



ChemFAST Classic&Sharp

Total Exhaust Fume Hoods
with constant air volume
and variable air volume



LABORATORY AND
INDUSTRIAL EQUIPMENT

ChemFAST Classic&Sharp

Total Exhaust Fume Hoods

SMART
COMBINATION OF
HIGH STANDARDS
OF PROTECTION
WITH REDUCED AIR
CONSUMPTION

ChemFAST Classic are **total exhaust** chemical fume hoods using the **Constant Air Volume technology (CAV)** allowing to choose the safest inflow speed for the removal of chemical agents.

Designed to guarantee operator and environmental safety with a ventilation units outside the building, these units comply with the requirements of the EN 14175 part 2, 3 and "Machinery Directive 2006/42/ CE" standards and their performances are tested by accredited laboratory ILAC-MRA member.

ChemFAST Sharp are **total exhaust** chemical fume hoods using the **Variable Air Volume technology (VAV)**, which regulates the volume of exhausted air depending on the opening of the sliding front sash.

Designed to guarantee operator and environmental safety with a ventilation units outside the building, these units comply with the requirements of the EN 14175 part 2, 3, 6 and "Machinery Directive 2006/42/ CE" standards and their performances are tested by accredited laboratory ILAC-MRA member.



Customized option for handling strong acids at high temperatures are available: from ceramic work surface to internal coating with ceramic panels in monolite IPERGRES; from polypropylene work surface to internal coating with polypropylene panels.

ChemFAST Classic&Sharp

Total Exhaust Fume Hoods

CHEMFAST CLASSIC AND SHARP ARE THE PERFECT SOLUTION TO PREVENT ANY TYPE OF CHEMICAL RISK

ChemFAST Classic and Sharp are flexible, safe and user friendly and represent the ideal solution for chemical labs thanks to a combination of high standards of protection for the operator with a reduced air consumption. ChemFAST Classic and Sharp prevent the risk of chemical agents, vapors and aerosols contamination during normal routine laboratory work.

APPLICATIONS

ChemFAST are suitable for the containment and removal of toxic vapors and aerosol. Applications: [clinical diagnostic testing](#), [medical research](#), [analytical chemistry](#), [Q. C.](#), [biotechnology](#), [pharmaceutical industries](#), [food](#), [fine chemical](#), [petrochemical](#), [cosmetic](#), [photographic laboratories](#) and [electronics industries](#).

	Low heat load	High heat load	Organic solvents	Flammable Substances	Weak acid and diluted inorganic acid	Concentrated inorganic acids (Room Temperature)	Concentrated inorganic acids (High Temperature)	Cytotoxic Substances
Premium								
Sharp								
Classic								
Custom								
Distillation								
Elite/Top								
CytoFAST Elite								
GloveFAST Cyto Pharma								

Suitable

Suitable for occasional use and/or with dedicated accessories and/or with personal protective devices

Not suitable

ChemFAST Classic

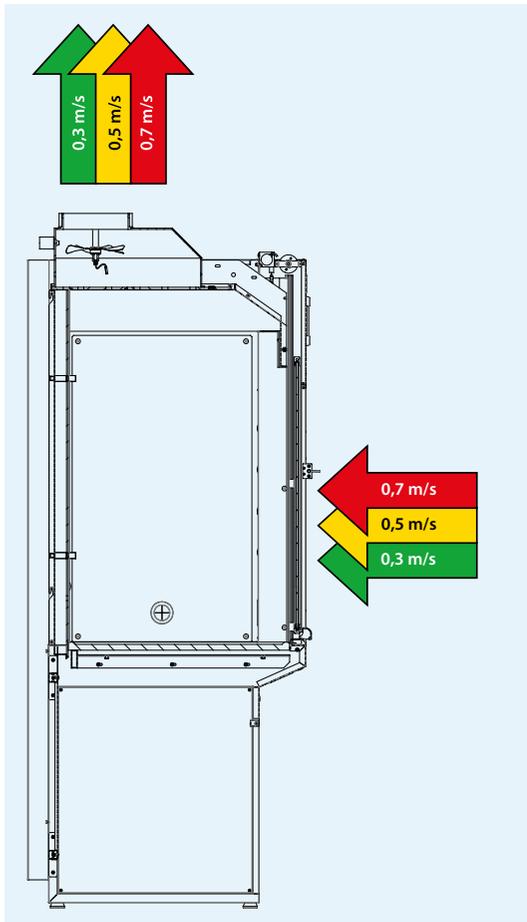
Constant AIR volume, continuous safety, real savings

ChemFAST Classic is the latest generation of **Constant Air Volume** fume hood where the inflow speed can be adjusted during the installation phases (and ordinary maintenance) in a range between 0.3 and 0.7 m/s. **This allows to select the safer speed according to the chemicals to be removed.** This would then represent the best compromise between the local HVAC needs ensuring **concrete energy savings**.

