800 l (19.8 m <sup>3</sup> /hour / 196.8 - 475.2 m <sup>3</sup> /day 2160 - 5244 gallons/hour, 51,840 - 125,856 gallons/day
<b>UV Dose Applied (95% UVT):</b>	16 mJ/cm <sup>2</sup> (16,000 μWsec/cm <sup>2</sup> ) @ 330 LPM / 87.4 GPM 30 mJ/cm <sup>2</sup> (30,000 μWsec/cm <sup>2</sup> ) @ 180 LPM / 47.5 GPM 40 mJ/cm <sup>2</sup> (40,000 μWsec/cm <sup>2</sup> ) @ 136 LPM / 36.4GPM
<b>Electrical:</b>	110 Volt AC / 50 - 60 Hz (Part # P5000/QS4E-1) 240 Volt AC / 50 - 60 Hz (Part # P5000/QS4E-2)
<b>Ballast:</b>	Electronic Ballast w/ Lamp Out Alarm, Power LED, Running Days Countdown on LCD Display (Resettable) Model RH51-800-95L (Wyckomar Part # 4-BE-800-ECO)
<b>Ballast Enclosure Rating:</b>	IP64
<b>Lamp Current:</b>	0.75 A - 0.85 A / <b>U-Out:</b> 300 V / <b>PF(λ):</b> > 0.99% / <b>THD:</b> < 10%
<b>Number of Lamps:</b>	2 at 110 Watts, 800 mA (Part # RL-110/1197T5) Low-Pressure UV
<b>Optional UV Monitor:</b>	Analog (Part # 4-UV/MS50-1/2 V3) / Digital (Configuration Dependent)
<b>Min/Max. Operating Temperature:</b>	T <sub>min.</sub> = 3 °C (37 °F), T <sub>max.</sub> = 40 °C (104 °F)
<b>Max. Operating Pressure:</b>	125 psi - 8.6 bar
<b>Plumbing:</b>	2" MNPT In/Out
<b>Chamber Material:</b>	316L Stainless Steel
<b>Shipping Size and Weight:</b>	1 box 52x16x9 inches, 46 lbs / 21 kg

Specifications subject to change

## Dose Chart



## Additional Features / Configuration Options:

- Volt-Free (Dry) Contacts on Ballasts for Remote Signaling
- Thermosensitive Purge Valve at Out Port for Overheat Protection
- Rack- or Skid-Mounted for Ease of Installation and On-Going Maintenance
- Integrated Control Panel with Digital Touch Screen Display and Remote Access for Comprehensive System Management and for Capturing / Logging of Sensor and Operation Data
- Available w/ Sanitary Tri-Clamp Fittings

## Important Considerations

This UV sterilizer 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

This UV unit can be manifolded in parallel for higher flow rates (see Part # SYS5100F, SYS5100F3) and can be customized for many applications with pre-filtration into All-in-One rack-mounted systems.