

# UltraDynamics®

## Series 8102-HIE Heavy Industrial

The UltraDynamics® Series 8102-HIE design is the result of over 50 years of experience in the application of UV energy for the treatment of water and wastewater. Having been in use for over two decades, the Series 8102-HIE has been proven effective in countless installations over a broad range of applications around the world. Each Series 8102-HIE system provides a dose of 30,000 to 400,000 micro-watt seconds per square centimeter at a wavelength of 254nm ultraviolet energy for deactivation of microorganisms.

The germicidal lamps are guaranteed for 9,000 hours of continuous duty. Pure, fused quartz sleeves used to protect the lamps are manufactured to provide a maximum transmission of UV energy into the medium.

All UltraDynamics® UV purifiers are supplied with a variety of standard design features and an assortment of optional features to help meet your specific application.

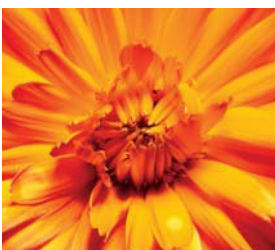
### Features:

- φ 304 stainless steel Construction as standard
- φ Electropolished and passivated
- φ Pressure drop 1 PSIG at peak rated flow
- φ Maximum operating pressure 150 PSIG
- φ Remote power supply for maximum flexibility of installation
- φ Drain and monitor sight port included
- φ Mounting brackets for easy installation



### Options:

- φ Remote alarm
- φ Quartz sleeve cleaning system
- φ High temperature cut off switch (Thermistor type)
- φ Narrowband germicidal UV monitor senses over 90% 254 nanometer germicidal wave length
- φ 1/4" sample port on inlet and outlet
- φ (L.O.W.) Lamp out warning system
- φ UL Certification available
- φ Available in flanged, threaded or sanitary process connections
- φ Available with 185nm ozone producing lamps
- φ 316 SS construction



Model No.	CAPACITY GPM (m3/hr)			Inlet/Outlet Size	KW		AMPS		DIMENSIONS in (mm) L x W x H	Shipping Weight	No. of Lamps	Lamp Length in (mm)
	Clear Waste Water	Clear Fresh Water	High Purity Water		120V	240V	120V	240V				
8102-HIE-2	2 (0.5)	3 (0.7)	6 (1.3)	3/4" NPT	0.07	0.07	0.06	0.03	17 x 7 x 8 (432 x 178 x 203)	25 LBS 11 KGS	1	17 (432)
8102-HIE-5	6 (1.3)	10 (2.3)	12 (2.7)	3/4" NPT	0.07	0.07	0.6	0.3	38 x 5 x 12 (965 x 127 x 305)	50 LBS 23 KGS	1	36 (914)
8102-HIE-20	35 (8)	50 (11)	60 (14)	2" NPT	0.26	0.25	2.1	1.1	40 x 14 x 12 (1016 x 356 x 305)	150 LBS 68 KGS	4	36 (914)
8102-HIE-35	50 (11)	65 (15)	80 (18)	2" NPT	0.39	0.38	3.2	1.7	40 x 14 x 12 (1016 x 356 x 305)	225 LBS 102 KGS	6	36 (914)
8102-HIE-40	70 (16)	90 (20)	110 (25)	3" FLG	0.38	0.36	3.2	1.7	72.5 x 14 x 14 (1842 x 356 x 356)	325 LBS 147 KGS	4	64 (1626)
8102-HIE-60	100 (23)	130 (30)	160 (36)	3" FLG	0.57	0.54	4.8	2.5	72.5 x 14 x 14 (1842 x 356 x 356)	350 LBS 159 KGS	6	64 (1626)
8102-HIE-80	130 (30)	175 (40)	220 (50)	3" FLG	0.76	0.72	6.4	3.4	72.5 x 14 x 14 (1842 x 356 x 356)	500 LBS 227 KGS	8	64 (1626)
8102-HIE-100	170 (39)	225 (51)	280 (64)	3" FLG	0.90	0.85	7.5	4.1	72.5 x 14 x 14 (1842 x 356 x 356)	625 LBS 284 KGS	10	64 (1626)
8102-HIE-120	200 (45)	265 (60)	330 (75)	4" FLG	1.15	1.10	9.6	5	72.5 x 14 x 14 (1842 x 356 x 356)	700 LBS 318 KGS	12	64 (1626)
8102-HIE-160	260 (59)	340 (77)	420 (95)	4" FLG	1.54	1.50	12.8	8.8	76 x 20 x 20 (1930 x 508 x 508)	800 LBS 363 KGS	16	64 (1626)
8102-HIE-200	335 (76)	450 (102)	560 (127)	6" FLG	1.80	1.80	15	8.2	76 x 20 x 20 (1930 x 508 x 508)	900 LBS 408 KGS	20	64 (1626)
8102-HIE-280	475 (108)	590 (134)	730 (166)	6" FLG	2.57	2.55	21.4	11.6	76 x 20 x 20 (1930 x 508 x 508)	1025 LBS 465 KGS	28	64 (1626)
8102-HIE-360	610 (139)	770 (175)	940 (213)	6" FLG	3.46	3.30	28.8	15	82 x 23 x 27 (2083 x 635 x 686)	1100 LBS 499 KGS	36	64 (1626)
8102-HIE-400	660 (150)	880 (200)	1100 (250)	6" FLG	3.60	3.61	30	16.4	82 x 23 x 27 (2083 x 635 x 686)	1200 LBS 544 KGS	40	64 (1626)
8102-HIE-600	1000 (227)	1300 (295)	1600 (363)	8" FLG	5.40	7.00	45	31.8	93 x 26 x 31 (2362 x 660 x 787)	2500 LBS 1134 KGS	60	64 (1626)

## Warranty and Capability

Severn Trent Services UltraDynamics® Ultraviolet Disinfection products are warranted for eighteen months from the date of invoice, or twelve months from the date of installation, whichever is earlier.

Disinfection technologies, water quality monitors and instrumentation for water and wastewater are areas of specialization. Over 35 years of industrial and municipal application experience in the water and wastewater industries.

## Brief Specification

The Ultraviolet Disinfection System shall incorporate low pressure, germicidal UV lamps positioned in a stainless steel chamber.

The system shall include UV lamps, protective quartz sleeves and a power supply center rated at (120Vac,50/60Hz) (240Vac,50/60Hz).

UV lamps shall be slimline, low pressure mercury vapor, hot cathode, instant start design and shall produce ultraviolet light with a minimum of 90% of emissions within the wavelengths of 233.7 and 273.7nm. Lamps shall be field replaceable by plant operations and maintenance personnel and shall be guaranteed for a period of 1 year. Lamp sleeves shall be manufactured from General Electric type 214 clear fused quartz. Sleeves shall be circular with open end(s) fire polished smooth. Quartz sleeves shall be rated for UV transmittance of 89% and shall be subject minimal solarization. An optional automatic (manual) sleeve cleaning system shall be incorporated

The UV system shall be an UltraDynamics® Series 8102-HIE as manufactured by Severn Trent Services.

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