



P-Series™

UV Water Disinfection for Aquaculture applications up to 750m³/hr.

The P-Series is a durable and versatile UV disinfection system for saline waters, thermal fluids and corrosive liquids. It can provide reliable disinfection and pathogen protection in small and large saltwater aquaculture or corrosive fluid applications.

Applications

- ✓ **Fish, Shellfish and Crustacean Farms** – improve quality and increase production yields of salmon, bass, abalone, oyster, prawn, mussels, shrimp and any other aquaculture stock whilst protecting against species specific diseases in the grow out stage of farming.
- ✓ **Hatcheries** – safeguard broodstock, hatching fish, larvae and fry by using non-chemical pathogen protection methods at this highly sensitive and critical farming stage.
- ✓ **Marine Well Boats** – protect fish stocks during transportation to and from onshore and offshore aquaculture farming facilities.
- ✓ **Aquaria & Zoos** – ensure life support systems (LSS) allow fish and other water using animals to thrive in their environments, whilst allowing them to be appreciated by attraction visitors.
- ✓ **Display Fountains & Water Features** - improve appearance and safety by controlling harmful bacteria in environments where humans are at risk of direct water contact and droplet inhalation.
- ✓ **Thermal Springs, Swimming Pools & Spas** – inactivate and destroy deadly human pathogens in these heated environments where microorganisms thrive.
- ✓ Any other brackish, seawater or corrosive liquid application where disinfection is required.



Aquaculture



Aquatics



Industrial & Manufacturing

Benefits

- ✓ **No harmful by-products** – chemical free, environmentally and human friendly.
- ✓ **No micro-organism is known to be immune to UV** – even the chlorine resistant Giardia and Cryptosporidium.
- ✓ **Minimise antibiotic use in fish farms** – save costs.
- ✓ **Enable the safe increase of fish densities** – mitigate the greater risk of contamination.
- ✓ **Maximise yields in existing fish farm infrastructures** – easily retrofitted with a quick return on investment.
- ✓ **Improve aquaculture production stability** - control fluctuating micro-biological conditions.
- ✓ **Proven performance and flexibility** – can be used to disinfect total inflow, recirculation flow and effluent to and from tanks, display fountains, water features, thermal springs, swimming pools and spas.

Standard Features

- ✓ **Durable, corrosion and electrolysis resistant** - High Density Polyethylene (HDPE) UV reactor.
- ✓ **PVC Union and Table E Flanged inlet and outlet connections** – for ease of connection to plumbing infrastructure.
- ✓ **Lamp fail alarm** – alerts user and prevents untreated water from being used.
- ✓ **Digital lamp life timer** – alerts maintenance staff prior to UV lamp reaching it's designed end of germicidal operational life.
- ✓ **Fan cooled, thermally stable electronic ballasts precisely matched to the UV lamp electrical specifications** - provides optimal UV output and lamp life.
- ✓ **Innovative high output, low pressure UV lamps** – target UV dose is maintained throughout lamp life.
- ✓ **Pure fused silica quartz sleeves** – for optimal UV output penetration through the liquid.
- ✓ **View port located on the side of reactor** – user can visually see if the UV lamp is operating or can be integrated into UV intensity monitoring option.

Options

- ✓ **Digital indoor controller** – lamp on/off LEDs, lamp fail alarm, digital lamp life timer and volt free alarm contacts. 
- ✓ **Weatherproof PLC** – IP54 & IP65 rated, lamp on/off LEDs, lamp fail alarm, digital lamp life timer, volt free alarm contacts and more. 
- ✓ **UV intensity monitoring** – real time monitoring to alert when design UV intensity is not being achieved. Output available to alert BMS of low UV intensity or to display actual UV intensity on remote device (Weatherproof PLC only).
- ✓ **Interlocking UV lamp device** – UV lamp cannot be in operation unless fully sealed within the UV reactor improving safety and eliminating UV exposure to users.

- ✓ **High water temperature shutdown** – temperate within the UV reactor is measured and the system is turned off in the event on water temperatures reaching unsafe levels in order to protect the reactor and lamp from damage (Weatherproof PLC only).
- ✓ **Remote controllable** – system can be controlled by external device (Weatherproof PLC only).
- ✓ **Personalised software** – Company name can be displayed on system start-up and designated service phone number can be displayed during system faults (Weatherproof PLC only).
- ✓ **Customisable** – Weatherproof PLC features and options can be custom made to suit customer requirements and project specifications not listed above.

Model		P80	P125	P172	P160	P245	P1-440	P2-440	P3-440	P4-440
Max flow to achieve UV dose (m ³ /hr)*	40 mJ/cm ²	8	13	14	21	26	77	573	869	1153
	60 mJ/cm ²	5	8	9	14	17	51	382	579	769
	100 mJ/cm ²	3	5	5.5	8	10	31	229	347	461
	150 mJ/cm ²	2	3	3.5	5.5	7	21	153	232	308
	250 mJ/cm ²	1	2	2.2	3.3	4.2	12.3	92	139	185
UV Lamp Details										
Lamp Type	Low Pressure High Output	Low Pressure Amalgam								
Power Per Lamp (W)	80	127	172	185	240	450				
Number of Lamps	1	1	1	1	1	1	2	3	4	
Standard Lamp Life (hours)	9,000	12,000								
UVG LongerLife Option (hours)	12,000	16,000								
UV Reactor										
Protection Class	IP54									
Material	High Density Polyethylene (HDPE)									
Inlet / Outlet Connection	2" PVC Union					3" Table E Flange	4" Table E Flange		6" Table E Flange	
Length (mm)	970			1220		1420				
Operating max Pressure (Bar/PSI)	5/72.5									
Digital Indoor Controller										
Features	Lamp on/off LEDs, Lamp fail alarm, digital lamp life timer, volt free alarm contacts					Digital indoor controller not available in these models				
Protection Class	IP20									
Power Requirements	240V, 10A Standard GPO									
Weatherproof PLC										
Standard Features	Lamp on/off LEDs, Lamp fail alarm, digital lamp life timer, thermally stable fan cooled electronic ballast									
Options	UV intensity monitoring, interlocking UV lamp safety device, high water temperature management system, remote controllable, personalised display									
Protection Class	IP65					IP54				
Power Requirements	240V, 10A Standard GPO								240V, 15A, Standard GPO	

*Flow rates calculated using 'UVCalc®' software and are based on a UV Transmittance (UVT) of 95%. UV dose values stated are achieved at the end of lamp life.



UV DISINFECTION SPECIALISTS

