

Commercial UV

Water Disinfection Systems



How safe is your water?

Bacteria and viruses can affect all water supplies, especially ground and surface water sources like wells, springs, rivers, cisterns and lakes. It is estimated that 20 to 40% of wells in any area can be contaminated with disease-causing micro-organisms. Sometimes even municipally-treated water is not fail-safe. Every year many municipalities across Canada issue *Boil Water Advisories*.



What can happen if the water supply is contaminated?

Consumption of water that is contaminated with water-borne bacteria (like *E. coli*) and viruses can cause illnesses like diarrhea, dysentery, meningitis, hepatitis, etc. In most provinces in Canada, Government guidelines recommend installation of a disinfection system for any business, office or factory that serves water to the public.



How can a Rainfresh Commercial UV System help?

Rainfresh Commercial UV Systems are highly effective in ensuring microbiologically safe water for your facility. Germicidal ultraviolet light (UV) at 257nm wavelength is produced by special high-output UV lamp(s) inside quartz sleeve(s), placed in SS304 housing. As the water flows through the UV housing, it is subjected to a lethal dose of $>40 \text{ mJ/cm}^2$ at the rated flow, instantaneously inactivating bacteria and viruses. The result is a simple, cost effective way of treating water without the use of chemicals!

Delivers over **40 mJ/cm²**
UV dose at rated flow

FEATURES

Highly Effective!

Rainfresh Commercial UV Systems are highly effective against water-borne bacteria like *E. coli* and viruses.

Compact Design!

Rainfresh Commercial UV Systems are one of the most compact UV systems in the industry.

High Output UV Lamps!

All Rainfresh UV systems incorporate high-output germicidal UV lamps for maximum UV energy.

Efficient Controller!

Rainfresh commercial UV systems are driven by a highly efficient microprocessor-controlled ballast which maintains consistent UV output regardless of voltage or frequency variations.

Automatic Lamp Replacement Reminder!

After one year of service, the ballast sets off an audible and visual reminder, notifying you to replace the lamp.

Easy to Maintain!

Regular maintenance is extremely simple and can be performed in minutes without tools.

Commercial Ultraviolet (UV) Water Disinfection Systems



TECHNICAL SPECIFICATIONS

Model	R20	R30	R40	R50
Maximum Rated Flow Rate	20 US GPM (75 LPM / 4.5 m ³ /hr)	30 US GPM (113.5 LPM/6.8m ³ /hr)	40 US GPM (151 Lpm /9 m ³ /hr)	50 US GPM (189 LPM/11.3 m ³ /hr)
UV Dose at rated flow	> 40 mJ/cm ²			
AC Supply Voltage	120V, 50/60Hz, 0.7A (220V optional)			
Total Power Consumption	65 W	130W	132 W	180W
Reactor Chamber Material	Stainless Steel 304			
Solenoid Output (12V DC)	Optional			
Flow Restrictor	Optional			
Inlet/Outlet Port Size	1" MNPT	1.25" MNPT	1.5" MNPT	1.5" MNPT
Chamber Dimensions (LxD)	31.5"x4.0"	31.5"x4.0"	34" x 4.0"	45"x4.0"
Number of lamps	1	1	2	2
UV Lamp model	R1245L	RC11L	R1245L	RC20L
Controller Dimensions	5.15"L x 1.7"D x 2.2"H			
Lamp Service Life	9000 hours			
Annual Lamp Change Timer	Yes			
Lamp-ON Indicator	Yes			
Lamp-Failure Audible/ Visual Indicator	Yes			
Lamp Change Grace Period	28 days maximum			
Grace Period Audio Alarm Disable	Yes (7 day increments)			
Maximum Operating Pressure	100 psi			
Maximum Ambient Temperature	50°C (122°F)			
Water Temperature Range	4 - 37°C (40-99°F)			

For optimum performance of the system, water entering the Rainfresh UV System should meet the following parameters: Hardness < 7.0 gpg (120 ppm); Iron < 0.3 ppm; Manganese < 0.05 ppm; Turbidity < 1 NTU; Tannins/Colour: None; UV Transmissivity > 85%

HIGHER FLOW RATES

For higher flow rates up to 300 GPM (68m³/hr), Rainfresh offers factory-built plug & play panel systems with isolating valves. Call for details.

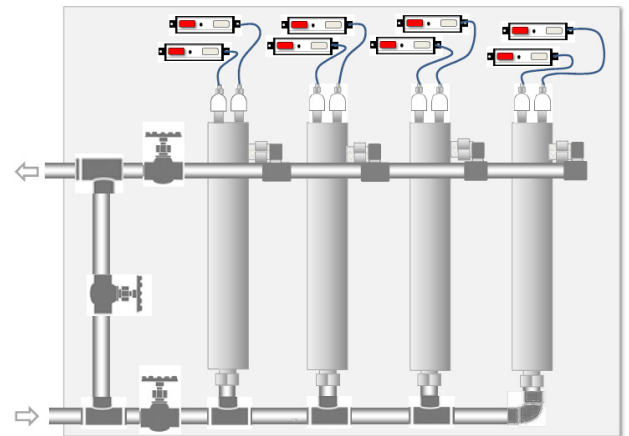
WARRANTY

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

7 Years – Stainless steel chamber

1 Year - Miscellaneous hardware, seals and ballast.

6 months – UV lamp. See warranty card for details



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