

Excel Plus Safechange Workstation

For protection from hazardous airborne
particulates and powders

Providing the
greatest protection
possible for the
safety conscious
laboratory



BIGNEAT CONTAINMENT TECHNOLOGY
Value. Service. Experience.



Excel Plus Safechange Workstation

Excel Plus Workstations are used in the laboratory for the most demanding powder handling applications, such as high accuracy weighing, processing of pellets, capsules and tablets and for dispensing of potentially toxic powdered compounds.

The Safechange cabinet in the Excel Plus range has been designed to provide the safest possible operation for both the user and maintenance staff.

Development and performance testing has been undertaken with the support of a leading pharmaceutical R&D company.

Excellent operator protection is achieved by enhanced airflow control and aerofoil technology which ensures that containment is achieved and maintained at the very low air flows required for balance stability.

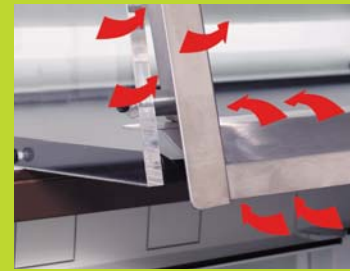
Performance and Testing

Lactose Testing on this cabinet has been conducted by an independent test house using a test procedure developed by an international pharmaceutical company. Lactose powder is used as a tracer agent during a repeated weighing procedure, simulating real use of the cabinet. Atmospheric samples were collected at various points around the cabinet in replicate trials.

This test is ideal for a cabinet in the working laboratory environment, it challenges the filtration system, cabinet performance, measures for particulate breakthrough and ensures the optimum face velocity is achieved.

Tests conducted by an Independent Validation Company

There was no detectable breakthrough of any lactose particles during the testing of Excel Plus Safechange. Reports are available on request.



Safety Features

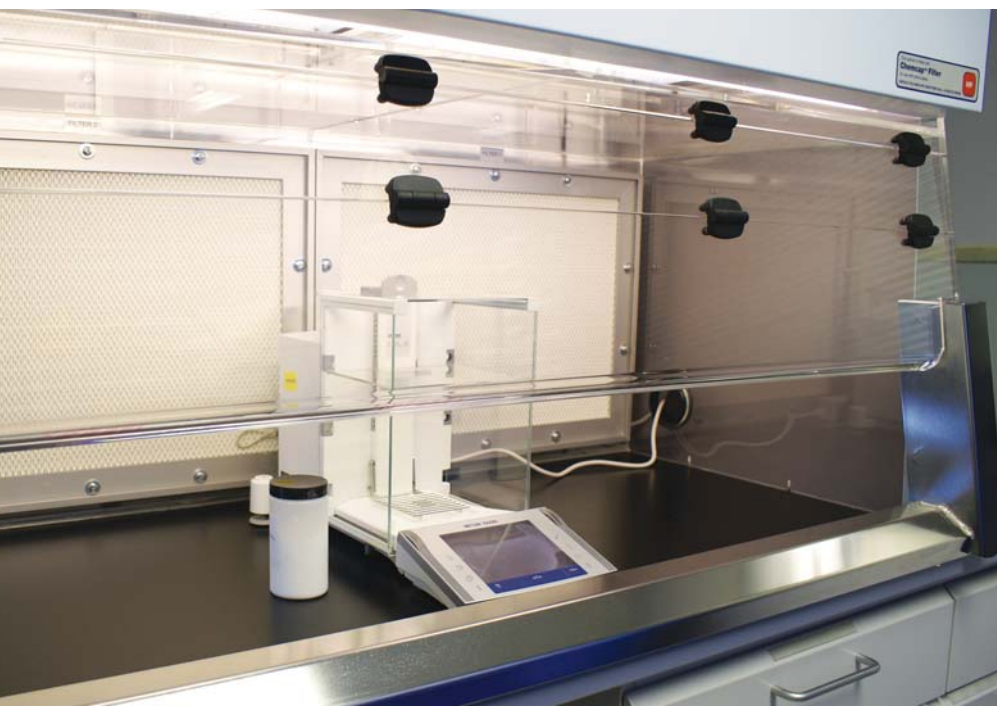
- 'True Safechange Technology' eliminates the possibility of contamination either in the laboratory or upstream in ductwork and fan assembly.
- Double layer filtration provides extra filter system integrity.
- Visible and audible alarms alert user of unsafe flow conditions.
- Fan speed compensation for variation in flow during the lifetime of the filter maintains cabinet performance.
- Double hinged front visors can be opened for full access to the cabinet interior. Fan speed auto-increases to maintain working face velocity.

