CytoFAST Elite

Cytotoxic Safety Cabinets

DASITGROUP

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. - 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 cleanless in Class ISO 3, according to ISO 14644-1

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 CO_2 emissions into the environment.

ENVIRONMENT AWARENESS

	Standard Cytotoxic Safety Cabinet	ECS® controlled cabinet
CO_2 Emissions [Kg]	608*	310*

** Operational hours per year (5 days per 8 hours per 52 weeks)*

CytoFAST Elite

Cytotoxic Safety Cabinets

BEYOND MINIMUM SAFETY REQUIREMENTS

CytoFAST Elite Cytotoxic Safety Cabinets belong to the latest generation of laminar air flow 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.

CytoFAST Elite cabinets are Cytotoxic Drug and Microbiological Safety Cabinets – designed and build to performance requirements of the EN 12469:2000 European Standard and DIN 12980:2005 Standard. It is a triple filter technology cabinet with 100% of the air filtered via the main H14 HEPA/ULPA filter directly below the work surface and then 70% of the air re-circulated via the recirculating 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 cytotoxic drugs, CMR products 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

CytoFAST Elite cabinet is especially suitable for applications such as:

Preparation and handling of cytotoxic drugs.

Preparation and manipulation of antineoplastic chemo-therapeutics.

Preparation and manipulation of CMR.

Since CytoFAST Elite cabinets meet also EN 12469 as for Class II Biohazard cabinets, they can be used also for:

Microbiology, Virology, Haematology, Cell culture, Genetics and Handling of Hazardous agents to Human beings or animals, as defined by appropriate safety legislation.

EASY CLEANING / MAINTENANCE

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

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.

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.

REMOVABLE WORK SURFACE

Work Surface in stainless steel AISI 316L is easily removable for carrying out routine cleaning and disinfection procedures. As standard supplied with spill retaining solid work surface, perforated in one piece or sections available on request.

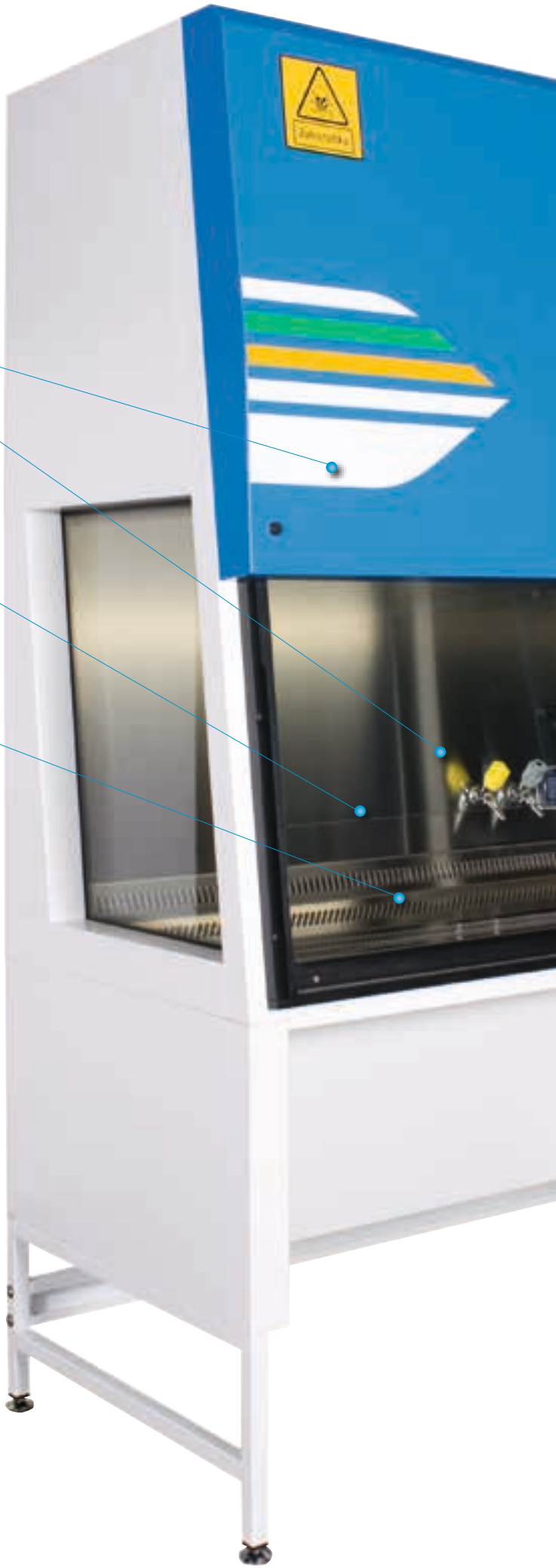
HIGH LEVEL LIGHTING

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.

CYTOTOXIC GLOVE BOX BEYOND MINIMUM SAFETY REQUIREMENTS

FASTER CytoFAST Elite cabinets are available in Isolator version to conform GMP requirements.
FASTER Cytotoxic Glove Box cabinets are Isolators classified in Class ISO 3, according to ISO 14644-1 with a leakage rate less than 16Pa per minute. FASTER Cytotoxic Isolators do not need to be positioned in laboratories classified in grade B for EU GMP and can be manufactured with one

or two H14 HEPA/ULPA filtered transfer hatches according to the application to be performed.



UNDERNEATH FILTER BANK

Special third filter bank H14 HEPA/ULPA designed with increased space for knees (350 mm available).

