



**eVOQUA**  
WATER TECHNOLOGIES



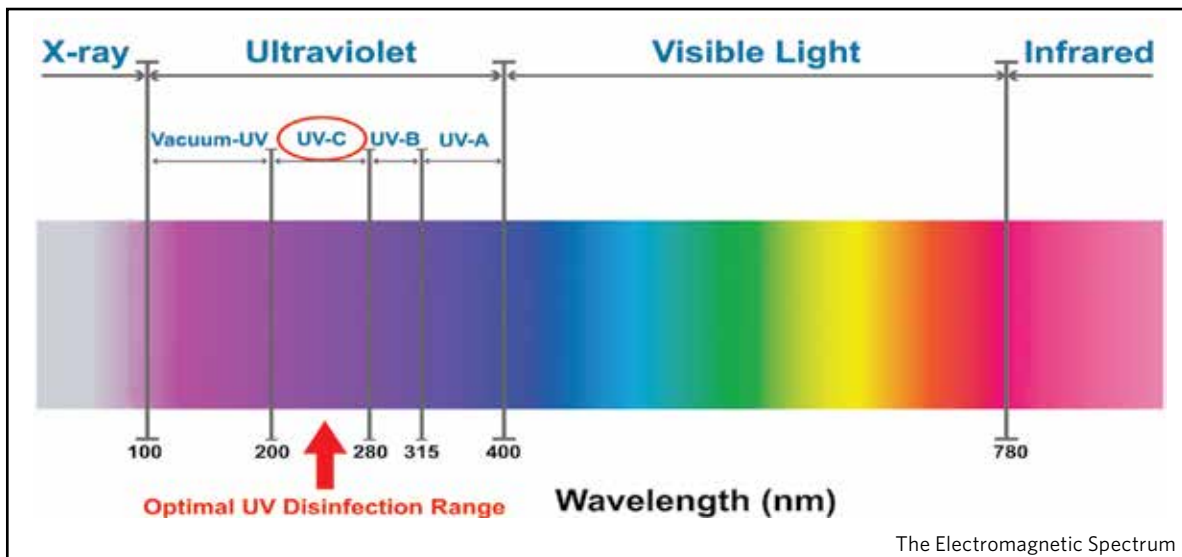
## **DELTA-UV<sup>®</sup>** **ULTRAVIOLET DISINFECTION SYSTEMS**

**CLEANER, HEALTHIER WATER FOR SEMI-COMMERCIAL POOL, SPA, POND AND WATER FEATURES**

# WHAT IS UV DISINFECTION?

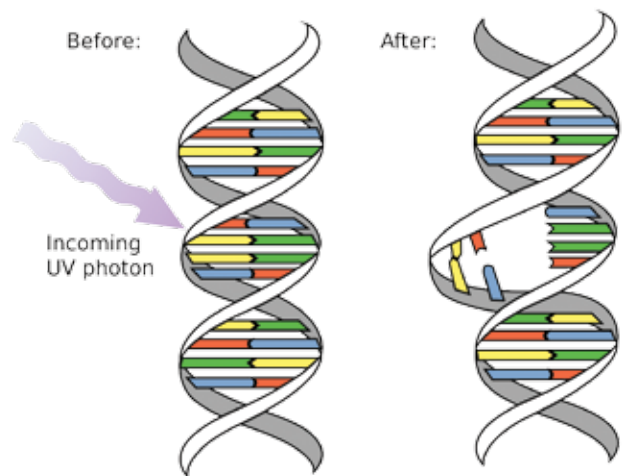
## WHAT IS ULTRAVIOLET LIGHT?

Ultraviolet (UV) light is energy within the electromagnetic spectrum that has shorter wavelengths than that which are visible to the human eye. UV light is a range of electromagnetic waves from 100 to 400 nanometers (between x-ray and visible light). The division of UV light is classified as Vacuum UV (100-200 nm), UV-C (200-280 nm), UV-B (280-315 nm) and UV-A (315-400 nm). The energy waves provided in the UV-C spectrum demonstrate germicidal efficiencies that provide highly effective disinfection.



## HOW UV DISINFECTION WORKS

UV light works by causing permanent damage to the DNA or RNA found in all living species. Once DNA becomes damaged, or dimerized, the organism is unable to carry out the routine cell functions of the respiration, the assimilation of food and replication; the organism is rendered non-viable. UV is the only disinfection alternative that is chemical free, therefore will not create chemical by-products. UV is also used for removal of organic and inorganic contaminants and breaks down chlorine (disinfection) by-products or DBP, called chloramines. Chloramine exposure commonly leads to stinging (red) eyes, skin irritations, asthma and allergies.





## WATER TREATMENT SOLUTION THAT IS SAFE, HEALTHY AND ENVIRONMENTALLY FRIENDLY

### WHY DELTA UV?

Engineered and designed specifically for semi-commercial pools and spas, Delta-UV® disinfection systems offer owners a way to reduce chemicals while protecting health, families and the environment by adding nothing but light. UV light provides effective inactivation and destruction of microorganisms such as bacteria, viruses, molds and pathogens without adding additional chemicals. Installing a UV system reduces chemical usage and breaks down chlorine by-products called chloramines. Chloramine exposure commonly leads to stinging (red) eyes, skin irritations, asthma and allergies.

