

# RGF<sup>®</sup>

## ENVIRONMENTAL GROUP, INC.

### Mini Split HVAC Air Purification System

#### A Photohydroionization<sup>®</sup> (PHI) Technology



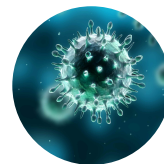
Patent Pending

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.

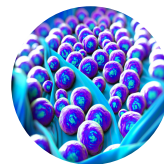
#### Why Use RGF's Photohydroionization<sup>®</sup> Technology ?

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.

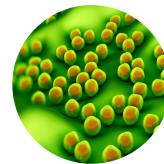
#### Partial lab test results 99% reductions



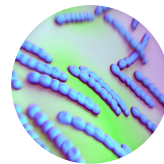
H1N1



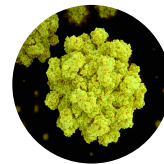
MRSA



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.

| Item #                  | HVAC Air Blower Size | Approx. Sq. Feet | Dimensions            | Ship Wt. |
|-------------------------|----------------------|------------------|-----------------------|----------|
| MINI-SPLIT-HVAC-PHI-230 | 250* to 2,000 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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