Expurgo™ Series in Aquaculture Disinfection, Ozone Destruction, and Shellfish Depuration Applications

Why use Ultraviolet (UV) Disinfection?

Provides Pathogen control of flow-through or recirculation fresh water or seawater. The 254nm wavelength inactivates potentially lethal organisms such as fungi, bacteria, viruses and parasites, rendering them incapable of replication.

The UV treatment process does not produce any disinfection by-products, change the chemical balance of the fresh water or seawater, and maintenance personnel cannot overdose.

When ozonation is used as the primary disinfection agent for flow through or recirculation waters, UV can be used to eliminate any residual ozone which is generally lethal to aquatic life.

UV eliminates free Chlorine and Chloramines present in makeup water derived from Municipal fresh water sources. UV also provides disinfection of the source water.

Why specify the *Expurgo*™ Series?

The electropolished, 316L stainless steel or CPVC UV Reactor houses more lamps per volume of flow than MP. This provides a more uniform UV intensity field and inherent degree of redundancy. Consider the situation where a single lamp fails in a 2-lamp MP system versus an 8-lamp amalgam lamp system.

The heart of our UV Systems is our *UV-Xtender*™ amalgam lamps which emit over 400% more 254nm UV than standard low pressure lamps, are over twice the efficiency of typical medium pressure (MP) lamps and have an operating life up to 16,000 hours…2 to 3 times that of typical LP and MP lamps. We warrant our lamps for 13,000 hours!

Our *Hi-E*™ electronic ballasts boast an energy efficiency of 94%. This factor along with the high efficiency of our *UV-Xtender*™ amalgam lamps keep the annual energy costs at least 50% lower than MP systems.

A standard Industrial Programmable Logic Controller (PLC), controls, monitors and reports the operating status of the UV System via an LCD display and panel indicators. A calibrated, ultra stable, UV Sensor monitors the 254nm UV irradiance within the UV Reactor.

A safe 120°C lamp operating temperature significantly reduces the potential for overheating damage and quartz sleeve fouling associated with the 900°C typical operating temperature of MP lamps. Our *UV-Xtender*™ lamps also provide a much more stable UV output with variations in water temperature, as compared to standard LP lamps.

Access the amalgam UV lamps in just 2 seconds with our proprietary waterproof bayonet fittings.

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