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by:

division of AIRTEX Manufacturing

# What is germicidal UV?

Germicidal UV or UV-C has a specific wavelength of 253.7 nm (nanometers). Germicidal U, "discovered" over 150 years ago and intuitively understood long before that, has been proven quite effective at **actively destroying viruses**, **bacteria**, **yeast and mold spores**. It has been proven to kill germs contained in the tiny airborne droplets (droplet nuclei) that transmit some types of infections (measles, tuberculosis, influenza, etc) from person to person within buildings. Germicidal UV has been used safely and effectively in hospitals, clinics and laboratories for more than 50 years. UV is not useful for disinfecting the surfaces of objects, or larger respiratory droplets, and does not prevent transmission of infections spread by droplets or by direct person to person contact.

To interrupt airborne transmission of infections, it is necessary to prevent tiny (less than 5 micron) airborne particles (droplet nuclei) that originate in the respiratory tract of an infected host from reaching the respiratory tract of a susceptible victim in a viable state. Droplet nuclei have negligible settling tendency, disperse rapidly throughout the air of a room, and are carried wherever air currents take them.

UV radiation in the 254 nm wavelength range is germicidal for most infectious droplet nuclei.

# Ultraviolet energy Levels at 253.7 Nanometer Units Wavelength Required for Destruction of Various Organisms UV Energy in Microwatt-Seconds per Square Centimeter

BACTERIAL ORGANISM		VIRUS	
B. Parathphosus	0320	Streptococcus viridans	2000
Bacillus anthracis	4520	Staphlococcus albus	1810
B. subtilis	7100	Staphylococcus aureus	2600
B. subtilis spores	12000	Streptococcus hemolyticus	2100
Corynebacterium diptheriae	3370	Seratia marcescens	2420
S. enteritidis	4000	Dysentery bacilli	2200
Escherichia coli	3000	Shigella paradysenteriae	1680
Micrococcus candidas	6050	Proteus vulgaris	2640
Micrococcus sphaeroides	10000	Eberthella typhosa	2140
Mycobacterium Tuberculosis	10000	B. megatherium sp. (spores)	2730
Neisseria catarrhalis	4400		
Phytomonas tumefaciens	4400	MOLD SPORES	
Spirillum rubrum	4400		
Pseudomonas aeruginosa	5500	Penicillium digitatum	44000
Pseudomonas fluorescens	3500	Aspergillus glaucus	44000
S. Ttyphimurium	8000	Aspergillus flavus	60000
Sarcina lutea	19700	Aspergillus niger	132000
		Rhizopus nigricans	111000
YEAST		Mucor racemosus A	17000
		Murcor racemosus B	17000
Common yeast cake	6000	Ospora lactis	5000
Baker' yeast	3900	Penicillium roqueforti	13000
Saccharomyces ellipsoideus	6000	Penicillium expansum	13000
Saccharomyces sp.	8000		
Brewer's yeast	3300		

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# **HOW DOES UV "KILL" AIRBORNE PATHOGENS?**

UV-C reacts with cell DNA, causing alterations which result in organism self-destruction. UV-C destroys organisms anywhere the Ultraviolet light can penetrate and it is particularly effective against viruses, which range in size from 0.003 to 0.06 microns. The destruction of micro-organisms is accomplished when the UV-C rays directly strike them. The kill ratio of course is dependent on time and exposure and the intensity of the UV-C rays. Thus micro-organisms that come in direct contact can be readily destroyed. However, if the micro-organism whether it be bacteria or mold spores, is hidden below the surface, or if the microbe is not in the direct path of the rays, they will not be destroyed. As the UV-C rays strike the organism, the organism stats to swell which weakens the cell walls. As the rays continue to strike the organism, the swelling continues until the organism finally dies of internal explosion which bursts its outer skin or membrane.

#### **UV-C PENETRATING CAPABILITIES**

UV-C rays do not have great penetrating abilities into most substances. Obviously, in the case of air, it has a very effective killing range. Penetration is ineffective on "solid" surfaces. Consequently, Air and Surface Irradiation are principal functions of UV-C light. In addition, if you can see it, UV-C won't kill it. Organisms of a size visible to the naked eye are usually too large and therefore too resistant to be killed by practical amounts of UV-C. Mold spores, for example, are very resistant to UV-C kill and it may take 10 to 100 times the intensity to kill them as compared to that of common bacteria because of the relative size difference between mold spores and bacteria.

#### **UV "KILLING FACTORS" TO CONSIDER**

The percentage of airborne organisms rendered non-viable depends among other factors:

- A The intensity of UV radiation.
- B The length of time of exposure to the UV radiation
- C The relative humidity
- D The air temperature
- E The microbial species

# **INVERSE SQUARE LAW**

Like visible light, UV diminishes in intensity as the square of the distance from the UV source.

Example:

The intensity at 10 feet is 1/4 the intensity at 5 feet.

