

HEATING | VENTILATION | AIR CONDITIONING

Improve Air Quality While Saving

with Needlepoint Ionization



Improve Indoor Air Quality

- Active air cleaning kills viruses, bacteria and mold
- Reduce odors, gases and allergens

Reduce Outside Air Requirements > 50%

- First cost savings up to \$4 per square ft.
- Energy savings up to \$.40 per square ft.

Affordable IAQ Solution

- Maintenance free
- Simple Installation



GPS[®]
GLOBAL PLASMA
SOLUTIONS

Engineering Air for a Cleaner World

Global Plasma Solutions

D&B Building Solutions is offering a new Indoor Air Quality (IAQ) product that will dramatically improve IAQ and reduce the amount of outside air required for ventilation, resulting in lower initial investment costs and reduced annual energy costs.

Global Plasma Solutions (GPS) is “Engineering Air for a Cleaner World” through innovative next generation needlepoint cold plasma technology, that is proven to kill 99.6% of airborne contaminants in less than 15 minutes.



Save Energy

It requires a lot of energy to dehumidify, cool or heat ventilation air, depending on the job location and season. The ASHRAE Standard 62 Indoor Air Quality Procedure (IAQP) allows outside air to be minimized if air cleaning is applied in the building to control the contaminants.

GPS recommends using needlepoint cold plasma technology to reduce outside air requirements on new construction, renovations and existing buildings. Payback through energy savings by reducing the outside air utilizing GPS technology on existing buildings is less than 2 years. On new construction projects, “first cost” savings are typically \$4 per square foot.

GPS products affect the IAQ of the space three ways:

1

Neutralizes the VOC's in the air - The GPS needlepoint technology uses bi-polar ionization to create a plasma field that breaks down gases, which then regroup to form harmless oxygen, water or nitrogen molecules. The ions created also reduce static electricity in the indoor space.

2

Increases the filter efficiency - The plasma clusters are drawn to airborne particles by their electrical charge. Once the cluster is formed around the particle, the particle grows larger and can now be removed by the filter.

3

Kills microbes in the air and on surfaces - Plasma travels with the air flow and surrounds the pathogens, depriving them of the hydrogen necessary for survival. The plasma then eliminates hydrogen from the pathogen, making the airborne virus, bacteria or mold spore inactive.

Independently proven technology

When EMSL Analytics tested the cold plasma needlepoint bi-polar ionization unit against many different types of microbes it scored almost a complete removal of most contaminants in 30 minutes or less!

Featured Products



GPS-FC Cold Plasma Air Purification Device

Designed to be mounted inside of fan coils, heat pumps, PTACs, ductless mini-splits and air handlers up to 1,200 CFM or 3 tons.



GPS-FC24-AC Compact Self-Cleaning Ionization System

Designed for multiple mounting options including fan inlet, ductless ceiling cassettes, interior duct wall or interior duct floor.

Specifications:

Input Voltage:	Model: GPS-FC-1 — 120VAC Model: GPS-FC-2 — 208-240VAC
Power Required:	2 VA
Capacity:	Up to 1,200 CFM
Unit Dimensions:	2.2"L x 1.6"H x 1.0"D
Weight:	0.25 lbs
Electric Approvals:	UL

Specifications:

Input Voltage:	24-240VAC
Power Required:	4VA Operating/8VA During Cleaning
Capacity:	Up to 2,400 CFM (or 6 tons)
Unit Dimensions:	7.9"L x 1.1"W x 5.0"H
Weight:	2.0 lbs
Electric Approvals:	UL, cUL



GPS-iMod Modular Ionization System

Modular ionization system that allows any size ionization bar to be field erected up to any length required. Certified by UL 2998 as an ozone free device.



GPS-FC48-AC Compact Self-Cleaning Ionization System

Compact, self-cleaning, no maintenance, bi-polar ionization system that allows for installation where other products don't fit. Designed for multiple mounting options.

Specifications:

Input Voltage:	24/20/208-240VAC
Power Required:	15 watts
Unit Dimensions:	9.0"L x 3.25"W x 4.75"H
Weight:	5 lbs
Electric Approvals:	UL, cUL
Bar Section Dimensions:	6.0"L* x 0.75"W x 1.6" H
*Length= 6.0" x bar qty. + 2.25"	

Specifications:

Input Voltage:	24-240VAC
Power Required:	10 watts
Capacity:	Up to 4,800 CFM (or 12 tons)
Unit Dimensions:	11.1"L x 1.84"W x 3.52"H
Weight:	1.0 lbs
Electric Approvals:	UL, cUL

Simple Installation



GPS-FC48-AC installed on a Unit Ventilator

Benefits of Needlepoint Ionization

D&B Building Solutions carries the complete line of GPS air quality improvement products that scale from single residential systems all the way to large air handlers, rooftops and even chilled beam systems.

- **Lower HVAC Equipment First Cost**
- **Increased Energy Savings**
- **Improved Air Quality** – Minimize and control odors
- **Minimized Health Risks** - Mold, Bacteria and Allergen control
- **Reduced Static Electricity**
- **Compact size** - Fits inside of any forced air system
- **Ease of installation** - Small, lightweight and simple connections
- **No Maintenance Required** - No replacement parts are needed
- **Low Energy Consumption** – No appreciable effect on energy usage

Pathogen Test Results

Pathogen	Time in Chamber	Kill Rate	Test Agency
Tuberculosis	60 minutes	69.09%	EMSL
Clostridium Difficile	30 minutes	86.87%	EMSL
Norovirus	30 minutes	93.50%	ATS Labs
MRSA	30 minutes	96.24%	EMSL
Staphylococcus	30 minutes	96.24%	EMSL
Mold Spores	24 hours	99.50%	GCA
E.coli	15 minutes	99.68%	EMSL
Legionella	30 minutes	99.71%	EMSL



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