

Ultraviolet Air Purification For Your Family's Home



The Facts About Indoor Air Quality

We have been consumed about saving energy in our homes. Our efficient homes have become buttoned up so tight today as if it were preparing for a storm. The storm has manifested itself as indoor air pollution. Even though one may not have noticeable irritating symptoms, this silent and invisible menace threatens the quality of indoor air in homes every day.

The EPA has concluded that most of our exposure to toxic chemicals, harmful biologicals and allergens occur indoors where we spend over 90% of our time. In a way, this is good news. We have more power over the environment in our homes and businesses than we do on the outdoor environment.

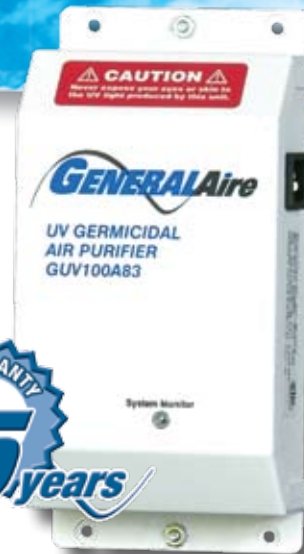
It is well established that indoor air pollution can be the result of cleaning chemicals, mold in damp places, microorganism growth in carpets, poor building ventilation, and out gassing due to construction products used in new homes and renovations. The control of indoor pollutants is extremely important because of the adverse effects they can cause regarding ones long term health.

Common symptoms resulting from poor indoor air quality include: headaches, fatigue, eye irritations, asthma attacks, breathing problems, dizziness, memory loss, depression, skin irritations, sinus infections, colds, flu, and viruses. Exposure to even low levels of contaminants can potentially lead to long-term health problems. The MicrobeSwatter® is designed to bring the balance of nature to your home for improved indoor air quality.

Products that let you
breathe
a little easier®

GENERALAire
Fresh Indoor Air Quality

GENERALAire Lets the Sunshine In!



Light Wavelengths in Nanometers (nm)

Cosmic Rays		0 nm
Gamma Rays		25 to 50 nm
X-Rays		50 to 100 nm
UWV		100 to 200 nm
UVC	Short Wave Band	200 to 280nm
	Medium Wave Band	280 to 315nm
UVA	Long Wave Band	315 to 400nm
Visible Light		400 nm
Infrared		700 nm
Radio Waves		1200nm

All ultraviolet (UV) light is measured in units called nanometers. A nanometer (nm) is a wavelength of light approximately 1/25,000,000 inch or a billionth of a meter. Wavelengths of visible light range from about 400 to 700nm. UV wavelengths range from about 1 to 400nm. The UV wavelength is shorter than visual light and is rendered invisible to the human eye.

GUV100A83 UV Air Purifier

Does Lamp Output Intensity Matter?

Ultraviolet lamp output intensity is measured in microwatts per square centimeter at 1 meter ($\mu\text{W}/\text{cm}^2@1$ meter) from the lamp. The GeneralAire H-lamp is rated at $180 \mu\text{W}/\text{cm}^2@1$ meter delivering up to 100 times more germicidal output than other brands. The secret to our powerful intensity rating is achieved by combining a high output 36 watt lamp with a multi voltage regulating electronic ballast. Lamp output matters if you want the best performance for your home. If you want the best, then you can depend on GeneralAire Purifiers.

Specifications

- 4" x 8.75" x 2.75" (W x H x D)
- 36 watt, 16" UVC Germicidal H-lamp UWV16HC
- $180 \mu\text{W}/\text{cm}^2@1$ meter UVC Output Potency
- 120 VAC / 240 VAC Regulating Electronic Ballast
- QuartzCoat® Durability
- Effective Lamp Life 18,000 hours (2 year lamp replacement)
- Power Cord Disconnect (Appliance Coupler Design)
- Max 2000 CFM or 4500 SQFT
- 5 Year Ballast Warranty

Let the Sunshine In!

The sun that brings us daylight everyday also delivers UVC energy that protects us from germs, bacteria, viruses, and other destructive bioaerosols outdoors. Installed on your HVAC distribution system, the UV Air Purifiers boast an intensely effective 16 inch 36 watt germicidal H-lamp (UWV16HC). The 36 watt lamp radiates a high output of germ killing ultraviolet light in your duct work, imitating the air purifying intensity of the sun that treats your indoor air. The germicidal bandwidth C (UVC) measuring 200 to 280 nanometers is effective at killing germs and bacteria in your home and will significantly reduce the levels of harmful bioaerosols (viruses, fungi, mold, and allergens).

How are Bioaerosols Eliminated?

