

NONCON

S E R I E S



NONCON 5000 SERIES

PRODUCT OVERVIEW

The “**NONCON 5000**” Series is a “flow through” fluoropolymer style of ultraviolet (UV) water and wastewater disinfection systems.

Unlike our other systems where the UV lamps are immersed into the water (using protective quartz sleeves), the “NONCON 5000” uses non conductive transparent fluoropolymer tubes to transport the water close to the UV lamps.

The UV lamps are positioned in the air and shine their rays (@ 254 nm) through the fluoropolymer tubes and to their intended targets, microorganisms. The lamps are not in the water.

STANDARD FEATURES

- Stainless steel disinfection reactor **OR**
- Open channel insert for large flow
- Low pressure high output UV lamps
- Fluoropolymer flow through tubes
- Multi-voltage power (120-277)
- UV monitoring
- Lamp status and run time indicators
- 45 psi pressure rated
- Remote or on board electronics
- Environmental temperature management
- Air release valves
- Drain ports
- Access hatch



GLASCO UV

NONCON UV DISINFECTION SYSTEMS

Systems use special fluoropolymer tubes to transport water, wastewater and other liquids in close proximity to the UV lamps. The fluoropolymer tubes are transparent and manufactured to allow UV light in the 254 nm range to penetrate the tube's walls and disable microorganisms. Lamps are positioned around the tubes in the reflective reactor.

The tubes are manufactured from a high quality polymer resin. The tubes, which are highly transparent, are neutrally charged (the **non-conductive** in NONCON) and thus, not susceptible to fouling and scaling from positively charged minerals. In traditional UV systems, the quartz sleeves need to be cleaned.

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.

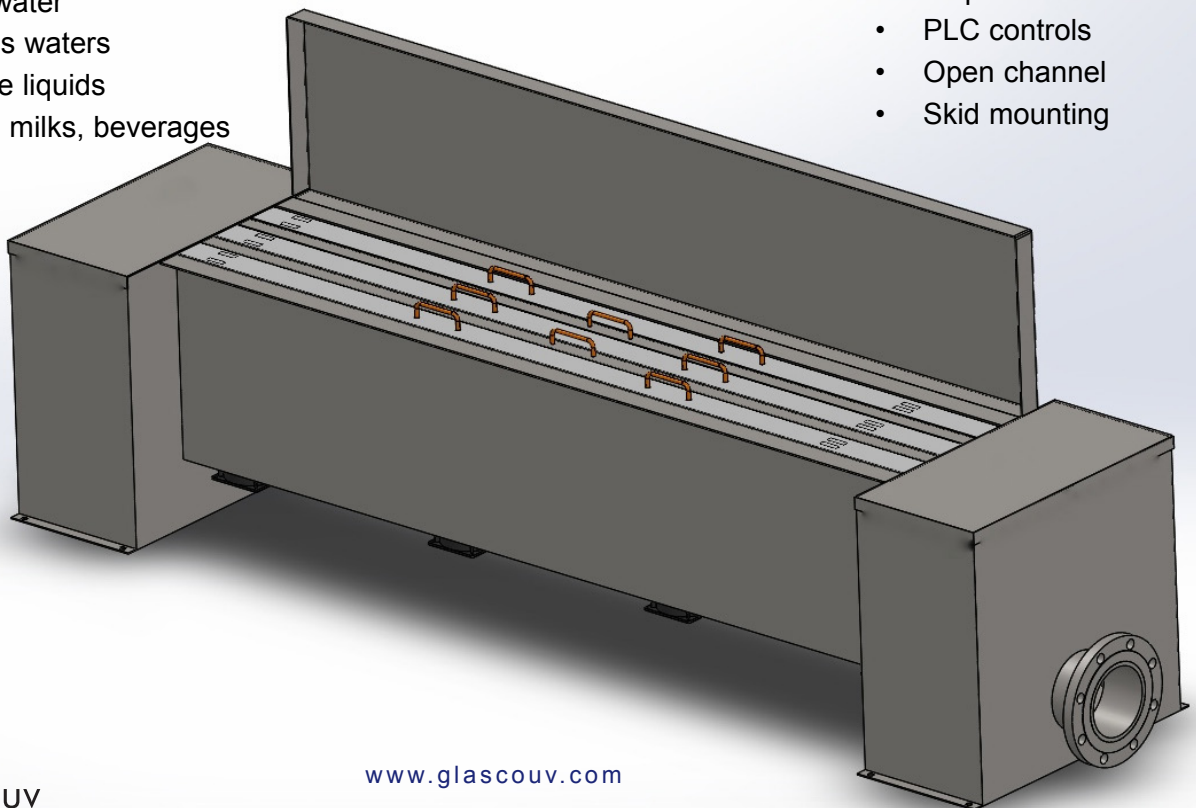
The amount of damage is a result of the intensity of the UV light multiplied by the time the water is exposed to the light (time x intensity). The dosage, referred to as microwatts, is often expressed as mJ/cm². Doses > 30,000 microwatt dose (30 mJ) are accepted for water disinfection.

APPLICATIONS

- Wastewater
- Process waters
- Opaque liquids
- Juices, milks, beverages
- R&D

OPTIONS

- 80 psi
- PLC controls
- Open channel
- Skid mounting



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NONCON OPERATION

Facility connects to the “NONCON” reactor via flange or in the case of larger projects, directly into a poured concrete channel. Water or wastewater enters a pressurized transition box and then feeds into a bank of transparent tubes. Water and wastewater travels through the tubes and exits into the discharge pressure box. Tubes are rated at 45 psi.

While traveling through the disinfection reactor, the water is exposed to UV light in the 254 nm range. The UV lamps are housed in modules and are suspended around the tubes in the high reflective reactor.

To manage heat and moisture, an environmental management system has been integrated. This is either through a heat exchange, liquid or fan cooling system.

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126 Christie Avenue, Mahwah, NJ 07430

• phone: 201-934-3348 fax: 201-934-3388 •

info@glascouv.com

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www.glascouv.com

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