

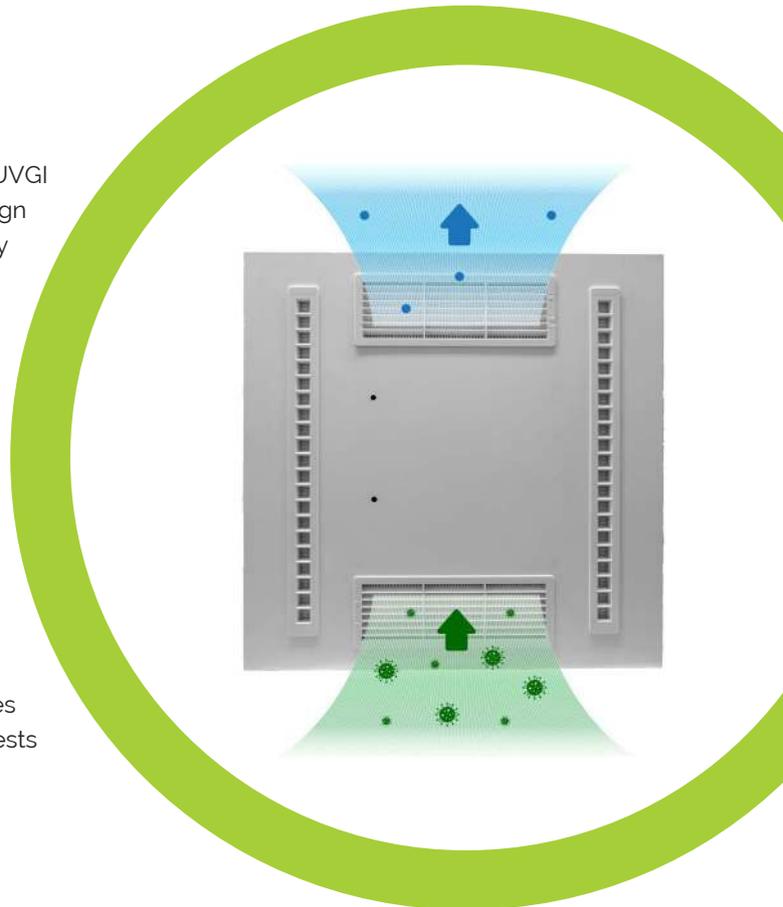
Vent Air Disinfectant System

NEW **PRODUCT**

OC Innovations are proud to introduce the new ceiling Vent-Air UVGI technology as part of their Infection control range. The clever design ensures that the UVGI filtration system can be quickly and easily integrated into any suspended ceiling in any setting. The system effectively is providing a number of air changes per hour by removing airborne bacteria, pathogens, thus protecting anybody within that internal setting.

The Vent air system contains a source filtration, HEPA filtration a small integral fan which draws the contaminated air from the workspace below, passing the air through the filtration and past the UVGI light in order to treat the air before returning into the workspace. All elements of the UVGI are fully enclosed.

Its innovative and energy efficient led UVGI bulbs ensure low cost, long lasting performance. The product is fully tested to achieve up to 99.93% virus and bacterial microbial kill rate for common microbes based on UV-C dosage tables as well as independent laboratory tests carried out by OC Innovations.



Features:



UV Light



Kills Viruses



HEPA Filtration

The panel has two options

1. With integrated Led lighting along with the UVGI Vent-Air system
2. Bank panel along with the UVGI Vent-Air system

OC Innovations UVGI equipment is specially designed and specified to ensure that the UV dosages are equal or greater than those required for Coronavirus treatment.

The Ultra Air UVGI technology has been specifically designed to deliver a 99%+ disinfection rate in the transmission of airborne infection, including SARS Coronavirus.

