

# RGF<sup>®</sup>

**ENVIRONMENTAL GROUP, INC.**  
**Mini Split HVAC Air Purification System**  
**A Photohydroionization<sup>®</sup> (PHI) Technology**



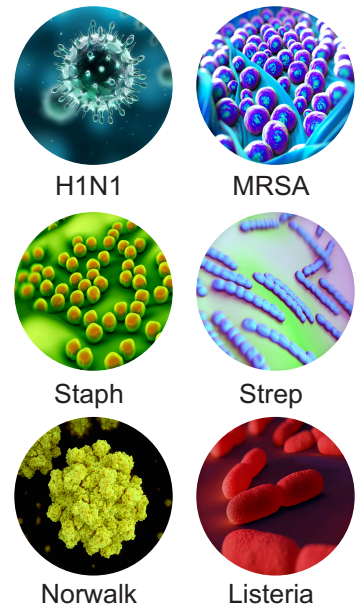
Patent Pending

The *Mini Split PHI Cell* 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 Mini Split HVAC-PHI Systems are easily mounted onto air conditioning unit without modification of the unit using hook and loop adhesive strips. The Mini Split incorporates it's own pull out reusable copper/silver ionic germicidal electro static filter. When the HVAC system is in operation the Mini Split 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<sup>®</sup> 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<sup>®</sup> Advanced Oxidation, on the other hand, is very effective on gases, vapors, VOCs and odors.

### Partial lab test results 99% reductions



H1N1

MRSA

Staph

Strep

Norwalk

Listeria

### Sneeze test 99% reduction at 3 feet

UV light enhanced by a hydrated quad-metallic compound target develops an advanced oxidation reaction that creates an Advanced Oxidation Process 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<sup>®</sup> provides safe AOP to purify the air.

With the RGF HVAC-PHI Cell Advanced Oxidation System, micro-organisms can be reduced by over 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.

## MINI SPLIT PHI CELL



- **Hydro-peroxides distribution:** distributed thru mini split vents
- **Super Oxide Ion distribution:** distributed thru mini split vents
- **Hydroxide Ion distribution:** distributed thru mini split vents
- **Installation:** installed on top of mini split
- **Electrical:** 220 VAC
- **Materials:** Aluminum frame and polymer filter
- **PHI Cell Replacement** Recommended after 2 years

The **RGF Mini Split PHI Cell** unit size is scaled to accommodate the various air flow rates of different HVAC systems. **Note:** It is recommended these units be installed by a HVAC professional.

| <i>Item #</i>           | <i>HVAC Air Blower Size</i> | <i>Approx. Sq. Feet</i> | <i>Dimensions</i>     | <i>Ship Wt.</i> |
|-------------------------|-----------------------------|-------------------------|-----------------------|-----------------|
| MINI-SPLIT-HVAC-PHI-230 | 250* to 6,500 SCFM          | Up to 1,000             | 30"W x 2.5"D x 1.25"H | 3 lbs.          |

### **RGF Environmental Group, Inc.**

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