

# Disinfect Your Water with Light



**The non-chemical approach to safe water!**

# Atlantium UV Disinfection is the Answer

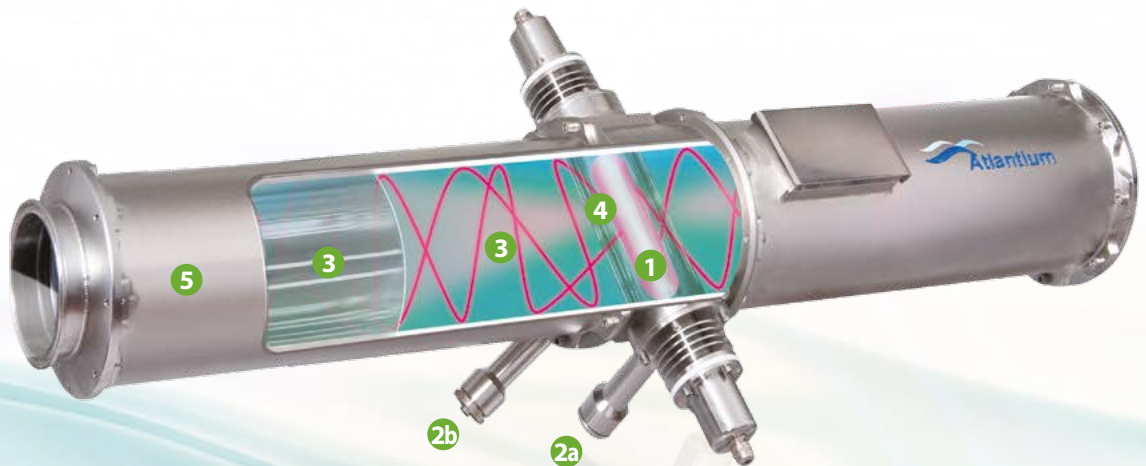
**The only UV system validated to US EPA 4-log virus credit with real, live Adenovirus.**

Yes, we have actually done it. This is the real thing: not surrogates, not just theoretical calculations. Atlantium algorithms are based on Adenovirus full-scale testing and validation.

**With Atlantium, even small systems can afford large-system technology & performance. The small footprint, modular design and extensive validated envelope of operation means a sustainable solution with instant reports documented and verified in real time.**



*The monitor displays the real-time data, including actual dose delivered*



- 1 Medium Pressure UV Lamp** provides a broad, highly effective, germicidal spectrum and inactivates even resistant strains. Achieves 4-log virus disinfection of hard-to-inactivate viruses including adenovirus, with half of the UV power that Low Pressure lamps need to achieve the same results.
- 2 Integrated control software** automatically adjusts the UV power to continuously maintain the required UV dose. Two dedicated sensors for each lamp signal real-time information:
  - a** One measures current lamp performance. Online direct monitoring of sensor readings enables real-time accounting for lamp aging.
  - b** One measures current water quality (UVT).
- 3 High-grade quartz chamber** surrounded by an air block implements the phenomenon of Total Internal Reflection (TIR): traps UV light photons and recycles them back into the water, for optimized dose distribution and energy consumption.
- 4 Thick quartz tube separates UV lamp from water chamber** and stays in place for quick & easy lamp replacement with no draining: other lamps can remain on.
- 5 Stainless steel housing.**



## Surface Water Systems

### Worried about Disinfection By-Products?

You may need to put in more chlorine/chloramine than you'd like to achieve 4 log disinfection before your first customer. Chemical disinfection can react with your water and produce carcinogenic Disinfection By-Products (DBPs).

New US-EPA rules impose limits for each location, so that a single location anomaly can put the whole system at risk of violation.

**Get instant virus disinfection and maintain the required residual with no threat of DBPs: consider a multiple barrier design with validated Medium Pressure UV.**

### How Atlantium UV Helped a Small System Comply

A small water treatment system in New Hampshire exceeded federal and state limitations for DBPs and needed a solution that would give them a 4 log disinfection before their first customer nearby. Within a month of installing a modular 3 log virus system designed to address changing water quality and variable flows – Hillsborough New Hampshire was in compliance with the Safe Drinking Water Act.

### What about Cryptosporidium, Giardia, Algae?

Other resistant organisms? Taste and odor? Aquatic Invasive Species (AIS)? N-nitrosodimethylamine (NDMA)?

**Validated Atlantium Medium Pressure UV can provide the dose you need at lower energy.**



*Atlantium easy-to-maintain UV system disinfects the drinking water for a small public water system in Massachusetts*

## Ground Water Systems

### What will it take to meet the Ground Water Rule?

The rules require 4-log virus protection before the first customer. What is the best way to reduce the contamination and chemical taste & odor in your water and avoid the expense of repumping, the danger of DBPs, or new threats from algae, pseudomonas, molds and other naturally occurring organisms?

### Atlantium Has Helped Others. We Can Help You Too.

When the Village of Mohawk NY was in need of 4-log disinfection before the first customer without constructing a new clearwell, they chose Atlantium 4-log UV disinfection. In 2008 Atlantium and Mohawk pioneered the use of 4-log virus UV in New York.

**Atlantium support starts at the beginning and goes on.** Five years later, after a severe storm flooded the Village (2013) and damaged the municipal water infrastructure, Atlantium pulled out all the stops to get another unit on-site and installed immediately, even before the Municipality emergency funding was approved. Atlantium commitment to service and support continues.



*Atlantium UV municipal installation with Deposit Prevention Mechanism attachment. The automatic cleaning system keeps the quartz tube deposit-free*

# Atlantium Because...

## Atlantium UV is Your Innovative Solution

### Easy to Use

- Instantaneous disinfection on-demand – no contact basin, no pH/temperature measurements or CT calculations, no re-pumping – safe water direct to the user
- No DBP monitoring required - there are none
- Proven to significantly reduce biofilms in pipes and on membranes
- In-line compact solution integrates into almost any footprint
- Remote monitoring keeps you updated and provides early warnings so you can avoid impending anomalies
- EPA and state compliance reports generated automatically

### Low Cost of Ownership

- Unique technology recycles UV light photons to optimize energy consumption
- Reduced chemical use means reduced bio-fouling and pipe corrosion
- Medium Pressure UV lamps enable a smaller footprint
- Automated system requires less manpower: a computer does the work
- Protects RO membranes from microbial contamination, lengthens their life and reduces maintenance burden. Ask us for a copy of our field test results

An engineering study compared Atlantium Medium Pressure UV for 4-log virus credit with chemical and other treatments: UV can win! Ask us for a copy!



*Atlantium microbiologist examines water specimen*

### About Atlantium

Atlantium Technologies Ltd., established in 2003, supplies energy-efficient ultraviolet (UV) based treatment to municipal water providers and water-dependent industries such as dairy, food & beverage, pharmaceutical, aquaculture and power-plants.

The company's cost-effective and environmentally-friendly Hydro-Optic™ solutions deliver unprecedented microbial inactivation, taking water safety to levels never before achieved without chemicals or by other UV systems.

Atlantium's Hydro-Optic UV system is field proven to the highest regulatory standards including the USEPA, FDA and PMO. The company has an international customer base including Fortune 500 companies, with installations all over the world.



#### Atlantium Technologies Ltd.

Har Tuv Industrial Park  
POB 11071, Israel 99100  
Tel: +972 2 992 5001  
Fax: +972 2 992 5005

**For more information, please contact your Atlantium representative**

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