



A Donaldson Company

A WORLD LEADER IN FUME  
EXTRACTION TECHNOLOGY

# FumeKART

USER MANUAL



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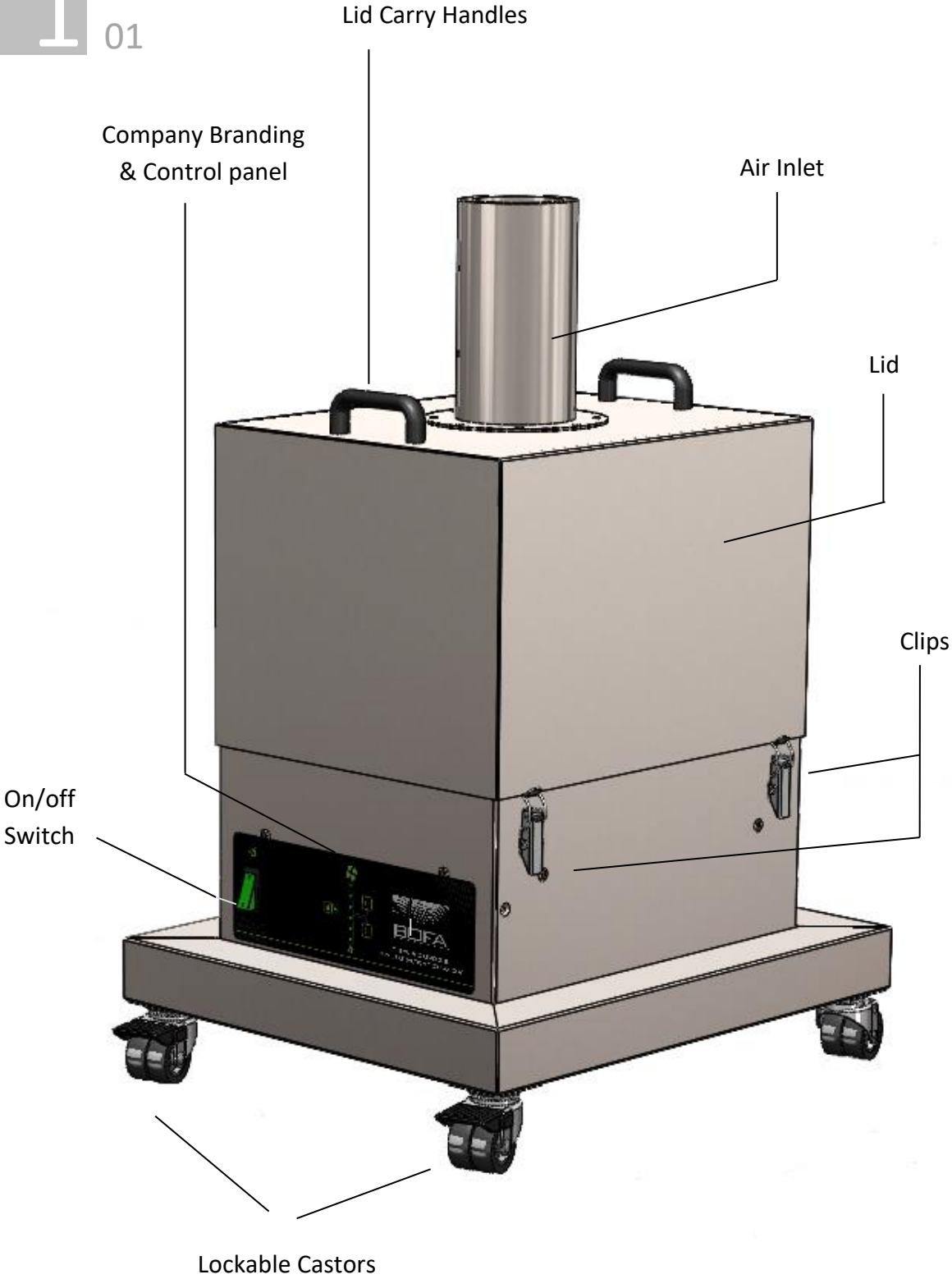
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- 01 FumeKART specifications

