



PRODUCT LINE

- **CLASS II B2
MICROBIOLOGICAL SAFETY
CABINET**

MODEL

- **SAFE FAST ELITE TOTAL
EXHAUST**



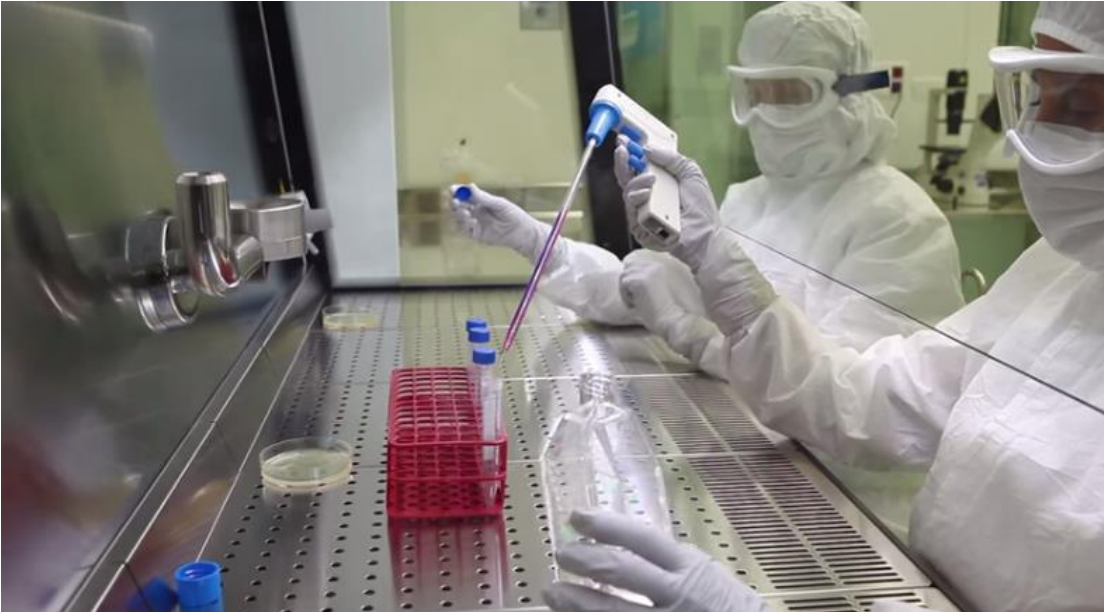
Introduction

SafeFAST Elite Total Exhaust class II B2 Microbiological Safety Cabinets belong to the latest generation of laminar airflow systems manufactured by **Faster**, in which the choice of materials of construction of the highest quality guarantees conformity to the strictest safety standards. **Faster SafeFAST Elite Total Exhaust** are Microbiological Safety Cabinets with 100% of the air exhausted as per NSF/ANSI 49; they are designed to provide operator, product and environmental protection and to be vented outside the building without recirculation.

Applications

SafeFAST Elite Total Exhaust have been adopted worldwide in use for product, personnel and environmental protection while handling harmful agents pathogenic to human beings and/or animals as defined in the appropriate international standards.

SafeFAST Elite Total Exhaust is commonly used in laboratory to handle volatile toxic chemicals and radionuclides required as adjuncts to a wide range of disciplines in applications such as: Microbiology, Virology, Hematology, Cell culture, Genetics, Handling of hazardous agents to human beings or animals.

