

Atlantium Hydro Optic Disinfection™ Solutions

RZ-Series

RZ 104-11, RZ-104-12

Unparalleled levels of
microbial inactivation

Lowest disinfection
cost per cubic meter
of water



RZ104-11



RZ104-12

Why Hydro-Optic Disinfection technology is so effective

Atlantium's innovative technology adapts the principle of *Total Internal Reflection* to reinvent ultraviolet (UV)-based disinfection of water. The core of the system is a disinfection chamber made of quartz and surrounded by an air block. UV light from proprietary medium-pressure high-intensity (MPHI) UV lamps is forced to repeatedly penetrate the quartz from one angle and re-enter from another to continue disinfection throughout the entire water volume. The rays' paths result in microbes receiving a *uniform UV dose* wherever they are located - making the system a highly efficient *pathogen-elimination machine*.

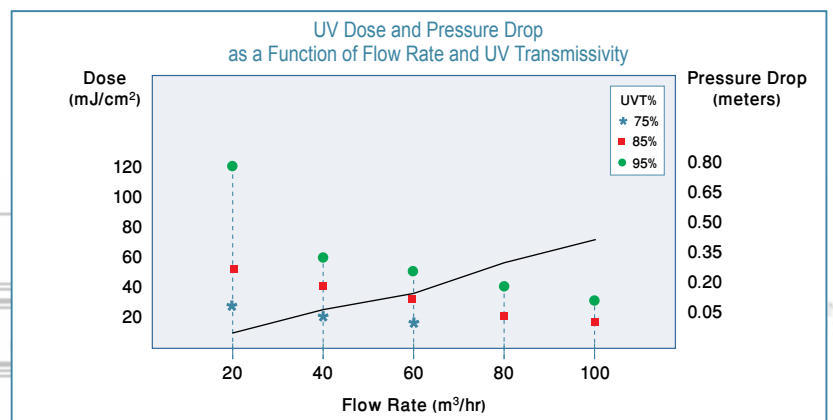
Top Disinfection Performance Total Reliability Complete Environmental Sustainability



Atlantium's latest implementation of Hydro-Optic Disinfection™ technology in the RZ Series offers an easily integrated, *modular system* that is a great fit for a broad range of applications and disinfection goals.

Results-producing features

- **Unparalleled disinfection performance facilitated by the system's uniform dose distribution;** ultraviolet light uniformly penetrates all the water
- **Unimpeded water flow** results in low head-loss
- **Modularity enables customizable disinfection solutions** add systems on to build a solution that fits a broad range of requirements and flow rates
- **Simple to change UV lamps** - no need to shut system down
- **Continuous ultrasonic cleaning** - prevents deposit formation
- **Real-time monitoring** sustains performance regardless of variable influent conditions; required dose is automatically adjusted based on continuous, real-time measurement of water's UV transmittance, flow rate and lamp intensity
- **Tracking & reporting** - logging capabilities record dose, UV transmissivity, water flow and lamp intensity data; reports are easily generated



Modular, customizable disinfection solutions



Industrial / Commercial Applications

Aquaculture

Flow-through protection
Re-circulation protection

Food & Beverage

Product water disinfection
Firewall
Chlorine replacement
Post-GAC filter disinfection
Membrane protection
Ozone destruction
Ozone replacement
Process water disinfection
Firewall
Chlorine replacement
Cooling towers

Dairy

Product water disinfection
Firewall
Chlorine replacement
Post-GAC filter disinfection
Membrane protection
Ozone destruction
Ozone replacement
Process water disinfection
Firewall
Chlorine replacement
Cooling towers

Municipal

Drinking water

Pools & Spas

Chloramine reduction

Pharmaceutical

Product water disinfection

Greenhouses

Membrane protection

Contact Atlantium to determine the disinfection solution that best matches your needs.

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Specifications

	Number of UV Lamps*	Power Consumption (lamps only)	Dimensions L x W x H (in mm) (with ultrasound)	End Connections	Maximum Flow Rate
RZ104-11	1	Max: 1.0 kW Typical: 0.75 kW	1039x326x406	Flange DN100 PN16 DIN 2576	See Pressure drop graph - side 1
RZ104-12	2	Max: 2.0 kW Typical: 1.50 kW	1565x326x406	Flange DN100 PN16 DIN 2576	See Pressure drop graph - side 1

*UV light source: MPHI UV lamps; typical relative drive: 75%

All Models

Additional equipment	A complete set of optional accessories is available from Atlantium (flow switch or flow meter is required)
Internal chamber material	High grade fused silica (Quartz)
Housing material	St. St. 316L
Controller	Internal, with flat touch screen user interface; remote monitoring and control capability
Design pressure	10 Bar
Environmental temperature	-25°C to 70°C
Operating temperature (water)	4°C to 40°C (for CIP, fluid temperature not to exceed 140°C)
Electrical requirements	240-480 VAC, 50 Hz, 10-20A, 1 or 3 phase

Regulatory Compliance

- The system complies with the European Low Voltage Directive (LVD), 73/23/EEC for electrical safety
- Council Directive 98/83/EC of 3 November 1998 for the quality of water intended for human consumption
- Biocompatible materials are used in any body part that is in contact with water (for avoidance of irritation, sensitization and toxicity)
- CE compliant

