In the FOOD & BEVERAGE business WATER quality can either make or break you

Ensure consistently superior product quality and safety by protecting the water used for all your manufacturing processes.

Atlantium's Hydro-Optic Disinfection™ Technology

- Unparalleled disinfection results
- Reduces / replaces chemical disinfection
- Energy-efficient
- Reduces water consumption
- Simple operation and maintenance
- Advanced monitoring & control
- Green, sustainable technology
- 3rd party validation - EPA protocol
- Quick ROI

R-200 series: Third party validatation according to US Environmental Protection Agency protocols. Award-winning features ensure safe water with a low-maintenance, high-performance disinfection system.

One of the **RZ series:** Modular and customizable, meets disinfection requirements for a range of flow rates, ensuring safe water with a simple to integrate, in-line system; low maintenance combined with low cost of operation.

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Atlantium
Illuminating Water Technologies

Safe Water for all your manufacturing needs

Atlantium's water disinfection system for food & beverage production

Target your plant's microbial contaminants with a system that delivers the highest levels of microbial inactivation

Atlantium's disinfection solutions are tailored to fit customer needs and target waterborne, microorganisms such as *Pseudomonas, E. coli, Coliforms, Lacto, Molds* and others.

The Hydro-Optic Disinfection system effectively prevents harmful microorganisms from contaminating your products and equipment:

- **Product Water Disinfection** for water used as a product, as the main part of the product or in direct contact with the product
- **Post–GAC (Granular-activated carbon) Disinfection** protects against microbial load and reduces routine sanitation; prevents unexpected breakthroughs and consequent GAC steaming
- **Non-Thermal Pasteurization** produces pasteurization-equivalent water per FDA specs
- **Process Water Disinfection** for processes other than production, such as cooling and Cleaning in Place (CIP)
- **Firewall** eliminates source water variability
- **Membrane Protection** reduces microbial load and significantly prolongs membrane life; reduces maintenance and energy costs
- **Tank Recirculation and Re-use Water Disinfection** re-use water for additional purposes such as cooling towers; reduces organic matter in the effluent stream

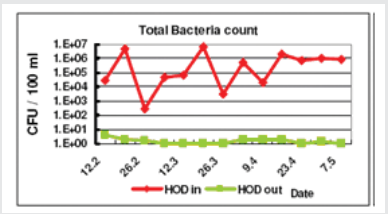
The Atlantium system inactivates microorganisms at the highest levels, protecting your products against the risk of contamination and spoilage which can lead to product recall, shortened shelf life and alter your products' taste, color or odor. Your brand is safeguarded against damage to your revenue and public image.

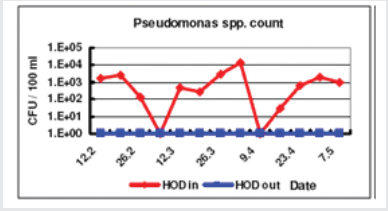
Safe, non-chemical protection

Using ultraviolet light to inactivate pathogens is not new; water-dependent industries have used it but mostly in conjunction with chemical disinfection and/or to supplement it.

Atlantium's Hydro-Optic UV technology is revolutionizing disinfection on the ground with its system used in many capacities including as primary disinfection. With Atlantium, manufacturers can completely eliminate chemical disinfection and still meet stringent goals. These changes in practice lead to reductions in direct and associated disinfection costs and greater health and environmental benefits.

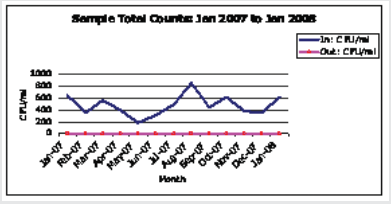
The world's leading food & beverage manufacturers have implemented Atlantium's system in many of their plants around the globe.





Preventing granular-activated carbon filter microbial breakthroughs

Results from one beverage manufacturer where extremely low microbial counts were obtained immediately following installation, resulting in decreased backwashing and fewer periodic sanitizing of the GAC filter. Operation and maintenance costs were reduced significantly and downtime minimized.



Replacing chemical disinfection

As a primary disinfectant, the manufacturer implements a green and sustainable disinfection method. Results above show the consistent disinfection level achieved at a canned food plant after replacing their chlorine dioxide dosing system with Atlantium.

Monitoring & Control Software

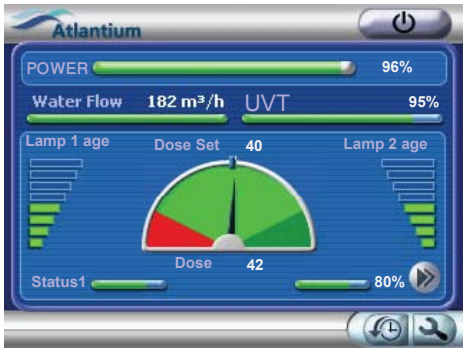
Comprehensive monitoring and control system ensures the water in your plant receives the required disinfection doses, without fail.

