Suitable for:

- Healthcare Sector
- Hospitality Sector
- IT Sector
- Industrial Sector
- Educational Institutions
- Commercial Spaces
- Large Residential Spaces

SteraSure-500

Mobile Air Sanitizer – UV with PCO/PHI Technology and Filters

UVGI is the use of ultra-violet (UV) energy to kill or inactivate microbes (viral, bacterial and fungal species). UV energy attacks the DNA of a living cell, penetrating the cell membrane, breaking the DNA structure of the micro-organism, inhibiting reproduction. UVC is effective in destroying biological contaminants and odors such as mold, bacteria and viruses. UVGI has been used as a supplement to mechanical ventilation to inactivate airborne infectious agents to protect the health of building occupants.

The sun delivers specific UV wavelengths that destroy and deactivate chemical contaminants that are introduced into the atmosphere. Our UV lamp produces the same UV wavelength the sun produces. UVC (Germicidal 254nm) and UVV (Oxidizing 187nm) are produced using quartz glass. UVV (Vacuum UV) is used for oxidization; this is the portion of the lamp that destroys chemicals and odours, such as cigarette smoke, VOC's, diesel fumes, formaldehyde, amongst others. Both UV wavelengths work together to destroy thousands of biological and chemical contaminants that continually circulate within the building.

Ultraviolet Solutions

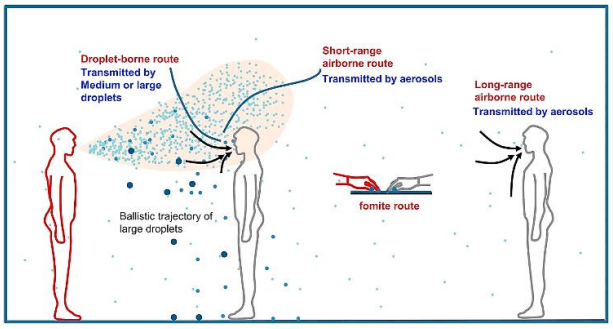
- UV-A — the most abundant in sunlight; responsible for skin tanning and wrinkles
- UV-B — primarily responsible for skin reddening and skin cancer; also used for medical treatments
- UV-C — naturally blocked by the earth's ozone layer and is the germicidal wavelength

Airborne Spread of Infectious Agents

In Indoor Environment

Airborne transmission of infectious agents involves droplets that are expelled by sneezing or coughing or are otherwise distributed into the air. Although the liquid/vapor around the infectious agent evaporates, the residue (or droplet nuclei) may remain in the air for long periods, depending on such factors as particle size, velocity, force of expulsion, particle density, infectivity (*i.e.*, viability of the microorganism when exposed to the environment and its ability to cause infection when a susceptible host is subsequently exposed), humidity, and rate of air flow.

Airborne spread of infectious agents is directly relevant to the airborne route, and indirectly to the droplet-borne and fomite routes.



Small droplets (<5 µm), called aerosols, are responsible for the short & long-range airborne route, and indirect contact route. Large droplets are responsible for the direct spray route and indirect contact route.

SteraSure-500 - Room Air Sanitizers help protect occupants including but not limited to personnel, clients, and patients from infection due to airborne microbes, particularly in crowded or poorly ventilated areas, and in situations where the risk of cross infection is high.

Fitted with germicidal ultraviolet fixtures that effectively destroy airborne microbes including bacteria, mold, and virus in enclosed occupied spaces. UV-C Lamps are completely enclosed within an exposure chamber and are safe for use in every application.

Photo-Catalytic Oxidation (PCO) Technology - UV light interacting with the specialized TiO_2 coating, develops an oxidation reaction. This reaction produces hydroxyl radicals, which react with VOCs thereby breaking them down to carbon dioxide and water.

Advanced Photo-Hydro-Ionized Oxidation (PHI+Plus) Technology - PHI+Plus Cell employs the most advance nanotechnology of specialized multi-metallic oxides and TiO_2 coating on metallic surface and UV lamp for Advanced Oxidation Process (AOP), thereby creating: Hydro-peroxides, super-oxide ions and hydroxide ions. The ions generated in the process are friendly oxidizers, that convert back to oxygen and hydrogen after the oxidation of the pollutant.

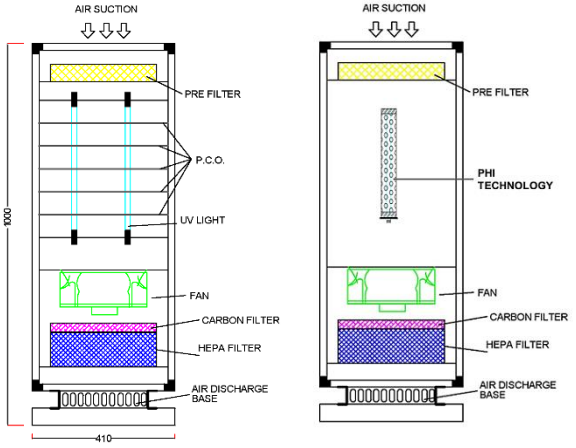
Mobile Unit - The unit is mobile and requires no installation. Roll the unit into the occupied area to be treated and plug into an appropriate power source. During operation, air is drawn into the unit through the opening, located around the top of the unit. The air passes into the exposure chamber, where it is irradiated by UV-C lamps. The air then passes out of the unit, through the exhaust panel, located on the bottom of the unit.

UV-C Lamps and Ballast

- Lamps are instant starting and provide the utmost in quality, sustained output, and longevity
- Electronic ballasts for the operation of ultraviolet lamps, provide high lamp output; are lightweight, efficient, and operate cool for longer life.

Control Panel – allows you to control all the functions of the device and provides information on the display panel.

- Timer setting.
- Control the Fan speed.
- Switching On/Off the UV-C Lamp.



SteraSure-500 Mobile Air Sanitizer – Technical Data

Model	Nominal Capacity (cfm)	Dimensions (cm)			Electrical Current (amps)	Max. Room Area at 4 Room Air Changes/Hr	Max. Room Area at 2 Room Air Changes/Hr
		Length	Width	Height		(Square Feet)	(Square Feet)
ETPL-SA-500	500	41	41	100	1	750 ~ 1,250	1,500 ~ 2,500

- *Model capacity incorporates an estimated allowance for airflow friction loss across filter.*
- *For more capacities, contact factory*

SteraSure-500 Mobile Air Sanitizer Germicidal Lamp Data

UV-C	Lamp Size (mm)		UV Lamp Current	Average Life	Effective Life	Driver
nm	Dia	Length	(mA)	(hrs)	(hrs)	
254	15	287	425	12,000	9,000	Electronic Ballast (PF > 0.95)

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