

## SafeFAST Elite

Class II  
Microbiological Safety Cabinets



PROTECTION, SAFETY, RELIABILITY.  
AND MORE.

# OUR COMMITMENTS

## New technologies for a low environmental impact

Fully aware that our choices of today will determine and shape our fates tomorrow, our company - FASTER S.r.l. - are convinced that technology must protect the environment to ensure a continuing sustainable progress.

Respect for the environment motivates FASTER to manufacture laminar-flow, cytotoxic drug safety cabinets and microbiological safety cabinets possessing ultra-low environmental impact, by utilizing:

- Certified 'low pressure-drop' HEPA filters providing up to 30% saving on power consumption
- Electronically controlled motor-blower with automatic pressure-drop compensation
- 99% recyclable components
- Innovative technologies such as the new **ECS®** microprocessor

### **ECS®** ECO CONTROLLING SYSTEM

The new ECS® microproces-

sor employs the latest innovative methods of integrated management of all the 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 CO<sub>2</sub> emissions into the environment.



### ENVIRONMENT AWARENESS

	Standard Class II cabinet	ECS® controlled cabinet
CO <sub>2</sub> Emissions [Kg]	764*	226*

\*Calculated in operational hours per year (5 days per 8 hours per 52 weeks)

## Absolute safety for the operator. Always

Manufacturing truly "safe" cabinets depends entirely on the quality of their design and components. Aware of the fact that our guarantees for safety do not tolerate any compromises, our company has created its internal FASTER QUALITY AND SAFETY PROGRAM - consisting of a new set of standard operational procedures and manufacturing methods - applied to each and every step of the production processes aimed at fulfilling all requirements of these high standards.



### HARDWARE

- **ANTI BACTERIAL COATING**  
Each FASTER cabinet is coated with exclusive **Dupont™ ALESTA®** anti-bacterial "Ag<sup>+</sup>cations-based solution", capable to prevent microbial contamination of surfaces thereby inhibiting long term surface growth.
- **LOW NOISE LEVEL**  
The unique design and materials of the special plenum and filter-housing ensure a reduction in sound-pressure levels providing quiet operation.
- **STAINLESS STEEL AISI 316L**  
Each FASTER Microbiological and Cytotoxic Safety Cabinet is fitted with standard AISI 316L Stainless Steel work-surface.
- **REAL LAMINAR FLOW**  
The internal aerodynamic design of the structure of the chamber provides ideal laminar air-flow patterns - providing conditions to satisfy performance requirements expressed by EN:12469:2000 European Standard and DIN12980:2005 Standard.

### SOFTWARE

- Instant management and monitoring of operational parameters and automatic compensation system control by the new **ECS®** microprocessor.
- Software features easily programmable replacement-regime of spare parts and filters
- Countdown-Timer integrated within the control board.
- Permanent record of all alarms and anomalies memorized by the control-board for the entire life-cycle of the cabinet.
- One Push Restore menu, to reset the original factory calibration data.

### CUSTOMER CARE

- Prompt technical assistance by phone and mail - within 24 hours from the call
- Hot-line for immediate technical assistance and feasibility study

### TAILOR-MADE SPECIAL CABINETS

- Custom made special cabinets made on request

### CERTIFICATIONS

- Double ISO 9001 Certification

### QUALITY ASSURANCE DEPARTMENT

Each Faster cabinet is tested conforming to EN12469:2000, DIN 12980:2005 EN61010:2001 and released with FAT certificate of the tests performed.



AIR FLOW SPEED TEST



FILTER LEAKAGE TEST



NOISE LEVEL TEST



KI DISCUSS TEST



LIGHTING TEST



VIBRATION TEST



ELECTRICAL TEST

# SafeFAST Elite

Class II Microbiological Safety Cabinets

## BEYOND MINIMUM SAFETY REQUIREMENTS

**SafeFAST Elite Microbiological Safety Cabinets** belong to the latest generation of laminar airflow systems manufactured by Faster S.r.l., in which the choice of materials of construction of the highest quality guarantees conformity to the strictest safety standards.

