

# SYS1400-2BB

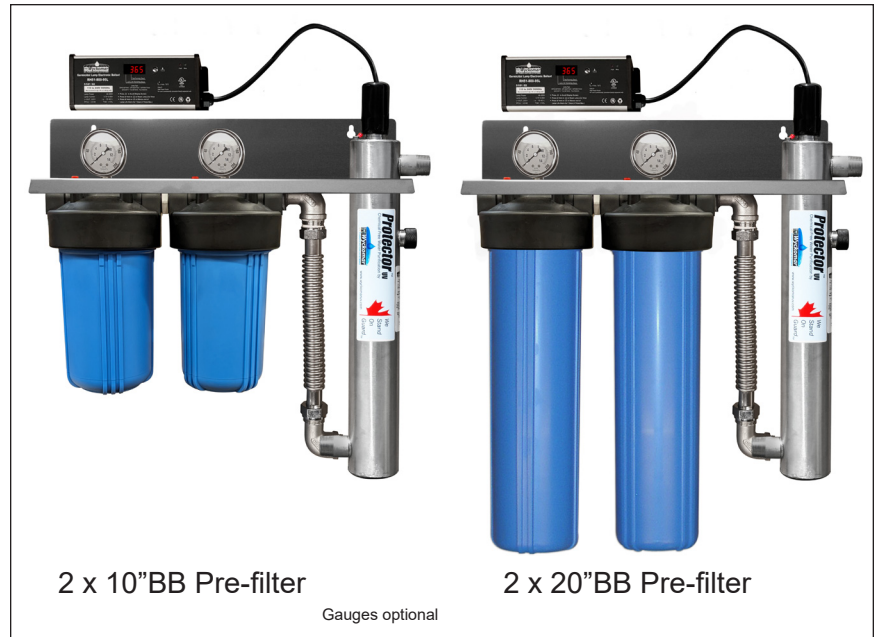
## The Superior | Basic System

### Description

The SYS1400-2xBB is an All-in-One Water Treatment System that is very compact but designed for the needs of larger households or small commercial operations to provide purified drinking water. Typically installed at the point of entry, it is used for treating municipal water as well as ground water from drilled or dug wells, and surface water from lakes, ponds or rivers. It will purify the water from most contaminants including sediments to 5 micron. Carbon filtration reduces taste and odour, including sulphur smell. Harmful microbiological contaminants, such as viruses, bacteria and protozoa are killed with a powerful UV disinfection dose that will inactivate the pathogens at a kill rate of > 99.99% (log4) (*Giardia*, *E. coli*, *Cryptosporidium*, *Vibrio cholerae*, *Legionella*, *Salmonella*, *Shigella*, *Streptococcus* and many others)

This purifier comes equipped with an electronic ballast featuring an alarm system which sounds an audible alarm if the UV lamp is not functioning properly. The system remembers when it is time to install a new UV replacement lamp with an automatic countdown display and alarm.

This residential/commercial water purification system offers very efficient water treatment at a low cost per unit volume. The system is designed for ease of installation and is fully tested prior to shipment.



### Features

- ▶ **Chemical-Free Water Purification and Disinfection**
- ▶ **Robust Construction - Pre-Assembled**
- ▶ **316L SS Ultra-Violet Sterilizer**
- ▶ **Digital Display, Lamp-Out Alarm, Day Count**
- ▶ **20" Full Flow Design Filtration**
- ▶ **Filter Housings with Pressure Relief Valve**

### Benefits

- ▶ **Efficient Disinfection, Low Cost per Litre**
- ▶ **High UV Dose, 99.99% Destruction of Pathogens**
- ▶ **Extremely Simple to Use and Maintain**
- ▶ **Very Small Footprint**
- ▶ **Sized for Larger Households and Residences**
- ▶ **Ideal for Use in Light Commercial Applications**



