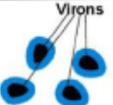


Airborne infectious Disease Mitigation

The novel Corona virus, COVID-19, has taken hold in our society and exposed how vulnerable we are to airborne pathogens. Investigations into transmissibility, severity, and other features of the 2019-nCoV are still ongoing. Like influenza and other respiratory pathogens, novel coronavirus is thought to be spread from person-to-person contact via respiratory droplet nuclei when an infected person coughs or sneezes. However, if these droplets are hearty enough to survive a period of time in the air, they can be spread throughout a school, office building, or healthcare facility through the air handling system, putting every person breathing in the recirculating air at risk of inhaling the virus.

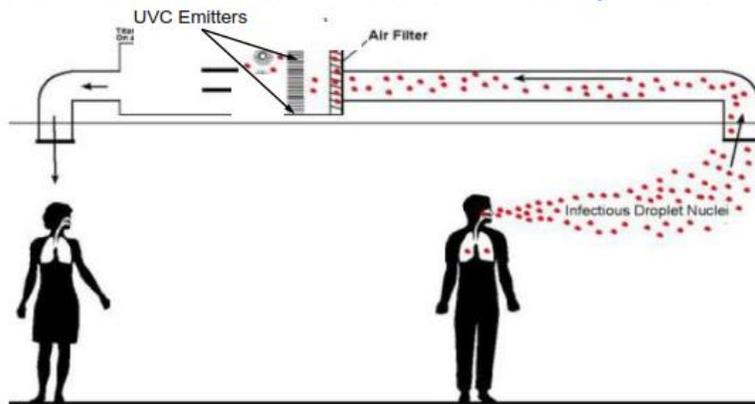
Stages of Infectious Droplets & Droplet Nuclei:

	Large Infectious Droplets: Mucus/water encased Viruses are aerosolised by the infector or by toilet water. These quickly fall to the ground after traveling up to 3 feet (1 m)
	Small Infectious Droplets: Mucus/water coating starts to evaporate. These will travel 3 to 6 Feet (1-2 m) before falling to the ground. These droplets can become Droplet Nuclei
	Infectious Droplet Nuclei: Mucus/water coating has totally evaporated leaving only the VIRON. This is a Droplet Nuclei Droplet Nuclei are so microscopic they can float in the air indefinitely

One of the most effective ways to mitigate the spread of those microscopic airborne droplets is installation of Ultra Violet light short wave C band, or UVC. Sterile-Aire is the first manufacturer of UVC solutions for the air and air handlers. Since 1994, solutions from this company have consistently been found to be the highest intensity output of UVC of any commercially available

products. Sterile-Aire UV Germicidal Emitters are installed on the supply side of the air handling system, downstream from the cooling coil and above the drain pan. This location provides more effective biofilm and microbial control than in-duct UVC installations.

How Steril-Aire Emitters inactivate airborne Infectious Droplet Nuclei:



The recirculating air in HVAC systems creates redundancy in exposing microorganisms to UVC, ensuring multiple passes so the light energy is effective against large quantities of airborne microorganisms. Sterile-Aire UVC delivers the highest UVC output, driving HVAC system efficiency while improving indoor air quality.

EMSI has been in the specialty HVAC business since 2002; our experience is vast and great. The owner of EMSI has over 40 years in the industry and the other designers and technicians on the EMSI team have an additional combined experience in specialty air conditioning systems of over 48 years. EMSI has strategic agreements with manufacturers of specific lines of HVAC equipment, Sterile-Aire being one of them. Sterile-Aire is the global leader in high-output ultraviolet germicidal solutions. Operational savings can also be

Engineered Mechanical Services, Inc. (EMSI)

A Small Business and DVBE Company

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achieved from reducing energy consumption and controlling costs, to improved utilization of facilities services. Sterile-Aire UVC provided by EMSI is the best solution to combat airborne viruses efficiently and effectively.

To protect those in your school, office, or healthcare facility, contact the team at Engineered Mechanical Services, Inc. We will set up a meeting to evaluate your HVAC system and determine the most effective way to mitigate airborne viruses, including installation of the Sterile-Aire system.

Please contact us now at: (760) 233-5055 or info@emsi-socal.com

[Leading with Knowledge following with Pride](#)

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