CABINET FITTINGS

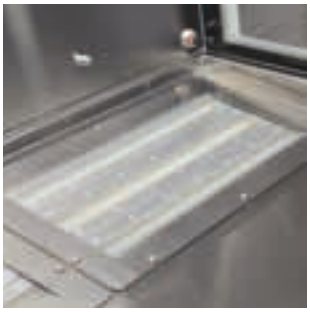
One Automatic safety service connection for gas, one for vacuum and one (for size 209 and 212) or two (for size 218) electrical socket (s) fitted as standard in each size model.

BAG-OUT SYSTEM

Safe and easy H14 HEPA filter replacement for service technicians and environment protection according to DIN 12980:2005 Standard.

V-SHAPE PROFILE

Special sloping profile below work surface to ease H14 HEPA/ULPA filter replacement and spilled liquids collection.



ERGONOMIC DESIGN

The angled sloping front safety-glass sash, provides optimum visibility of all objects placed in the interior work- space 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.

SILENT OPERATION

The bag plenum, the structures of the electric motor of the fan fitted on its 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 and DIN 12980:2005 Standard for Cytotoxic Safety Cabinets.

EASY INSTALLATION

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. Moreover it can pass through 2000 mm height door, in fact total height (removable stand excluded) is 1995 mm.

TECHNICAL DATA

- AISI-304L working area with radiussed angles and corners and work surface of AISI 316L stainless steel.
- Structure of corrosion resistant epoxy powder coated steel.
- Two centrifugal fans, direct driven motors. IP-55 protection factor.
- Three absolute H14 HEPA/ULPA filters. The filter located under the work surface is an H14 HEPA/ULPA filter, multi dihedral type.
- ECS®, Eco Controlling System the unique microprocessor monitoring system displays all relevant data with regard to the operating functions, the different alarms and the error messages.
- DOP/DEHS test inlet, IP-44 electric power point, a gas tap with solenoid valve, a manual tap for gas or vacuum available as standard.
- Safe and easy replacement of H14 HEPA/ULPA filters according to DIN 12980 standard.

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.

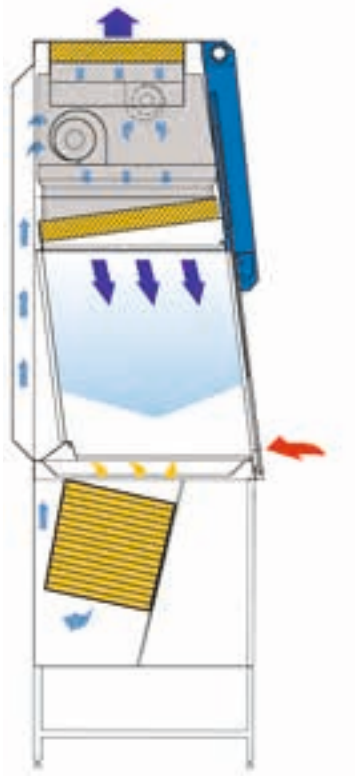
High power lithium battery keeps safety data saved to microprocessor system.

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 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 H 14 HEPA/ ULPA filters
- end of life-cycle of UV lamp (if fitted)
- blockage in the exhaust duct
- fan-motor malfunction
- power failure



OPERATIONAL PRINCIPLES

The ambient air is drawn in from the slots at the stainless steel base of the front opening and it then passes through the H14 HEPA/ULPA filter bank below work surface from where it is drawn up and blown into the plenum of the re-circulating and exhaust fan.

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 even under positive contaminated pressure to the laboratory, thus protecting and preserving the environment and operating personell from exposure to cytotoxic drug, CMR compounds and agents of bio-contamination.

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

OUR COMMITMENTS

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 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

Description	Unit	CytoFAST Elite			
		209	212	215	218
Overall Dimensions WxHxD (1)(4)	mm	1045 1950x855	1350 1950x855	1655 1950x855	1960 1950x855
Usefull Dimensions WxHxD	mm	887 740x580	1192 740x580	1497 740x580	1802 740x580
Working aperture	mm		200*	200*	
Maximum front aperture	mm		420		
Weight	kg	215	245	285	325
Exhaust flow rate	m^3/h	290	390	485	585
Noise level (2)	dB(A)	<53	<54	<55	<56
Lighting level	lux	>1100	>1200	>1200	>1300
Electrical Data			1Ph+E - 230V 50Hz		
Current consumption (2)(3)	A	2,3	3,0	3,6	4,5
Electrical class / IP			1 / 20		
Internal electrical outlet			The electrical outlets have a total load capacity of 4A		
Heat emission	W	175	240	280	360

(1) The total depth of the cabinet can be easily reduced to 790 mm removing the back panel.
(2) At operation condition according to EN 12469: 2000 and DIN 12980:2005.
(3) Clean filters, lighting activated, internal outlet load excluded.
(4) The total height of the cabinet excluding a removable stand for moving through the door is 1995 mm.
* Alternative sash-height settings (250-160 mm) by the factory are available upon request

OPTIONS AND ACCESSORIES

● Perforated 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 ● Direct Duct Exhaust Transition ● Thimble Duct Exhaust Transition ● Carbon filter under work surface or exhaust carbon filter instead of H14 HEPA/ULPA filter ● Exhaust carbon filter ● Additional exhaust H14 HEPA/ULPA filter

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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