**SafeFAST Elite vertical laminar flow cabinets are Class II Microbiological Safety Cabinets** - designed and built to performance requirements of the EN-12469: 2000 European Standard, with 70% of the air re-circulated via the main Class H14 HEPA filter within the cabinet, whilst the remaining 30% is discharged through an exhaust Class H14 HEPA filter.

**Safety Cabinets with automatic regulation and microprocessor based monitoring systems.** These cabinets are suitable for handling micro-organisms and pathogens as defined by the appropriate European and other International Standards, current health and safety guidelines and legislation aimed at safeguarding health and safety of operators at work.

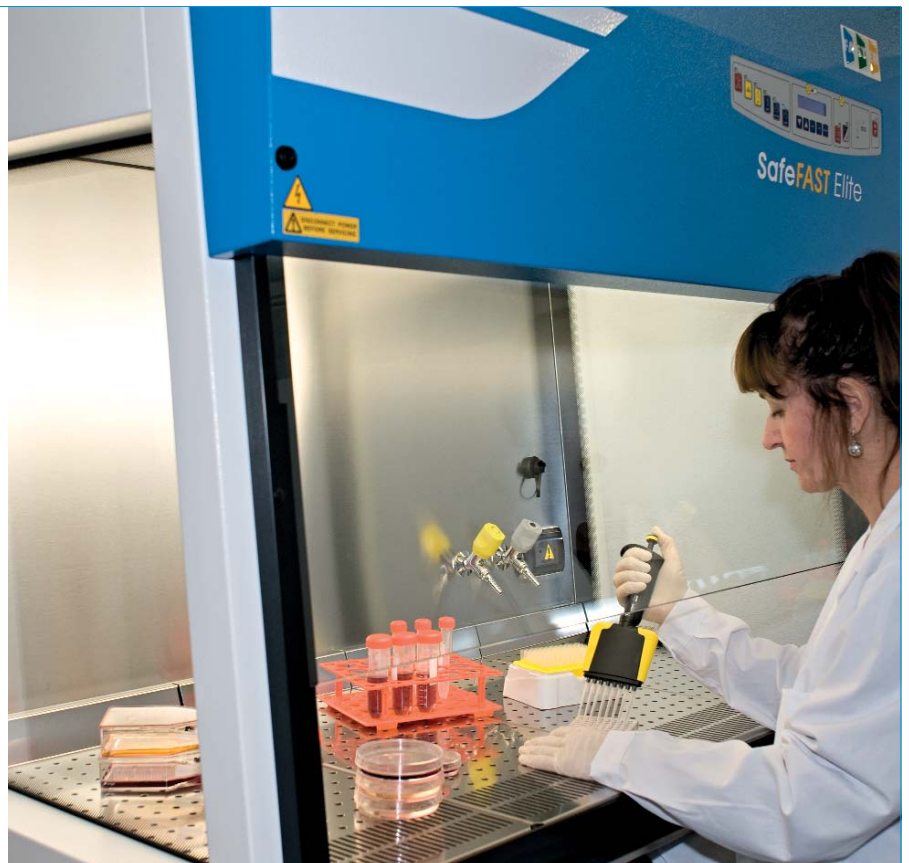
SafeFAST Elite Microbiological Safety Cabinets 'S' series are supplied with single centrifugal fan, whilst models of the 'D' series with double centrifugal fan to provide complete operator, product and environmental protection.

Moreover the 'D' series fitted with double motor-fan are designed and are also suitable to discharge the filtered air outside the laboratory through a ducting system, if required.

