

THE PROBLEMS

Hospital Acquired Infections (HAIs)
The Human Costs of Poor Indoor Air Quality (IAQ)
Odors
Energy Losses – Heat Transfer & Air Circulation
Coronavirus



VIRUSES, BACTERIA & MOLDS

Viruses, Bacteria & Mold including **Coronavirus** circulate in buildings and can be transmitted by contact with other humans, contaminated surfaces and recirculating through building HVAC



Viruses



Bacteria



Molds



CONTAMINATED AIR & PARTICLES

The American Lung Association warns that almost half of Americans — or 141 million people — are inhaling unsafe air.

HIGH ENERGY USE & POOR AIR CIRCULATION



Accumulated biofilm composed of molds, bacteria and viruses on ventilation system coils reduces heat transfer efficiency of air conditioning systems and restricts air flow resulting in increased energy consumption by as much as 35%.

Steril-Aire Systems eliminate biofilm and prevent molds, bacteria & viruses from circulating in the building.



ODORS

Odors come from restaurants, factories, warehouses, locker rooms, delivery trucks or garbage.

Steril-Aire Systems eliminate those odors.



Hospital Acquired Infections (HAIs)

The Centers for Disease Control (CDC) estimates that Hospital Acquired Infections (HAI) account for an estimated 1.7 million infections and **99,000** associated deaths each year in the US causing needless suffering from infections acquired in hospitals.

Have you taken the necessary steps to prevent exposing the patients in your Hospital, Urgent Care Facilities and Nursing Homes from harmful infections?

Consider joining the hundreds of hospitals and healthcare facilities that have installed Steril-Aire UVC systems.

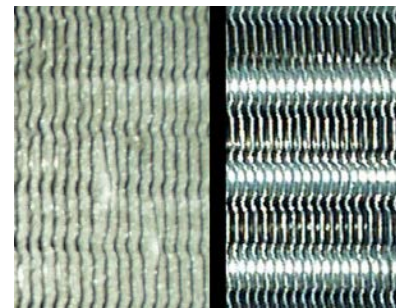


Antibiotic Resistance Threats

The CDC's Antibiotic Resistance Threats in the United States, 2019 Report includes the latest national death and infection estimates that underscore the continued threat of antibiotic resistance in the U.S. According to the report, more than 2.8 million antibiotic-resistant infections occur in the U.S. each year, and more than **35,000** people die as a result.

The Human Costs of Poor Indoor Air Quality (IAQ)

- Sick Building Syndrome
- Workers with chronic migraines & fatigue
- Nausea,
- Difficulty focusing
- Allergies
- Increased absenteeism



Biofilm: A complex microbial matrix growing on coils and drain pans

Discover the Solutions

Why Steril-Aire UVC Germicidal Systems?

The Steril-Aire Systems eliminate air-borne contaminants inside buildings including viruses, bacteria, molds, fungi, biofilm, allergens and volatile organic compounds (VOCs).

Videos:

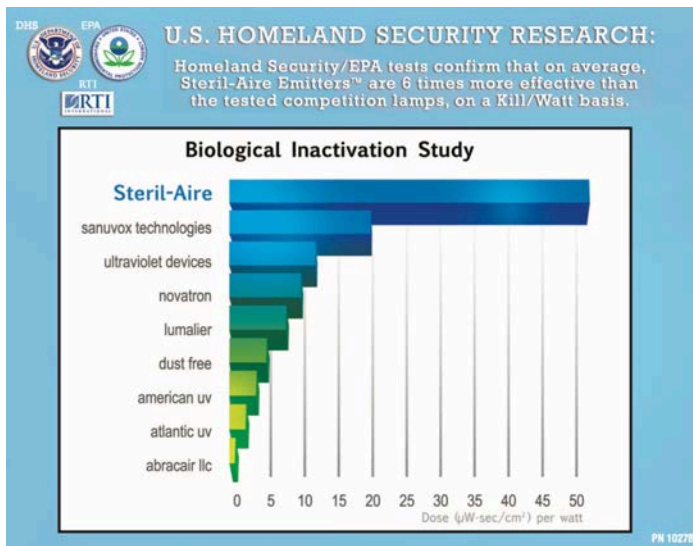
General overview IAQ: <https://www.youtube.com/watch?v=eanBxEDNGwQ>

Healthcare HAIs: <https://www.steril-aire.com/industry-solutions/healthcare/>

Why Steril-Aire

Research conducted by Homeland Security determined Steril-Aire is 6 times more effective on average than the other available UVC systems and 150% more effective than the second best.

Steril-Aire's UVC germicidal lamps or Emitters® work better and last longer. Independent testing proves that our UVC Emitter output is significantly higher than the competition at all temperatures. *It's all about the Energy Output:* Steril-Aire UVC Germicidal emitter output provides a **minimum of 1,225 $\mu\text{W}/\text{cm}^2$ (microwatts) of energy as verified by Homeland Security.** The Steril-Aire design software verifies 1,225 $\mu\text{W}/\text{cm}^2$ of energy striking any point on the coil.



