BIGNEAT

CONTAINMENT TECHNOLOGY

MADE IN BRITAIN

MODEL BCEE

Controlled Environment Enclosures & Cabinets

for operator and sample/process protection

- Controlled Humidity <1%-85%
- Controlled Temperature 4ºC-40ºC
- Clean Air ISO Class 5 to EN14644-1
- Controlled Atmosphere Aerobic, hypoxic or anaerobic conditions

APPLICATIONS

- **Containment of drug discovery robotics systems requiring chilling, incubation or set-level stable temperature**
- **Containment of moisture sensitive weighing process equipment and analytical equipment, O2 sensitive procedures**
- **Life sciences; stem cell research (hypoxic)**
- **Handling of freeze-dryed samples (reducing hydroscopy)**

FEATURES

- **Universal control panel - displays status of enclosed automation and controls airflow system balance, hour counter**
- **Audible and visual alarm indication of incorrect conditions.**
- **Large range of options, ventilated transfer ports and waste management systems**
- **Bigneat enclosures provide excellent visibility of the enclosed system**
- **Sealed cable gland ports**
- **Integrated robot system safety switches**

PROVIDING STABLE CONDITIONS FOR EXPERIMENTATION, TESTING & PRODUCTION.

Bigneat's BCEE enclosure range has been designed following years of practical experience and is an example of Bigneat's innovation in enclosure design & technology.

BCEE high-purity clean air enclosure with controlled humidity, temperature and/or controlled atmosphere (HX) will provide the user with the highest quality precision environment at all times irrespective of fluctuations in the surrounding laboratory environment.

BCEE uses a sealed recirculatory air system to provide downflow sterile air to the work surface ensuring sample/process protection.

Manipulation within the enclosure is through sliding doors or glove ports.

Controlled Atmosphere Enclosures (HX) for aerobic, hypoxic or anaerobic conditions use gas (nitrogen/CO2) to remove oxygen.

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!

Specify cable/tubing connections required.
Choose the colour of your enclosure.
Consider integrating your robotic system into your enclosure.

Roxtec sealed gland ports

Excellent access to interior

IMPROVE RELIABILITY, IMPROVE PRODUCTIVITY, IMPROVE SAFETY.

DESCRIPTION OF BCEE AND BCEEHX ENCLOSURES AND CHAMBERS

Recirculation fan filter system: A roof-mounted recirculatory fan system provides sterile air which protects the contained system, the main fan/blower generates all of the enclosure's internal airstreams.

Conditioning unit: Air distributed within the enclosure is passed through a chilled water/refridgerant conditioning plant to maintain the controlled temperature and humidify.
A heating element raises the air temperature when it falls below the set temperature (precision ± 0.5°C). Steam is injected into the airflow from a humidifier unit to maintain the required specification.

Airflow monitoring and control: The enclosure is monitored and controlled by an easy touch control system which manages the air flow. In HX models it also controls gas. An audible alarm warns of low airflow conditions.

Enclosure: Gas strut assisted hinged front doors for access to the interior are locked down with 'T' handles during operation. Side panels are removable for maintenance. All access doors and windows are airtight. Glove ports with silicon rubber gloves enable manipulation of materials within the enclosure and an airlock transfer station enables transfer of materials into the enclosure. Optional on BCEE, standard on HX.

HX (Hypoxic chamber)
Gas (nitrogen/CO2) purges the enclosure removing oxygen both in the main chamber and also in the air lock transfer station. CO2 enclosures require external ducting for connection to house extract.

FILTRATION USED IN BCEE ENCLOSURES

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

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

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

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

STANDARDS
Meeting recognised Standards worldwide

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**
- **Air lock transfer station**
- **Automated transfer system**
- **Carbon filtration**
- **Computer shelf on flexible arm**
- **Ducted systems available**
- **Hydrogen peroxide (or alternative fumigation) connections (night doors, removed for normal operation)**
- **Under-bench storage and shelving to suit**
- **Universal control panel**
- **UV lighting, linked to timed on/off facility in control system**
- **Waste tips & plates chute and ventilated waste container**

QUALITY ASSURED

Bigneat is accredited to BS EN ISO 9001: 2008

CE Bigneat systems are CE marked

Bigneat manufactures from UL approved components

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