

OPTIMA HX™ SERIES // HIGH PERFORMANCE UV SYSTEMS

Efficient and cost effective, the Optima HX™ provides proven performance and technology for the Aquaculture, Food & Beverage, Life Sciences and Microelectronics industries.



MODEL SHOWN: Optima HX 10 GDL // **INDUSTRIES:** Aquaculture, Food & Beverage, Life Sciences, Microelectronics // **FLOWRATES:** 40-1400 GPM @ 94% UVT, 45-2200 GPM @ 99% UVT // **APPLICATIONS:** Disinfection, Ozone Destruction // **DESIGN CAPABILITIES:** Custom Configurations

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These systems were designed with a sophisticated sizing program, combining Multiple Point Source Summation (MPSS) and Computational Fluid Dynamics (CFD), critical in calculating fluency rates, flow patterns and velocity distribution.

The series consists of 316L stainless steel treatment chamber and a control panel in one integral unit for models with reactors up to 8 inches in diameter. Our Aquafine HX 02BDSU and above have a standard UL TYPE - 1 painted carbon steel control cabinet.

With low-pressure high-output lamp (LPHO) technology, the HX lamp provides increased process performance and extended lamp. The systems compact size allows for a smaller footprint, maximizing the installation flexibility. Aquafine's single-ended (SE) HX lamps allow quick change-outs without tools.

While disinfection is the most common application for ultraviolet (UV) technology in water treatment, ozone destruction is also used. Prior to point-of-use, the residual ozone needs to be destroyed to ensure the process water is not compromised. After considering the appropriate variables, a properly sized UV unit can be guaranteed to destroy the ozone to non-detectable limits, ensuring the integrity of the process and product.

Utilized for ozone destruction and disinfection, the Optima HX™ is not only cost effective, but proves to be a reliable, innovative and environmentally smart alternative.

UV Technology

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

Safe & Effective

UV disinfection is a chemical-free process that adds nothing to the water except UV light. It provides rapid, effective inactivation of microorganisms through a physical process. When bacteria, viruses and protozoa are exposed to the germicidal wavelengths of UV light, they are rendered incapable of reproducing and infecting. No carcinogenic disinfection by-products are created, and no transportation, storage or handling of toxic or corrosive chemicals is necessary.

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: Optima HX	02 ADS	02 BDS	02 CDS	02 BDL	02DDS	02CDL	02DDL	04 CDL	06 CDL	05 DDL	06 DDL	08 DDL	08 EDL	08 FDL	08 GDL	10 GDL	12 GDL	12 HDL
MAXIMUM FLOW RATE																		
DISINFECTION (@ 94% UVT) GPM (M ³ /HR)*	40 (9)	60 (14)	78 (18)	90 (20)	130 (30)	175 (40)	251 (57)	335 (76)	415 (94)	500 (114)	550 (125)	670 (152)	800 (182)	925 (210)	1100 (250)	1300 (295)	1400 (318)	2200 [†] (500)
DISINFECTION (@ 99% UVT) GPM (M ³ /HR)*	45 (10)	71 (16)	90 (20)	115 (26)	150 (34)	220 (50)	300 (68)	405 (92)	520 (118)	626 (142)	700 (159)	850 (193)	1070 (243)	1200 (273)	1400 (318)	1800 [†] (409)	2200 [†] (500)	
NUMBER OF UV LAMPS (HX SE)	2						4	6	5	6	8				10	12		
ELECTRICAL REQUIREMENTS																		
ELECTRICAL SUPPLY	120/240V/50-60Hz, SINGLE PHASE, 2 W + GND																	
OPER. POWER (NOMINAL WATTS)	265		360	265	360		670	985	890	985	1300				1600	1920		
CONTROLLER/DETECTOR																		
UV G400 SERIES	N/A						OPTION FOR REMOTE ("U") MODEL ONLY						OPTIONAL					
UV TEMP. & MONITORING SYSTEM	OPTIONAL																	
LAMP STATUS INDICATOR	STANDARD																	
LAMP OUT ALERT (LOA)	OPTIONAL																	
RUNNING TIME METER	STANDARD																	
HAND/OFF/AUTO (HOA)	NA	OPTIONAL																
4-20mA OUTPUT SIGNAL	OPTIONAL																	
CONTROL CABINET																		
CC SYSTEM RATING	C.S - UL TYPE 1, S.S. - UL TYPE 3R FOR REMOTE "U" ONLY												C.S - UL TYPE 1, S.S. - UL TYPE 3R					
MATERIALS OF CONST. STD / "U"	304 S.S. / C.S., OPTIONAL 304 S.S.												C.S., OPTIONAL 304 S.S.					
TREATMENT CHAMBER																		
MATERIALS OF CONSTRUCTION	316L STAINLESS STEEL																	
INTERNAL SURFACE FINISH	Ra 32 (Ra 15 OPTIONAL)																	
OPERATING TEMPERATURE °F (°C)	Water: 40° - 104° [5° - 40°] Ambient Air: 34° - 104° [1° - 40°]																	
MAX. OPER. PRESSURE PSI (BAR)	150 (10)																	
INLET/OUTLET FLANGE INCHES (MM)	2 (50)			3 (80)			4 (100)			6 (150)			8 (200)			10 (250)		
HOT WATER SANIT. °F (°C)	170° (77°) AVAILABLE WITH S.S. COMP. NUTS & VITON O-RINGS ONLY																	
SANITARY FITTINGS	OPTIONAL																	
DIMENSIONS - FOR REFERENCE ONLY																		
OVERALL DIMENSIONS INCHES HXWXD	20.50 X 38.50 X 7	15 X 40 X 12	15 X 40 X 13.50	15 X 68 X 12	21.50 X 40 X 15.50	20 X 68 X 15	22 X 68 X 17	22 X 68 X 10		24 X 68 X 11		27 X 68 X 12	44.50 X 67 X 14.50	46.50 X 67 X 16.50	48.50 X 67 X 18.50			
OVERALL DIMENSIONS MM HXWXD	521 X 968 X 176	366 X 1010 X 300	364 X 1012 X 338	366 X 1727 X 300	540 X 1010 X 387	508 X 1727 X 381	559 X 1727 X 432	556 X 1721 X 254		610 X 1721 X 280		679 X 1721 X 298	1121 X 1702 X 362	1174 X 1702 X 413	1223 X 1702 X 464			

* Dose Level: 30 mJ/cm² after 9,000 hours of operation. †Inlet/Outlet Flange inches (mm): 10 (250) ††Inlet/Outlet Flange inches (mm): 12 (300)



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Aquafine is an ISO 9001:2008 certified company.