

HIGH PERFORMANCE UVGI EMITTERS THAT DEACTIVATE VRUSES

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LEADERS IN TECHNOLOGY

Blue Star is India's leading HVACR Company. Over seven decades, the Company has developed a wide range of commercial and residential air conditioning and refrigeration solutions that cool, heat and purify air and water; preserve food and medicine: achieve precision process cooling across industries: and even install mortuary chambers. Blue Star's products are on 24x7, high-performance duty across user segments: residential, commercial, industrial, infrastructural, educational, healthcare, hospitality, and entertainment. Blue Star also extends its technical and project management expertise to offer integrated MEP services in many markets across the world, handling Mechanical, Electrical, Plumbing and Fire-fighting contracts.



LEADERS IN INNOVATION

Known for its innovation, Blue Star has always introduced new products and services that serve the immediate needs of the marketplace. For example, Blue Star's Customer Service Group (CSG), which ensures gold standard service to all its customers, also offers air management services such as indoor air quality audits certified by the Indoor Air Quality Association (IAQA–USA) and duct cleaning services certified by the National Air Duct Cleaners Association (NADCA–USA), using sophisticated tools that ensure the removal of moulds, spores, dust mites, bacteria and viruses inside the air circulation systems.

Blue Star now has a wide range of Ultraviolet Germicidal Irradiation or UVGI emitters which raises the Company's air management services to new heights, deactivating viruses like the dreaded COVID–19 virus, not only in air but on various surfaces as well.

UVGI TECHNOLOGY

It is well known that ultraviolet light kills or deactivates bacteria and many viruses. It has therefore been used extensively for many decades now to disinfect drinking water, wastewater, air, pharmaceutical products, and surfaces, against a whole range of pathogens.

UV light has been proven effective on all the hundreds of bacteria and viruses it has been tested upon till date, including several pandemic ones.

UVGI is a fine-tuned process that uses powerful UV light at a wavelength of 253.7nm in a methodical manner to break down microorganisms, or deactivate viral, bacterial, and fungal species, rendering them incapable of multiplying and potentially spreading diseases.



The American Society of Heating, Refrigerating and Air–Conditioning Engineers (ASHRAE) has recognised the health benefits of UVGI and recommends its use to facility managers in their buildings.



UVGI emitters installed in a building AHU

UVGI EMITTERS FROM BLUE STAR

Blue Star's expertise in air management, spanning over decades, and its partnerships with ISO-certified pioneers in the field have resulted in the Company providing a wide range of high performance UVGI emitters that deactivate viruses including the dreaded COVID-19 virus not only in air but on various surfaces as well; across industries, residences, commercial buildings, healthcare, hospitality, laboratories, educational institutions, and government facilities, among others.

These UVGI emitters have been tested and certified by the Environmental Protection Agency (EPA) in USA for their effectiveness in deactivating microorganisms and viruses.

Our range of UVGI emitters include an array of solutions for use in both unitary and centralised air conditioning systems, as well as handheld and mobile units for surface disinfection.



Portable UVGI emitter

COVID-19 AND UVGI EMITTERS

Viruses, like the novel coronavirus that causes the COVID-19 infection, spread within enclosed spaces when infected people cough or sneeze and exhale the virus into the atmosphere, and others inhale them. In air conditioned spaces, the virus can stay airborne long enough to be drawn into the circulation system and be expelled elsewhere, onto other occupants.

Based on research conducted by the Center of Disease Control (CDC), US, National Center for Biotechnology Information (NCBI), US and the EPA, it has been found that UV radiation is effective in limiting the spread of severe acute respiratory syndrome (SARS) and the COVID–19 virus belongs to the same family. ASHRAE also cites UVC as one of the control strategies that may help avoid transmission.

The new range of UVGI emitters from Blue Star is designed to kill the virus within the air circulation system, thus keeping the air within the air conditioned space disinfected. High doses of UVC in the airstream can safeguard against airborne viruses. Our UVGI emitters have control mechanisms to stop this virus spread. For the most effective microbial control, our UV germicidal emitters are installed on the supply side of the system, downstream from the cooling coil and also above the drain pan. Another advantage is that our UVGI emitters deliver the highest UVC output, driving HVAC system efficiency while improving indoor air quality.











APPLICATION OF UVGI

UVGI EMITTERS FOR AHUS AND FCUs

The use of UVGI emitters in HVAC systems, especially in AHUs and FCUs, is growing rapidly in the current pandemic scenario. UVGI emitters are installed in AHUs to deactivate viruses, bacteria or fungi and also prevent future growth inside the coils and drain pans. The UVC light damages and deactivates the virus, making it incapable of reproducing further, and preventing the spread of any infectious diseases.



UVGI emitters run 24x7 and destroy any pathogens which enter the system or settle on the AHU coils and drain pans. They also restore the coil to original, as-good-as-new operating parameters and even eliminate the need for regular manual cleaning. They help in increasing the life of the coil, ensuring full return on investment in just 1.5 years.

AHU coil before and after UVGI installation

Before

After

OTHER APPLICATIONS OF UVGI

UVGI EMITTERS FOR DUCTS

UVGI emitters installed in the supply or return of ducts provides assured disinfection of airborne bacteria and viruses. Designing the appropriate UVGI emitter for the duct system is essential for effective disinfection of the air inside the ducts of any air conditioning system.





UVGI EMITTERS FOR CASSETTES AND HI-WALL SPLITS

Unitary UVGI emitters installed in the indoor units are an effective deactivation method for mould, bacteria and viruses that can settle inside cassette ACs and hi–wall split units installed in residential or commercial buildings. The UVGI emitters can be easily mounted, and very quickly too, and provide additional protection to the indoor environment. They improve the indoor air quality significantly while optimising the overall HVAC performance (by restoring heat transfer and airflow uniformity across the coils). UVGI also increases the life of the cassette AC and hi–wall split indoor units and reduces maintenance costs. These UVGI emitters are absolutely safe as they do not produce any toxic ozone or other secondary contaminants.

UVGI FOR SURFACE DISINFECTION

Viruses responsible for SARS and COVID-19 can thrive on surfaces from a few hours to a couple of days. Hence it is important to sanitise them frequently to avoid the spread of infection.

HAND-HELD SURFACE DISINFECTANT

Hand-held surface disinfectant

The hand-held surface disinfectant unit is ideal to decontaminate small areas, like table tops, floors, and walls, quickly and safely, and to make them safe for general use. This unit is ideal for residential, commercial, industrial or institutional buildings.

Simply place the device close to the surface and move slowly across the contaminated area, allowing the energy from the high output UVGI emitter to decontaminate the surface.

An aluminium safety shield not only protects the user from direct exposure to UV energy, it also provides a reflecting surface to increase the light's effectiveness on the surface.

Features



Benefits



MOBILE AIR AND SURFACE DISINFECTANT

The UVGI emitter-on-wheels is a mobile unit equipped with multi-patented, high output UVC technology. It provides a safe and effective way to decontaminate large areas affected by mould, bacteria or viruses. The entire unit moves on a set of wheels, and is a portable in-room solution.





Decontamination in 24 minutes



Long service life

Email us at acadvicecovid19@bluestarindia.com to know more or to avail our services.