An anemometer, installed on the exhaust duct, provides **accuracy and precision** while reading the speed of the air inside the cabinet.

HOW IT WORKS

The operation of **ChemFAST Classic** is based on the principle of a **constant flow vented system**: thanks to a remote fan, the air is drawn in from the room where the hood is installed through the front opening, then is drawn on the worktop removing the chemical contaminant, prior being exhausted from the top via a 250 mm duct.



SIMPLE AS IT IS.

THE EXHAUST FLOW RATE AND INFLOW SPEED OF **CHEMFAST CLASSIC** CAN BE CALIBRATED DURING INSTALLATION ON THREE DIFFERENT LEVELS (0,3-0,5-0,7 M/S) IN ORDER TO FIND THE PERFECT COMPROMISE BETWEEN AIR-CONDITIONING CONSUMPTION AND POLLUTANT TO BE REMOVED.



LIGHTING

The combination of LED lights and the presence of lateral glasses provides the highest lighting level to the work area creating an ideal working space.

SEMI-GLOSS PAINT WITH SURFACE roughness LO,15 RA, is made of mixture of epoxy resin powders applied electrostatically with a thickness of >100 microns, RAL 9010 color for the main shell and RAL 5015 for the front panel with heat resistance >200 °C and resistance to direct impact 5 Nm.

TECHNICAL COMPARTMENT

Fixtures are located in the upper part on the right side in a compartment specifically designed to host multiple service fixtures. Smart pass-through ports are located instead in the lower part of the right side as well as on the side glasses. Front vertical sliding sash is mounted in an aluminum frame with an ergonomic handle running from left to right thus ensuring a smooth sliding of the glass.



SERVICES AND UTILITIES

Electric sockets IP66 rated can be placed either inside the hood or outside, increasing the capacity from 4 to 8 sockets (4 internal and 4 external). Up to 4 controls or alternatively 3 pressure reducers can be installed.



FREE SPACE UNDER THE HOOD. The wide free space left under the cabinet leaves complete liberty to users who can then choose to install a variety of solutions, from safety storage cabinets classic or vented to normal storage compartments.

ERGONOMICS. Plenty of space beneath the hood allows the operator to work sitting on a chair.





HMI & CONTROL UNIT

An user-friendly HMI with an intuitive control panel and soft touch keyboard with

- Power on/off key
- Light on/off key
- Microprocessor monitoring system to control the main functional parameters
- Audible and visual alarms for air speed
- Emergency key for maximum air exhaust (only for ChemFAST Sharp)



INTERNAL RACK

The internal back wall with factory fitted hangers, offers the possibility to install distillation racks.



WORK SURFACE

As standard an ipergres ceramic work surface for handling of strong acids at high temperature is supplied. Anyway, a variety of different solutions can be offered, from polypropylene work surface to handle hydrochloric acid to trespas work surface.

Optimized energy consumption and reduced CO₂ emissions in environment

thanks the innovative ECS microprocessor able to control all the main ventilation functions as well as regulating the air flow speed by compensating the pressure drop and restoring the ideal conditions.

More precision. A real vane anemometer supplies the most accurate reading of the air velocity within the exhaust duct.

Easy connection to an external remote blower.

Silent operation: the plenum, the hood structures and the software itself, are designed to provide an optimal air management ensuring then silent operation with sound pressure levels far lower than the parameters specified in the current European standard EN 14175 for chemical fume hoods.

ChemFAST Sharp

Variable air volume, constant safety

ChemFAST Sharp is the latest generation of **Variable Air Volume** fume hoods able to modulate the inflow air volume **according to the opening of the vertical sliding sash**. The presence of vane anemometers allows an **accurate measurement of the air flow**. All this because the safety of the operator depends on the correct air flow which is crucial for operator's safety and power consumption savings.

