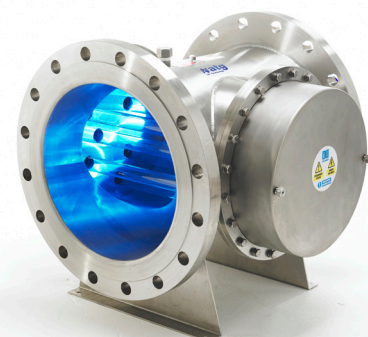




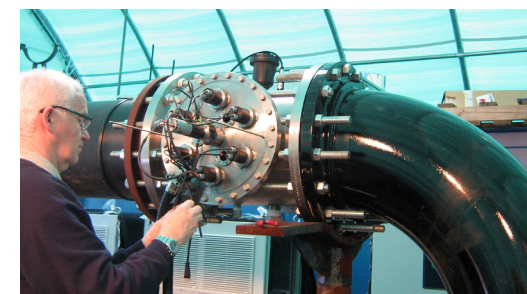
UV DISINFECTION FOR POTABLE DRINKING WATER APPLICATIONS



As micro-organisms evolve, so too does their resistance against traditional methods of treatment. atg UV has developed a range of validated systems that comply with the requirements of the US EPA 2006 Guidance Manual (worlds strictest validation standard).

atg UV Technology has a range of UV systems that have been designed specifically for the drinking water industry, and are fully compliant with the requirements of the US EPA Ultraviolet Disinfection Guidance Manual (UVDGM - The worlds strictest validation standard).

With more than 25 years experience in the UV industry, and over 2000 successful case studies, atg UV can offer a vast range of solutions for a number of applications, including a number of UV systems specifically engineered for drinking water applications that have been independently validated to demonstrate performance under a variety of operating conditions.



atg UV drinking water system undergoing 3rd party validation.

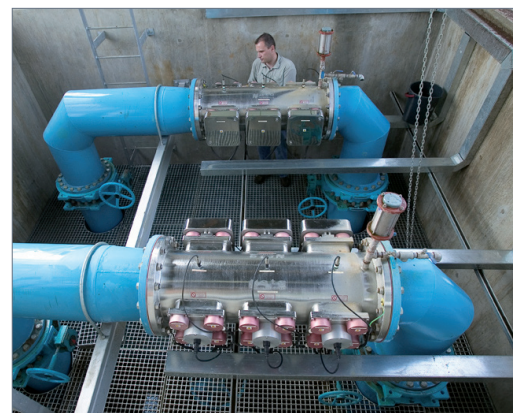
In addition to third party validation, atg UV have invested in the latest CAD and CFD design software which simulates both the flow and radiation profiles of the chamber design, and carry out tests with a variety of surrogate organisms such as B. Subtilis, and T1, MS2 phage, to further increase accuracy and performance.

The UVDGM 2006 uses the mandate of the Safe Drinking Water Act to monitor emerging contaminants, under the Unregulated Contaminant Monitoring Regulation (UCMR2). UV light is used successfully to remove Methyl-t-butyl ether (MTBE), an fuel oxygenate that causes unpleasant tastes in water. Likewise N-Nitrosodimethylamine (NDMA), a toxic and suspected carcinogen can also be removed by using UV light.

Aimed at water supplies originating from lakes, reservoirs, ground water aquifers and rivers, the purpose of the UVDGM legislation is to ensure populations are kept safe from emerging pathogens such as Giardia and Cryptosporidium, which demonstrates enhanced resistance to conventional disinfectants such as chlorine.

atg UV can offer fully validated systems that deliver a 1 - 5 log reduction of Cryptosporidium for flows up to 1000 M3/hr at 90% transmission within a single high output, small footprint, medium pressure system. For larger flows, systems are offered as packages, utilising units placed in either series or parallel configurations.

As footprint is normally a key factor, due to limited space within pipe galleries, atg UV's market leading designs means UV systems can be installed either vertically, or horizontally. The degree of redundancy is determined by atg UV engineers working with plant designers, and a duty assist/ duty standby arrangement is typical of most major installations.



atg UV Validated 12 Lamp Medium Pressure UV systems.

Once installed, the delivered dose is controlled by continuously measuring the inputs of flow, water transmittance and lamp intensity using a state-of-the-art SPECTRA Control panel which uses Microprocessor technology that can be easily integrated into existing systems communicating through MODBUS or PROFIBUS. Additionally the SPECTRA's on board data logger allows engineers to download performance data to a PC or laptop for review when needed.

atg UV systems all use power switching to vary lamp power to optimise both power consumption and lamp life. A leading robust mechanised wiper system keeps the optical path free from contamination, and a third party monitor can be inserted to verify the performance of the Ultraviolet system. www.atgUV.com