



Innovation. Design. Quality.

# Cleanroom Equipment

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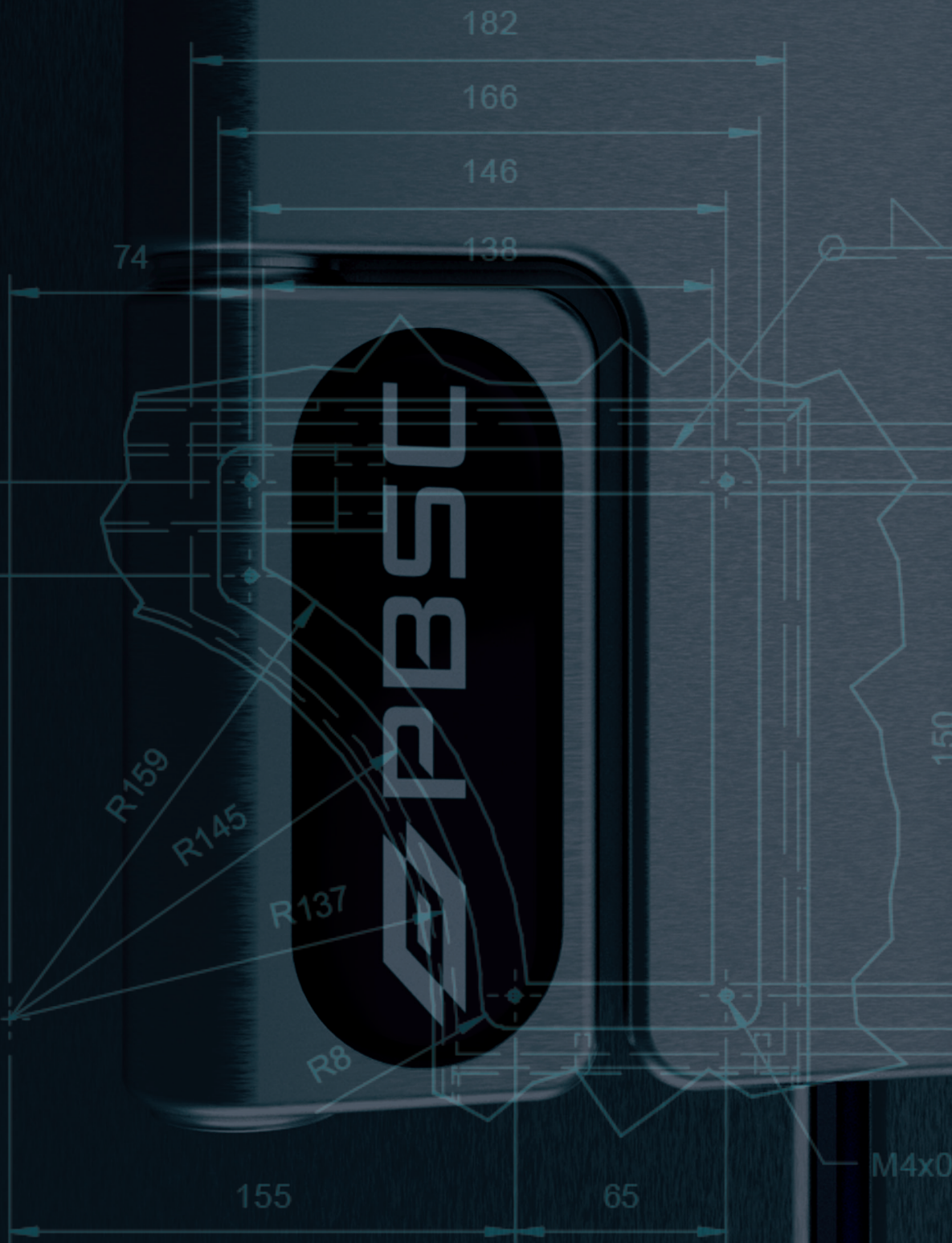
**Innovation**



**Design**



**Quality**



# Welcome

The safety and security of high containment and cleanroom facilities has never been more challenging. PBSC engineer and manufacture specialised Air Pressure Resistant Doors, Transfer Hatches, Vision Panels, Material Decontamination Chambers and Personnel Showers, meeting the wide spectrum of containment needs for state-of-the-art biohazard facilities and cleanroom environments, for both new build and retrofit projects.

As standards and regulations become more demanding, the technology to meet those requirements continue to evolve. PBSC's research and development programme ensures its products maintain their leading position in the market. Your facility may be small or large, but the fundamentals remain the same. PBSC provide tried and tested equipment to keep hazardous agents contained through bio-decontamination and the containment line. PBSC door sets allow control of human access to potential contaminants inside your critical containment area.

Functional and aesthetic requirements are changing faster than ever and PBSC stays ahead of the curve through rigorous testing, training, product innovation and strategic partnerships.

Every product you see in this brochure is based on a proven design that if required can be customised to meet the right balance between functionality, ease of use, aesthetics and cost.

We look forward to working together in the near future.

With warm regards,

**The PBSC Team**



# Classic Steel Door

## AR-Ds

### Smooth & Flush Engineering

PBSC's Classic Steel Door is a well-engineered, robust steel door system with its seamless frame and flush vision panel.

