



SafeFAST Top

Class II
Microbiological Safety Cabinets



LABORATORY AND
INDUSTRIAL EQUIPMENT

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. - is 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' H14 HEPA/ULPA 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
- Air clean in class ISO 3 according to ISO14644-1

ECS® ECO CONTROLLING SYSTEM

The new ECS® microprocessor

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 CO₂ emissions into the environment.



ENVIRONMENT AWARENESS

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

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

SafeFAST Top

Class II Microbiological Safety Cabinets

SAFETY CABINETS
WITH AUTOMATIC
REGULATION AND
MICROPROCESSOR
BASED
MONITORING
SYSTEMS

SafeFAST Top 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 Top 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 H14 HEPA/ULPA filter within the cabinet, whilst the remaining 30% is discharged through an exhaust H14 HEPA/ULPA filter.

Safety Cabinets with automatic regulation and microprocessor based monitoring systems. These cabinets are suitable for handling microorganisms 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.

APPLICATIONS

SafeFAST Top Class II Microbiological Safety Cabinets have been adopted worldwide 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 applications such as: **Microbiology, Virology, Haematology, Cell culture, Genetics, Handling of hazardous agents to human beings or animals.**





STRATIFIED HINGED SAFETY-GLASS

Stratified safety-glass front window.



REMOVABLE WORK SURFACE

Work Surface in stainless steel AISI-316L, consisting of sections which are easily removable for carrying out routine cleaning and/or require autoclaving sterilization procedures; perforated to ensure an optimum degree of laminarity

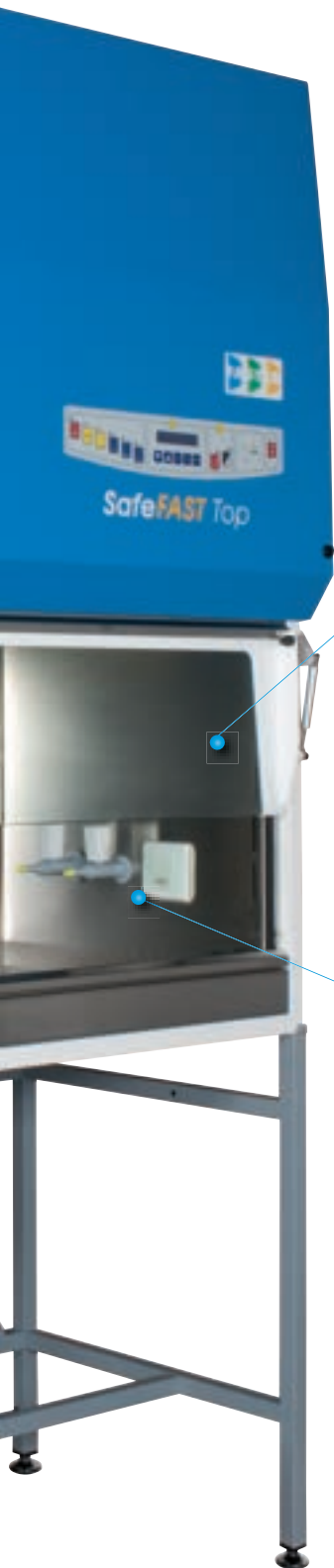
of the airflow, together with a high resistance factor to the most effective chemical agents used for disinfection.

Single piece work chamber in stainless steel AISI 304L, designed to fulfill the requirements and pass the "cleanability tests" according to EN-12469:2000.

COMPLETE OPERATOR, PRODUCT AND ENVIRONMENTAL PROTECTION

Re-circulating and extractor fans: Safe FAST Top Microbiological Safety Cabinets 'S' Series are supplied with single centrifugal fan, whilst version '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 also suitable to discharge the filtered air outside the laboratory through a ducting system if required. **SafeFAST Top 'D' Series, offers full protection to the operator, laboratory and environment in case of failure of one of the two fans.**





UV STERILIZING LAMP

UV sterilizing lamp (optional) is fixed on the night door. 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 electrical socket fitted as standard in each size module.

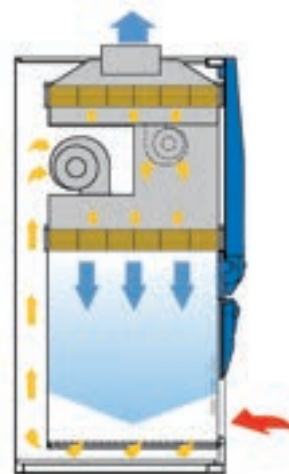


DIRECT DUCTING

As standard supplied with 200 mm diameter collar on the top of the cabinet for optional direct ducting to facility exhaust system.



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 H14 HEPA/ULPA 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/ULPA) in a ISO 3 laminar flow pattern downwards into the work chamber and the remaining 30% is exhausted to atmosphere through another H14 HEPA/ULPA filter).

THE USER-FRIENDLY PRACTICAL KEYBOARD



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 EN-12469:2000 and DIN-12980:2005 requirements.

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

High Level Lighting with the ideal positioning and sizing of the LED light-system (color 6500k)

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 H14 HEPA ULPA filters, UV Lamp (if fitted)
- display of total number of hours of operation
- display of saturation level of H14 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
- saturation of H14 HEPA/ULPA 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 Top cabinet is also available in Class I version according to EN 12469:2000 delivering protection for the operator and the environment from moderate pathogens handling.



CLASS III

SafeFAST Top 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 Top 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.

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⁺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 DIN-12980:2005 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 EN-12469:2000, DIN-12980:2005 EN-61010:2001 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

TECHNICAL SPECIFICATIONS

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

Description	Unit	SafeFAST Top			
		209 S/D	212 S/D	215 S/D	218 S/D
Overall Dimensions WxHxD (1)	mm	1015 1470x785	1320 1470x785	1625 1470x785	1930 1470x785
Usefull Dimensions WxHxD	mm	885 660x580	1190 660x580	1495 660x580	1800 660x580
Working aperture	mm	200			
Maximum front aperture	mm	430			
Weight	kg	185	215	260	300
Exhaust flow rate	m ³ /h	290	390	485	585
Noise level (1)	dB(A)	<57	<58	<59	<60
Lighting level	lux	>1400	>1600	>1800	>1800
Electrical Data		1/Ph+E 230V 50Hz			
Current consumption S series (1)(2)	A	1,9	2,1	3,4	3,6
Current consumption D series (1)(2)	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) At operation condition according to EN-12469:2000.

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

OPTIONS AND ACCESSORIES

- Solid Work Surface • Single Piece Work Surface • UV light • Additional Tap (Fuel Gas/Non-Fuel Gas/Vacuum)
- Additional Electrical Outlet • Stainless Steel Hanging Bar • Movable Stainless Steel Armrest • Anti Blow Back Damper • Thimble Duct Exhaust Transition • Additional Exhaust H14 HEPA/ULPA 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



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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.