# Overview

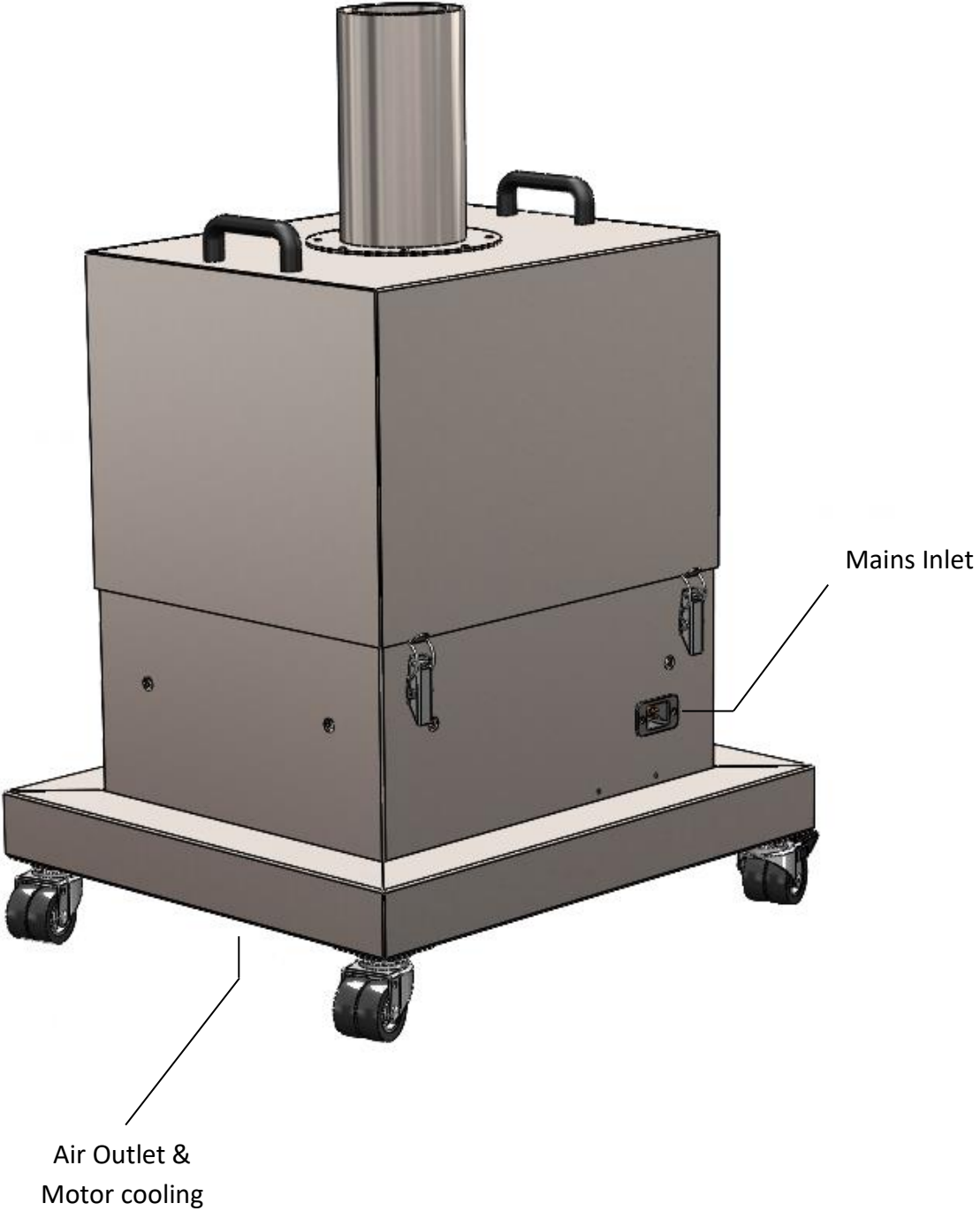
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01



