

AHU Coil Disinfection: UV-STICK-AL-SCR

UV-STICK-AL-SCR is a high output UV-C ultraviolet germicidal device in an anodised Aluminium module specifically designed to be mounted inside an AHU system. Its compact and modular concept allows for a homogeneous disinfection treatment even inside small and very inaccessible spaces.

It works by treating the coil surface with a constant high dosage of UVC light of 253.7 nanometres wavelength to eliminates viruses, bacteria, moulds, spores and inhibits their dangerous proliferation.

Validation

Over time, an unpleasant biofilm covers and adheres on every mechanical component and penetrates inside every little interstice. A build-up of Legionella Pneumophila, Tuberculosis, Flu Viruses and other common pathogens are usually free to proliferate inside HVAC, with Volatile Organic Compounds (VOCs) cause of Asthma, Allergies, the so called "Sick Building Syndrome" and "Monday Fever". In hospitals risks increase with cross contamination and healthcare associated infection.

In controlled testing environments, UVC usage has shown reductions of over 99.9% on live bacteria strains such as Bacillus, Coli, Clostridium, Legionella, Vibrio, Salmonella, Pseudomonas, Staphylococcus etc.

The concept and the effectiveness of it has been well documented by ASHRAE and others.

Traditional cleaning/filtration methods

Air recirculation, temperature fluctuations and humidity allow microorganisms to combine

with each other in complex ways and settle all over surfaces inside the AC system in the form of an unpleasant biofilm. This biofilm adheres particularly in between the fins of heat exchangers (it settles in water collection tanks and clog the filters in the ducts).

Even a thin layer of biofilm can reduce system efficiency by up to 40%.

The integration of UV technology inside the air conditioning in centralized units allows to treat the air in closed rooms, 24 hours a day, without limits. This means you minimize the downtime associated with scheduled cleaning and save money by maintaining a high level of efficiency.

Operation of UV-STICK-AL-SCR

UV-STICK-AL-SCR is mounted inside HVAC system through vertical and horizontal supports. This MOUNTING KIT could be connected directly with the AHU walls or inner components surfaces. Supports are adjustable according to the sizes of your system, our technical department designs custom layouts for client's specific needs.

UV-STICK-AL-SCR are linkable together by a serial electrical connection (up to 10 devices).

Upstream, the first devices must be plug to the power supply line, then every other UV-STICK-AL-SCR has to be connected with the next one (in series) through its special serial connection plug - in this way all devices will turn ON simultaneously.

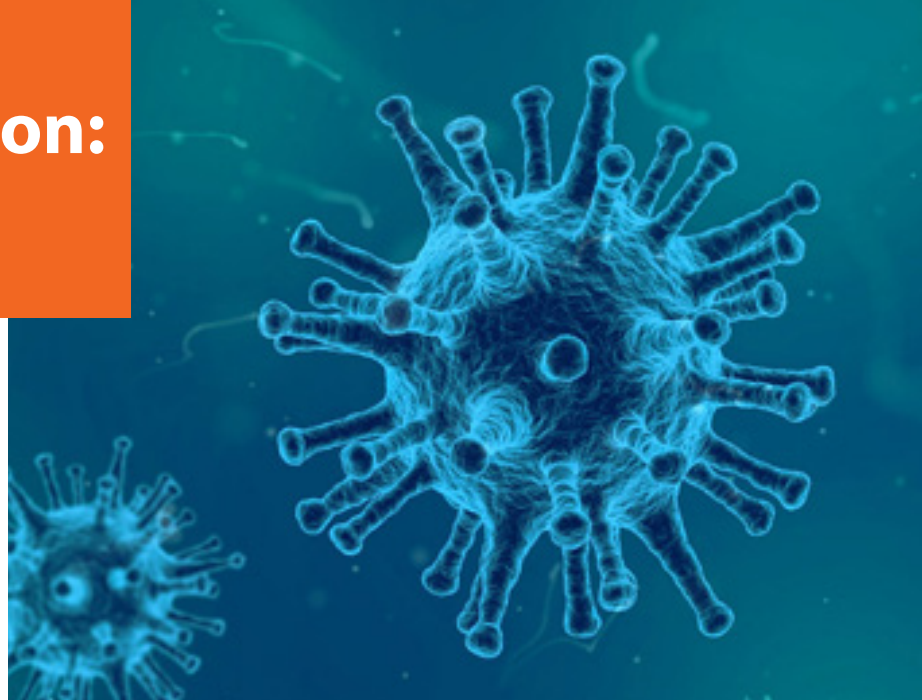
Power supply connection cable, serial connectors, and final cap to close the whole series are all provided.

