



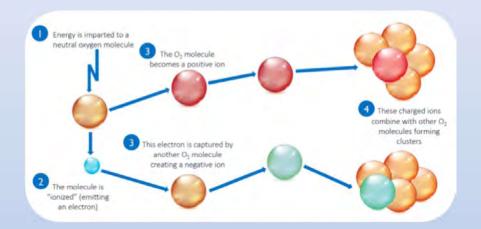


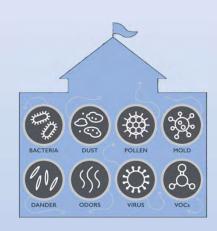


## **High Concentration Ion Distribution Systems**

### Needlepoint Bipolar Ionization (NPBI) and How It Works:

NPBI Has been proven to be effective against: Coronavirus, Norovirus, MRSA, Listeria, C-Diff, SARS, Strep, Legionella, E. Coli, and Swine Flu. NPBI is effective against VOCs, Odors, Mold, Mildew; and causes the agglomeration of airborne contaminants like particulate or molecules, aiding filtration capture or causing them to drop out of breathing areas sooner by increasing their mass.





### **Perfect for Public Areas:**

Offices, Lobby Spaces, Libraries, Museums, Restaurants, Hotels, Dining areas, Educational facilities, Senior Living, Workout Rooms or Gyms, Locker rooms, Public Transit Spaces, Elevators, Indoor Grow Operations. Anyplace where people may congregate, visit or travel through.

### **Locate Close To Sources of Pathogens:**

**Simple to install**, these plug and play solutions, have a patented dispersion method maximizing ion concentration where they are installed. They require **no modification** of existing air handling systems. **No contractors to pay**. Mount on a wall or ceiling or place it on a shelf and plug it into a standard wall outlet.









### **Breathe Safe and Easy**

### NPBI Studies Show the Following Efficiencies Against Concerning Pathogens:

Tuberculosis 69.09%, Norovirus 93.50%, MRSA 96.24%, Staphylococcus 96.24%, Mold Spores 99.50%, E.coli 99.69%

Coronavirus (COVID-19) 99% Airborne and 80% on Surfaces in 10 Minutes...

# <u>High Concentration Ion Distribution Systems With</u> Needlepoint Bipolar Ionization Products Are Readily Available

### **UL2998 & UL867 Certified Ionizers**

Product	Specification	Options/Features	MSRP
BA-800	19.5" x 8" 10.6 Lbs 710 CFM 120 VAC 38-62 dB Variable Speed 1,775 sq. ft. on high	-MERV 7/8 Filter Kit Optional: \$20 -Portable Mounting Stand: \$150 Bluetooth Remote Included!	\$2,450.00
BA-1000	20" x 10" 13.6 Lbs 1065 CFM 120 VAC 45-65 dB Variable Speed 2,650 sq. ft. on high	-MERV 7/8 Filter Kit Optional: \$20 -Portable Mounting Stand: \$150 Bluetooth Remote Included!	\$2,850.00
BA-350	7.25" x 4"x 7" 10.6 Lbs 300 CFM 120 VAC 45 dB Single speed 350 sq. ft.	-Mounting plate included	\$1,450.00





# Ambient Air Cleaners- Featuring Needlepoint Bipolar Ionization! Needlepoint Bipolar Ionization (NPBI)

BSE is offering a new system for Ambient units. This is a proven patented technology that delivers clean indoor air that is safe and healthy.

Our Ambient Air Cleaners now have an option to add NPBI technology. These ionizers can be installed at the factory as an option on the "clean air side" of any of HEPA filtered ambient units. The filters in our units will continue to provide "active" filtration of the dirty air passing through them, while the ionizer projects ions via the exhaust air to provide "passive" air filtration outside of the unit. The ions produced travel within the air stream into the occupied spaces, cleaning the air everywhere the ions travel, even in spaces unseen.

The Needlepoint Bipolar Ionization (NPBI) technology is UL approved.

#### How it works

The NPBI technology works to safely clean the air inside your building. The patented technology uses an electronic charge to create a plasma field filled with a high concentration of + and – ions that replicate those commonly found in nature. As these ions travel with the air stream they attach to particles, pathogens and gases/odors. As the ions attach to airborne particles (including fine, sub-micron particles) they are then attracted to each other, making the particulate more easily filterable and increasing capture efficiency. The ions kill pathogens by robbing them of life-sustaining hydrogen. The ions breakdown harmful gases/odors into harmless compounds like O2, CO2, N2 and H2O.

### Both units are Made In The USA and offer a 3 Year Limited Warranty!

BSE offers Ambient Air Cleaners for purifying the air. Use in offices, schools, restaurants, hospitals, industrial facilities and many more places!

- A-1100 units are designed for use in smaller spaces such as personal work shops, offices, lobbies
- · Available wall mount or ceiling suspended, optional colors on request
- 1100 cfm, 1/4 HP, 110V/1
- Dimensions: 20" x 15" x 44"
- Estimated room size 11,000 Cu Ft
- A-2500 units can be used individually in smaller spaces or in multiples for larger areas to establish
  positive airflow patterns that will enhance the effectiveness of the units
- · Available wall mount or ceiling suspended, optional colors on request
- 2500 cfm, 3/4 HP, 110V/1
- Dimensions: 24" x 24" x 59"
- Estimated room size 25,000 Cu Ft



HEPA Filtration with NPBI Technology







Pathogen awareness and mitigation have become the highest of priorities as it relates to our personal safety and that of our customers and their employees. New third party testing confirms that NBPI's effectiveness is a solution that we can offer in the struggle against COVID-19:

### What type of virus is COVID-19?

### Viruses can be generally categorized in three groups by virus structure:

- 1. Enveloped viruses Easiest to kill
- 2. Large, non-enveloped viruses More difficult to kill
- 3. Small, non-enveloped viruses Hardest to kill

Examples: Influenza A and Coronaviruses

Example: Rotavirus

**Examples: Norovirus and Rhinovir** 

### How does this relate to our new NBPI offering?

- The patented NPBI technology being utilized in our Ambient units now have a documented kill rate on virus of COVID-19 of 99.4%.
- NBPI testing further suggests the technologies effectiveness in a "hierarchy based" solution to future and pending threats.

### **3rd Party Testing**

Pathogen	Kill Rate	Test Agency
Tuberculosis	69.09%	EMSL
Legionella	99.71%	EMSL
Clostridium Difficile (C. Diff.)	86.87%	EMSL
Norovirus	93.50%	ATS Labs
MRSA	96.24%	EMSL
Staphylococcus	96.24%	EMSL
Mold Spores	99.50%	GCA
Escherichia coli (E.Coli)	99.69%	EMSL
Coronavirus (COVID-19)	99.40%	EMSL

### **Notable Users of NPBI Technology**

Boston Children's Hospital

Mayo Clinic

The White House

Clemson University

Harvard University

**Charlotte Airport** 

**Baylor UMC** 

**Houston Memorial Hospital** 



HEPA Filtration with NPBI Technology

