UV Disinfection Systems

UV light is effective against contaminants, such as bacteria, viruses, mould spores, algae and other microorganisms, preventing growth and reproduction. If left untreated, these organisms will remain in water, producing a bio-film coating throughout the system; harbouring more bacteria and making the water less safe to drink.

UV Systems

The unique natural properties of ultraviolet light have the ability to inactivate bacteria by destroying (or disassociating) the DNA of harmful organisms. This act of destroying the DNA means that the organism is unable to function, which in turn disables the replication process and prevents the ability to multiply and cause illness.





How to Select your UV System

SPECTRUM Sabre systems have been designed to provide an effective dosage of 30mJ/cm² at the stated system flow rate. Each system is tailored to provide both a higher or lower dosage at different flow rates.

Product	Flow rate in lpm (m³/hr)			
	@ 16 mJ/cm ²	@ 30 mJ/cm ²	@ 40 mJ/cm ²	
SUV-S-4-1/4	6 (0.36)	3.8 (0.24)	3 (0.18)	
SUV-S-8-1/2	13 (0.78)	7.6 (0.48)	5 (0.3)	
SUV-S-30-3/4	52 (3.1)	30 (1.8)	23 (1.4)	
SUV-S-57-1	100 (6.0)	57 (3.4)	43 (2.6)	
SUV-S-132-2	232 (13.9)	132 (8.0)	100 (6)	
SUV-S-250-2	441 (26.5)	250 (15)	191 (11.5)	



Recommended Pre-filtration System





Pre-Filtration

Effective pre-filtration is essential before a UV system to maximise the exposure of microorganisms to disinfecting UV light. Organisms attached to suspended solids, such as dirt, sediment and debris, can be protected from UV light as they pass through the system by a phenomenon known as 'shadowing'. Fileder recommends using five micron pre-filtration prior to all UV system installations, to reduce the possibility of shadowing and optimise system performance.

Designed primarily for use as an excellent safeguard in private water supplies and UV applications, the specialist antimicrobial spun (AMS) prevents premature blocking from biofilm. Using impregnated silver ion technology, the AMS inhibits the growth of trapped bacteria and micro-organisms. The chart (see right) is a guide to the typical prefiltration system required.



Microorganisms (green) attached to particulate, protected from UV light (blue) by shadowing.

Product	Flow rate @ 30 mJ/cm ²	Housing	Cartridge
SUV-S-4-1/4	3.8 (0.24)	EFHS-PK-1-10-1/4	AMS-5-97/8
SUV-S-8-1/2	7.6 (0.48)	EFHS-PK-1-10-3/4	AMS-5-97/8
SUV-S-30-3/4	30 (1.8)	EFHS-PK-1-20-3/4	AMS-5-20
SUV-S-57-1	57 (3.4)	SFH-SPC-3-20-2-GP-ML	AMS-5-20
SUV-S-132-2	132 (8.0)	SFH-SPC-5-20-2-GP-ML	AMS-5-20
SUV-S-250-2	250 (15)	SFH-SPC-5-40-2-GP-ML	AMS-5-40

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High Dosage UV Systems

SPECTRUM

SPECTRUM Sabre 4 and 8

Residential & Light Commercial 7.6 lpm

These compact, single lamp systems are designed for smaller commercial applications, providing effective microorganism control in point-of-use applications such as private drinking water and tank-loop systems.



- Supplied with power ballast including audible and visual alarm
- Single lamp design for simple maintenance
- High quality stainless steel reactor chamber





Reactor Chamber 304 Stainless Steel

Sleeve Quartz

O-Rings Silicone (SUV-54/8/30) Viton (SUV-557/132/250)



UV DISINFECTION SYS



Y '

Operating Temperature Range 2-40°C

Frequency 2-40°C

WRAS

Operating Pressure Range 0.7-6.8 bar

Lamp Life 9,000 hours

Voltage Power Supply 240V / 50 Hz

	Flow (lpm)	Port Size (")	Lamp (W)	
SUV-S-4-1/4	3.8	1/4	10 x 1	
SUV-S-8-1/2	7.6	1/2	14 x 1	

Typical Applications

• Domestic private water supply

- Aquatics
- Tank-loop disinfection

Part Number & Dimensions

Code	Dimensions			
	А	В	С	D
SUV-S-4-1/4	245	168	75.8	50.8
SUV-S-8-1/2	310	235	95.5	63.5

C