# PRIMARY BENEFITS OF UV-C VERSUS OTHER AIR PURIFICATION METHODS

- 1. UV-C is most effective against the very tiniest of airborne contaminants sizes most difficult to control with standard methods.
- 2. UV-C does not depend on a perfect air seal to be effective.
- 3. UV-C destroys rather than trapping airborne pathogens so there is not risk shaking loose contaminants during service.
- 4. UV-C does not degrade in the damp environments that are so often home to ductwork contaminants, as do media type filters
- 5. UV-C leaves no residual chemical which could cause the "cure to be worse than the disease" in indoors environments.
- 6. Inexpensive to install, operate and maintain.
- 7. Easily tailored to the level of risk involved with out sacrificing control of smaller micro-organisms such as viruses.
- 8. UV-C can be used in conjunction with other types of air cleaning systems to tailor the level of protection to the risks involved.

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# **UVF-1** Super

# **Function**

Mold, Bacteria, Virus & Odor Control

# Coverage

Up to 2900 sq. ft.

# Mounting

Flange mounting for in-duct application

# **Physical Size**

"H" = 9", "W" = 5 1/2", "D" = 3"

# Weight

7 lbs.

#### **Maintenance**

As a result of advanced engineering, maintenance is minimal in dry or humid climates. An easy dusting off of the lamp occasionally is all that is required to keep the UVF-1 units performing at their maximum efficiency. Recomended lamp replacement is after 9,000 hours of continual operation.

# **Electrical**

120V, 1 ph, 60 Hz 240V, 1 ph, 50 Hz (Export only) Power consumption = 35W

#### **Special Features**

- Special "U" shape germicidal lamp, with ultra high output design utilizing a total of 12" lamp surface, emiting a broad range lengths from 185 to 254 nanometers. This allows for broad kill of airborne bacteria and control of mold and organic compounds.
- Special patented control system allows for output adjustment.
- TRI-MED's vectored lamp technology creates the largest killing zone in its product class.
- ETL Listed for Safety Assurance # 538181

# Other safety features

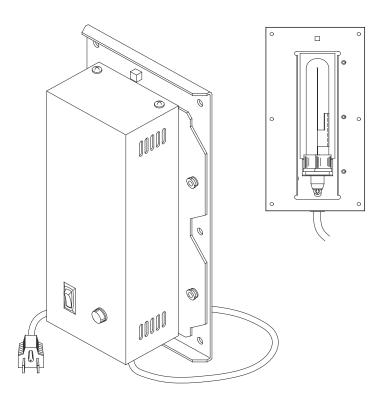
- Operation site glass to monitor lamp operation.
- Safety interlock switch to prevent any accidental exposure to the UV rays.
- Constructed or rugged 18 gauge steel.
- Long Lamp Life (kill effectiviness based on 9.000 hours).

# **Recomended Applications**

Residential, Office, Marine, Light Commercial.

# **Examples include**

Day care centres, nursing homes, trains, buses, ships, doctors' offices, schools, laboratories, veterinarian offices and restaurants.

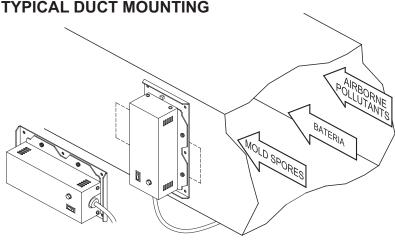


# **UVF-1** Super

These units are state-of-the-art air-purification systems for the purpose of controlling mold, odors and airborne bacteria. These advanced products utilizes scientifically proven germicidal ultraviolet irradiation, which kills airborne bacteria and initiates a photolysis process which reacts on organics.

The dual band ultraviolet energy range produced by the TRI-MED UVF-1 units, mimics mother nature's use of the sun's energy for natural air purification. The UVF-1 *Super* units use TRI-MED's patented control system to insure the proper output for a given air volume.

Engineered and manufactured to the highest quality standards. Use of the UVF-1 units will drastically reduce common airborne concerns often plaguing the breathable air in the indoor environment.



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# UVF-2

## **Function**

Bacteria Control

# Coverage

Indoor areas up to 2500 sq. ft. depending on air flow and load severity.

# Mounting

Flange mounting for in-duct application

# **Physical Size**

"H" = 9", "W" = 8 1/2", "D" = 3"

# Weight

12 lbs.

### Maintenance

As a result of advanced engineering, maintenance is minimal in dry or humid climates. An easy dusting off of the lamp occasionally is all that is required to keep the UVF-1 units performing at their maximum efficiency. Recomended lamp replacement is after 9,000 hours of continual operation.

