

## CSL™ PLUS SERIES // HIGH PERFORMANCE UV SYSTEMS

For over 60 years, Food & Beverage installations worldwide, as well as Life Sciences and Microelectronic applications have relied on the quality and proven performance of Aquafine's CSL™ series.



**MODEL SHOWN:** CSL plus 12R // **INDUSTRIES:** Food & Beverage, Pharmaceutical, Life Sciences, Microelectronics // **FLOWRATES:** 53-347 GPM @ 94% UVT, 66-420 GPM @ 99% UVT // **APPLICATIONS:** Disinfection, Ozone Destruction, TOC // **DESIGN CAPABILITIES:** Multi-Unit Skid Systems

### CSL PLUS SERIES

Using collaborative customer input, the proven architecture of the CSL series has been transformed by Aquafine; the result is our refined CSL plus series. This system provides superior performance, custom specifications, simplified maintenance and maximized UV lamp output at end-of-lamp life.

The CSL plus series consists of 316L stainless steel treatment chamber and a 304L stainless steel control panel in one integral unit. At the heart of the system is a new LCD controller which provides the user with a centralized real time status display and includes some of our optional features as standard. Additionally, enhanced end-of-lamp life output increases the dose and flow capacities of this product line and are CE rated for 240V. The compact size maximizes installation flexibility and preserves floorspace. Aquafine's single-ended (SE) lamps allow quick change-outs without tools. There are upgrades for legacy models available.

Flow rates are also available for other applications. For questions regarding your application needs, please contact your local Authorized Distributor or Aquafine Corporation for more information.

#### Benefits

- Improved lamp performance (higher low rate and high dosage)
- 2-year extended warranty

#### Equipped with new universal controller

- Centralized real-time data status display
- Easy to use operator interface
- Improved diagnostic capabilities and control reliability



The sophisticated CSL™ plus series medium-flow models are engineered for indoor installation and controlled operating environments in numerous markets and applications.

#### Applications

While disinfection is the most common application for ultraviolet (UV) technology in water treatment, ozone destruction and TOC reduction are also common. After considering the appropriate variables, a properly designed and sized UV unit can be guaranteed and customized to suit your application needs, ensuring the integrity of the process and product.

#### UV Technology

Aquafine ultraviolet (UV) systems are engineered to focus the power of concentrated UV light utilizing one or several specially designed lamps. UV technology is used throughout the world, in a wide array of applications, as an environmentally responsible way to disinfect and safeguard water against harmful microorganisms.

#### Guaranteed Performance and Support Services

All of our systems come with a lifetime disinfection guarantee. Customer support is available from our Authorized Distributor Network and from our 24/7 Technical Service Group.

For questions regarding your application needs, please contact your local Authorized Distributor or Aquafine for more information.

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Model: CSL plus	4R	6R	8R	12R	8R60	10R60	12R60
<b>MAXIMUM FLOW RATE</b>							
DISINFECTION (@ 94% UVTI) GPM (M <sup>3</sup> /HR)*	53(12)	80(18)	107(24)	173(39)	221(50)	287(65)	347(78)
DISINFECTION (@ 99% UVTI) GPM (M <sup>3</sup> /HR)*	66(15)	104(23)	133(30)	208(47)	267(60)	347(78)	420(95)
NUMBER OF UV LAMPS (SINGLE-ENDED)	4	6	8	12	8	10	12
<b>ELECTRICAL REQUIREMENTS</b>							
OPERATING POWER WATTS	190	265	370	540	590	730	865
ELECTRICAL SUPPLY	120 or 240V/50-60Hz, SINGLE PHASE, 2 W + GND						
<b>TREATMENT CHAMBER</b>							
MATERIAL OF CONSTRUCTION	316L STAINLESS STEEL						
INTERNAL SURFACE FINISH	RA 32 ( RA 15 OPTIONAL)						
OPERATING TEMPERATURE F° [C°]	WATER: 50° - 100° ( 10° - 38° ) AMBIENT AIR: 50° - 110° ( 10° - 43° )						
MAX. OPERATING PRESSURE PSIBAR	120(8) (150 (10) OPTIONAL)						
INLET/ OUTLET FLANGE SIZES INCHES (mm)**	2 (50)	3(80)	3(80)	4(100)	4(100)	6(150)	6(150)
SANITARY FITTING***	2	3	3	4	4	6	6
SAMPLE PORT SIZE NPT (mm)****	1/4" (7mm)						
DRAIN PORT SIZE NPT (mm) (3A)****	3/8" (10mm) (1")						
<b>CONTROL CABINET</b>							
CONTROL CABINET SYSTEM RATING	NEMA 1/ UL TYPE 1/ IP20						
MATERIALS OF CONSTRUCTION	304 STAINLESS STEEL						
<b>DIMENSIONS AND WEIGHT</b>							
OVERALL DIMENSIONS (LXWXH) INCHES (mm)*****	45X19X34 (1143X483X864)						
WEIGHT ( LBS.)	105 LBS.	105 LBS.	162 LBS.	177 LBS.	230 LBS.	206 LBS.	235 LBS.
<b>CONTROLLER DETAILS</b>							
LAMP STATUS INDICATION	BASE MODEL		REMOTE OPTION		UV MONITORING OPTION		
LAMP RUN TIME	INCLUDED		INCLUDED		INCLUDED		
UNIT POWER ON TIME	INCLUDED		INCLUDED		INCLUDED		
HIGH WATER TEMPERATURE SHUT OFF	INCLUDED		INCLUDED		INCLUDED		
CABINET HIGH TEMPERATURE	INCLUDED		INCLUDED		INCLUDED		
ALARM HISTORY	INCLUDED		INCLUDED		INCLUDED		
LAMP REMOTE ON/OFF			INCLUDED (DRY CONTACT)		INCLUDED (DRY CONTACT)		
LAMP OUT ALERT			INCLUDED (DRY CONTACT)		INCLUDED (DRY CONTACT)		
UV INTENSITY AND TEMPERATURE MONITORING					INCLUDED (4-20 mA SIGNAL OUTPUT FOR UV & TEMP)		

\* DOSE Level > 30mJ/cm<sup>2</sup> after 9,000 hours of operation, for disinfection only  
 \*\* Standard ANSI Class 150 Flanges, Optional DIN En 1092-1 flanges with BSP sample port and drain available as special order  
 \*\*\* 3A Tri-clamps Sanitary Connection Optional 1/2" sample port available as special order  
 \*\*\*\* CSL plus packed and ready to ship.



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Aquafine is an ISO 9001:2008 certified company.