

# UPSTREAM®

## Ultraviolet Water Purification Systems

UV Pure Technologies' Upstream® systems, with patented Crossfire Technology® are engineered to meet the same standards as NSF/ANSI 55 Class A systems, but are priced competitively with ordinary UV systems. Six models, for flow rates of 10, 15 and 30 GPM can treat water with UVT as low as 50%.

Effective even on surface water from lakes, streams, cisterns and dug wells.



**CROSSFIRE** TECHNOLOGY

**Optional Automatic Shut-Off Solenoid Valve**



**Optional Wireless Remote Monitor**



**Power Conditioner Included as Standard**



### The Most Effective Water Purification

- Engineered to reduce e-coli, bacteria, cysts like cryptosporidium and giardia, legionella and most viruses to safe levels.
- Effective for the broadest range of pre-treatment water quality
- Elliptical reflectors eliminate UV shadowing
- Lamp output optimized from 1° C (34° F) to 40° C (104° F) air and water temperatures

### Crossfire Technology is Self-cleaning

- Automatic self-cleaning mechanism is engineered to eliminate quartz fouling, manual cleaning, quartz removal and risk of breakage

### Quick and Easy Lamp Changes Annually

- No need to disassemble or drain systems to change lamps
- 9000 hour lamp life with lamp hour count down to end of life

### Patented Smart Technology Engineered to Be Fail Safe and Risk-Free

- Dual UV sensors continuously monitor UV dose, lamp intensity, and net UV Transmittance (UVT)\*
- Digital monitor, visual, and audible alarm notification
- On-board data logging and self-diagnostic trouble-shooting logic
- Optional automatic solenoid shut-off valve
- Optional wireless remote monitor

### Engineered to be Virtually Maintenance Free

- Automatic Self-cleaning
- Simple and easy lamp changes
- Engineered to eliminate nuisance alarms
- Standard power conditioner protects against surges and brown-outs

### Quick and Easy to Install

- 24 hour automatic initializing programming manages first time use so no installer wait time
- Small footprint and compact size
- No wasted space required for lamp removal
- Standard SS flexible hoses mean no hard piping required
- Optional automatic solenoid shut-off valve means by-pass piping is optional
- Wall mounting template included

[www.uvpure.com](http://www.uvpure.com)

\* Ultraviolet Transmittance (UVT) is a measure of the percentage of UV light that may pass through the water.

Pure, safe water.