# **Electrical**

120V, 1 ph, 60 Hz

240V, 1 ph, 50 Hz (Export only)

# **Special Features**

- Special "U" shape germicidal lamp, with ultra high output design utilizing a total of 24" lamp surface, emitting an ultraviolet wave length of 254 nanometers. This allows for maximum kill of airborne bacteria.
- TRI-MED's vectored lamp technology produces the largest killing zone in its product class.
- ETL Listed for Safety Assurance # 538181

### Other safety features

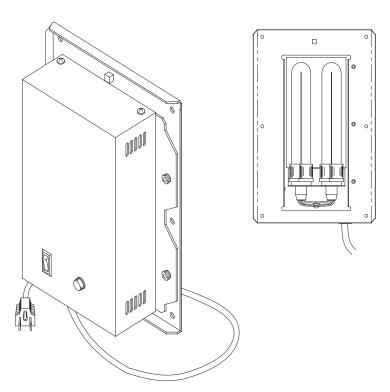
- Operation site glass to monitor lamp operation.
- Safety interlock switch to prevent any accidental exposure to the UV rays.
- Constructed or rugged 18 gauge steel.
- Extra long Lamp Life (kill effectiviness based on 9,000 hours).

#### **Recomended Applications**

Residential, Office, Marine, Light Commercial.

# **Examples include**

Day care centres, nursing homes, trains, buses, ships, doctors' offices, schools, homes, laboratories, veterinarian offices and restaurants and many more.

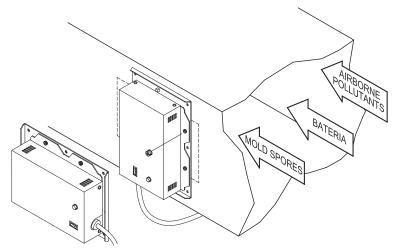


# UVF-2

The UVF-2 is state-of-the-art air purification for the purpose of controlling virus and airborne bacteria. This advanced product utilizes scientifically proven germicidal ultraviolet irradiation, which kills airborne and initiates a photolysis process which reacts on organics.

The dual band ultraviolet energy range produced by the TRI-MED UVF-2 units, mimics mother nature's use of the sun's energy for natural air purification. The UVF-2 units use TRI-MED's patented control system to insure the proper output for a given air volume.

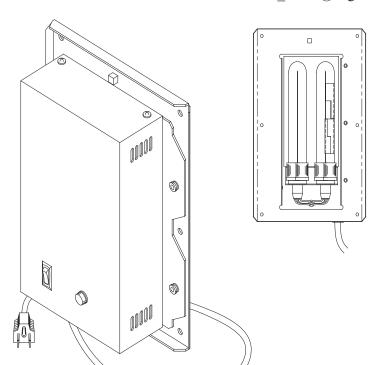
Engineered and manufactured to the highest quality standards. Use of the UVF-1 units will drastically reduce common airborne concerns often plaguing the breathable air in the indoor environment.



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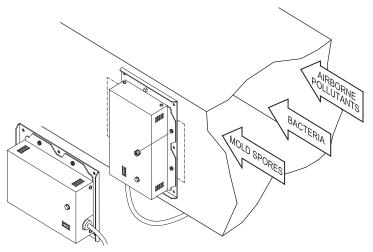


# **UVF-2** *Plus* and *Super*

These units are state-of-the-art air-purification systems for the purpose of controlling mold, odors and airborne bacteria. These advanced products utilizes scientifically proven germicidal ultraviolet irradiation, which kills airborne bacteria and initiates a photolysis process which reacts on organics.

The dual band ultraviolet energy range produced by the TRI-MED UVF-2 units, mimics mother nature's use of the sun's energy for natural air purification. The UVF-1 *Super* units use TRI-MED's patented control system to insure the proper output for a given air volume.

Engineered and manufactured to the highest quality standards. Use of the UVF-2 Plus or UVF-2 Super units will drastically reduce common airborne concerns often plaguing the breathable air in the indoor environment.



# UVF-2 Plus & Super

#### **Function**

Mold, Bacteria, Virus & Odor Control

# Coverage

UVF-2 Plus Up to 2900 sq. ft. UVF-2 Super from 2401 to 4900 sq. ft.

# Mounting

Flange mounting for in-duct application

# **Physical Size**

"H" = 9", "W" = 8 1/2", "D" = 3"

# Weight

12 lbs.

#### **Maintenance**

As a result of advanced engineering, maintenance is minimal in dry or humid climates. An easy dusting off of the lamp occasionally is all that is required to keep the UVF-2 units performing at their maximum efficiency. Recomended lamp replacement is after 9,000 hours of continual operation.

# **Electrical**

120V, 1 ph, 60 Hz 240V, 1 ph, 50 Hz (Export only)

## **Special Features**

- Special "U" shape germicidal lamp, with ultra high output design utilizing a total of 24" lamp surface, emiting a broad range of ultraviolet wave lengths from 185 to 254 nanometers. This allows for broad range kill of airborne bacteria and control of mold and organic compounds.
- Special patented control system allows for output adjustment during the life of the lamp.
- TRI-MED's vectored lamp technology creates the largest killing zone in its product class.
- ETL Listed for Safety Assurance # 538181

# Other safety features

- Operation site glass to monitor lamp operation.
- Safety interlock switch to prevent any accidental exposure to the UV rays.
- Constructed or rugged 18 gauge steel.
- Long Lamp Life (kill effectiviness based on 9,000 hours).