No Ozone

The use of UVC light in the 253.7 nanometres wavelength means there is no ozone produced. This is particularly important as ozone is hazardous to humans.

Applications

UV-STICK-AL-SCR is a versatile in direct irradiation device that is cost effective, simple to install with its modular concept. It can be adapted to suit any AHU configuration for commercial, industrial and healthcare sectors.



WHAT ARE UV-C RAYS?

Light in a broad sense can be divided into the following, visible, infra-red and ultraviolet rays.

Ultra-violet rays (invisible) can be classified in:

- UV A (with tanning properties)
- UV B (with therapeutic properties)
- UV C (with germicidal properties)

UV-C technology is a physical disinfection method with an optimal cost/benefit ratio, it's ecological and unlike chemicals it works against every micro organism without creating any resistance, therefore there are no nasty chemicals required.





Key Benefits

PHYSICAL ACTION AND ENVIRONMENTAL PROTECTION.

- Treatment by UV-C rays is purely physical without the use of any chemicals.
- Results are consistent as microorganisms do not develop resistant to UV light.
- No residual effects, therefore, no long-term contamination.

DEEP AND CONTINUOUS DISINFECTION

- This device can be switched on continuously 24 hours a day to achieve a continuous disinfection.

PRACTICALITY AND ECONOMY

- It is made with high quality material and very resistant components.
- Suitable for use in high humidity, low or high temperatures.
- Serial connections of more than 10 devices is possible just through 1 single power supply cable.
- Maintenance is minimal with low costs of both energy consumption and ongoing service.

IMMEDIATE EFFECT

- Effective treatment (99.9% bacteria reduction) when used continuously.

UV-BOX E	E40H-AL-SCR	E60H-AL-SCR	E75H-AL-SCR	E100H-AL-SCR	E150-AL-SCR
Average Lamp lifetime (hours)*	≤ 18000	≤ 18000	≤ 18000	≤ 18000	≤ 18000
Power (W)	40	60	75	120	150
Dimensions LxSxH (mm)	571 x 80 x 82	734 x 80 x 82	1028 x 80 x 82	1309 x 80 x 82	1688 x 80 x 82
Average Covered Surface of Coil/Filter (m2)	0.25 to 0.50	0.35 to 0.70	0.50 to 1.00	0.65 to 1.30	0.85 to 1.70
Weight (Kg)	1.4	1.7	2.2	2.7	3.4
SPARE PARTS					
Replacement Lamp	n°1 CHS-40WH	n°1 CHS-60WH	n°1 CHS-90WH	n°1 CHS-120WH	n°1 CHS-150WH

*Continuous operation

- Highly efficient selective UV-C lamp (at 253.7 nm), pure quartz.
- Anodised Aluminium body.
- All used materials are tested to resist to intense UV-C radiation.
- Specific electronic ballast for UV-C rays lamps.
- Protected against dust and water (IP55).
- UV-STICK-SCR are linkable together by a serial electrical connection (up to 10 devices).
- Mounting kits is available as an option.
- UL listed version also available.



Why choose LAF Technologies?

LAF Technologies (Laftech) is an Australian owned and operated company that has been in the forefront of contamination control since 1987. Laftech has now teamed up with Light Progress of Italy to bring into Australian a high quality, tested and proven solution. We offer the widest product range of UVGI Devices on the market with renown Italian quality.

Benefits to the client:

- Widest range of UV products providing the most appropriate solution.
- Products validated through University testings.
- Local team to assist in presales and aftersales.
- Service and Spares support.

laftech
Contamination Control Solutions
Call: 1300 306 002



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