



# Steril-Aire UVC Emitters™ Provide Microbial Control

Installed in HVAC systems, high-output UVC Emitters™ from Steril-Aire, Inc. provide a safe, effective method for microbial control in hospitals and healthcare environments. The UVC (a synonym for UVGI) energy eradicates surface biofilm/mold, as well as airborne viruses and bacteria, to improve inside air quality (IAQ) and help reduce hospital-acquired infections (HAIs). The devices provide continuous air and surface cleaning without chemicals and without producing ozone or other secondary contaminants.

Steril-Aire offers a full line of UVC Emitters to fit all types and sizes of air handlers. The devices are backed by over a dozen patents, 13 industry awards, and thousands of proven applications. They produce up to six times higher UVC output than competitive devices and the highest dose per watt under HVAC conditions, for better germicidal performance, lower energy costs and longer service life. Steril-Aire UVC is effective on all known microbes, including viruses that are too small for even the most efficient air filters to capture.

The Environmental Protection Agency (EPA), in conjunction with the U.S. Department of Homeland Security, has released test reports on several leading brands of UVC devices. In these tests, the Steril-Aire UVC Emitter achieved 99.96 percent destruction in a single pass on airborne bacteria, 99 percent on viruses and 96 percent on spores. Highlights of the report can be accessed on the EPA Web site at <http://www.epa.gov/NHSRC/news/news100406a.html>.

UV lights have been used for upper air disinfection in hospitals for many decades. But these upper air devices do not perform well in HVAC environments because their output is too low in cold and moving air conditions. In the mid-1990s, Steril-Aire introduced a new generation of lights that are specially engineered for peak performance in HVAC systems. In today's air-conditioned hospitals, the best location for UVC devices is typically not in the upper air but inside the air handling units, facing the cooling coils.

Why is this solution better? Hospitals have an average of 15 to 16 air changes per hour. During this time, virtually all the air within the occupied space – and the infectious organisms contained within that air – travel through the air handlers. Thus, HVAC systems can be conduits and even the source of HAI. When UVC is installed in these systems, the recirculating infectious organisms are exposed directly to the germicidal Steril-Aire lights, which penetrate their DNA to destroy or inactivate them.

UVC Emitters™ shining on a hospital A/C coil.



UVC destroys the biofilm that is present on A/C coils as well as airborne viruses and bacteria.

UVC for HVAC offers another important advantage. At the same time it is cleaning the air of harmful microbes, it also destroys biofilm and mold that are universally present on the surfaces of the A/C coils. By keeping coils and other components in a constantly clean state, Steril-Aire UVC devices help air handlers to run more efficiently, with proven annual energy savings in the 15 percent range. Chemical cleaning or pressure-washing of coils is also greatly reduced or eliminated. Through these savings, the devices offer rapid return on investment while delivering green benefits along with infection and IAQ control.



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