

# ULTRAVIOLET SYSTEMS



## UVQ SERIES ULTRAVIOLET SYSTEMS RESIDENTIAL / COMMERCIAL / INDUSTRIAL



### FEATURES

- Quartz treatment chambers reduce water heating
- Multi-pass flexibility, field expandability
- Standard or high output models available
- Unique cooling design
- Removable electronics tray for quick access
- Horizontal or vertical mounting
- Quartz sleeve can be removed from either end
- White powder-coated, galvanized steel enclosure

### UVQ SERIES FLOW RATES\*

Dosage (Per Pass)	Standard Lamp	High Output Lamp
16K $\mu\text{w sec/cm}^2$	4 GPM	5 GPM
30K $\mu\text{w sec/cm}^2$	2 GPM	2.5 GPM
40K $\mu\text{w sec/cm}^2$	1.5 GPM	2 GPM

\* Based on 99% UVT

SWT's UVQ Series Ultraviolet Systems provide a compact, fully customizable design for use with low flow rate applications. These units can be configured to treat 1, 2, 3, or 4 separate water streams at the same time.

Water passes through as many as four quartz disinfection chambers located in close proximity to a single ultraviolet lamp. This insures maximum ultraviolet output. The system is fan cooled to mitigate water heating.

The ultraviolet disinfection chamber quartz sleeves are inserted through CPVC threaded nipples and held in place with removable gland nuts and o-rings. Chambers can be added at any time from either end. The inlet/outlet connections are 3/4 inch FNPT and allow for water flow in either direction.

The UVQ Series enclosure is powder-coated, galvanized steel with a removable top panel. The top panel has a UV lamp view port and a safety switch to turn the lamp off when the top panel is removed. The electronics are situated on a removable tray located inside the enclosure, designed for quick removal/replacement for repair by field personnel.

Units can be installed vertically or horizontally. Made in the USA.

**APPLICATIONS:** Reverse Osmosis, Water Vending, Laboratories, Medical

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### UVQ Series Ultraviolet Systems — Standard Output

Part Number	Inlet/Outlet Size	Number of Quartz Sleeves	Flow Rate for UV Dosage at End of Lamp Life *		
			16 mJ/cm <sup>2</sup>	30 mJ/cm <sup>2</sup>	40 mJ/cm <sup>2</sup>
UVQ-1S-5	1/2 inch FNPT	1	4 GPM	2 GPM	1.5 GPM
UVQ-1S-7	3/4 inch FNPT				
UVQ-2S-5	1/2 inch FNPT	2	8 GPM	4 GPM	3 GPM
UVQ-2S-7	3/4 inch FNPT				
UVQ-3S-5	1/2 inch FNPT	3	12 GPM	6 GPM	4.5 GPM
UVQ-3S-7	3/4 inch FNPT				
UVQ-4S-5	1/2 inch FNPT	4	16 GPM	8 GPM	6 GPM
UVQ-4S-7	3/4 inch FNPT				

\* Based on 99% UVT

### UVQ Series Ultraviolet Systems — High Output

Part Number	Inlet/Outlet Size	Number of Quartz Sleeves	Flow Rate for UV Dosage at End of Lamp Life *		
			16 mJ/cm <sup>2</sup>	30 mJ/cm <sup>2</sup>	40 mJ/cm <sup>2</sup>
UVQ-1H-5	1/2 inch FNPT	1	5 GPM	2.5 GPM	2 GPM
UVQ-1H-7	3/4 inch FNPT				
UVQ-2H-5	1/2 inch FNPT	2	10 GPM	5 GPM	4 GPM
UVQ-2H-7	3/4 inch FNPT				
UVQ-3H-5	1/2 inch FNPT	3	15 GPM	7.5 GPM	6 GPM
UVQ-3H-7	3/4 inch FNPT				
UVQ-4H-5	1/2 inch FNPT	4	20 GPM	10 GPM	8 GPM
UVQ-4H-7	3/4 inch FNPT				

\* Based on 99% UVT

## REQUIREMENTS

### Location

The unit is designed to be installed vertically or horizontally with a clearance at one end at least equal to the overall length of the chamber plus 4 inches for removal of the quartz sleeve.

**UVQ Overall Dimensions (Inches)** 32" L x 5.8" W x 5" H

### Operating Pressure

Operating pressure should not exceed 125 psi. A water hammer may cause o-ring failure. If the UV system is subject to water hammer conditions, installation of a water surge suppressor is recommended.

### Temperature

Inlet water temperature should not exceed 100°F. Ambient temperatures in the area surrounding the UV unit should be between 25 and 90°F.

### Water Characteristics

Be sure transmission of water meets acceptable standards.

**Turbidity** 5 NTU maximum

**Suspended Solids** 10 mg/L maximum

**Color** None

**Hardness** 7 Grains maximum

**Iron** 0.3 ppm maximum

**Manganese** 0.05 mg/L maximum

**pH** 6.5 to 9.5 maximum

### Flow Rate

Flow rate must not exceed rated capacity. Use of SWT Flow Controls is recommended (see Form 1318 – Flow Controls).