# **Recomended Applications**

Residential, Office, Marine, Light Commercial.

# **Examples include**

Day care centres, nursing homes, trains, buses, ships, doctors' offices, schools, laboratories, veterinarian offices and restaurants.

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# **UVSHO-2**

#### **Function**

Superior Bacteria and Virus Control

# Coverage

13" x 18" Single unit

# Mounting

In Duct cross-sectional area

# **Physical Size**

"H" = 13", "W" = 8", "D" = 21"

# Weight

19 lbs.

### **Maintenance**

As a result of advanced engineering, presentance is minimal in dry or humid climater an easy dusting off of the lamp occasion, as all that is required to keep the LIM 3-2 units performing at their maximum anciency. Recomended lampreplacement is 32,9,000 hours of continual operation.

### **Electrical**

120V, 1 ph, 60 Hz Amp draw = 1.28 Amps

# **Special Features**

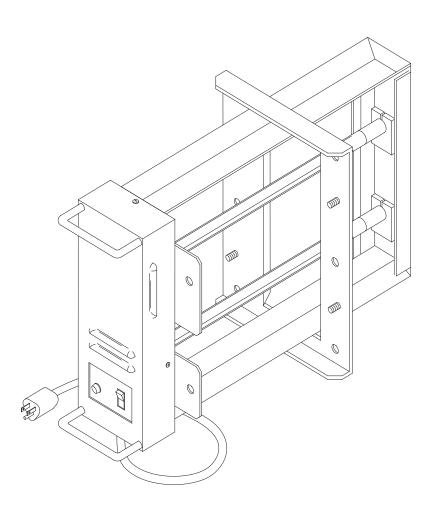
- Low cost to operation
- Highest output lamp in the industry
- Rugged 18 gauge Stainless Steel cabinet to eliminate lamp vibration
- Easy in-duct installation
- ETL listed
- Safety interlock switch to prevent any accidental exposure to the UV rays.
- Special interior coated lamps to extend lamp replacement to 9000 hrs. (effective kill based on 9000 hours).
- 6 ft. power cord for easy electrical connection

# **Recomended Applications**

Residential, Office, Light Commercial.

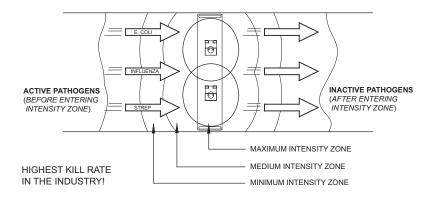
# **Examples include**

Day care centres, nursing homes, doctors' offices, schools, homes, laboratories, veterinarian offices and restaurants, kennels, live stock facilities, outpatient care centers, low immune health care protection and many more.



# **UVSHO-2**

TRI MED's ultimate air purification device. This device contains two super high output UV-C lamps operating at a UV wavelength band that includes 254 nm. This advanced product utilizes scientifically proven germincidal irradiation to kill airborne bacteria. The unit inserts cross sectionally into the duct which forces pathogens across the main intensity zone (within a 6 inch radius of the lamp) for the most effective microorganism control device.



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# UVSHO-2 Plus & Super

#### Function

Superior Mold, Odor, Virus & Bacteria Control

# Coverage

UVSHO-2 Plus from 5000 to 7500 CFM UVSHO-2 Super from 7500 to 10500 CFM 13" x 18" Single unit

# Mounting

In Duct cross-sectional area

# **Physical Size**

"H" = 13", "W" = 8", "D" = 21"

# Weight

19 lbs.

### **Maintenance**

As a result of advanced engineering, maintaince is minimal in dry or humid climater and easy dusting off of the lamp occasional that is required to keep the UVF-2 unit performing at their maximum efficiency. The omended lamp replacement is after 9 one hours of continual operation.

# Electrical

120V, 1 ph, 60 Hz Amp draw = 1.28 amps

# **Special Features**

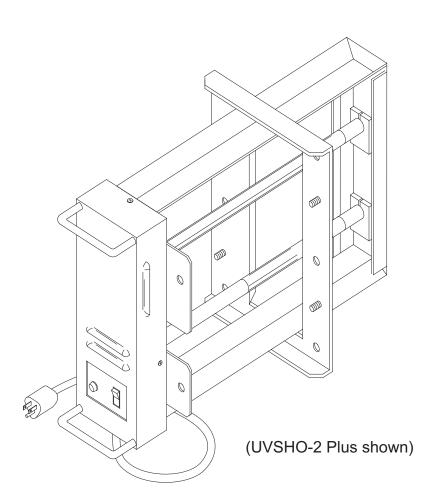
- Low cost to operation
- Highest output lamp in the industry
- Rugged 18 gauge steel cabinet to eliminate lamp vibration
- Easy in-duct installation
- ETL listed
- Safety interlock switch to prevent any accidental UV exposure during maintenance
- 90° lamp intersection to air flow for maximum pathogen control
- Special interior coated lamps to extend lamp replacement to 9000 hrs. (effective kill based on 9000 hours).
- 6 ft. power cord for easy electrical connection

# Recomended Applications

Residential, Office, Light Commercial.