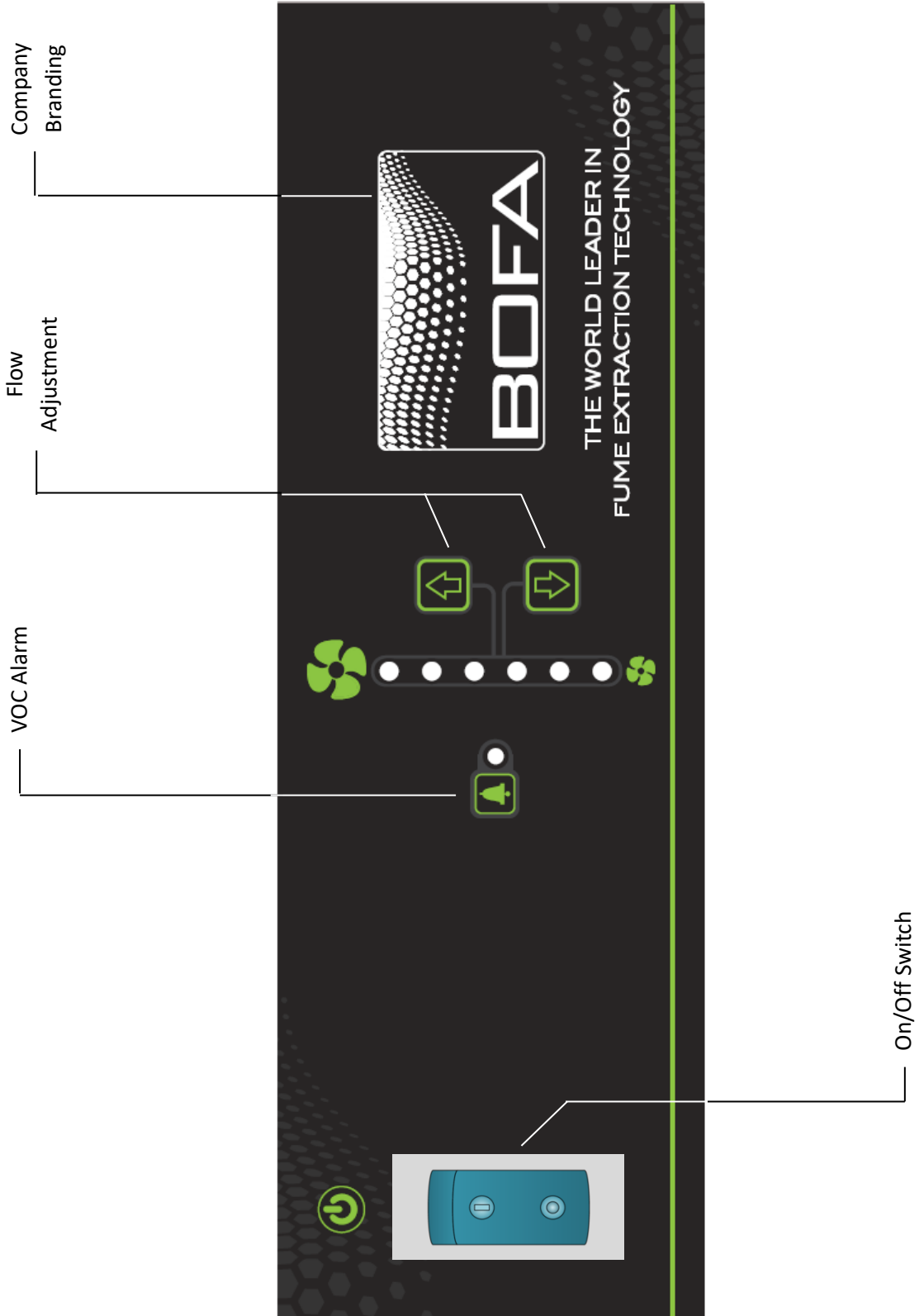
# Overview

1 02



# Overview

1 03



# Safety Instructions



## Important safety notes

Concerning symbols used on the extraction unit and referred to within this manual.



Danger

Refers to an immediately impending danger. If the danger is not avoided, it could result in death or severe (crippling) injury. Please consult the manual when this symbol is displayed.



Warning

Refers to a possibly dangerous situation. If not avoided it could result in death or severe injury. Please consult the manual when this symbol is displayed.



Caution

Refers to a possibly harmful situation. If not avoided, damage could be caused to the product or something in its environment.



Important (Refer to manual)

Refers to handling tip and other particularly useful information. This does not signify a dangerous or harmful situation. Refer to manual when this symbol is displayed.

## Electrical Safety

The unit has been designed to meet the Essential Health and Safety Requirements of the Machinery Directive 2006/42/EC.

## Warning

When working with the pump/motor housing open, Live 230/115 volt mains components are accessible. Ensure that the rules and regulations for work on live components are always observed.

## 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 access panel.
2. Use only as described in this manual.
3. Connect the system to a properly grounded outlet.