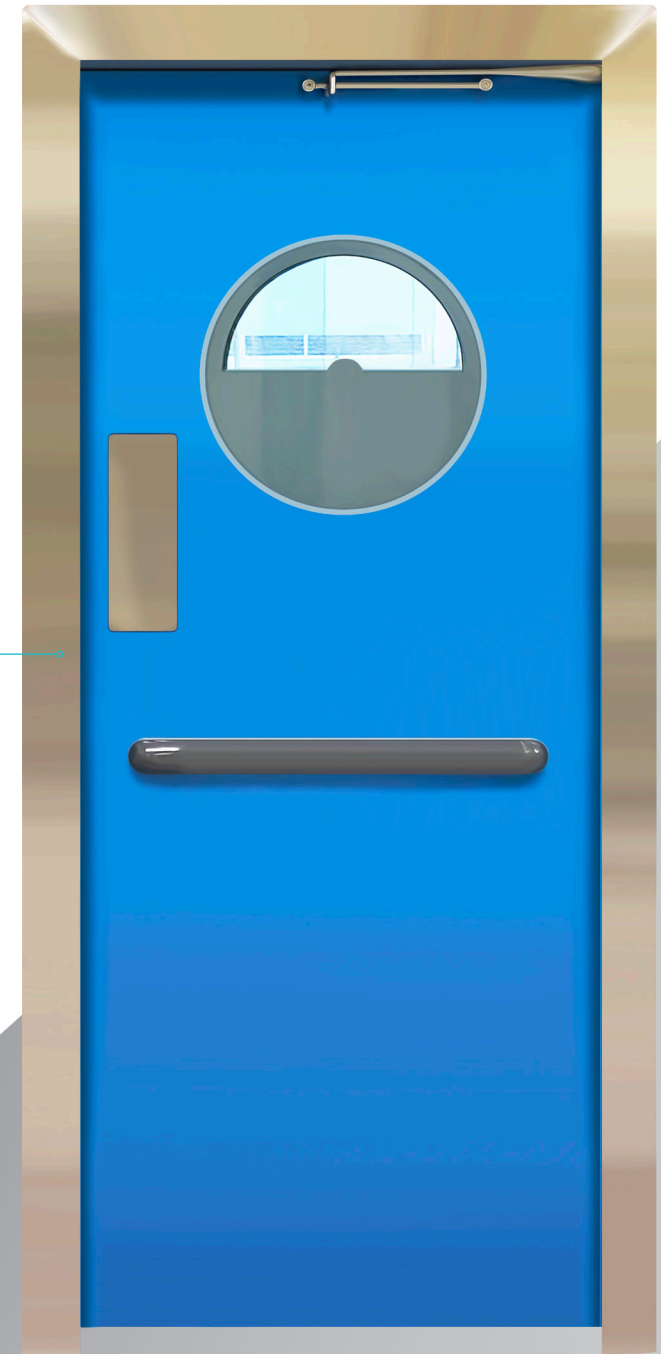
This is one of the original PBSC doors and was specifically developed with the cleanroom environment in mind having stood the test of time with its precision design and reputation for lasting quality and durability.

The steel door set is purpose built for laboratories with minimal visible fixings, with true flush glazing to both sides of the door leaf and no rebates or fixings to eliminate possible contamination.

#### Key Features



- Sturdy 3 Piece Framework System
- Full Wrap Around Shroud / Architrave – Stainless or Powder Coated to match Door Leaf
- Welded and Polished Frame Construction
- Steel Sub-Frame
- Unique PBSC Cast Stainless Steel Hinge Assembly – Allowing for Maximum Clear Opening
- Custom Frame Width Made to Suit Site Specific Wall Thickness
- No Rebate on Frame



## Options

- Single, Double or Leaf & 1/2 Door Options
- Flush Maglocks for Interlock Systems
- Light Tight Vision Panels
- Air Transfer Grilles
- Electric / Hydraulic Auto Openers / Closers





# Glass Door AR-Dg

## A Show Piece

PBSC's cleanroom glass doors incorporate the renowned PBSC wrap around door frame, with its clean and robust design.

The combination of a toughened glass door leaf within the clean lines of the stainless-steel frame will undoubtedly give a show piece appearance to your facility whilst providing excellent functionality.

The PBSC glass door is a popular choice for many cleanroom applications as it creates an “open space” which makes the door sets a preferred option for operatives working with the confines of a laboratory environment.

The glass door leaf is made with 10mm toughened tempered glass and is exceptionally robust, providing high levels of impact, scratch and chemical resistance.

Offering excellent clean ability and with no cavities in the leaf giving no space for bacterial growth.

### Key Features



- Full Wrap Around Shroud / Architrave – Stainless or Powder Coated
- Frameless Tempered Glass Door Leaf (10mm thick)
- Purpose built solid stainless-steel hinge to provide easy cleaning and opening up to 170°
- Custom frame sizes to suit opening
- Made to suit specific wall thicknesses
- Flush Maglock in frame
- No Rebate on Frame – Maximum Clear Opening
- PBSC Concealed Door Closer with Hold Open Facility
- No Visible Fixings



## Options



- Single, Double or Leaf & 1/2 Door Options
- Wide Range of Tints, Screen Prints, Printed Films and Etched Glass to suit the area
- Flush Maglock for Interlock Systems
- Air Transfer Grilles
- Electric / Hydraulic Auto Openers / Closers





# Phenolic Resin Door

## AR-Dp

### Meticulously Engineered

PBSC's Phenolic Resin doors are Ideal for laboratory, cleanroom and corrosive environments, these doors are incredibly tough.

Unlike metal doors, they have greater resistance to damage and importantly, they have no hollow cavities where contamination can ingress.

Meticulously engineered and manufactured with a solid core of chemical grade phenolic resin, these doors are impervious to most chemicals and cleaning agents.

They will also improve the looks of your facility incorporating the renowned PBSC wrap-around doorframe featuring clean, uninterrupted lines with solid stainless-steel hinges and concealed door system.

#### Key Features



- Excellent resistance to most corrosive chemicals
- High impact resistance
- solid core door leaf
- Full wrap around frame option, without rebate
- Purpose built solid stainless-steel hinge to provide easy cleaning and opening up to 170°
- Flush glazed vision panels in customs sizes
- Flush Maglock in frame
- Concealed closer system available for added hygiene

#### Options



- Single, Double or Leaf & 1/2 Door Options
- Light Tight Vision Panels
- Interlock Systems
- Air Transfer Grilles
- Electric / Hydraulic Auto Openers / Closers





# Emergency Escape Panel

## AR-BOP

### Providing a Quick Escape

PBSC's Emergency Escape Panel, also known as a break out panel, service access panel or kickout panel, provides a quick escape from a cleanroom or containment-controlled environment. Also regularly used as a window that can be easily removed for equipment access routes during planned shut downs.

The breakout panel is available with a PBSC's flush 1.6mm thick frame in either polished stainless steel or polyester powder coated finish. The frame has a high-quality acrylic sheet fitted with a rubber gasket and engineered bespoke to your specific requirements and specifications.

Quick to remove, it takes around 6 seconds to fully remove the light weight panel proving a fast means of escape when required.