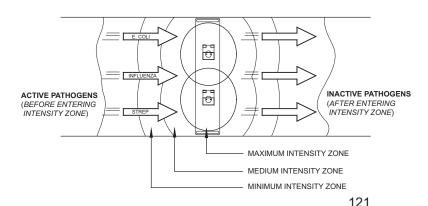
# **Examples include**

Day care centres, nursing homes, doctors' offices, schools, homes, laboratories, veterinarian offices and restaurants, kennels, live stock facilities, outpatient care centers, low immune health care protection and many more.



# UVSHO-2 Plus and Super

TRI MED's ultimate air purification device. These device contains two super high output UV-C lamps operating at a UV wavelength band that include 185 and 254 nm. This advanced product utilizes scientifically proven germincidal irradiation to kill airborne bacteria and initiates a photolysis process which reacts on organics which include those generated by molds. The unit inserts cross sectionally into the duct which forces pathogens across the main kill zone (within a 6 inch radius of the lamp) for the most effective microorganism control device. The lower wavelength utilizes TRI MED's patented control system to guarantee proper oxidation levels for a given air volume.



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# **UVSHO-3**

### **Function**

Bacteria and Virus Control

# Coverage

18" x 18" Single unit

# Mounting

In Duct cross-sectional area

# **Physical Size**

"H" = 18", "W" = 8", "D" = 21"

# Weight

23 lbs.

### **Maintenance**

As a result of advanced engineering, processing is minimal in dry or humid climater an easy dusting off of the lamp occasion, as all that is required to keep the III 1000 units performing at their maximum anciency. Recomended lampreplacement is a 1000 pour of continual operation.

# **Electrical**

120V, 1 ph, 60 Hz Amp draw = 1.77 Amps

### **Special Features**

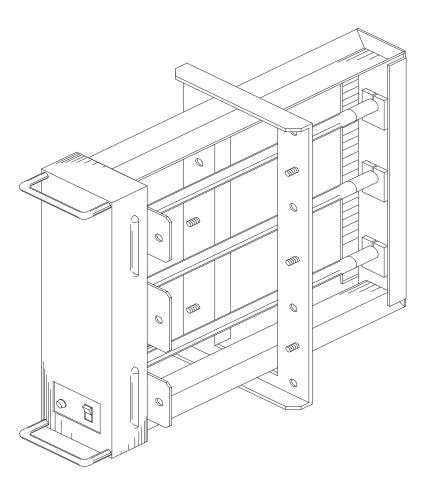
- Low cost, low energy consumption
- Highest output lamp in the industry
- Rugged 18 gauge Steel cabinet
- Compact size, easy in duct installation
- 90° lamp intersection to air flow for maximum pathogen control
- ETL listed
- Safety interlock switch to prevent any accidental exposure to the UV rays during maintanance
- Special interior coated lamps to extend lamp replacement to 9000 hrs. (effective kill based on 9000 hours).
- Optional 6 ft. power cord for quick connection

# **Recomended Applications**

Residential, Office, Light Commercial.

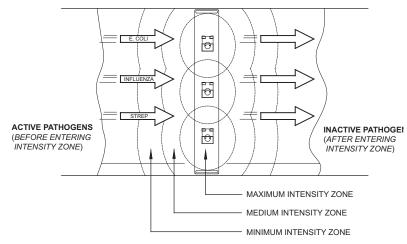
# **Examples include**

Schools, hospitals, veterinarian offices, kennels, livestock facilities, day care centers, nursing homes, outpatients care centres, low immune health care protection.

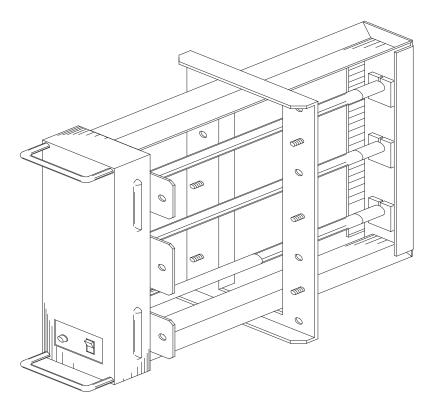


# **UVSHO-3**

TRI MED's ultimate air purification device. This device contains three super high output UV-C lamps operating at a UV wavelength band that includes 254 nm. This advanced product utilizes scientifically proven germincidal irradiation to kill airborne bacteria. The unit inserts cross sectionally into the duct which forces pathogens across the main intensity zone (within a 6 inch radius of the lamp) for the most effective microorganism control device.

