Donaldson
BOFA™

ILF 300 and ILF 600

Inline Pre-Filters

User Manual

Installation, Operation, and Service Information

This manual contains specific precautions related to worker safety. The hazard alert image denotes safety related instructions and warnings in this manual. DO NOT install, operate, or perform maintenance on this system until you have read and understood the instructions, precautions and warnings contained within this manual.

English
Original Instructions

UM-ILF 300 AND ILF 600-BOFA-US
Revision 1.2

Donaldson BOFA Technical Service

If a problem arises with your system, please refer to the troubleshooting section of this manual. If the problem is still not resolved, please:

- Visit our website at donaldsonbofa.com for online help.
- Or contact the helpline:
    - ROW: +44 (0) 1202 699 444 (Mon-Fri 9am-5pm GMT)
    - US: +1 (618) 205 5007 (Mon-Fri 9am-5pm CST).
- Email:
    - ROW: bofatechnical@donaldson.com
    - US: bofatechnicalus@donaldson.com

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 system.

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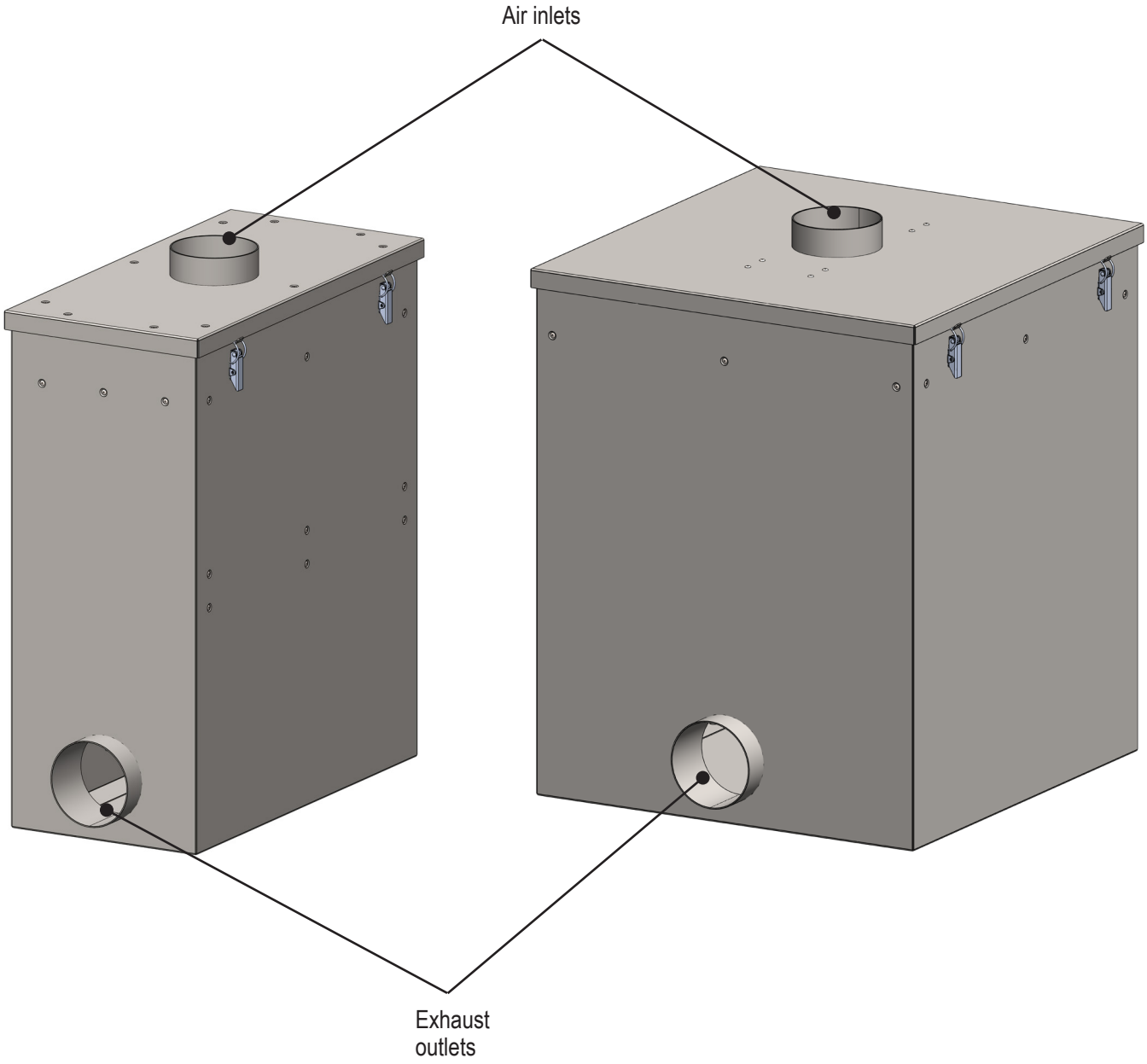
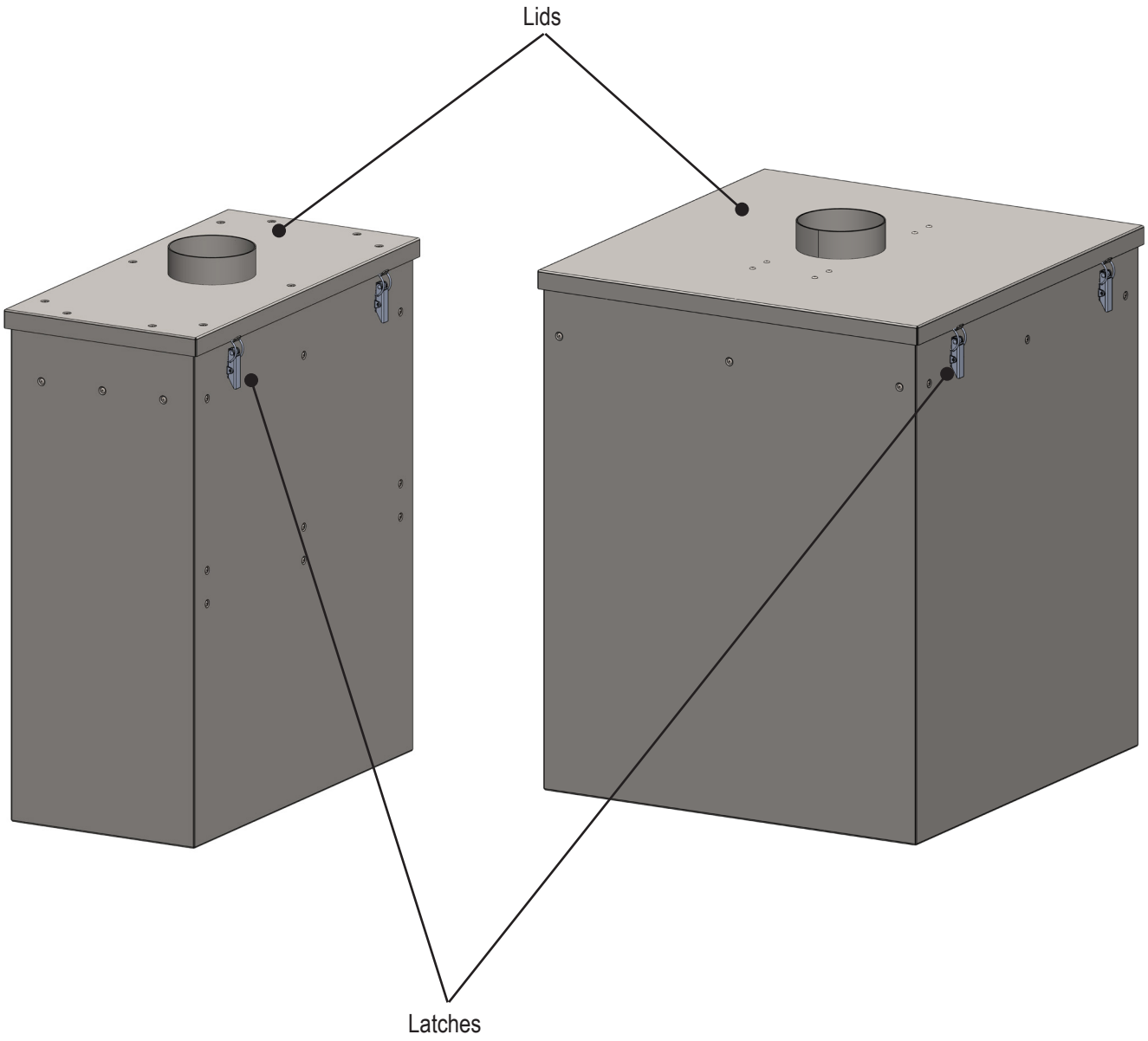
1 Overview

1.1. Front view of ILF 300 and ILF 600



1.2. Rear view of ILF 300 and ILF 600



2 Safety information

2.1. Important safety notes

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

Symbol	Meaning	
	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.