Maximum size of 1.4m W x2.5m H

*The unit whilst sealed is not fully air tight.*

#### Key Features



- Made to suit finished wall thickness
- Flush wrap around frame — to both sides of the wall for a cleanroom finish
- Welded and polished construction and finish
- Fully sealed unit
- Escape from both sides
- Stainless-steel assembly and pull handles

#### Options



- 304 or 316L Stainless Steel Construction
- Powder Coated Steel in a Wide Range of RAL/BS Colours
- Pull or Push Types Available
- Clear or Opaque Acrylic Panel
- Can be Installed in Front of an External Fire Door





# Inflatable Seal Door

## AR-ISD

### Containment Control

PBSC's Pneumatic inflatable seal doors provide excellent containment and with its threshold flush to the floor it is ideal for applications involving high traffic or wheeled trolleys/equipment. The door is ideal for using on laboratories when rooms need to be sealed to form material fumigation lobbies or regularly room gassing.

The flush threshold eliminates a possible trip hazard or trolley interference. The seal around the perimeter of the door is inflated by compressed air against the radiused doorframe and provides excellent leakage resistance.

High quality build allowing the change of seals without removing the door leaf from the frame for added safety and reduced down time.

The door leaf is available in polished stainless steel, powder-coated steel, aluminium or solid core phenolic resin construction.

Provided with the option to use PBSC's control system, which integrates with the building access control system. Allowing proven software at FAT, reducing site time and risk.

Designed to install into a range of wall types e.g. block, stud and partition systems.

### Key Features



- Flushed glazed vision panels, round or rectangular
- High leakage resistance across the complete door set
- Monitoring of seal pressure
- Monitoring of supply pressure from building
- Unique PBSC cast stainless steel hinge assembly allowing maximum clear opening
- Flush threshold to floor
- Frame designs to seal to almost all wall types i.e. partition, cast concrete, stud or block

### Applications



Pneumatic seal doors are used primarily where air leakage cannot be permitted. The seal allows high containment during decontamination and fumigation processes in clean room facilities and laboratories.

The doors can be used into almost all wall types with proven and established designs.



## Options



- Wide Range of Colours can be provided
- Interlock Systems
- Double seals
- UPS to PLC's
- Stand-alone PLC controls are available
- Vision panel cover
- Door closer — hydraulic or automated
- Factory pressure decay testing
- Fumigation sampling ports
- 316 stainless steel
- Laminate glass/vision panel





# Mechanical Seal Door AR-MSD

## Fail-Safe Solution

PBSC's mechanical seal doors provide ideal solutions for an airtight barrier without being dependent on compressed air and where wheeled traffic wouldn't be required. The door leaf compresses a seal against the doorframe, providing a fail-safe in the event of power failure.

The mechanical seal door has a precision mechanical door leaf on both sides of the door, with operation via an arm fixed to a multi-point locking system within the door frame.

Operation of the door is a simple one-handed manoeuvre available on either side of the door.

Providing easy service access having a latching mechanism in the frame for robust performance and longevity.

The mechanical seal door has a raised threshold, providing a raised bund where required.

### Key Features



- Robust fail-safe design
- One handed operation
- Low maintenance
- Robust design with the mechanism in the door frame
- Solid core HPL door leaf
- Flush glazed vision panel
- One handed operation



## Options

- Interlock Systems
- Frame designs to seal to almost all wall types i.e. partition, cast concrete, stud or block
- Door closers
- Low level sampling ports





# Vision Panels

## AR-V/Vf /Vs/Vs/VSr

### Taking Care of Your Panels

PBSC's vision panels are flexible in size and available in many different versions all with a flush glazed finish and a polished stainless-steel architrave. Providing a secure fixing with the sub-frames, made to suit the wall thickness and stainless-steel reveal liners.

#### Double Glazed AR-V:

The standard PBSC double glazed vision panel provides flush glazed vision panels to either side and overlapping flanges to both sides of the opening.

#### Fire Rated AR-Vf:

The fire rated vision panel has a clear Schott fire glass lamped between the two outer panes of toughened glass.

#### Integrity

The vision panels are tested to BS 476 part 22 and EN 1364-1:1999, providing up to 120 minutes fire resistance.

#### Insulation

The windows are available in a version to provide up to 90 minutes insulation. This is tested to BS 476 part 22.

#### Lead Shielding AR-VIs:

The Lead shielding vision panels are in keeping with PBSC's flush designs. Various sizes are available but please keep in mind there are size restrictions as the lead shielding equivalency increases.

#### Secondary Glazed AR-Vs:

Made to bespoke measurements, the secondary glazed vision panels are a great alternative for windows which need extra panels.

#### Security Rated AR-VSr:

Vision panels which can withstand rigorous testing, security, impact or attack whilst giving privacy and observation controls.

### Key Features



- Flush Glazed
- Overlapping flanges to finish the opening
- Screen printed boarders bonded to the toughened glass
- Made to fit into various wall thicknesses





## Options

- Mullion for larger openings
- Acoustic upgrades
- Integral venetian, roller blind or "Magic" glass
- 304 or 316 stainless steel construction
- PPC finish available in any RAL/BS colour





# Wall Mounted Hatch

## AR-H

### Aiding Reduction of Cross Contamination

PBSC's transfer hatches are available in a range of material constructions, phenolic resin, powder coated steel or polished stainless steel. The refined design is strong and robust and provides easy cleaning and maintenance with the reliable interlock system to aid you in the reduction of cross contamination and pressure loss whilst passing product between lower and high classification areas.

The interlock mechanism is mounted between the two skins of the hatch to reduce the risk of tamper and is available as an electro-mechanical system to provide timed interlocks for air purge cycle, UV light cycles etc...

