# **Phenomenal** Aire

**Commercial IAQ Applications** 

## About the Technology

Phenomenal Aire™ is advanced IAQ technology for the built environment™. Phenomenal Aire™ utilizes needlepoint bipolar ionization technology and is designed for installation as individual IAQ devices or as modular ionization systems in commercial heating ventilation and air conditioning systems (HVAC). The technology's air cleaning process enhances existing HVAC filtration, reducing airborne pollutants within the HVAC system and the occupied space.

#### How it Works

The air we breathe indoors can be polluted with microscopic particles of dust, pollen, mold, smoke, even viruses, and bacteria. Phenomenal Aire<sup>TM</sup> produces ions to clean indoor air. The ions are generated by Needlepoint Clusters<sup>TM</sup> and released into the HVAC airstream. As the ions come in contact with particles they become bonded together. This process is known as agglomeration. The process occurs repeatedly. Particulates join to become clusters of particulates. Each time a particulate joins a cluster, the cluster grows making it easier to capture and filter from the air. Phenomenal Aire<sup>TM</sup> cleans air without creating harmful levels of ozone or other byproducts.

#### Effect on Viruses.

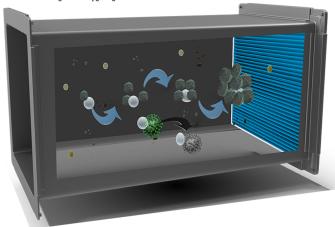
Third party studies have shown that ions generated by needlepoint bipolarization can have an anti-microbial effect on certain viruses, like SARS-CoV-2, which ultimately leaves the virus inactive.

## SARS-CoV-2 Testing

Recently independent testing conducted by Innovative Bioanalysis, (BSL-3 Laboratory), recorded a 99.99 % reduction of the active SARS-CoV-2 virus after 60 minutes of exposure in aerosol form. The testing utilized a 20' x 8' x 8' chamber totaling 400 square feet with a displacement volume of 1,280 cubic feet. The chamber design emulated the environmental conditions of HVAC systems found in both residential homes and commercial buildings. The results of the 60-minute test verified that following a one-time release of the virus, 99.99% of it was inactivated at 60 minutes, 97.05% at 45 minutes,











- Easy to install
- · Requires periodic inspections
- · No planned parts replacement
- · Consumes Minimal Energy for Operation
- Increases filter efficiency
- · Eliminates static electricity
- · 3-year warranty with electronic registration

The use of this technology is not intended to take the place of reasonable precautions to prevent the transmission of disease. It is important to comply with all applicable public health laws and guidelines issued by federal, state, and local governments and health authorities as well as official guidance published by the Centers for Disease Control and Prevention (CDC), including but not limited to social distancing, hand hygiene, cough etiquette, and the use of face masks.



# henomenal Aire

Phenomenal Aire	Product	HVAC Applications	Airflow Capacity	Voltage	BAS Connection
	D 1.2-1	Fan Coils, Heat Pumps, PTACs, Ductless Mini- Splits, Air Handlers	Up to 1,200 CFM (3 tons)	115 / 120v	NO
	D 1.2-2	Fan Coils, Heat Pumps, PTACs, Ductless Mini- Splits, Air Handlers	Up to 1,200 CFM (3 tons)	208 / 277v	NO
	D 3.2	Fan Coils, Heat Pumps, PTACs, Ductless Mini- Splits, Air Handlers	Up to 3,200 CFM (8 tons)	24v	YES
	C-Flex 18"	PTACs, Ductless Mini- Splits, VRF	Up to 3,200 CFM (8 tons)	120 / 240v	YES
	C-Flex 36"	PTACs, Ductless Mini- Splits, VRF	Up to 4,800 CFM (12 tons)	120 / 240v	YES
	R 6.0	Residential Splits, Heat Pumps, Furnaces, Package Units, Air Handlers	Up to 6,000 CFM (15 tons)	24v	NO
	C 6.0	Air Handlers, Rooftop Units, Package Units	Up to 6,000 CFM (15 tons)	24v	YES
	C 10.0	Air Handlers, Rooftop Units, Package Units	Up to 10,000 CFM (25 tons)	24v	YES
	C Universal	Air Handlers, Rooftop Units, Package Units	C6 Up to 6,000 CFM (15 tons) C10 Up to 10,000 CFM (25 tons) C15 Up to 15,000 CFM (37 tons) C20 Up to 20,000 CFM (50 tons)	24/120/240V	YES



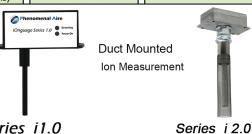
Handheld Ion Measurement



Wall Mounted Ion Sensing



**Duct Mounted** Ion detection



Series e

Series i1.0