

DustPRO
INDUSTRIAL PARTICULATE AND DUST
EXTRACTION UNITS

OPERATIONAL INSTRUCTIONS



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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 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

The Dust Pro range of extraction units are 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 Dust Pro range of extraction units 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 substances involved, the particulate may be an irritant to the skin.

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

INSTALLATION

Introduction

The need for dust extraction

During machining processes which remove material, dust is usually generated as a by product. This dust needs to be removed in order to prevent interference with the performance of the machine and also to protect the health of the operator. The Dust Pro range of units has been developed to provide effective removal of swarf and smaller particulates created during processes such as routing, mechanical engraving, grinding and lathing. Dust Pro units are compact, portable and produce a low level of noise. They are of robust design, and feature ease of use with minimal maintenance and long life.

Exposure to airborne contaminants at work, such as inhalable and respirable dust particles, can put people's health at risk. Health and safety regulations require employers to control exposure to hazardous substances in order to prevent ill health. The use of a suitable extraction system will enable you to conform to the Health and Safety regulations and protect the health employees and others.

This manual covers the Dust Pro 50, DP75, DP100, and DP250 units.

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.

The filtered air exhaust is at the base of the Dust Pro 50, DP75, and DP250 units, and through a 50mm port at the rear of the DP100.

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 hose from the extraction connection on the router/machine to the inlet connection on the extractor, using hose clips and adaptors as required.

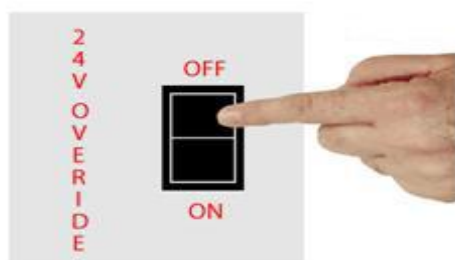
Optional Feature Considerations

5. If fitted, the following feature needs to be considered when installing the unit:

Remote stop/start. If this facility is installed it enables the extractor unit to be turned on and off by a signal from the laser. The red and black cores of the control cable need to be connected to a 22-48v ac or dc supply, which when applied will start the unit and when switched off will stop the unit. However the mains power switch must be in the “on” position for the signal to be effective.

If fitted, remote operation can be overridden by using an (optional) override switch, which is mounted inside the unit (see fig. 1).

Fig 1



Electrical supply connection

6. Check the integrity of the electrical power cable. All single phase units are supplied with an IEC detachable lead.

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 (**115 or 230v 50/60Hz**) before plugging the extractor unit in.

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

On/Off switch

These extractor units are turned on and off by using the switch on the front or rear of the unit.

Filter full buzzer (DP100)

The DP100 unit is fitted with a filter full alarm buzzer. This will sound when the pressure drop across the filters reaches a preset level, indicating that they should be emptied or replaced as appropriate.

See the maintenance section for filter change procedures.

MAINTENANCE

Maintenance 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. Bofa can provide this service, our inspectors are BOHS P601 qualified, copies of the required initial information and forms are included in the Log book supplied with the extractor.

Additionally the log book contains a form detailing the weekly inspection requirements and log for recording the results.

Maintenance General

User maintenance is limited to cleaning the unit and replacing the filters with new. Only BOFA International 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. Stainless steel units should be cleaned with a proprietary stainless steel cleaner, following the manufacturer's instructions.

The cooling inlets and outlets should be cleaned once a year to prevent build up of dust and overheating of unit

Replacing Filters

Replace the Bag filter and Pad filter and/or HEPA filter (DP100 only) annually or when dust starts to build up in the router/machine. When the filters become blocked, the unit will no longer remove dust and small particulates efficiently.

On the DP100, the filter change audio buzzer will sound when the filters need attention.

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 respirator mask, safety glasses and gloves.

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

Filter replacement procedure DP50, DP75, DP250:

1. Isolate the electrical supply to the extractor
2. Undo the Protex clips on either side of the unit.
3. Lift off the lid
4. Lift the hinged top plate until the Bag filter can be slid off the plate and removed.
(See fig 1 for filter layout).
5. The Pad filter rests on top of the grill in the base of the unit and can now easily be lifted away.
6. Use a vacuum cleaner to remove any dust or debris from the base of the unit.
7. Place the pad filter (renew if necessary) back into position on the grill
8. Empty the bag filter or renew as required.
9. Refit the bag filter by sliding it onto the hinged top plate.
10. Replace the lid and secure the Protex clips.
11. Reconnect the electrical supply and restart the unit.

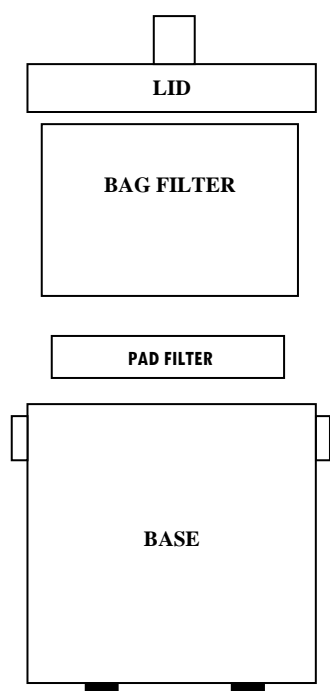


Fig 1 DP 50, DP75, DP250 Filter Placement

Filter replacement procedure DP100:

Isolate the electrical supply to the extractor.

