



Wedeco Acton PE

UV DISINFECTION SYSTEM FOR CHALLENGING WATER CONDITIONS



Wedeco Acton PE is a closed UV disinfection reactor designed to withstand the corrosive conditions in applications like aquaculture farms, aquaria, salt-water thermal pools and well boats. It is made of polyethylene HDPE (PE100) to endure saltwater, guaranteeing resiliency and performance also in demanding conditions.



Excellent disinfection rate

The Wedeco Acton PE ensures aquaculture biosecurity and maintains ideal hygienic conditions for water intake, outflow and recirculation to prevent growth of pathogenic bacteria, parasites and viruses. This guarantees higher productivity rate, lower fish mortality and better quality fish.



High capacity at low energy consumption

The Acton PE uses Wedeco EcoRay® lamps. This technology provides high power per lamp (600 W) and emits proportionally high UVC in both dimmed mode and at high power level, allowing for significant energy savings. The sensor-driven OptiDose function monitors real-time conditions and optimizes the dose to meet current demand.



Flexibility and easy operation

The Acton PE covers high flows up to 829 m³/h in one single reactor. It allows for various standardized installation options and flange positions. Lamp replacement is easy and does not require any tools. Thanks to the high power per lamp, fewer lamps are needed and associated maintenance is reduced. Acton PE units are equipped with the unique EcoTouch controller with a user-friendly graphic touch panel, optionally connecting to SCADA systems (via bus).



Designed to last

The Acton PE is made of high quality polyethylene which is non-corrosive and very reliable in harsh water conditions. The design, including lamps and quartz sleeves, is tested for rough conditions and vibration. The EcoRay® lamp technology guarantees 14,000 operating hours per lamp.

Xylem has decades of experience of providing UV systems to the aquaculture industry. UV has been proven highly effective against aquaculture-specific pathogens, e.g. ISA virus and *Aeromonas Salmonicida*, without negative effects on the process water quality.

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Model #	Acton 27e PE	Acton 160e PE	Acton 260e PE	Acton 460e PE	Acton 660e PE
UV Transmittance, Flowrate and Certifications					
UV transmittance range in % (1cm)	> 70%				
Maximum flow rate (m ³ /h)	80	169	399	653	829
(MGD)	0.5	1.1	2.5	4.1	5.3
UV Lamps and Monitoring Systems					
Lamp Technology	Ecoray®				
Power per Lamp (W)	350	600			
Number of lamps per reactor	1	1	2	4	6
Lamp life (hours)	14,000				
UV intensity monitoring	Germicidal, ÖNORM compliant				
Individual lamp monitoring	Yes				
UV Reactor					
Protection class	IP 65				
Cleaning system	Manual, Optional: CIP system				
Reactor material	High Quality HD-PE (PE100)				
Flange sizes (DN)	100	150	250	300	350
Dimensions (A) (in millimeters)	890	1,580	1,580	2,078	2,100
Dimensions (B) (in millimeters)	355	355	355	400	500
Dimensions (C) (in millimeters)	290	308	328	450	450
Dimensions (D) (in millimeters)	910	1,600	1,600	2,100	2,100
Maximum operating pressure (bar/PSI)	6 / 87				
Electrical Cabinets					
Ballast type	Electronic, high-efficiency, variable output				
Control philosophy	fix power or dose-pacing				
Controller	EcoTouch, optional with bus interface or PLC				
Material construction	Painted sheet steel; Optional: stainless steel 304/1.4301				
Electrical Standards	CE, UL/cUL				
Common outputs	System status, Lamp status, Alarm messages, Process values				
SCADA communication	Optional: via bus interface				
Protection class / Cooling	Ventilated: IP 54 / cUL type 12; optional: A/C				
Supply voltage / Frequency / Net	CE: 230 V / 50 - 60 Hz, (TNS/TNC net); 1L / N / GND UL/cUL: 277/480 V, 60 Hz, (5 Wire WYE); 3L / N / GND				400 - 480 / 50 - 60; 3L / N / GND (CE: TNS/TNC net)
Power consumption (kW), ventilated; approx.	0.46	0.71	1.38	2.62	3.90

