



## PPU PRODUCT BROCHURE

# POSITIVE PRESSURIZATION UNIT

**THE BION POSITIVE PRESSURIZATION UNIT** is designed to protect controlled environments containing sensitive electronics, and electrical or medical equipment from harmful corrosive gases. It is installed inside the controlled space as a stand-alone cabinet and maintains a positive pressure within the controlled environment while also scrubbing the existing air by means of recirculation.

### MAIN APPLICATIONS

- Corrosion Control
- Computer, Control and Motor Control Rooms
- Electrical and Medical Equipment Rooms
- Data Centers
- Laboratories
- Hospitals/IVF Centers
- Museums/Libraries/ Archives

### TARGETED GASES

- Ammonia
- Chlorine Compounds
- Hydrogen Sulfide
- Nitrogen Oxides
- Sulfur Dioxide
- Volatile Organic Compounds (VOC's)

### CONSTRUCTION

The PPU's are constructed of aluminum modular framing and insulated double-wall panels/doors. The standard models range from 1 to 4ft [305 to 1.219mm] wide nominal by 2 to 4ft [610 to 1.219mm] deep nominal in order to meet multiple airflows and space restrictions.

### MEDIA

At the center of BION's PPU is BION engineered, dry-chemical air filtration media - filled within universal PP12 modules. A wide variety of media types are available, each designed to target specific odors, air pollutants and corrosive gases. BION is happy to assist in selecting the most efficient media prescription to meet your particular needs.

### KEY CHARACTERISTICS

- Easily replaceable media modules, prefilters and final filters make system maintenance a breeze.
- Standard and customizable options available, including a broad range of materials/finishes, media types, and pre and final filter options in order to target a wide array of particulate and contaminant challenges.
- Double wall construction provides noise reduction, thermal insulation as well as a light and compact design.
- Gasketed doors for an airtight seal.
- Inlet manual control damper allows the ratio of pressurized air and recirculated air to be adjusted.
- Aluminum extruded track with integral pile seal ensures easy installation of both filters and modules, as well as a tight seal to prevent by-pass at each stage.

### BION SUPPORT

BION offers numerous services including unit sizing and media selection, technical support, media life analysis testing as well as environmental corrosion classification testing.

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STANDARD PPU MODELS	PPU-102	PPU-202	PPU-402	PPU-404
<b>TOTAL AIRFLOW</b>	500 CFM <i>850 m³/h</i>	1,000 CFM <i>1.700 m³/h</i>	2,000 CFM <i>3.400 m³/h</i>	4,000 CFM <i>6.800 m³/h</i>
<b>RECIRCULTION AIRFLOW</b>	250 CFM <i>425 m³/h</i>	500 CFM <i>850 m³/h</i>	1,000 CFM <i>1.700 m³/h</i>	2,000 CFM <i>3.400 m³/h</i>
<b>PRESSURIZATION AIRFLOW</b>	250 CFM <i>425 m³/h</i>	500 CFM <i>850 m³/h</i>	1,000 CFM <i>1.700 m³/h</i>	2,000 CFM <i>3.400 m³/h</i>
<b>UNIT DIMENSIONS NOMINAL (WxD)</b>	2 x 2 ft <i>610 x 610 mm</i>	2 x 2 ft <i>610 x 610 mm</i>	4 x 2 ft <i>1.220 x 610 mm</i>	4 x 4 ft <i>1.220 x 1220 mm</i>
<b>NO. OF PP-12 MODULES PER PASS</b>	2	4	8	16
<b>VOLTAGE/PHASE/FREQ</b>	460/3/60 [USA] <i>380/3/50 [EU]</i>	460/3/60 [USA] <i>380/3/50 [EU]</i>	460/3/60 [USA] <i>380/3/50 [EU]</i>	460/3/60 [USA] <i>380/3/50 [EU]</i>
<b>MOTOR RATING</b>	1 HP [USA] <i>2,5 kW [EU]</i>	1 HP [USA] <i>2,5 kW [EU]</i>	2 HP [USA] <i>3 kW [EU]</i>	5 HP [USA] <i>3,9 kW [EU]</i>

### STANDARD FEATURES

- Aluminum modular framing
- 304 Stainless steel double wall panels/doors
- Gasketed doors
- Aluminum skid with mounting holes
- Inlet manual control damper to adjust the ratio of recirculation vs pressurization air
- 1" [25mm] prefilter (Merv 8 [USA] or G4 [EU])
- Two media passes (PP12 modules) with project specific BION chemical filtration media
- Centrifugal plenum blower with TEFC [USA] or IP55 [EU] motor
- VFD [USA/EU] or flowset [EU] within blower section
- 4" [98mm] final filter (Merv 13 [USA] or F7 [EU])
- Magnehelic differential pressure gauges across the pre and final filter stages

### OPTIONAL FEATURES

- Additional double wall panel/door materials = aluminum, 316 stainless steel, and galvanized steel
- Explosion proof [USA] or ATEX [EU] motor
- Weatherproofing
- Painted panels/doors

\*\*[USA] denotes the specifications of equipment manufactured in North America.  
\*\*[EU] idenotes the specifications of equipment manufactured in Europe.