



# SYS250

## Water Treatment System

### Description

The SYS250 is an All-in-One Water Treatment System that is sized for the needs of the smaller household (up to 3 people) to provide complete purified drinking water for domestic use. 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 such as sediments, rust and pesticides with filtration down to 5 micron. Carbon filtration reduces taste and odour, including sulphur smell and chlorine residuals, as well as cysts. 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 that features an alarm system which sounds an audible alarm if the UV lamp is not functioning properly.

All installation hardware (mounting bracket, filter wrench and flexible S-pipe for the connection between filtration and UV) are supplied with the system. Shutoffs are not supplied and are optional, depending on the plumbing set-up.

This residential 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 Treatment
- ▶ Robust Construction, Quality Fabrication
- ▶ 10" SlimLine Sediment + Carbon Filtration
- ▶ Filter Housings with Pressure Relief Valves
- ▶ 304L SS Ultra-Violet Sterilizer (316L optional)
- ▶ Electronic Ballast with Operation Days Count



*The system ships complete with all necessary components and installation hardware*

### Benefits

- ▶ Efficient Disinfection, Low Cost per Litre
- ▶ High UV Dose for Peace of Mind
- ▶ Extremely Simple to Use and Maintain
- ▶ Pre-Assembled Filter Set for Easy Installation
- ▶ Ideal for Use in Households up to 3 People

We  
Stand  
On  
Guard



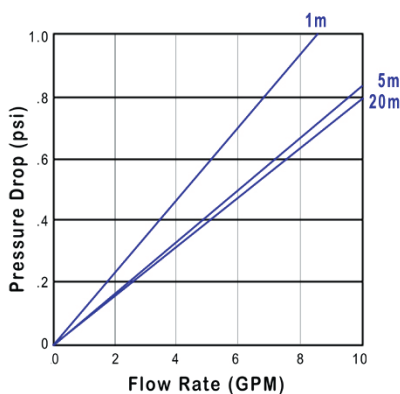
<b>Flow Range (limited by filter selection):</b>	Up to 15 litres per minute (4 GPM) 900 litres/hour, 21.6 m <sup>3</sup> /day (240 gallons/hour, 5760 gallons/day)
<b>Initial UV Dose at Max. Flow (95% UVT):</b>	46 mJ/cm <sup>2</sup> (46,000 μWsec/cm <sup>2</sup> ) @ 15 LPM / 4 GPM
<b>Electrical:</b>	110 Volt AC / 50 - 60 Hz (Part # SYS250/QD4E-1) 240 Volt AC / 50 - 60 Hz (Part # SYS250/QD4E-2) 12 Volt DC (Part # SYS250/QD4E-12VA)
<b>Ballast:</b>	Electronic Ballast w/ Lamp Out Alarm, Power LED, Count of Total Running Days on LCD Display (Resettable) Model RH51-425-40L (Wyckomar Part # 4-BE-425-ECO-R) 12V Ballast (Part #4-BE-12V-2B) w/ Lamp-Out Alarm, no Count
<b>Replacement Lamp:</b>	Low-Pressure UV Lamp, Part # RL-23/436T5
<b>Filtration:</b>	10" SlimLine (L 9-7/8", OD 2-1/2"), w/ Pressure Relief
<b>Stage 1, Sediment Filter:</b>	Melt-Blown Polypropylene ("Spun Poly"), 5 Micron
<b>Stage 2, Carbon Filter:</b>	Coconut Shell Carbon (Extruded Carbon Block), 5/10 Micron
<b>Connection betw. UV and Filter (S-Pipe):</b>	SS Flexible Hose (Part # 10-FF18)
<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>	3/4" MNPT In/Out
<b>Shipping Size and Weight:</b>	1 box 26x17x7 inches, 16 lbs / 7.3 kg

Specifications subject to change

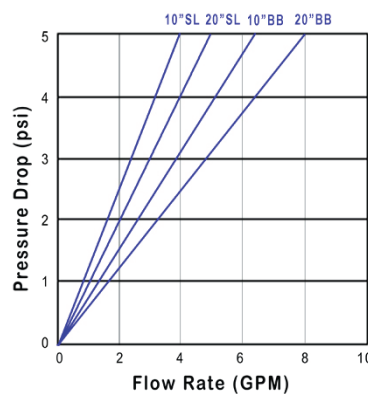
## Pressure Drop Charts

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

### Sediment Filter



### Carbon Block Filter



## Additional Features (Optional):

- Electronic Deposit Control System with PVC or Stainless Reaction Chamber
- 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

## 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). Before being treated in the UV reaction chamber, the water first enters the sediment filter housing, where a sediment filter cartridge (made from melt-blown Polypropylene) removes dirt, rust and other sediments down to 5 micron (cartridge Part # 14-WFS10-5SP). This is followed by a second filter housing with a carbon block filter cartridge at 10 micron (made from Coconut Shell Carbon), which removes chlorine, taste and odour from the water (cartridge Part # 14-WFC10-5CB).

The filter cartridges are NSF/ANSI 42 certified for materials and have an excellent chemical resistance in all food and beverage purification applications.