



# **GEOVENT**

## INSTRUCTION MANUAL



03-956



03-956A

# HVU FILTERCYCLONE

FILTERCYKLON 700 AND 1500



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## 1.0 Introduction

This manual is made and designed in order to facilitate the best and most secure interaction with the product. The manual is relevant for people involved in transportation, stocking, installation, using, maintaining and all other thinkable interaction with the product.

The manual must be read in full and understood before interacting with the product.

When the manual has been read and understood in full, the table of contents can be used to find the relevant information in each case.

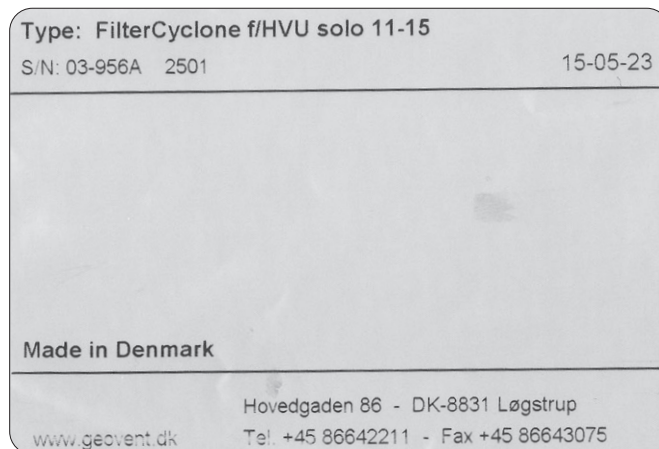
The product is manufactured by:

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This manual is to be used for all interactions with the product including: Transportation, stocking, installation, operation and maintenance.

This product is marked with: (example)



## 2.0 Safety

### 2.1 General safety

Carefully read this manual before use and observe the safety instructions in order to avoid injuries!  
Keep this manual in a safe place!

Secure that all users of the product have read this manual and that they follow the instructions as described. Observe all instructions marked on the product! Observe the indications of the manufacturer. Never use the product if you are in doubt about how it works or what you should do.

When doing maintenance follow the instructions in chapter 7.0.

Do not modify the product or use spare parts from other suppliers than Geovent, as this may hamper the product and the function.

### 2.2 Danger

You must wear safety gloves when handling or using the product to protect your hands from scratches etc.

Be aware that the product may tilt when you move it. You must handle the product with care and tie it safely to the truck or the fork lift when it is in transport.

Follow the instructions in chapter 7.0 when the product is maintained.

When handling the product be sure that there is no risk for the installer, and secure that there are no people around the product, secure that the product cannot fall down risking to injure persons or subjects.

In case of an accident or a fire:  
Call for help.

The product is not to be used in areas categorised as ATEX zones, e.g. with dust from aluminium, flour, wood, and other mediums that present an explosion hazard.

If a repair is not possible you should dispose of the product. Please follow the instruction for disposal in chapter 10.0.

### 3.0 Machine overview

#### 3.1. Description

The Geovent HVU Filter Cyclone is used to collect dust or other particles together with a Geovent HVU Solo. The Geovent HVU Filter Cyclone can be placed separately from the HVU Solo for maximum flexibility.

#### 3.2 Intended use

The Geovent HVU Filter Cyclone is used, among other things, for vacuuming during car preparation and for e.g. grinding dust extraction.

The unit is equipped with a two-stage filter cyclone with a compressed air cleaning system. Filtration degree of 99.9%.

The unit can e.g. be used for extraction of grinding dust from hand-held rotary sanders, fixed belt sanders and bench grinders, brake dust from cars and trucks as well as general workplace cleaning etc.

Used in together with a Geovent HVU Solo.

### 3.3 Machine specifications

#### 3.3.1 Design



**Shield:** Lacquered steel, corrosion class II.

**Filter media:** Antistatic aluminum coated polyester filter with 99.9% filtration efficiency. Life expectancy under normal use: 4.000-8.000 hours.

Compressed air reservoir:  $\varnothing 127\text{mm}/1''$  connection.

