



GEOVENT

INSTRUCTIONS MANUAL



DUSTBOX
CFU-1000

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1.0 General safety precautions

IMPORTANT- Read the entire manual before installing and use.

Retain this manual for future reference and instruct all users in the function and usage of the product.

Do not detach factory fitted parts as it will hinder the operation of the filter.

Power cords and pressure hoses must be replaced immediately if they are damaged. This work must be carried out by a trained professional.
All electrical connections must be carried out by a trained electrician.

1.1 Hazard

Dismounting parts of the Dustbox is associated with danger.

When fitting or servicing the Dustbox, it must be disconnected completely.

1.2 Area of application

The Geovent Dustbox is used for filtering of contaminated air from industrial processes such as: welding smoke, grinding and sanding. The Dustbox CFU-1000 filter is not to be used in areas which require the use of ATEX certified products.

The Geovent Dustbox CFU-1000 is supplied with a filter cartridge. (filtration efficiency: min. 99,90% according to BIA-test.)

Cleaning of the filter is manual. A shot of pressurized air is sent through the filter cartridge loosening the particles attached to the fabric of the cartridge.

It is recommended that the filter shot valve is released after each use. Press the button on the side of the filter to release the valve.

1.3 Technical specifications

Compressed air: Max. 3,5 bar - clean and dry air
Air consumption: 3,0 liter/min.
Power supply: 24VDC el. 230VAC (standard)
Temperature: -12°C - +65°C (extracted air)
Corrosion Class: III
Duct sealing: Class C

Temperature extracted air Max 65°C
Temperature surroundings: -40°C - +40°C

Operating relative humidity: <90%

Differential pressure Geovent Dustbox CFU-1000

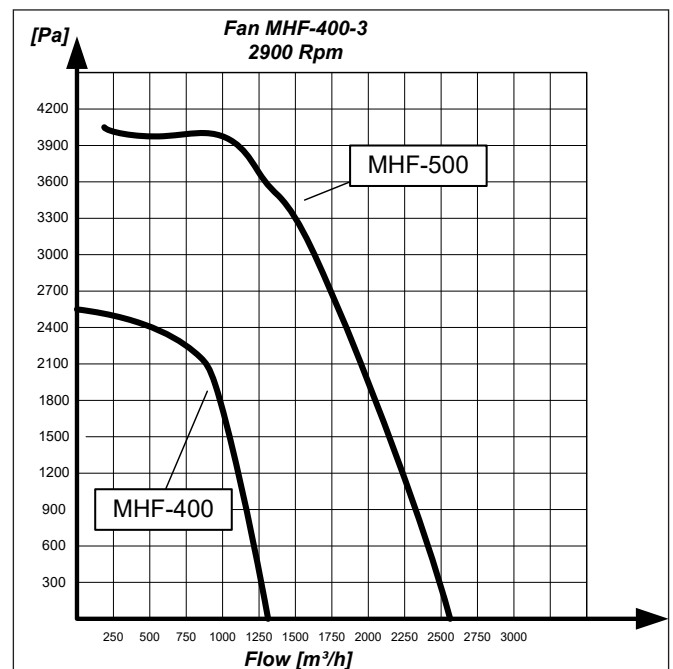
Typical pressure drop: 1000-1500 Pa

The pressure drop over the filter will vary according to work load and how dirty the filter cartridge is. When the pressure drop reaches 1800 Pa the filter cartridge must be replaced.

