Speciality Liquid Disinfection

Fluoropolymer / Ultraviolet Light Technologies

IL-FP SERIES



OVERVIEW

The **IL-FP** Series has been designed for processes that require specialty liquids to be disinfected with UV light. Specialty liquids include juices, dairy drinks, coolants, opaque, hazardous, aggressive and viscous fluids.

When pathogens are exposed to UV light, their cells become damaged and this damage inhibits reproduction. The UV light, produced by a special mercury vapor lamp that produces the majority of its light in the 254 nm wavelength range, 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/cm2.

The **IL-FP** Series integrates high temperature and chemically resistant, fluoropolymer tubing which allows us to treat aggressive and difficult to treat liquids.

The fluoropolymer - Fluorinated Ethylene Propylene (FEP) - material is manufactured in coils. The helical coil allows for a high degree of flexibility and retractibility. The manufacturing process fuses the tubing into the helical formation and allows the material to stretch and retract to its programmed position.

FEP is translucent and is resistant to premature degradation at the critical 254nm UV wavelength, thus making it ideal for transporting liquids during the disinfection cycle. The coils deliver the highest volume of liquid close to the UV bulb.



DISINFECTION SYSTEM

The system is comprised of a wall mounted modified fan cooled stainless steel NEMA 4x enclosure that houses UV lamps and FEP tubing.



The IL-FP Series provides lamp status indicators in the form of green LEDS as well as a non resettable running time meter. Options like a H/O/A switch allows for remote on/off.

Liquid enters through the interchangeable inlet and outlet tubes located at the top of the enclosure. The liquid then travels through the FEP tubing, which is exposed to UV light in the 254 nm wavelength.

After the first pass, the liquid enters a plenum and then flows into the second tube. After passing through the second tube, the liquid will have been exposed to UVC light for a certain amount of time.



Once in the enclosure, the system is fan cooled to ensure optimum UV lamp performance.

	10 GPM	20 GPM
Dimension	16" x 20" x 6"	24" x 24" x 10"
(WxHxD)		
Weight	50 lbs	60 lbs
Electrical	120-230 V	120-230V
Lamp status	Green LEDs	Green LEDs
Run time	5 Digit	5 Digit
Cooling	Fan	Fan
UV lamp	3 x 24 watts	7 x 24 watts
FEP coils	2	4
Inlet / Outlet	3/4"	1"
size		



126 Christie Avenue, Mahwah, NJ 07430 - phone: 201-934-3348 - fax: 201-934-3388