BIGNEAT

CONTAINMENT TECHNOLOGY

MADE IN BRITAIN

Laminar Flow Cabinets
For Education

For aseptic techniques and procedures requiring clean air

Excellent visibility for both teacher and student

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VERTICAL LAMINAR FLOW CABINET

Bigneat's BE range of Laminar Flow Cabinets has been specifically developed for use in schools and colleges. Cabinets are designed to be affordable yet provide a particle-free air conditions at a quality standard used in world-class research laboratories. Most importantly acrylic construction allows excellent all-round vision for students and teachers.

A BE cabinet may be positioned on an existing bench or can be supplied as a free standing system with worktop and supporting mobile stand with integrated cupboard.

Three sizes are offered for use by one, two or four students.

Bigneat Laminar Flow Cabinets are built to a very high standard using only the best quality materials and fan components. Experience has shown that Bigneat Laminar Flow Cabinets give consistent performance which is only dependent on replacement of the pre- and HEPA filters at recommended intervals.

FILTRATION & STANDARDS

- **Pre-filtration eliminates particles 5.0 microns or greater to an efficiency of 92% as defined in BS EN ISO 779.**
- **HEPA filtration (H14 Standard) eliminates particles 0.3 microns or greater to an efficiency of 99.997% providing ultra-clean particle-free. Class 5 BS EN ISO 14644-1:2000 air conditions.**

Definition and classification of clean air safety systems as specified by ISO 14644

LAMINAR FLOW CABINET

A dedicated space in which the concentration of airborne particles is controlled and is constructed and used in a manner to minimise the introduction, generation and retention of particles inside the zone.

DESCRIPTION AND OPERATION

Classroom air is drawn into the top of the cabinet, passes through the pre filter and enters the fan housing. The speed controllable fan pushes the air through the HEPA filter located above the working area. Ultra-clean air exits the HEPA filter producing a sterile working environment which protects the student's manipulations and procedures from external contamination.

The cabinet structure is formed from 10mm thick clear UV stabilised castacrylic which provides excellent all-round visibility for teacher and student whilst carrying out aseptic procedures.

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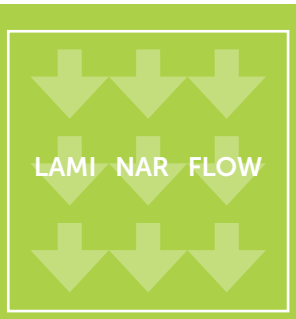


CONSTRUCTION AND MATERIALS

The fan housing is fabricated from mild steel with an epoxy coated, acid resistant white coating. Transparent sides, back and middle panels are manufactured from clear 10mm thick cast acrylic, which is flame retardant and easy to clean. Integrated worksurface is manufactured from laboratory grade solid laminate beige HPL and the working area has a shallow inset groove to retain spillages.

Optional mobile stand: A mild steel epoxy coated tubular stand on lockable castors, with or without cupboards and can be provided in sitting, standing or adjustable height modes.

OPTIONAL EXTRAS

SERVICES PACKAGE:

Gas tap, swan-neck water tap with drip cup. Can only be fitted when ordered with mobile stand.

MOBILE STAND:

Mobile stand on lockable castors, with or without cupboards and can be supplied in sitting, standing or adjustable height modes.

SERVICES PORT:

80mm diameter service ports to side, back and middle panels for cable and flexible pipe entry.

LIGHTING:

Internal fluorescent white lighting.

UV STERILISATION:

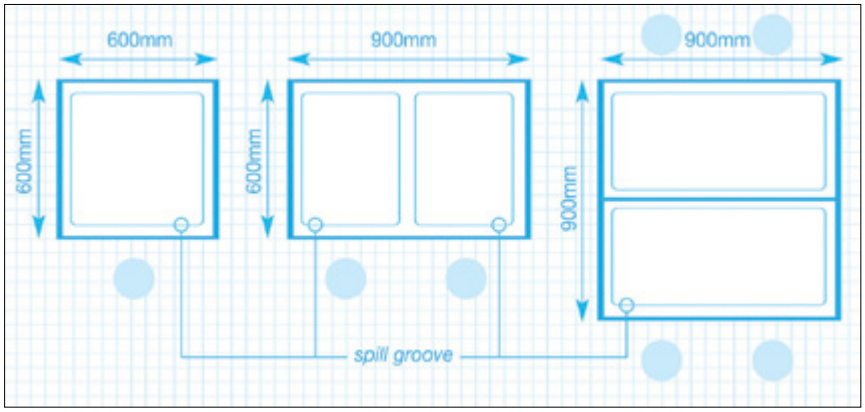
Internal UV sterilisation lighting c/w timer.

