

ULTRAVIOLET DISINFECTION

Laboratory UV Disinfection - Low Flow (<5 gpm)

“IL-HT-LAB” SERIES



PRODUCT OVERVIEW

The “IL-HT-LAB” Series is a high purity line of ultraviolet water systems manufactured in the United States. They are designed to treat lower flow rates.

The systems are constructed from high grade 316L stainless steel and are electropolished to ensure high purity and longevity.

While these systems are used primarily for disinfecting process water, they can also be configured and sized for Total Oxidizable Carbon reduction (TOC) and Ozone destruction (OD).

Systems are available in many orientations and can be integrated into other water processing packages.

STANDARD FEATURES

- 316L electropolished stainless steel
- FNPT fittings
- 120-277 Volt
- UV lamps made in USA
- 254 nm or 185 nm lamps
- GE Type 214 quartz sleeve
- Machined aluminum compression nuts
- Manufactured in USA

OPTIONAL FEATURES

The IL-HT-LAB Series is meant to be used in conjunction with other equipment. Glasco is flexible when it comes to installation and power requirements. Please contact factory to design your system.

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GLASCO UV

UV LAMP SYSTEMS

Systems use special UV lamps to target and disable harmful waterborne disease causing microorganisms (pathogens), destroy ozone and reduce total oxidizable carbon in water supplies.

Over 100 years ago, scientists found that when pathogens were exposed to UV light, their reproduction was limited. The light resided in the UVC range of the spectrum. Specifically, they discovered that light in the 254 nanometer (nm) range was the most effective.

When pathogens are exposed to UV light, their cells become damaged and this inhibits reproduction. UV light damages the cell's DNA and RNA and once damaged, they are unable to replicate and therefore, rendered harmless.

UV lamps in the 254 nm range are also used to destroy ozone in water. The UV energy turns the ozone into water. UV lamps in the 185 nm range are used to reduce organics in the water. 185 nm lamps create hydroxyl free radicals, which help oxidize the organics into CO₂ and H₂O.

The amount of damage is a result of the intensity of the UV light multiplied by the time the water is exposed to the light (time x intensity). The dosage, referred to as microwatts, is often expressed as mJ/cm². Doses > 30,000 microwatt dose (30 mJ) are accepted for water disinfection. Doses of >100 mJ are used for Ozone Destruct and TOC Reduction.

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GLASCO UV

IL-HT-LAB-050



IL-HT-LAB-070

SYSTEM SIZING for Disinfection, TOC reduction and Ozone destruction

Unit Name	GPM	LPM	INLET / OUTLET	WATTS	UNIT DIM LxWxH	ELECTRICAL DIMENSIONS
IL-HT-050	.5	1.89	1/4" FNPT	6	7"x2"x2" 178x51x51 mm	2 "x 4" x3" 51x102x76 mm
IL-HT-060	1	3.79	1/4" FNPT	8	9"x2"x2" 229x51x51 mm	2 "x 4" x3" 51x102x76 mm
IL-HT-070	2	7.57	3/8" FNPT	12	12"x2"x2" 305x51x51 mm	2 "x 4" x3" 51x102x76 mm

Unit Name	GPM TOC	LPM	INLET / OUTLET	WATTS	UNIT DIM LxWxH	ELECTRICAL DIMENSIONS
IL-HT-050	0.15	0.5	1/4" FNPT	6	7"x2"x2" 178x51x51 mm	2 "x 4" x3" 51x102x76 mm
IL-HT-060	0.33	1.3	1/4" FNPT	8	9"x2"x2" 229x51x51 mm	2 "x 4" x3" 51x102x76 mm
IL-HT-070	0.7	2.7	3/8" FNPT	12	12"x2"x2" 305x51x51 mm	2 "x 4" x3" 51x102x76 mm

Unit Name	GPM OD	LPM	INLET / OUTLET	WATTS	UNIT DIM LxWxH	ELECTRICAL DIMENSIONS
IL-HT-050	0.15	0.5	1/4" FNPT	6	7"x2"x2" 178x51x51 mm	2 "x 4" x3" 51x102x76 mm
IL-HT-060	0.33	1.3	1/4" FNPT	8	9"x2"x2" 229x51x51 mm	2 "x 4" x3" 51x102x76 mm
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