### ADVANTAGES OF DELTA-UV DISINFECTION

- Easy to install, easy to maintain
- Reduce chemical usage
- No risk of overdosing
- Improves the color or odor of the water
- Improve air and water quality
- Reduce red eye and skin irritation
- Safer for you, better for the environment




## MEET THE DELTA-UV® SYSTEMS FOR SEMI-COMMERCIAL POOLS

### INTRODUCING THE ELP HO SERIES

The ELP HO series is designed for flow rates from 79 gpm to 396 gpm and is ideal for aquatic facilities, fountains, splash pads, spas and therapy pools.

- NSF/ANSI 50 certified
- Average lamp life up to 16,000 operating hours (dependent on on/off cycles)
- Electronic ballasts providing maximum UV lamp efficiency and integrated control
- Lamps easily replaced without draining the chamber
- Quality materials for corrosion resistance

ELP Series	Models	Max. Flow Rate GPM	Dose mJ per cm <sup>2</sup> at Recommended Flow Rate	Qty of Lamps/ UV Lamp Power	Diameter of Chamber	Total Height	Inlet/Outlet Diameter
	<b>ELP38 HO</b>	116	60mJ/cm <sup>2</sup>	3 x 87W	13.5"	39"	3"
	<b>ELP48 HO</b>	158	60mJ/cm <sup>2</sup>	4 x 87W	12.5"	39"	3"
	<b>ELP58 HO</b>	254	60mJ/cm <sup>2</sup>	5 x 87W	14.2"	39"	4"
	<b>ELP68 HO</b>	295	60mJ/cm <sup>2</sup>	6 x 87W	13.2"	39"	4"
	<b>ELP78 HO</b>	329	60mJ/cm <sup>2</sup>	7 x 87W	14.75"	39"	4"
	<b>ELP610 HO</b>	396	60mJ/cm <sup>2</sup>	8 x 87W	16"	39"	6"
<b>Product Line Specifications</b>							
<b>Power Input</b>	120/240v 50/60hz			<b>Indoor/Outdoor Installation</b>	Yes		
<b>Housing</b>	316 stainless steel			<b>Limited Warranty</b>	2 years (1 year lamp pro-rated)		
<b>Ballast</b>	Electronic, hardwired			<b>Plumbing Options</b>	Male npt thread		
<b>Lamp</b>	High output - low pressure (approx. 16,000 hrs)						




## MEET THE DELTA-UV® SYSTEMS FOR SEMI-COMMERCIAL, SALT WATER POOLS

### INTRODUCING THE ELP HDPE SERIES

The ELP series of UV disinfection systems is available in High Density Polyethelene (HDPE). The ELP HDPE is constructed from material that is ideal for salt water pools or pools with high total dissolved solids (TDS).

Sizing your UV system is important and based on flow rate. The ELP HDPE is suited for flow rates from 79 gpm to 396 gpm.

- NSF/ANSI 50 certified
- Corrosion resistant
- Material is resistant to bacteria growth
- Average lamp life is approximately 16,000 operating hours (dependent on on/off cycles)
- Electronic ballasts provide high UV lamp efficiency

ELP HDPE Series	Models	Max. Flow Rate GPM	Dose mJ per cm <sup>2</sup> at Recommended Flow Rate	Qty of Lamps/ UV Lamp Power	Diameter of Chamber	Total Height	Inlet/Outlet Diameter
	ELP28 HDPE	79	60mJ/cm <sup>2</sup>	2 x 87W	12"	39"	3"
	ELP38 HDPE	116	60mJ/cm <sup>2</sup>	3 x 87W	13.5"	39"	3"
	ELP48 HDPE	158	60mJ/cm <sup>2</sup>	4 x 87W	12.5"	39"	3"
	ELP58 HDPE	254	60mJ/cm <sup>2</sup>	5 x 87W	14.2"	39"	4"
	ELP68 HDPE	295	60mJ/cm <sup>2</sup>	6 x 87W	13.2"	39"	4"
	ELP78 HDPE	329	60mJ/cm <sup>2</sup>	7 x 87W	14.75"	39"	4"
	ELP610 HDPE	396	60mJ/cm <sup>2</sup>	6 x 87W	16"	39.6"	6"
<b>Product Line Specifications</b>							
<b>Power Input</b>	120/240v 50/60hz			<b>Indoor/Outdoor Installation</b>	Yes		
<b>Housing</b>	HDPE			<b>Limited Warranty</b>	2 years (1 year lamp pro-rated)		
<b>Ballast</b>	Electronic, hardwired			<b>Plumbing Options</b>	ANSI flanges		
<b>Lamp</b>	High output - low pressure (approx. 16,000 hrs)						



## MEET THE DELTA-UV® SYSTEMS FOR SEMI-COMMERCIAL POOLS

### INTRODUCING THE ELP AM SERIES

The ELP AM series of UV disinfection systems uses low-pressure, high output (amalgam) lamp technology.

