RGF® ENVIRONMENTAL GROUP, INC.

COMMERCIAL PHI UNIT

For Food Processors

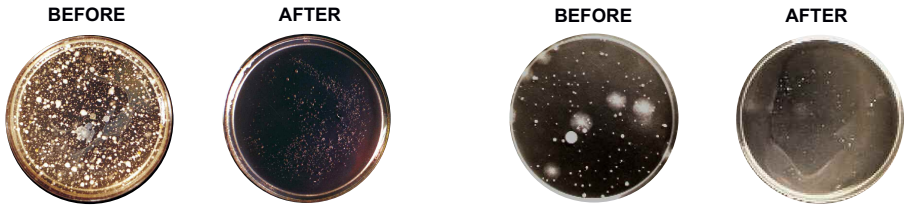
A Photohydroionization® (PHI) Technology

The ***Commercial PHI Unit by RGF®*** is designed to reduce odors, air pollutants, VOCs (chemical odors), smoke, mold bacteria and viruses. The unit is easily mounted into air conditioning and heating system air ducts where most sick building problems start. When the HVAC system is in operation the ***Commercial PHI Unit*** creates an Advanced Oxidation Process consisting of: Hydro-peroxides, ozonide ions, super oxide ions and hydroxide ions. All are friendly oxidizers that revert back to oxygen and hydrogen after the oxidation of the pollutant. The system is fully assembled for easy installation.

Why Use RGF's Photohydroionization® Technology ?

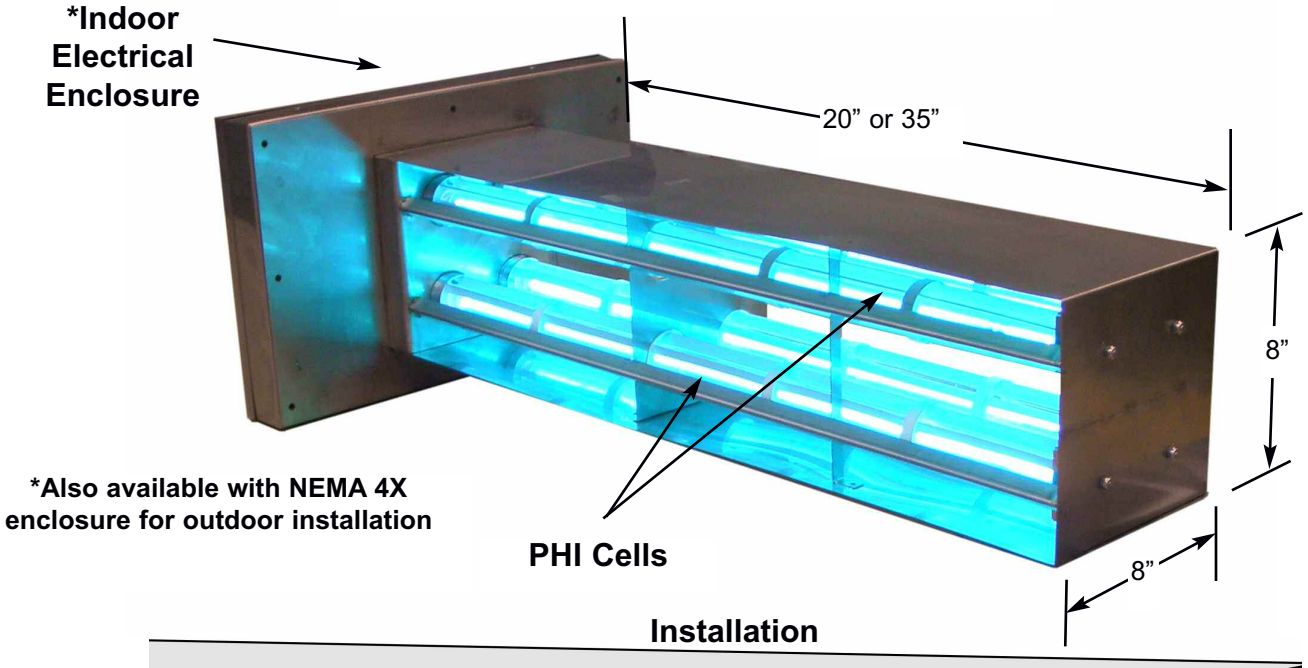
Germicidal UV light rays have been used for decades by the medical industry as a method for destroying micro-organisms (germs, viruses, bacteria). UV light is dependable and can be easily installed in HVAC ducts or a plenum. Germicidal UV light is effective in reducing only the airborne micro-organisms 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

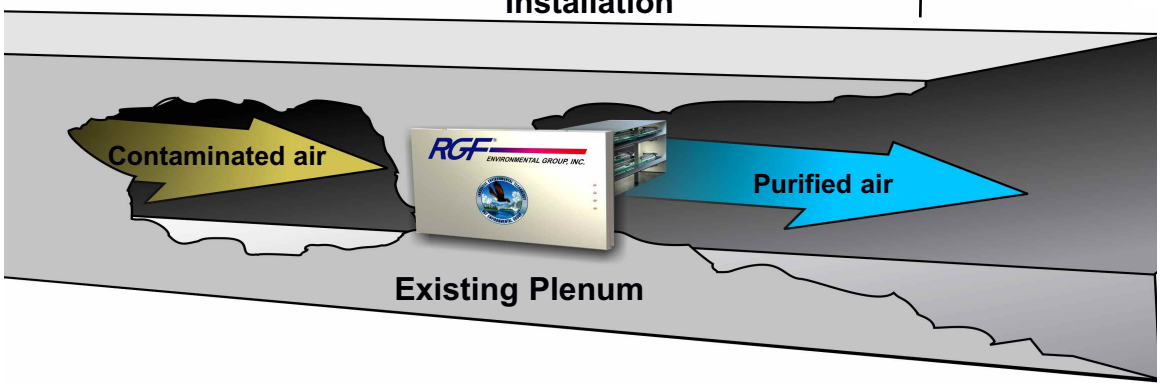


The combination of safe low level ozone (O_3) and a broad spectrum UV light enhanced by a catalyst containing a hydrated quad-metallic compound produces an advanced oxidation reaction. This process also produces hydro-peroxides, super oxide ions, ozonide ions and hydroxides. By engineering the proper UV light wavelength, in combination with a triple function, no maintenance unit, the PHI Cell provides safe hydro-peroxides, super oxide ions, ozonide 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 plant will contain ozonide ions, hydro-peroxides, super oxide ion and hydroxides which will provide continuous protection for the air as well as equipment surfaces.

Commercial PHI For Food Processors



Installation



Engineered to fit specific applications in food processing facilities. Contact your RGF representative for sizing

Commercial 20 - Housing is 20" L	# of cells	Length of cell	Typical CFM Coverage
CML-25	1	14"	2,500
CML-50	2	14"	5,000
CML-75	3	14"	7,500
CML-100	4	14"	10,000
Commercial 35 - Housing is 35" L	# of 35” cells	# of 14" cells	
CML-65	1	0	6,000
CML-90	1	1	9,000
CML-115	1	2	11,000
CML-140	1	3	12,500
CML-125	2	0	14,000
CML-150	2	1	15,000
CML-180	2	2	17,500
CML-190	3	0	19,000
CML-215	3	1	21,000
CML-250	4	0	25,000

Systems available in 110 VAC and 220 VAC

RGF Environmental Group, Inc.

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