## Dangers to eyes, breathing and skin

Once used, the filters within the system may 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, depending on the materials being used, the particulate may be an irritant to the skin.

**This unit should not be used on processes with sparks of flammable materials or with explosive dusts and gases, without implementation of additional precautions.**

**Caution: When changing used filters always wear a mask, safety shoes, goggles and gloves.**

## Carbon selection

Please note that the media within the filter fitted in the system is capable of adsorbing a wide range of organic compounds. However, it is the responsibility of the user to ensure it is suitable for the particular application it is being used on.

## Intended use

This equipment has been designed to extract and filter fume from a variety of applications. However it is the users responsibility to ensure the equipment is installed correctly and is suitable for the application.

This machine must not be used on wet applications or acidic fumes.

## BOFA Technical Service

If problems arises with your unit or if it displays a fault code, please contact us:

- Visit our website at [www.bofainternational.com](http://www.bofainternational.com) for on-line help.
- Or contact the helpline on **+44 (0) 1202 699 444**, Mon-Fri, 9am-5pm.  
Email: [Technical@bofa.co.uk](mailto:Technical@bofa.co.uk)

# Safety Instructions



## Warning and Information labels

The following listing details labels used on your unit.

### Goggles, Gloves & Mask Label



Location: Front

face of filter.

Meaning: Goggles, Gloves and Masks should be worn while handling used filters.



### Do Not Cover Label

Location: Rear lower access panel.

Meaning: Do not cover any louvers or holes adjacent to the label.

### Electrical Danger



Location: Base of unit.

Meaning: Removal of panels with this label attached will allow access to potentially live components.

### Warning Label



Location: Next to release clips.

Meaning: Power should be isolated before the panel with this label attached is opened/ removed.

### Serial Number

For future reference, fill in your system details in the space provided. The serial number is on the rating label located on the side/rear of the unit.

Serial Number:

F	U	M	E	K	A	R	T	-											

### Serial Number Label



Location: Next to mains inlet.

Meaning: This label contains a variety of information about the extraction unit, including.

- Company name, Address & Contact number
- Extractor model
- Unit serial number
- Operating voltage range
- Maximum current load
- Operating frequency
- Year of Manufacture
- Relevant approval markings/ logos

**PLEASE NOTE:** If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment maybe compromised.

### Fire Risk Warning

In the very rare event that a burning ember or spark is drawn into the fume extraction unit, it may be possible that the filters will ignite.

Whilst any resultant fire would typically be retained within the fume extraction unit, the damage to the extractor could be significant. It is therefore essential to minimise the possibility of this occurring by undertaking an appropriate Risk assessment to determine:-

- Whether additional fire protection equipment should be installed.
- Appropriate maintenance procedures to prevent the risk of build-up of debris which could potentially combust.

This unit should not be used on processes where sparks could occur, with explosive dusts and gases, or with particulates which can be pyrophoric (can spontaneously ignite), without implementation of additional precautions

It is essential that nozzles or other extraction/ fume capture devices and hoses/pipework are cleaned regularly to prevent the build-up of potentially ignitable debris



## Before installation

### 3<sub>01</sub>

#### Packaging Removal & Unit Placement

Before installation, check the extraction unit for damage. All packaging must be removed before the unit is connected to the power supply.

**Please read all instructions in this manual before using this extractor.**

1. Move the unit to the location where it is going to be installed and remove the outer packaging. **This unit should be installed in a well-ventilated area.**

Ensure that 500 mm space is available around any vented panels on the extractor to ensure adequate airflow.

**Note: Do not use the two handles on the top of the lid to carry the complete unit. These handles are intended for lifting and transporting the unit lid only.**

2. With the unit in position lock the 2 front castors.

3. Check the filter is located in its correct position before replacing the lid and securing the clips



#### Caution

Due to the weight of the extractor suitable lifting equipment should be used and with regard to appropriate safety precautions. (See Appendix for product weight details)



