

WEDECO · AQUACULTURE AND SALTWATER UV DISINFECTION

WEDECO Acton PE

Non-corrosive HD-PE UV reactors for aquaculture, aquaria, saltwater pools and well boats.



Overview

WEDECO Acton PE is a closed UV reactor built from high-density polyethylene (HD-PE, PE100) for saltwater and other water that would attack a metal vessel. On fish farms it treats intake, outflow and recirculation water to keep pathogenic bacteria and viruses under control; it is also used in aquaria, zoos, saltwater thermal pools and well boats. A single reactor handles up to 829 m³/h.

Ozone UV Solutions supplies Acton PE systems as an authorised WEDECO reseller and supports them locally: sizing, installation, commissioning, servicing, lamps and spare parts.

Key features

- Flows up to 829 m³/h in a single reactor, with standardised installation options and flange positions
- Non-corrosive HD-PE (PE100) reactor; design including lamps and quartz sleeves tested for rough conditions and vibration
- Ecoray lamps, 600 W (350 W on Acton 27e PE), with a rated lamp life of 14,000 hours
- OptiDose sensor-driven dose pacing and ÖNORM-compliant UV intensity monitoring
- Tool-free lamp replacement; high power per lamp keeps the lamp count and maintenance low
- EcoTouch controller with graphic touch panel; [bus interface to SCADA] or [PLC]

Design and operation

Materials

The reactor is made of high-quality HD-PE (PE100), which does not corrode in seawater and stands up to the biological load of farm water. Lamps and quartz sleeves have been tested for rough conditions and vibration, which matters on well boats and exposed sites.

Lamps and energy

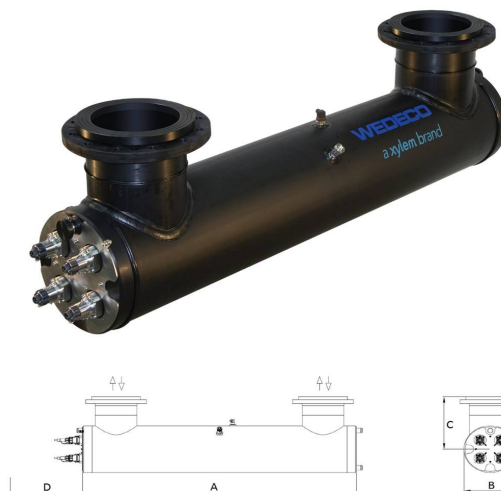
High-power Ecoray lamps emit proportionally high UV-C both dimmed and at full power, so fewer lamps are needed. OptiDose monitors real-time conditions and sets the dose to current demand; the system can also run at fixed power.

Controls

Each unit comes with an EcoTouch controller with a graphic touch panel. Outputs cover system status, lamp status, alarm messages and process values, with [bus interface to SCADA] or [PLC].

Maintenance

Lamps are changed without tools, and the high power per lamp keeps the number of lamps, and lamp changes, low. Sleeves are cleaned manually [CIP system].



Typical applications

- Intake, outflow and recirculation water on land-based fish farms
- Well boats
- Public aquaria and zoos
- Saltwater thermal pools, swimming pools and other saltwater applications

Supplied and supported by Ozone UV Solutions

System selection and UV dose sizing · Installation and commissioning · PLC/SCADA integration · Planned servicing and lamp changes · Genuine WEDECO lamps, spare parts and consumables · 24/7 technical support line
+61 422 081 913

Model selection

The right model depends on flow rate, UV transmittance (UVT) of the water and the dose required for the target pathogens. Send us these figures and we will confirm the model and configuration.

Acton PE models

Model	Max. flow (m ³ /h)*	UV lamps	Power per lamp	Flange	Dimensions A / B / C / D (mm)**	Power consumption (approx.)
Acton 27e PE	80	1	350 W	DN100	890 / 355 / 290 / 910	0.46 kW
Acton 160e PE	169	1	600 W	DN150	1,580 / 355 / 308 / 1,600	0.71 kW
Acton 260e PE	399	2	600 W	DN250	1,580 / 355 / 328 / 1,600	1.38 kW
Acton 460e PE	653	4	600 W	DN300	2,078 / 400 / 450 / 2,100	2.62 kW
Acton 660e PE	829	6	600 W	DN350	2,100 / 500 / 450 / 2,100	3.90 kW

* Maximum flow; UV transmittance > 70% (1 cm). ** Approximate, to the dimension drawing (A = reactor length; D = lamp-end dimension). Power consumption with ventilated cabinet.

Common specifications

UV LAMPS & MONITORING	
Lamp type	Ecoray, 350 W (27e) or 600 W (160e–660e)
Rated lamp life	14,000 hours
UV monitoring	Germicidal UV intensity sensor, ÖNORM compliant · individual lamp monitoring
Power control	Electronic high-efficiency ballast, variable output · fixed power or dose pacing (OptiDose)
Electrical standards	CE, UL / cUL
UV REACTOR	
Reactor material	High-quality HD-PE (PE100)
UVT range	> 70% (1 cm)
Max. operating pressure	6 bar (87 psi)
Protection class	IP65
Sleeve cleaning	Manual [CIP system]
ELECTRICAL CABINET	
Controller	EcoTouch [bus interface or PLC]
Outputs / SCADA	System status, lamp status, alarm messages, process values · [SCADA via bus interface]
Cabinet	Painted sheet steel [stainless steel 304 / 1.4301] · ventilated, IP54 / cUL Type 12 [air conditioning]
Power supply	27e–460e: CE 230 V, 50–60 Hz, 1L/N/GND (TN-S / TN-C net); UL/cUL 277/480 V, 60 Hz, 3L/N/GND (5-wire WYE) · 660e: 400–480 V, 50–60 Hz, 3L/N/GND (CE: TN-S / TN-C net)

Request sizing or a quote

Send us your flow rate, water source (fresh, brackish or seawater), UV transmittance if known and the target pathogens or required dose. We will recommend the model and configuration and quote supply, installation and ongoing service.

+61 422 081 913 · jonathan.andry@ozoneuv.com.au · ozoneuv.com.au

Specifications subject to change without notice.