

UV-1400

Ultra Violet Water Sterilizer

Description

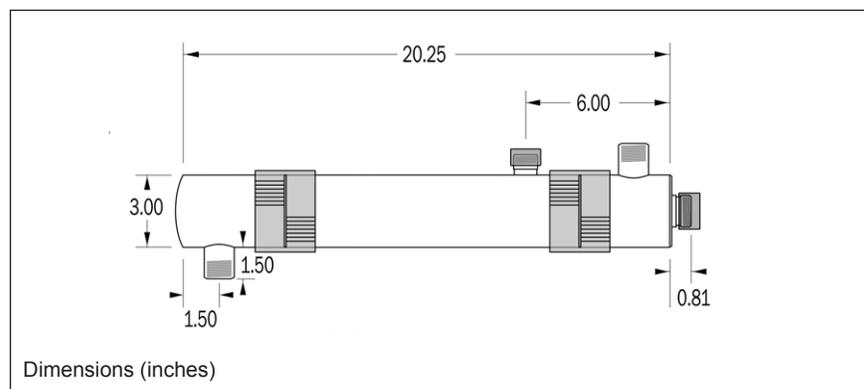
The UV-1400 is a robust and compact high output ultra-violet water sterilizer that offers very efficient treatment at a low cost per unit volume. Typically installed at the point of entry, it can treat municipal water as well as ground water from drilled or dug wells, or surface water from lakes, ponds or rivers (pre-filtration necessary). This sterilizer is perfectly sized to provide drinking water or purified process water for commercial and light industrial applications.

The model UV-1400 sterilizer contains a low-pressure, high output UV lamp in a 316L stainless steel reaction chamber. It comes with an electronic ballast that features a lamp-out alarm if there is no power to the lamp. The days of operation are displayed on a digital LED.

Combined with appropriate pre-filtration, this UV sterilizer is the centre piece of a complete water treatment system for the elimination of bacteria and viruses and reduction of taste and odour at the point of entry.

Additional features are available, such as a UV-monitoring system for fail-safe operation, a thermo-sensitive purge valve at the out port to prevent overheating under no-flow conditions, and volt-free contacts output on the ballast for remote signaling.

The UV-1400 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
- ▶ Commercial and Light Industrial Applications
- ▶ Pharmaceutical Manufacturing
- ▶ Butcher Shops
- ▶ Hotels and Restaurants
- ▶ Pools and Spa's
- ▶ Food and Beverage Processing

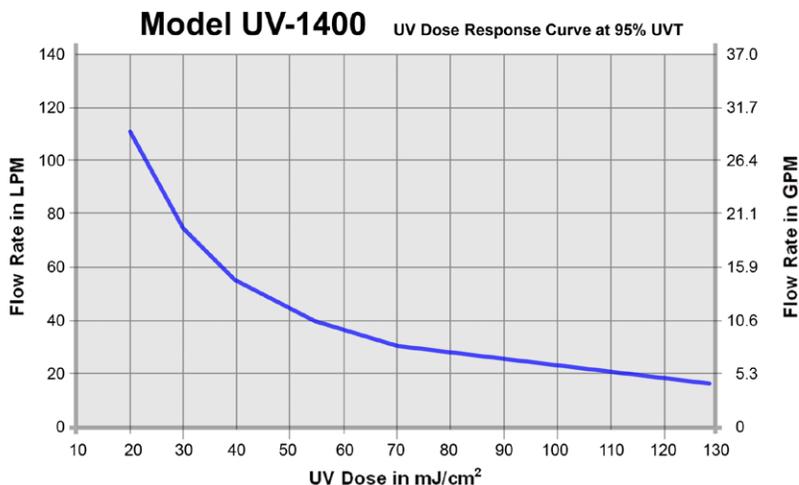
Benefits

- ▶ Efficient Disinfection, Low Cost per Litre
- ▶ Exceptional High UV Dose
- ▶ Extremely Simple to Use and Maintain
- ▶ High Quality 316L SS Reaction Chamber
- ▶ Easily Upgradeable with Optional Features
- ▶ Made in Canada

Flow Range:	54 - 120 litres per minute (14 - 31.7 GPM) 3240 l (3.24 m ³) - 7200 l (7.2 m ³) /hour / 77.8 - 172.8 m ³ /day 840 - 1902 gallons/hour, 20,160 - 45,650 gallons/day
UV Dose Applied (95% UVT):	16 mJ/cm ² (16,000 μWsec/cm ²) @ 120 LPM / 31.7 GPM 30 mJ/cm ² (30,000 μWsec/cm ²) @ 73 LPM / 19.3 GPM 40 mJ/cm ² (40,000 μWsec/cm ²) @ 53 LPM / 14 GPM
Electrical:	110 Volt AC / 50 - 60 Hz (Part # P1400/QD4E-1) 240 Volt AC / 50 - 60 Hz (Part # P1400/QD4E-2)
Ballast:	Electronic Ballast w/ Lamp Out Alarm, Power LED, Running Days Countdown on LCD Display (Resettable) Model RH51-800-95L (Wyckomar Part # 4-BE-800-14ECO)
Ballast Enclosure Rating:	IP64
Lamp Current:	0.75 A - 0.85 A / U-Out: 300 V / PF(λ): > 0.99% / THD: < 10%
Number of Lamps:	1 at 51 Watts, 660 mA (Part # RL-51/540T5) Low-Pressure UV
Replacement Quartz Dome:	1 (Part # RQD-530)
UV Monitor:	Optional (Part # 4-UV/MS-1/2 V3)
Min/Max. Operating Temperature:	T _{min.} = 3 °C (37 °F), T _{max.} = 40 °C (104 °F)
Max. Operating Pressure:	125 psi - 8.6 bar
Plumbing:	1" MNPT In/Out
Chamber Material:	316L Stainless Steel
Shipping Size and Weight:	1 box 26x7x7 inches, 15 lbs / 6.8 kg

Specifications subject to change

UV Dose Chart



Additional Features

(Optional):

- Electronic Deposit Control System with PVC or Stainless Reaction Chamber
- Volt-Free Contacts on Ballast for Remote Signaling
- Purge Valve at Out Port for Overheat Protection
- Pre-Assembled and Panel Mounted for Easy Installation

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