The high output UVC energy will break down the electron bonds of an organic molecule. This intense energy will penetrate an airborne microorganism causing cellular and genetic damage that either destroys the microorganism or renders it harmless by robbing it with the ability to reproduce.

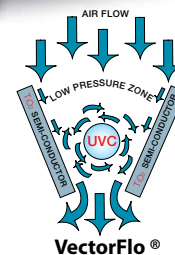
What is Super Plasma?

Plasma is an excitation of gas by the energy from ultraviolet light. Wavelengths of ultraviolet light measuring 100 to 200 nanometers bandwidth generate highly reactive triatomic molecules. The aggressive ionized gas has the ability to destroy organic contaminants photochemically by the formation of atomic oxygen, molecular singlet oxygen, activated oxygen, and ozonides (O₃-). This formation interacts with organic contaminants breaking them down to harmless carbon and water.



Footnote:
The UWV5CL lamp is rated to produce 50 milligrams of O₃ at high output and test measures well below F.D.A. regulations of .05 ppm.





GUV25403A

Super Plasma UV Air Purifier

How does it work in my Home?



The plasma is produced by its 5 inch pure quartz broad spectrum ultraviolet lamp (UVV5CL). The UVV5CL lamp output is controlled by the patented Oxy-Regulator lamp-in-tube design. The Oxy-Regulator allows you to set the intensity level of oxidation

to breakdown airborne gaseous contaminants and eliminate unwanted odors in your home.

Specifications

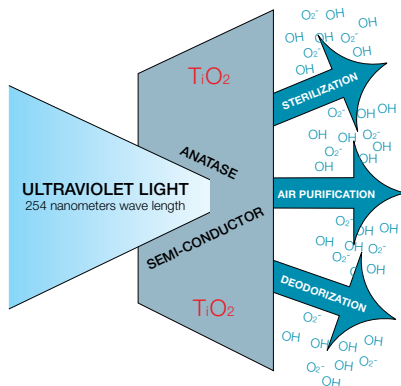
- 4" x 11.75" x 2.75" (W x H x D)
- 36 watt, 16 inch Germicidal H-Lamp UVV16HC
- 180 $\mu\text{W}/\text{cm}^2$ @1 meter UVC Output Potency
- 8 watt, 5 inch Super Plasma Lamp UVV5CL
- 12 $\mu\text{W}/\text{cm}^2$ @1 meter UVV Lamp Intensity Rating
- 120 VAC / 240VAC Regulating Electronic Ballast
- QuartzCoat® Durability
- Effective Lamp Life 18,000 hours (2 year lamp replacement)
- Power Cord Disconnect (Appliance Coupler Design)
- Max 2000 CFM or 4500 SQFT
- 5 Year Ballast Warranty

The VectorFlo® PCO2450

Air Treatment by reducing levels of air borne bacteria, fungus, mold, and other infestations.

Deconstruction of gaseous contaminants and toxic organic molecules to carbon and water.

Neutralizing odors from tobacco, garbage, animals, pet dander, and other volatile organic compounds (VOC)



The **VECTORFLO**® PCO2450 Photocatalytic Ultraviolet Air Purifier

The VectorFlo® PCO2450 (Photocatalytic Oxidation) Air Purifier features the patented VectorFlo® semiconductor designed to deliver a high performance kill rate unmatched by other ultraviolet air treatment brands. The VectorFlo® creates a low pressure area around the high output 50 watt UVC lamp establishing a venturi effect. The venturi significantly increases the time exposure of airborne microorganisms in a bath of sterilizing germicidal ultraviolet light. The treated unrestricted air (.02 inches W.C.) is then accelerated beyond the VectorFlo® semiconductor and introduced into the main airflow for maximum purification.

The patented semi-conductor's exclusive process incorporates 24 SQFT equivalent surface area of honey combed aluminum cells. The cells are electro-statically coated and permanently bonded at high temperatures with nanosized crystallites of titanium dioxide TiO₂ in an anatase form. This specific process is proven to be one of most effective photocatalyst.

A photochemical reaction occurs when UVC light is absorbed by the TiO₂ semiconductor. An advanced oxidation conversion process occurs where the H₂O molecule in the airflow is split to create hydroxyl radicals (OH) and super oxide anions (O₂⁻) known to be among the most powerful oxidizing radicals. This Photocatalytic process aggressively deconstructs gaseous contaminants and deodorizes your indoor air safely.

