



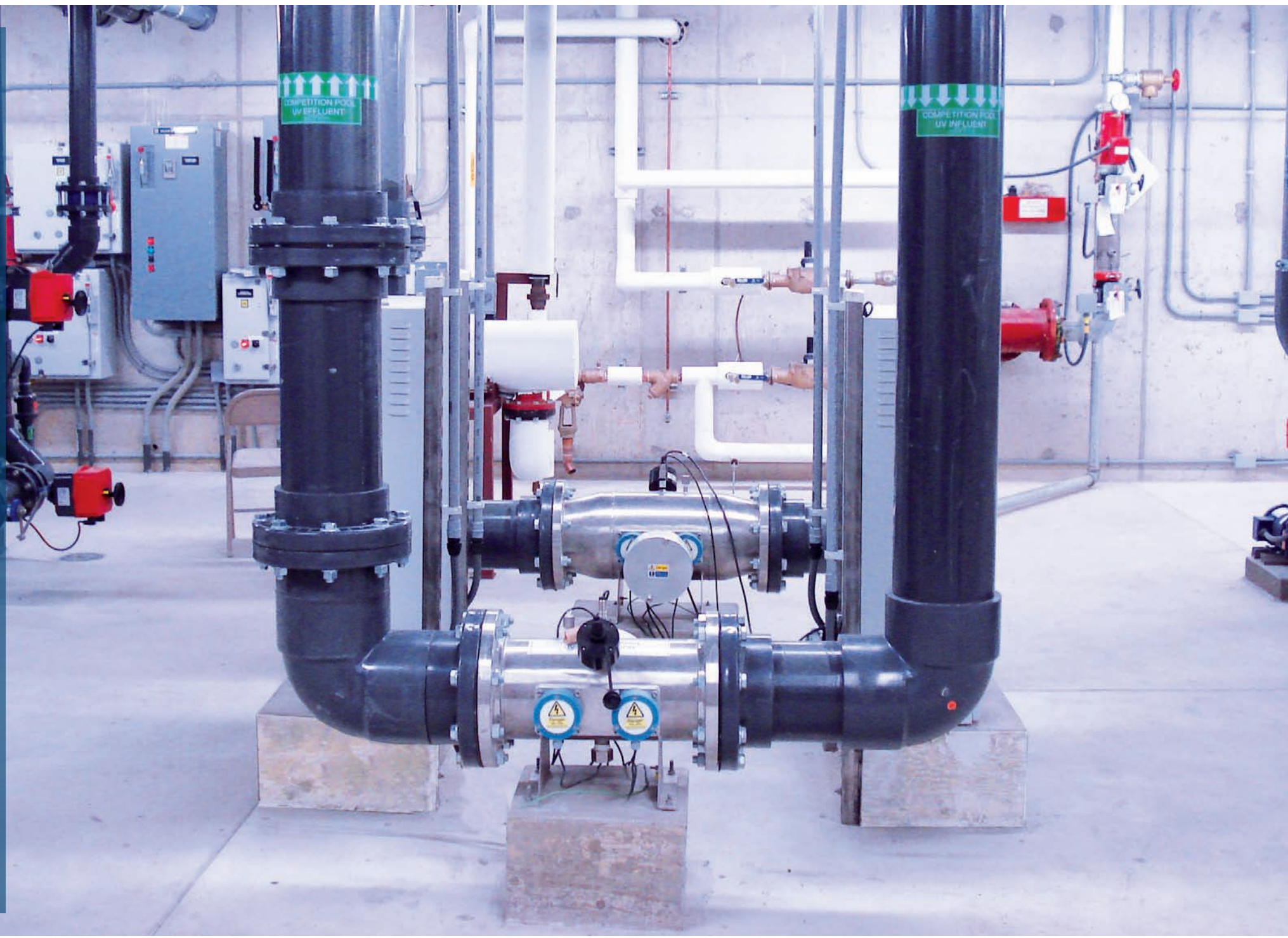
**EXPERTS IN
ULTRAVIOLET
DISINFECTION**

www.atguv.com



ECL RANGE
MEDIUM PRESSURE UV SYSTEMS

ECL RANGE - MEDIUM PRESSURE UV





THE IN-LINE UV CHAMBER
DESIGN OPTIMISES FLOW
HYDRAULICS, PROVIDING
A 20% IMPROVEMENT IN
PERFORMANCE



IN-LINE MEDIUM PRESSURE UV SYSTEMS

DEFINING THE UV INDUSTRY WITH MARKET LEADING TECHNOLOGY SINCE 1981

ULTRA COMPACT & VERSATILE MEDIUM
PRESSURE UV DISINFECTION SYSTEMS FOR A
VAST RANGE OF MUNICIPAL & INDUSTRIAL UV
APPLICATIONS, TREATING 1 M³/HR TO OVER
1,200 M³/HR

The atg UV Technology ECL series provides the very latest in medium pressure UV lamp technology and in-line UV chamber design. Offering increased treatment capacity and flexibility for the environmentally friendly process of UV disinfection, the ECL series provides solutions for a range of applications, including drinking water, industrial process water, food & beverages, and aquatics.

Featuring both single lamp and multi-lamp configurations and using a range of medium pressure UV lamps, the specially designed in-line

UV reactors provide optimum flow distribution and hydraulic performance. The ECL range offers a state-of-the-art solution for a wide variety of water treatment applications, treating capacities of 1.0 m³/hr to more than 5,000 m³/hr in a single, high output, low footprint UV system.

The ECL range is independently 3rd party validated* and certified using biometric testing according to the USEPA UVDGM, and offers guaranteed performance for both UV doses 10 - 120 mJ/cm² RED and 1 - 5 log reductions of Cryptosporidium.



THE ULTRA COMPACT
CHAMBER DESIGN
CAN BE INSTALLED
DIRECTLY INTO THE
PIPE EITHER VERTICALLY
OR HORIZONTALLY,
PROVIDING SUPERIOR
FLEXIBILITY



MARKET LEADING DESIGN WITH STATE-OF-THE-ART TECHNOLOGY

