



DRINKING WATER | From small well water supplies to large water treatment works UV disinfection is a proven barrier to pathogenic micro-organisms including Cryptosporidium and Giardia.

WASTE WATER | From municipal treatment to water recovery for irrigation and re-use, UV treatment can provide the final disinfection stage required to meet increasingly strict regulations.

**OFFSHORE** | For crew drinking water supplies, waste water discharges and high volume water injection packages atg UV are the world's market leader in this highly technical exacting industry.

SOLUTIONS FOR

ALL INDUSTRIES



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BUILDING SERVICES | Chemical free UV disinfection has become a key technology for building services applications, including condensate cooling water, fountains, cooling towers, storage tanks and mains supplies.



SWIMMING POOLS | Sparkling clear water and clean fresh air. UV destroys the chemicals responsible for poor water quality and reduces the risk of illness from chlorine resistant micro-organisms.



MARINE | atg UV have extensive experience in the marine industry across a range of ocean going vessels including luxury cruise liners and cargo ships. Applications include effluent discharges, and drinking water.





atg UV have the expertise to provide effective and cost efficient solutions for a vast range of industry needs.

BALLAST WATER | These UV treatment systems disinfect ships ballast water without the use of chemicals, providing an environmentally friendly solution to the challenges faced by marine engineers.

PHARMACEUTICAL | Our range of high specification systems are specifically designed for installation into high purity water loops for the world's leading pharmaceutical companies.

AQUACULTURE | Market pressures demand chemical and antibiotic free produce; to stay competitive, intensive farming requires UV disinfection to prevent infection and disease.

SPECIAL PRODUCTS | UV light can be used as an element in a number of industrial processes other than water disinfection. In collaboration with a clients 'specific requirements' atg UV can develop bespoke solutions for UV applications.





for use within a range of electronic production applications including semi conductors. FOOD & BEVERAGE | The importance

of bacteria free products combined with the need to vastly reduce chemical additives has established Ultraviolet disinfection as a core technology.

HORTICULTURE | UV treatment will not affect the chemistry of water fed to the Rhizosphere. Unlike Hydrogen Peroxide it does not effect the organic additives, germination or seedling development.

SERVICING & MAINTENANCE | From commissions and training to speedy spares and prompt service response, atg UV provide the first class level of service and support expected from a world industry leader.











## ULTRAVIOLET TECHNOLOGY

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Achieving clean, safe environments with market leading technology













## DETERMINED TO SUCCEED TOGETHER

Listening to and working with our customers is a key strategy in the development of our market leading products.



stringent, increasing governmental and range of industry applications. media interest and the growing threat of chemically resistant micro-organisms such as Cryptosporidium, it is important to choose a company who you can trust.

With over three decades of industry With state-of-the-art technology, and a experience, an impressive international wealth of experience in the Ultraviolet client portfolio and range of successful industry, atg UV Technology are leading case studies, atg UV Technology are the way in the custom design of Ultraviolet leading the way in the rapidly growing technology systems that fully meet the Ultraviolet market. With industry dose and testing requirements, providing regulations becoming more strict and effective and cost efficient solutions for a



# Determined to succeed together

ULTRAVIOLET DISINFECTION | Just over 100 years ago German scientists discovered that the top surface of lake-water became disinfected after exposure to sunlight. Scientific investigation led to the discovery of Ultraviolet light. The mechanism for this disinfection effect was discovered to be the disruption of a micro-organisms DNA.

The micro-organisms DNA absorbs the Ultraviolet light resulting in the creation of Thymine dimmers, preventing normal cell functions including replication, and ultimately destroying the organism leading to clean and safe environments without the use of environmentally damaging chemicals.

## **ENVIRONMENTALLY** FRIENDLY DISINFECTION

ULTRAVIOLET LIGHT | Ultraviolet light is electromagnetic radiation situated in the electromagnetic spectrum between X-rays and visible light which has many beneficial properties.

Ultraviolet light (UV) is split into four main categories, UV-A, UV-B, UV-C and Vacuum UV. The area between 240 and 280 nanometers (nm), commonly known as the germicidal range is UV-C, to which all known micro-organisms have been found to be susceptible.

