

■ World leading innovation in bio-safety enclosure design & technology

MODEL LABS

Laboratory Automation & Robotic System Enclosures & Cabinets

for operator and sample/process protection



Bio-safety for operator and contained laboratory automation in a range of enclosure sizes.

Bigneat's LABS enclosure has been designed following years of practical experience and is an example of Bigneat's innovation in bio-safety enclosure design & technology. We offer a range of features and options to assist the work-flow in the fast moving pharmaceutical, life sciences and drug development laboratory.

LABS enclosures provide downflow sterile air to the work surface ensuring protection of the contained system.

This enclosure's air flow system is 100% pass through.

FEATURES

- Operator protection is of paramount importance in the LABS model with automatic fan speed control maintaining a minimum face velocity which complies to worldwide recognised standards.
- Programmable control system - displays enclosure status and controls airflow system balance, hour counter.
- Display show status of enclosed robotic system is mounted to enclosure exterior.
- Audible and visual alarm indication of low airflow and door open warning.
- Large range of options, ventilated transfer ports and waste management systems.
- Great ergonomics with access and visibility to four sides of the robotic platform

BESPOKE AND CUSTOM FINISHED CABINETS

Bigneat is highly flexible and we offer enclosure options and finishing to suit your robotics system and the contained process.

It's your choice!

Choose access options.

Specify cable/tubing connections required.

Choose the colour of your enclosure.

Have your robotic system integrated into your enclosure.

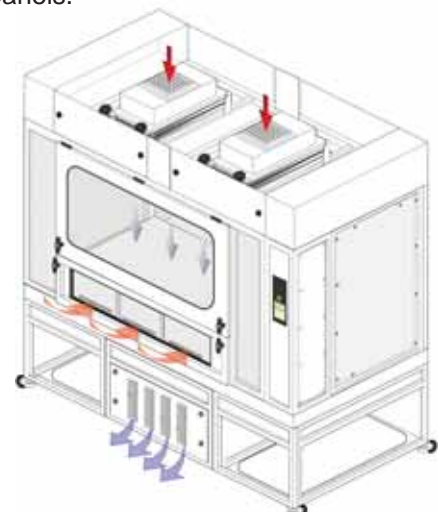
PERFORMANCE AND STANDARDS

Meeting recognised Standards worldwide: NSF Standard 49, Category B2 and ISO 14644-1/1999: Part 1: Para 2.4.1. Also described as Class 100, FED STD-209- D:1988.

For use with Class II biohazards.

LABS provides for operator protection from hazardous aerosols and particles whilst providing product protection from contaminants entering the enclosure when in operation with all doors closed.

Front; operator protection is assured with only one sliding window open. **Side;** operator and product protection is maintained for access through side panels.



Improve reliability, improve productivity, improve safety.



Cable/tubing port, anemometer, 16mm high impact laminate composite work surface.



High quality construction, inflow grilles (100mm depth).



Excellent access to interior.

Description

Laboratory air is drawn through HEPA filters in the roof of the enclosure and this now sterile air passes through air diffuser grilles to be dispersed evenly throughout the enclosure. Used air is exhausted via under-bench outlet/exhaust HEPA filter unit back into the laboratory.

For operator protection, when access to enclosure interior is required, laboratory air (0.4m/s) enters the lower door windows (access 300mm high). Operator protection is provided by air passing into the enclosure and into a profile grille around the enclosure's work surface.

The high performance airflow system is continuously monitored and automatically compensates for airflow changes by a 'closed-loop' feedback to ensure a minimum level of operator and product protection at all times.

Interlocking upper and lower access doors are locked down with 'T' handles during operation.

Note: Product protection is compromised when sliding windows are open.

Downflow air

Compromising of the air flow within the enclosure is unavoidable because of the presence of the robot and the movement of the arms, careful airflow design and control ensures that this turbulence is kept to a minimum.

Turbulence within the enclosure will not compromise operator protection due to high inflow velocities.

Technical Specifications

Model	External dims mm (WxDxH)	Internal dims mm (WxDxH)	Inflow air velocity min m/s	Downflow air changes per hr
RB1500/01	1500 x 1180 x 2400	1220 x 1000 x 1144	>0.4	>60
RB1800/01	1800 x 1180 x 2400	1720 x 1000 x 1144	>0.4	>60
RB2200/01	2200 x 1180 x 2400	2120 x 1000 x 1144	>0.4	>60
RB2600/01	2600 x 1180 x 2400	2520 x 1000 x 1144	>0.4	>60
RB3200/01	3200 x 1180 x 2400	3120 x 1000 x 1144	>0.4	>60

Sound level: <65dBA. Lighting: 2 x 18W sealed fluorescent amps >480lux. Cabinets available for power supply: 230V, AC, 50Hz, 13Amp, 1Ø and 110V, AC, 60Hz, 20Amp, 1Ø.

ESSENTIALS

- High quality construction.
- Largest component of enclosure for on-site assembly will fit through standard laboratory doorway.
- Self-levelling/lockable castors ensure full mobility.

OPTIONS AND EXTRAS

- Additional electrical sockets to suit robotics system.
- Carbon filtration.
- Computer shelf on flexible arm.
- Hydrogen peroxide (or alternative fumigation) connections (night doors, removed for normal operation and access).
- Integrated robot system safety switches.
- Sealed cable glands.
- Under-bench storage and shelving to suit.
- Universal control panel.
- UV lighting, linked to timed on/off facility in control system.
- Ventilated waste tips & plates container.



FILTRATION USED IN LABS ENCLOSURES

Pre-filtration eliminates particles at 5.0µm or larger to an efficiency of 92% as defined in BS EN ISO 779.

Downflow air flow HEPA filtration (H14 Standard).

Exhaust air HEPA filtration (H14 Standard) eliminates particles 0.3µm or larger to an efficiency of 99.995%.

Double HEPA filtration as option on exhaust.

Chemcap OS filtration as an option on exhaust. Carbon filtration removes solvent and acid vapours.

Quality Assured



Bigneat is accredited to BS EN ISO 9001: 2008



Bigneat systems are CE marked

Bigneat manufactures from UL approved components

BIGNEAT CONTAINMENT TECHNOLOGY

Value. Service. Experience.

Bigneat Limited

4 & 5 Piper's Wood Industrial Park, Waterberry Drive, Waterlooville, Hampshire PO7 7XU UK
Tel: +44 (0)23 92 266400 · Fax: +44 (0)23 92 263373 · E-mail: sales@bigneat.com



www.bigneat.com