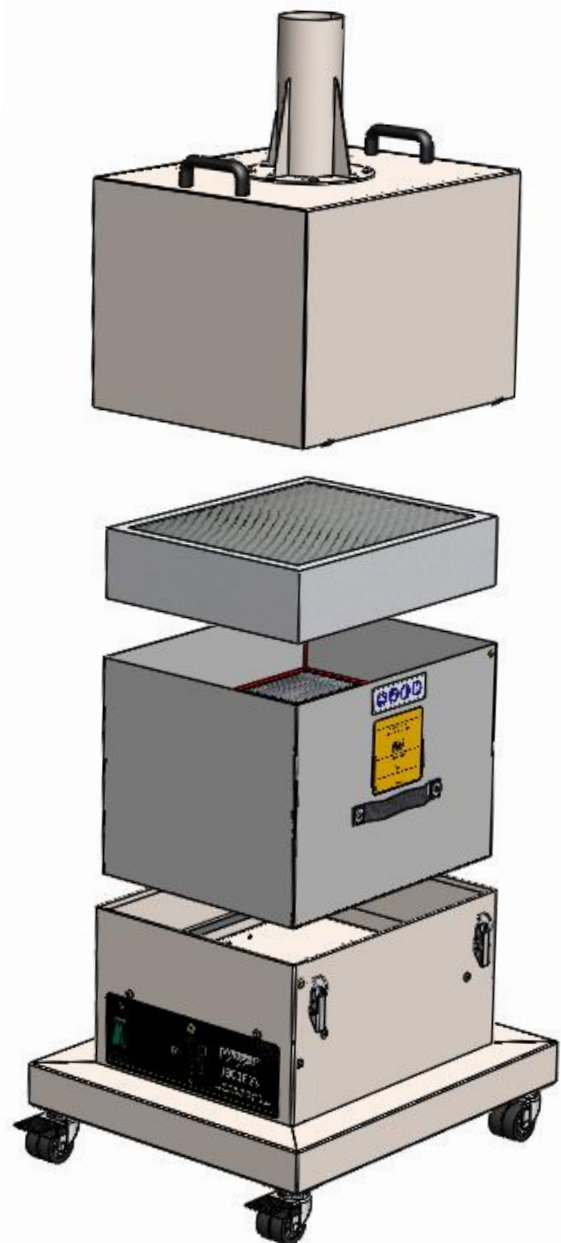
#### Caution

Do not block or cover the cooling vents on the unit, as this severely restricts airflow and may cause damage to the unit.



#### Caution

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



# Installation

## 4 01

### Specification

Refer to section 08 01.

### Connection to Power Supply

Please follow the above specification when selecting the power supply outlet for the system, ensure the power supply is suitable before connecting the system.

Check the Integrity of the electrical power cable, if the supply cord is damaged the extraction unit should not be connected to the mains. The supply cord should only be replaced by a BOFA engineer as an electrical safety test may be required after replacement.

The unit **MUST** be connected to a properly earthed outlet.

**If your system was ordered with any optional extras please read section 4.03 before the power connection is made as additional connections may be required before power is connected to the extractor.**



Connect the power cable to an isolated electrical supply.



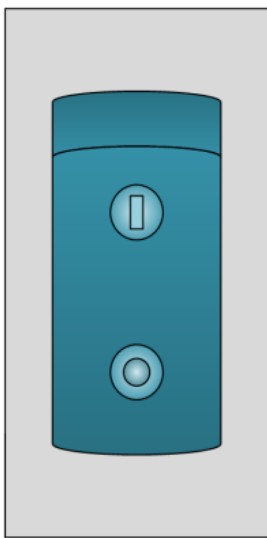
The mains socket should be installed near the extractor it should be easily accessible and able to be switched On/ Off. The cable run should be arranged so as not to create a trip hazard.

# Operation

## 5<sub>01</sub>

### Turning extraction unit On

Press the main isolation switch to the "On" position (Refer to section 1 for switch location) by depressing the 'I' side of the switch.



### Setting the desired airflow

The unit features manual flow control. This enables the user to set the required airflow rate. Over time as the filters begin to block the user should manually increase the motor speed to ensure the correct flow is maintained to compensate for any loss in performance caused by the added restriction of the partially blocked filters.

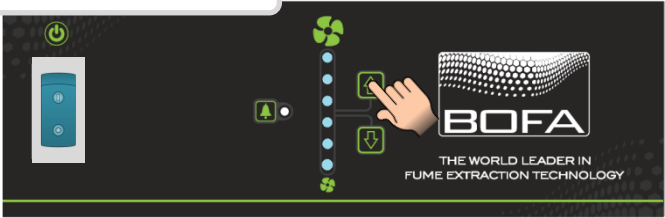


The extractor and all pipe work must be fully installed and connected before the airflow is set.

