

# GUV Series

## Ultraviolet Water Disinfection Systems



GLASCO UV

### ULTRAVIOLET DISINFECTION

The technology uses UV light to target and disable disease causing microorganisms (pathogens). Over 100 years ago, scientists discovered that if you exposed pathogens to UV light, their reproduction was limited. The UV light source that they used, resided in the UVC range of the light spectrum. Specifically, light in the 254 nanometer (nm) range was an effective wavelength.

When water pathogens are exposed to UV light, their cells become damaged and this damage inhibits reproduction. The UV light, produced by a special UV lamp, damages the cell's DNA and RNA and once damaged, they are unable to replicate. This physical process renders them harmless. The amount of damage is a result of the intensity of the UVC output multiplied by the time the water is exposed to the light. The applied dosage is commonly referred to as microwatts and is often expressed as mJ/cm<sup>2</sup>.

### SYSTEM OVERVIEW

Flow Characteristics	
Applications	Disinfection
Flow rate gpm (lpm)	50 (189)
Dosage	30 mJ
Vessel Overview	
Vessel	304 L stainless steel
Treatment	Electropolished
Pressure rating	100 psi (6.9 bar)
Mounting	Horizontal
Connections	2" MNPT
Port	Monitoring port
Lamps	2
Lamp type	Low pressure standard output
Wavelength	254 nm
Lamp life	> 1 year
Compression fitting	Aluminum anodized
Oring	Viton
Head Gasket	EPDM
Removal space lamps	36"
Power Supply Center	
Type	Remote modified fiberglass
Power	120 Volt 50/60 Hz
System nominal watts	<180
Ballast type	Electronic
Alarms	Green LED lamp indicator
Power supply	5' plug
Options	
Ultraviolet Monitor	Analog or Digital with 4-20 mA
Quartz Wiper	Manual plunger
Remote alarms	Audible and Visual Alarm
Solenoid	Normally closed solenoid
Voltage	220 Volt 50/60 Hz

### GUV-50



UV is effective on many

- Bacteria
- Viruses
- Fungi
- Algae
- Protozoa

Water disinfection for

- Homes
- Businesses
- Cabins

Microorganisms

- Cryptosporidium
- Giardia
- Cholera
- Salmonella
- e-Coli
- Coliform bacteria
- Fecal coliform

Water quality considerations

- Pre-filtering / treatment
- UV transmission >70%
- Iron < 0.3 ppm
- Turbidity < 1 NTU
- Hardness < 120 mg/l
- Manganese < 0.05 ppm