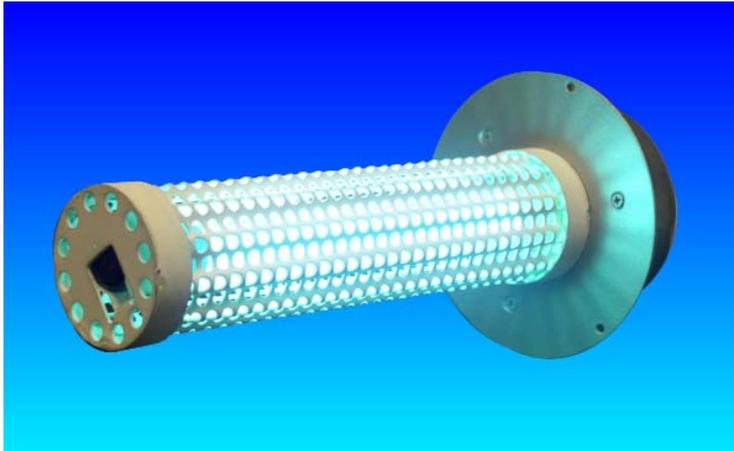


# RGF<sup>®</sup> Guardian Air

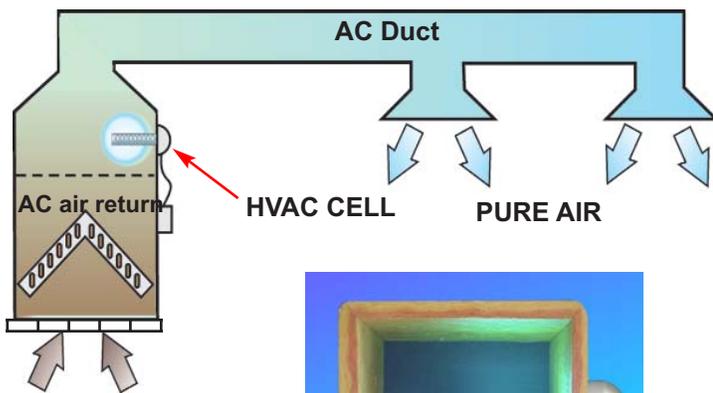
## AC/Heat Duct Air Purification System A Photohydroionization™ (PHI) Technology



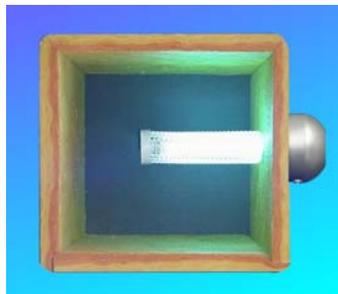
The **Guardian Air by RGF<sup>®</sup>** is designed to eliminate sick building syndrome risks by reducing odors, air pollutants, VOCs (chemical odors), smoke, mold bacteria and viruses\*. The HVAC-PHI Cells are easily mounted into air conditioning and heating systems air ducts where most sick building problems start. When the HVAC system is in operation the HVAC-PHI Cell creates an Advanced Oxidation Process consisting of: Hydro-peroxides, super oxide ions and hydroxide ions. All are friendly oxidizers. By friendly oxidizers we mean oxidizers that revert back to oxygen and hydrogen after the oxidation of the pollutant.

### Why Use RGF's Photohydroionization™ Technology ?

Germicidal UV light rays have been used for decades by the medical industry as a method for destroying micro-organisms (germs, viruses, bacteria). UV light is dependable and can be easily installed in HVAC ducts or a plenum. Germicidal UV light is effective in reducing only the airborne micro-organisms that pass directly through the light rays. However, germicidal UV light has little to no effect on gases, vapors or odors. Photohydroionization Advanced Oxidation, on the other hand, is very effective on gases, vapors, VOCs and odors.