System management

- Continuous real-time measurement of water conditions and lamp intensity
- Automatic adjustment of disinfection dose in response to changing water and lamp conditions
- Log records dose, UV transmissivity, water flow and lamp intensity data for documentation
- One-click reporting to show disinfection history and/or regulatory compliance

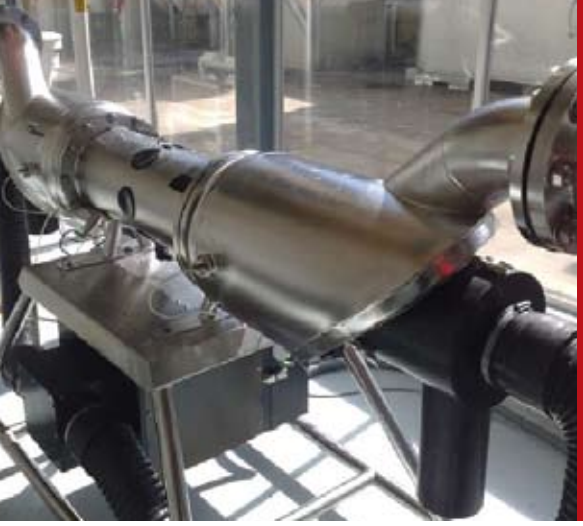
Two of the many interactive screens the monitoring and control software displays to users.

- **Track the system`s operation**
- **What you see is what you get**



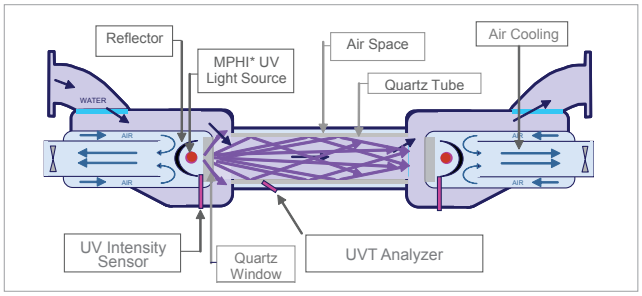
Screen displaying general operational status information including flow rate, dose, UV transmissivity and more.

Settings parameters:
if set value is exceeded, system delivers error message and alarm.



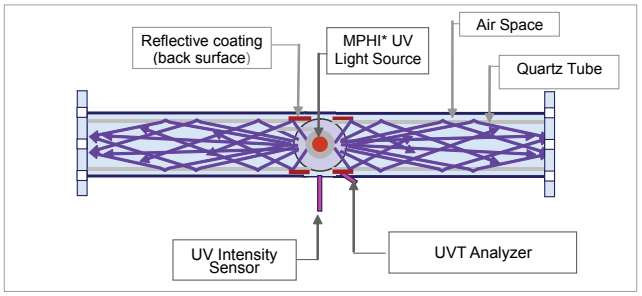
Technology

Ultraviolet water disinfection - REVAMPED and AMPLIFIED



Operational diagram - R200 DL

Innovative configuration isolates UV lamps from water, eliminating the risk of mercury in the water and drastically reducing deposit formation and CIP cycles. Each UV lamp is continuously monitored by its own sensor; and intensity is automatically adjusted according to fluctuating water and lamp conditions. Consistent UV dose is maintained and target microorganisms are inactivated.



Operational diagram - RZ104-11

Modular design enables construction of systems of different sizes to meet a range of flow rates. RZ models are highly energy-efficient and have low head loss; simple to install and easy to maintain. Each UV lamp's intensity is continuously monitored by its own sensor. High levels of microbial inactivation are consistently achieved.

About Atlantium Technologies LTD.

Founded in 2003, Atlantium Technologies has revolutionized the use of ultraviolet (UV) light to disinfect water. The company's patented Hydro-Optic UV water disinfection systems integrate elements of physics, optics and hydraulics to create the ultimate solution for bacteria and virus inactivation.

Atlantium scientists and engineers took the principle of Total Internal Reflection from the field of fiber-optics and applied it to water disinfection. They developed a system whose core is a disinfection chamber made of quartz and surrounded by an air block whose design helps trap the UV light's rays, forcing them to repeatedly bounce along the chamber. UV photons are efficiently captured throughout an unusually long path, creating more opportunities to strike pathogens and inactivate them. This, combined with an optimally engineered flow of water in a controlled, defined pattern, creates a uniform UV dose distribution that reaches and inactivates pathogens throughout all the water volume flowing in the disinfection chamber.

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