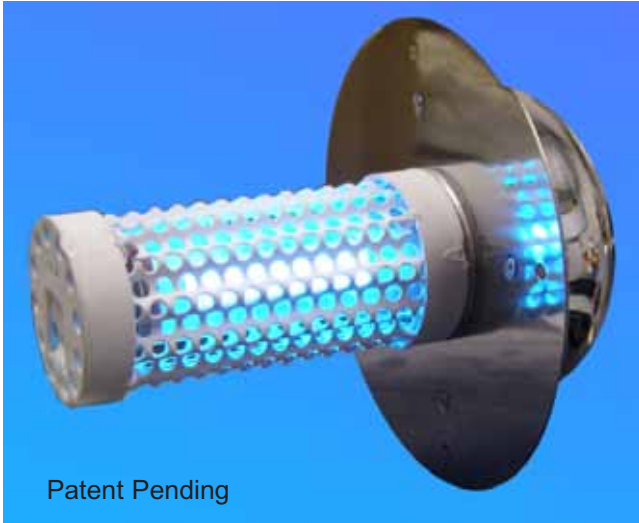


## AC/Heat Duct Air Purification System A Photohydroionization™ (PHI) Technology



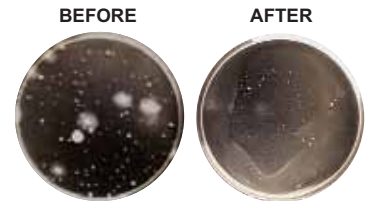
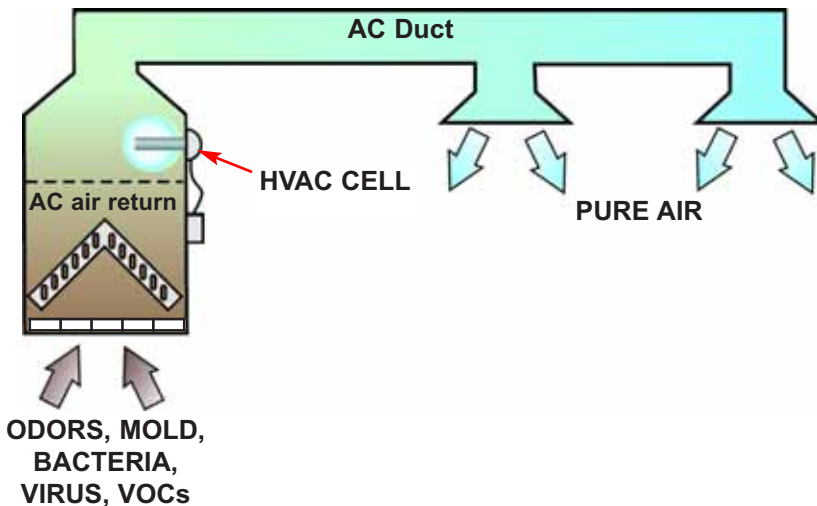
The Guardian Air-VSF is designed specifically to meet the unique challenges that are created by today's new variable speed fan systems. Traditional fans operate at full design capacity when ventilating or answering a call for heating or cooling. Conversely, the variable speed fan operates at a significantly 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 produces a smaller AOP that when combined with the constant operation of the lower fan speed equals a perfect AOP saturation and delivers a clean environment 24 hours a day.

The Guardian Air-VSF is designed to be installed in fan systems that operate the majority of the time at 565 Liter/second or below. If you have a variable speed fan that operates on the low fan speed setting at above 565 Liter/second, use the standard Guardian Air unit.