Performance Advantages

- ✓ Independent 3rd party validated performance*
- ✓ Chemical free, green disinfection solution
- ✓ Single lamp, 2 and 4 multi-lamp configurations
- ✓ 1.0 kW, 1.3 kW, 1.5 kW, 2.0 kW, 2.5 kW, 3.0 kW UV lamps
- ✓ High capacity treatment upto 1,200 m³/hr
- ✓ 9,000 hour lamp life
- ✓ Automatic power stepping 100% - 50% power
- ✓ Hydraulically optimised low headloss design
- ✓ High disinfection efficiency - 1 to 5 log

Operational Benefits

- ✓ Simple to install and operate
- ✓ Significantly reduces maintenance requirements
- ✓ Separated lamp and wiper access
- ✓ Single sided maintenance / access
- ✓ Dry mounted UV monitors and temperature probes
- ✓ Robust, chemical free automatic wiper system
- ✓ Lamp changes without removing wiper motor
- ✓ Wiper rings can be replaced without removing wiping carriage from chamber

Installation Advantages

- ✓ Ultra compact and easy to install
- ✓ Closed system design installs directly into pipe work
- ✓ Horizontal and vertical installation options
- ✓ Multiple flange size, type and mounting options
- ✓ Significantly reduced footprint requirement
- ✓ Upto 50 meter cable distance from LCP to UV chamber
- ✓ Can be installed directly against walls / structures
- ✓ Suitable for both new builds and retrofits
- ✓ Modbus / Profibus / ICSS / BMS integration available



Guaranteed Performance As Standard

ADVANTAGES OF THE US EPA UVDGM VALIDATION SYSTEM

Using the test protocols developed by the US EPA Ultraviolet Disinfection Guidance Manual (Long Term 2 Enhanced Surface Water Treatment Rule), atg UV Technology systems are rigorously biometrically tested using live surrogate microorganisms (MS2). This provides guaranteed UV disinfection performance against Cryptosporidium, Adenovirus and other harmful waterborne microorganisms.

