UV WATER PURIFIER AND STERILIZER

Snowate

Hengshui Snowate Environmental Technology Co., Ltd.

2024

EDITION FOR
SNOWATE CATALOG

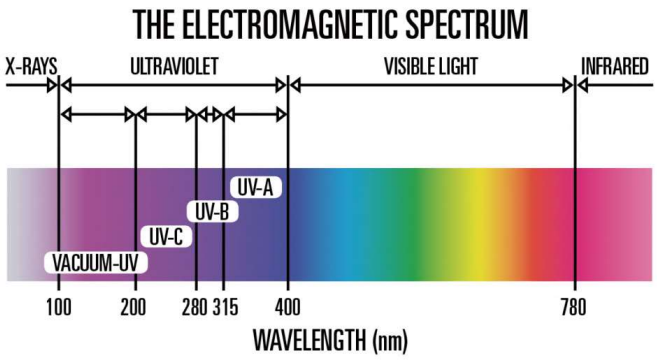
www.snowate.com

WHY SNOWATE?

As a professional supplier of UV water sterilizer, SNOWATE has been committed to providing good quality and cost-effective UV systems. SNOWATE UV disinfection has been exported more than 82 countries.

What is Ultra Violet (UV) light?

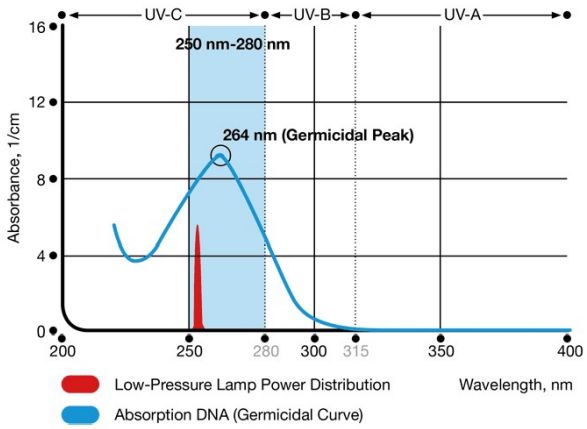
When UV light meets a microorganisms it penetrates its DNA, destroying the adenine and thymine bonds effectively inactivating bacteria, viruses, spores and moulds, by stopping them from multiplying and causing infection.

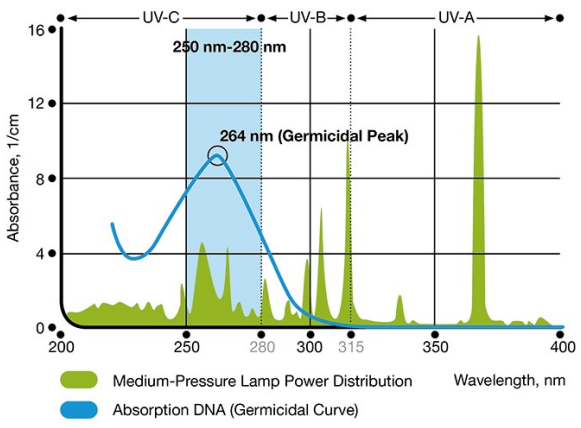


There are two mainstream UVC lamp technologies used in Industrial and Municipal applications:

Amalgam lamps offer a monochromatic (Single wavelength) output at 254nm with 30%+ conversion of electricity to UVC. These lamps are efficient but their energy density is low which means they are relatively low power (100 to 800 W) and long. They are used when efficiency is key, but larger multi-lamp systems can be bulky and difficult to maintain.

Medium Pressure lamps offer a polychromatic output across a wide spectrum. This can be useful to match the sensitivity of a target organism, but they have a lower energy efficiency (~15%). Conversely they are high powered (1kw to 24KW) and short which means you need less lamps in a smaller reactor.