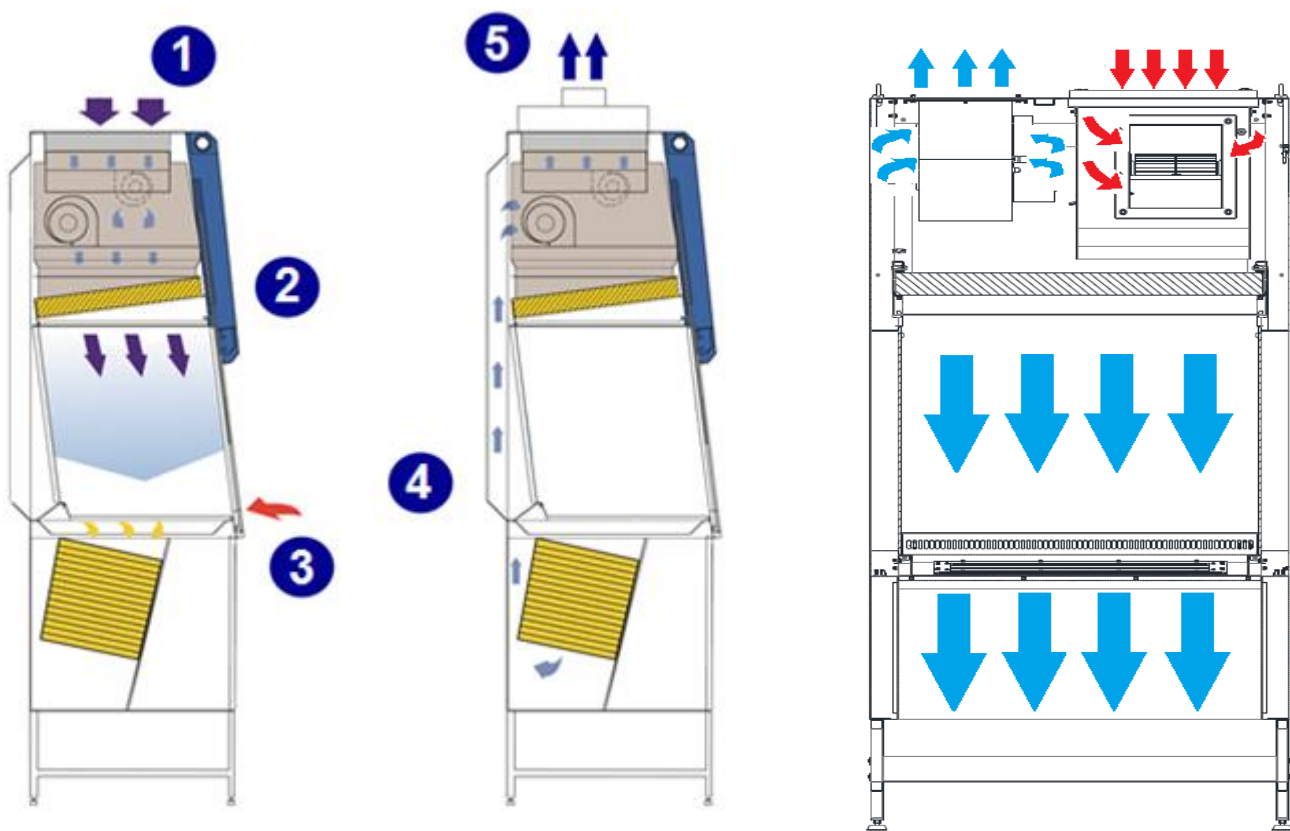


How it works:

SafeFAST Elite Total Exhaust is conceived to guarantee the 100% exhausting of total air volume treated by the unit.

Differently from most of the other B2 cabinets, FASTER SafeFAST Elite B2 is equipped with main motor blower and built-in exhaust fan, thus avoiding useless costs and maintenance for a remote fan.

The customer can be easily connected to the ducting system by means of its hard duct connection.



1. Air from the external environment is sucked by means of the motor blower and pre-filtered by means of a G4 pre-filter positioned on top of the unit.
2. Air is then pushed through the main H14 HEPA-ULPA filter which delivers air clean in class ISO 3 as per ISO 14644-1 and Laminar Flow conditions in the work chamber.
3. Air from the front aperture passes under the work surface through the slots positioned on the edge of the work surface and is filtered by the second H14 HEPA-ULPA filter which works as the exhaust filter.
4. This air is then mixed together with the air from the chamber and passes in the exhaust channel positioned in the back of the chamber before being exhausted.
5. 100% of air is finally exhausted outside thanks to the push of the second motor blower.