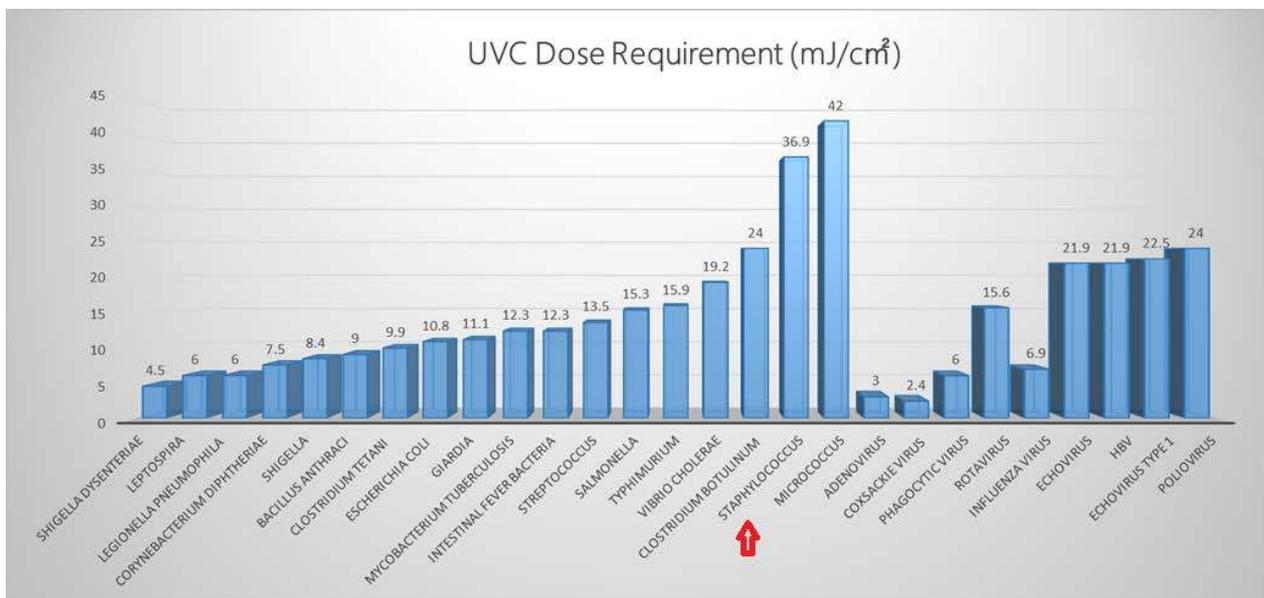
**Kills >99.93%
Virus and
Bacteria**

**>89.1%
formaldehyde
removing rate**

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OC Innovations infection control range of UVGI equipment is designed and specified to ensure that UV-C dosages equal or exceed those required for coronavirus treatment.

The graph below represents the laboratory test accreditation we have achieved with a kill rate of 99.93% on Staphylococcus which requires 36.9 mj/m². Coronavirus falls in to Influenza which typically requires 21.9 mj/m² to kill therefore we can comfortably claim to eradicate Coronavirus on this basis.



Ultraviolet light in the C-band (UV-C) is known as Ultraviolet Germicidal Irradiation (UVGI), due to its high efficiency kill rate against micro-organisms such as viruses, bacteria and other harmful microbes that pose a threat to human health.

A scientific review on a wide range of coronaviruses which includes the SARS coronavirus have concluded that SARS-CoV-2, the virus responsible for Covid-19, is highly susceptible to ultraviolet inactivation. This conclusion is based on a wide-ranging study on the effect of UVGI on coronaviruses.

The table below shows the UV-C dosage required to treat a wide range of coronaviruses and demonstrates that UVGI is effective for surface and air treatment to prevent and control the spread of this highly infectious disease.

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Energy Dosage of UV-c radiation (UV-c dose) needed for kill factor

Organism	90% (1 log reduction) mJ/cm2	99%* (2 log reduction) mJ/cm2	Source
Coronavirus	0.7	2.1	Walker 2007
Berne virus (Coronaviridae)	0.7	2.1	Weiss 1986
Murine Coronavirus (MHV)	1.5	4.5	Hirano 1978
Canine Coronavirus (CCV)	2.9	8.7	Saknimit 1988
Murine Coronavirus (MHV)	2.9	8.7	Saknimit 1988
SARS Coronavirus CoV-Pg	4.0	12.0	Duan 2003
Murine Coronavirus (MHV)	10.3	30.9	Liu 2003
SARS Coronavirus (Hanoi)	13.4	40.2	Kariwa 2004
SARS Coronavirus (Urbani)	24.1	72.3	Walker 2007
Average	6.7	20.1	

Table 1: Summary of germicidal studies focussing on Coronavirus. The 99% kill factor dosage is 3x the value of the 90% dosage based on a review of scientifically published data.

UVGI kills or inactivates microorganisms by attacking their nucleic acids – this is the genetic material also known as DNA or RNA. UVGI causes the nucleic acids to cross-link so that it is unable to replicate and so rendering the microbe unable to grow, divide and proliferate.

UV-C is commonly used for water treatment and is becoming widespread for surface and air treatment in healthcare, commercial and residential buildings. In light of the Coronavirus pandemic, UVGI has a major part to play as an infection control solution which can be used to stop the spread of the disease.

When designing an effective UVGI system, it is important to ensure that the correct UV-C dosage is employed. This is the UV-C light energy which is used to attack the micro-organism. Too little dosage and there is no effect. Too much simply wastes power. When treating surfaces, a low intensity UV-C can be used over a long time. For air treatment, high intensity UV-C is required as the contact time with the moving air is short.

Specification

Unit dimensions (HxWxD) mm 595mm x 595mm 100mm / 595mm x1195mm x100mm

Unit weight 2KG

Power Supply 220 – 240 AC / 50 Hz / 1 Phase

LED replacement 10,000 hrs

Air filter (mm) 195mm x195mm 25mm

Finish Powder coat white gloss

Sterilisation area 60m³/hr