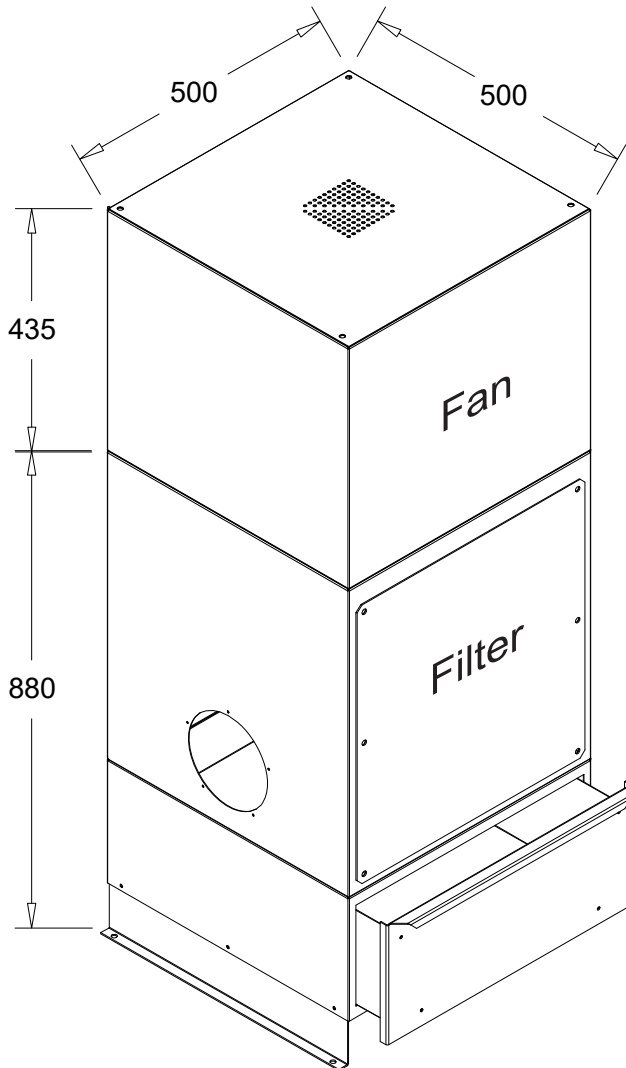
Differential pressure can not exceed 1.800 Pa.

1.4 Construction

Housing: Warm Galvanized steel.
(Corrosion class III), with connection.
Compressed air tank: Powder coated steel
Collection drawer: Galvanized – up to 38L



Dimensions



Accessories

Art. no..	Description
15-101	Fan for CFU-1000 1,1 kW, 3x400V 50Hz, 2,6A, 2800rpm
15-102	Sound proofing - internal
15-103	Automatic control for CFU-1000. Motor guard, pressure guard and more. Not installed from factory.
15-104	Manual compressed air cleaning
15-105	Automatic compressed air cleaning
15-108	Filter cartridge for CFU-1000

2.0 Installation

Geovent Dustbox CFU-1000 must be installed indoors in a room with plenty supply of fresh air. Outdoor installation is normally not recommended. This to avoid condensation issues.

If placed outdoors, place the filter in a dry area where the temperature is not below -40°C

The Geovent Dustbox CFU-1000 is supplied complete and ready for installation.

Before installation consider the best placement for the Dustbox filter.

The following installation should be done by a trained professional.

Procedure:

1. Geovent Dustbox CFU-1000 is placed on a firm and level foundation. (e.g. a concrete floor.) Allow room for filter change.
2. Geovent Dustbox CFU-1000 is connected to circular ducts on both dirty and clean side. (The lower duct connection is always the dirty side.) Seal the duct connection using tape or rubber seal.
3. To ensure free mixing of air the outlet should be placed at least to meters over the ridge of the roof with a wind speed of min. 8 m/s.

Connecting the fan to power:

4. Connection of the Geovent Dustbox CFU-1000 filters electrical components can only be carried out by a trained electrician.

2.2 Test run - calibration

Before use the function of the filter should be tested. Also make sure the filter cleaning system works.

Make sure that the entire installation is air tight. If a whistling sound is heard locate the leak and seal using flexible mastic.

It is recommended that the ventilation unit delivers the amount of air for which it is dimensioned. Gauge the supplied amount of air using an adjustment damper. At excess capacity the power consumption (Amps) can exceed the capacity of the fan motor causing it to malfunction.

4.0 Maintenance

The entire extraction installation should be checked at least once a year by a qualified service technician.

