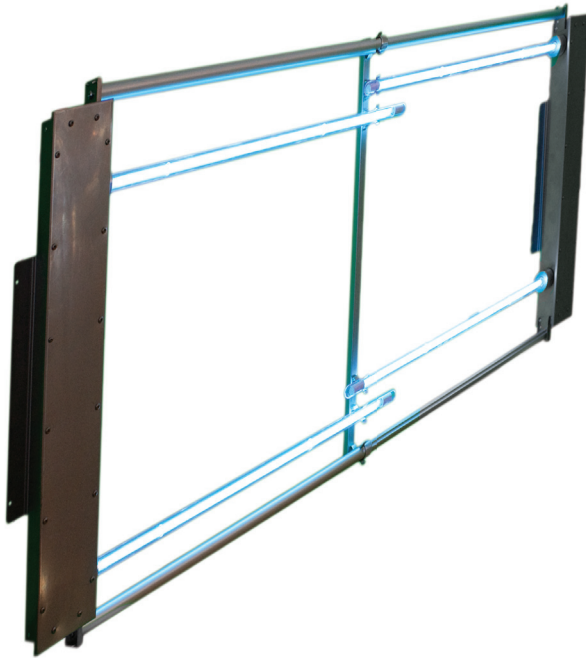


# UVMatrix™ SI

## Coil Irradiation Equipment

for Commercial HVAC Systems

### Product Information



Ultravation™  
UVMatrix™ -SI Series™  
for HVAC coil irradiation

#### Benefits of Coil Irradiation

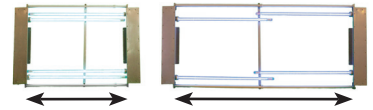
- Bio-growth prevention
- Allergy relief
- Efficiency optimization
- Elimination of coil cleaning as result of bio-contamination
- Airstream disinfection (residual)

#### UV eliminates mold on AC coils

Mold can be a serious problem for allergy sufferers—and a drain on HVAC efficiency. Ultravation UVMatrix™ SI systems for commercial and industrial HVAC, deliver the highest level of performance and safety in UV air disinfection. Their design reflects Ultravation's in-depth knowledge of ultraviolet light—and how it is optimized for HVAC coil disinfection.

#### UVMatrix SI—Unprecedented installation flexibility

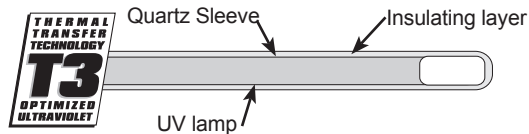
The SI-Series is a complete, flexible, modular and easy-to-install design with no extra frames or hardware to buy. They feature an patented innovative horizontal expansion ability that makes them easily adjust to variations in HVAC physical installation characteristics—with no compromise in UV irradiation. In fact, the SI-Series design is such that it maximizes airstream disinfection exposure time, as the lamps are suspended in the air with 360° UV dispersion.



Ultravation T3™ lamps are very easy to replace (18,000 hour (approx 24 month) replacement schedule recommended). Lamps easily remove from unit with no system disassembly is needed.

#### T3™ Enhanced UV Lamps

Ultravation T3™ thermally optimized germicidal UV lamps are standard, allowing much higher UV lamp output in cold air conditions. Lamps are easily changed with no quartz replacement required.



#### ESP™ Electronic-Smart Power

UVMatrix-SI systems utilize discrete ESP™ electronic power supplies — eliminating the possibility of complete loss of disinfection due to UV system trouble. ESP™ optimizes lamp performance because it operates at frequencies far exceeding a standard magnetic ballast. Its exceptional stability of voltage and current flow maximizes lamp output and lamp life. In a lamp-out situation, it automatically protects itself from an un-loaded condition.

#### Additional features...

- Low power consumption
- Lamp life expectancy 18,000 hrs (approx 24 months)
- 3 year UV system warranty
- Covers entire unit except lamp(s).
- One year UV lamp warranty
- T3 enhanced lamp systems for large air handlers.

Available from:



Air Duct Mounted Accessory Classified By Underwriters Laboratories Inc. with Respect to Electric Shock, Fire and Casualty Hazards Only

Ultravation, Inc.  
P.O. Box 165  
Poultney, Vermont 05764  
Toll Free 1-866-468-8247  
FAX 1-802-287-9203

[www.ultravation.com](http://www.ultravation.com)

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DC-IH-2000

Protected under US Patent #: 7419642B2, 683805B2



Professional Indoor Air Quality Products

# UVMatrix™ SI

## Coil Irradiation Equipment for Commercial HVAC Systems

### Specification Sheet

#### 1. Scope of Supply

The surface irradiation equipment shall consist of durable, adjustable sliding racks, UVC Lamps encapsulated within a protective quartz sleeve assembly, electronic power supplies, and power supply housings.

##### A. Adjustable Sliding Rack

- i. To optimize installation, the surface irradiation equipment shall be assembled as an adjustable sliding rack.
- ii. Adjustment capabilities enable the installation of equipment to fit a wide range of applications, while utilizing the same product.
- iii. The installing contractor is provided with the required framework as part of the irradiation equipment design.
- iv. The rack shall be waterproof and constructed of aluminum (optional stainless steel) and consist of a vertical power supply housing at each end, and joined together by horizontal telescoping support arms. A center support is supplied to hold each protective Lamp/Quartz Sleeve assembly.
- v. The electrical housing will contain all power supplies, and lamp connections.
- vi. Adjustable rack shall be installed either inside of the air handler.
- vii. To ensure maximum exposure the lamps must be suspended in airstream.

##### B. UVC Lamps

- i. A lamp and protective quartz sleeve assembly shall be utilized in cold air conditions to provide maximum thermal optimization of the germicidal UVC Lamps.
- ii. The lamp and protective quartz sleeve assembly, when plugged into receptacle on the adjustable power supply housing shall have no wires or electrical connections exposed to the UV radiation.
- iii. The UVC lamps shall be slimline type, T5 diameter, 2G11 type base, and will produce broad-band UVC of 250-260nm.
- iv. The UVC lamps shall produce 85% of the initial UVC output at end of lamp life (9000 hours), or 80% of initial UVC output at extended life (18,000 hours).

##### C. Electronic Power Supply

- i. Electronic power supplies shall be voltage specific and be offered in 120VAC or 277VAC and operate at either 50 or 60Hz.
- ii. Electronic power supplies shall have a power factor of greater than 96%.
- iii. Each power supply shall draw no more than 0.71A @ 120V for each G64 lamp or 0.35A @ 120V for each G36 lamp.

#### 2. Installation

- A. UV equipment shall be shipped disassembled for ease of transporting to the air handler.
- B. Equipment shall be assembled, located, and extended on the supply side of the coil. The adjustable rack shall be extended enough to provide total coil surface irradiation by continuous exposure to the UVC lamps.
- C. Appropriate power needs to be connected to each power housing to the supplied terminal.
- D. Safety interlock power switches must be installed (available separately), on all air handler access panels and/or doors.

#### 3. Optional Equipment

- A. UVMatrix CP - Ultravation exclusive control panel that monitors UVC lamp status, UVC Intensity, and can provide pertinent information back to facility management via building automation controls.
- B. UVC intensity monitor— 0-100% meter, measuring 254nm UV, includes dry contacts that switch state when adjustable set point is reached.
- C. TEF - UVC transmissible FEP material covered outer quartz sleeve can be supplied to protect against lamp breakage and to ensure lamp contents from a broken lamp is contained.