Benefits

Ergonomic Design: The angled sloping (7°) front stratified safety-glass sash provides optimum visibility of all objects placed in the interior workspace. The sash is electrically operated. Pressing the appropriate touch-sensitive keys will completely open or completely close down the sash. The standard sash-height opening during work is set to 200 mm. Alternative sash-height settings (250-160mm) by the factory are possible upon request. The whole front of the safety cabinet – which includes the sash mechanism – can also be opened upwards as it is hinged on the top – in order to allow easy access for complete and effective cleaning and decontamination.



Real Laminar AirFlow: Frontal screen 7° sloped as well as back side wall to convey in unidirectional pattern the air flow. As a consequence, the front and back panels are parallel one with the other and there is the real presence of Laminar AirFlow in the whole working area.

Innovative system of exhaust H 14 HEPA/ULPA filters placed beneath the working surface with increased space for operator's knees and comfort (>480mm). The filters are conceived with the suitable size to be disposed in a standard 60lt waste bin. **Bag-Out System:** Safe and easy H14 HEPA/ULPA filter replacement beneath the working surface for service technicians and environment protection.



ECS® Eco Controlling System: The new ECS® microprocessor employs the latest innovative methods of integrated management of all principal functions of ventilation and filtration - self-regulating all the main filtration and ventilation system components - compensating for declining pressure drops and restoring power balance. Combining the use of AC motor-blowers and certified low pressure-drop filters, the new ECS® controlling system optimize power consumption, reducing CO2 emissions into the environment.

Anti Bacterial Coating: Exclusive Dupont™ ALESTA® anti-bacterial “Ag+ cations-based solution”, capable to prevent microbial contamination of surfaces thereby inhibiting long term surface growth.

Inflatable gasketing is also available as an option to provide effective sealing of the internal workspace of the chamber for purposes of fumigation/sterilization and when gas-tight is needed.



No need of remote fan: Differently from most of the other B2 cabinets, **SafeFAST Elite Total Exhaust** are equipped with main motor blower and built-in exhaust fan, thus avoiding useless costs and maintenance for a remote fan. The cabinet can be easily connected to the ducting system by means of its hard duct connection.

Silent Operation: The TNT plenum, the structures of the electric motors of the fans fitted on their antivibration mounts and the software itself designed to provide optimum air handling characteristics guarantee quiet operation of this silent safety cabinet, with sound-pressure levels recorded way below the parameters specified in the current EN:12469 European Standard for Microbiological Safety Cabinets.

Protection grid: A protection grid made of AISI 304L stainless steel is provided inside the part behind the rear panel (where air flows), in order to avoid the tissue used during cleaning operations be sucked in the motor-blower causing the failure of the blower and other damages.

High Level Lighting: The safety glass side-windows with the ideal positioning and sizing of the light-system provide the highest level of luminosity to the work area.

Easy handling and maintenance: The cabinet can pass through standard 800 mm wide door openings. In fact, the overall depth of the cabinet can be reduced to approx. 777 mm by removal of the rear panel. All service operations are available from the front of the cabinet.



Automatic safety service connections for gas and vacuum and one (for size 209 and 212) or two (for size 215 and 218) electrical socket(s) fitted as standard in each size model.



Technical Specifications

External structure in epoxy powder coated cold-rolled steel for excellent corrosion resistance to the attack by aggressive common chemicals.

Alternatively special models with external structure made in AISI 304L stainless steel for superior cleanability are also available on demand.



Support stand equipped as standard (**Special electrical stand** with automatic lifting system, stroke: 700-1000 mm, available under request).



Rear wall in stainless steel AISI 304 L, designed to conform to requirements and pass the “cleanability test” according to EN12469:2000.

Work surface in stainless steel AISI 316L as standard supplied with spill retaining solid work surface (perforated upon request) which is easily removable for carrying out routine cleaning and/or autoclaving sterilization procedures. Special sloping profile below work surface to ease H14 HEPA/ULPA filter replacement and spilled liquids collection.

Front window: electrically operated vertically sliding safety glass sash window.

