

INDOOR AIR QUALITY (IAQ) PRODUCTS FOR COMMERCIAL HVAC

# UVMatrix™ SI

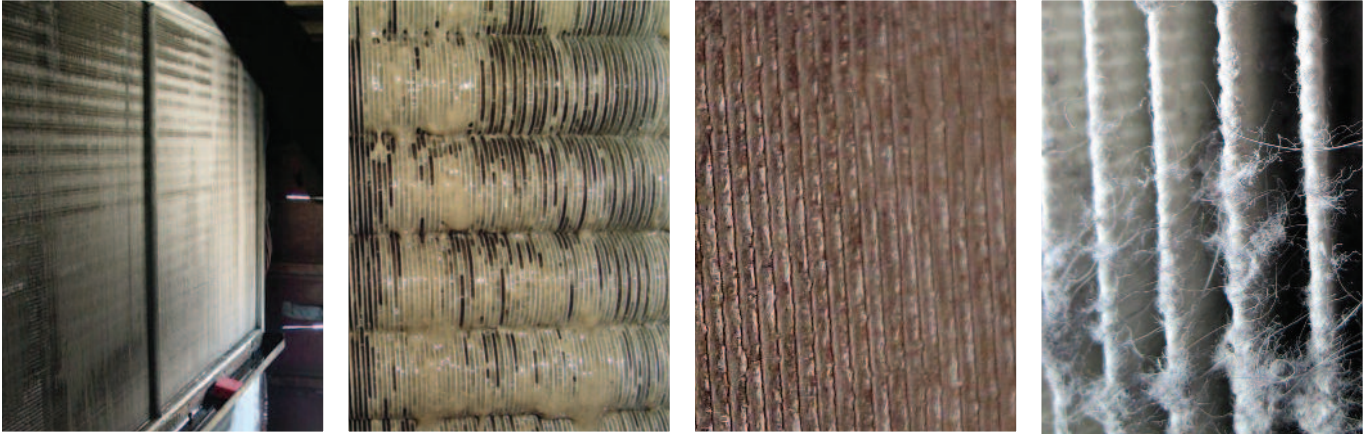
UV DISINFECTION FOR LARGE AIR HANDLERS  
WITH AIR PURIFICATION OPTION

**Ultravation®**

Better Air | Better Water | Better Living™



# HVAC system contamination in buildings and public spaces can be unhealthy and costly.



**Bio-growth and mold** coated coils and components can be a health hazard. They also insulate cooling fins and readily attract dirt and debris, taxing equipment and wasting energy. Indoor air quality is compromised as spores and bacteria are passed with supply air to living and working spaces.

UV light is a powerful disinfectant that is used in many industries from pharmaceuticals to food preparation to water treatment. It is ideally suited for use in the disinfection of HVAC components that are breeding grounds for mold and bacteria.

**The UVMatrix SI-Series** is an innovative UV equipment design that stresses germicidal effectiveness as well as HVAC energy efficiency. It is also engineered to facilitate installation, maintenance, longevity and a low cost of ownership. As an option, Plasma/Ion air purification technology can be added to break down odors and airstream pathogens and for the reduction of suspended microscopic particulates.

We design and manufacture sterilization and air purification products for HVAC systems in our two plants in Vermont, USA. Learn more at [Ultravation.com](http://Ultravation.com)

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# UVMatrix™ SI creates a new dimension in HVAC performance and indoor climate control

**The Ultravation UVMatrix™ SI-Series:** A microprocessor controlled system that keeps an HVAC coil clear of mold and all other bio-growth, eliminating a major source of airborne allergens, bacteria and viruses. Microorganisms on and around the coil are exposed to a lethal dose of UVC light, arresting any attempted colonization.

**UVMatrix™ CP** system monitoring with both elapsed time and real-time UVC measurements available. Individual lamp performance sensors and remote alarm triggers.

**Patented T3™ UVC lamp system** encases and insulates UV lamps to achieve high germicidal intensity, with very low energy consumption.

**Rugged, water-tight construction,** ready for harsh HVAC environments (stainless steel option shown).

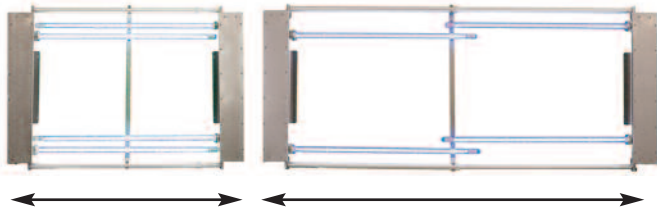


**Creates healthier environments for:**

- |                           |                      |
|---------------------------|----------------------|
| Hospitals                 | Pet Centers          |
| Colleges / Universities   | Banks                |
| Court Houses              | Theatres             |
| Animal Clinics            | Restaurants          |
| Museums                   | Health Clinics       |
| Office Buildings          | Prison Facilities    |
| Day-care Centers          | Government Buildings |
| Elementary / High Schools | Cruise Ships         |
| Doctor's Offices          |                      |

# Designed to install, perform and last beyond expectation

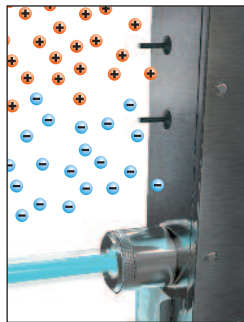
## Expandable to fit any HVAC system, new or retrofit



The **SI-Series** is self-contained—an expandable rack system that assures an excellent fit for all air handlers and will provide many years of trouble free service. No additional framework is needed.