Unlike alternative validation protocols, such as DVGW or ONORM, which only test to a single UV dose set point of 40 mJ/cm2, the US EPA UVDGM validation method allows for the selection of multiple data points. The result is a highly flexible performance validation that allows for guaranteed

UV doses between 10 mJ/cm2 RED and 120 mJ/cm2 RED. This is of particular importance when aiming for a log reduction of microorganisms, such as Cryptosporidium, Giardia, E-Coli and Adenovirus.

By adopting the US EPA UVDGM Validation, UV systems can be sized to provide the correct amount of UV intensity in direct relation to the specified UVT%. In the case of UVT% values higher than 90% T10, the power savings are typically 50% when compared to the DVWG and ÖNORM solutions, which can only offer 40 mJ/cm2. Table 1 is based upon the US EPA UVDGM log reduction tables for a 3 reduction of Cryptosporidium: 12 mJ/cm2 RED multiplied by the required RED Bias in relation to the UVT% value.

Table 1 Required UV mJ/cm2 RED Dose for 3 Log Reduction (99.9%) of Cryptosporidium			
UVT%	US EPA UVDGM	DVGW	ONORM
95% UVT	16.56 RED	40 RED	40 RED
90% UVT	20.76 RED	40 RED	40 RED
85% UVT	24.12 RED	40 RED	40 RED
80% UVT	26.64 RED	40 RED	40 RED
75% UVT	28.32 RED	40 RED	40 RED
70% UVT	30.06 RED	40 RED	40 RED

ADVANCED CFD
OPTIMISES CHAMBER
DESIGN TO PROVIDE
INCREASED TREATMENT
CAPACITY WITH LESS
POWER & FEWER LAMPS



THE UNIQUE DATA
STREAM SERVICE
TRANSMITS REAL TIME
PERFORMANCE DATA
TO ANY WEB ENABLED
DEVICE, SUCH AS SMART
PHONES & LAPTOPS

MARKET LEADING DESIGN WITH STATE-OF-THE-ART UV TECHNOLOGY

Computational Fluid Dynamics

Through extensive CFD analysis and field testing, the ECL chamber design matches hydraulic flow profiles with UV lamp intensity fields inside the reactor, optimising the high intensity zones with flow paths to improve performance. This advanced analysis tool has allowed for significant improvements in efficiency, typically increasing treatment capacities by upto 30% whilst using less power and fewer UV lamps.

Data Stream Service

The atg UV technology Data-Stream service is the first of its kind in the UV industry, allowing operators to monitor the performance of their UV system anywhere in the world, at any time. Using a simple Wi-fi connection, the Data-Stream service transmits operational performance data in real time (updating every 30 seconds) directly from the plant room to any web enabled device. (Includes: smart phones, I-Pads, laptop's & PC's).

5 Year Warranty

atg UV Technology are passionate about providing a first class after sales service and customer care experience. As the market leader for UV systems, atg UV Technology were the first UV manufacturer in the world to offer an exclusive 5 year warranty for standard UV systems. The 5 year warranty is a demonstration of our commitment to our customers, and an indication of the high level of quality and reliability in all of our products.

**LISTENING TO &
WORKING WITH
OUR CUSTOMERS
FOR OVER 30 YEARS**

CONTACT US TODAY



Siam Pollutek Co., Ltd

40/25 Soi Wachiratham-satit 8, Sukmvit 101/1, Bangna, Bangkok 10260

Tel : 02- 7478234, Fax : 02-7477566, E-mail : info@siampollutek.com

Web : www.siampollutek.com, Line ID : siam.pollutek