### 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.



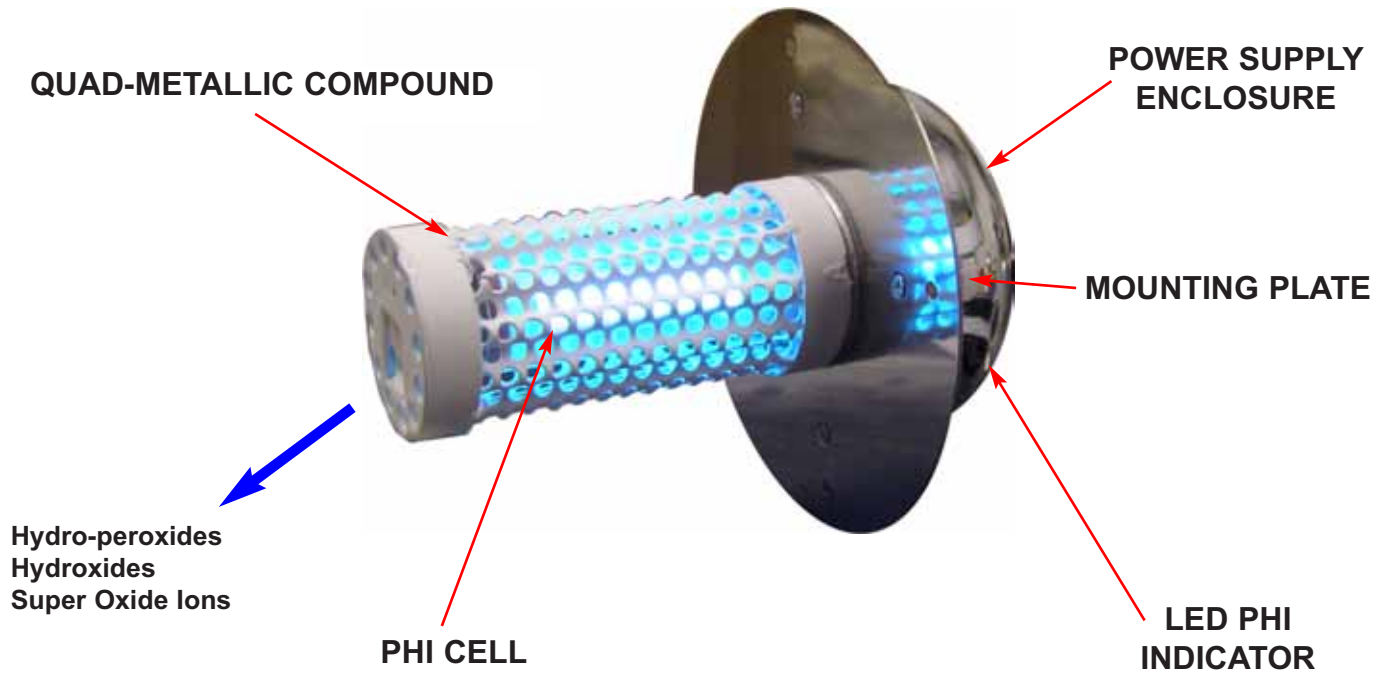
Actual lab tests showing up to 97% reductions of airborne bacteria and mold



The combination of UV light enhanced by a hydrated quad-metallic compound target develops an advanced oxidation reaction that 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 an advanced oxidation plasma 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 have hydro-peroxides, super oxide ion and hydroxides which will help give your room fresh, clean and odor free air.

\*UV, and Hydro-peroxides are recorded as effective in killing viruses however RGF has not performed clinical tests on viruses as there are thousands of strains



• <b>Hydro-peroxides distribution:</b>	distributed thru air handler
• <b>Super Oxide Ion distribution:</b>	distributed thru air handler
• <b>Hydroxide Ion distribution:</b>	distributed thru air handler
• <b>Installation:</b>	installed in hvac duct or plenum
• <b>Electrical:</b>	100-240 VAC 50/60 Hz Auto switching power supply
• <b>Materials:</b>	Polymers
• <b>Warranty:</b>	1 Year Parts
• <b>PHI Cell Replacement</b>	Recommended after 25,000 hrs

The **Guardian Air 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.

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