## Ion/Plasma air purification option:

Extend the **SI-Series** to further improve indoor air quality through the application of air ionization technology that reduces odors, VOCs, bacteria, and ultrafine particulates. This proactive system electrically charges contamination causing either molecular breakdown or the static grouping of particles for capture in filtration.



## Engineered for longevity and with low maintenance requirements built-in



The **T3™** lamp system effectively optimizes UV lamp output, and enables water-tight seals yet lamp changes are easily accomplished without changing protective quartz sleeves (see below for more about T3).

## Installation:

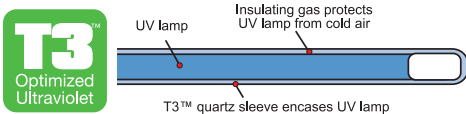
We work with independent HVAC contractors nationwide to install our systems. We assist them with proper sizing of the system to meet target performance. We also back up contractors with an in-house installation team that can also perform an installation independently.



## Maximize your return on investment

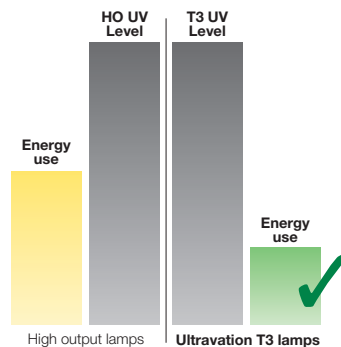
### Ultravation T3™ saves more than 50% in UV operating costs

When compared, Ultravation T3 UV lamps equal high output lamps for intensity and disinfection effectiveness. However, using T3 lamps will save more than 50% in UV system operational cost, increasing the overall energy savings of installing UV to disinfect HVAC components.



Cold HVAC air causes UV lamps to operate at below normal temperatures, reducing UV intensity. T3™ thermal stabilization allows standard UV lamps to achieve high output lamp intensity without the power consumption of high output lamps.

## High output lamps VS Ultravation T3™



Ultravation T3 provides the UV dose of high output lamps using at least 50% less energy

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# HVAC performance optimization with UVMatrix™ SI

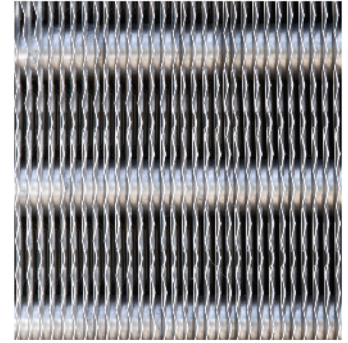
## Improved HVAC Operation

- Increased HVAC efficiency means fewer annual system operating hours, less energy used.
- Reduces HVAC wear and tear
- Helps minimize maintenance costs.
- Extends downstream filter life.



## Maintenance cost reduction

Clean HVAC coils extend maintenance intervals and reduce or eliminate chemical treatments.



## Reduces HVAC cost of ownership

As **UVMatrix™ SI** reduces operating expenses, the optimization of equipment performance extends HVAC system life. The probability of HVAC downtime is reduced.

## Improved indoor air quality

**UVMatrix™ UVC** prevents mold growth on cooling coils and helps disinfects the airstream, which reduces airborne microorganism generation and distribution.

- Reduces illness and allergic reactions.
- Provides more consistent indoor climate.

## Plasma Ionization option adds airstream purification

- Improves the healthfulness of the air through disinfection and particulate/odor ionization.  
(See more at right)

## Rapid ROI

Energy savings alone help attain a rapid ROI for the SI-Series. Quality, water tight construction creates long UV system life, and Ultravation patented T3™ lamp output enhancement keep UV energy consumption minimized. Innovative design facilitates installation in all HVAC systems.

## Made in USA



Ultravation air purification products are manufactured in our Vermont facilities. See a manufacturing video and learn more about our products at [Ultravation.com](http://Ultravation.com).



Scan this code with your smart phone for more information.

# UVMatrix™ SI-Series Energy Reduction Results

Measured benefits from adding UV to a clogged HVAC system – from an independent study



### System Performance Factors



**Net Energy Savings**  
**112,075 kWh or \$13,090**  
 Electric rate @ \$.1168 kWh

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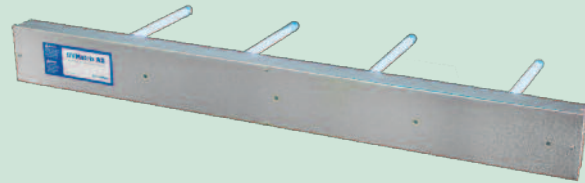
# UVMatrix™ Commercial IAQ Products

Also available in the UVMatrix commercial IAQ product series

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## UVMatrix™ AS-Series

T3™ UV light array installs in ductwork or custom designed plenums for advanced airstream disinfection.



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## UVMatrix™ 4X-Series

For outdoor / rooftop HVAC applications with remote monitoring available.



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## UVMatrix™ EZ-Light

Design accommodates ice machines and PTAC systems to kill mold and prevent “dirty sock” odors from contaminated cooling coils. Multi-voltage. Available in multiple lamp lengths. Magnet-mount option, UV shield and easy-mount electronic power supply.



In Kansas & Missouri contact:



**ePlus Environmental Solutions LLC**  
<https://epluses.com>  
(877) 375-8737 Toll Free  
(913) 915-1681 Direct

Member:



EPA establishment number: 074725-VT-001

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Manufactured in the USA by **Ultravation, Inc.**, PO Box 165, Poultney, VT 05764

Ultravation's T3™ system is protected by US patents 6,809,326B2 and 6,838,057B2  
Ultravation's SI-Series™ system design is protected by U.S. patents 7419642B2 and 682805B2

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