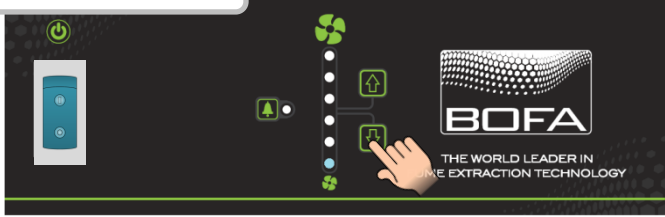
### To set the airflow

Press the Up arrow button to increase airflow and press the down arrow button to decrease airflow. The level of airflow is indicated by the vertical row of six blue LEDs to the right of the mains isolation switch. As the airflow increases, more blue LEDs light up and the opposite for decreasing the airflow.

Increase Airflow

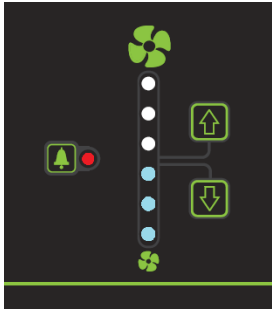


Decrease Airflow



### Warm up

If your extractor was ordered with VOC monitoring then it is normal for the red alarm LED to flash for a few minutes when the extractor is first turned on. This is the VOC sensor warming up.



# Maintenance



## Maintenance UK

It is a legal requirement, under regulation 9 of the COSHH regulations that all local exhaust ventilation systems are thoroughly examined and tested at least once every 14 months (typically carried out annually). The approved code of practice recommends that a visual check should be carried out at least once a week.

COSHH requires the annual inspection and testing to be carried out by a competent person and specifies that documentation results are recorded in a log.

Contact the seller for more information about inspection and certification.

## Maintenance General

User maintenance is limited to cleaning the unit and filter replacement, only the manufacturers trained maintenance technicians are authorised to carry out component testing and replacement. 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 the unit

The powder coat 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 the unit.

## Filter Information

A log of filter changes should be maintained by the user. The filters require attention when the display shows the configuration shown on the next page or when the extractor no longer removes fume efficiently.

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.

To prevent overheating, units should not be run with a blocked filter condition, or with dust obstruction of Inlets / Outlets.

## Fire Risk Warning

In the very rare event that a burning ember or spark is drawn into the fume extraction unit, it may be possible that the filters will ignite.

Whilst any resultant fire would typically be retained within the fume extraction unit, the damage to the extractor would be significant.

It is therefore essential to minimise this risk by undertaking an appropriate assessment to determine:-

- a) Whether additional fire protection equipment should be installed.
- b) Appropriate maintenance procedures to prevent the risk of build-up of debris which could potentially combust

# Maintenance

## 6<sub>02</sub>

### Filter Replacement

Refer to section 2 02 for PPE requirements.

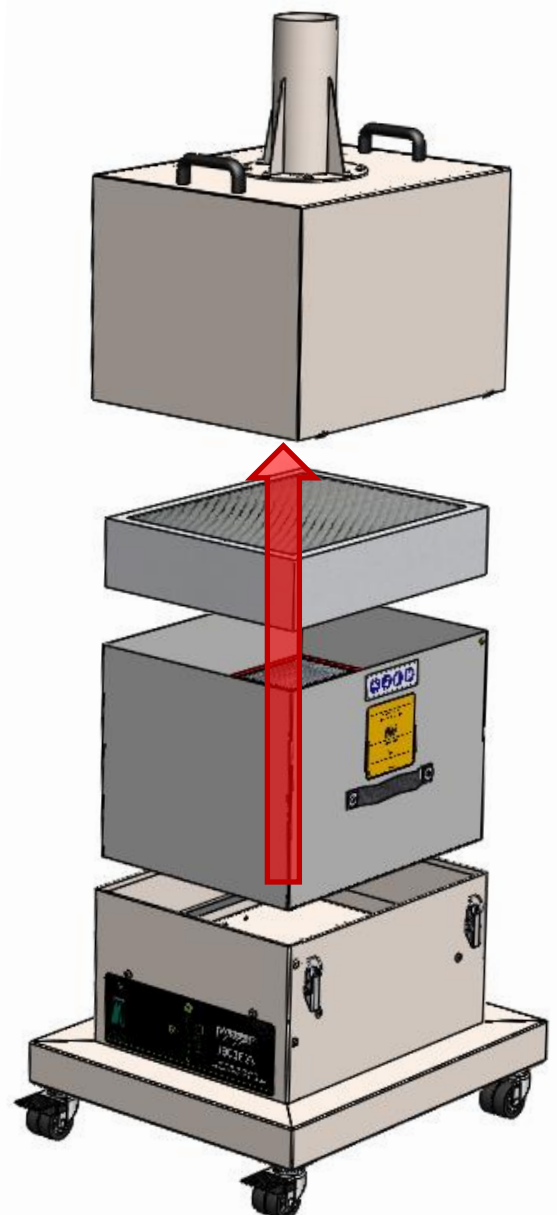
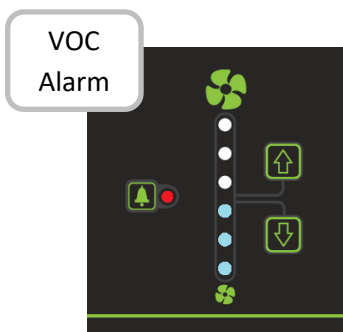
During use, the unit will alert the user when its filter needs replacing. When the filter needs to be changed, the LED to the right of the bell symbol will flash red.