THREE SIZES & LAYOUTS

1 student cabinet
BE0880/1

2 student cabinet
BE0880/2

4 student cabinet
BE0880/4



KEY FEATURES:

- **Comfortable to use.**
- **Excellent all round visibility**
- **Quiet operation**

TECHNICAL INFORMATION

Model	BE0880/1	BE0880/2	BE0880/4
Designed for:	1 Student	2 Student	4 Student
Ext Dimensions (wxdxh) mm	620 x 610 x 1000	920 x 610 x 1000	920 x 900 x 1000
Int Dimensions (wxdxh) mm	600 x 590 x 640	900 x 590 x 640	900 x 435(x2) x 640
Sound Levels	1000 x 725 x 1040		
Air Velocity	0.45m/s at filter face		
Power Supply	230V, AC, 50Hz, 5Amp, 1Ø AVAILABLE 110V, AC, 60Hz, 8Amp, 1Ø on request		

SUPPORTING AND DEVELOPING THE USE OF ASEPTIC LAMINAR FLOW CABINETS IN SCHOOLS AND COLLEGES

Design and development of this new range of Laminar Flow Cabinets has been undertaken by Bigneat's technical team in association with Simon Pugh-Jones of the Writhlington School Orchid Project and Dr Lauren Gardiner, botanist at the Royal Botanic Gardens, Kew.

It is believed that students and schools nationally will benefit from learning aseptic techniques and working in clean air, as specified in the national curriculum KS4 programme of study and GCSE science curricula. Aseptic techniques can be learnt through plant-based work, a proven low risk and educationally successful model for aseptic work in schools, as shown by the Writhlington School Orchid Project experience.

In the past the main barriers to schools undertaking aseptic procedures using laminar flow cabinets have been:-

a) high cost of equipment.

b) lack of educational support materials and training for teachers giving effective lessons and learning projects.

c) lack of available ancillary equipment, consumables and living material for use in schools.

The reduction in the cost of equipment has now been addressed by Bigneat with the introduction of their BE range of Laminar Flow Cabinets. Bigneat's new cabinet design is fabricated in the UK and supplied at a cost that is at a significantly lower than in the past.

Further resources for teachers will shortly be available in the form of a guide: "Practical plant micro-propagation projects for schools'. Live seed, spores and consumables will be supplied through Scientific and Chemical Supplies by the Writhlington School Orchid Project.

MORE CABINETS FOR EDUCATION

EDU Ductless Fume Cabinets for safely containing fume and vapour hazards whilst conducting chemistry experiments.

MORE ABOUT BIGNEAT

Since 1972 Bigneat has been designing, manufacturing and maintaining just about every conceivable style of clean air and safety cabinet and enclosures.

Having grown from a small local business to a company with links worldwide, we now enjoy an unrivalled reputation as the world's most innovative supplier in this specialist sector.

In addition to laminar flow cabinets Bigneat manufactures ductless fume cabinets, fume cupboards, fume & dust arm extraction systems, biological safety cabinets, chemical storage systems, controlled atmosphere enclosures and gloveboxes, PCR workstations, powder weighing cabinets, robotics & laboratory automation enclosures.

ON-GOING PRODUCT DEVELOPMENT

EDU Ductless Fume Cabinets for safely containing fume and vapour hazards whilst conducting chemistry experiments.

QUALITY ASSURED

Bigneat is accredited to BS EN ISO 9001: 2008

Bigneat systems are CE marked

Bigneat manufactures from UL approved components

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