Periodic maintenance:

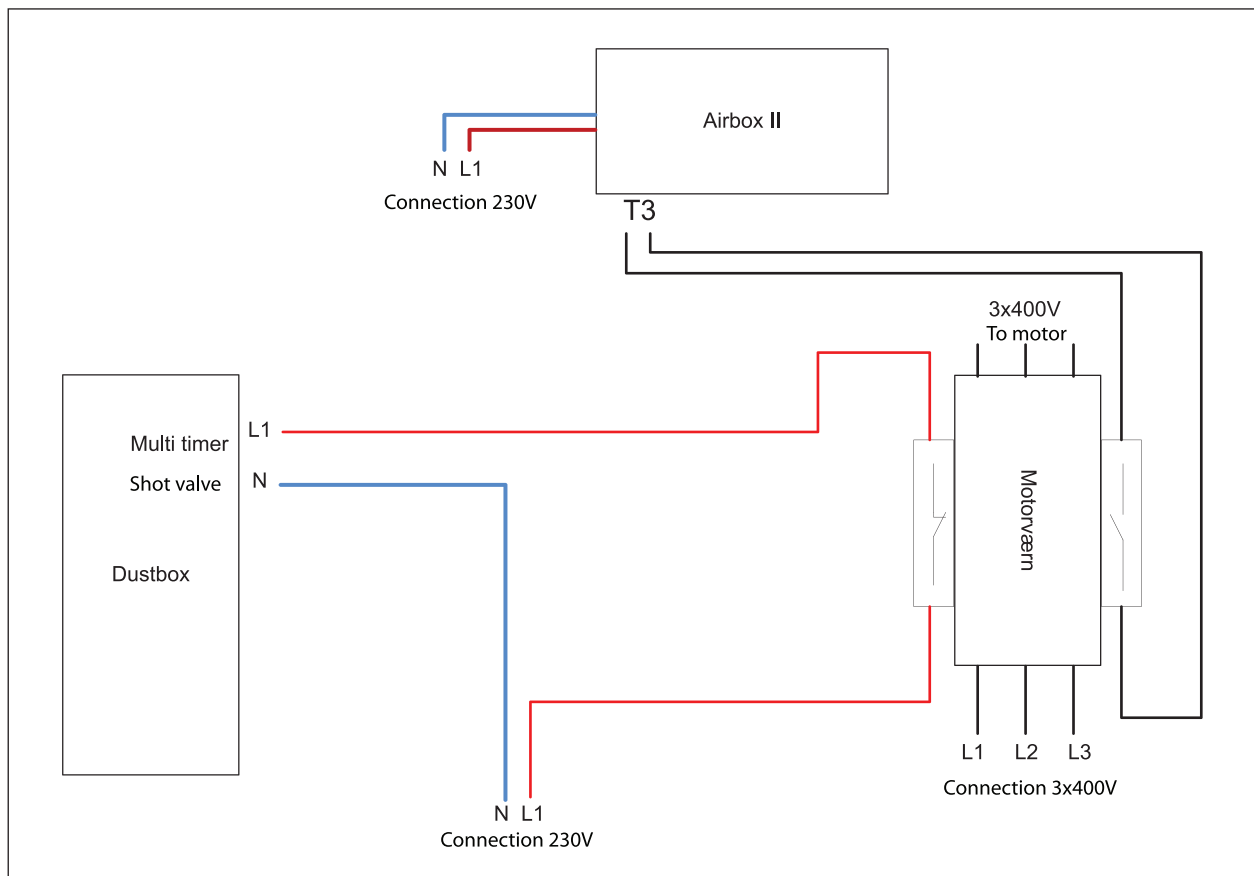
- All electrical components should be checked yearly.
- Make sure that the air supply for the compressed air system is clean and dry. Otherwise the filter cartridges and shot valves can be damaged by condensation.
- Check the pressure drop of the filter. If the pressure drop exceeds 1800 Pa replace the filter cartridges.
- Check the clean side of the filter for dust particles regularly and replace filter cartridges if leaking.

4.1.1 Emptying of collection drawer.

Emptying the collection drawer should be done when it is two thirds full. Otherwise it could cause damage to the filter cartridge.