To remove and replace the Universal filter follow the procedure detailed below.

1. Isolate the electrical supply to the extractor
2. Undo the four clips on the sides of the unit and remove the lid using the two handles on the top of the lid.
3. Using the two strap handles on the sides of the filter, lift the filter out of the unit. Once removed it is recommend that the used filters are bagged and sealed.
4. Lower the new filter into position. Replace the lid, and fasten the four clips.

If the VOC (Volatile Organic Compound) alarm option is installed in your unit, the extractor will monitor and detect the level of VOC particles in the air. If the VOC level rises above a pre-set level then the LED to the right of the bell symbol will flash red. This requires the replacement of the filter.



**Note: The filter MUST be fitted when the extractor is in use.**

# Replacement Parts



## Consumable Spares

The extraction system contains a Pre filter and universal combined filter. These should be replaced when instructed to do so by the system (see section 6 for replacing the filters)

To maintain performance it is important that the filters are replaced with identical BOFA filters. To re-order please refer to the Filter number printed on the filter installed in your extraction unit.

## Maintenance Protocol

Users can record changes in filter change intervals on the table below.

Unit Serial Number:			
Pre filter		Combined filter	
Date	Engineer	Date	Engineer

## Filter disposal

The Universal Combined filter is manufactured from non-toxic materials. Filters are not re-usable, cleaning used filters is not recommended. The method of disposal of the used filters depends on the material deposited on them.

For your guidance

Deposit	EWC Listing*	Comment
Non Hazardous	15 02 03	Can be disposed of as non-hazardous waste.
Hazardous	15 02 02M	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 in line with the local/national regulations.

\*European Waste Catalogue

# System Specifications

Wiring schematic available upon request  
Spares parts list available upon request



## Unit: FumeKart

Capacity: 380m<sup>3</sup>/h 223cfm

Weight: 54Kg (120lbs)

Motor: Centrifugal Fan

Output: 1100w

Electrical supply: 115-230V

Hertz: 50/60Hz

Full Load Current: 12.5A

No of phases: 1

Noise Level: Below 64dB (A)

(at typical operating speed)

61010 Stability test results:

Maximum Altitude – 2000m

### Size:

	Metric (mm)	Imperial (inches)
Height	840	33
Depth	550	21.7
Width	475	18.7

### Filters:

Filter Type	Surface area	Efficiency
Combined Filter	0.13m <sup>2</sup>	99.997@ 0.3micron

### Environmental operating range:

Temperature: +5°C to + 40°C

Humidity: Max 80% RH up to 31°C

Max 50% RH at 40°C

## Contact Information

### **BOFA Headquarters**

19-20 Balena Close  
Creekmoor industrial Estate  
Poole  
Dorset  
BH17 7DU  
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**Tel. +44 (0) 1202 699 444**  
**Email. [sales@bofa.co.uk](mailto:sales@bofa.co.uk)**

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**Email. [sales@bofaamericas.com](mailto:sales@bofaamericas.com)**





A WORLD LEADER IN FUME  
EXTRACTION TECHNOLOGY

## E C DECLARATION OF CONFORMITY

Manufacturer: BOFA International Ltd,  
Address: 21-22 Balena Close,  
Creekmoor Ind Estate,  
Poole, Dorset,  
BH17 7DX.