Solutions:

- Kills 99.99% of Molds, Bacteria & Viruses
- Saves Energy 15% - 25%
- Cleans Coils 24/7
- Eliminates Hazardous Chemical Cleaners
- Improves Staff Performance
- Eliminates Biofilm
- Eliminates Coil Fouling/ Better Air Circulation
- Improves Heat Transfer Efficiency
- Cleans Contaminated Surfaces
- Eliminates Odors...

Saves Energy - Eliminates Biofilm

Biofilm Thickness & Energy Costs

Fouling Factor	Film Thickness on Fins	Increase in Energy Consumption	Additional Costs
0.0005	0.006 in/150 microns	5.3%	\$13,500
0.0001	0.012 in/300 microns	10.8%	\$27,000
0.002	0.024 in/600 microns	21.5%	\$59,000
0.003	0.036 in/900 microns	32.2%	\$83,000

Source: California Society of Healthcare Engineering, Inc., May/June 1998 Vol. 28 No. 3

Steril-Aire & Indoor Air Quality

Absenteeism due to illness is a big concern in Hospitals, Commercial Buildings, Research Facilities, Universities, Schools and Industry. Providing the best indoor air quality (IAQ) is not an option – it's essential. The link between indoor air pollution and the health, productivity, performance, and the comfort of patients, doctors, teachers, researchers, and staff is well documented.

The Cognitive Benefits of Optimal Indoor Air Quality (IAQ) in Buildings?

Steril-Aire UVC Systems can Help

- **90%** of building costs are occupants
- **Crisis Response** Improved 97%-131% with better IAQ
- **Strategic Thinking** Improved 183%-288%
- **Information Usage** Improved 172%-299%
- **Reduced Absenteeism**
- And More

(Source: Harvard TH Chan School of Public Health)



Clean Coils with Steril-Aire UVC Germicidal Systems

Food Processing

Steril-Aire's multi-patented UVC Emitters prevent mold, bacteria, yeast and viruses from contaminating food, meat and beverage products from the preparation of raw materials through processing, curing, packaging, transportation and storage.

Steril-Aire's UVC Emitters are ideal for surface disinfection, tumbling drums, conveyor and shaker systems, commercial refrigeration and other food processing equipment. Installed in plant HVA C and air make up systems (AMUs), UVC reduces airborne contamination before it is circulated throughout the plant.

Applications:

- Air Handlers
- Indoor Air Handlers
- Fan Coil Units,
- Unit Ventilator Systems
- Packaged Terminal (PTAC)
- Heat Pumps
- Mini-Split
- Remedial In-Room Decontamination System (RIDS)
- Hand-held device designed for surface decontamination

For More Information:

<https://www.steril-aire.com/>

Steril-Aire UCV Germicidal Products



Rapid Install Kit (RIK)[™]

For fast, easy installation of Steril-Aire Single-Ended Emitters[™] 24" – 61"



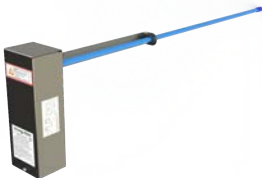
Model SEN Series UVC Emitters[™]

Single-Ended, NEMA 4X Very High Output Germicidal UVC for Outdoor A/C Units



Model SE Series UVC Emitters[™]

Single-Ended, Very High Output Germicidal UVC for HVAC Systems



Model ESE Series for Enhanced UVC Emitters[™]

Enhanced Single-Ended, Very High Output Germicidal UVC for HVAC Systems



Enhanced UVC Kit

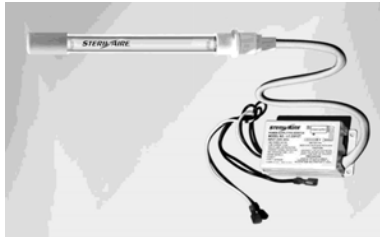
For Steril-Aire Enhanced Emitters from 24" – 61"

Germicidal, Very High Output UVC for Air Handler



UVC Kit for Air Handlers

Germicidal, Very High Output UVC for Indoor Air Handlers, Fan Coil Units, Unit Ventilator Systems (12", 16", 24", 30", 36", 42)



Unitary Kit for Smaller Air Handlers

Germicidal UVC for
Packaged Terminal (PTAC), Mini-Split, Split,
Heat Pumps (7.5", 10", 16", 20", 24")



Steril-Aire UVC Indoor or Outdoor Controller II

LCD Backlit Status Display that provides such information
as: Lamp Life countdown, On/Off Status, Amp Draw, and
alerts when the Emitters need attention or changeout.

Do you run a BMS? The Steril-Aire UVC Controller also
comes with connections that can allow your BMS to
monitor loss of power, open doors, powered off Emitters,
Emitter changeouts and Emitter faults.



Steril-Aire RIDS - Remedial In-Room Decontamination

The Steril-Aire Remedial In-Room Decontamination
System (RIDS) is a mobile unit equipped with multi-patented,
high output UVC technology. It provides a safe and effective
way to decontaminate surfaces infested with mold, bacteria or viruses.



SterilWand™ Hand-Held UVC

Very High Output Portable
Germicidal UVC Emitter™ -
hand-held device designed for
surface decontamination.