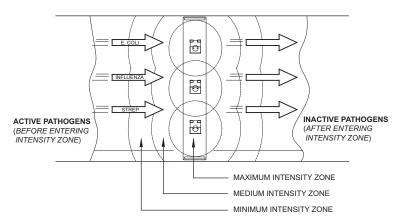


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# UVSHO-3 Plus, Super and Max

TRI MED's ultimate air purification device. These device contains three super high output UV-C lamps operating at a UV wavelength band that include 185 and 254 nm. This advanced product utilizes scientifically proven germincidal irradiation to kill airborne bacteria and initiates a photolysis process which reacts on organics which include those generated by molds. The unit inserts cross sectionally into the duct which forces pathogens across the main kill zone (within a 6 inch radius of the lamp) for the most effective microorganism control device. The lower wavelength utilizes TRI MED's patented control system to guarantee proper oxidation levels for a given air volume.





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# UVSHO-3 Plus, Super and Max

#### **Function**

Superior Mold, Odor, Virus & Bacteria Control

# Coverage

UVSHO-3 Plus from 7500 to 10000 CFM UVSHO-3 Super from 10001 to 12500 CFM UVSHO-3 Max from 12501 to15000 18" x 18" Single unit

# Mounting

In Duct cross-sectional area

# **Physical Size**

"H" = 18", "W" = 8", "D" = 21"

# Weight

23 lbs.

## **Maintenance**

As a result of adversed engineering, maintenance is minimally any or humid climates. An easy dusting of the lamp occasionally is all that is required to keep the UVF-2 units performing at their maximum efficiency. Recomended lamp replacement is after 9,000 hours of continual operation.

# **Electrical**

120V, 1 ph, 60 Hz Amp draw = 1.77 amps

# **Special Features**

- Low cost to operation
- Highest output lamp in the industry
- Rugged 18 gauge steel cabinet to eliminate lamp vibration
- Easy in-duct installation
- ETL listed
- Safety interlock switch to prevent any accidental UV exposure during maintenance
- 90° lamp intersection to air flow for maximum pathogen control
- Special interior coated lamps to extend lamp replacement to 9000 hrs. (effective kill based on 9000 hours).
- Optional 6 ft. power cord for quick connection

# **Recomended Applications**

Homes, schools, hospitals, veterinarian offices, kennels, livestock facilities, day care centres nursing homes, outpatients care centres, low immune health care protection.

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# **Ionization / Oxidation Spec**

### **Odor Remover**

#### General

Oxidation Equipment generator shall be used in the exhausted air section of the HVAC equipment. It shall reduce the odors from all hydrocarbon gases being removed form the facility using charged oxygen to attach itself to hydrocarbon gas molecules altering their structure to deodorize the compound.

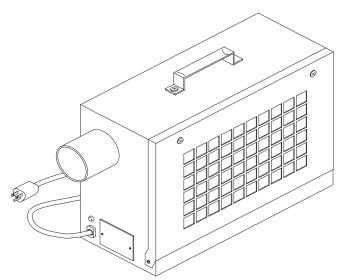
# **Oxidation Equipment**

- Oxidizer units shall be compact, self-contained units, with all components factory mounted to maximize the HVAC system's air flow.
- The means of charging oxygen shall be by corona discharge principle, which shall convert oxygen in the air stream to form ozone. The corona discharge plates shall be held between two electric fields so as to form uniform corona discharge. No other system shall be used.
- Each Generator head shall be provided with six (6) dual sided corona discharge plates. All the corona discharge plates shall be housed in stainless steel enclosures and mounted on a rack assembly. Care should be taken to ensure the generator is mounted where there is a steady flow of air.
- Components in contact with air stream shall be enclosed in stainless steel casing, with sufficient openings to allow adequate flow of air over the corona discharge plates.
- Generator heads holding the corona discharge elements shall be fabricated out of stainless steel that naturally minimizes deposits of
  contaminants, on the electrical contacts and the plate support and shall be classified as "hazardous duty heads".
- The generators shall be suitable for mounting in an air velocity up to 1500 ft/min.
- The generators shall be suitable for airflow in either direction.
- Generators shall be interlocked with the motor exhaust fan. This will prevent start of the generators unless fan motor is energized.
- The generators shall not required any consumables for its operation, except for use of electricity.
- The system shall not rely on initial or replacement of filters of any sort to remove odors and chemicals.
- The generator heads will be placed in an accessible compartment to allow access for plate cleaning.
- Generator shall be provided with and external remote mounted regulator that shall allow regulation of output of ozone from 0 to 100% of the rated output in at least 8 steps. It shall be complete with ON/OFF switch and pilot light mounted in the electrical control panel of the HVAC system.
- Only a single source of electric power shall be necessary to operate the generator. Electrical source shall be 110 volts, single phase. The unit shall be properly grounded. Ease of maintenance is extremely important consideration. The generators shall be manufactured to permit very easy withdrawals and refitting of the corona plates.