### 3.3.2 Technical data

#### Dimensions

| Model                          | Filter surface area [m <sup>2</sup> ] | Collection bucket | Weight |
|--------------------------------|---------------------------------------|-------------------|--------|
| Filtercyklon til HVU 300-700   | 5                                     | 71 L              | 80 kg  |
| Filtercyklon til HVU 1000-1500 | 12                                    | 34 L              | 160 kg |

|                                     |                      |
|-------------------------------------|----------------------|
| <b>Temperature of extracted air</b> | <b>Max. 40°C</b>     |
| <b>Ambient temperature</b>          | <b>-15°C - +40°C</b> |

|                                  |                 |
|----------------------------------|-----------------|
| <b>Temperature control panel</b> | <b>5 - 40°C</b> |
|----------------------------------|-----------------|

|                                  |                |
|----------------------------------|----------------|
| <b>Relative humidity must be</b> | <b>&lt;90%</b> |
|----------------------------------|----------------|

#### 4.0 Transport, handling and storage

During transport in a truck or in another means of transportation the product must be securely packed in a box or a pallet and covered with a water proof material.

The product must be securely stowed in the truck so that it will neither tilt nor shift during transport.

During transport over a short distance e.g. in a stock or a factory, the product can be moved by means of a forklift or a stabeler.

When moved it must be secured that the product does not tilt or shift. And it must be secured that the limitations of the means of transportation is not exceeded.

Secure that there are no people around the product, when the product is moved.

The product must be placed in a dry place and covered securely, in order to secure that moist, metal parts or other substances do not damage the product.

It is not allowed to place anything on top of the product.

### 5.0 Assembly, installation and start of operation

#### 5.1 Location

To ensure a flawless function, the product must be installed indoors in e.g. a technical room with sound ventilation.

Outdoor installation is not recommended, and a canopy must always be used as a minimum if indoor installation is not possible.

We do not recommend outdoor installation, as the risk of water and condensation in the product increases, and the electronic components do not function at temperatures below 5°C.

Before installing the product, ensure that an optimal location is chosen. Is there enough space for the product? Is there space for maintenance and filter changes?

Place the product on a level and stable base (e.g. a concrete floor) and secure it.

Avoid as far as possible bends immediately before the inlet and after the outlet, as this could reduce the performance of the product.

## 5.2 Installation

The following installation should only be carried out by a trained installer.

### Procedure:

1. Place the HVU on a solid foundation (e.g. a concrete floor) where there is no possibility for vibrations to be transmitted. In addition, allowance shall be made for filter changes (i.e. minimum headroom of 800 mm).
2. The piping is connected to the HVU. On the inlet side the pipe can be fixed e.g. by means of a snap lock system.  
Remember to seal the joint with sealant and/or tape!

## 5.3 Control and test of the security system

After installation, check if there is any vibration or sound disturbance.

Check that the whole system is completely tight. In case of squeaking, the leakage should be localized and sealed with sealant.

See also the manual for Geovent HVU Solo.

## 6.0 Commissioning

### 6.1 After installation

Check the installation according to chapter 5.3.

## 7.0 Control, test and maintenance

### 7.1 Control

Check the installation according to chapter 5.3.

### 7.2 Maintenance

The entire system should be inspected at least once a year by a qualified service technician.

#### Periodic maintenance:

- All electrical parts should be checked annually.
- The filter cyclone must be examined to check if there is a need for filter change.

## 7.3 Replacing filter cartridges FilterCyclon 700

### 7.3.1 Emptying of bucket

Emptying of the collection bucket should be done when it is approx. 2/3 full, otherwise it can strain the filter medium.

#### Procedure:

1. Disconnect the power at the breaker on the Geovent HVU Solo. It should be ensured that the circuit breaker cannot be activated during service.
2. Disconnect the compressed air connection (remove compressed air hose)) and disconnect the cable to the solenoid valve.
3. Before dismantling the dusty filter or emptying the bucket, it is important that the service technician wears the necessary personal safety measures, such as respiratory protection and gloves.



4. The collection bucket is then dismantled using the snap locks. The bucket can then be carefully pulled out. Empty the bucket into a plastic bag suitable for the purpose. Dispose the plastic bag according to local regulations.
5. Put the bucket back in place and secure it under the cyclone.