Always®


## Upstream® System Specifications with Crossfire Technology®

Model	Upstream 10-75	Upstream 10-50	Upstream 15-75	Upstream 15-50	Upstream 30-75 1"	Upstream 30-75 1.5"
<b>Validation</b>	Engineered to meet the same standards as NSF/ANSI 55 Class A certified UV systems					
<b>UV Dose</b>	Minimum dose of 40 mJ/cm <sup>2</sup> at specified flow rates					
<b>Minimum Water UV Transmittance</b>	75%	50%	75%	50%	75%	75%
<b>Maximum Rated Capacity</b>	11 US gpm (41 L/min) (2.4 m <sup>3</sup> /hr)		16.5 US gpm (62 L/min) (3.7 m <sup>3</sup> /hr)	14.6 US gpm (55 L/min) (3.3 m <sup>3</sup> /hr)	28.5 US gpm (108 L/min) (6.5 m <sup>3</sup> /hr)	
<b>Nominal Flow Rate</b>	10 US gpm (38 L/min) (2.3 m <sup>3</sup> /hr)		15 US gpm (57 L/min) (3.4 m <sup>3</sup> /hr)	13.2 US gpm (50 L/min) (3.0 m <sup>3</sup> /hr)	26.4 US gpm (100 L/min) (6.0 m <sup>3</sup> /hr)	
<b>Multiple System Flow Capacity - Engineered for multiple systems in parallel configuration up to</b>	200 US gpm (46 m <sup>3</sup> /hr)		300 US gpm (68 m <sup>3</sup> /hr)	264 US gpm (60.0 m <sup>3</sup> /hr)	528 US gpm (120 m <sup>3</sup> /hr)	
<b>Redundancy</b>	Additional back-up systems can be added to meet regulatory requirements cost effectively					
<b>Operating Pressure</b>	10 psig (69kPa) to 100 psig (690 kPa); tested to 240 psig (1.6 MPa)					
<b>Dynamic Flow Restrictor</b>	Installed as standard					
<b>Pressure Drop at 75% of Rated Capacity</b>	14 psig (96 kPa)					4 psig (28.3 kPa)
<b>Solenoid Valve</b>	1" NPT female to female, external 24 volts AC, auto shut-off, fail-safe (normally closed) valve optional on all models; solenoid valve requires a minimum of 10 psig to operate; valves are one-way directional and include a manual override					1-1/2" NPT
<b>Inlet and Outlet Connections</b>	1" NPT male manifold connections; flexible 1" NPT female to female 12" hoses eliminate the need for hard pipe installations					1-1/2" NPT
<b>Voltage</b>	115 volts AC (North American models); 100 to 240 volts (international models) 50/60 Hz					
<b>Maximum Power Consumption</b>	135 watts	175 watts	200 watts			
<b>Electrical Certification</b>	North American models: Intertek ETL (UL and CSA equivalent); International models: meet IEC 60335.1 Ed4 and CE					
<b>Power Line Conditioner</b>	Panamax M4-EX included as standard. Power conditioner meets UL 1449					
<b>Lamps</b>	Low pressure high output proprietary lamps contain up to 35 mg of Mercury (Hg); rated for 9,000 continuous use (approximately one full year)					
<b>Maintenance</b>	Automatic reminder for lamps replacement; Lamps are mounted in air and easily removable, a simple 2 minutes process					
<b>Electronic Ballast</b>	Auto power-regulated smart ballast is integrated with micro-processor control system					
<b>Self-Cleaning</b>	316 SS wiper blade system engineered to keep quartz sleeve free of scale or bio-film					
<b>On-Board Micro-Processor and Monitor</b>	Patented dual smart UV sensors monitor lamp intensity output (UVI) and water transmittance (UVT) continuously; three thermistors continuously monitor UV chamber, ballast and water temperature; on-board LCD displays system performance, lamp hours, data logged operating events, and self-diagnosis including when to change lamps, and troubleshooting assistance for service issues; on-board LED's indicate system status: OK, warning or alarm conditions.					
<b>Dry Contacts</b>	Included as standard for applications that require remote alarm or auto dialers					
<b>Optional Wireless Remote Monitor</b>	RF 2.4 GHz remote monitor with LCD displays system status; operates up to 150 feet (50 meters) away from main system					
<b>Dimensions (Height, Width, Depth)</b>	32" x 7.5" x 9.3" (81.3 cm x 19.0 cm x 23.6 cm)	35.8" x 7.5" x 9.3" (90.8 cm x 19.0 cm x 23.6 cm)	39.8" x 7.5" x 9.3" (101.0 cm x 19.0 cm x 23.6 cm)			
<b>Weight - Dry</b>	26 lbs (11.8 kg)	28 lbs (12.7 kg)	30 lbs (13.6 kg)			
<b>Weight - Wet</b>	29 lbs (13.2 kg)	31 lbs (14.1 kg)	33 lbs (15.0 kg)			
<b>Warranty</b>	1 year limited warranty on lamps and UV sensor array on pro-rated basis; three-year limited warranty for electrical components and quartz sleeve; five-year limited warranty for structural, hardware and mechanical components					
<b>EPA FIFRA Certified</b>	EPA Est. No. 075213-CAN-001					
<b>Patents</b>	Patented in US 6,707,048, Australia 2002333084, Mexico 248805. Patents pending in Canada, Europe, Eurasia, Japan, and UK					
<b>Recommended Application or Water Source</b>	Drilled deep wells or pre-treated water	Unprotected water sources; surface water (lakes, streams), cisterns, dug well	Drilled deep wells or pre-treated water	Unprotected water sources; surface water (lakes, streams), cisterns, dug well	Drilled deep wells or pre-treated water	

## Upstream® Pre-Treatment and Environmental Operating Conditions

### Water Conditions

### Effective Treatment Range

	MIN		MAX		
	Hardness	0	50 grains (855 mg/L)		
	Iron	0	3 mg/L (ppm)		
	Manganese	0	0.5 mg/L (ppm)		
	% UVT	50% or 75% depending on model			100%
	pH	6.00			9.00
	Total Dissolved Solids (TDS)	0			1000mg/L
	Water Temperature	1°C (34°F)			40°C (104°F)
	Air Temperature	1°C (34°F)			40°C (104°F)
	Turbidity	0 NTU			1 NTU
	Water Pressure (Operating)	10 psi (69 kPa)			100 psi (690 kPa)
	Water Pressure (Test)				240 psi (1.6 MPa)
	Filtration	5 micron pre-filtration recommended			

† Extreme air and water conditions may require thermal abatement kits



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