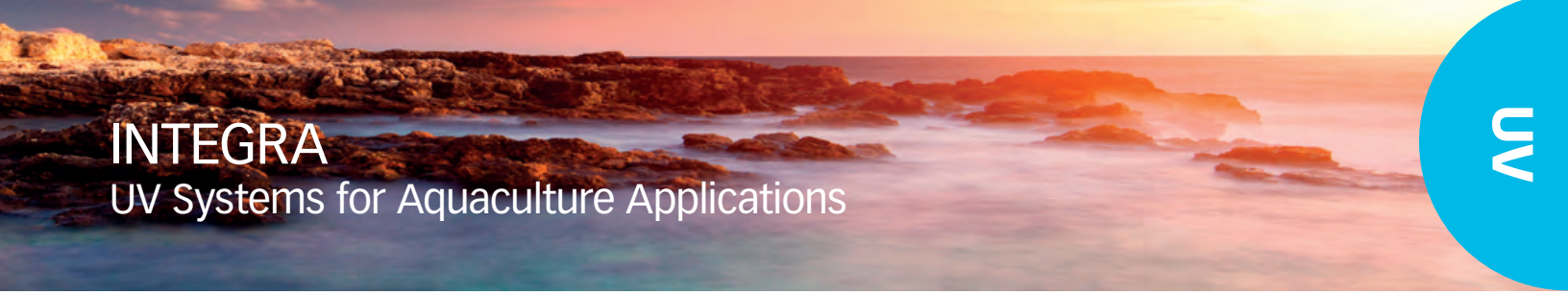


INTEGRA
UV Systems for Aquaculture Applications

UV

OZONIA's Integra range of UV systems are designed for the disinfection of intake, discharge and recirculating effluents at fish farms and on Well Boats. Integra UV systems are also perfectly designed for de-ozonation of ozone treated waters. The Integra system eliminates pathogens with a powerful dose of UV light delivered by strategically placed medium pressure UV lamps.

APPLICATIONS

- **Well Boats**
- **Aquaculture Intake Water Disinfection**
- **Aquaculture Recirculation Systems**
- **Aquaculture Effluent Discharges**
- **De - Ozonation**

MAIN CHARACTERISTICS

- **Polychromatic medium pressure UV lamps**
- **High capacity with minimum number of lamps**
- **High efficiency stainless steel cross flow reactor**
- **Calibrated UV intensity sensor**
- **Variable power electronic ballast**
- **Low pressure drop**
- **Color touch screen with data logging**
- **Norwegian Veterinary Institute (NVI) Certified**

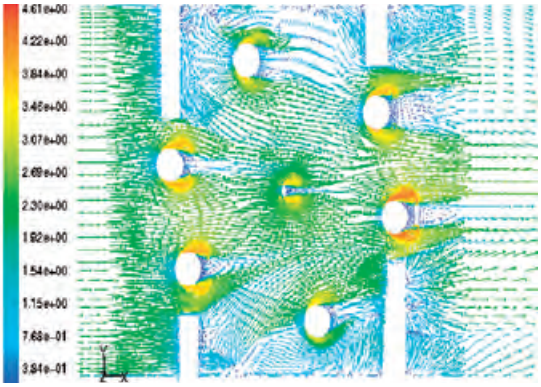
MAIN FEATURES

- **Optimized performance:** The Integra UV series has been optimized with Computational Fluid Dynamics (CFD) modeling to maximize UV dose and minimize pressure losses.
- **Energy conservation:** Power consumption can be adjusted on demand using variable power electronic ballasts.
- **Save space:** The Integra UV disinfection system utilizes a very small footprint making it easy to install on new or existing vessels. The Integra can be mounted in a horizontal or vertical position.
- **Validated performance:** The Integra series has been certified to the Norwegian Veterinary Institute (NVI) standards for disinfection of aquaculture farming effluents.
- **Online UV Intensity Monitor**
- **Automatic wiper system (optional)**

UV TECHNOLOGY

OZONIA's Integra UV reactor series is designed to disinfect seawater and aquaculture effluents. The germicidal effect of UV light has been proven to inactivate microorganisms such as bacteria, viruses and parasites which provides reliable biosecurity for aquaculture applications.

