

# FumeCAB250 & V250

FUME CABINET &  
EXTRACTION UNIT

OPERATIONAL INSTRUCTIONS

CE

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## SAFETY INSTRUCTIONS

### Symbols used



**Danger** Refers to an immediately impending danger. If the danger is not avoided, it could result in death or severe (crippling) injury.



**Warning** Refers to a possibly dangerous situation. If it is not avoided, it could result in death or severe injury

**Caution** Refers to a possibly harmful situation. If it is not avoided, damage

**Important** Refers to handling tips and other particularly useful information. This does not signify a dangerous or harmful situation.

### Electrical safety

The solder fume extraction unit is designed to meet the safety requirements of the Low Voltage Directive 2006/95/EC (previously numbered 73/23/EEC)



**Warning** When the pump/motor housing is open, mains voltage is accessible. Ensure all covers are fitted before operating this equipment.

**Important** To reduce the risk of fire, electric shock or injury:

1. Always isolate the system from the mains power supply before removing the pump/motor panel
2. Use only as described in the manual
3. Connect to a properly grounded outlet

### Dangers to eyes, breathing and skin

Once used, the filters in the extraction unit contain a mixture of particulates, some of which may be sub micron size. When the used filters are moved it may agitate some of this particulate which could get into the breathing zone and eyes of the operative. Additionally, the particulate may be an irritant to the skin.

### Caution

When changing used filters always wear respirator mask, safety glasses and gloves.

## INSTALLATION

### The need for fume extraction

Soldering activities take many forms, but in most operations flux must be used to clean the component surfaces and help the molten solder to flow. This helps to ensure a good mechanical/electrical joint between the components. The temperature required to melt the solder causes the flux to vaporise, producing solder fume.

There are two interlinked reasons for capturing the fume:

- 1 Operator health protection – Rosin based solder fumes are a health hazard. They are one of the major causes of industrial asthma, and can also cause irritation to the eyes and upper respiratory tract. Upon contact with the skin the fume can cause dermatitis.
- 2 Legal requirement –The Health and Safety Commission have set a Workplace Exposure Limit (WEL) for rosin based solder flux fume. It is a legal requirement for employers to ensure that none of their employees are exposed to this level and additionally employers are required to reduce the exposure to as low a level as is reasonably possible.

Please note that the media in the gas filter fitted in these units is capable of adsorbing a wide range of organic compounds including those normally associated with solder fume. However, it is the responsibility of the user to ensure it is suitable for the particular application it is being used on.

### Extractor Installation Procedure

Move the unit to the location where it is going to be installed and remove the unit from its packaging.

#### Caution

Due to the weight involved the extractor unit should only be lifted using suitable lifting equipment and with regard to appropriate safety precautions. (See Appendix for product weight details).

The unit should be installed in a well ventilated room.

Ensure that a 0.5m space is available around any louvered areas of the unit to ensure adequate air flow. Lock the two braked castors, if fitted.

#### Caution

Do not block or cover any louvers or cooling holes on the unit as this severely restricts air flow and may cause damage to the unit.

