AHU STERILIZATION

Energy Efficiency, Safety, Auto Clean, Save Corrosion, Maintenance

Despite regular routine manual cleaning, cooling coils could not maintain it's original state and looses about 30% of it's original efficiency within 5 years. The organic clogging and corrosion continues until the coil has to be replaced.

Slime accumulating from a contaminated

SE (Single Ended) Emitter

Emitters installed behind the cooling coil

Without Emitter With Emitter

Problems with Slime

- Blocks, insulates & Corrodes Cooling coils.
- Blocks drainage, causes water overflow
- Seeds duct & area to contaminate.
- Organic smell, obvious during start up.

Emulating strong sun rays, Steril aire emitters will vapourize the organics and clears up the coil, without any human intervention. **Saving coil corrosion and clogging** to restore the original cooling capacity, **saving energy** bills and coil lifespan. As the Steril Aire emitters keeps the coil and drain pans clean and odour free, it save downtime and manpower. Drain pan and coils don't seed the system with Bacteria and molds, so ducts and occupied areas stay cleaner and odor free too. Combining energy and maintenance savings, a typical UVC installation will pay for itself in 3-5 months

The force field created by this 'sunlight' rays also sterilizes the air against passing virus that no Hepa filters can remove, **preventing cross contamination** in Hospitals the risk of infectious disease outbreak/nosocomialdisease /occupational hazard.

VVIP areas become more secure when protected **against bio-terrorism** and avoiding the need for regular unknown service personnel's presence.

Factories and hotels that operate 24 hrs a day save expensive downtime normally required for coil cleaning. Especially those ducted return FCU that is very difficult to access.

Food industries enjoy extended lifespan without the need for added preservatives.

Airborne Bacteria Reduction

Singapore Test Services Pte Ltd

Area	Before (cfu/m3)	After (cfu/m3)	Diff (cfu/m3)	% Improved
2	994	312	682	68.61%
9	638	248	390	61.13%
23	314	94	220	70.06%
28	574	222	352	61.32%
34	922	190	732	79.39%
37	534	320	214	40.07%

Affiliations : *CDC & NIOSH*

ASHRAE Applications Volume, 1982 edition, Chap 7: *"Sterilizing lamp installations in duct systems have been reported to be highly efficient."*

Facility Standards For The Public Building Service, section 5.4, Drains and Drain Pans*: "UVC emitters shall be incorporated downstream of all cooling coils and above all drain pans to control airborne and surface microbial growth and transfer."*

- Conventional UVC lights loose 80% of their Intensity in 45˚F moving air.