WORLD LEADER IN ULTRAVIOLET TECHNOLOGY



AQUIONICS ULTRAVIOLET



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As the innovator in ultraviolet water treatment and disinfection, Aquionics and the Halma Group divisions have been providing the preeminent UV technologies since 1924. Along with our divisions in the United Kingdom and the Netherlands, we share a world of experience, service, and technical understanding unsurpassed in delivering the best solutions to our customers.

Aquionics' ultraviolet systems provide non-chemical disinfection of water, air, and surfaces to a diverse range of applications. By combining our technologically superior products with world class application development, engineering, and customer support, we are ushering in a new era of environmental change and process improvement.

Aquionics provides the most complete range of ultraviolet equipment for disinfection, chemical, or contaminant destruction. From our standard products for low flows to the most cost effective technologies for large flow and special applications, Aquionics delivers the best systems and the best solutions.





WHAT IS ULTRAVIOLET LIGHT?

Ultraviolet or UV energy is the band of light just beyond the short wavelength end of the visible light spectrum. It is the range of light associated with the natural germicidal action of sunlight.

UV works by affecting the DNA of microorganisms, eliminating their ability to reproduce or survive. All microorganisms can be disinfected by UV light without the concern of an organism's selfdefense mechanisms. Ultraviolet energy is also very effective when used to break down many chemical species, eliminating them as contaminants in water.

Ultraviolet light is the natural, environmentally friendly alternative to chemical disinfection. Many common chemicals such as chlorine are hazardous to handle, remain in the environment for long periods, can form dangerous reaction by-products, and alter the products and processes in which they are used. Using UV eliminates all of these hazards by taking advantage of natural, safe light.

THE MOST ADVANCED ULTRAVIOLET TECHNOLOGY IN THE WORLD

Aquionics' UV provides results in your application that are unattainable with any other technology...

Aquionics pioneered the use of high output, "medium pressure" ultraviolet lamps – A single medium pressure lamp can treat the same as up to 50 typical low output "low pressure" lamps, while providing the full spectrum of UV energy capable of disinfection or chemical destruction.

Our advanced monitoring and controls provide unparalleled levels of reliability, security, process validation, and functionality – Our systems can measure and control UV fluence, or dose, and work seamlessly with distributed control schemes. We are continually revolutionizing the world of UV treatment through developments in lamp manufacturing and technology along with new advancements in controls, monitoring, and application-specific features.

Aquionics can deliver...

- The *most economical* systems for medium and large flow rates with the *smallest footprint* and *easiest maintenance*.
- Broad spectrum UV output providing *complete disinfection* and *effective chemical destruction*.
- The *only technology for extremes* such as cold or hot water, poor water quality, or challenging control applications.
- The most advanced monitoring and controls for accurate fluence measurement, power control and process integrity.
- The most advanced application knowledge to solve any of your specialized needs.

EXPERTISE & EXPERIENCE FOR YOUR APPLICATION



FOOD PROCESSING & PACKAGING

Outbreaks of food borne pathogens place producers at high risk of costly and damaging recalls and product liability, which is why Aquionics pioneered the use of UV disinfection for use in food processing and packaging. Disinfection of product and package surfaces effectively extends shelf life, saving customers millions of dollars. Aquionics has led the way in unique applications, such as: meat brine, food packaging and closures, produce transport coolers, packaged foods, room air, and water for ready-to-eat foods.

ULTRA PURE WATER

Aquionics TOC (Total Organic Carbon) destruct, Chlorine destruct, Ozone destruct, and Disinfection systems are meeting the most challenging demands of the highest-purity water used in Microelectronics and Pharmaceutical processing. Whether the need is high UV dose dechlorination to protect RO membranes, TOC destruction in large wafer fab water systems, ozone removal in a process water stream, or the most reliable and validated disinfection available, Aquionics ultraviolet equipment can meet the needs more cost-effectively and reliably than any other system available.

BEVERAGE PRODUCTION & BREWING

Around the world, Aquionics protects the beverages we drink – our single lamp disinfection systems can treat water with the highest degree of safety and reliability. Our non-chemical disinfection does not create harmful by-products or alter taste in any way. In addition, Aquionics UV systems are used to remove ozone and eliminate tri-halo methane formation. Aquionics' ultraviolet process is the safest, most effective solution for soft drinks, bottled water, beer and spirits, rinse water, sugar syrups, and even the disinfection of air in tank headspaces.

▶ WASTEWATER TREATMENT

Whether discharging to a protected stream or irrigating with reuse water, Aquionics can effectively treat municipal wastewater, eliminating the use and release of chlorine. As regulations limit the amount of chlorine that can be discharged, Aquionics provides an alternative solution to the need for expensive dechlorination systems, completely eliminating the handling and use of any hazardous chemicals.

▶ INDUSTRIAL & COMMERCIAL USES

Aquionics provides unique solutions to an unlimited variety of specialized applications. We offer systems that range from improving the water and air quality of commercial swimming pools, to protecting valuable crops at fish hatcheries from outbreaks of disease. Industrial processes use water for a wide range of applications and expel wastewater streams, which can benefit from non-chemical, ultraviolet disinfection.

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AQUIONICS CAN...



- Disinfect Water... using the safest, most effective systems available.
- Disinfect Surfaces... with the best products and technologies to reduce risks and extend shelf life.
- **Disinfect Air**... to keep people and products safe from airborne transmission of microorganisms.
- Destroy TOCs... to deliver the purest water anywhere, free from damaging contaminants.
- Break Down Ozone and Remove Chlorine... more cost effectively than any other method, protecting our most sensitive subjects.

Aquionics leads the world of ultraviolet. Our superior technologies and unsurpassed application experience give you the best solutions possible. As our world demands safer, better, and more pure water, you can count on Aquionics as your partner.



Represented By:





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