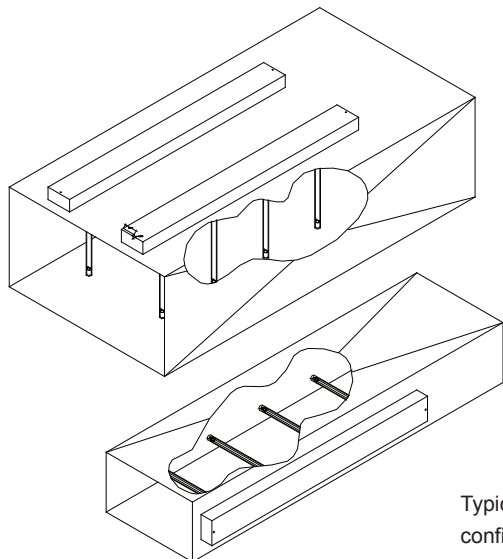
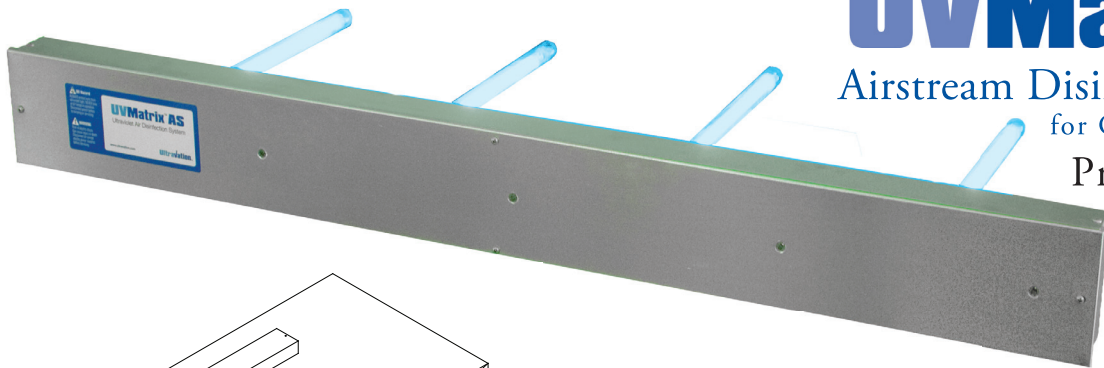
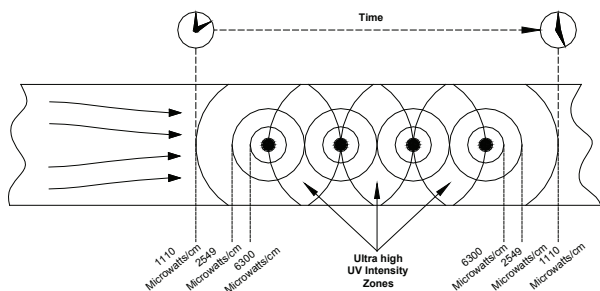


# UVMatrix™ AS

Airstream Disinfection Equipment  
for Commercial HVAC Systems  
Product Information



Typical installation configurations



The number of microorganisms inactivated in a single pass is dependent on the time of exposure to UV. Ultravation 360° UV dispersion means that a higher percentage of microbes will be eliminated in a single pass through the ultraviolet light. Lamp spacing is calculated to optimize exposure. Then, as air is re-circulated through the HVAC system, surviving organisms receive additional ultraviolet exposure.