## APPLICATIONS

**SafeFAST Elite Class II Microbiological Safety Cabinets** 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, in a wide range of disciplines in applications such as:

**Microbiology, Virology, Haematology, Cell culture, Genetics, Handling of hazardous agents to human beings or animals.**



# SafeFAST Elite

Class II Microbiological Safety Cabinets

THE USER-FRIENDLY  
PRACTICAL  
KEYBOARD



## SafeFAST Elite

**ECS® MICROPROCESSOR BASED MONITORING SYSTEM:** full status report provided via 2-line digital display by the new generation microprocessors - which automatically control all functions and all safety alarm systems ensuring that performance characteristics are maintained to EN12469:2000 requirements.

High power lithium battery keeps safety data saved to microprocessor system.

**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 filters, UV Lamp (if fitted)
- display of total number of hours of operation
- display of saturation level of HEPA 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
- saturation of HEPA filters
- end of life-cycle of UV lamp (if fitted)
- blockage in the exhaust duct
- fan-motor malfunction
- power failure

## SPECIAL APPLICATIONS



Faster is able to manufacture upon request, microbiological safety cabinets in Class I and Class III according to EN 12469:2000 and special total exhaust cabinets.

### CLASS I

SafeFAST Elite cabinet is also available in Class I version according to EN 12469:2000 delivering protection for the operator and the environment for moderate pathogens handling.



### CLASS III

SafeFAST Elite cabinet is also available in Class III version according to EN 12469:2000 delivering maximum protection to laboratory personnel, the community and the environment as all pathogens are contained in a totally enclosed ventilated cabinet, when correctly installed in proper BL3 or BL4 laboratory.



### CLASS II B2 TOTAL EXHAUST

SafeFAST Elite cabinet is also available in Total Exhaust version widely used in toxicology laboratories and similar application where toxic and volatile chemical substances are present and clean air is essential.

There is no recirculating air within the work area, 100% of the air is pulled into the facility exhaust system as the cabinet must be hard ducted to an exhaust system and vented outside.



### EASY CLEANING / MAINTENANCE

Electrically operated vertically sliding safety-glass sash window, the framework of which is also hinged and can be opened up for easy access during cleaning and routine maintenance.



### REMOVABLE WORK SURFACE

Work Surface in stainless steel AISI 316L consisting of sections which are easily removable for carrying out routine cleaning and/or autoclaving sterilization procedures. As standard supplied with perforated work surface, solid work surface available on request.



### SASH-HEIGHT OPENING

The standard height of the work position sash is set to 200 mm.

Alternative sash-height settings (250 -160 mm) by the factory are available upon request.

### EASY HANDLING AND MAINTENANCE

The safety cabinet can pass through 800 mm wide door openings. In fact, the overall depth of the cabinet can be reduced to approx. 790 mm by removal of the rear panel. All service operations are available from the front of the cabinet.

### ERGONOMIC DESIGN

The angled sloping front safety-glass sash, provides optimum visibility of all objects placed in the interior workspace together with higher lightning level. The sash is electrically operated, pressing the appropriate touch-sensitive keys will completely open or completely close down the sash.





### MOBILE UV STERILIZING LAMP

Mobile UV sterilizing lamp (optional) that can be easily placed in each area of the back panel. Complete with three countdown timers, one fully programmable by the operator, one variable on a 0:3 hours scale (one minute steps), and one set to three fixed hours.



### CABINET ELEMENTS

1 Automatic safety service connection for gas, 1 for vacuum and 1 (for size 209 and 212) or 2 (for size 215 and 218) electrical socket (s) fitted as standard in each size model.



### INFLATABLE GASKET

Inflatable gasket is also available as an option to provide effective sealing of the internal workspace of the chamber for purposes of fumigation/sterilization.



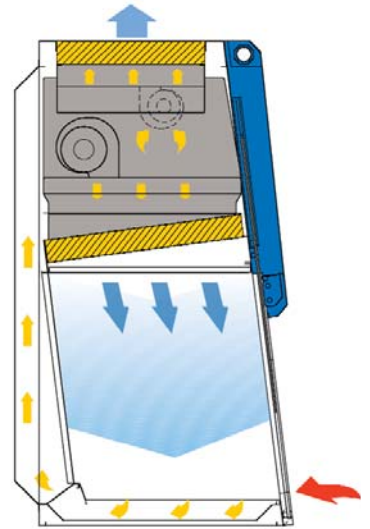
### SILENT OPERATION

The textile plenum, the structures of the electric motor(s) of the fan(s) 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 12469:2000 European Standard for Microbiological Safety Cabinets.

