THE LOWEST POWER CONSUMPTION

THE LOWEST CO_2 EMISSIONS

THE LOWEST NOISE LEVEL

SafeFAST Premium

Class II
Microbiological Safety Cabinets

FASTER

PROTECTION, SAFETY, RELIABILITY.
AND MORE.

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.

Q&SP QUALITY & SAFETY PROGRAM

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 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

Energy efficiency technologies for a low environmental impact

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

Respect for the environment motivates FASTER to manufacture laminar-flow, cyto-toxic drug safety cabinets and microbiological safety cabinets with 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® 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 DC motor-blowers and certified low pressure-drop filters, the new ECS® controlling system optimize power consumption, reducing CO_2 emissions into the environment.

SafeFAST Premium

ENVIRONMENT AWARENESS

	Standard Class II cabinet	ECS® controlled cabinet	SafeFAST Premium
CO_2 Emissions [Kg]	764*	226*	163*

Calculated in operational hours per year (52 weeks/year, 8 h/day)

SafeFAST Premium

Class II Microbiological Safety Cabinets

SafeFAST Premium Microbiological Safety Cabinets are the new benchmark in laminar air flow technologies belonging to the latest generation of laminar airflow systems manufactured by Faster S.r.l..

SafeFAST Premium is a jump into the future beyond strictest safety standards delivering outstanding performances in terms of power consumption, noise level and CO_2 emissions.

SafeFAST Premium 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/ULPA filter within the cabinet, whilst the remaining 30% is discharged through an exhaust Class H14 HEPA/ULPA 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 Premium Microbiological Safety Cabinets are fitted with direct current double motor-fans and are also suitable to discharge the filtered air outside the laboratory through a ducting system, if required.

APPLICATIONS

SafeFAST Premium 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.

EASY CLEANING / MAINTENANCE

Electrically operated 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, supplied as standard with perforated work surface or solid work surface.

SASH-HEIGHT OPENING

The standard height of the work position sash is set to 160 mm.

Alternative height setting (200-250mm) by the factory is 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, provides optimum visibility of all objects placed in the interior working volume together with higher lightning level. The frontal glass is electrically operated, pressing the appropriate touch-sensitive keys will completely open or completely close down the sash.

HIGH LEVEL LIGHTING - LED LIGHTS TECHNOLOGY

Wide safety glass side-windows with the ideal positioning and sizing of **LED lights system**, provide the highest lighting level (> 1000Lux) to the work area. **A dimmer is available as standard fitting to adjust light intensity.**

MOBILE UV STERILIZING LAMP

Mobile UV sterilizing lamp (optional) can be easily placed in each area of the back wall. 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.

OUTLET FITTINGS

1 Automatic safety service connection for gas, 1 for vacuum and 1 electrical socket for size model 212 and 2 electrical sockets fitted as standard in size model 215 and 218 fitted as standard.

LOW PRESSURE DROP HEPA FILTERS

Innovative certified low pressure drop H14 HEPA/ULPA filters tailored for the unit SafeFAST Premium with increased media filtration for **double filter lifetime**.
The filters are integrated with equalizer laminator sheet for superior air flow distribution to the work surface.

### OUTSTANDING NOISE LEVEL - 42dB(A)

With its 42dB(A) of sound pressure level, SafeFAST Premium is the most silent cabinet worldwide. Working with SafeFAST Premium, the operators will experience the real sound of silence. The unit is such silent that it is difficult to say if it is running or not. Thanks to **direct current low power consumption motorblowers, innovative plenum design and certified low pressure drop H14 HEPA/ULPA filters**, SafeFAST Premium recorded noise level performance way below the parameters specified in the current EN 12469:2000.

STABLE AIRFLOW PROVIDED BY DC BLOWERS AND FASTER ECS® MICROPROCESSOR
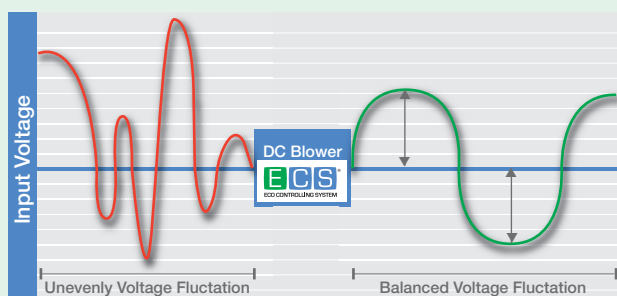
SafeFast Premium is fitted with direct current DC motorblowers and enhanced with innovative Faster ECS®-Eco Controlling System microprocessor control.

