ChemFAST – Laboratory Fume Cabinets

ChemFAST fume cabinets from FASTER are using the latest molecular filtration technology. This provides a safe working environment together with fume containment for protection from chemicals, vapours, and aerosols in laboratories. Applications for ChemFAST fume cupboards may be found in many laboratories, including those in chemistry, Q.C., biotechnology, pharmaceutical and food industry, petrochemical, photographic laboratories, and more.

ChemFast Top is designed to meet all the routine safety requirements encountered by both the operator and the environment through the use of chemical reagents.

ChemFast Elite with a microprocessor controlled system for a range of data such as type and code number of the filter, installation date, maximum time allowance for filter use, etc.

Features of ChemFAST Top and ChemFAST Elite:

- Wide range of activated charcoal adsorbing filters available for applications that use chemicals such as hydrocarbons, formalin, glutaraldehyde, or radioactive iodine labelled compounds
  (please see page 2 for complete list of chemicals that can be used with the filters)
- Supplied with pre-filter(s) with efficiency equal to 75 % - 85 % dust retention capacity (ASHRAE)
- Average airflow face speed > 0.6 m/sec
- Cold rolled epoxy painted galvanized external structure
- IP54 centrifugal motor fan maintains a constant airflow
- User-friendly keyboard with LCD display
- Highly effective protection from toxic vapours, large adsorption capacity
- Collar (Ø = 200 mm) placed on top of the unit for optional ducting connection
- In compliance with the requirements of BS 7258-1, EN 61010-1, and EN 61326-1
- Side and front panels made of safety glass
- Acid resistant PVC inner rear wall with back side hole with rubber cover to plug external devices
- Cabinets ChemFAST Top/Elite 06/09/12 with acid resistant PVC work surface
  (stainless steel work surface on request)
- Cabinets ChemFAST Top/Elite 15 with stainless steel work surface
- Built-in lighting
- Gas and vacuum taps, electric sockets, supporting tables and further options available

Filter Types

A) Pre-filters: They remove particulates from polluted air by strong electrostatic forces generated by the fibres from which the filters are made of. The combination of strong electric charges and open structure provides a filter with high efficiency, low airflow resistance, and high loading capacity.
The pre-filter efficiency is equal to 75 % - 85 % dust weight arrestance (ASHRAE).

B) Main filters: Impregnated activated carbon filters with amorphous structure and a high adsorption efficiency through a large surface area of up to 1050 m^2/g:

1. A/C Filter
The A/C Filter is the most widely used filter in the range, and is used primarily for solvent fume removal. Based on activated carbon of 4 x 8 USS mesh size and surface area up to 1050 m^2/g. Filtration is achieved by the physical adsorption of molecules in the pores of the activated carbon by Van der Waals forces.
- Primary use: organic odours, hydrocarbons, aromatic solvents, animal odours, excrements, urines, acid odours, cadaverine, putrescine
- Secondary use: oxygenated nitrogen compounds

2. ACR Filter
The ACR filter is impregnated with halide salts and is used fort he high efficiency removal of iodine and methyl iodine. It is frequently used for iodination reactions with low-level radioactive iodine.
- Primary use: radioactive iodine
- Secondary use: hydrocarbons

3. FOR Filter
This filter is impregnated with an oxidising agent to oxidise formaldehyde to form salts. It is widely used in hospital pathology and cytology laboratories.
- Primary use: formaldehyde
- Secondary use: organic emissions, hydrocarbons, aromatic solvents, acid gases

4. SULF Filter
- Primary use: acid odours, putrescine, cadaverine, acid gases, hydrogen sulphide, methyl mercaptan, sulphur compounds, sulphur dioxide, R.H. > 85 %

5. UR Filter
- Primary use: acid odours, putrescine, cadaverine, acid gases, hydrogen sulphide, methyl mercaptan, sulphur compounds, sulphur dioxide, nitrogen oxygenated compounds
- Secondary use: organic emissions, hydrocarbons, aromatic solvents, hydrocyanic acid, R.H. < 85 %

6. ZYAN Filter
- Primary use: hydrocyanic acid
- Secondary use: organic emissions, hydrocarbons, aromatic solvents

7. MER Filter
- Primary use: mercury vapours
- Secondary use: organic emissions, hydrocarbons

8. AM Filter
- Primary use: ammonia and its derivatives
- Secondary use: organic emissions, hydrocarbons, aromatic solvents, alkaline odours, excrement, urines, animal odours

9. H14 HEPA/ULPA Filter
- Primary use: powder and particulate

➜ Please note that the **main filters** for the ChemFAST Top and ChemFAST Elite fume cupboards have to be **ordered separately**. The different cabinet sizes require the following main filters (xxx is the type of the filter, e.g. 010 for A/C filter, please see also page 4):

- ChemFAST Top/Elite 06: 1 x filter FX0000854xxx
- ChemFAST Top/Elite 09: 2 x filter FX0000844xxx
- ChemFAST Top/Elite 12: 2 x filter FX0000854xxx
- ChemFAST Top/Elite 15: 2 x filter FX0000854xxx <u>and</u> 1 x filter FX0000844xxx

User-friendly filter replacement and easy cleaning.