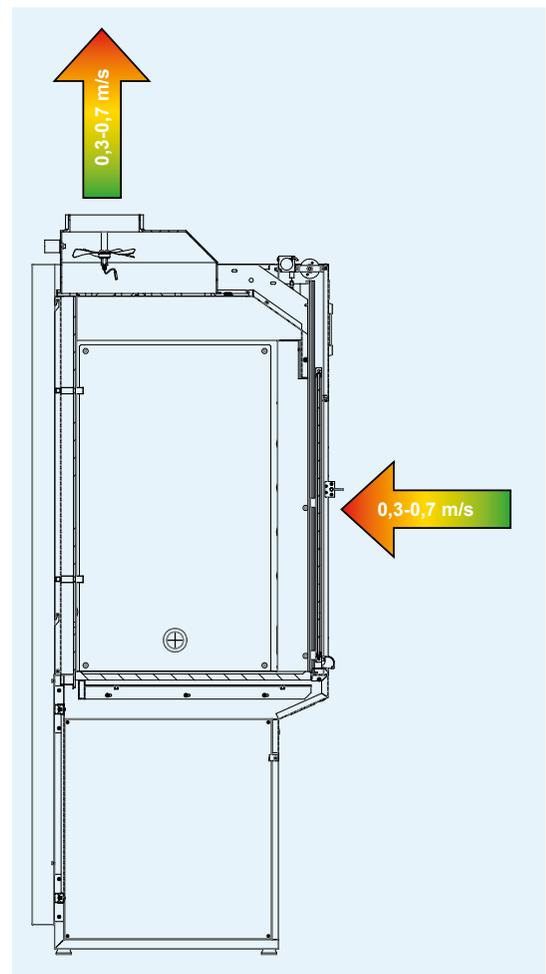
HOW IT WORKS

The operation of **ChemFAST Sharp** is based on the principle of a **variable flow vented system: thanks to a remote fan**, the air is drawn in from the room where the hood is installed through the front opening, then is drawn on the worktop removing the chemical contaminant, prior being exhausted from the top via a 250 mm duct. Differently from CAV hoods, VAV units are supplied with an connected to the remote fan. This will then allow the automatic regulation of the exhaust flow rate proportionally to the opening/closing of the front sash.

MORE ENERGY SAVINGS.

THE POWER AND AIR CONSUMPTION OF **CHEMFAST SHARP** IN WORKING CONDITIONS (SASH OPEN AT 500 MM) IS THE SAME OF A CONSTANT AIR VOLUME HOOD.

SAVINGS ARE POSSIBLE DUE TO THE PRESENCE OF AN INVERTER USED TO MODULATE PROPORTIONALLY THE INFLOW SPEED AND KEEP IT FIXED AT WHATEVER LEVEL THE FRONT GLASS IS OPENED.



TECHNICAL SPECIFICATIONS



Description	Unit	Classic 12	Classic 15	Classic 18	Classic 21	Classic 24
Overall Dimension WxDxH ⁽¹⁾	mm	1200x962x2353	1500x962x2353	1800x962x2353	2100x962x2353	2400x962x2353
Useful Dimension WxDxH	mm	1185x750x1200	1485x750x1200	1785x750x1200	2085x750x1200	2385x750x1200
Maximum frontal opening	mm	600	600	600	600	600
Working opening	mm	500	500	500	500	500
Weight	Kg	240	275	310	340	370
Lighting	Lux	>800	>800	>800	>800	>800
Electrical Input Data	V	230V AC 2P+T				
Frequency	Hz	50	50	50	50	50
Power Consumption ⁽¹⁾	W	150	150	200	200	350
Exhaust diameter	mm	250	250	250	250	315
Inflow Air Velocity ⁽²⁾	m/s	0,3/0,5/0,7	0,3/0,5/0,7	0,3/0,5/0,7	0,3/0,5/0,7	0,3/0,5/0,7
Air Flow Rate in Working Condition ⁽³⁾	m ³ /h	490/815/1140	650/1085/1520	810/1355/1900	975/1625/2275	1135/1895/2645

⁽¹⁾ External exhaust fan excluded

⁽²⁾ Selected during installation (0,3/0,5/0,7) without compromising containment

⁽³⁾ Measured with 500 mm frontal opening and 0,3/0,5/0,7 m/s inflow air velocity

Description	Unit	Sharp 12	Sharp 15	Sharp 18	Sharp 21	Sharp 24
Overall Dimension WxDxH ⁽¹⁾	mm	1200x962x2353	1500x962x2353	1800x962x2353	2100x962x2353	2400x962x2353
Useful Dimension WxDxH	mm	1185x750x1200	1485x750x1200	1785x750x1200	2085x750x1200	2385x750x1200
Maximum frontal opening	mm	600	600	600	600	600
Working opening	mm	500	500	500	500	500
Weight	Kg	240	275	310	340	370
Lighting	Lux	>800	>800	>800	>800	>800
Electrical Input Data	V	230V AC 2P+T				
Frequency	Hz	50	50	50	50	50
Power Consumption ⁽¹⁾	W	150	150	200	200	350
Exhaust diameter	mm	250	250	250	250	315
Inflow Air Velocity ⁽²⁾	m/s	0,5	0,5	0,5	0,5	0,5
Air Flow Rate in Working Condition ⁽³⁾	m ³ /h	815	1085	1355	1625	1890
Minimum Air Flow Rate ⁽⁴⁾	m ³ /h	50	65	80	97	115

⁽¹⁾ External exhaust fan excluded

⁽²⁾ Selected during installation (0,3-0,7) without compromising containment

⁽³⁾ Measured with 500 mm frontal opening and 0,5 m/s inflow air velocity

⁽⁴⁾ Measured with minimum frontal opening and 0,5 m/s inflow air velocity



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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

