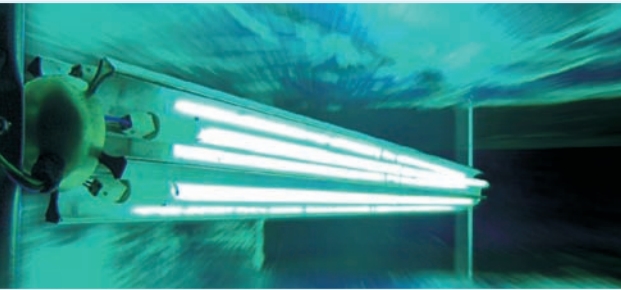


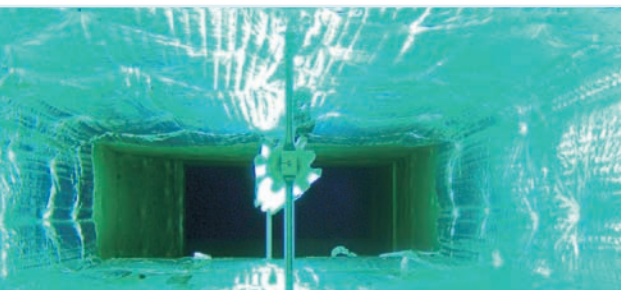
## IN-DUCT ULTRAVIOLET AIR PURIFIERS



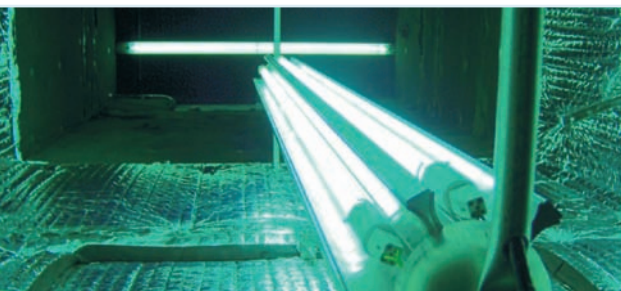
## UV BIO-WALL



Installing parallel to the air-stream increases dwell time (contact time) with air



Creates a wall of germicidal UV energy in excess of 6 feet deep destroying airborne contamination



Severe chemical and odor applications: a single Multi-split lamp working in conjunction with the UV bio-wall is installed up-stream



\* UV Bio-Wall Ballast & Control Panel

## Commercial UV Bio-Wall In-Duct

The UV Bio-Wall provides a “barrier wall” of UV Energy destroying biological and chemical contaminants passing through it.

Each Bio-Wall has 5 High Intensity 19mm Pure Fused Quartz Lamps, which are mounted to Aluminum Anodized Parabolic Reflectors that reflect the full 360° of Germicidal Radiation. The Bio-Wall is mounted parallel to the airstream in order to maximize the contaminant’s contact time with the UV Energy.

The Bio-Wall is equipped with a monitoring display built into the ballast box which includes a digital visual hour accumulator, monitoring LEDs & “Lamp Out” alarms.\*

The number and length (can be up to 60" long) of Bio-Walls will depend on the size of the duct, the velocity of the air moving within the duct, the specific contaminants to be treated and the desired % kill.

See bottom of page 27 for explanation of Building Automation Monitoring Software.



## FEATURES

- Drastically improves Indoor Air Quality
- Continuously treats the entire duct
- Destroys up to 99.99% of biological & chemical contaminants on one pass
- Available 18" to 60" Lamp lengths
- 5 High-Intensity Pure Fused 19mm Quartz UVC Lamps
- 5 Anodized Aluminum Parabolic Reflectors maximizes 360° of UV Energy
- Digital Hour Accumulator. LED & Audible Alarm on Ballast Control Panel\*
- Available with remote computer monitoring that can be tied into the buildings automation. Included software monitors Lamp life, system status and history (see bottom of page 27 for full description)
- Tested by The EPA & The National Homeland Security Research Center achieving greater than 99.97% destruction on Biological Warfare Agents on one pass
- CSA C/US Certified & CE Approved

