

SGVIU1000

Air Purifier & Virus Irradiation Unit

Designed to be installed in offices, gyms and other commercial premises to remove airborne particles and help to destroy viruses including Coronavirus.



ESP TECHNOLOGY

Electrostatic filtration is a method of removing tiny particles from the air, the system works by applying a static charge of around 8000v to particles in the airstream. These particles are then attracted to collector plates which have the opposite electrical potential resulting in them being stripped from the air. Filtration capacity is at a very high efficiency (up to 99%) even with sub-micron sized contaminants such as virus and bacteria.

The filter components used are metal and can be cleaned so there is no filter replacement necessary. A further advantage is that using static force to filter the contaminants provides a very low resistance to the airstream which enables better overall performance.

UVGI TECHNOLOGY

UVGI inactivates micro-organisms by attacking their DNA, permanently destroying and altering the molecular structure, leaving them unable to replicate or grow.

Our UVGI technology incorporates:

- **UV-C lamps are shielded by their module to reduce the collection of dirt on their surface thus extending their optimum efficiency.**
- **The ability to provide the units in simple format or fully monitored with each module of lamps able to provide a local alarm or a BMS signal if in fault.**

Ultraviolet (UV) light is measured in wavelengths with the UVC wavelength within the range of 100 nanometer (nm) to 280 nm emitting highly effective sterilization power. UVC germicidal wavelength at around 260nm is the most effective to kill harmful microorganisms in the air and on surfaces.

Germicidal lamps utilize powerful UVC wavelength to destroy disease causing germs including viruses, bacteria, fungi, protozoa and algae, effectively sterilizing and purifying air, water and surfaces.

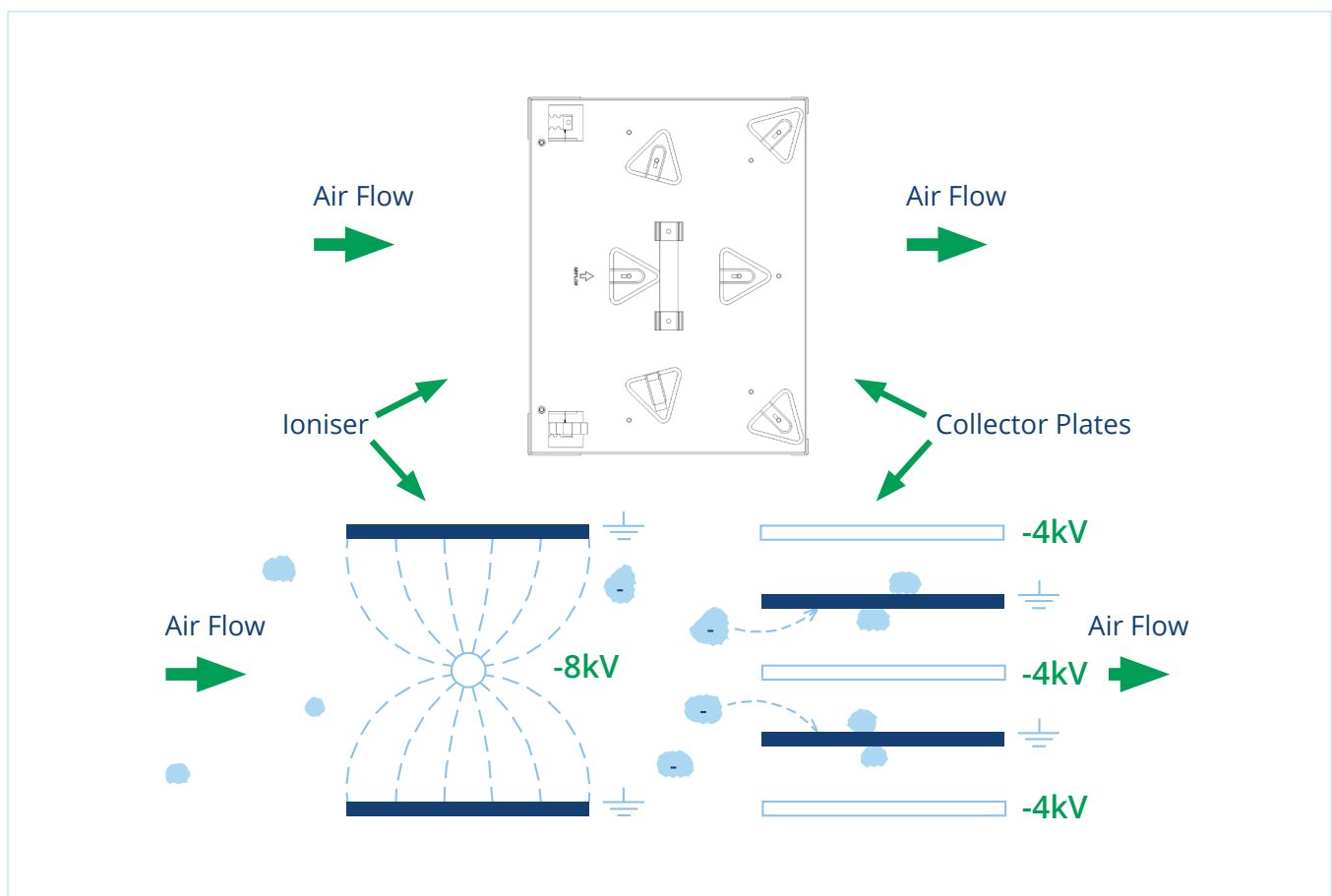
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ELECTROSTATIC TECHNOLOGY