### 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.

### OPERATIONAL PRINCIPLES



The ambient air is drawn in from the slots at the stainless-steel base of the front opening and it then passes under the work surface, from where it is drawn up and blown into the plenum of the re-circulating and exhaust fan(s).

The "bio-dynamic sealing system" of the negative pressure plenum ensures that all contaminated particles are kept inside the system and are automatically drawn to the plenum or pressure chamber to be captured by the main re-circulating and exhaust HEPA filters.

The fan system assures that no part of the cabinet comes ever under positive contaminated pressure to the laboratory, thus protecting and preserving the environment and operating personnel from exposure to agents of bio-contamination.

70% of the filtered air is re-circulated (after passing through a H14 HEPA) in a ISO 3 laminar flow pattern downwards into the work chamber and the remaining 30% is exhausted to atmosphere through another H14 HEPA filter.

## TECHNICAL SPECIFICATIONS

Each size available with single motorblower (S series) or double motorblower (D series)

Description	Unit	SafeFAST Elite			
		209 S/D	212 S/D	215 S/D	218 S/D
Overall Dimensions	mm	1045	1350	1655	1960
WxHxD (1)		1500x860	1500x860	1500x860	1500x860
Usefull Dimensions	mm	887	1192	1497	1802
WxHxD		740x580	740x580	740x580	740x580
Working aperture	mm			200	
Maximum front aperture	mm			440	
Weight	kg	170	195	225	260
Exhaust flow rate	m <sup>3</sup> /h	290	390	485	585
Noise level (2)	dB(A)	<53	<54	<55	<56
Lighting level	lux	>1100	>1200	>1300	>1300
Electrical Data		1Ph+E - 230V 50Hz			
Current consumption S series (2),(3)	A	1,9	2,1	3,4	3,6
Current consumption D series (2),(3)	A	2,2	2,4	3,9	4,2
Electrical class / IP		1 / 20			
Internal electrical outlet	The electrical outlets have a total load capacity of 6A and are protected with one T6A fuse				
Heat emission	W	175	240	295	360

(1) The total depth of the cabinet can be easily reduced to 780 mm removing the back panel.

(2) At operation condition according to EN12469: 2000.

(3) Clean filters, lighting activated, internal outlet load excluded.

### OPTIONS AND ACCESSORIES

- Solid Work Surface
- Single Section Work Surface
- UV Light with Magnetic Support
- Additional Tap (Fuel Gas /Non-Fuel Gas /Vacuum)
- Additional Electrical Outlet
- Stainless Steel Hanging Bar
- Movable Stainless Steel Armrest
- Anti Blow Back Damper
- Direct Duct Exhaust Transition
- Thimble Duct Exhaust Transition
- Additional Exhaust HEPA Filter (only D version)
- Additional Exhaust Carbon Activated Filter (only D version)
- Pre-Filter Grid
- Floor Stand 900 mm Working Height With Footrest (other heights on request)
- Electric Adjustable Floor Stand 800 to 1100 mm working height – Floor Stand With Castors



#### Faster S.r.l.

Via Merendi, 22 20010 Cornaredo (MI) Italy  
Tel +39 02 93 991 92 Fax +39 02 93 991 608  
www.faster-air.com info@faster.dgroup.it

a D<sup>2</sup>GROUP company



Striving everyday to improve our environmental performance, Faster developed environmental procedures are founded on three guiding principles:

Protect the Environment for present and future generations manufacturing low energy consumption equipments

Reduce risks and improve efficiencies

Introduce improved technology and processes