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Modular Cleanroom Systems

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Critical environment solutions begin with reviewing your specific requirements, addressing the challenges, identifying your unique needs, then innovate, design, and manufacture a solution that fits your budget and time line.

With over 35 years in cleanroom design, engineering and manufacturing, BasX Solutions has the experience to deliver a complete engineered package you deserve.

- Modular design using pre-engineered components and options.
- Easily expand, modify or disassemble and move your modular cleanroom as needed.
- Flexibility in materials and configurations to meet performance and budget requirements.
- Quick, easy assembly assures you are up and running as quick as possible.
- Class 10 to 100,000 and USP 797 capable.
- Load-bearing ceiling system can be designed to be walkable.
- Baked polyurethane powder coat finish; non-outgassing components with a hardshell finish that will withstand frequent cleansing and will not contaminate your process.





Cleanroom Classifications

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Cleanroom HVAC systems are classified into 2 categories of air pressurization, positive and negative air pressure cleanroom.

BasX Solutions Negative Air Pressure cleanrooms are designed for hazardous manufacturing processes that involve corrosive, flammable and/or potentially explosive chemicals. Negative air pressure cleanrooms are also used for BSL level P - 2, P - 3, and P - 4 Bio-Safety cleanrooms involving medical research or production.

Positive Air Pressure cleanrooms systems are where the air escaping from doors, ceilings, or walls due to the positive air pressure is not creating health or safety issues and is not hazardous.

These are normally occurring in electronics, aerospace, and research, etc. The particulate cleanliness count required determines the cleanroom design concept, amount of air filtration, CFM (cubic feet per minute) and total HVAC. BasX Solutions positive pressure cleanroom designs are based on years of experience in various applications.







Modular Cleanrooms - Softwall

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Designed to provide clean environments from Federal Standard 209e Class 100,000 to Class 100 and ISO Standards compatible, BasX Solutions Modular Softwall cleanrooms are positive air pressure, single air pass, portable modular structures that are custom manufactured to your specifications.

BasX Softwall Cleanrooms come standard with baked polyurethane powder coated steel framing that can be fastened to the ground, welded steel gasketed ceiling grid with an interior height of 7' to 16'. Solid clear vinyl encloses the sides with an access door consisting of vinyl strips that overlap. Clean air is provided via fan filter units (FFUs) with HEPA filters located in the ceiling (quantity based on size & classification). Ceiling grid mounted, sealed cleanroom fixtures provide lighting.

Air passes vertically down through the cleanroom and exits through a space at the bottom perimeter of the curtain walls.







Size

Multiple configurations in standard increments of 2' with custom sizing available; spans up to 12' without additional down posts

Class

Federal Standard 209e Class 100,000 to Class 100 and ISO Standards compatible

Filtration

2'x4' HEPA or ULPA Fan Filter Units

Ceiling

1/8" thick steel, all-welded construction, fitted with closed-cell gasketing

Corner and Intermediate Posts

Welded heavy gauge cold-rolled tubular steel 3"x3"x.120" or 4" x 4" x .120 in larger applications

Corner and Intermediate Gussets

1/4" heavy gauge steel

Finish

White baked polyurethane powder coating; nonoffgasing

Access Strips and Side Panels

Side Panels: 20 mil clear flexible PVC standard Access Strips: 8"x60 mil PVC

Modular Cleanrooms - Hardwall

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Size

Multiple configurations in standard increments of 2' with custom sizing available; unsupported spans up to 40' with truss system

Class

Federal Standard 209e Class 100,000 to Class 10 and ISO 4-8 Standards compatible as well as FDA and USP compliant options

Filtration

2'x4' HEPA or ULPA Fan Filter Units

Ceiling

1/8" thick steel, all-welded construction, fitted with closed-cell gasketing

Frames

Welded 2"x2"x.083" heavy gauge cold-rolled tubular steel, pre-engineered construction

Finish

White baked polyurethane powder coating; non-offgassing BasX Solutions Modular Hardwall
Negative Air Pressure cleanrooms are
built for the same Federal standards
as our softwall and are used when
hazardous manufacturing processes using
corrosive, flammable and/or potentially
explosive chemicals are involved.

BasX Solutions Modular Hardwall ceiling system is fully welded to form a structurally superior and unified ceiling grid. It is then powder-coated and fitted with closed-cell gasketing that creates a tight seal with all drop-in components. Each fully loaded grid is self-supporting and can be designed to be completely walkable, supporting the exchange of the 2'x4' lights, tiles and Fan Filter Units. BasX extruded panel inset fastening system mounts flush to the steel frame to create a "ledge-less" room interior. The result is an easy-to-clean room with reduced bio-burden and a positive seal to protect your process from particulates.



HEPA Stations

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BasX HEPA Station is a portable clean environment that allows individuals to work in a contamination controlled Class 100 environment. HEPA Stations can easily be placed within an existing cleanroom to isolate processes, or act as standalone workstations in unregulated environments. Designed for use with your own table, or with one of our optional built-in tabletops.

The HEPA Station is composed of four frames (top, back, left side, right side) each of which is constructed of 2"x2" steel tube, TIG welded, powder coated with polyurethane and baked at 450 degrees. The frames are bolted together using heavy-duty barrel nuts for a tight seal. The result is a highly rigid framework with a non-contaminating, non-particulating chip-resistant surface. The work area is enclosed with 1/4" thick, clear acrylic panels on the back and sides of the unit. A 14" heavy gauge flexible PVC shield hangs from the front of the unit, directing airflow above the work surface.



Standard Features

Units include necessary HEPA Fan Filter Units (1 each for 4' and 6' units, 2 each for 8' unit) and cleanroom safe teardrop lighting. Each plugs into UL listed 20 amp switch con-trolled by outlets housed in the frame. One outlet is left available (approx. 17.6 Amps free once running) inside the work area and one outside for powering other pieces of equipment. The power switches control the fan and light separately, and are located on the top, front portion of the unit.



Modular Cleanrooms - Hardwall Gallery

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PROJECT PROFILE: 20 x 36 x 12; Class 100







PROJECT PROFILE: 22 x 54 x 9; Class 10,000



Modular Cleanrooms - Stretchwall Gallery

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PROJECT PROFILE: 8 x 32 x 8; Class 10,000





PROJECT PROFILE: 32 x 60 x 9; Class 10,000





BasX Solutions products are manufactured in the United States and carry full parts and labor warranties. Extended warranties and/or maintenance programs are available. Contact BasX Solutions today to find out how we can assist you.