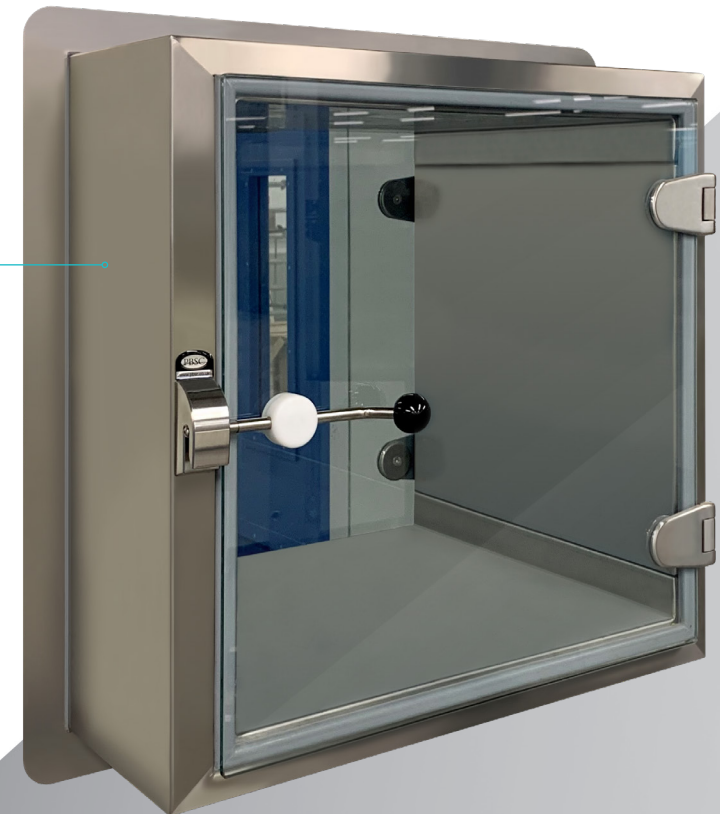
There are no visible fixings or recesses on the hatch which facilitates easy cleaning and the completely frameless glass door leaf provides maximum visibility and natural light into and through the hatch.

The hatches are available with a range of options.

#### Key Features



- Robust Mechanical Interlock as standard
- Stainless Steel or Phenolic Resin construction
- No Visible Fixings
- Robust PBSC Cast Stainless Steel Hinge assemblies
- Toughened Glass Door Leaf's
- Easy Clean Surfaces







## Options



- Ventilated Air Supply / Extract
- Fire Resistant
- Conveyor Systems to Client Specification
- Internal Support Shelves, Glass or Stainless-Steel
- UV Lights
- Electro-Mechanical Interlock System
- Powder Coated Finish
- Stainless Steel Support Frame





# Trolley Hatch

## AR-Ht

### Strong & Robust

The PBSC trolley hatch is designed to allow wheeled trolleys to be passed between different grade rooms. Available in a range of material constructions, phenolic resin, powder coated steel or polished stainless steel. With the same refined design as the wall mounted design, it is strong and robust, providing easy cleaning and maintenance with the reliable interlock system to aid you in the reduction of cross contamination and pressure loss whilst passing product between lower and high classification areas.

The interlock mechanism is mounted between the two skins of the hatch to reduce the risk of tamper and is available as an electro-mechanical system to provide timed interlocks for air purge cycle, UV light cycles etc...

There are no visible fixings or recesses on the hatch which facilitates easy cleaning and the completely frameless glass door leaf provides maximum visibility and natural light into and through the hatch. The trolley hatch fixes directly to the finished flooring, providing a clean and uninterrupted floor through the hatch.

PBSC also offer a 1-hour fire rated hatch which has been certified to BS 476.

### Key Features



- Robust Mechanical Interlock as standard
- Stainless Steel or Phenolic Resin construction
- No Visible Fixings
- Robust PBSC Cast Stainless Steel Hinge assemblies
- Toughened Glass Door Leaf's
- Easy Clean Surfaces

### Options



- Ventilated Air Supply / Extract
- Fire Resistant
- Conveyor Systems to Client Specification
- Internal Support Shelves, Glass or Stainless-Steel
- UV Lights
- Electro-Mechanical Interlock System
- Powder Coated Finish
- Stainless Steel Support Frame



# Fire Rated Hatch

## AR-Hf/Tf

### The Right Choice for Fire Rated Transfer

When a pass-through hatch needs to be located in a fire wall, **PBSC** are able to provide either the wall or floor mounted version with vision panels in the stainless-steel door leaves.

The **PBSC** fire rated pass through is tested to BS 476 part 22, with certification is available on request.

The fire rated hatches are available with a number of options and custom sizes.

The hatches also offer insulation properties for 30 minutes when insulation and integrity are required from the pass-through hatch.

Please contact our technical department with your project requirements for more information.

#### Key Features



- Robust Mechanical Interlock system
- Stainless Steel hinge assemblies
- Easy clean surface
- Test certification to BS476 part 22
- Wall or Trolley mounted
- 30 minutes insulation properties
- Used in a broad range of application
- Custom sizes

#### Options



- Internal support shelves, glass or stainless-steel UV lights
- Electro-Mechanical interlock system
- Vision Panels
- Stainless-steel support frame



# Fogging Shower PD-F

## Ultrasonic Decontamination

PBSC's Ultrasonic Fogging Shower (also known as a mist shower) provides encapsulation or removal of powder from an operative's suit, and has been assessed by SafeBridge Consultants Inc.

The PBSC fogging shower cycle uses 5 to 10-micron water droplets to encapsulate API particles with minimal wetting through of the operators PPE suit. Reductions in surface concentrations can be up to 800 times less than the starting contamination levels. Air borne particles around the operative and during de-gowning are also significantly reduced.

The decontamination fogging shower is supplied with a factory tested PLC, controls and utilities control panel. The control cabinets can be located above or next to the shower with a prewired cable for easy site electrical installation. All the parts on the shower are supplied on plugs to make replacement of spare parts quick and easy so in the unlikely event of component failure down time is minimised.

The system is available with a range of PLCs, with standard options of a Siemens LOGO PLC (with the option of a remote 'TDE' PLC screen if required) or a Rockwell (Allen-Bradley) MLX1100 PLC with PanelView 800 HMI 4" colour touchscreen. PLC comes with a touch screen in the shower (or on the PLC cabinet) to show the shower status, alarms can be seen and cleared from the screen and the screen allows various cycle recipes to be stored and accessed by the Supervisor Level password.