The benefits:

- Eliminates up to 99% of particles
- Filters particles down to sub-micron levels
- Modular in design
- Energy efficient

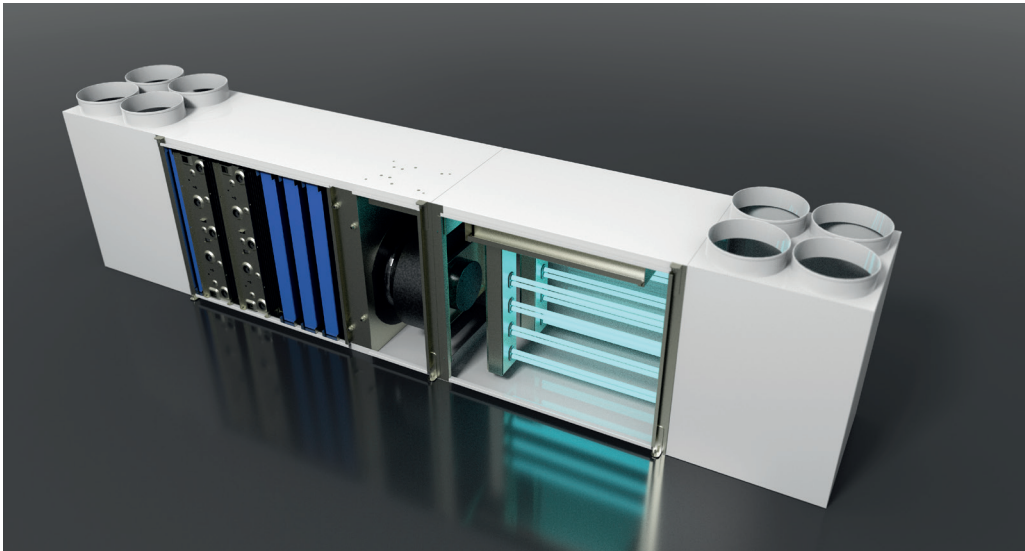


The above diagram shows, in a basic visual, how an electrostatic precipitator works. As air passes into the combined ioniser / collector cell, the particulates in the air stream are polarised. As they continue through the ioniser and between the collector cell plates, the polarised particulates are repelled away from the positively charged plates and attracted to the earthed plates where they stick and so are filtered out of the air flow.

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Inside the unit



Drawings