OPERATIONAL PRINCIPLES
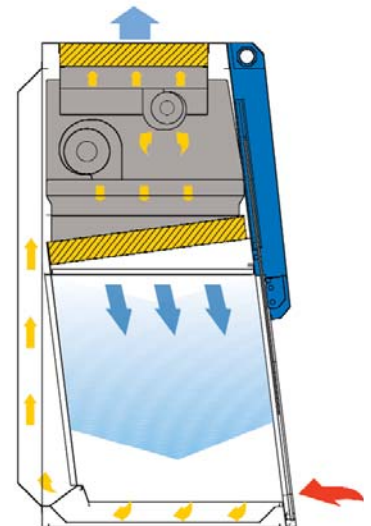
- 🟥 ENVIRONMENTAL AIR
- 🟨 CONTAMINATED AIR
- 🟦 STERILE AIR

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 fans.

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 Class 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

SafeFAST Premium

ECS® MICROPROCESSOR MONITORING SYSTEM:
full status report provided via 2-line digital display by the new ECS® generation microprocessors - which automatically control all functions and all safety alarm systems ensuring that performances are maintained according to EN 12469:2000 requirements.

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

THE USER-FRIENDLY PRACTICAL KEYBOARD
and rear-lit LCD display-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
- uncorrect position of front sash-window
- saturation of the filters
- end of life-cycle of UV lamp (if fitted)
- blockage in the exhaust duct
- fan-motor malfunction
- power failure

TOP QUALITY COMPONENTS MEAN OUTSTANDING PEFORMANCES

THE LOWEST POWER CONSUMPTION

SafeFAST Premium Microbiological Safety Cabinet offers **outstanding energy efficiency performance with a power consumption value rated to 84,4 Watt at operational mode** in conformity to EN 12469:2000.
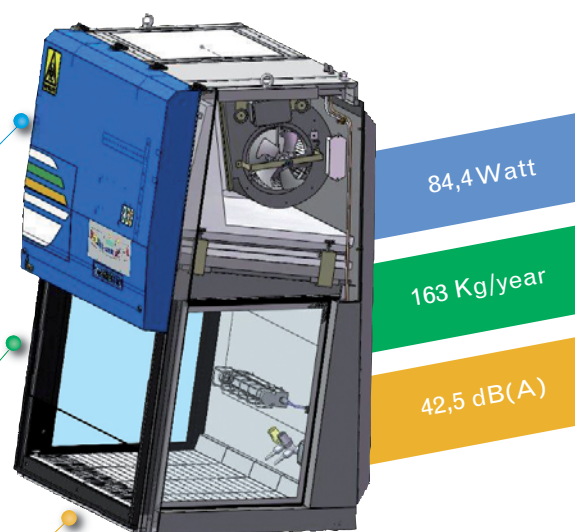This performance is achieved combining innovative solutions such as **DC blowers, low pressure drop H14 HEPA/ULPA filters, low power consumption LED light and revolutionary Faster ECS® microprocessor**.

THE LOWEST CO$_2$ EMISSIONS

Inspired by environment awarness, **SafeFAST Premium** Microbiological Safety Cabinet boasts **the lowest CO$_2$ emission value equal to 163Kg/year as a result of advanced technical solutions and choice of materials**.

THE LOWEST NOISE LEVEL

SafeFAST Premium Microbiological Safety Cabinet recorded **unmatched sound pressure level of 42,5 dB(A)** thank to special plenum design and certified low pressure drop H14 HEPA/ULPA filters.

84,4 Watt

163 Kg/year

42,5 dB(A)

TECHNICAL SPECIFICATIONS

Description	Unit	SafeFAST Premium		
		212	215	218
Overall Dimensions WxHxD (1)	mm	1350 1500x860	1655 1500x860	1960 1500x860
Usefull Dimensions WxHxD	mm	1192 740x580	1497 740x580	1802 740x580
Working aperture	mm		160	
Maximum front aperture	mm		440	
Weight	kg	195	225	260
Exhaust flow rate	m³/h	390	485	585
Filtration		Main and exhaust certified low pressure drop H14 HEPA/ULPA filters with tipical efficiency of 99,995% MPPS CEN EN 1822-ULPA filter witj tipical effiency of 99,999% at 0.1 to 0.3 µm as per IEST-RP-CC00 1.3 USA		
Noise level (2)	dB(A)	42,5	47	49
Lighting level	lux	>1200	>1300	>1300
Electrical Data			1Ph+E - 230V 50Hz	
Current consumption (2)(3)	A	0,6	0,9	1,2
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		
Power consumption	W	84,4	128	171

(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 ● Additional Exhaust Activated Carbon Filter ● 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

CE   SINCERT DNV   -CO₂ βιος   ECS ECO CONTROLLING SYSTEM   Q&SP QUALITY & SAFETY PROGRAM

FASTER FOR A GREEN FUTURE

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