This series is ideal for pools with larger flow rates such as hotels, motels, country clubs, fitness clubs and community pools and spas. The ELP AM product series is designed for commercial pools with flow rates from 250 gpm up to 2,500 gpm. The compact size is suited for retro-fit applications where spacing or sizing is an issue.

- NSF/ANSI 50 certified
- Consistently delivers 60mJ/cm<sup>2</sup>
- Average lamp life up to 13,000 operating hours (depending on on/off cycles)
- Electronic ballasts providing maximum UV lamp efficiency and integrated control
- Lamps easily replaced without draining the chamber
- Quality materials for corrosion resistance

ELP AM Series	Models	Max. Flow Rate GPM	Dose mJ per cm <sup>2</sup> at Recommended Flow Rate	Qty of Lamps/ UV Lamp Power	Diameter of Chamber	Total Height	Inlet/Outlet Diameter
	<b>ELP 210/3AM</b>	440	60mJ/cm <sup>2</sup>	2 x 297W	10"	46.2"	6"
	<b>ELP 310/3AM</b>	650	60mJ/cm <sup>2</sup>	3 x 297W	10"	46.2"	6"
	<b>ELP 314/3AM</b>	695	60mJ/cm <sup>2</sup>	3 x 297W	14"	46.2"	8"
	<b>ELP 414/3AM</b>	920	60mJ/cm <sup>2</sup>	4 x 297W	14"	46.2"	8"
	<b>ELP 514/3AM</b>	1140	60mJ/cm <sup>2</sup>	5 x 297W	14"	46.2"	8"
	<b>ELP 516/3AM</b>	1260	60mJ/cm <sup>2</sup>	5 x 297W	16"	46.2"	8"
	<b>ELP 616/3AM</b>	1510	60mJ/cm <sup>2</sup>	6 x 297W	16"	46.2"	10"
	<b>ELP 716/3AM</b>	1760	60mJ/cm <sup>2</sup>	7 x 297W	16"	46.2"	10"
	<b>ELP 816/3AM</b>	2010	60mJ/cm <sup>2</sup>	8 x 297W	16"	46.2"	10"
	<b>ELP 1016/3AM</b>	2520	60mJ/cm <sup>2</sup>	10 x 297W	16"	46.5"	10"
Product Line Specifications							
<b>Power Input</b>	120/240v 50/60hz			<b>Indoor/Outdoor Installation</b>	Yes		
<b>Housing</b>	Stainless steel			<b>Limited Warranty</b>	2 years (1 year lamp pro-rated)		
<b>Ballast</b>	Electronic, hardwired			<b>Plumbing Options</b>	ANSI flanges		
<b>Lamp</b>	High output - amalgam (approx. 16,000 hrs.)						




## DELTA-UV® SYSTEMS FOR POND & WATER FEATURES

Delta-UV® disinfection systems effectively treat wide range of water features. Water features range from fountains, pools, ponds, cascades, waterfalls, and streams. These may include indoor or outdoor features varying size from a desk top water fountain to a large indoor waterfall covering an entire commercial wall. The varying features are constructed from a wide selection of materials that include stone, granite, stainless steel, resin, and glass. Delta UV clean light technology promotes crystal clear water that extends the life of water feature materials and provides the aesthetic beauty of the water feature to shine through.

Ponds intend to reproduce the effect of a natural process. So, when thinking about the water treatment of the pond, green alternatives and natural solutions are priority. UV water treatment is an appropriate solution because it eradicates harmful bacteria, and destroys algae without adding chemicals, only light.

Sizing your UV system is important and based on the flow rate. Models in this series range from 26-80 gallons per minute.

### INTRODUCING THE EP SERIES

EP Series	Models	Max. Flow Rate GPM	Dose mJ per cm <sup>2</sup> at Recommended Flow Rate	UV Lamp Power	Diameter of Chamber	Total Height	Inlet/Outlet Diameter
	EP 5	26	30mJ/cm <sup>2</sup>	30W	6"	17.5"	2"
	EP 10	35	30mJ/cm <sup>2</sup>	45W	6"	24.5"	2"
	EP 15	53	30mJ/cm <sup>2</sup>	55W	6"	27.5"	2"
	EP 20	70	30mJ/cm <sup>2</sup>	80W	6"	38.75"	2"
	EP 40	80	30mJ/cm <sup>2</sup>	90W	6"	46"	2"
<b>Product Line Specifications</b>							
<b>Power Input</b>	120/240v 50/60hz			<b>Pressure Switch</b>	Yes		
<b>Housing</b>	Mirror-polished high quality stainless steel			<b>Indoor/Outdoor Installation</b>	Yes		
<b>Ballast</b>	Electronic, standard plug			<b>Limited Warranty</b>	2 years (1 yr bulb pro-rated)		
<b>Lamp</b>	High output - low pressure (approx. 16,000 hrs.)			<b>Plumbing Options</b>	2" PVC unions		



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