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The SI-200 & SI -500 are self-contained air purification products designed to reduce potentially high concentrations of odors and VOC's. They are a very economical solutions, using minimal power consumption and requiring no additional chemicals or high priced media for operation.

The Oxidizer process is simple: Using the basic principles of organic chemistry, ozone (oxidant) is used as the stimulus to naturally breakdown (oxidize) gaseous compounds, producing  $CO_2$ ,  $H_2O$  and  $O_2$  as the primary end products.

For maximum results, the  $\rm SI\text{-}200~\&~SI\text{-}500$  units should be connected to the suction side of any ducted system of maximize contact time between the oxidant and odorous gases and achieve complete oxidation.

These units are easily adaptable to the A-TAC system to create an automated air purification system, continually balancing oxidant levels with load levels for the cleanest air.

The SI-200 and SI-500 units will treat air problems in spaces where there is no existing air ducts\* or can be used to inject ozone into ducted air systems.

Typical Effected Gases Include: Formaldehyde, Xylene, Toluene, Styrene, Glutaraldehyde, Carbon Monoxide, Acetone, Benzene, Hydrogen sulfide, Ammonia, Ketone, Complex ETS gases (environmental tobacco smoke) and general food odors. (for complete list, contact factory).

\* Recommend use with A-TA system if used in occupied space.

# SI-200 & SI-500 Plus, Super and Max

#### **Function**

Control of odors, VOC's and mold

## Coverage

SI-200 from 500 to 5000 CFM SI-500 from 1500 to 10000 CFM

# Mounting

Duct attachable or portable

#### Control

Manual (standard on board) or Automatic Remote (ooptional)

#### Electrical

120V, 1 ph, 60 Hz 240V, 1 ph, 50/60 Hz (export only)

# **Physical Size**

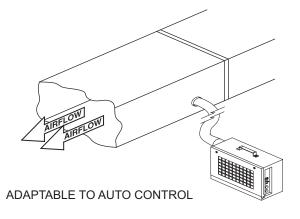
"H" = 14", "W" = 9 1/4", "L" = 18 3/4"

# Weight

25 lbs.

### Special Features

- 135 CFM Blower delivers high concentrations of ozone for source applicartion
- 2 or 5 high efficient double screen discharge plates
- 2 ply poly pad filter for maximum plate protection against particulates, extending maintanance intervals
- On-Board fan and ozone output controls
- Rugged 18 gauge construction
- 3" air discharge outlet for maximum grams of usuable trivalent oxygen



TRI-MED					
OXIDIZER MODEL	FAN CONTROL	OXIDIZER BLOWER SIZE	DISCHARGE OPENING	DELIVERED OZONE *	
SI-200	0-100%	140 CFM	3"	0.7 ppm	
SI-500	0-100%	140 CFM	3"	1.6 ppm	

<sup>\*</sup> This is measured ozone levels after discharge of the unit and at maximum air volume.

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TM0708

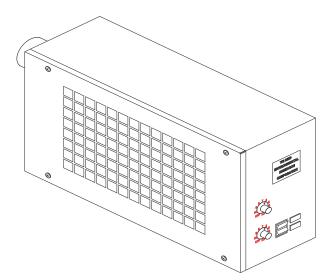
This is not a projected output before system loses.

Ozone production can vary depending on ambient conditions.

Web-Site: www.airmedic.com • E-mail: trimed airtex@engineered



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The SI-1000 & SI -1000 MAX are self-contained air purification products designed to reduce potentially high concentrations of odors and VOC's. They are a very economical solutions, using minimal power consumption and requiring no additional chemicals or high priced media for operation.

The Oxidizer process is simple: Using the basic principles of organic chemistry, ozone (oxidant) is used as the stimulus to naturally breakdown (oxidize) gaseous compounds, producing  $CO_2$ ,  $H_2O$  and  $O_2$  as the primary end products.

For maximum results, the SI-1000 & SI-1000 MAX units should be connected to the suction side of any ducted system of maximize contact time between the oxidant and odorous gases and achieve complete oxidation.

These units are easily adaptable to the A-TAC system to create an automated air purification system, continually balancing oxidant levels with load levels for the cleanest air.

The SI-1000 and SI-1000 MAX units will treat air problems in spaces where there is no existing air ducts\* or can be used to inject ozone into ducted air systems.

Typical Effected Gases Include: Formaldehyde, Xylene, Toluene, Styrene, Glutaraldehyde, Carbon Monoxide, Acetone, Benzene, Hydrogen sulfide, Ammonia, Ketone, Complex ETS gases (environmental tobacco smoke) and general food odors. (for complete list, contact factory).

\* Recommend use with A-TA system if used in occupied space.