### Key Features



- SafeBridge assessment on performance
- Efficient usage of water to minimise liquid waste
- Air and water pressures to the fogging nozzles are monitored by the PLC
- Frameless glass door sets
- All cycle stage timers are user adjustable
- PLC controlled LED light
- Emergency override buttons
- Large range of options available





## Options



- Garment bag-out chutes
- Folding shelves
- Wash gun with hose
- Breathing air supply point
- Dosing pump - for chemical addition to fog water, with adjustable proportional dosing rate
- CIP System with 360 spray ball - operate automatically from PLC timer or manually
- Emergency deluge shower and/or eyewash station
- Rinse cycle (reusable garments only) - either from "Coarse" fog nozzles or water sprays
- Air shower cycle (after rinse cycle only)
- HEPA filter with coalescent pre-filter on HVAC exhaust from shower, with safe change option
- Construction in grade 304 or 316 stainless steel
- Right angle design (entry and exit doors at 90)
- 3 or 4 door shower configurations, to interface with multiple rooms
- Shower sized for 1, 2 or more operatives
- Platform for de-gowning
- Privacy option - to keep shower doors locked whilst operative is de-gowning after showering
- Range of optional external control input options including fire alarm override, door interlocks, HVAC running (with shower alarm) and remote cycle start
- Optional external control outputs for common fault/ alarm and shower door positions
- Drainage options - self swab, central drain or side off - take drain



# Air Shower Integrate AHU PD-Ai

## Continued Improvement

PBSC's personnel air shower comes in two designs, one with the integrated Air Handling Unit (AHU) on the top of the shower and with a separate AHU which has "Safe Change" filters. Both are designed to reduce particles from the operative with high velocity jets of air. The integrated design is designed to remove non-hazardous particles on the entry to a controlled area. Please see PBSC's other air shower information if the particles are hazardous and a safe change on the filter housing is required.

The air shower is the latest design which has been continually improved over the years and features either a stainless steel or powder coated steel construction with interlocked float/toughened glass personnel doors. The shower has final assembly in place and requires no cranes or special access on site as the largest piece will fit through a single door way.

Maximum clear opening, the door design has been refined to provide a maximum clear entry width with the frame – finishing flush to the internal panels. (straight through design only). There are 9 x adjustable stainless-steel nozzles on each of the two side walls in the shower, total of 18 nozzles in the shower.

As the operative enters the shower the PLC automatically turns on the high performance 24VDC LED light which is powered from the PLC (no mains power in the shower cubicle).

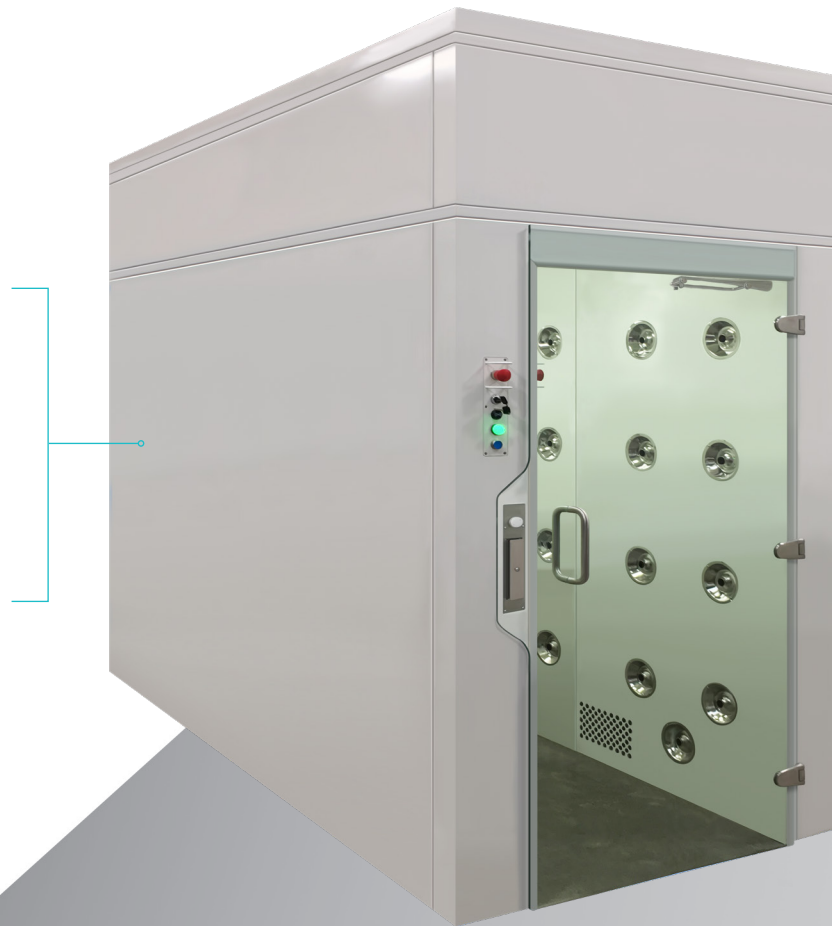
PBSC's design of the shower has the lowest nozzle from the finish floor level and a low-level return on each wall panel to the AHU built into the top of the shower cubicle.

### Key Features

- PLC controlled internal 24VDC LED light
- High velocity from nozzles
- Adjustable stainless-steel nozzle, no performance loss with different positions
- Frameless glass door sets – maximum clear opening

### Performance

- Clean Filter – 150 Pa
- 32m/s at 5cm from the nozzles





## Commissioning Options



- Right Angles Design
- Air knife (requires S1200 PLC upgrade)
- Automated Doors
- S1200 PLC upgrade
- 304 or 316 stainless steel construction

**Note:**

Also available with Safe Change – Please contact PBSC for more details.





# Material Air Lock (MAL) Decontamination Chamber MD-C

## Safe, Quick and Easy Decontamination

PBSC's high-level log6 surface disinfection chamber is a freestanding, modular unit ideal for material production and equipment loads in cleanroom and high containment environments up to BSL4. We provide decontamination solutions from market leading H2O2 (hydrogen peroxide) generator manufacturers ensuring regulatory compliance and consumable traceability. The chamber is designed to be intuitive allowing ease of use for facility operators.

PBSC also offer Formaldehyde decontamination chambers; please contact PBSC for details.

The decontamination cycle is initiated via colour touch screens from either side of the chamber, with these screens providing the operators with in-cycle data from the chamber and H2O2 generator.

Effective against a wide range of micro-organisms and viruses, the MAL chamber provides a low temperature decontamination solution for heat sensitive items such as electronics or biologic preparations. The decontamination chamber is a viable addition to a facilities process ethos for material transfer either into or out of the critical environment with repeatable log6 efficacy.

