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PROSEP
FILTER SYSTEMS LTD

INFORMATION SHEET

UV PRO RANGE

Ultra Violet Steriliser

General Description

The UV-Pro range of ultra violet sterilisers are versatile units designed to kill waterborne bacteria using the proven method of exposure to ultra violet light.

Features

All UV-PRO systems incorporate the latest high frequency lamp driver circuitry with lamp operating / failure warning lights, audible alarm, hours run display and countdown timer for lamp life.

Construction; 304 mirror finish stainless steel,

8000 hour life high output UVC lamps.

Location

The chamber should be mounted in a location allowing sufficient room at the end of the unit to withdraw the lamp. If this is not possible use a flexible hose set allowing the chamber to be unclipped from its mounting brackets for service and lamp change.

Mount the chamber using the clips supplied, the control box should be mounted on the wall in a suitable location adjacent to the chamber in a position that will allow free ventilation and where it will not get wet. You should not mount the control box underneath the UV chamber as it is possible for condensation to drip from below the chamber.

The unit should be the last treatment of the water before consumption. It should treat all potable water supplies. If treated water is to be stored the storage header tank should be fitted with a close fitting lid and the overflow protected with a fly screen. (Water by-law 30). Tanks should only hold sufficient water for a few hours use. The UV should be installed after any water storage tank.

Installation notes.

Supply voltage	230/240 VAC 50 hertz
Supply fuse protection	3 A
Maximum ambient temperature	30 deg C

Assembly

When the chamber has been suitably fixed in the required location the quartz sleeve should be installed. Great care should be taken; the sleeve is very delicate and particularly vulnerable at the ends. Carefully slide the sleeve into the chamber taking care to avoid sliding the sleeve along the chamber wall. Push a rubber sealing O-ring on each end of the sleeve; ensure the sleeve protrudes an equal amount at each end of the chamber and install the gland nuts and tighten securely. After the system has been filled and is under pressure re-check the gland nuts for tightness. The UV tube can now be slid into the quartz sleeve and connected to the four pin connector, finally push the cover into place.

Electrical installation

Responsibility lies with the installer to ensure that correct installation procedures and local regulations are followed. In if doubt consult a qualified electrician.

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for all your filter requirements

Plumbing installation

Although the chamber can be mounted at any angle, the outlet connection should always be uppermost to prevent air locks in the chamber. When mounted vertically the top mounting clip should be positioned underneath the top connection to support the weight of the chamber. If possible a drain tap should be fitted at the lowest point to allow the chamber and connecting pipe work to be drained for service. If there is any possibility that the drawdown on the system may exceed the peak flow rate for the unit a flow regulator should be fitted.

Safety

Do not operate the unit if the tube end connectors or cables are damaged in any way.

ULTRA VIOLET LIGHT IS HARMFUL TO ALL LIVING TISSUE. NEVER STARE AT THE LIGHT SOURCE OR ATTEMPT TO OPERATE THE TUBE OUTSIDE THE CHAMBER. EXPOSURE TO ULTRA VIOLET LIGHT CAN CAUSE CONJUNCTIVITIS AND ARRHYTHEMIA.

Water requirements

Correct operation of the UV steriliser is dependent upon several factors.

The water flow must be free from suspended particles otherwise bacteria will be shielded from the effects of the UV light. A 5 micron pre-filter should be installed at the inlet to the unit.

Dirt on the quartz sleeve will seriously impair the performance of the steriliser. The sleeve should be checked and cleaned periodically to remove dirt and scaling. Regular replacement of the pre filter will keep the sleeve cleaner. The ability of water to transmit UV radiation depends upon its chemical constituents. Water containing iron absorbs UV radiation and iron oxide may precipitate on the quartz sleeve. Both will reduce system performance.

Flow rates and spares

The flow rate is another important factor in ensuring the performance of the UV system; flow rates should not exceed the stated flow.

		Lamp	Quartz	Seal kit	
Model UV-PRO1	21 watt UV system	23 lpm	UVSE1LAMP	PRACUVQS21W	CHACSKSE
Model UV-PRO 2	28 watt UV system	30 lpm	UVSE2LAMP	PRACUVQS30W	CHACSKSE
Model UV PRO3	40 watt UV system	45 lpm	UVSE3LAMP	PRACUVQS40W	CHACSKSE

Lamp life

The lamp will continue to emit sufficient Ultra Violet for efficient operation of the unit for a period of 8000 hours. The lamp should always be replaced at this interval. Failure to change the lamp at the required service interval will result in insufficient UV dose for bacterial killing.

Quartz sleeve

The quartz sleeve should be checked and cleaned periodically. To remove the quartz sleeve, disconnect the mains electricity supply and remove the lamp. Switch off the water supply to the unit and allow the chamber to drain. Unscrew each of the gland nuts and remove the O ring seals and withdraw the sleeve. When replacing the sleeve care should be taken not to allow the sleeve end to be damaged. Do not overtighten the gland nut.

Pre filter

A good quality pre filter is essential for correct system operation; these can be ordered through your supplier. Replace filters as required. Never try to wash a dirty filter unless it is of the sponge type; always fit a new filter element.

Electronic high frequency power supply and alarm function.

The electronic power supply monitors the UVC lamp and will sound an alarm if the lamp fails.

Lamp operating; the green indicator lamp illuminates.

Lamp failure; the buzzer sounds and the red indicator lamp illuminates.

An LED display gives hour run since lamp installation. There is also a countdown timer showing the number of days remaining.

At the end of the present lamp life the alarm will sound. You can override the end of lamp life alarm for a maximum of 1 week (4 resets)