**Expurgo™ Series in Recreational Aquatic Applications**

Why use Ultraviolet (UV) Disinfection?

1. **Inactivates potentially harmful organisms** such as bacteria, viruses, cysts, protozoa, and even chlorine resistant Cryptosporidium and Giardiasis, rendering them incapable of replication.

2. **No disinfection by-products are formed**, pool chemical balance is unaffected, super-chlorination is eliminated, and maintenance personnel cannot overdose with UV.

3. **Reduces chloramines** which create the unpleasant odour in the pool environment, cause bather and staff eye and respiratory irritation, and corrode the facility's fittings and HVAC equipment.

4. **Reduces fresh water and chlorine consumption.** Chlorine storage and handling requirements also drop due to the much lower Chlorine residual.

Why specify the **Expurgo™ Series**?

1. **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 MP lamps. **We warrant our lamps for 13,000 hours!**

2. **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 output with variations in water temperature, as compared to standard output lamps.

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

4. **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.

5. **The electropolished, 316L stainless steel 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.

6. **A calibrated, ultra stable, UV Sensor monitors the 254nm UV irradiance within the UV Reactor.**

7. **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.

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