### 7.3.2 Exchange of filter cartridges

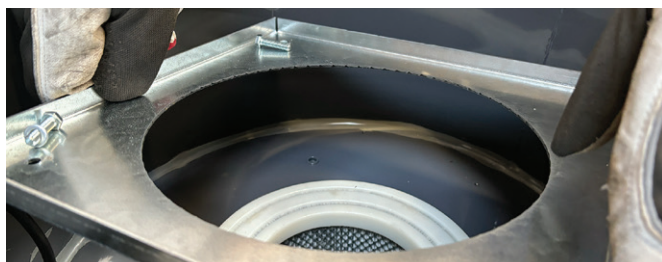
The filter medium should be replaced after approx. 4.000 - 8.000 hours of operation or max. 4 years. This depends, for example, on the load on the filter.







6. The top/lid of the cyclone is removed by disconnecting the snap lock, after which the lid with the compressed air tank is removed. Be careful to disconnect the compressed air and power supply first and not to damage the compressed air tank when putting it aside.



7. Remove the M6 bolts with a 10 mm wrench.



8. Carefully lift the contaminated filter media and place it in a large waste bag, which is then sealed properly and dispose it according to rules for hazardous waste.
9. Insert the new filter media and secure it to the unit with the M6 bolts.
10. Carefully slide the top/lid into place and secure it with the snap lock (Remember to connect power and compressed air).
11. The contaminated filter media is sent for destruction according to local regulations.

## 7.3 Replacing the filter FilterCyclone 1500

### 7.3.1 Emptying the collection bucket

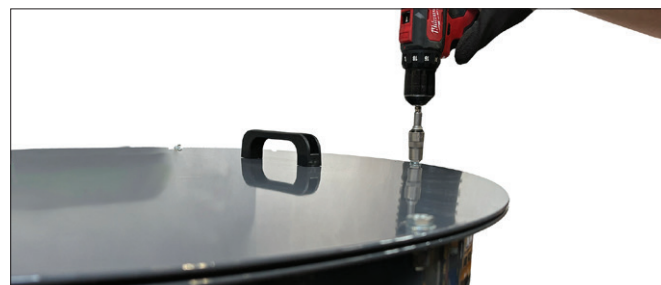
The collection bucket should be emptied when it is approx. 2/3 full, otherwise it may strain the filter media.

#### Procedure:

1. Disconnect the power at the repair switch for the Ge-ovent HVU Solo. Ensure that the switch cannot be activated during servicing.
2. Disconnect/remove the compressed air connection.
3. Before dismantling the collection bucket or the dusty filter media, it is important that the service technician wears the necessary personal safety measures, such as a respirator and gloves.
4. Free the collection bucket using the handle. The bucket can then be carefully pulled out. Dispose of the contents of the bucket in accordance with local regulations.
5. Replace the bucket and secure it under the cyclone.

### 7.3.2 Replacing the filter media

The filter media should be replaced after approx. 4,000-8,000 hours of operation or max. 4 years. This depends, among other things, on the load on the filter.



6. Remove the top/lid of the cyclone by loosening the M8 bolts, then remove the lid with the compressed air tank. Make sure that you first disconnect the compressed air and power supply and that you do not damage the compressed air tank when putting it aside.
7. Next, remove the M10 nuts with a 17 mm wrench.



8. Carefully lift up the contaminated filter media and place it in a large waste bag, which is then sealed properly.
9. Insert the new filter media and secure it to the unit with M10 nuts.
10. Carefully slide the top/lid into place and secure with the snap lock (Remember to connect power and compressed air).
11. The contaminated filter media is then sent for destruction according to local regulations.

## 8.0 Cleaning

The outside of the product is cleaned with a vacuum cleaner or a cloth.

## 9.0 Troubleshooting

In the event that problems occur, the following items should be reviewed:

### Air volume or pressure is less than stated

- Leaky duct system.
- Poor inlet/outlet options close to the side channel blower can reduce performance (e.g. 90° bend before inlet)
- The dampers are not adjusted correctly.
- The duct or the unit is blocked by e.g. a screwdriver.

### Vibrations and noise

- The foundation is not level/stable.
- External elements have entered the unit/duct system.
- Loose bolts or screws.

## 10.0 Dismantling, disabling and scrapping

Deactivate the product by disconnection the electrical mains. Dismantle compressed air pipes and other pipes or wires etc. and dispose of it according to local regulations.

