

# WHOLE HOUSE ULTRA VIOLET WATER STERILISERS



**SPRINGFRESH**  
N A T U R A L L Y F R E S H

## INTRODUCTION

Bacteriological contamination can be present in all water supplies. It is recommended that no surface waters be consumed without adequate microbiological treatment, regardless of how the water is tested. More than 60% of diseases are caused due to contaminated water. This water may be the water you drink or the water you use for your products.

The Ultra-Violet System is the modern way of substantially reducing the need for strong and corrosive chemicals such as Chlorine and Bromine for removal of pathogens and sterilising the water. Although drinking water is commonly treated with Ultra-Violet Sterilisation, the water used for commercial applications could also contaminate the body due to the presence of bacteria, viruses and pathogens. The Commercial Ultra-Violet Steriliser could eliminate such bacteria and viruses thus making the water safe.

## BENEFITS

Ultra-Violet substantially reduces the chemicals being used in your water supply. It is directly plumbed into your water supply thus treating all the water that comes into your house, offering the following benefits:

- Nature's way to protect your water without the addition of any harmful chemicals.
- Does away with use of chemicals many of which have been proven to be carcinogenic.
- Greatly reduces maintenance and operating costs.
- Less handling of strong harsh, concentrated chemicals
- Eliminates skin and eye irritation
- Ensures bacteria and virus free water which will not be the cause of water borne diseases

## SAFETY

The use of Ultra-Violet light for aqueous microbiological disinfection has decades of proven performance in Drinking Water Systems all over the World. The Commercial Ultra-Violet Steriliser uses the same principles to expand the technology into primary treatment source for your whole plant. The Ultra-Violet Lamps are enclosed in a sealed Stainless Steel Container. The system is fitted with visual indicators to ensure that the customer is warned of any lamp failure, if any. The design of the system ensures that the lamps can be changed without shutting down the system and the water contact surfaces can be easily cleaned to ensure maximum effectiveness.

## HOW IT WORKS

Spring Fresh Commercial Ultra-Violet system protects your water Nature's Way by cleansing Ultra-Violet light. Microorganisms encompass a wide variety of unique structures and can be grouped into five basic groups: bacteria, virus, fungi, protozoa and algae. In simplistic terms, a



microorganism is made up of the cell wall, cytoplasmic membrane and the cell's genetic material, nucleic acid. It is the genetic material or DNA (deoxyribonucleic acid) that is target for UV light. The UV lamp emits a powerful ultraviolet light at 253.7 nm wave length, which penetrates through the cell wall and cytoplasmic membrane, and causes a molecular rearrangement of the microorganism's DNA which turns prevents it from reproducing, If a cell cannot reproduce, it is considered dead.

## FEATURES

- Food Grade Corrosion resistant Stainless Steel Chamber ensures maximum reflectance of Ultra-Violet rays within the system thus optimising results.
- End fittings can be easily opened for cleaning of the system and for removal of any deposition on the Quartz Tubes and for changing of the Quartz Tubes on solarization.
- End fittings are designed for quick change of Ultra-Violet lamps without shutting down the system.
- Visual indicator lamps are provided to warn the customer of any failure of the lamps.
- Electronic Choke ensure long life of the Ultra-Violet lamps.
- Quartz Sleeves for optimum operating temperatures.
- Energy efficient Quartz Tubes are used to ensure minimum wastage of UV Strength.
- 99.9% destruction of bacteria and viruses at rated flow.
- High quality lamps are used to ensure that Ultra-Violet light of the correct frequency is emitted for maximum sterilisation of the water.

## SPECIFICATIONS

Model No.	SSUV7.5	SSUV19	SSUV30	SSUV45	SSUV90	SSUV150	SSUV400
Flow Rate (litres/hour)	450	1140	1800	2900	5400	9000	24000
Lamp Wattage	21 W	25 W	36 W	39 W	78 W	156 W	312 W
Max. Operating Pressure	125 psi	125 psi	125 psi	125 psi	125 psi	125 psi	125 psi
Dimensions of Chamber:							
Diameter (mm)	65 mm	65 mm	65 mm	87 mm	150 mm	100 mm	250 mm
Length (mm)	390 mm	390 mm	780 mm	780 mm	780 mm	780 mm	780 mm
Inlet/Outlet size	½"	¾"	¾"	1"	1"	1 ½"	2"
Quartz Sleeve	Yes (1)	Yes (1)	Yes (1)	Yes (2)	Yes(3)	Yes (4)	Yes (8)
UV Chamber material	SS 304	SS 304	SS 304	SS 304	SS 304/316	SS 304/316	SS 304/316

## APPLICATIONS

- Surface Water
- Ground Water
- Schools
- Farms
- Electronics
- Dairies
- Bottlers
- Restaurants
- Pharmaceuticals
- Aqua-culture
- Marine
- Cosmetics
- Bakeries
- Food products
- Photography
- Private wells/Tubewells
- Hospitals
- Water Systems
- Camp Grounds
- Food Industry
- Breweries
- Laboratories
- Apartments
- Hotels
- Cottages

- Low power consumption ensuring that the power cost per litre is below 0.01 paisa per litre or an average of 20 paisa per day for 2,000 litres per day consumption.

## MAINTENANCE

Ensure that the Ultra-Violet Chamber is free for dirt by flushing the system through the flush valve provided. Keep the Quartz Glass clear by cleaning the glass and keeping it free from hard water scale & iron deposits, if any. There are no moving parts and the chamber is made of Food Grade Non corrosive Stainless Steel and hence

## INSTALLATION

The Commercial Ultra-Violet Sterilisation System can be easily installed into the main line on the riser before the overhead tank. It may alternately be installed on the main header delivering water from the overhead tank or on the mains delivering water to the unit. In case of booster is used to deliver water to the overhead tank, it may be installed after the pump on the main line and the electrical may be connected with the switch of the pump to ensure that the unit is always on when the pump is switched on.

## WARRANTY

The Stainless Steel Chamber is guaranteed against any manufacturing defects for a period of 5 years. The Ultra-Violet Generator has a warranty on manufacturing defects. The Ultra-Violet Germicidal lamps have a life of approx. 6,000 to 9,000 hours, subject to quality of electrical supply.

### Spring Fresh Water Treatments Limited

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