## ACCESSORIES

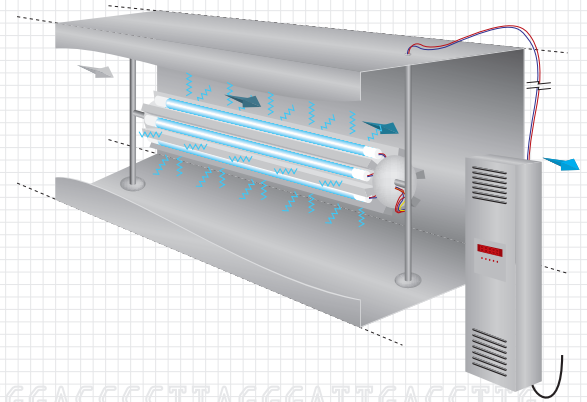
- Bio-Film Aluminum Foil for increased reflectivity. 150 ft roll x 6ft. Part# MSC6
- **For Elevated Chemical & Odor Applications.** Multi-Split Lamps w/ Reflector ranging from 12" - 60" lengths

## IN-DUCT ULTRAVIOLET AIR PURIFIERS

### UV BIO-WALL

#### Standard Indoor Air Quality Installation

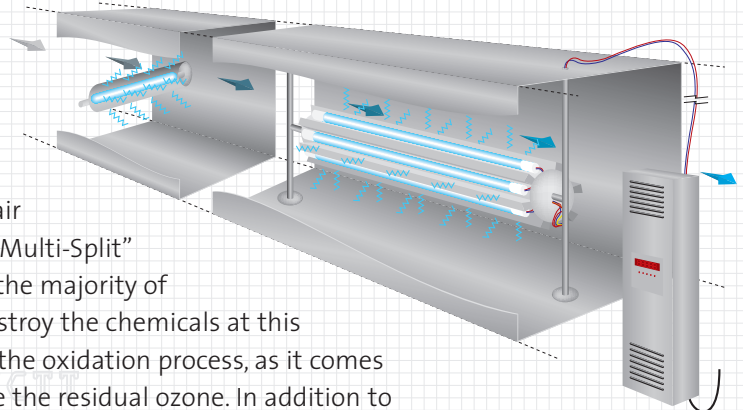
This installation uses the standard UV Bio-Wall. Designed for “all-around” chemical & odor control as well as drastic biological destruction. The UV Bio-Wall produces a UVC Germicidal wall destroying the biological contaminants passing through it. A small portion of UVV Oxidizing glass is used to destroy chemical contaminants and odors. The UV Bio-Wall can be sized for any duct size at any velocity of air, for any desired kill percentage on any biological contaminant.



### UV BIO-WALL WITH MULTI-SPLIT

#### Elevated Chemical & Odor Option

If the application requires a higher level of odor/chemical control, “Multi-Split” fixture(s) are installed upstream of the UV Bio-Wall(s). This perpendicular mounted UV Lamp produces elevated oxidation levels, and insures that all of the air moving in the duct will be treated. The distance between the “Multi-Split” Lamp and the UV Bio-Wall acts as a Reaction Chamber where the majority of chemicals and odors will be destroyed. Oxidation is used to destroy the chemicals at this point in the process. If there is residual ozone remaining after the oxidation process, as it comes in contact with the UV Bio-Wall, the Bio-Wall will then catalyze the residual ozone. In addition to catalyzing the residual ozone, the UV Bio-Wall will also destroy the biological contaminants in the air.



## TESTING

Tested by The Environmental Protection Agency (EPA) & The National Homeland Security Research Center (NHSRC) on Biological Warfare Agents (BWAs).

A SINGLE UV Bio-Wall 50” (available up to 60” Lamp lengths) showed greater than 99.97% destruction on one pass on airborne bacteria, 99% on viral & 93% on spore.

Testing under task order 1112 of the contract between EPA and Battelle Memorial Institute for implementation of the Technology Testing and Evaluation Program (TTEP was established by the National Homeland Security Research Center with the U.S. Environmental Protection Agency’s Office of Research & Development).

<http://www.epa.gov/NHSRC/pubs/erUVSanuvox062606.pdf>

See page 22 to read the EPA Executive Summary testing.