ULTRAVIOLET DOSE | Germicidal effect is a function of the UV dose. This is the product of the UV intensity level and the exposure time. atg UV systems are designed to optimise the energy and contact time for any application to ensure the correct level of treatment is provided and maintained. UV equipment supplied by atg UV is capable of inactivating a wide range of micro-organisms including E-Coli, Influenza Cryptosporidium, Hepatitis and Legionella.







By significantly reducing the level of chemicals from the ecosystem, we can protect the environment.

DISEASE	ORGANISM	UV DOSE 90% KILL	UV DOSE 99.9% KILL
TYPHOID FEVER	SALMONELLA TYPHI	2.2	6.5
GASTRO-ENTERITIS	SALMONELLA ENTERITIS	4.0	12.0
DYSENTERY	SHIGELLA DISENTTARIAE	2.2	6.6
CHOLERA	VIBRO CHOLERATE	3.4	10.1
TUBERCULOSIS	MYCOBACTERIUM	6.2	18.6
LEGIONNAIRE'S DISEASE	LEGIONELLA PNEUMOPHILIA	2.5	7.5
CRYPTOSPORIDI- OSIS	CRYPTOSPORIDIUM	2.5	12

### **DESIGN & SPECIFICATION**

atq UV are experts in the application of Ultraviolet light, offering both medium pressure and low pressure amalgam lamp technologies, allowing for tailored and cost efficient solutions for a variety of applications.

Flexible designs ensure atg UV can provide advanced technology solutions for both new installations and retrofits of existing units, in a range of difficult and challenging environments. With a vast product range catering for a variety of applications from only a few gpm to full scale water treatment works treating in excess of 2000 m3/hr in a single system, atg UV can provide effective solutions for any specification.

#### QUALITY ASSURANCE

atg UV's attitude to design and manufacture is driven by a 'quality first' approach. As an ISO 9001 company and Queens Award Winner, you can be assured all atg UV products are consistently engineered to the highest possible standards.

atg UV's experienced and skilled engineers enable their Ultraviolet system designs to meet the exacting standards required by the Ultraviolet industry. From industry specified materials and large volume flows to units designed for restricted space and use within harsh environments such as the offshore and marine industries, atg UV can design, manufacture and install bespoke site specific systems and treatment packages to meet any specification.

#### **EXPERIENCE**

With a range of successful case studies, reference lists, distributor links and key clients across a range of industries, atg UV can provide effective and cost efficient solutions to suit any specification. Coupled with vast experience in the Ultraviolet industry across a number of markets including drinking water, waste water treatment, building services, offshore and marine industries, atg UV continue to surpass customer expectations as a world market leader in the Ultraviolet industry.

**PERFORMANCE** | A wide range of Ultraviolet systems/products with multiple features for control and integration into a variety of applications are available. *atg UV's* market leading designs allow for the optimisation of our equipment to perfectly suit any operational performance requirements for a vast range of industry applications and processes.



INHOUSE MANUFACTURE | atg UV manufacture all systems on site in Wigan, UK. Utilising skilled local fitters and employing world class in-house design engineers, atg UV can tailor systems to suit any specification, whilst technical expertise are on hand to answer any queries, or advise in the specification of UV for any given process.



FULLY AUTOMATED | The SPECTRA control system is designed for fully automated continuous or batch processes. Integrated with on site process control software, the onboard data logger provides real time and auditable records of disinfection, whilst a UV monitor is used to measure performance.

MARKET LEADING WIPER | Our wipers use embedded pulse technology ; a simple and robust method of controlling wiper actuation. However the process is configured; continuous gravity flow or sequenced batch reactor; secondary or tertiary oxidation ditch or simply filtered, atq UV systems provide reliable disinfection with low head loss.

R&D | atg UV are involved in many research projects both in the UK and in the wider international community, taking part in external group research projects looking at the use of UV for special applications or combining UV with other technologies. Product development is taken very seriously, we are continually investigating new ideas.