The filtered air exhaust is at the base of the V250 unit,

#### Caution

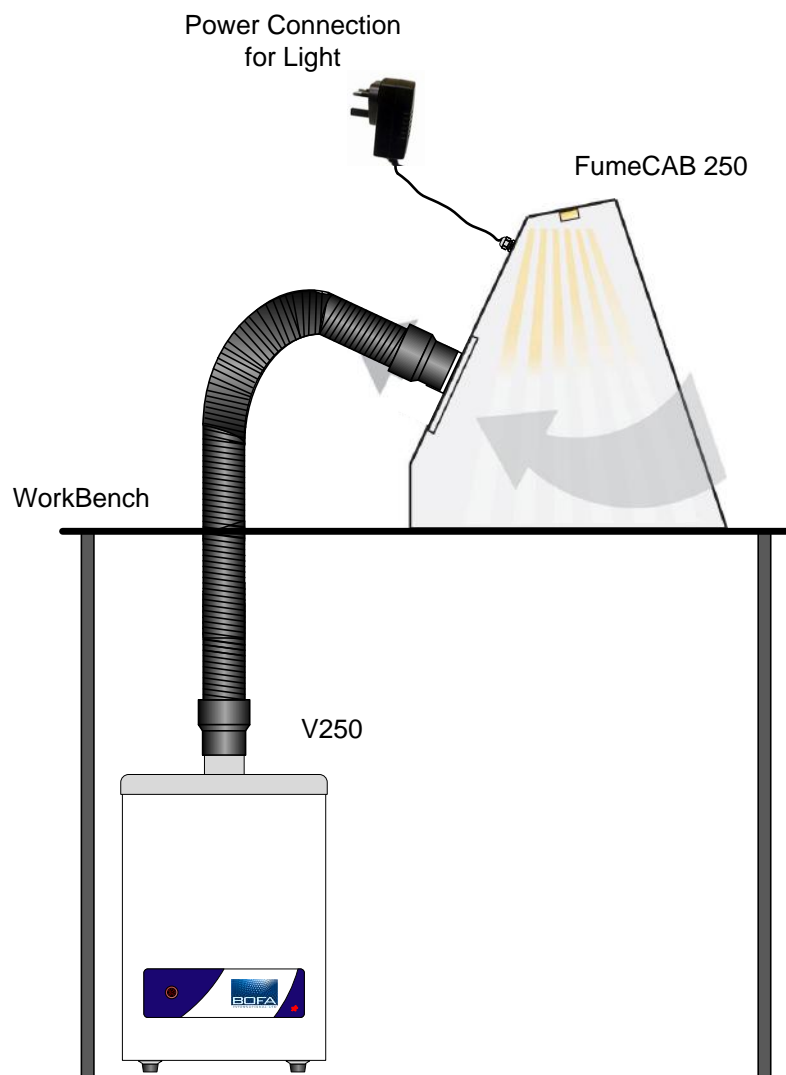
Under no circumstances should the exhaust outlet/s be covered as this will restrict the airflow and cause overheating.

Check filters are located in their correct position and carefully replace lid/close door.

The V250 unit is supplied with a length of 50mm flexible hose to be connected between the extraction unit and the fumeCAB 250.

Typical installation shown below.

**Fig 1**



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## Single phase units – Electrical supply connection

Check the integrity of the electrical power cable.

Connect the power cable to an isolated electrical supply. The mains socket outlet should be installed near the equipment and be easily accessible. The cable run to the machine should be arranged so as not to create a trip hazard.

### **Caution:**

Check that the mains input at the isolated supply is the same as the voltage Supply detail on the Serial Number label before plugging the extractor unit in.



### **Warning**

Mains voltage. Dangerous voltages exist in this equipment. Ensure all covers are fitted before operating this equipment.

## OPERATION

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### **On/Off switch**

This extraction unit is turned on and off by using the switch on the front or rear of the unit.

### **Single LED Filter condition indication**

An LED on the front panel of the machine will illuminate when the filters need attention. (See fig 7 below).

**Fig 7 Filter change indication**



## MAINTENANCE

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### **UK**

It is a legal requirement, under regulation 9, of the COSHH regulations that all local exhaust ventilation systems are visually inspected on a weekly basis, where possible and undergo a thorough inspection and test on an annual basis.

COSHH requires the annual inspection and testing to be carried out by a competent person with specific documentation of the results held in a log book.

### **General**

User maintenance is limited to cleaning the unit and replacing the filters with new. Unauthorised work or the use of unauthorised replacement filters may result in a potentially dangerous situation and/or damage to the extractor unit, and will invalidate the manufacturer's warranty.

### **Cleaning Unit**

The powder coated finish can be cleaned with a damp cloth and non aggressive detergent. Do not use an abrasive cleaning product as this will damage the finish. The cooling inlets and outlets should be cleaned once a year to prevent build up of dust and overheating of unit

### **Replacing Filters**

The filter package needs attention when the filter change signal is illuminated or , when the unit no longer removes the fume efficiently.