Technical specifications	Top/Elite 06	Top/Elite 09	Top/Elite 12	Top/Elite 15
External dimensions w x h x d [mm]	595 x 1120 x 760	885 x 1120 x 760	1185 x 1120 x 760	1500 x 1120 x 760
Internal dimensions w x h x d [mm]	533 x 660 x 600	823 x 660 x 600	1123 x 660 x 600	1438 x 660 x 600
Weight (without filters)	approx. 70 kg	approx. 85 kg	approx. 100 kg	approx. 120 kg
Airflow (volume/air treated)	300 m^3/h	400 m^3/h	600 m^3/h	700 m^3/h
Pre-filter	1	2	2	2
Main/charcoal filter	➔ please see page 2			

ChemFAST Top

- Variable speed air regulation
- Hours-counter
- Supplied with pre-filter
- Main filter(s) to be ordered separately (please see page 4)
- Optional accessories available (please see page 4)

Cat. No.	Description
F00000830000	**ChemFAST Top 06**, internal width: 533 mm
F00000840000	**ChemFAST Top 09**, internal width: 823 mm
F00000850000	**ChemFAST Top 12**, internal width: 1123 mm
F00000860000	**ChemFAST Top 15**, internal width: 1438 mm, double fan

ChemFAST Elite

- Variable speed air regulation
- Microprocessor controlled monitoring system:
  - Hours-counter
  - Airflow
  - Pre-filter and main filter efficiency
  - Filter type and filter replacement
- Audible and visual alarms e.g. for:
  - Low/high airflow
  - Fan failure
  - Pre-filter and main filter condition
  - Black out
  - gas detector and anemometer failure
- Supplied with pre-filter(s)
- Main filter(s) to be ordered separately (please see page 4)
- Optional accessories available (please see page 4)

Cat. No.	Description
F00001830000	**ChemFAST Elite 06**, internal width: 533 mm
F00001840000	**ChemFAST Elite 09**, internal width: 823 mm
F00001850000	**ChemFAST Elite 12**, internal width: 1123 mm
F00001860000	**ChemFAST Elite 15**, internal width: 1438 mm, double fan

➔ **ChemFAST Top/Elite 18 on request!**

Cat. No.	Description	Quantity
Filter:		
FX0000854010	A/C Filter for ChemFAST Top/Elite 06/12	1
FX0000854020	SULF Filter for ChemFAST Top/Elite 06/12	1
FX0000854030	UR Filter for ChemFAST Top/Elite 06/12	1
FX0000854040	AM Filter for ChemFAST Top/Elite 06/12	1
FX0000854050	CYAN Filter for ChemFAST Top/Elite 06/12	1
FX0000854060	MER Filter for ChemFAST Top/Elite 06/12	1
FX0000854070	ACR Filter for ChemFAST Top/Elite 06/12	1
FX0000854080	FOR Filter for ChemFAST Top/Elite 06/12	1
FX0000854090	HEPA Filter for ChemFAST Top/Elite 06/12	1
FX0000844010	A/C Filter for ChemFAST Top/Elite 09	1
FX0000844020	SULF Filter for ChemFAST Top/Elite 09	1
FX0000844030	UR Filter for ChemFAST Top/Elite 09	1
FX0000844040	AM Filter for ChemFAST Top/Elite 09	1
FX0000844050	CYAN Filter for ChemFAST Top/Elite 09	1
FX0000844060	MER Filter for ChemFAST Top/Elite 09	1
FX0000844070	ACR Filter for ChemFAST Top/Elite 09	1
FX0000844080	FOR Filter for ChemFAST Top/Elite 09	1
FX0000844090	HEPA Filter for ChemFAST Top/Elite 09	1
FX0000854000	Pre-filter for ChemFAST Top/Elite 06/12	10
FX0000844000	Pre-filter for ChemFAST Top/Elite 09	10
Optional Accessories:		
further accessories on request, such as water tap and drain system, exhaust filters (please see image below) etc.		
FX0000834500	Stand for ChemFAST Top/Elite 06	1
FX0000834510	Stand with castors for ChemFAST Top/Elite 06	1
FX0000844500	Stand for ChemFAST Top/Elite 09	1
FX0000844510	Stand with castors for ChemFAST Top/Elite 09	1
FX0000854500	Stand for ChemFAST Top/Elite 12	1
FX0000854510	Stand with castors for ChemFAST Top/Elite 12	1
FX0000864500	Stand for ChemFAST Top/Elite 15	1
FX0000864510	Stand with castors for ChemFAST Top/Elite 15	1
FX0000854700	Gas tap with electro valve	1
FX0000204710	Manual gas tap	1
FX0011247100	Manual vacuum tap	1
FX0011247200	Manual compressed air tap	1
FX0011247300	Manual nitrogen tap	1
FX0000854740	Manual water tap	1
FX0000854910	Electrical socket	1
FX0000854950	Filter saturation monitoring system <u>only</u> for ChemFAST Top 06/09/12/15	1

On request: Cabinets with additional exhaust filters

Without spigot for external ducting   **With spigot for external ducting**