Undo the catches and open the door.

Unclip and lower the top plate until the Bag filter clears the inlet spigot and can be slid off the plate and removed. (See fig 2 for filter layout).

The HEPA filter fits into the recess between the bag filter and the base of the unit and can now easily be lifted away.

Use a vacuum cleaner to remove any dust or debris from the inside of the unit.

Place the HEPA filter (renew if necessary) back into position.

Empty the bag filter or renew as required.

Refit the bag filter by sliding it into the hinged top plate, and then push upwards so that the inlet spigot engages with the bag filter and the top plate clips into place.

Close the door.

Reconnect the power supply and restart the unit.

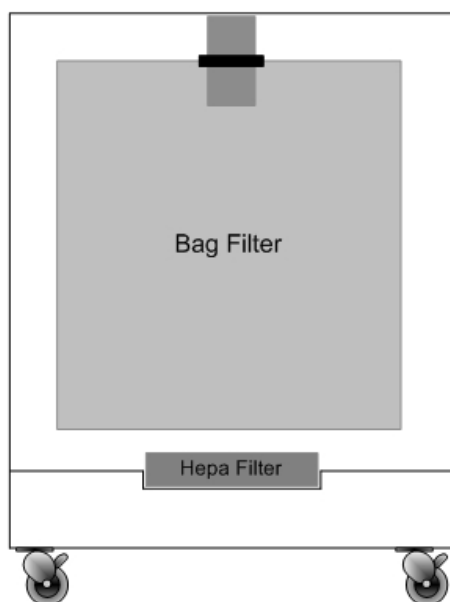


Fig 2 DP 100 Filter Placement

Consumable Spares

Consumable spares comprise the bag filter with zip, and pad filter.

Part No	Description
A1030135	DP 50 bag filter (with zip)
	DP50 Pad Filter
A1030134	DP 75 bag filter (with zip)
	DP 75 pad filter
A1030134	DP 100 Bag Filter
A1030161	DP 100 HEPA filter
A1030135	DP 250 bag filter
	DP250 Pad Filter

Maintenance Protocol

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

[illegible]

Fuses

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

Item Protected	Fuse Rating A	FLC A	Fuse Type	Voltage
DP50 Exhaust Fan	5	3.1		230 or 115v
DP75 Exhaust Fan	10	6.2		230 or 115v
DP100 Exhaust Fan	10	6.2	10A EIA switch	230 or 115v
DP250 Exhaust Fan	2	0.9		230 or 115v

Filter Disposal

Filters are manufactured from non-toxic materials.

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

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

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Appendix 1

System Specifications

Unit: DP 50

Capacity:	80 m3/hr		
Size:	height 505mm x depth 285mm x width 285mm		
Weight:	40Kg		
Exhauster	Side Channel Blower		
Output:	0.37Kw		
Electrical supply:	230v 1ph 50hz (115v 1ph 60Hz)		
Full load current	3.1A (6.0A)		
Noise level:	below 69dB(A)		
Filters:			
	Bag Filter	Volume	6.4 dm ³
		Efficiency	F9
	Pad Filter	Size	280mm x 280mm
		Efficiency	F7

Appendix 2

System Specifications

Unit: DP 75

Capacity:	180 m3/hr		
Size:	height 590mm x depth 305mm x width 305mm		
Weight:	50Kg		
Exhauster	Side Channel Blower		
Output:	0.8Kw		
Electrical supply:	230v 1ph 50hz (115v 1ph 60Hz)		
Full load current	6.2A (12A)		
Noise level:	below 69dB(A)		
Filters:			
Bag Filter	Volume	30.6 dm ³	
		Efficiency	F9
	Pad Filter	Size	280mm x 280mm
		Efficiency	F7

Appendix 3

System Specifications

Unit: DP100

Capacity:	180 m3/hr		
Size:	height 530mm x depth 655mm x width 460mm		
Weight:	50Kg		
Exhauster	Side Channel Blower		
Output:	0.8Kw		
Electrical supply:	230v 1ph 50hz (115v 1ph 60Hz)		
Full load current	6.2A (12A)		
Noise level:	below 69dB(A)		
Filters:			
Bag Filter	Volume	30.6 dm ³	
	Efficiency		F9
	HEPA filter		

Appendix 4

System Specifications

Unit: DP 250

Capacity:	180 m3/hr		
Size:	height 390mm x depth 305mm x width 305mm		
Weight:	18Kg		
Exhauster	Centrifugal Fan		
Output:	0.135Kw		
Electrical supply:	230v 1ph 50hz (115v 1ph 60Hz)		
Full load current	0.9A (1.2A)		
Noise level:	below 69dB(A)		
Filters:			
Bag Filter	Volume	6.4 dm ³	
		Efficiency	F9
	Pad Filter	Size	280mm x 280mm
		Efficiency	F7