ODORS, MOLD,  
BACTERIA,  
VIRUS, VOCs



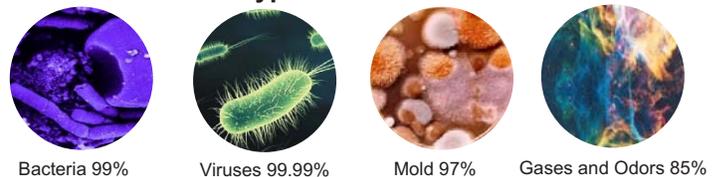
### The RGF Pure Air™ Advantage

While UV systems are designed to kill mold on the HVAC coil, the RGF PHI Cell™ does this, plus it adds advanced oxidants throughout the room to kill micro-bials at the source. The Sneez Test

Simulated Sneez Lab Test at three feet in a 250 cu ft Bio Test Chamber. 78% reduction



### Typical Reductions



UV light enhanced by a hydrated quad-metallic compound target develops an advanced oxidation reaction that creates as well as reduces ozone to safe low levels. This process also produces hydro-peroxides, super oxide ions and hydroxides. By engineering the proper UV light wavelength, in combination with a triple function, no maintenance unit, The PHI Cell provides safe hydro-peroxides, super oxide ions and hydroxides to purify the air.

With the RGF HVAC-PHI Cell Advanced Oxidation System, micro-organisms can be reduced up to 99.99%. Gases, VOCs and odors can also be reduced significantly, and the room will contain oxidizers which will help give it fresh, clean and odor free air.

## Guardian Air

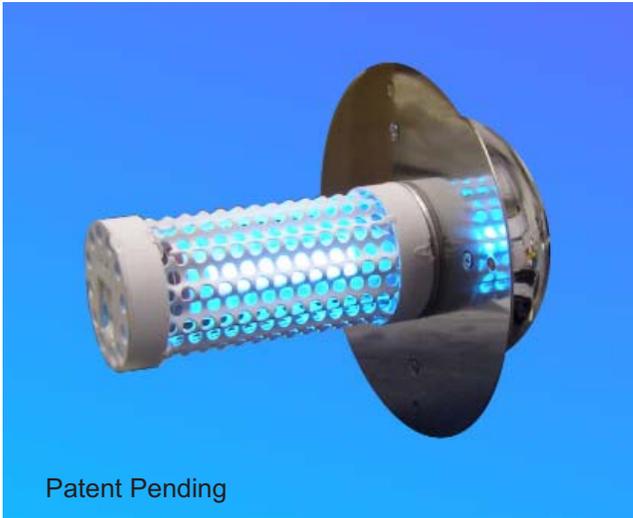


•Installation:	Installed in HVAC duct or plenum
•Electrical:	100-240 VAC Auto switching power supply
•Materials:	Polymers
•Warranty:	3 Year Parts
•PHI Cell Replacement	Recommended after 25,000 hrs/3 years

The **Guardian Air** unit size is scaled to accommodate the various air flow rates of different HVAC systems. Locate the air blower size in cubic feet per minute (CFM) of the HVAC system you are intending to install the system in, then pick the model number that corresponds to that flow rate. **Note:** It is recommended these units be installed by a licensed electrician.

Item #	HVAC Air Blower Size	Dimensions	Ship Wt.	Replacement Cell#
HVAC-PHI-212-GA	1,000 to 6,500 CFM	9" probe / 5.5 Dia." plate	4 lbs.	PHIC-9-GA
HVAC-PHI-212HO-GA	6,500 to 10,000 CFM	9" probe / 5.5 Dia." plate	4 lbs.	PHIC-9HO-GA
HVAC-PHI-357-GA	10,000 to 18,000 CFM	14" probe / 5.5 Dia." plate	4 lbs.	PHIC-14-GA
HVAC-PHI-357HO-GA	18,000 to 26,000 CFM	14" probe / 5.5 Dia." plate	4 lbs.	PHIC-14HO-GA

## Guardian Air-VSF



**The Guardian Air-VSF** is designed specifically to meet the unique challenges that are created by today's new variable speed fan systems. Traditional fans operate at full design capacity when ventilating or answering a call for heating or cooling. Conversely, the variable speed fan operates at a significantly reduced constant speed. This lower speed operation creates the potential to over saturate the space when the Guardian Air is sized based on the higher speed operation.

