

iVAC eco+  
DUST EXTRACTION UNIT

# OPERATIONAL INSTRUCTIONS

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## SAFETY INSTRUCTIONS

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### Symbols used



**Danger** 'Risk of Electric Shock' 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 where this symbol is displayed.



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

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

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

### Electrical safety

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



**Warning** During works with the pump/motor housing open, live, 230/115 volt components are accessible. Make sure that 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 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 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.

**Caution: When changing used filters always wear mask, safety glasses and gloves.**

## Warning and Information Labels

Label/Symbol	Position
	<p>Inside Filter Door (at top)</p>
	<p>Top Left of rear panel</p>
	<p>Rear of unit, next to power connection</p>
	<p>Above motor cooling on rear of unit</p>
	<p>Top Left of Front Door</p>

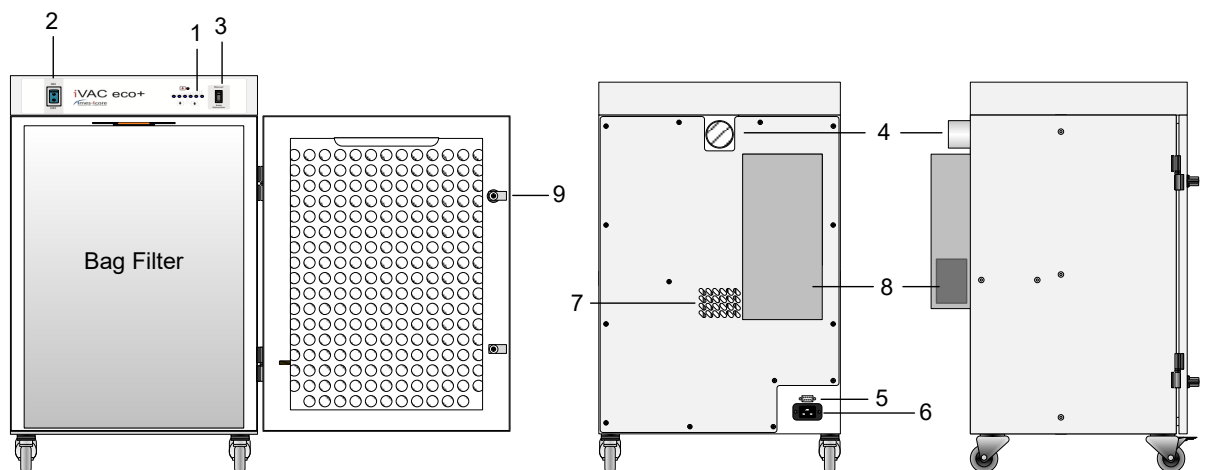
# INSTALLATION

## Extractor Overview

This unit provides extraction and filtration of the fume generated by marking, milling, cutting, etching or engraving. The units are of robust design and feature ease of use with minimal maintenance. The main components are shown in Fig. 1.

**Fig. 1**

1. Unit/Filter Condition Display
2. On/Off Switch
3. Motor function switch
4. Hose Inlet Connection 50mm
5. Signal/Interface Connection
6. Power inlet
7. Cooling air inlet
8. Exhaust/Cooling air outlet
9. Filter door catch



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## **Extractor Installation Procedure**

### **Caution**

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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 unit from its packaging. The unit should be installed in a well ventilated room.

### **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).

2. 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.

### **Caution**

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

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

4. Connect the extraction ducting between the extractor inlet and the fume capture device.

## **Feature Considerations**

5. The following features need to be considered when installing the unit:

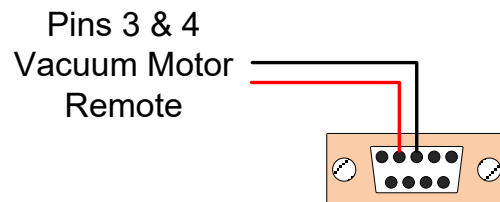
### Filter blocked signal

With this, the extraction unit has been fitted with a pressure switch to monitor the condition of the filters. This is displayed via the Red LED on the front of the unit. This circuit will not directly stop the extractor motor.

