

# **Aquatic Invasive Species Control**

# UV Water Treatment Atlantium Hydro-Optic™ Solutions

# New Era in Advanced Water Treatment

Atlantium's RZB-300 system controls aquatic invasive species that plague the power, energy and shipping industries by blocking pipes and damaging local ecosystems.

Medium Pressure high intensity UV lamps deliver UV light in doses powerful enough to kill macro and micro aquatic invasive species, pathogens, bacteria, viruses, fungi and other micro-organisms present in bracking, fresh or sea water.

Atlantium Hydro-Optic technology significantly lowers power and other operating costs.

# **Proven Macro/Micro Bio-Fouling Control**

- Inactivates Aquatic Invasive Species including invasive mussels (zebra, quagga, clams, bannacles, etc.)
- Non-chemical, non-corrosive solution
- Reduced bio-fouling results in cleaner surfaces for improved heat transfer
- Reduces needs for chemical scaling & corrosion control
- · Cost-effective, sustainable solution

### **Efficient Dechlorination**

- No carbon filters, no chemicals.
- Protects RO membranes and lengthens their lifespan
- Small footprint
- Provides high-level bacteria disinfection at the same time



The monitor shows status in real time, including actual UV dose being delivered right now



### **Chemical Free, Environmentally Friendly Solution**

Atlantium provides a complete solution for risk mitigation that is both environmentally friendly and user friendly.

- Safe for the environment: no hazardous chemicals, pollution or by-products
- Safe for crew: no toxic chemicals

### **Meets Environmental Regulations - Always**

- Meets the most stringent regulatory criteria including US EPA (Environmental Protection Agency)
- Integrated software assures a measured, minimum dose that automatically adjusts to parameters in real-time
- Automatically generated reports at the push of a button for traceability and proof of compliance

### The Atlantium Advantage

- Serious control for all growth stages of invasive species
- Medium Pressure High-Intensity UV lamps with broad spectrum UV light provide very efficient photo-decomposition
- Reduces membrane and pipe bio-fouling
- · Effective with hot or cold water
- Integrated software for real time monitoring & control
- Measured UV dose for guaranteed results
- Unprecedented UV power efficiency
- Green solution environmentally safe
- Small footprint (system can be mounted vertically too)

### **Patented Next-Generation Technology**

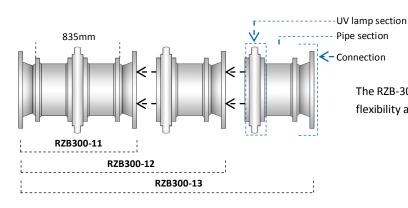
RZB-300 is based on Atlantium's patented Hydro-Optic technologies.

- Optic and hydraulic principles change the way UV is delivered.
- Guaranteed required dose for complete macro- and microinactivation.
- Sustainable operation with quick ROI



- 1. Medium Pressure broad spectrum UV provides very efficient photodecomposition. Medium Pressure UV is efficient no matter what the pH. salinity and temperature of the water – hot or cold (0-60 C / 32-140 F)!
- 2. Integrated software automatically adjusts UV power to continuously maintain the required UV dose.
  - a. One sensor monitors UV lamp intensity.
  - b. Another sensor monitors and controls the UV lamp to assure that
    - maintains the required dose.
- 3. Patented Atlantium technology recycles UV photons, optimizing energy efficiency. Fiber optic effects of Total Internal Reflection enable a uniform dose distribution, ensuring that the entire water volume is treated completely.
- Thick quartz tube separates UV lamp from water chamber for quick & easy lamp replacement; avoids risk of broken glass and mercury in
- 5. Stainless steel housing meets industrial standards.

# **Modular System Supports Range of UVTs & Flow Rates**



The RZB-300 series' modular design means maximum flexibility and precision sizing to fit the client site.

	RZB300-11	RZB300-12	RZB300-13	RZB300-14
Number of lamps *	2	4	6	8
Max. power consumption (lamps only)	8.4 kW	16.8 kW	25.2 kW	33.6kW
Unit volume (liter/gallon)	69 / 15.8	83 / 22	105 / 27.7	128 / 33.8
Unit length (mm/inch) **	835 / 32.9	1209 / 47.6	1582 / 62.3	1956 / 77
Unit weight (kg/lb)	178 / 392.5	226 / 499	272 / 600	340.6 / 751
Maximum flow rate	Application dependent			
Maximum working pressure	7 bar / 102 PSI			
Housing material	Electro-polished stainless Steel 316			
Controller	Integrated, with flat touch screen user interface Remote monitoring & control optional			

<sup>\*</sup> Number of lamps determined by application.

For more information, please contact your Atlantium representative. sales@atlantium.com / info@atlantium.com www.atlantium.com





<sup>\*\*</sup>Flange to flange.