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  
© 2009 ULTRAVATION, INC. AS\_SPECSHEET / REV 012109

DC-IH-2001

## Benefits of airstream disinfection

- Improvement of indoor air quality by reducing of airborne pathogens
- Allergy relief
- Odor reduction (when due to bio-contamination)

## UV can substantially reduce the spread of airborne illness

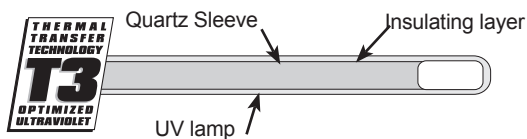
Indoor air that is continuously re-circulated through 254nm UV light will show a dramatic reduction in the count of bacteria and other microorganisms. Ultravation UVMatrix™ AS equipment for commercial HVAC systems, is designed specifically for airstream disinfection, with design emphasis placed on achieving a balance between intensity and exposure time. Their design reflects Ultravation's in-depth knowledge of ultraviolet light—and how it is optimized for airstream applications.

## UVMatrix™ AS— Easy to configure for any HVAC installation

UVMatrix™ AS systems have lamp arrays engineered to optimize disinfection capability, and can be installed in single or multiple unit configurations.

## Lamps with T3™ enhanced performance

Airstream disinfection requires higher UV intensities due to short microorganism exposure times. Ultravation T3™ design, further enhances UV performance by enclosing the lamps in UV transparent quartz, which optimizes lamp temperature. This increases UV intensity under typical operating conditions by approximately 40%. The result is unprecedented disinfection performance for HVAC airstream applications! T3™.



## ESP™ Electronic-Smart Power

UVMatrix™ AS systems utilize discrete ESP™ electronic power supplies with no more than two lamps per power supply module—eliminating the possibility of complete loss of disinfection due to UV system trouble. An optional set of remote alarm contacts will help protect against an extended lamp-out condition. ESP™ optimizes lamp performance because it operates at frequencies far exceeding a standard magnetic ballast. Its exceptional stability of voltage and current flow optimizes both lamp output lifespan. In a lamp-out situation, it self protects from an un-loaded condition.

## Additional features...

- Low power consumption
- Long lamp life expectancy: 18,000 hrs (approx 24 months)
- Three-year UV system warranty
- One-year UV lamp warranty

**Ultravation®**  
Professional Indoor Air Quality Products

# UVMatrix™ AS

## Airstream Disinfection Equipment for Commercial HVAC Systems

### Specification Sheet

#### 1. Scope of Supply

The airstream irradiation equipment shall consist of T3 UVC Lamps (encapsulated in quartz sleeves), electronic power supplies, and power supply housing. The equipment shall have a replaceable fuse, on/off toggle switch and a 3/8" conduit connector for the customer power supply.

##### A. 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 UVC lamps shall be hot cathode type, and will produce broadband UVC of 250-260nm.
- iii. The UVC lamps shall produce 85% of the initial UVC output at end of lamp life (9000 hours), or 70% of initial UVC output at extended life (18,000 hours).

##### B. 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. Maximum current for each model shall be as follows:

| Model Number           | AS-4/12 | AS-4/17 | AS-4/22 | AS-6/12 | AS-6/17 | AS-6/22 |
|------------------------|---------|---------|---------|---------|---------|---------|
| Maximum Current @ 120V | 0.94A   | 1.42A   | 2.84A   | 1.41A   | 2.13A   | 4.26A   |

##### C. Power Supply Housing

- i. All electrical connections shall be housed inside the power supply housing.
- ii. The power supply housing shall be of low profile and have integral mounting flange on each side of the housing total length. The mounting flange shall be provided with spaced mounting holes to be fastened to the duct work with hardware provided.

#### 2. Installation

- A. Power supply housing shall be mounted on duct work and located preferably on supply side of air conditioning.
- B. A series of 2" holes are required to be pre drilled into the duct work (quantity dependent on UV equipment needed).
- C. Power supply housing shall be mounted on duct work and screwed into place.
- D. Power connections to be terminated to terminal strip located inside the power supply housing.

#### 3. Optional Equipment

- A. UVC lamp monitor—Provided with dry contacts to indicate lamp operation status.
- B. UVC intensity monitor— 0-100% meter, measuring 254nm UV, includes dry contacts that switch state when adjustable set point is reached.

Protected under US Patent #: 683805B2