The UV dose defines the treatment efficiency which is provided by the UV reactor. OZONIA UV systems use the preferred UV dose as determined by the application, water quality, system hydraulics, and any local standards and regulations.



PRODUCT HIGHLIGHTS

> Norwegian Veterinary Institute (NVI) Certified

> Automatic energy adjustment from 30 - 100% of full power

> 9,000 hour lamp lifetime

> Automatic wiper system (optional)

OZONIA

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UV REACTOR

- Reactor material: 316L stainless steel
- Lamp sleeve material: Fused quartz
- O-ring material: Silicon
- Lamp configuration: Perpendicular to flow
- Reactor working pressure rating: 6 bar

CONTROL PANEL

- PLC touch screen display (16 bit color)
- PLC with data logging capability
- Epoxy polyester coated mild steel enclosure
- Protection Rating: IP54
- Electrical Standard: CE
- Variable output electronic ballast
- Standard Mains Power: 380-480V, 3 Phase, 50/60 Hz

CONTROLS AND ALARMS

- Automatic flow pacing
- SCADA communication capability
- Real-time UV dose display
- Inputs: Water flow (4-20mA / Ethernet), UV transmittance
- Outputs: UV intensity, system status, pre-alarm, system fault
- Ethernet communications capability
- Remote indications: Lamp change required, low intensity, remote on, fault, lamps on, detailed alarm code (Ethernet only)
- Lamp power control: Ethernet, auto, manual

OPTIONS

- Automatic wiper system
- Stainless steel control panel

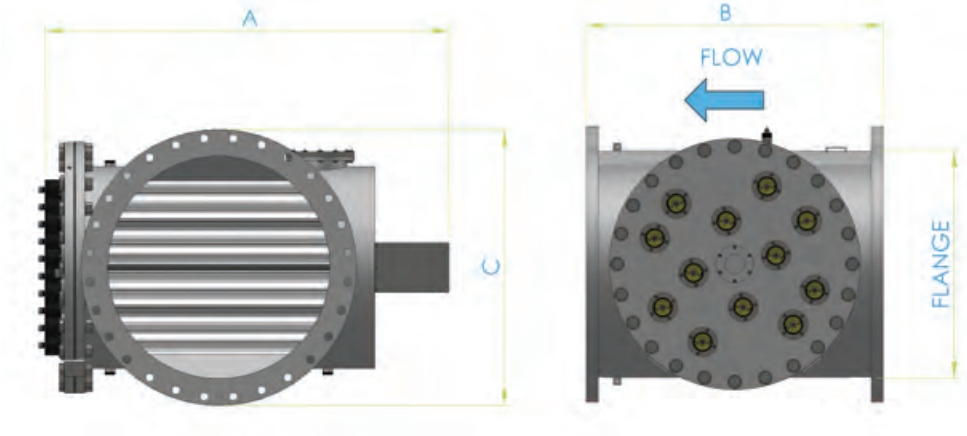
PROCESS DATA

MODEL	Flow Rate at 90% UVT(1) (m^3/h)	Installed Electrical Power (kW)
INTEGRA 500	Up to 425	18
INTEGRA 500 Duplex	Up to 850	36
INTEGRA 900	Up to 2100	72
INTEGRA 4000	Up to 2600	105

(1) 90 mJ/cm^2 UV Dose

DIMENSIONS

MODEL	A (mm)	B (mm)	C (mm)	Flange (mm)	Control Panel L x H x W (mm)
INTEGRA 500	1015	700	700	500	1000 x 1700 x 400
INTEGRA 500 Duplex	1015	1320	700	500	1200 x 1900 x 400
INTEGRA 900	1330	1200	1115	900	800 x 2000 x 800
INTEGRA 4000	1500	1500	1075	700	800 x 2000 x 800



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Your local distributor:

* Technical specifications for selected models.