Specifications

- 8-1/2" x 7-3/8" x 2" (W x H x D)
- 50 Watt 18 inch UVC Lamp
- 135 $\mu\text{W}/\text{cm}^2$ @ 1 meter UVC Output Potency
- High Output Temperature Compensating (HOTC) 120v / 240v Ballast
- 24 SQFT Titanium Dioxide TiO₂ Anatase Semi-conductor
- Max 2000 CFM or 4000 SQFT
- QuartzCoat® Durability
- Effective Lamp Life 18,000 hours (2 year lamp replacement)
- Power Cord Disconnect (Appliance Coupler Design)
- 5 Year Ballast Warranty

MICROBESwatter®

24 Volt Ultraviolet Air Purifier with U.L. listed remote ballast

LIMITED WARRANTY
5 years

MS24

Specifications

Dimensions:

- Mounting Plate: 3" x 3"
- UVC H-Lamp 1.75" x 16.25"
- Duct Mounting Hole: 2"

Weight:

- UVC H-Lamp Assembly: 6 oz

Electrical

- 24 VAC, 2 Amp
- UL Listed Electronic Ballast

UVC H-Lamp Potency

- 36 watt, 105 uw/cm² @ 1 meter

Effective Lamp Life

- 9,000 hours

Transformer NOT included
50 VA Required
Use GeneralAire GA3501
(TR50VA12024)

2-3 times MORE!

Germicidal Output Intensity than other brands

The MicrobeSwatter® MS24 and MS24OZ utilizes the contaminant fighting technology of ultraviolet light to dramatically reduce harmful airborne microorganisms circulating through a heating and air conditioning system. The MicrobeSwatter® is 2 to 3 times more powerful than many commonly used ultraviolet light products. This enhanced power provides far greater bio-contaminant destruction and results in significantly improved indoor air quality.

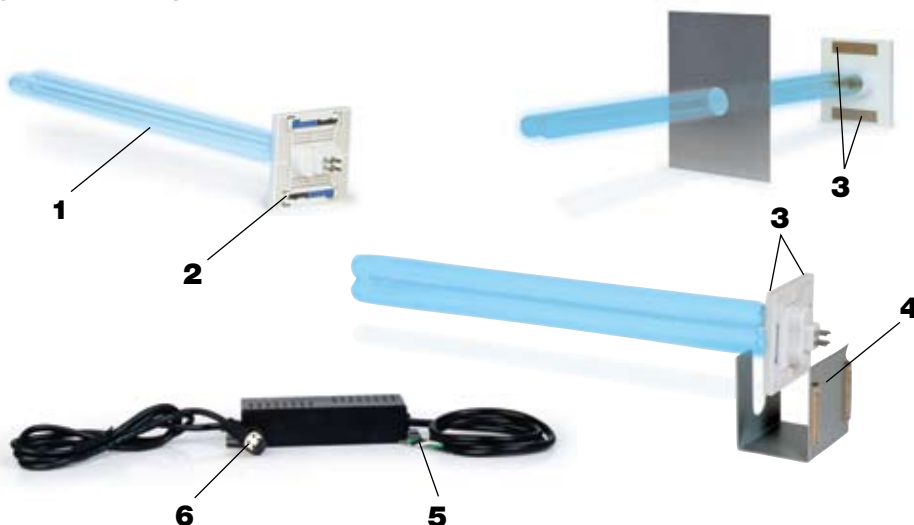
Featuring Magnetic Strength Mounting for Secure-Convenient Lamp Placement

The MicrobeSwatter® MS24 and MS24OZ features a patent pending magnetic mounting plate. Cut a hole to insert the lamp and you're done – no screws needed. Powerful magnet securely holds the mounting plate in place. The innovative design makes installation and lamp replacement a snap! You don't have to unscrew or unfasten the unit to replace the lamps – simply pull out the lamp and put in a new one!

MICROBESwatter® SweetShot

Indoor Air as Fresh as after a Soft Summer Rain!

Everyday the sun's ultra-violet rays battle to protect us from harmful germs, bacteria, and viruses outdoors. The sun also has the power to measure safe levels of ozone to freshen the air we breathe and break down dangerous gaseous contaminants. The MicrobeSwatter® SweetShot MS24OZ acts like the sun indoors to bring you the same benefits we experience outdoors. The MicrobeSwatter® SweetShot fused lamp design delivers a safe measured amount of ozone (O₃). The SweetShot will break down gaseous compounds that create unwanted odors in your heating and air conditioning ducts. The SweetShot will leave your indoor air fresh and clean like after a soft summer rain.



Ultraviolet Lamp Assembly

1. 36 watt UVC H-Lamp
2. Mounting Plate
3. Powerful Magnets
4. Magnetic mounting bracket for mounting unit inside duct

Electronic Power Supply

Provides constant wattage to the UVC H-lamp. Blue LED light indicates if UVC H-lamp is lit.

5. To 24 VAC Connection
6. To Lamp Assembly