### Remote stop/start

This enables the extractor unit to be turned on and off by a signal from the customer. Pins 3 & 4 of the connector need to be connected to a 24v dc supply to start the unit. However the mains power switch must be in the "on" position for the signal to be effective.

**Fig 2**



Remote operation can be overridden by using the override switch, which is mounted on the front the unit (see fig. 3).

**Fig 3**



### Electrical supply connection

6. 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.

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**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.

**General Safety Requirements****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**

This unit is over 18Kgs in weight and should only be lifted with suitable lifting equipment.

**Caution**

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Read all instructions in this manual before using this extractor.

**Warning**

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

The unit is now ready for use.



## OPERATION

### Manual operation

The extraction unit is turned off and on by means of an illuminated rocker switch on the front of the unit.



### Filter condition signal – indicators & component controls.

The LED on the front panel (see above Fig) indicate when the filter is blocked.

The right switch will allow the vacuum motor to be either On/Off/Auto. Auto will require a voltage input to the interface connector on the rear of the unit. (see Fig 3)

### **Maintenance General**

User maintenance is limited to cleaning the unit and replacing the filters with new. Only imes-icore 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 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 LED 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.

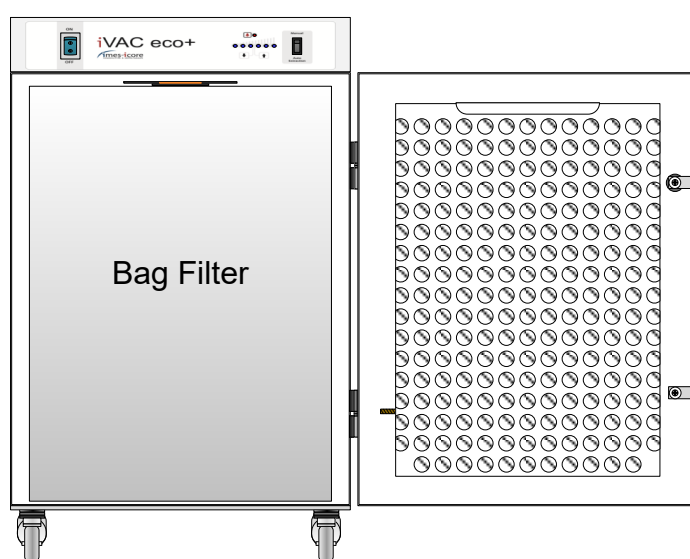
**Caution: When changing used filters always wear mask, safety glasses and gloves.**

## Pre filter replacement

The pre filter needs changing when the filter change is illuminated.

Isolate the electrical supply to the extractor.

1. Undo the filter compartment latches on the front of the unit.
2. Remove the pre filter by lowering the supporting plate and replace with a new pre filter.
3. Push the supporting plate back up so it clips in place, close and fasten filter compartment latches.
4. Reconnect the electrical supply.



## Consumable Spares

<u>Unit</u>	<u>Part Number</u>	<u>Description</u>
iVAC eco+	513002 0050	5 layer bag filter

## Maintenance Protocol

Filters to be changed in accordance with instructions. Log the date of filters changed in the table below:

<u>Unit Serial Number</u>	
Pre Filter	
Date	Name

## Filter Disposal

Pre 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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## SYSTEM SPECIFICATIONS

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### Unit: iVAC eco+

Capacity:	260 m <sup>3</sup> /hr
Size:	Height 750mm x Depth 460mm x Width 440mm
Weight:	30Kg
Exhauster:	Centrifugal Blower
Electrical supply:	115-230v 1ph 50/60Hz
FLC:	12.5A
Noise level:	Below 75dB (A)
Filters:	Pre filter                      Efficiency F8 95% @ 0.9μ

### Environmental Operating Range

Temperature	+5°C to +40°C
Humidity	Max 80 % RH up to 31°C to Max 50% RH at 40°C
Altitude:	Below 2000m
Pollution Degree	2