The new Guardian Air-VSF is sized to deliver complete space coverage with the new variable speed fans. It delivers lower AOP production that when combined with the constant operation of the lower fan speed provides a perfect AOP levels to deliver a clean environment constantly.

The Guardian Air-VSF is designed to be installed in fan systems that operate the majority of the time at 1200 CFM or below. If you have a variable speed fan that operates on the low fan speed setting at above 1200 CFM, use the standard Guardian Air unit.

Order Part # HVAC-PHI-118-GA-VSF



•Installation:	Installed in HVAC duct or plenum
•Electrical:	100-240 VAC Auto switching power supply
•Materials:	Polymers
•Warranty:	3 Year Parts
•PHI Cell Replacement	Recommended after 25,000 hrs
•Replacement PHI Cell:	PHIC-5A-VSF

# Plug In Plus



Patent Pending

Order Part# PIP-16-GA

### Reduces Airborne

- Smoke •Mold •VOCs
- Odors •Bacteria •Viruses

### Benefits

- Plugs into existing outlets
- No wiring required
- Economical
- Low Maintenance
- 25,000 Hour Cell Life
- Light weight
- Compact
- Built in night light
- Hidden mounting screws prevent theft
- Built in electrical outlet
- 3 year warranty

CONFORMS TO  
UL STANDARD 1598



### You don't lose your outlet!

Air Outlet

Plugs directly into  
existing wall outlets

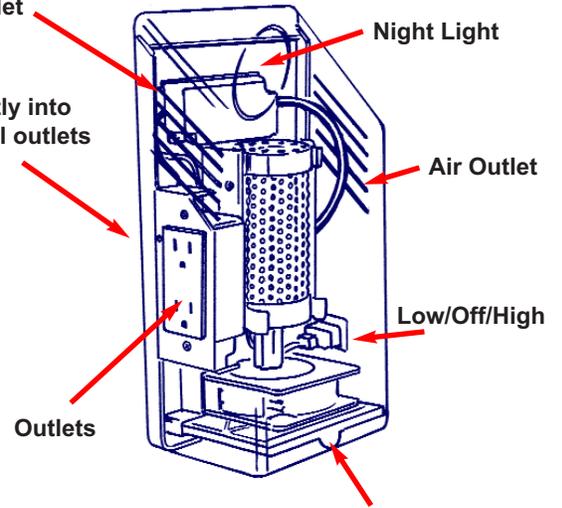
Night Light

Air Outlet

Low/Off/High

Outlets

Removable Electro-  
static Filter



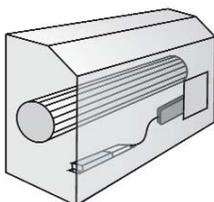
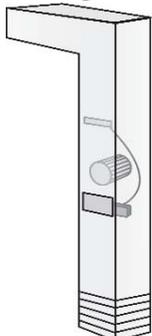
<b>Dimensions:</b>	6.25" w x 3.75" d x 10" h
<b>Electrical:</b>	110 VAC 50 watts
<b>Controls:</b>	Low /Off /High
<b>Weight:</b>	2 lbs.
<b>Material:</b>	Aluminum/ Polymers
<b>Advanced Oxidation:</b>	Less than .04 ppm
<b>Replacement PHI Cell:</b>	(1) PHIC-5A-PIP