The chamber includes either a Siemens S7-1200 or S7-1500 PLC which controls, monitors and records all critical parameters of each cycle.

Various chamber sizes with pneumatic seal doors are available.

### Key Features



- Fast cycles from 45 minutes
- Safe, validated and reliable log6 decontamination
- Siemens S7-1200 or S7-1500 PLC, with either 7", 12" or 15" Comfort Touch Screens
- Data acquisition and management to allow for 21 CFR Part 11 and Annex 11 compliance
- Option for air handling system without connection to the building HVAC
- Various other air handling options – contact PBSC for details
- Flush door thresholds allowing easy wheeled access
- No floor pit required
- In built daily leak testing option
- Plug and play electrical spares





## Applications



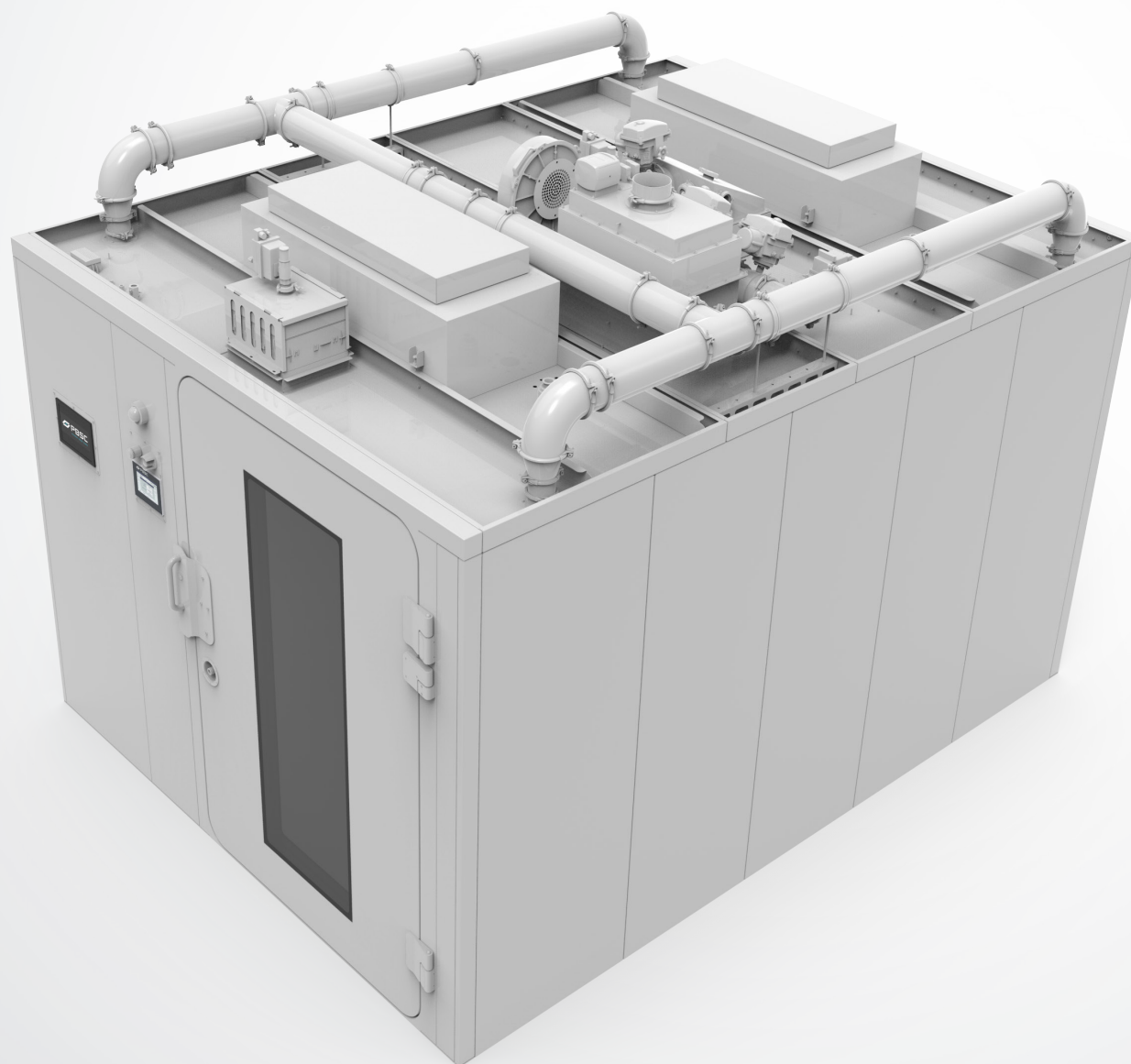
The decontamination chamber with the mobile generator is ideal for various facility applications. Used globally in facilities to eradicate problematic bacteria, viruses and fungi on material loads of equipment entering/exiting controlled areas throughout the Pharmaceutical/Bio-Pharmaceutical, Containment and Biomedical sectors.

A mobile decontamination generator allows the generator to be used on other equipment and room decontamination.

## Commissioning Options



- Project specific general arrangement approval drawings
- DQ package including FDS, P&ID, HDS
- Installation Services
- Commissioning of Chamber
- Q-OQ
- Operator Training
- Gas Cycle Development
- Performance Qualification
- 6 or 12 monthly servicing/calibration





# Integrated H2O2 Generator Solutions MD-Ci

## A Truly Integrated Solution

PBSC's high-level Log6 surface disinfection chamber is a modular design, ideal for material production environments and equipment loads in cleanroom and high containment environments up to BSL4. PBSC provides fully integrated decontamination solutions from market leading H2O2 generator manufacturers ensuring regulatory compliance and consumable traceability. The chamber is designed to be intuitive allowing ease of use for facility operators.

The decontamination cycle is initiated via the colour touch screens on either side of the chamber, which provides operators with in-cycle data from the chamber and H2O2 generator.

The generator can be either integrated internally in the chamber or mounted remotely in the building technical area. Both options have a remote bottle housing and printer to be mounted externally. Custom integration to a multi-room decontamination system is available.

The chamber includes either a S7-1200 or S7-1500 PLC which monitors and records all critical parameters of each cycle.

Various chamber sizes with pneumatic seal doors are available.

### Key Features



- Fast cycles from 45 minutes
- Safe, validated and reliable log6 decontamination
- Siemens S7-1200 or S7-1500 PLC, with either 7", 12" or 15" Comfort Touch Screens
- Data acquisition and management to allow for 21 CFR Part 11 and Annex 11 compliance
- Option for air handling system without connection to the building HVAC
- Various other air handling options – contact PBSC for details
- Flush door thresholds allowing easy wheeled access
- No floor pit required
- Inbuilt daily leak testing option
- Plug and play electrical spares for ease of maintenance

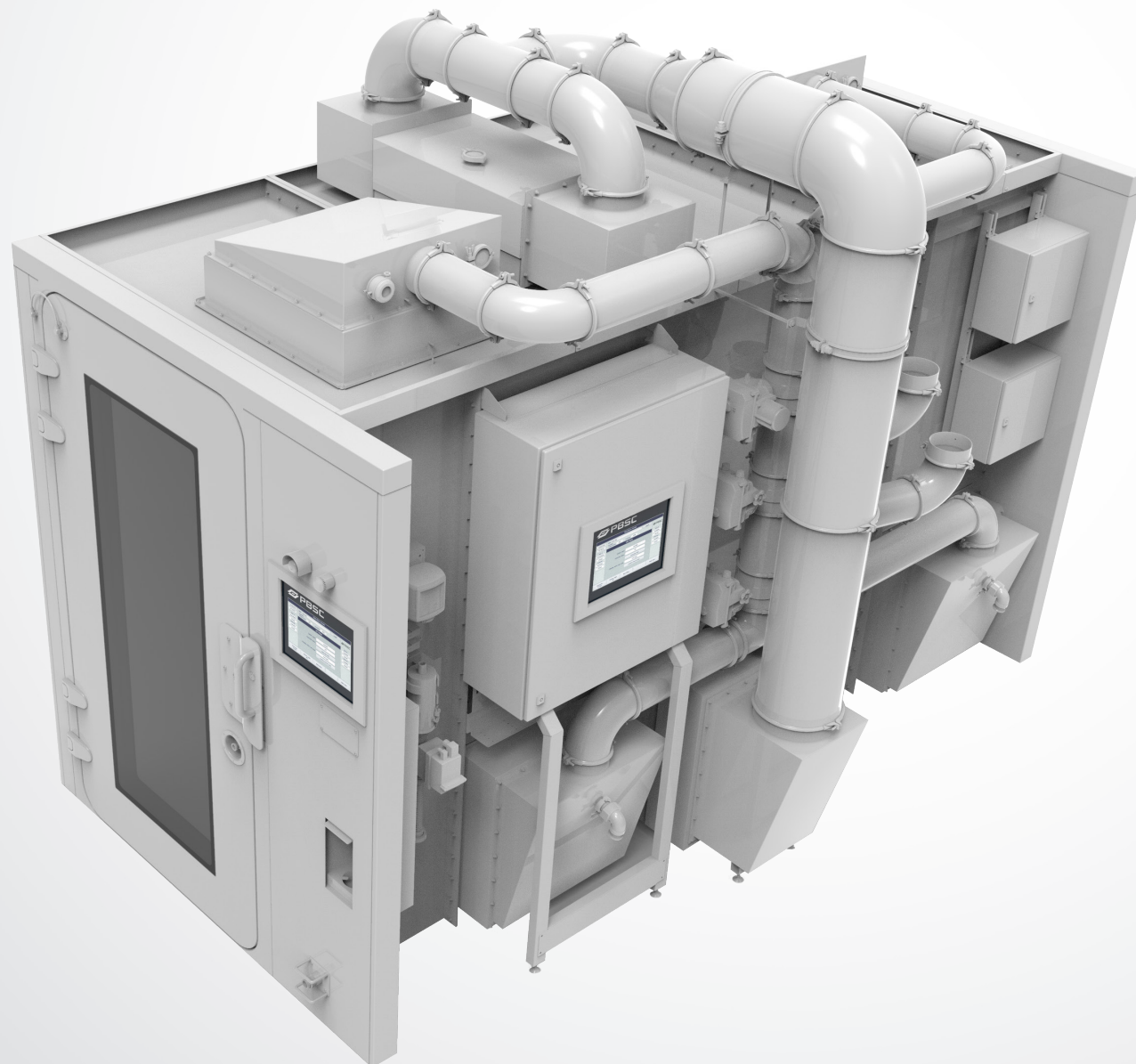


## Applications

The decontamination chamber with the integrated generator is ideal for various facility applications where floor space is limited and the generator is not required for use with other equipment. Used globally in facilities to eradicate problematic bacteria, viruses and fungi on material loads of equipment entering/exiting controlled areas throughout the Pharmaceutical/Bio-Pharmaceutical, Containment and Biomedical sectors.

## Commissioning Options

- Project Specific Approval Drawings
- DQ package including FDS, P&ID, HDS
- Installation Services
- Commissioning of Chamber
- IQ-OQ
- Operator Training
- Gas Cycle Development
- Performance Qualification
- 6 or 12 monthly servicing/calibration





# Decontamination Pass Through Hatch MD-H

## Smaller Loads – Rapid Decontamination

PBSC's high level Log6 surface disinfection hatch is a freestanding unit, ideal for samples and equipment loads in cleanroom and high containment environments.

PBSC provides fully integrated decontamination solutions with market leading H2O2 generator manufacturers ensuring regulatory compliance and consumable traceability. The hatch is designed to be intuitive allowing ease of use for facility operators.

PBSC also offer Formaldehyde decontamination hatches; please contact PBSC for details.

The decontamination cycle is initiated via the colour touch screens on either side of the hatch, which provides operators with in-cycle data from the hatch and H2O2 generator.

Effective against a wide range of micro-organisms and viruses, the hatch provides a low temperature decontamination solution for heat sensitive items such as electronics or biologic preparations. The decontamination hatch is a viable addition to a facilities process ethos for material transfer either into or out of the critical environment with repeatable log6 efficacy.

Including either a S7-1200 or S7-1500 PLC which monitors and records all critical parameters of each cycle.

Various custom sizes are available, please contact PBSC to discuss.

### Key Features



- Fast cycles from 30 minutes
- Safe, validated and reliable log6 decontamination
- Siemens S7-1200 or S7-1500 PLC, with either 7", 12" or 15" Comfort Touch Screens
- Data acquisition and management to allow for 21 CFR Part 11 and Annex 11 compliance
- Plug and play electrical spares for ease of maintenance
- Option for air handling system without connection to the building HVAC
- Bespoke trolley and rack designs
- Standard internal sizes (WxHxD)
  - 600 x 1200 x 1100mm
  - 900 x 1200 x 1100mm





## Applications

The decontamination hatch with the mobile generator is ideal for various facility applications. Used globally in facilities to eradicate problematic bacteria, viruses and fungi on material loads of equipment entering/exiting controlled areas throughout the Pharmaceutical/Bio-Pharmaceutical, Containment and Biomedical sectors.

A mobile decontamination generator allows for use in other equipment and room decontamination.

## Commissioning Options

- Project Specific Approval Drawing
- DQ package including FDS, P&ID, HDS etc.
- Installation Services
- Commissioning of Hatch
- IQ-OQ
- Operator Training
- Gas Cycle Development
- Performance Qualification
- 6 or 12 monthly servicing/calibration





# Integrated Decontamination Pass through MD-Hi

## Compact Rapid Decontamination

PBSC's high level Log6 surface disinfection hatch is a freestanding unit, ideal for samples and equipment loads in cleanroom and high containment environments.

PBSC provides fully integrated decontamination solutions with market leading H2O2 generator manufacturers ensuring regulatory compliance and consumable traceability. The hatch is designed to be intuitive allowing ease of use for facility operators.

The decontamination cycle is initiated via the colour touch screens on either side of the hatch, which provides operators with in-cycle data from the hatch and H2O2 generator.

The generator can be either integrated internally on the hatch or a remote generator in the building technical area. Both options have a remote bottle housing and printer to be mounted externally. Custom integration to a multi-room decontamination system is available.

Including either a S7-1200 or S7-1500 PLC which monitors and records all critical parameters of each cycle.

Various custom sizes are available, please contact PBSC to discuss.

### Key Features



- Fast Cycles from 30 minutes
- Safe, validated and reliable log6 decontamination
- Siemens S7-1200 or S7-1500 PLC, with either 7", 12" or 15" Comfort Touch Screens
- Data acquisition and management to allow for 21 CFR Part 11 and Annex 11 compliance
- Plug and play electrical spares for ease of maintenance
- Option for air handling system without connection to the building HVAC
- Bespoke trolley and rack designs
- Standard internal sizes (WxHxD)
  - 600 x 1200 x 1100mm
  - 900 x 1200 x 1100mm



## Applications

The decontamination hatch with the mobile generator is ideal for various facility applications. Used globally in facilities to eradicate problematic bacteria, viruses and fungi on material loads of equipment entering/exiting controlled areas throughout the Pharmaceutical/Bio-Pharmaceutical, Containment and Biomedical sectors. A mobile decontamination generator allows for use in other equipment and room decontamination.

## Commissioning Options

- Project Specific Approval Drawings
- DQ package including FDS, P&ID, HDS etc...
- Installation Services
- Wiring of Hatch
- Commissioning of Hatch
- IQ-OQ
- Operator Training
- Gas Cycle Development
- Performance Qualification
- 6 or 12 monthly servicing/calibration





# Product Development, Quality Assurance, Testing & Training

## Product Development

PBSC carry out extensive in-house research and product development to provide leading technology to meet customer and market demands, ensuring our products are safe, reliable and provide the required quality and performance together with excellent value.

PBSC works with end users and consultants to meet the growing challenges of bio-safety and bio-security in laboratories and clean rooms, from enhancing bio-containment in government BSL4 virology labs to protecting the clean environments of pharmaceutical, hospital and electronics manufacturing facilities.

## Quality is Guaranteed

Quality Assurance at PBSC is fundamental. All designs are submitted for client approval, and all products are individually rigorously inspected and tested at PBSC's facility prior to delivery to site, with full traceability. Similarly all PBSC site installations and tests are fully documented and signed off by the client. Our QA processes to ISO 9001 are independently audited and regularly updated.

## PBSC Testing

Client FATs are offered. Similarly all PBSC site installations and site testing (SAT, IQ-OQ) are fully documented and signed off by the client.

Safety and verification have always been important values at PBSC. We handle virtually all testing in-house, to increase the reliability and durability of our products, whilst providing important first-hand demonstrations and evaluations for both our engineers and customers.

For example, the pneumatic seals used in our APR doors undergo rigorous testing and inspections from the initial compounding stage through to final factory equipment testing, and rigorous pressure decay leakage testing and controls functionality testing is routinely carried out to provide confidence that the product will perform as expected after installation.

## PBSC Training

Over the years, as our products have grown more complex to meet user requirements, there is a growing need to offer end-user training to operational and maintenance staff.

Having your maintenance technicians properly trained will save you time and money. Improving your knowledge of preventative maintenance will help you keep your controlled environment running smoothly and safely – we encourage you to take advantage of our training.

## PBSC Life-Time Support

PBSC offer an extensive after sales support service, including Planned Preventative Maintenance programmes, servicing, spare parts and refresher training.







**The following are some of the companies and organisations that have used **PBSC** for their clean room solutions:**

- |                      |                           |                |
|----------------------|---------------------------|----------------|
| Abbot                | Eli Lilly                 | Novo Nordisk   |
| AbbVie               | Fresenius                 | Pfizer         |
| Allergan             | GSK                       | Richter Gedeon |
| Amgen                | Hikma                     | Roche          |
| Astellas             | Hospitals Internationally | Sanofi         |
| Astra Zeneca         | Ipsen                     | Servier        |
| Baxter               | Johnson and Johnson       | Stryker        |
| Bayer                | Leo Pharma                | Takeda         |
| Boehringer Ingelheim | Lonza                     | TEVA           |
| Bristol Myers Squibb | Merck                     | Vertex         |
| CAPS                 | Mylan                     | Vifor          |
| Cipla                | Norbrook                  |                |
| Eisai                | Novartis                  |                |







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Due to continued product development PBSC reserve the  
right to change or alter specifications without prior notice.

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