

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





Steril-Aire's multi-patented UVC EmitterTM provides the best and longest-lasting UVC performance available. As shown in the comparison graph *(above)*, it has been independently tested to deliver an average of 6 times the output of other ultraviolet devices under HVAC operating conditions (50° F @ 400 fpm air velocity).

Competitive UVC lights must be changed every 3-4 months because they quickly lose the output or "killing power" needed to maintain microbial control. The UVC Emitter, by contrast,

Model SEN Series UVC Emitters[™]

has a 12-month service life – and even after a full year, it has 3 times greater output than competitive devices deliver on Day 1! As a result, only Steril-Aire can ensure the germicidal performance you need.

Applications

Steril-Aire Single-Ended NEMA 4X (SEN Series) fixtures combine the externally mounted design of the SE Series with a weather resistant NEMA 4X fixture. Installed from the exterior of rooftop A/C units or ductwork, they provide ideal solutions for rooftop AHUs. By creating two 1" holes in the equipment wall and mounting the fixture, the Emitter may be installed vertically or horizontally. Only the Emitter penetrates into the system, while the power supply remains external. The SEN Series is available in seven lengths (12", 16", 20", 24", 30", 36" and 42") with a 120-277 V power supply.

Benefits

- Reduces HVAC energy costs by restoring heat transfer and net cooling capacity.
- Uses germicidal UVC irradiation proven as an effective inactivation method for mold, bacteria and viruses.
- Eliminates costly cleaning programs and the use of harmful chemicals and disinfectants by continuously cleaning coils, drain pans, plenums and ducts.
- Delivers up to 6 times the output of competitive UVC products at HVAC operating temperatures, for longer life and more reliable germicidal control.
- Offers lowest life-cycle cost of any UVC product. Return on investment is often less than one year.
- Uses patented state-of-the-art solid-state electronic power supply for enhanced reliability and performance.
- Produces no ozone or other secondary contaminants.
- Installs quickly and easily ideal for small outdoor systems.
- Improves Indoor Air Quality (IAQ).

Model SEN Specifications

The UVC Emitter[™] and fixture shall be factory assembled and tested. They shall consist of a fixture, power supply, Emitter socket and Emitter.

The fixture shall be constructed of 304 stainless steel and shall be powder coated to withstand the elements and HVAC environments. Housing shall be equipped with a bottom side electrical opening to facilitate wiring fixture to unit power. It shall incorporate all components into one integral assembly that maximizes integrity and serviceability. It shall be designed for



This product may be covered by one or more of the following patents, others pending: 5,334,347 / 5,817,276 / 5,866,076 / 6,245,293 / 6,267,924 / 6,280,686 / 6,313,470 / 6,372,186 / 6,423,882 / 6,500,267 / 6,589,476 / 6,627,000 / 6,997,578 / 7,140,749 / 7,282,728 / 7,459,694.

Ordering Information

mounting from outside the airstream with only the Emitter in the conditioned air. Emitter shall be held in place and supported in the airstream by a patented integral collar, o-ring and heavyduty spring wire fastener. The patented tube mount section shall allow for quick and easy removal during lamp replace ment. The housing shall include an on-off switch.

The power supply shall be a Class P2, electronic rapid start type with a power factor of >0.98 and a power conversion of >90%. It shall be available in 120-277 V, 50/60 Hertz, single phase. It shall be designed to maximize photon production, irradiance and reliability in cold airstreams of $0-140^{\circ}$ F, 100% RH. The design shall include RF and EMI suppression.

The socket shall be a Circline[®] 4 pin type with sufficient wire length to facilitate service.

The Emitter shall be a very high output, hot cathode, T5 diameter, Circline[®] cell-base type that produces a germicidal UVC band of 253.7 nm. The Emitter shall operate in air velocities of up to 2000 fpm and air temperatures of 35-140° F. It shall produce no ozone or other secondary contaminants.

Independent testing: The unit shall be tested by an independent test laboratory and shall be verified to provide output per 1" arc length of not less than 7.8 μ W/cm² at 1 meter in a 400 fpm airstream of 50° F.

Unit shall comply with ANSI/UL Standards 153, 1598 and 1995 and CSA standards. The manufacturer shall be an ISO 9001:2008 certified facility.

Model No.	Part No.	Description	Length	Electrical
SEN 1 VO	12002000	Single-Ended Fixture	N/A	120-277 V, 70 W
GTS 12 VO	21000700	UVC Emitter	12"	45 W
GTS 16 VO	21000100	UVC Emitter	16"	55 W
GTS 20 VO	21000200	UVC Emitter	20"	64 W
GTS 24 VO	21000300	UVC Emitter	24"	72 W
GTS 30 VO	21000400	UVC Emitter	30"	86 W
GTS 36 VO	21000500	UVC Emitter	36"	100 W
GTS 42 VO	21000600	UVC Emitter	42"	110 W



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