Country of origin: England, United Kingdom

Product: Fume Extraction Unit  
FumeKart

Serial Number:

The named product is in conformity with the requirements of the following European Directives:

2006/42/EC	Machinery Directive
2014/30/EU	EMC Directive
2011/65/EU	RoHS Directive

Conformity with the requirements of the directives is testified by adherence to the relevant parts of the following harmonised standards:

BS EN 61010-1-2010+A1:2019	Safety requirements for electrical equipment
BS EN ISO 12100:2010	Risk assessment and risk reduction
BS EN 61000-3-2:2014	EMC limits for Harmonics
BS EN 61000-3-3:2013	EMC limits for Voltage fluctuations & flicker
BS EN 61000-6-2:2005	EMC immunity requirements
BS EN 61000-6-4:2011	EMC emission requirements

Paul Beeson – Product Certifications  
BOFA International Ltd – Balena Close Poole BH17 7DX

**Tony Lockwood, Managing Director**

For and on behalf of BOFA International Ltd  
1<sup>st</sup> Jan 2020





## Local Exhaust Ventilation System - **Inspection Record**

Health & Safety at Work Act 1974 - Control of Substances Hazardous to Health - Regulation 9 (2002)  
Thorough Examination and Testing of Local Exhaust Ventilation Systems

Company:	System Designation:	System Installation Date:
Designated Person:		

### **Inspection and Maintenance Schedules**

1. Daily checks
2. Weekly inspection of process enclosure, extract offtake, hose/ducting and extract/filtration unit.
3. Monthly inspection of process enclosure, extract offtake, hose/ducting and extract/filtration unit.
4. Yearly inspection / testing

**Process enclosure, extract offtake(s), hose/ducting and extract/filtration unit.  
Inspection and Maintenance Record**

**1. Daily inspection**

Inspection of the process to ensure extract devices/nozzles/enclosures/hoses are in place and correctly positioned. Examination of the extractor to ensure it is running. This to be carried out by the operator. Daily inspection not recorded.

**2. Weekly Inspection**

Weekly inspection by supervisor of physical condition of extract devices/nozzles/enclosures/hoses and extraction unit for damage, change (parts added or removed) and correct operation etc. Check also that daily inspections have been completed. Tick boxes to confirm system ok / change. Add details of any changes. Report changes to Engineering Manager. Record any remedial actions taken.

<b>Week number</b>	<b>Date</b>	<b>System ok</b>	<b>System Change</b>	<b>Details of change / repairs etc</b>	<b>Initial</b>
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

**Process enclosure, extract offtake, hose/ducting and extract/filtration unit.  
Inspection and Maintenance Record**

**2. Weekly Inspection**

**. . . . Continued**

Weekly inspection by supervisor of physical condition of extract devices/nozzles/enclosures/hoses and extraction unit for damage, change (parts added or removed) and correct operation etc. Check also that daily inspections have been completed. Tick boxes to confirm system ok / change. Add details of any changes. Report changes to Engineering Manager. Record any remedial actions taken.

<b>Week number</b>	<b>Date</b>	<b>System ok</b>	<b>System Change</b>	<b>Details of change / repairs etc</b>	<b>Initial</b>
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					

**Process enclosure, extract offtake, hose/ducting and extract/filtration unit.  
Inspection and Maintenance Record**

**3. Monthly Inspection**

In addition to weekly checks. Disconnect hoses and check for blockage and smooth operation of fan, signs of dust or vapour / gas / odour carry over. Tick boxes to confirm system ok / change. Add details of any changes. Report changes to Engineering Manager. Record any remedial actions taken.

Month number	Date	System ok	System Change	Details of change / repairs etc	Initial
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

**4. Yearly Inspection**

Annual service To include all regular checks together with inspection of filter condition and replacement where necessary, motor and electrical checks,	Comments	Signature of Supervisor :  Date:
Annual Thorough Inspection and Testing of LEV System in accordance with C.O.S.H.H. Regulation 9 (max interval 14 months) including reporting.	Comments	Signature of Supervisor :  Date: