Data Sheet

PBSC

Innovation. Design. Quality.

MD-Ci

Decontamination Chamber - Integrated

www.pbsc.co.uk
www.pbsc-inc.com

MD-Ci

Decontamination Chamber - Integrated

PBSC provide installation, servicing, technical advice, product selection and demonstrations for clean controlled environments with Innovation, Design and Quality at the heart.

PBSC manufacture high quality clean room, high containment and material decontamination products. When you need areas and staff to be contamination free and protected from pathogens, you need dependable equipment which will maintain critical biosafety levels, achieve sterility and protect data reliability.

Complying with local and global regulations PBSC's products can be designed to meet your specific requirements. Over 30 years knowledge and competence within the specialist sectors, always going through extensive research and development and offering accurate assistance during project planning to consultants, architects and end users to deliver successful projects.

Innovation

Incorporating your requirements to create product ranges to exceed expectations

Design

Leading the way with pioneering design, ensuring customer requirements are achieved

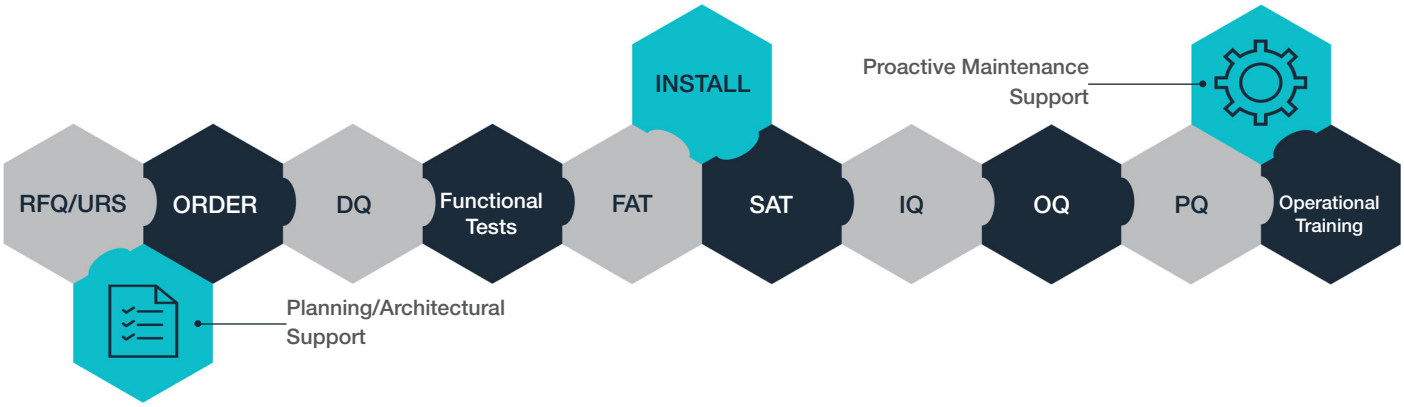
Quality

Delivering high quality products for over 30 years, with rigorous testing and inspection

PBSC is the accepted benchmark by which others are measured...

The search for innovative design, an eye for detail and advanced manufacturing techniques has seen PBSC gain a deserved reputation as the premier supplier within cleanroom environments.

Supporting the customer throughout the process continuing to meet the growing challenges and striving for continual improvement with our ISO 9001 QA processes independently audited and updated on a regular basis.



Description

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 H202 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.

Effective against a wide range of micro-organisms and viruses, the MAL chamber provides a low heat decontamination solution for heat sensitive items such as electronics i.e. laptops, 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.

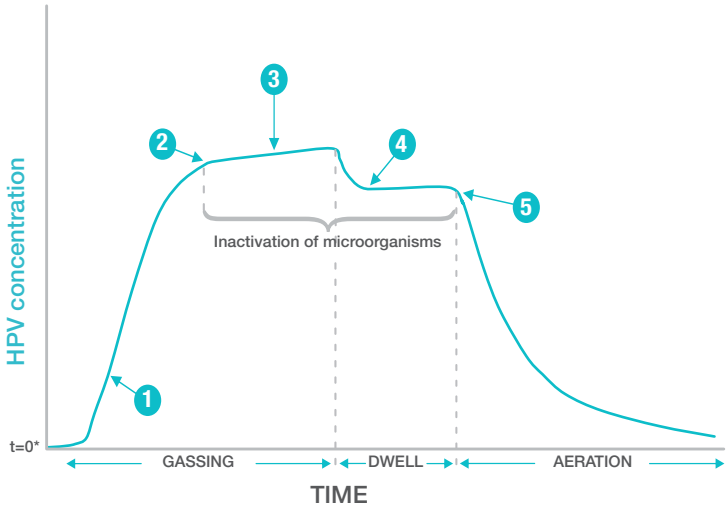
The generator can be either integrated internally on the chamber or a remote generator in the building technical area. Both options have a remote bottle housing and printer to be mounted externally. Custom integration to a multi-room decontamination system is available.

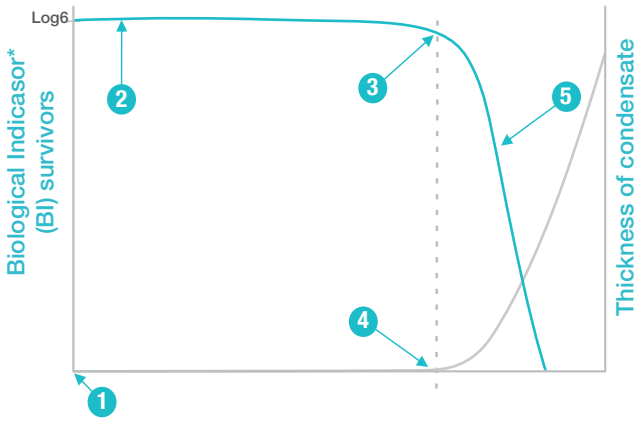
The chamber includes either a S1200 or S1500 PLC which monitors and records all critical parameters of each cycle.

Various chamber sizes with pneumatic seal doors are available, from 1m x 1m up to 3m x 5m (WxD)

Air handling options

- The chamber can operate with connection to a HVAC system.
- PBSC supplied air handling units – APB Systems with Extract Units
- PBSC internal aeration units to assist HVAC or APB aeration
- PBSC can provide a Full Scrub Solution which reduces PPM down to safe levels on a single pass, removing the need for a dedicated exhaust system, therefore reducing capital and running costs.





1. HPV introduced – initial rapid increase in HPV concentration
2. HPV saturation/'dew point' achieved – onset of rapid bio - decontamination
3. HPV gassing plateau – sustained micro-condensation effecting bio deactivation
4. Dwell period (contact time)
5. Aeration – removal of HPV from the atmosphere typically by catalytic conversion to water vapour and oxygen, leaving no residues

* Conditioning phase not shown Note: 'features' on graph change e.g. depending on size of chamber (& related temperature ect)

1. Injection of HPV into the enclosure starts (t=0)
2. Only slight decline in biological indicator population prior to dew point
3. Rapid micro-biological kill occurs immediately after saturation/'dew point' is achieved – process optimised to achieve reliable log6 sporicidal reduction on all exposed surfaces
4. Onset of micro-condensation correlates with rapid bio-deactivation
5. Bio-deactivation achieved via micro- condensation (invisible layer) of hydrogen peroxide (2-6mm)

* Typical BI: Tyvek pouched log6 Geobacillus stearothermophilus spores

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.

Where you would like to be able to use the generator for other equipment, we have a different chamber to interface with a remote generator.

Installation and Service

PBSC provides specialist installation support for chambers globally. The chambers can be designed for installation into existing facilities where space is limited. PBSC have a proven track record with over 150 units successfully installed in to various applications.

After sales support is provided with planned preventative maintenance contracts and unscheduled maintenance support by our trained engineers.

Commissioning Options

Include:

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

Key Features

- Fast Cycles from 45 minutes
- Safe, validated and reliable log6 decontamination
- Siemens S1200 or S1500 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
- Flush threshold allowing easy wheeled access
- No Pit Required
- H2O2 loaded on the chamber with printer above to take cycle records
- Large Vision Panel, with True Flush Glazing both sides
- Internal power sockets, to allow electrical items to be run during the fumigation cycle
- Range of aeration and air handling options to suit customers’ requirements
- Full-service support contracts available to suit GMP and Life Science facilities
- Full turnkey solution including all validation

- Typical pressure loss at SAT of 97Pa over 30 minutes, with a starting pressure of 500Pa

1. H2O2 Bottle Housing
2. Flush Maglock with Hidden Proximity
3. Onboard Printer
4. Colour Touch Screen
5. Override Buttons
6. Large Vision Panel Double Glazed
7. Robust Bumpers
8. No visible fixings

MD-Ci

Decontamination Chamber - Integrated

NOTES:

PBSC Staying in Control of Controlled Environments

Established in 1987 PBSC has become one of the leading manufacturers of clean room, high containment and material decontamination products throughout the world and having the extensive product range and bespoke designs and assembly capabilities can meet customers needs.

Providing high quality products and services to the pharmaceutical, medical research, high containment and hospital sectors, offering quick and accurate assistance during project planning to consultants, architects and end users.

PBSC have agents and representatives in most countries to provide excellent local support and logistical services to make sure your products arrive on time.

Products include;

- Clean Room Doors
- Pneumatic Inflatable Seal /Airtight Door Sets
- Mechanical Seal / Airtight Doors
- Material Decontamination Chambers
- Transfer Hatches / Cleanroom Pass Through
- Fogging Showers / Mist Showers
- Air Showers

www.pbsc.co.uk
www.pbsc-inc.com

MD-Ci0621

PBSC reserve the right to introduce changes in performance, conguration and technology, dimension, weights and materials in the course of technical progress. Images may not be accurate