# SI-1000 & SI-1000 Max

# **Function**

Control of odors, VOC's and mold

# Coverage

SI-1000 from 3500 to 25000 CFM SI-1000 Max from 10500 to 35000 CFM (Actural sizing depends on load conditions)

# Mounting

Duct attachable or portable

#### Control

Manual (standard on board) or Automatic Remote (ooptional)

#### **Electrical**

120V, 1 ph, 60 Hz 240V, 1 ph, 50/60 Hz (export only)

# **Physical Size**

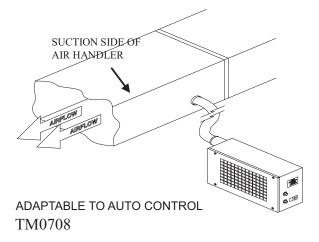
"H" = 14", "W" = 9 1/4", "L" = 23"

# Weight

SI-1000 35 lbs. SI-1000 Max 50 lbs.

# **Special Features**

- 180 CFM Blower delivers high concentrations of ozone for source applicartion
- 10 high efficient double screen discharge plates
- 2 ply poly pad filter for maximum plate protection against particulates, extending maintanance intervals
- On-Board fan and ozone output controls
- Rugged 18 gauge Stainless Steel construction
- 3" air discharge outlet for maximum grams of usuable trivalent oxygen
- Hour meter for easy maintenance tracking



TRI-MED					
OXIDIZER MODEL	FAN CONTROL	OXIDIZER BLOWER SIZE	DISCHARGE OPENING	DELIVERED OZONE *	
SI-1000	0-100%	180 CFM	3"	3.0 ppm	
SI-1000 MAX	0-100%	180 CFM	3"	6.8 ppm	

<sup>\*</sup> This ozone levels are measured in a test air stream where there are no challenges to consume the energized oxygen which would occur in a contaminated air stream under typical applications. The air tested was at the exact discharge. This ozone as measured would then be diluted in the injected air stream as a ration to the total air volume. It is not the intent to produce ozone, but to activate oxygen for oxidation. TRI MED offers load controllers and high limit devices to ensure the systems safety and effectiveness.

Web-Site: www.airmedic.com • E-mail: trimed airtex@engineered



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# SI-2000 & SI-2000 Max

#### **Function**

Control of severe odors, and mold

# Coverage\*

SI-2000 from 5000 to 15000 CFM SI-2000 Max from 15001 to 25000 CFM (Actural sizing depends on load conditions)

# Mounting

Wall or HVAC unit mounted

#### Control

Local fan and ozone controls
Otional Automatic Remote (A-TAC):

• TM-L, • TM3-AR, • TM3-ARL

#### **Electrical**

120V, 1 ph, 60 Hz

# **Physical Size**

"H" = 33", "W" = 46", "L" = 15"

# Weight

SI-2000 35

SI viviax 50 lbs.

# **Special Features**

- High efficiency vairble speed, squirrel cage blower
- Hinged doors with lever-lock handle for easy access to filter, generator head, control and blower / electrical connection sections
- 30% filtration
- 4" discharge nozzles 150 CFM
- Rugged 18 gauge Stainless Steel construction
- 0-100% on board output control w/ remote switch
- Built in hour meter for proper maintenance scheduling
- Weather-tight enclosure for continuous outdoor use.
- SI-2000 Std. is equipped with (20) 3.5" x 3.5" x 0.035 mil corona plates
- SI-2000 Max. is equipped with (12) 5" x 7" x 0.04 mil corona plates

These Indurial Duty Units are self-contained air purification products designed to reduce high concentrations of odors. They are a very economical solution, using minimal power and requiring no chemical additives or high priced media for operation.

The Oxidizer process is simple: Using the basic principles of organic chemistry, where charge oxygen (oxidant) is used as the stimulus to naturally breakdown or change molecular structure (oxidize) of gaseous compounds, leaving non-odorous base compounds.

For maximum results, the SI-2000 & SI-2000 MAX units should be connected to the suction side of any air moving system to inject the charged oxygen into the controlled odorous air flow permitting the use of duct work to create a contact zone between the oxidant and odorous gases to achieve oxidation.

These units are easily adaptable to the A-TAC system to create an automated air purification system, continually balancing oxidant levels with load levels for the cleanest air and minimal energy consumption.

The SI series units can be used in source capture applications like cooking, exhaust or can be used to inject ozone into ducted air systems.

Typical Effected Gases Include: Formaldehyde, Xylene, Toluene, Styrene, Glutaraldehyde, Carbon Monoxide, Acetone, Benzene, \*\*Hydrogen sulfide, \*\*Ammonia, Ketone, Complex ETS gases (environmental tobacco smoke) and general food odors. (for complete list, contact factory).

\*\* Odors from these compounds are neutralized by adding oxygen to the existing compounds.

TRI-MED				
OXIDIZER MODEL	# GEN HEADS	CURRENT DRAW		
SI-2000 STD	2	4.1 amps		
SI-2000 MAX	2 HO	5.7 amps		

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