Key User Features

- Gentle non-turbulent flow prevents balance fluctuation and cabinet dead spots.
- Suited to weighing with a 6 figure balance.
- Angled clear front visors provide excellent vision of enclosed manipulations and comfort during use.
- 175mm height access across full cabinet width.
- Black work surface makes spillages visible.

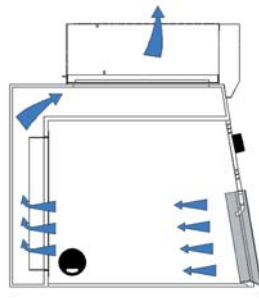


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System Principles

During operation the fan system draws in air at a rate determined best for the application. Air passes over the aerofoil, reducing turbulence, away from the operator and then through the double layer HEPA filters situated to the rear of the cabinet.

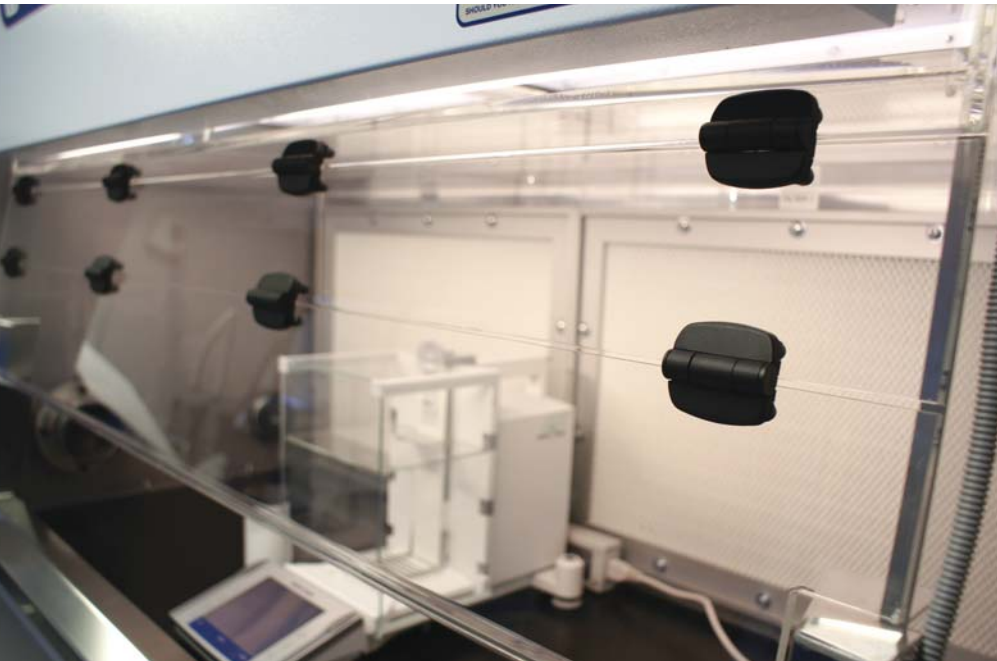


The electronic control system continually monitors the air flow measured by an anemometer located in the aperture at the front of the enclosure and automatically responds to any significant airflow disturbance within the laboratory.

The negative pressure environment that is created within the enclosure prevents contaminated air from escaping into the operators breathing zone.

True Safechange Technology

- When filters need to be changed there is no compromise in safety. Integrated is a 'True Safechange' system enabling completely safe bagging of contaminated filters.
- 'True Safechange' is a mechanism that enables the safe removal of HEPA particulate filters. Replacement is performed under negative pressure, with the cabinet running.
- 'True Safechange' filter technology enables filter change under negative pressure (for changing filters safely this is a real alternative over a bag-in/bag-out system).