# Mini PHI Cell



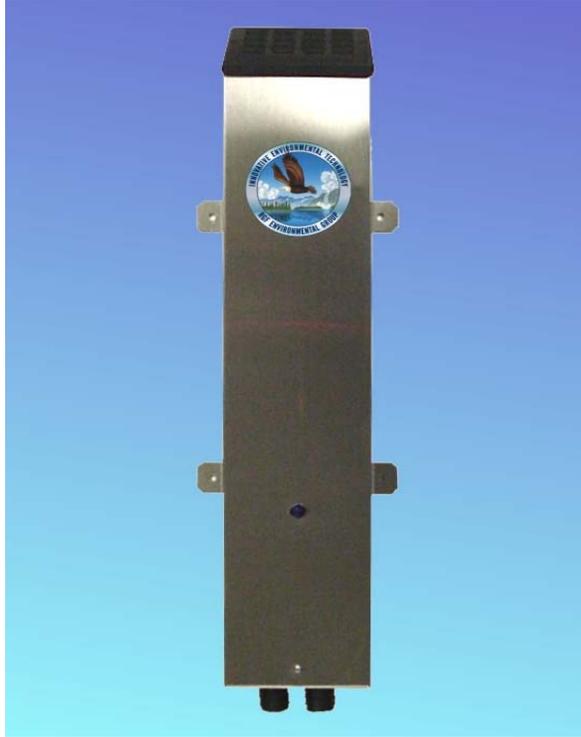
Order Part # HVAC-MINI-GA

*The Mini PHI Cell by RGF® is designed to eliminate sick building syndrome risks by reducing odors, air pollutants, VOCs (chemical odors), smoke, mold bacteria and viruses\*. The HVAC-PHI Cells are easily mounted into air conditioning and heating systems air ducts where most sick building problems start. When the HVAC system is in operation the HVAC-PHI Cell creates an Advanced Oxidation Process consisting of: Hydro-peroxides, super oxide ions and hydroxide ions. All are friendly oxidizers. By friendly oxidizers we mean oxidizers that revert back to oxygen and hydrogen after the oxidation of the pollutant. This unit is specifically designed for small spaces such as small offices, hotel suites and small apartments.*



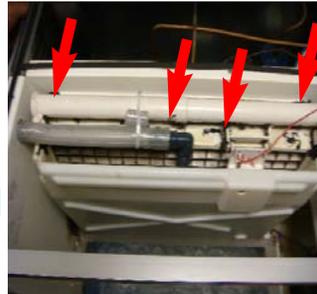
<b>•Installation:</b>	Installed in HVAC
<b>•Electrical:</b>	12 VDC Input 100-240 VAC Switching Power Supply
<b>•Materials:</b>	Aluminum housing
<b>•Warranty:</b>	3 Years Parts
<b>•PHI Cell Replacement</b>	Recommended after 25,000 hrs/3 years

# Guardian Air Ice



- RGF has been an International leader in innovative environmental systems since 1985.
- Warranty three (3) full years.
- Fully automatic, easy to use and install.
- No costly and complicated chemicals.
- Leaves no residue / operates unattended.
- The Guardian Air Ice uses Photohydroionization™, nature's environmentally friendly natural sanitizer.
- Low power consumption, 110 or 220 volt.
- Very low maintenance.
- 3 year continuous operation average photohydroionization™ cell life.
- Advanced Oxidation gases actually destroy odor molecules.
- Photohydroionization™ destroys bacteria, viruses, mold, VOCs and odors.

<b>Model</b>	Guardian Air Ice
<b>Voltage</b>	1110V 60 Hz 1 amp
<b>Weight</b>	10 lbs.
<b>Materials</b>	Stainless Steel
<b>Dimensions</b>	18" x 4" x 4"
<b>Finish</b>	Brushed Stainless Steel
<b>Controls</b>	Indicator Light / On Off Switch
<b>Fan Volume</b>	45 cfm
<b>Advanced Oxidation</b>	1 Photohydroionization™ Cell
<b>Phi Cell Life</b>	Approx. 25,000 hrs
<b>Oxidation Gases</b>	Hydro Peroxides Super Oxide Ions



Before testing and cleaning visible microbial growth.



3 months later using RGF Ice Units no visible microbial growth.

## Outstanding Features

- No Costly Chemicals
- All stainless steel
- Automatic Unattended Operation
- Safety Service Cut Off Switch
- 3 Year Limited Warranty
- Destroys Odors- Is Not a Cover Up
- Low Maintenance - Monthly filter cleaning, PHI Cell replacement 3 years
- Reduces airborne bacteria
- Reduces liability
- Eliminates odors
- Economical to Use



**RGF Environmental Group**