



# SYS-MD1004

## All-in-One Water Treatment System

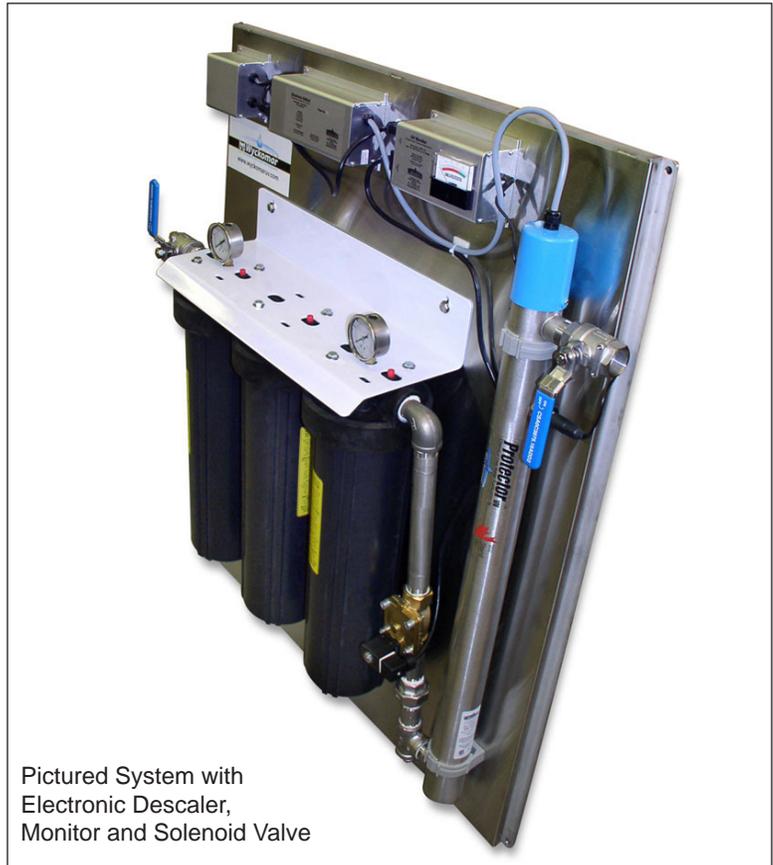
### Description

The SYS-MD1004 is an All-in-One Water Treatment System that is sized for the needs of the bigger household (up to 10 people) or small to medium commercial application 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 microorganisms 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 components of this system are pressure-tested and pre-assembled on a stainless steel panel. It is easy to install and maintain and can be upgraded with various optional components for many different water treatment applications.

This residential/commercial water purification system offers very efficient water treatment at a low cost per unit volume.



Pictured System with Electronic Descaler, Monitor and Solenoid Valve

### Features

- ▶ Chemical-Free Water Treatment
- ▶ Robust Construction, Pre-Assembled
- ▶ 304L SS Ultra-Violet Sterilizer (316L optional)
- ▶ Electronic Ballast with Lamp-Out Alarm
- ▶ 20" BigBlue Filtration in 3 Stages
- ▶ Pressure Gauges
- ▶ Manual Shutoffs
- ▶ Many Optional Components
- ▶ Mounted on Stainless Steel Panel
- ▶ Self Contained, Energy Efficient

### Benefits

- ▶ Safe Drinking Water at Low Cost
- ▶ High UV Dose for Peace of Mind
- ▶ Extremely Simple to Use and Maintain
- ▶ Fully Assembled for Easy Installation
- ▶ Ideal for Use in Households up to 10 People



# Specifications

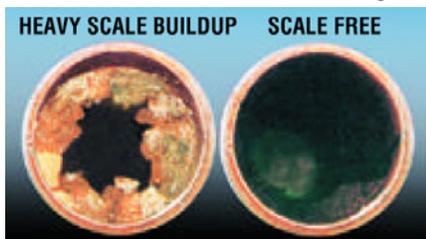
Part # SYS-MD1004-1/2

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| <b>Rated Flow:</b>                           | 45 litres per minute (12 GPM)<br>2,700 litres/hour, 64.8 m <sup>3</sup> /day<br>(720 gallons/hour, 17,280 gallons/day)             |
| <b>Initial UV Dose at Rated Flow:</b>        | 54 mJ/cm <sup>2</sup> (54,000 µWsec/cm <sup>2</sup> ) @ 95% UVT<br>38 mJ/cm <sup>2</sup> (38,000 µWsec/cm <sup>2</sup> ) @ 70% UVT |
| <b>Electrical:</b>                           | 110-130 Volt AC / 50-60 Hz (Part # SYS-MD1004-1)<br>220-240 Volt Ac / 50-60 Hz (Part # SYS-MD1004-2)                               |
| <b>Power Consumption (Standard Config.):</b> | 70 VA @ 120 V, 84 VA @ 240 V   |
| <b>Ballast:</b>                              | Electronic Ballast (Part # 4-BE-800WL-1/2)<br>w/ Lamp Out Alarm, Power LED   |
| <b>Replacement Lamp:</b>                     | Low-Pressure UV Lamp, Part # RL-84/893T5   |
| <b>Filtration:</b>                           | 20" BigBlue (L 20", OD 4-1/2"), w/ Pressure Relief   |
| <b>Stage 1, Sediment Filter:</b>             | Melt-Blown Polypropylene ("Spun Poly"), 5 Micron   |
| <b>Stage 2, Carbon Filter:</b>               | Granular Activated Carbon ("GAC"), Coconut Shell   |
| <b>Stage 3, Carbon Filter:</b>               | Coconut Shell Carbon ("Extruded Carbon Block")   |
| <b>Max. Operating Temperature:</b>           | 37 °C (98.6 °F)  |
| <b>Max. Operating Pressure:</b>              | 125 psi - 8.6 bar (tested to 500 psi)  |
| <b>Plumbing:</b>                             | 1" MNPT In/Out   |
| <b>Shipping Size and Weight:</b>             | 1 Skid approx. 45x38x32 inches, 105 lbs / 47.7 kg  |

## Optional Features

This system comes by default with filtration and ultra-violet disinfection for the treatment of drinking water from many sources. Additional features can easily be added to make it into a customized water purification system for any kind of application and for the removal/reduction of almost any kind of contaminant.

**Hardness** - This system works well in cooperation with a commercial style softener, but for those applications where salt is not wanted, an electronic scale deposit controller can be added to the panel. The device will condition the calcium and magnesium molecules, preventing lime build-up in plumbing and appliances.



**Monitoring System** - For those applications that require fail-safe operation, a monitoring system can be added. This consists of a sensor that measures the intensity of the UV light in real-time, and displays it on a meter face on the monitor. In case the intensity goes below the recommended dosage for drinking water, the monitor can trigger a solenoid valve to shut off the flow of water until the problem has been rectified.



UV Monitor  
(Part # 4-UV/MS-1/2 V3)

**Special Filtration** - If other contaminants are present, such as Arsenic, Fluoride, Nitrate or other pollutants, or if the pH needs to be adjusted, additional filtration levels can easily be added to this system.

## Plug & Play

This Integrated UV System is pre-assembled and pressure tested at the factory and will work right out of the box. The attractive, panel-mounted design allows for easy installation and ensures many years of faithful service. All components are placed so they can be easily maintained and cleaned. Manual shutoff valves on the In and Out port allow for proper plumbing and make it easy to install a bypass.

