

# RC Series

## Ultraviolet (UV) Water Disinfection Systems



Ultraviolet disinfection systems are fast becoming the choice treatment in drinking water, process & wastewater applications all over the world in the industrial, commercial and residential markets. UV systems offer several advantages over other conventional methods of disinfection.

Rainfresh RC series UV systems are designed for online water disinfection using the germicidal properties of ultraviolet (UVC) light at 254nm wavelength.

RC series UV systems deliver a UV dose of  $> 40\text{mJ}/\text{cm}^2$  throughout the lamp life. These units are tested and certified to NSF/ANSI 55A & CSA B483.1. They feature full UV sensor, audio-visual alarms and output for solenoid shut-off. They also feature a lamp replacement reminder alarm to ensure UV lamps are replaced on time.

These features make the RC series UV systems most suitable for commercial applications such as campgrounds & small communities, restaurants, motels, hotels, hospitals, daycare centers, kitchens & fast food restaurants etc.

### Features

- UV dose  $> 40\text{mJ}/\text{cm}^2$  at end of lamp life
- Constant & reliable UV output
- Audible and visual alarms
- Solenoid output so that only safe water can pass through the system
- Automatic lamp replacement reminder
- Low pressure drop
- Built-in flow control

### Specifications

Total Flow Capacity	Min 8 US GPM up to 30 US GPM.
UV Dose at rated flow	$> 40 \text{ mJ}/\text{cm}^2$ at end of lamp life
Certification	NSF/ANSI 55 Class A Certified
Alarms	Visual & audible notification
Monitoring	Continuous UV transmittance feedback
Solenoid Valve (Optional)	Auto shut-off fail-safe valve so only safe water can pass the system.
Maintenance	Automatic lamp replacement alarm reminder
Inlet & Outlet Connections	1" NPT to 3" NPT connection for easy installation
Maximum Pressure	100 PSI, 690 kPa (tested to 240 PSI)
Dynamic flow regulator	Maintains rated flow with minimal pressure drop
Voltage	120/220 VAC
Electronic ballast	Auto power regulated, protected from power fluctuations
Electrical	CSA certified

### Feed Water Conditions

Hardness	$< 5 \text{ GPG}$	Iron	$< 0.3 \text{ PPM}$
Manganese	$< 0.05 \text{ PPM}$	% UV Transmittance	$> 75\%$
Water pH	6.5 to 8.5	Total Dissolved Solids	$< 1,000 \text{ PPM}$
Water Temperature	$1^\circ\text{C} - 38^\circ\text{C}$	Turbidity	$< 1 \text{ NTU}$
Water Pressure	5 – 100 psi		

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### Models & Specifications

MODEL	Rated Flow <sup>v</sup>	Inlet / Outlet	UV Dose	Chamber	CSA B483.1	NSF 55A	UV Sensor	Audio/ Visual Alarm	Solenoid output*
RC8	8 GPM	¾" NPT	> 40 mJ/cm <sup>2</sup>	SS304	Yes	Yes	Yes	Yes	Yes
RC11	11 GPM	¾" NPT	> 40 mJ/cm <sup>2</sup>	SS304	Yes	Yes	Yes	Yes	Yes
RC14	14 GPM	1" NPT	> 40 mJ/cm <sup>2</sup>	SS304	Yes	Yes	Yes	Yes	Yes
RC20	20 GPM	1.5" NPT	> 40 mJ/cm <sup>2</sup>	SS304	Yes	Yes	Yes	Yes	Yes

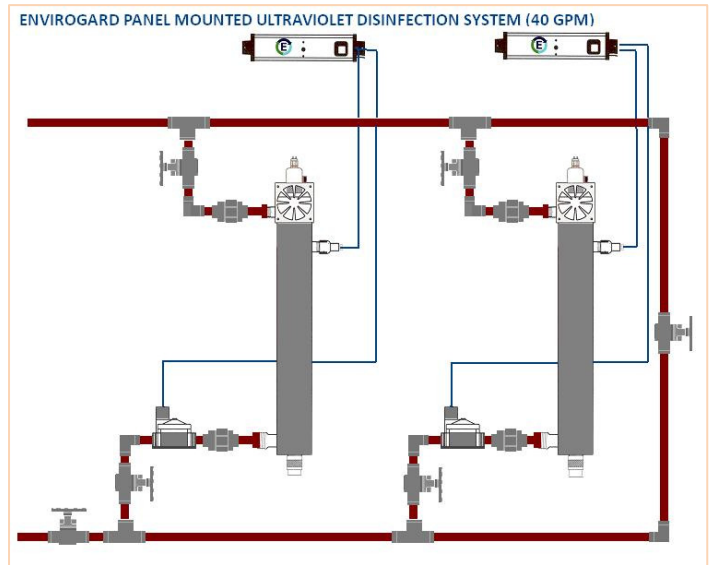
<sup>v</sup> - US GPM, 1 US GPM = 3.785 L ; \* - Solenoid Valve sold separately

### Pre-Fabricated UV Panels for higher flow rates

RC series UV systems are available as individual boxed units or also as multiple units in parallel, mounted on Rainfresh panel systems. Panel systems are ideal for high flow applications as they offer redundancy in emergencies and also have lower pressure drops compared to a single high flow unit.

RC Series Panels can be designed to disinfect water at flow rates up to **100 US GPM**.

The pre-mounted panel comes with 1" NPT to 3" NPT connections, which includes drain ports, shut-off valves, couplings etc. The panel can be easily wall mounted and plumbed in for start-up. The system also includes safety solenoid valves that shut the water off in case of system malfunction.



### Warranty

Following are the warranties against defects in materials &/or workmanship

**7 years** – Stainless steel chamber

**1 year** – Miscellaneous hardware & electronic controller & sensor assembly

**6 months** – UV lamp. *See warranty card for details*

### ABOUT RAINFRESH/ENVIROGARD

For over 40 years, Envirogard has been leading the water treatment industry in Canada by providing high quality products and solutions at affordable prices. "Rainfresh" products are used by homeowners across Canada and in over 40 countries worldwide.



Tested and certified by CSA International to NSF/ANSI 55A and to CSA B483.1

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