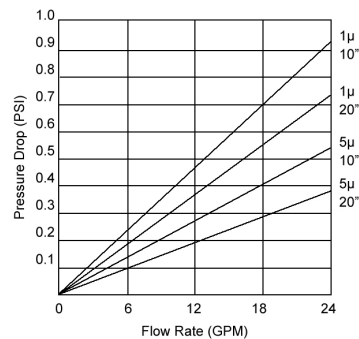
<b>Flow Range (limited by filter selection):</b>	Up to 53 litres per minute (14 GPM) 3,180 litres/hour, 76.3 m <sup>3</sup> /day (840 gallons/hour, 20,160 gallons/day)
<b>Initial UV Dose at Max. Flow (95% UVT):</b>	40 mJ/cm <sup>2</sup> (40,000 μWsec/cm <sup>2</sup> ) @ 53 LPM / 14 GPM
<b>Electrical:</b>	110 Volt AC / 50 - 60 Hz 240 Volt AC / 50 - 60 Hz
<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-BE800-14/30ECO)
<b>Replacement Lamp:</b>	Low-Pressure UV Lamp, Part # RL-51/540T5
<b>Filtration:</b>	10" or 20" BigBlue Full-Flow (OD 4-1/2") w/ Pressure Relief
<b>Sediment Filter Standard:</b>	Polypropylene/Polyester Melt Blown or Pleated Cell, 5 Micron
<b>Carbon Filter:</b>	Non-Cellulose Carbon-Impregnated Pleated Polyester, 10 M
<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 (UV), 90 psi - 6.2 bar (Filter)
<b>Plumbing:</b>	1" MNPT In/Out
<b>Shipping Size and Weight:</b>	1 box 26x16x9 inches, 40 lbs, 1 box 24x9x9 inches, 12 lbs

Specifications subject to change

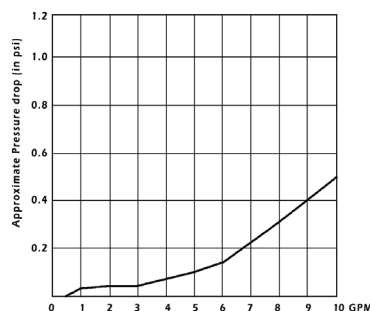
## Pressure Drop Charts

The filter cartridges in this system have a great surface area for long life and reduced filtration costs.

### Sediment Filter



### Pleated Carbon



## Additional Features (Optional):

- AquaFlow Deposit Control System with Stainless Steel Reaction Chamber (Salt-Free Descaling)
- Additional Sediment Filtration with Spin Down Separator for Lake Water Applications
- Additional Filtration for Most Common Contaminants and Pollutants
- Purge Valve at Out Port for Overheat Protection

For **UV Dose Applied** please refer to the graph in the specification sheet for the UV-1400 sterilizer. At the maximum flow rate of 14 GPM / 53 LPM and 95% UVT, this UV system provides a UV dose of 40 mJ/cm<sup>2</sup>

## Assumed Water Quality Parameters and Filtration

This UV System comes equipped with pre-filtration, to help meet the water quality parameters for proper operation (Turbidity < 1 NTU, Iron < 0.3 ppm, Manganese < 0.05 ppm, TDS < 500 ppm). Before being treated in the UV reaction chamber, the water enters the first filter housing, where a sediment filter cartridge removes dirt, rust and other sediments down to 5 micron (cartridge Part # 14-WFS20BB-5PL). This is followed by a second filter housing with a pleated carbon filter cartridge at 10 micron which removes taste and odour from the water (cartridge Part # 14-WFC20BB-10PLC). The filter cartridges have an excellent chemical resistance in all food and beverage purification applications and a low pressure drop. Hardness can be removed by installation of a softening device before the filter or on the hot water line behind the UV.

Additional filtration stages can be installed, such as a self-cleaning Spin Down Separator that keeps the filter cartridges from clogging up if elevated sediment levels are present (Part # 13-SDF-2).