BENEFITS OF
USING LOW PRESSURE OR MEDIUM PRESSURE LAMPS

		Low Pressure	Medium Pressure
Low power use	Low pressure lamps are more efficient, but are lower powered	✓	
Efficient at higher flow rates	Medium pressure lamps run at a much higher power density to low pressure lamps so one medium pressure lamp can treat a much higher flow than a single low pressure lamp.		✓
Low power use	Medium pressure lamps for the same UV out put are around a third of the length of a low pressure lamp and so systems are much smaller.		✓
Lamp life	Low pressure lamps typically last 9000 to 15000 hours while the latest generation medium pressure lamps last about 9000 hours.	✓	
Save on maintenance	For the same conditions medium pressure UV systems generally have a smaller footprint and use fewer lamps than Low pressure system.		
Disinfection efficiency	Medium pressure has a higher UV light energy output and not only breaks a microbe's DNA ,bond but also ruptures the cell wall. Some microorganisms are much more sensitive to these multiple wavelengths produced by medium pressure lamps.		✓
High water temperature	Medium pressure UV systems are hardly affected by the water temperature, whereas low pressure can only operate between 5-40℃		✓
Low running temperature	Low pressure lamps run at about 120℃, whereas medium pressure runs at 600℃ to 800℃	✓	
Status 'ON' after no water flow	In many cases LP systems can operate for longer without any water flow than MP systems.	✓	

These two lamp technologies offer a choice of reactor design which allows us to weigh the pros and cons of size and efficiency for a given application.

As we provide both types of lamp we are uniquely placed to assess these competing characteristics to arrive at our “Application Optimised UV” solutions.

Voltage
110V/220V 50/60Hz

Alarm
Audible and visual

Indicator
Lamp operation and failure

Optional digital display ballast

FEATURES

- High quality UV ballast meets international certification such as CE, UL standard
- Reliable High-performance UV lamp, rigorously tested to provide consistent output over the entire lamp life
- Controller will go into alarm if the lamp fails
- UV chamber with great welding process which enables to pass 1.04MPa 100,000 times water hammer test
- Perfect for a wide range of single-faucet, point-of-use or low flow point-of-entry water treatment solutions in homes, cottages, or OEM applications.

WATER QUALITY REQUIREMENT

- Maximum operating pressure 0.8MPa(116psi)
- Ambient water temperature 2-40°C(36-104°F)
- Iron<0.3ppm(0.3mg/L)
- Hardness<7gpg(120mg/L)
- Turbidity<1NTU
- UV transmittance>75%
- UV dose≧30mJ/cm²

Model	Flow rate		Reactor dimension	In/outlet port BSP/NPT	Package size cm	UV Lamp code	Lamp power	Quartz tube code	Ballast code
	m³/hr	GPM							
SSE-004	0.07	0.3	200 X 50.8mm	1/4"female	47 X 39 X 51 /15sets	UVT5-404	4w	QT5-185	EB-G6
SSE-006	0.1	0.5	260 X 50.8mm	1/4"female	47 X 39 X 51 /15sets	UVT5-406	6w	QT5-245	EB-G6
SSE-012	0.2	1	315 X 50.8mm	1/4"female	52.5 X 39 X 52 /15sets	UVT5-412	12w	QT5-300	EB-G16
SSE-016	0.4	2	375 X 63.5mm	1/2"male	57 X 40 X 52 /15sets	UVT5-416	16w	QT5-360	EB-G16
SSE-025	1.4	6	595 X 63.5mm	1/2"male	79.5 X 28 X 41.5 /8sets	UVT5-425	25w	QT5-580	EB-G28
SSE-030	1.8	8	915 X 63.5mm	3/4"male	119 X 28 X 41.5 /8sets	UVT5-430	30w	QT5-900	EB-G35
SSE-035	2.0	9	955 X 63.5mm	3/4"male	119 X 28 X 41.5 /8sets	UVT5-435	35w	QT5-940	EB-G35
SSE-040	2.3	10	890 X 63.5mm	3/4"male	112.5 X 28 X 41.5 /8sets	UVT5-440	40w	QT5-875	EB-G55
SSE-055	2.7	12	955 X 63.5mm	3/4"male	119 X 28 X 41.5 /8sets	UVT5-455	55w	QT5-940	EB-G55

* Chamber material: 304 SS (316L is optional); Philips uv lamp is optional

SDE SERIES

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