EU Declaration

The system has been designed to meet the essential health and safety requirements of the Machinery Directive 2006/42/EC, Low Voltage Directive 2014/35/EC, and the EMC Directive 2014/30/EU. For the full DOC and further information please contact the technical team:

- US: bofatechnicalus@donaldson.com
- ROW: bofatechnical@donaldson.com

Electrical safety

The system has been designed to meet the essential health and safety requirements of the Low Voltage Directive 2014/35/EC. The requirements of the EMC Directive 2014/30/EU are also met.

Warning

When working with the blower 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 blower 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 processed, the particulate may be an irritant to the skin.

This system 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 gas 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 user's responsibility to ensure the equipment is installed correctly and is suitable for the application. This system must not be used on wet applications or acidic fumes.

2.2. Warning and information labels

The following listing details labels used on your system.

Symbol	Meaning	
	GOGGLES, GLOVES AND MASK	This appears on filters, indicating that goggles, gloves, and masks should be worn while handling used filters.
	DO NOT COVER	Do not cover any louvers or holes on panels adjacent to the label.
	ELECTRICAL DANGER	Removal of panels with this label attached will allow access to potentially live components.
	WARNING	Power should be isolated before the panel with this label attached is opened/removed.

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

2.3. Fire risk warning

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

It is therefore essential to minimize the possibility of this occurring by undertaking an appropriate risk 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.

This system should not be used on processes where sparks could occur, with explosive dusts and gases, or with particulates that 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.

3 Before installation

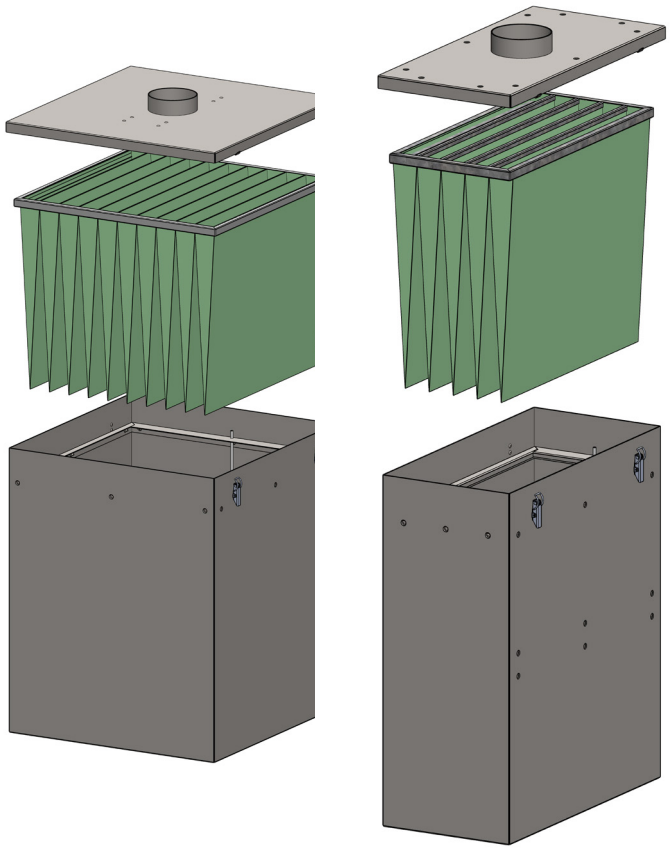
3.1. Packaging removal and system placement

Before installation, check the system for damage.

All packaging must be removed before the system is connected to the power supply.

Please read all instructions in this manual before using this extraction system.

1. Move the system to the location where it is going to be installed and remove the outer packaging.
   This system should be installed in a well-ventilated area.
2. Ensure that 20” (500 mm) space is available around any vented panels on the system to ensure adequate airflow.
3. Check the filter is located in its correct position before replacing the lid and securing the clips.



