

STERIL-AIRE®

UVC for HVAC™

Model DE Series UVC Emitters™

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



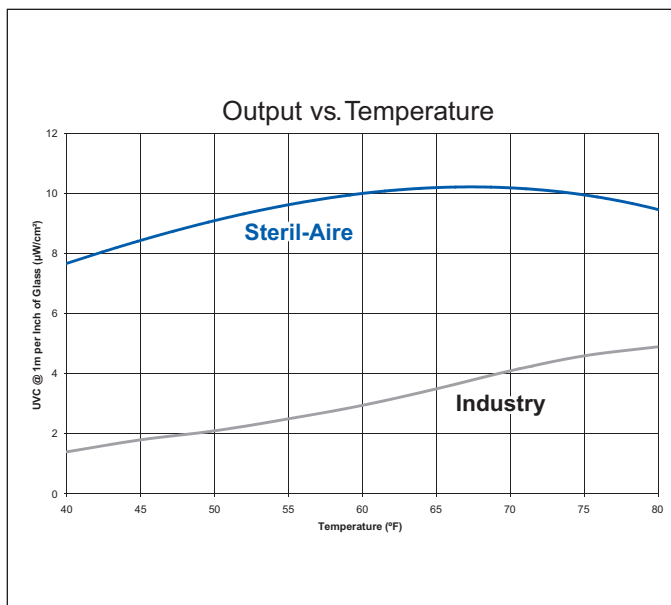
Competitive UVC lights must be changed every 3-4 months because they quickly lose the output or “killing power” needed to maintain microbial control. The UVC Emitter, by contrast, has a 12-month service life – and even after a full year, it has more than 3 times greater output than competitive devices deliver on Day 1! As a result, only Steril-Aire can ensure the germicidal performance you need.

Applications

Steril-Aire Double-Ended (DE Series) fixtures are used for internal installation in new and retrofit, medium to large air handling systems in commercial, industrial, health care and institutional buildings. They may be mounted singly, in built-up banks or in parallel configurations in a variety of locations, including coils, drain pans, ductwork, mixed air plenums and exhaust systems. The DE Series is available in six lengths (18”, 24”, 30”, 36”, 42” and 62”) 110-277 V, 50/60 Hz, providing installation flexibility to accommodate virtually any system.

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.
- The most widely used germicidal UVC for commercial HVAC systems.
- Improves Indoor Air Quality (IAQ).



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

Model DE Specifications

The UVC Emitter™ and fixture shall be factory assembled and tested. They shall consist of a fixture, power supply, reflector, Emitter sockets and Emitter.

The fixture shall be constructed of 304 stainless steel to withstand HVAC environments. The reflector shall be constructed of heavy gauge, specular finished aluminum alloy with approximately 85% reflectance at 254 nm wavelength. The housing shall be equipped with 1/2" electrical conduit opening/s on each end to facilitate wiring fixture-to-fixture coupling. All components shall be in one integral assembly to maximize serviceability.

The power supply shall be a Class P2 with a power factor greater than 0.98 and a power conversion of greater than 90%. The power supply design shall include RF and EMI suppression. The power supply shall be designed to maximize photon production, irradiance and reliability in cold airstreams of 0-140 °F, 100% RH. The power supply shall be available in 110-277 V, 50/60 Hz, single phase.

The Emitter sockets are medium bi-pin, double click safety, twist lock type. They shall be constructed of UVC-resistant polycarbonate.

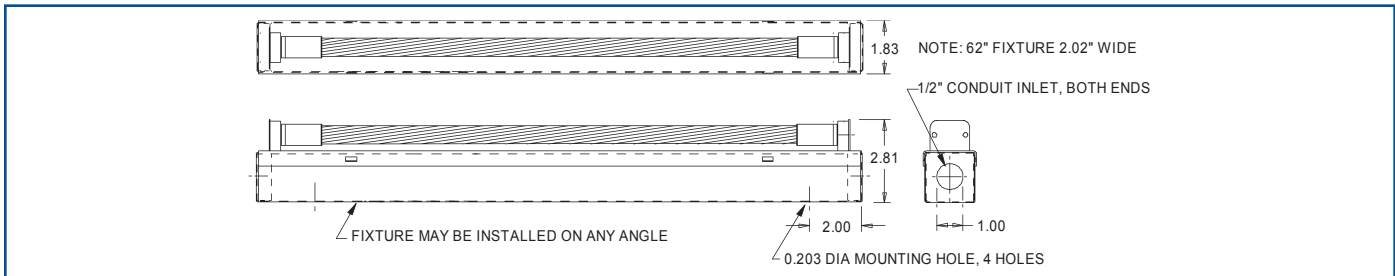
The Emitter shall be a very high output, hot cathode, T5 diameter, medium bi-pin type that produces germicidal UVC of 253.7 nm. The DE Emitter shall operate in air velocities of up to 2000 fpm and air temperatures of 35-140 °F. It shall produce no ozone or other secondary contaminants.

Independent testing: The unit shall be tested by an independent test laboratory and shall be verified to provide output per one inch arc length of not less than 9 µW/cm² at 1 meter in a 400 fpm airstream of 50 °F.

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

Sleeved, shatter-resistant Emitters shall be available, ensuring the highest level of protection for moisture-proof applications.

Mounting: Custom rack/framing configurations are available for any coil or air handler.



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

Model No.	Part No.	Description	Fixture Length	Electrical	Wattage
DE 181 VO	10002100	Double-Ended Fixture	18"	110-277 V	50 W
DE 241 VO	10002200	Double-Ended Fixture	24"	110-277 V	72 W
DE 301 VO	10002300	Double-Ended Fixture	30"	110-277 V	84 W
DE 361 VO	10002400	Double-Ended Fixture	36"	110-277 V	98 W
DE 421 VO	10002500	Double-Ended Fixture	42"	110-277 V	109 W
DE 621 VO	10002600	Double-Ended Fixture	62"	110-277 V	150 W

Replacement UVC Emitters

Model No.	Part No.	Description	Emitter Length	Wattage
GTD 16 VO	20000100	UVC Emitter -DE 181	16.1"	50 W
GTD 22 VO	20000200	UVC Emitter -DE 241	22.4"	72 W
GTD 28 VO	20000300	UVC Emitter -DE 301	28.4"	84 W
GTD 34 VO	20000400	UVC Emitter -DE 361	34.4"	98 W
GTD 40 VO	20000500	UVC Emitter -DE 421	40.4"	109 W
GTD 60 VO	20000600	UVC Emitter -DE 621	60.4"	150 W

Optional Accessories

Optional Accessories	Part No.
DE Boot Kit for 1 DE fixture	90000223
DE Boot Kit for 10 DE fixtures	90000224
DE Wiring Kit for up to 65" (DE Bank install)	90000603



Complies with current U.S. and Canadian safety standards for use in HVAC equipment

STERIL-AIRE
Registered to ISO 9001:2008
Certificate Registration No. 10002118 CM08

STERIL-AIRE®

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