1. The collection drawer is secured with two brackets. Unscrew the brackets and remove the drawer. Discard of the contents of the drawer according to local regulations.
2. Put the drawer back in place and fasten below the filter.

Connection





4.1.2. Replacing filter cartridge.

The filter cartridge should be replaced after 4000-8000 hours of operation or after 4 years.

This is dependent of the load put on the filter.

Procedure:

1. Before dismantling the service hatch on the side of the filter it is very important that the service technician is properly protected using safety gear.
2. All power must be disconnected. Make sure that the power can not be turned on by accident.
3. The compressed air connection should be disconnected using the ball valve. If a ball valve is not fitted, shut off the compressor and empty the tank manually using release button.
4. Unscrew all finger screws and remove the service hatch.
5. The filter cartridge is held in place by three latches in a flange at the top of the cartridge.
6. Loosen the filter cartridge by simply turning it so that the latches release.
7. Carefully remove the contaminated filter cartridge and place it in a large sealed plastic bag.
8. Carefully place the new filter cartridge and secure it by turning it.
9. Reattach the service hatch and fasten the screws. (Remember to reconnect power and compressed air.)
10. Control the filter for function and leaks.
11. Dispose of the contaminated filter cartridge in a secure manner as prescribed by local authorities.

4.1.3 Timer setting

To change the ON time, simply press the right 'on/arrow up' button and 'on' will appear briefly on the display.



You can now press the left 'off/arrow down' button for decreasing the time or the right 'on/arrow up' button to increase the time.



If the desired ON time is set, then simply don't press any buttons and after a few seconds the display will start flashing illustrating that the new time is being saved. Once the new time is saved, the unit will start operating with the new time setting.

To change the OFF time simply press the left 'off/arrow down' button and 'off' will appear briefly on the display.



If the desired OFF time is set, then simply don't press any buttons and after a few seconds the display will start flashing illustrating that the new time is being saved. Once the new time is saved, the unit will start operating with the new time settings.

The unit is now fully programmed to your desired time settings and will work fully automatically.

Press the TEST button to check the valve function.



Default values: ON: 0,2 seconds
OFF: 30 seconds

4.2 Trouble shooting

In case of low pressure or low airflow please check the following known issues.

Dust reverses and comes out of the inlets.

The cleaning system cannot keep up with the load put on the filter. Increase the frequency with which you activate the shot valve.

Shot valve makes a "snoring" noise.

The "snoring" is caused by foreign objects in the tank. Trigger the shot valve and the "snoring" stops.

The pressure drop increases rapidly and the air flow drops.

The cleaning system cannot keep up with the load put on the filter. Release the shot valve more often. If this does not help, replace filter cartridges.

5.0 Liability

Warranty:

Geovent A/S grants a warranty for products, which are defective, when it is proven the defects are caused by poor manufacture or materials on the part of Geovent. The warranty comprises remedial action (repair or exchange) until one year after the date of shipment. No claims can be made against Geovent A/S in relation to loss of earnings or consequential loss as a result of defects on products from Geovent.

Wear parts like filter cartridges are not included in the warranty.

User liability:

In order for Geovent to be capable of granting the declared warranty, the user/fitter must follow this Instruction Manual in all respects.

Under no circumstances may the products be changed in any way without prior, written consent from Geovent A/S.

6.0 Declaration of Conformity



GEOVENT

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The Manufacturer:
GEOVENT A/S
HOVEDGADEN 86
DK-8831 LØGSTRUP
WWW.GEOVENT.DK
hereby declares that:

The product: **Geovent Dustbox CFU-1000**

has been manufactured in compliance with the directions of the Directive Council of 14 June 1989 in common approximation to the legislation of the member states regarding machine safety (89/392/EEC amended by the directive (91/368/EEC) with special reference to appendix 1 in the Directive regarding basic health and safety requirements in connection with the construction and manufacturing of machinery.

Date: January 5th 2015

Position: Managing Director
Name: Thomas Molsen

Signature: