



**Oil separator filter  
HOUK**

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**Maintenance manual (EN)**

Up to 2018 - V1.0-2021

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## 1. Introduction

This manual cannot be reproduced, even partially, without prior written consent by Formula Air Group. Every step of the filter range has been deeply analyzed by Formula Air Group in the expected area during the design, construction, and user manual creation. However, it is understood that nothing can replace the experience, training and good sense of those professionals who work with the device.

Ignoring the cautions and warning from the present user manual, using improperly parts or the whole device supplied, using unauthorized spare parts, manipulating the device by non-qualified personnel, violation of any safety norm regarding design, construction and use expected by the supplier, exempt Formula Air Group from all responsibility in case of damages to people or properties.

Formula Air Group does not take any responsibility for the non-observance of the user about the preventive safety measures presented in this user manual.

Failure to comply with the requirements of the user manual or incorrect use of the filter during operation can lead to the damage of the filter and improper functioning of the filter itself. This will result in termination of the warranty on the item and will release the manufacturer from any liability.

### Warranty

Regarding to the device's warranty, see the sales general condition.

### Attention !

All drawings and references contained within this user manual are non-contractual and are subject to change without prior notice at the discretion of the Formula Air Group and its partners.

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## 2. General description

The oil separators type HOUK 2000 to type HOUK 16000 are used for the separation of air and oil particles used in a production process.

These oil separators are designed for low temperature filtering (i.e. room temperature).

## 3. Functioning

Processed air is led in through the lower side of the unit, it then travels upwards through different filter elements.

Air leaves unit through the top of the unit. Oils are recuperated in the lower part of the unit and can be emptied or reused in the production process.

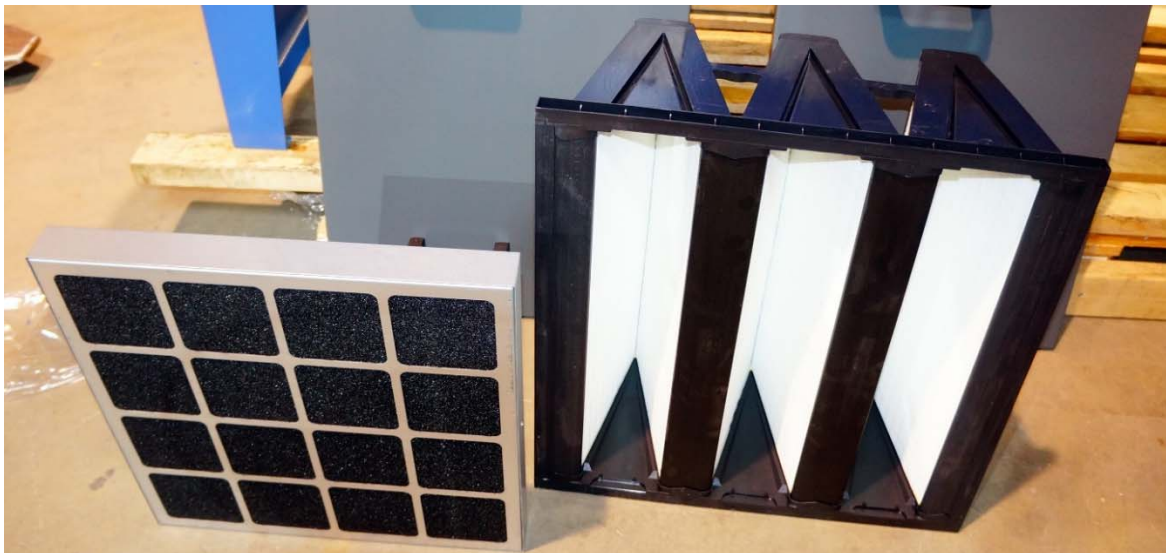
## 4. Construction

### 4.1. Standard construction

The HOUK unit is produced in black steel with powder enamelled for indoor mounting.

### 4.2. Filter elements

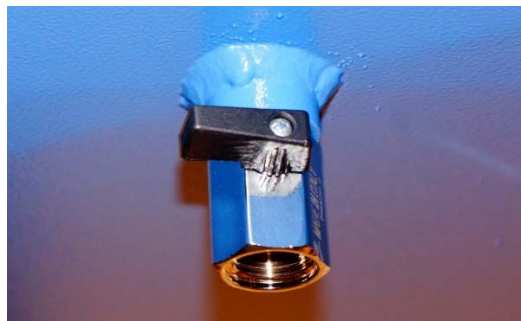
The HOUK oil separators units are delivered with pore filters and compact pocket filters. They can also be equipped with HEPA filter as an option.



Knitted filter element

pocket filter element

A drain tap is placed in the center of the bottom of the unit to evacuate the oil.



## 5. Unit condition during operation

All filter doors must be closed and secured.

In- and outlets must be connected to ducting and the drain tap must be closed or connected to an evacuation pipe.

## 6. Intentional / unintentional application

HOUK Oil separator filter units may not be used for the extraction of burning or incandescent substances, such as cigarettes, matches, metallic dust chips, paper, cleaning wipes, etc..

In ATEX-zones only units may be used that are marked for the same zone. Filter units can- not be converted to another zone.

Repairs may only be performed with original spare parts.

## 7. Mounting

The separator unit HOUK are delivered standing on a pallet.

The separator unit HOUK is connected to the ducting system on inlet and outlet by connection pieces (not supplied unless specified).

### 7.1. Placement

Please note that these filters have to be bolted to the ground on an even surface before operation.

### 7.2. Inlet and outlet pipe:

The HOUK oil separator is fitted with connection pieces for ducting system connection.

The dimensions and possible directions of these connections need to be agreed upon with the customer beforehand if it deviates from the standard design.

## 8. Operating instructions

The pressure drop over the filter elements must be checked regularly so as to replace these in time. The maximal differential pressure allowed is 700 Pa. Maximal differential pressure for optional HEPA-filter is 400 Pa.

Remember to regularly check to drain the build-up of oil in the oil reservoir when needed.

**WARNING** – make sure to close the tap when done.

To exchange the filter elements, the oil is drained off, the filter door is opened, and the upper filter element is snapped off, the new filter elements are placed correctly and clipped back into place (4 clips per element). The pocket filter element is possibly washed and can then be remounted, and the door can be closed.



*Pocket filter element*

*Clips for pocket filter element*

*Pore filter element*

The standard separator unit is not suitable for application with products containing boric acid. If the oil or cooling lubricant contains boric acid, the oil separator must be prepared for it. It means that the unit must be made with an additional part that replaces the sealants and filter seals.

## 9. Maintenance

Before and during service and maintenance following rules must be followed:

1. Stop the filtration system and make sure that the airflow is stopped in the unit.
2. Make sure to wear the necessary personal protection equipment (eyeglasses, gloves and/or facial mask) when handling filtering elements containing dangerous/health hazardous dust or fluid when dismantling.
3. Filters are disposed of according to governmental demands.
4. Place the new filter elements in the unit and close the doors and inspection doors.
5. Start up the filtration system once everything has been checked.

### 9.1. Filter element cleaning

The PORE filter elements can be cleaned, after having been dismantled from the filter as described in the procedure point 8. These can be cleaned with a high pressure cleaner with a maximum temperature of 50°C. Soap **WITHOUT** detergent can be used if needed. Place the cleaner nozzle at a distance of 30 to 50 cm from the cartridge (on WIDE spread).

The POCKET filter **CANNOT** be cleaned.

The filter elements must be completely dry before reinserting them in the filter unit.

New filter elements must in dimension be equal to original models. Filter media quality must be according to filter job.

Original type of filter elements can be seen on machine marking.

## 10. After maintenance

After the maintenance operations are completed, make sure that all connections are established, and access doors closed.

Test and control the filter unit before operation.

## 11. Dismantling and recycling

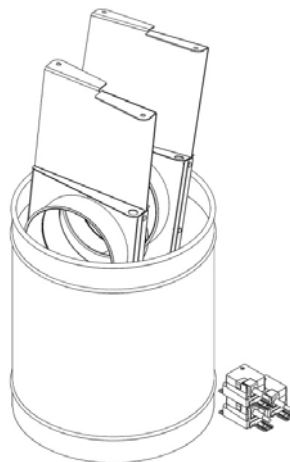
When dismantling a unit, be sure to keep in mind the following important information:

- As the unit is dismantled, set aside all still functioning parts to re-use them on another unit.
- You should always separate the different materials depending on their type: iron, rubber, oils, greases, etc...
- Recyclable parts must be disposed of in the appropriate containers or brought to a local recycling company.

The rubbish must be collected in special containers with appropriate labels and disposed of in compliance with the national laws and/or local legislations in force.

### **CAUTION!**

It is strictly forbidden to dispose of toxic wastes in municipal sewerage and drain systems. This concerns all oils, greases, and other toxic materials in liquid or solid form.







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