A log of filter changes should be maintained by the user.

All filters are tested to BS3928. A certificate on conformity for each filter is available on request.

It is recommended that a spare set of filters are kept on site to avoid prolonged unit unavailability. Part numbers for replacement filters can be found on the filters fitted in your system. Alternatively, refer to the consumable spares table.

### **Caution**

To prevent overheating, units should not be run with a blocked filter condition, or with dust obstruction of inlets or outlets.



## Filter replacement indication

The first few filter changes should only apply to the pre-filter. The indication that the Combined or Gas / HEPA filter needs replacing is when the filter alarm signal and LED's (if fitted) do not go off after the pre filter has been changed.

Please note that the carbon media within the combined filter or Gas filter is hygroscopic and will absorb moisture from the atmosphere. This is why these filters should be changed every twelve months regardless.

### Caution:

When changing used filters always wear respirator mask, safety glasses and gloves.

The filter change procedure depends on the specific model of extractor. (See layout diagrams below)

### Filter replacement V250,

Isolate the electrical supply to the extractor.

Undo the protex clips on either side of the unit and lift the lid or motor section clear of the filter package and place on a safe surface.

Remove the filter package from the base of the unit.

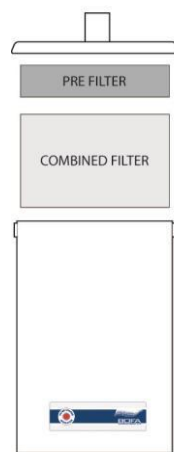
Vacuum out any dust in the base.

Remove the pre-filter, which may be recessed into the combined filter. (see fig 10)

Replace the exhausted pre filter, or combined filter, or Foam filter as necessary.

Place the filter package back into position. Replace the motor section, fasten the protex clips and start up the unit.

**Fig 10.**



### 5.3 Consumable Spares

Unit	Part Number	Description
V250	A1030099 A1030100 A1030101 A1030102	Combined filter Gas filter Heavy duty pre filter (Pack of five) Pre filter (Pack of five)

### 5.4 Fuses

The following table gives details of the internal fuses in the Volume units:

Item Protected	Voltage	Fuse Rating A	FLC A	Fuse Type
V250 Exhaust Fan	230V (115V)	2	1.1A	T2AH250V

### 5.5 Filter Disposal

Pre and combined filters are manufactured from non-toxic materials. Filters are not re-usable, cleaning used filters is not recommended. Disposal of the used filters depends on the material deposited on them. See the following table:

Deposit	EWC listing*	Comment
Non Hazardous	15 02 03	Can be disposed of as non hazardous waste.
Hazardous	15 02 02 M	The type of Hazard needs to be identified and the associated risks defined. The thresholds for these risks can then be compared with the amount of material in the filters to see if they fall into the hazardous category. If so, the filters will need to be disposed of inline with the local/national regulations.

European Waste Catalogue

## TROUBLE SHOOTING

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In the unlikely event of a problem with your extractor please contact your local representative.

OR

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## APPENDIX

## Appendix 1

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### V250 System Specifications

Capacity:	180m <sup>3</sup> /hr		
Size:	height 380mm x depth 260mm x width 260mm		
Weight:	10kg		
Exhauster:	Centrifugal fan		
Rated Output:	135W		
Electrical supply:	230V 1ph 50Hz (110V 1ph 60Hz)		
Full Load Current:	1.1A (1.4A)		
Noise level:	54dB(A)		
Filters:	Pre filter	Surface area	0.06 m <sup>2</sup>
Efficiency F7	85% @ 0.8μ		
Combined filter	Surface area	2.0 m <sup>2</sup>	
Efficiency H13	99.997% @ 0.3μ		
Impregnated Carbon			
Duct Size:	50mm		
Duct Run:	5m		

The V250 unit is suitable for use with two hand operated soldering irons