



Suitable for:

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

SteraAirMini

Mini Air Sanitizer with UVGI, PCO and Filters – For Wall or Roof Mounting

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 which the sun produces. UV-C (Germicidal 254nm) and UV-V (Oxidizing 187nm) are produced using quartz glass. UV-V (Vacuum UV) is used for oxidation; 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

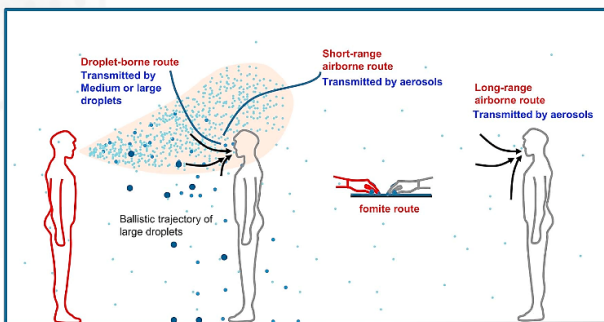
- ◆ UV-A — the most abundant in sunlight; responsible for skin tanning and wrinkles
- ◆ UV-B — primarily responsible for skin reddening and skin cancer; also used for medical treatments
- ◆ UV-C — naturally blocked by the earth's ozone layer and is the germicidal wavelength

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 (<math><5 \mu\text{m}</math>), 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.

SteraAirMini Room Air Sanitizers can 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 which are completely enclosed within an exposure chamber and are safe for use in every application.

Optional Fitment

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

The unit can be fixed on the wall or on the roof. During operation, air is drawn into the unit through the front panel of the unit. The air passes into the exposure chamber, where it is irradiated by UV-C lamp. The air then passes out of the unit, through the exhaust panel, located on the top of the unit.

In the PCO section, UV light interacts with the MMO catalyst thereby producing hydroxyl radicals. Hydroxyl radicals are highly chemically reactive which, breakdowns the VOCs, producing only carbon dioxide and water as by products.

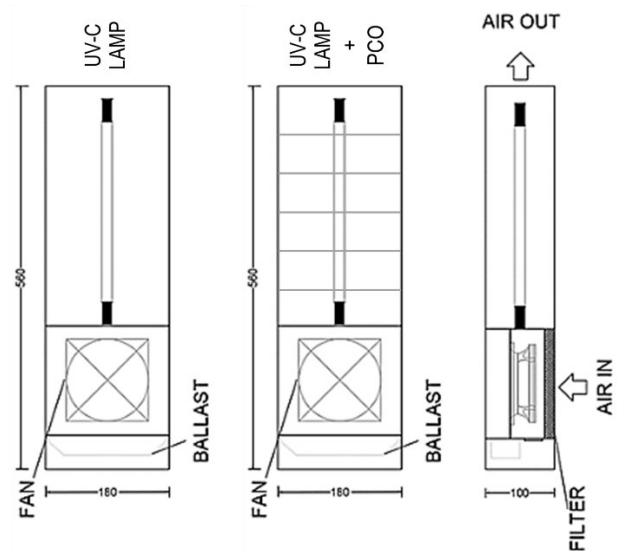
The exhaust panel of the unit protects the room's occupants from ultraviolet exposure, by restricting ultraviolet radiation from passing into the occupied room.

UV-C Lamps and Ballast

- ◆ Lamps are instant starting and provide the utmost in quality, sustained output, and longevity
- ◆ Electronic ballast with preheat start for the operation of ultraviolet lamps; are lightweight, efficient, and operate cool for longer life.

Prefilter - Washable Filter

- ◆ Cost effective, prefilter - washable filter in aluminium frame is provided to trap dust and other particles suspended in the air.



SteraAirMini Air Sanitizer – Technical Data

Model	Air Flow (cfm)	MOC of Casing	Dimensions (mm)			Coverage Area (square feet)	Prefilter
			Length	Width	Height		
EN-SAM-100C EN-SAM-100C+PCO	100	SS-304 Stainless Steel	180	100	560	300 ~ 350	Washable prefilter - aluminium frame

◆ For more capacities, contact factory

SteraAirMini Air Sanitizer Germicidal Lamp Data

UV Type	Wavelength (nm)	Lamp Size (mm)		UV Lamp Wattage (W)	UV Lamp Current (mA)	Lamp Changeout Time (hrs)	Ballast Wattage	Ballast Type
		Dia	Length					
UV-C	254	T5 ~ 15	287	16	425	9,000 ~ 12,000	To suit proposed lamp wattage	Preheat Start

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Due to continuous development, the specifications and product appearance subject to change without prior notice.