

WATER | WASTE - WATER TREATMENT

Gramco



Ultra Violet



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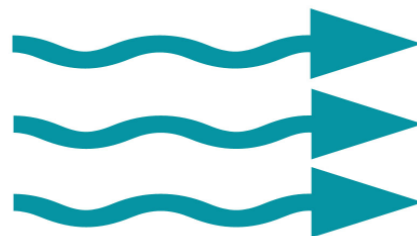
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Ultra Violet

Sterilisation

Private water supplies may contain micro-organisms that can be harmful if consumed. Ultra Violet light is electromagnetic radiation with a wavelength that is shorter than visible light but longer than x-rays. This disrupts the DNA of micro-organisms, preventing them from replicating and thus de-activating their potential for infection. Ultra Violet systems provide a safe, clean and economical method for sterilisation of water supplies.



Silver range



Silver 'Basic' Range

The Silver range of UV units provide disinfection across a range of flow rates from 0.5m³/hr to 3.4m³/hr. These flow rates are based on a dosage rate of 30mj/cm².

The highly effective electronic lamp controller provides a constant output current and has a universal power input (100-240V, 50-60Hz), as well as visually displaying remaining lamp life and total days of operation. All this is packaged in a watertight case and is fully CE compliant.

The Silver range chambers are manufactured from polished, 304 stainless steel, pressure rated tube. Lamp change is easily accomplished without interrupting the water flow and the over-moulded connector can be removed without any additional tools.

Platinum range



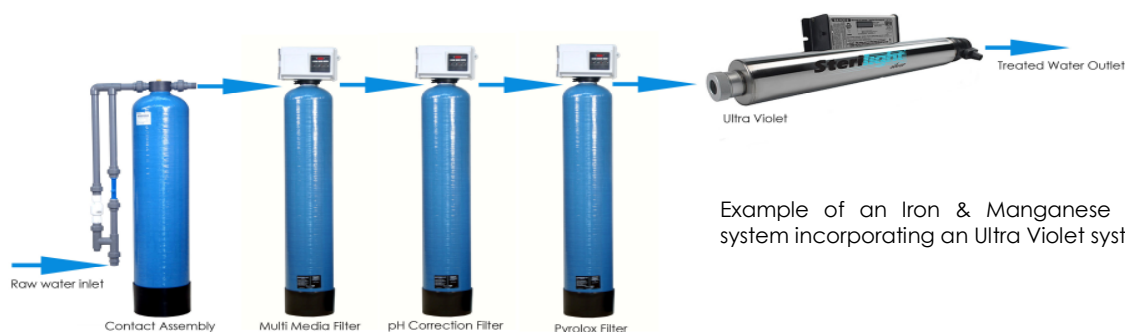
Platinum SP Range

The Platinum SP range of UV units is ideal for use in a range of commercial & industrial applications, providing disinfection across a range of flow rates from 4.1m³/hr to 11.8 m³/hr at a dosage rate of 30mj/cm²

The controller, as well as having the features of the Silver units also benefit from flow pacing and a UV intensity sensor. Flow pacing allows the unit to run at half power during conditions of no flow and full power when the water is running. This allows the system to operate with minimal power requirements and reduced heat build-up. The optical sensor monitors the wavelength of UV and will trigger an alarm to indicate that the water or quartz sleeve is unclean. The system comes with a set of volt free contacts allowing for external connection to a remote device such as a solenoid valve. Using high-output (HO) low pressure UV lamps, coupled with a 304 stainless steel axial flow reactors. Platinum systems offer a compact installation footprint, yet provide a high flow throughput.

Pre-treatment

The water entering a UV chamber should be as clear and particulate-free as possible. For this reason, even with mains water, we suggest using a pre-filter capable of filtering down to at least 25 microns. This could be a backwashable multi media filter, a cartridge filter or a Cintropur bag filter.



Example of an Iron & Manganese removal system incorporating an Ultra Violet system

Ultra Violet

Silver Range Technical Table

Model	S1Q-PA	S2Q-PA	S5Q-PA	S8Q-PA	S12Q-PA
Flow rate at 30mj/cm2	0.5m3/hr	0.7m3/hr	1.4m3/hr	2.3m3/hr	3.4m3/hr
Length of tube	38.1cm	43.2cm	53.3cm	90.0cm	94.0cm
Width of tube	6.5cm	6.5cm	6.5cm	6.5cm	8.9cm
Controller	19 x 8.1 x 6.4cm				
Port size	1/4"MNPT	1/2"MNPT	3/4"MNPT	3/4"MNPT	1"MNPT
Weight	2.3kg	2.7kg	3.2kg	4.5kg	5.4kg
Volts	100—250V 50-60hz				
Power consumption	16w	19w	26w	39w	42w
Lamp power	14w	17w	24w	37w	39w
Ambient temperature	2-40C				
Max pressure	8.62 bar				
Audible lamp failure	Yes				
Visual power on	Yes				
Chamber material	304 stainless				
Visual life remaining	Yes				
Total running time	Yes				

Platinum Range Technical Table

Model	SP320-HO	SP410-HO	SP600-HO	SP740-HO	SP950-HO
Flow rate at 30mj/cm2	4.1m3/hr	5.4m3/hr	8.0m3/hr	9.5m3/hr	11.8m3/hr
Length of tube	57.9cm	66.0cm	78.0cm	100.1cm	113.0cm
Width of tube	8.9cm				
Controller	25.4cm x 11.4cm x 5.3cm				
Port size	1" MNPT				
Weight	6.8kg	7.7kg	8.6kg	10.9kg	13.1kg
Volts	100—250v 50-60hz				
Power consumption	42w	52w	73w	88w	110w
Lamp power	36w	45w	65w	80w	100w
Ambient temperature	2-40C				
Max pressure	8.62 bar				
Chamber material	304 stainless				
Communication port	Yes				
Diagnostics	Yes				
Audible lamp failure	Yes				
Safety interlock	Yes				
Dry contacts	Yes				
Flow pacing	Yes				
UV intensity sensor	Yes				
Elapsed time meter	Yes				