

# Monmouth<sup>+</sup> Circulaire

**Models : FSC600L and FSC600LSA**

## **CHEMICAL STORAGE CABINET**

**OPERATING AND MAINTENANCE MANUAL**



**CONTENTS**

INTRODUCTION ..... 3

DIMENSIONS ..... 3

INSTALLATION ..... 4

OPERATION ..... 4

MAINTENANCE ..... 5

    CHANGING PRE-FILTER .....5

    CHANGING MAIN CARBON FILTER.....5

    REPLACEMENT FILTER PART NUMBERS.....5

    SETTING THE FAN SPEED.....6

    CALIBRATION OF LOW AIRFLOW ALARM.....6

    CALIBRATION OF FILTER CONDITION ALARM .....6

SERVICING ..... 7

**Warning**

This cabinet must be used in compliance with these instructions and any repairs or maintenance carried out by qualified personnel.

For parts or service information please contact  
Monmouth Scientific on: +44 (0) 1278 458090

## INTRODUCTION

The Monmouth FSC600L Chemical Storage Cabinet has been designed for the safe storage and segregation of hazardous substances as required by the COSHH Regulations.

The cabinet is constructed from epoxy coated heavy gauge zinc coated steel that provides extra strength and rigidity to withstand industrial environments

The cabinet has 2 separate stainless steel removable shelves, and a smoked acrylic lockable door for added security.

The cabinet is continuously ventilated to prevent the build up of fumes in the storage area and therefore prevent exposure of operators to chemical inhalation. The air is drawn through inlet vents on the door and across and up through the chemical containment area into the filtration module on top of the unit. The contaminated air is passed through an electro-statically charge pre-filter to remove particulate, then through a deep bed activated carbon filter for removal of fumes, before being returned to the laboratory.

## DIMENSIONS

External

Width : 600mm

Height : 1285mm

Depth : 500mm

## **INSTALLATION**

The Chemical Storage Cabinet requires a 13A electrical supply and is supplied with a 2m mains lead terminated with a 13A plug fitted with a 5A fuse.

The cabinet should be placed in position and the levelling feet adjusted if necessary to ensure the cabinet is stable.

## **OPERATION**

Switch the cabinet on with the green rocker switch on the control panel.

The airflow is continuously monitored by an airflow monitoring system and will provide a visual and audible alarm if the airflow drops below a safe level.

For models fitted with the optional carbon filter condition monitor, the exhaust air is also continuously monitored. An audible and visual alarm will be provided if filter breakthrough is detected.

The cabinet should be left running continuously to ensure containment of fumes.

## MAINTENANCE

### CHANGING PRE-FILTER

Filters concentrate dust, pollutants etc. and care must be taken when changing them.

#### IMPORTANT

**Personal Protective Equipment must be worn when changing filters including gloves and particulate facemask.**

If the airflow monitoring system indicates low airflow this normally suggests that the pre-filter requires changing.

1. Turn the system off
2. Remove the front cover of the filtration module using the key provided.
3. The pre-filter is situated on top of the main carbon filter and held in position by a metal frame
4. Remove the retaining frame and fit a replacement pre-filter
5. Replace the retaining frame, fit the front cover and turn the cabinet on.

### CHANGING MAIN CARBON FILTER

1. Turn the system off
2. Remove the front cover of the filtration module using the key provided.
3. Lift and slide the carbon filter out of the cabinet with the pre-filter still in position on top
4. Replace both the carbon and pre-filter and re-fit them
5. Replace the front cover and turn the cabinet on.

### REPLACEMENT FILTER PART NUMBERS

Replacement filters are available from Monmouth Scientific:

The FSC-600L is fitted with one main carbon and one pre-filter.

Pre-Filter ( supplied in a pack of 10 )	Part No.	K-PF0028
---	----------	----------

Carbon Filter (for use with Formalin)	Part No.	K-CF0119
---------------------------------------	----------	----------

**Carbon filters for use with other chemicals are available.  
Please contact Monmouth Scientific with your requirements.**

## SETTING FAN SPEED

This procedure requires the use of a rotating vane anemometer and involves exposure to live circuits, so should be carried out by a trained engineer. The fan speed is adjusted by rotating the potentiometer mounted inside the control panel area. Access is gained by removing the blanking plug above the main switch on the front panel, or on versions with filter condition monitor, on the top of the unit.

The normal running speed should be within the range of 0.6m/sec to 0.8m/sec measured at the air inlet slots in the bottom of the filtration unit

## CALIBRATION OF LOW AIRFLOW ALARM

1. With new Pre-Filters fitted set the fan speed using the procedure above to achieve 0.45m/sec at the air inlet slots in the bottom of the filtration unit
2. Turn the cabinet off and then on again while pressing the airflow alarm mute button. When the button is released the cabinet will enter calibration mode
3. The alarm warning lights will flash alternately. When the airflow has stabilised, press the Alarm Mute button again to store the set point.
4. Re adjust the airflow to achieve 0.7m/sec. at the air inlet slots in the bottom of the filtration unit.
5. The cabinet is now ready for use.

## CALIBRATION OF OPTIONAL FILTER CONDITION ALARM

**New carbon filters must be fitted before calibrating the alarm.**

1. Whilst pressing and holding the filter condition mute button, turn on the cabinet. When an audio beep is heard release the button
2. The red and green indicators will flash alternately showing that the alarm is in calibration mode.
3. Leave the cabinet running for 15 minutes to allow the sensor to stabilise.
4. Press the mute button once. The indicators will stop flashing with the green remaining on.
5. The filter condition alarm is now calibrated.

## **SERVICING**

An annual service is recommended to maintain optimum operating conditions and will include the following points

- Check / replace pre-filter
- Check condition / replace main carbon filter
- Check airflow monitor and re-calibrate if necessary
- Check general condition of system.
- Issue test report and certificate.

**For parts or service information please contact :  
Monmouth Scientific on +44 (0) 1278 458090**

**Monmouth Scientific Ltd**

Units 5 & 6 Kilnside  
East Quay  
Bridgwater  
Somerset TA6 4DB  
Email: [info@monmouthscientific.co.uk](mailto:info@monmouthscientific.co.uk)