Waste bag port

Options

- Mesh pre-filters
- ULPA Filtration (Grade U16)
- Carbon filtration to remove fumes and odours
- Transfer spigot port on side of cabinet for waste and bag transfer
- Ionising bars to eliminate dust attraction and control of the static environment
- Computer monitor and keyboard arm
- Lighting (18W flourescent lamp)



Ionising bars

Fan System and Airflow

Two large centrifugal, low noise fans are used to provide the airflow for this cabinet.

Electronic LCD control system monitors and adjusts the airflow to maintain safe working conditions.

Airflow can be set to between 0.3 and 0.5 m/s, depending on the application. The alarm settings are $\pm 3\%$.

Materials of Manufacture

The fan housing is fabricated from mild steel and finished in chemically resistant epoxy powder coating.

The cabinet panelling is clear 10mm thick, cast acrylic, which incorporates a rear plenum containing the HEPA filters.

The aerofoil is manufactured from stainless steel. The work surface is manufactured from black laboratory grade laminate.

Technical Information

Model	Dimensions mm (external wxdxh)	Dimensions mm (internal wxdxh)	Sound Levels	Face Air Velocity	Access Aperture mm
Excel Plus 1006 Safechange	1020 x 724 x 1065	1000 x 505 x 669	<60dBA	0.3m/s-0.5 m/s	920 x 175
Excel Plus 1306 Safechange	1295 x 724 x 898	1275 x 505 x 502	<60dBA	0.3m/s-0.5 m/s	1195 x 175
Excel Plus 1606 Safechange	1595 x 724 x 898	1575 x 505 x 502	<60dBA	0.3m/s-0.5 m/s	1495 x 175

Cabinets available for power supply: 230V, AC, 50Hz, 5Amp, 1Ø and 110V, AC, 60Hz, 8Amp, 1Ø. Filtration in these cabinets: 2x double-layer HEPA filters (Grade H14). Optional upgrades: Carbon filtration. ULPA filtration (2x ULPA filters - Grade U16). Pre-filters.

Filtration Technology

A pair of double layer HEPA filters of a high capacity design are included as standard in this cabinet.

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

ULPA (U16 Standard) is available as an optional upgrade and has an efficiency of 99.999% for particle sizes of 0.1 – 0.3 microns MPPS (Most Penetrating Particle Size) as defined in EN 1822.

Pre-filtration is available as an optional upgrade. Black mesh pre-filters mounted on HEPA front face.



Door open stay



Static Stand

For all XIT Plus and Excel Plus cabinets.

Installation onto an existing work surface is easy however a static stand provides greater flexibility. Most weighing applications are best undertaken on a stand with levelling/adjustable feet (an adjustable height electronic model is available). Stand may be open style or with cupboard doors.



More about Bigneat

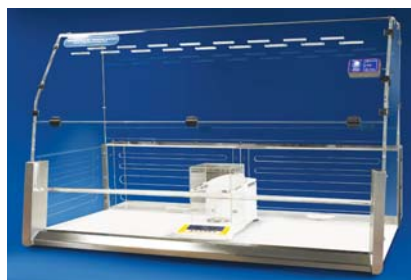
Since 1972 Bigneat has been designing, manufacturing and maintaining just about every conceivable style of clean air and safety cabinet and enclosures. Having grown from a small local business to a company with links worldwide, we now enjoy an unrivalled reputation as the world's most innovative supplier 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 environment enclosures and gloveboxes, PCR workstations, powder weighing cabinets, robotics & laboratory automation enclosures.

On-going product development

BIGNEAT reserves the right to make modification to designs shown within this brochure, this is in line with our policy of continual product improvement.

Other Excel Plus Cabinet Models



Quality assured

Bigneat is accredited to
BS EN ISO 9001: 2008



Cabinets are CE marked.



Bigneat manufactures with
UL approved components.

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