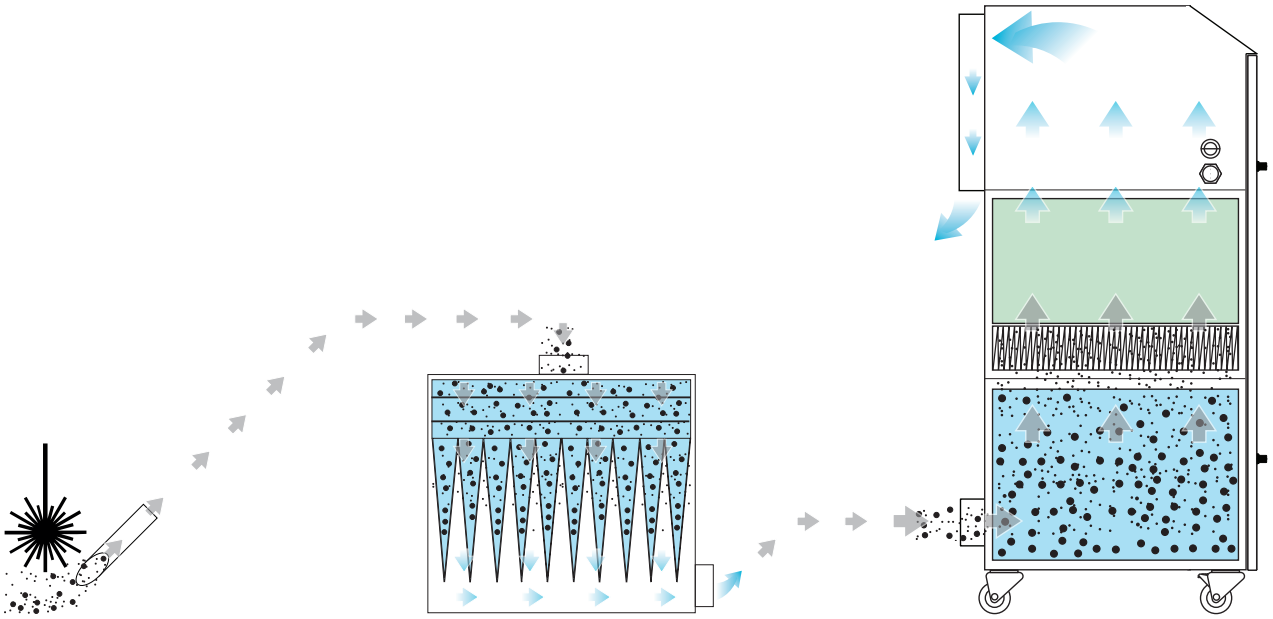
	CAUTION	Due to the weight of the system, suitable lifting equipment should be used and appropriate safety precautions taken (see system specification section for product weight detail).

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

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

4 Installation

This system has been designed specifically for applications that generate high amounts of fine dust or particulate. The system is positioned alongside the extraction system to increase the overall filter capacity and extend the life of the main filters.



Laser process ILF 300/600 Extraction system

5 Maintenance

5.1. 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.

5.1.1. Maintenance general

User maintenance is limited to cleaning the system and filter replacement, only a suitably qualified or experienced personnel are authorized to carry out component testing and replacement. Unauthorized work or the use of unauthorized replacement filters may result in a potentially dangerous situation and/or damage to the extraction system and will invalidate the manufacturer's warranty.

5.1.2. Cleaning the system

The stainless steel systems should be cleaned with a proprietary stainless steel cleaner, in accordance with the manufacturer's user instructions.

The cooling inlets and outlets should be cleaned once a year to prevent build-up of dust and overheating of the system.

5.2. Replacing filters

It is recommended to replace filters every 12 months, unless the system prompts for more frequent changes. Users should maintain a record of these replacements.

It is recommended that a spare set of filters are kept on-site to avoid prolonged system unavailability. Part numbers for replacement filters can be found on the filters fitted in your system.

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

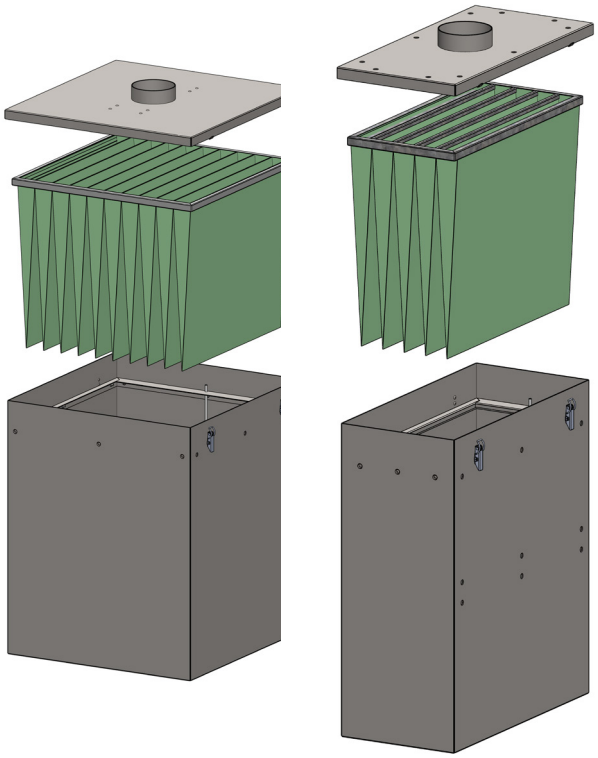
5.3. Filter replacement

Refer to section 2.2 for PPE requirements.

