microlene

UV

Steriflo Ultra Violet
Water Tretment Systems

Model Number: UV250

Applications

Davey Steriflo domestic UV water disinfection systems are a safe and effective means of eliminating harmful bacteria from drinking water supplies. They can also be used for small scale waste water disinfection at reduced flow rates.

- No chemicals
- No taste
- No by-products
- Impossible to overdose

Benefits of Microlene's Steriflo UV Water Treatment System

UV is a common practice used for water disinfection on a wide range of water sources. Used by many local councils, food, dairy and brewing industries, UV is a very effective means of ensuring water is safe for consumption.

The UV light generated by the lamp in a Davey Steriflo unit (254nm) penetrates most micro-organisms present in the water supply, damaging their ability to reproduce and cause illness. Organisms exposed to UV are no longer viable to cause infection nor can they be counted on a culture plate.

Water treated by the UV system should be very clean and free of particulate matter. This can be achieved by incorporating two stage pre-filtration down to one micron if used for drinking water supplies. Cysts such as Giardia and Cryptosporidium are best managed using this pre-filtration and disinfection process.

The Davey Steriflo is designed to provide many years of reliable operation at an economical price. Suitable for potable water and food industry use, all wetted components are also USFDA listed.

Steriflo systems are designed for continuous operation treating water up to 40°C. Provided the chamber is full of water, the unit can handle flows from zero up to the design flow rate, based on very good water clarity. If water clarity cannot be improved, flow should be reduced accordingly or a larger flow UV model selected.

The L shaped chamber design offers improved water flow characteristics and is manufactured from 316 stainless steel for cleanliness and durability, handling water pressures up to 860kPa.

The larger flow UV250 models are a U shaped chamber including viewpoint and the UV250 is manufactured from 316 stainless steel.

The power supply should be mounted in a dry location. 1 metre of lead to the lamp is provided.

The Steriflo can be installed horizontally or vertically and pipework should ensure that the chamber stays full of water. If horizontal, the outlet should point upwards, if vertical the outlet should point horizontally. Mounting brackets are provided for easy installation.

If the unit has been switched off, a 2 minute lamp warm-up time is required before accessing water. New lamps offer full UV output after 24 hours of operation and are single ended for ease of servicing and connection.

Disassembly for cleaning of the quartz sleeve is quick and user friendly with positive sealing at both ends.

Warning: UV light is harmful to eyes and exposed skin. A safety notice is included with the operating instructions. NEVER LOOK AT A UV LAMP WHEN IT IS SWITCHED ON.

Pre-treatment (drinking water)
Pre-filtration is normally required to ensure particles do not shield micro-organisms from the UV light. Minimum sand filtration or 20 micron cartridge filtration is preferred. If cysts like Giardia or Cryptosporidium are present 1 micron filtration is required for drinking water taps.

Microlene Steriflo UV System

Operating Limits			
Maximum effective flow (clean water)	250 lpm		
Head loss @ maximum flow	<0.5 metres		
Min/max pressure *Installation prior to the pump is not recommended.	0kPa*/ 860kPa		
Treatment chamber test pressure	1035kPa		
Min/max water temperature for lamp effectivity	8°C/ 40°C		
Max ambient temperature	50°C		
Water quality is extremely important for optimum UV performance. Maximum recommended parameters are as follows:			
Iron:	<0.3 mg/l	Hardness:	<120 mg/l
Turbidity:	<1 NTU	Manganese:	<0.05mg/l
Tannins:	<0.1 mg/l	UVT:	>75% at 20°C

Note: If stated parameters are exceeded pre-filtration is required. UVT of the water can be tested by your local dealer or by undertaking an appropriate water test.

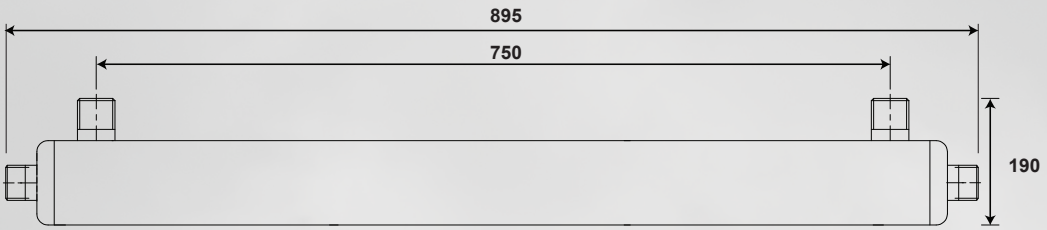
Electrical Data	
Voltage/frequency (std)	230-240V/50Hz
Power consumption	170W
Lamp power	130W

Materials of Construction	
Part	**Material**
Chamber	316ss
Number of lamps	2
Number of sleeves	2
Sleeve material	High purity quartz
Number of o-rings	4
Oring material	EPDM rubber
Design lamp life	9000 hours (1 year continuous)

Power Supply	
Fuse	1A
Protection rating	For use under cover IP24
Material UV50/70/250	Polyester powder coated steel
Mains on indicator	Orange
Visible alarm indicator	Red
Audible lamp failure alarm	In-built

Note: Water quality is extremely important for optimum performance of your UV system. To ensure high transmissibility of UV into the water, cleaning or replacing of any pre-filters and the quartz sleeve every 3 - 6 months subject to water quality is recommended.

Dimensions (mm)



Inlet size	50mm (2") BSP Male
Outlet size	50mm (2") BSP Female
Treatment chamber weight	6.0kg
Treatment chamber mounting brackets	Stainless steel fixed
Power supply enclosure dimensions (mm)	330 x 180 x 65
Power supply enclosure weight	1kg
Interconnecting cable supplied	1m standard
Power supply lead	1.7m with 3 pin plug

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This literature is not a complete guide to product usage. All images provided in this document are for illustration purposes only. Further information is available from your Davey Dealer, Davey Support Centre and from the relevant product Installation and Operating Instructions. Must be read in conjunction with the relevant product Installation and Operating Instructions and all applicable statutory requirements. Product specifications may change without notice.
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