System of two motor fans: the units are supplied with double motor-fan in order to discharge the total volume of treated filtered air outside the laboratory through a ducting system.

Filtration: H14 HEPA/ULPA filters with an efficiency better than 99,995 % MPPS (EN-1822) and higher than 99.999% at 0.3 micron particle sizes (IES-RP-CC001.3).

Prefiltration: Inlet G4 pre-filter efficiency $80 \leq AM \leq 90$ according to EN 779 and UNI 10339.

Operation Condition: Air cleanliness in Class ISO 3 as per ISO:EN 14644-1.

The user-friendly practical keyboard and the rear-lit LCD will continuously display all required data keeping the user constantly informed of the cabinet conditions in operation, and in particular:

- display of laminar airflow velocity and frontal air barrier velocity
- display of inside and outside temperature
- display of residual lifetime of HEPA/ULPA filters, UV Lamp and activated carbon filter (if fitted)
- display of total number of hours of operation
- display of saturation level of HEPA/ULPA filters.

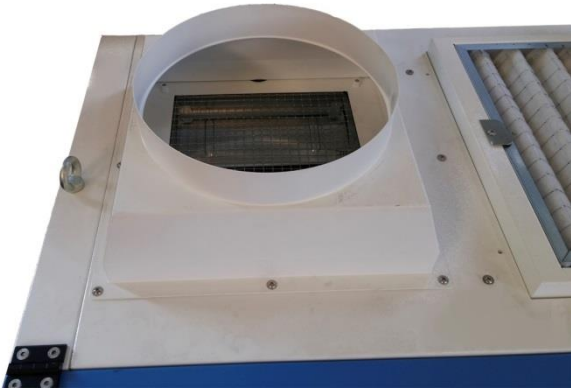
Audio-visual alarms provided for:

- out of range or incorrect laminar airflow velocity and frontal air barrier velocity
- incorrect position of front sash-window
- clogging of HEPA/ULPA filters
- end of life-cycle of UV lamp and saturation of activated carbon filter (if fitted)
- blockage in the exhaust duct (if fitted)
- fan-motor malfunction
- power failure

Lighting: fluorescent tubes in built-in housing, placed outside the contaminated area

D.O.P.-DEHS inlet port for testing the HEPA/ULPA filters

Exhaust hard duct connection: due to their intrinsic feature to exhaust all air treated, **SafeFAST Elite Total Exhaust** are supplied with a 300mm diameter* collar on top of the unit for direct connection to exhaust system.



Magnetic and removable UV sterilizing lamp (optional) that can be easily placed in each area of the back wall. It is completed with two switch-off countdown timers, one variable on a 0-3 hours scale (1 minute steps), the other set to 3 fixed hours.



Technical Table

SAFE FAST ELITE CLASS II B2 TOTAL EXHAUST					
Model		209	212	215	218
Overall dimension (w x d x h)	mm	1045 x 855 x 2345	1350 x 855 x 2345	1655 x 855 x 2345	1960 x 855 x 2345
Useful dimensions (w x d x h)	mm	887 x 580 x 740	1192 x 580 x 740	1497 x 580 x 740	1802 x 580 x 740
Air flow speed	m/s	0,35 *settable 0.25 – 0.50 upon request	0,35 *settable 0.25 – 0.50 upon request	0,35 *settable 0.25 – 0.50 upon request	0,35 *settable 0.25 – 0.50 upon request
Noise level	dB(A)	<58	<58	<60	<60
Lighting	Lux	>1100	>1200	>1300	>1300
Exhaust flow rate	m ³ /h	980	1300	1650	1950
Voltage/Frequency (different settable available upon request)	V/Hz	230 AC F+N+P.E. / 50	230 AC F+N+P.E. / 50	230 AC F+N+P.E. / 50	230 AC F+N+P.E. / 50
Power socket (protected by single fuse 4A)		2P+T	2P+T	2P+T	2P+T
Protection category		IP55	IP55	IP55	IP55
Electrical classification (with feeding cable)		1	1	1	1
Power	W	900	1000	1250	1600

*Complete building ducting system must be 300mm diameter.