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

1. Isolate the electrical supply to the system.
2. Undo the clips on either side of the system and lift the lid off.
3. Carefully lift the used filter out of the system. It is recommended that used filters are bagged and sealed.
4. Lower the new filter into position making sure it is properly seated.
5. Replace the lid and fasten the clips.
6. Reconnect the power supply.

The filter MUST be fitted when the system is in use.



6 Replacement parts

6.1. Consumable spares

This sytem contains a pre-filter. This should be replaced when instructed to do so by the system (see maintenance section for replacing filters), when the system is not performing efficiently, or at least once every 12 months.

To maintain performance, it is important that the filters are replaced with identical Donaldson BOFA filters. To reorder, please refer to the filter number printed on the filter installed in your extraction system. See part numbers below:

1. **1UA1030132 (ILF 300 lower grade pre-filter)**
2. **1UA1030290 (ILF 300 higher grade pre-filter)**
3. **1UA1030151 (ILF 600 lower grade pre-filter)**
4. **1UA1030255 (ILF 600 higher grade pre-filter)**

6.2. Maintenance protocol

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

Extraction System Serial Number:			
ILF 300 pre-filter		**ILF 600 pre-filter**	
Date	Engineer	Date	Engineer

6.3. Filter disposal

The pre-filter and combined filter are manufactured from non-toxic materials. Filters are not reusable, 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

7 System specifications

System: **ILF 300**

Weight: 59.5 lbs (27 kg)

Standard exhaust outlet 5.0” (125 mm)

Environmental operating range:

Temperature: +41 °F (5°C) to + 104 °F (40°C)

Humidity: Max 80% RH up to 87.8 °F (31°C)

Max 50% RH at 104 °F (40°C)

Size:

	Imperial (inches)	Metric (mm)
Height	31.3	796
Width	25.1	638
Depth	12.9	328

Filters:

Filter type	Surface area	Efficiency
Pre-filter	30.4 sq ft (2.8 m^2)	82% @ 1 microns - lower grade 95% @ 0.9 microns - higher grade

System: **ILF 600**

Weight: 77 lbs (35 kg)

Standard exhaust outlet 5.0” (125 mm)

Environmental operating range:

Temperature: +41 °F (5°C) to + 104 °F (40°C)

Humidity: Max 80% RH up to 87.8 °F (31°C)

Max 50% RH at 104 °F (40°C)

Size:

	Imperial (inches)	Metric (mm)
Height	29.5	753
Width	26.7	630
Depth	24.0	610

Filters:

Filter type	Surface area	Efficiency
Pre-filter	60.8 sq ft (5.7 m^2)	82% @ 1 microns - lower grade 95% @ 0.9 microns - higher grade

Process fume/gas entering this system should be within the above temperature range.

8 Contact information

Donaldson BOFA head office – UK & ROW:

19-20 Balena Close
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Poole
Dorset
BH17 7DU
United Kingdom

Tel. +44 (0) 1202 699 444
Email: bofasales@donaldson.com

Donaldson BOFA German office:

Email: bofavertrieb@donaldson.com

Donaldson BOFA US office:

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Staunton, Illinois
62088 USA

Tel. +1 (618) 205 5007
Email: bofasalesus@donaldson.com

9 Inspection record

Donaldson BOFA™

Inspection Record

Local Exhaust Ventilation System

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 system.
3. Monthly inspection of process enclosure, extract offtake, hose/ducting, and system.
4. Yearly inspection/testing.

Process enclosure, extract offtake(s), hose/ducting, and system.

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 system 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 system 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.

Week number	Date	System ok	System change	Details of change/repairs, etc.	Initial
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					

Weekly inspection by supervisor of physical condition of extract devices/nozzles/enclosures/hoses and system 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.

Week number	Date	System ok	System change	Details of change/repairs, etc.	Initial
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
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52					

Process enclosure, extract offtake(s), hose/ducting, and system.

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 vapor/gas/odor carry over. Tick boxes to confirm system ok/change. Add details of any changes. Report changes to Engineering Manager. Record any remedial actions taken.

Week 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**

	Comments	Supervisor signature:	Date:
Annual service to include all regular checks, inspection of filter condition, blower, and electrical system, and a filter replacement (if not changed within the previous 12 months).			
Annual thorough inspection and testing of LEV system in accordance with C.O.S.H.H. regulation 9 (max interval 14 months) including reporting.			