Clean the collection bucket and remove the filter cartridges as described in chapter 7.3.

Before dismantling the product it is important that the service technician wears the necessary personal safety measures, such as respiratory protection and gloves that comply with the relevant regulations for working with contaminated dust.

The inside of the product must be cleaned by means of a vacuum cleaner with a filter which suits the purpose.

Dismantle the metallic parts by unscrewing screws and bolts. Afterwards cut the larger pieces into smaller pieces and dispose of it according to local regulations.

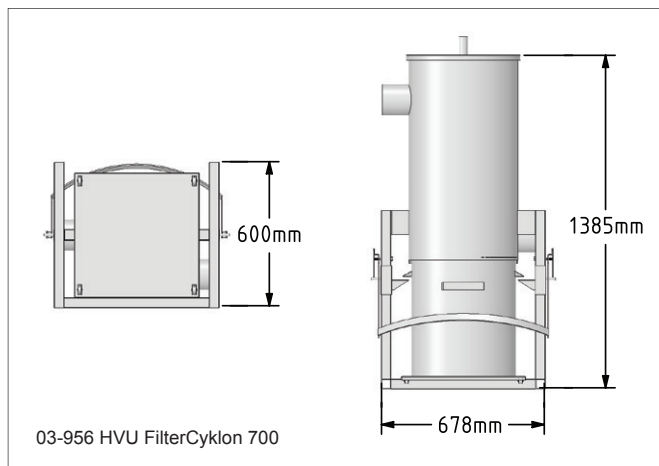
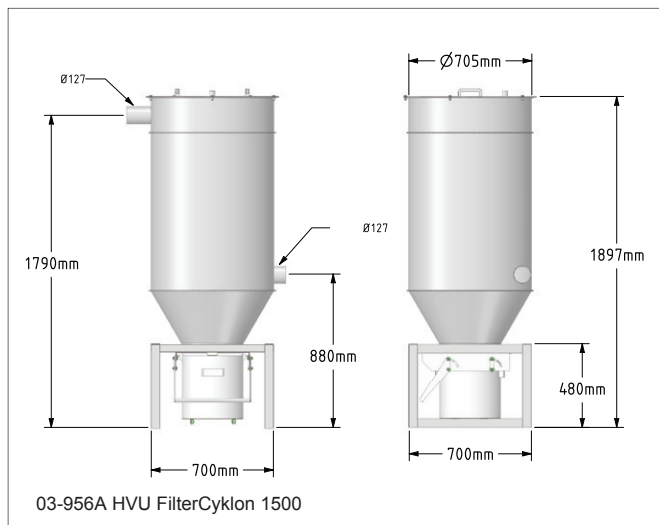
Dismantle plastic parts and dispose of it according to local regulations.

Dismantle the wires and cables and put these into a suitable bag. Afterwards dispose of it according to local regulations.

The packing material must be sorted according to local regulations in order to be able to reuse the material.

## 11.0 Dimensions

### HVU Filter Cyclone



## 12.0 Liability

### Warranty

Geovent A/S grants a warranty for products, which are defective, when it can be proved that the defects are due to poor manufacture or materials on the part of Geovent. The warranty comprises remedial action (reparation 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 on parts such as filter cartridges and hose is 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 agreement with Geovent A/S.

Please refer to the current sales and delivery conditions at [www.geovent.com](http://www.geovent.com)



### 13.0 Declaration of conformity

The manufacturer: GEOVENT A/S  
HOVEDGADEN 86  
DK-8831 LØGSTRUP

Hereby declares that:

The product: HVU  
Model: Filter Cyclone for HVU  
300 - 700  
Filter Cyclone for HVU  
1000 - 1500

Complies with the relevant parts of the following directives and standards:

Directive 2006/42 / EC of the European Parliament and of the Council of 17 May 2006 on machines and amending directives 95/16 / EC.

This declaration is no more valid if changes are made to the product by others than the manufacturer.

Authorized to collect the technical file:

Lise Cramer

Date: 21.05.2024

Position: Director  
Name: Thomas Molsen



Signature: \_\_\_\_\_



### 14.0 Spare part list

| Art. No. | Description   |
|----------|---|
| 03-260   | Replacement cartridge ø225 for HVU - 5 m <sup>2</sup> |







***GEOVENT***

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