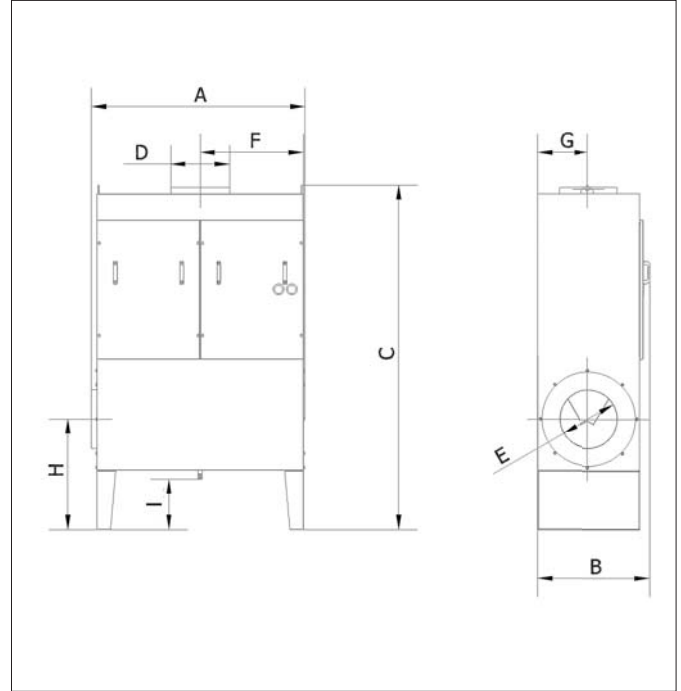


HOUK - Oil mist filters



HOUK - Oil mist filters

Multistage oil mist filter for separating oil mist aerosols in process air from machines, where cooling lubricants are used. Can be used as central filter unit for several machines. On the individual machine the pre-separator type HOUF should be mounted to limit oil in piping up to HOUK.

At oil mist filtration through HOUK the emission is normally < 1mg/m³, and emission limit values for oil mist aerosoles are thus met.

| | |
|-----------------------------------|-------------------------------|
| Air volume : | Up to 16000 m ³ /h |
| Vacuum : | Up to 5000 Pa |
| Filtration efficiency : | F9 |
| Filtration efficiency with HEPA : | H13 |

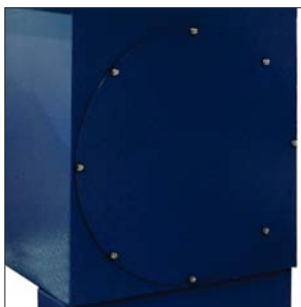
Functioning :

- Process air max. +25°C is led in through inlet connection at the bottom in side of HOUK
- Separation occurs through 3 steps :
 1. Speed reduction
 2. Pre-separation in washable grease filter (pore filter 35)
 3. Fine filtration in compact filter F9
- Option for HEPA filter (H13) - filter step 4
- Separated oil is collected in bottom of HOUK. Bottom is equipped with drain cock
- Clean air is led out through outlet connection in top

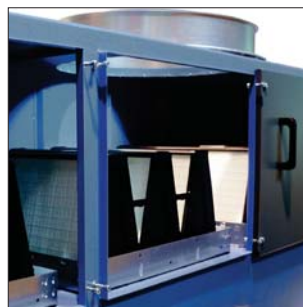
Applications :

- Oil mist

! If oil or cooling lubricant contain boric acid, the fine filter must be mounted in galvanized steel frame! Also joints and sealings must be changed.



Inlet connection is standard mounted in left side, but can easily be moved to the right.



Filter replacement can be performed through front door.



Separated oil is drained by ½" drain cock.



For easy monitoring of filter soiling Minihelic differential pressure manometer can be built into front door of HOUK.

HOUK - Oil mist filters

Filter unit HOUK :

| Model | Delta P ¹⁾ Start/stop | Air volume (m ³ /h) | Filter area (m ²) | # of prefilters ²⁾ | # of F9 fine filters ³⁾ | # of H13 absolute filters ⁴⁾ | # of manometers ⁵⁾ | Weight (kg) |
|--|-------------------------------------|-----------------------------------|----------------------------------|----------------------------------|---------------------------------------|---|----------------------------------|----------------|
| HOUK 4000 M7 ²⁾ | 900 / 1200 | 4000 | 19 | 2 | 1 | - | - | 86 |
| HOUK 4000 M7 + mano ²⁾ | 900 / 1200 | 4000 | 19 | 2 | 1 | - | 1 | 86 |
| HOUK 4000 M7, HEPA ²⁾ | 1100 / 1500 | 4000 | 19 | 2 | 1 | 1 | - | 123 |
| HOUK 4000 M7, HEPA + 2 mano ²⁾ | 1100 / 1500 | 4000 | 19 | 2 | 1 | 1 | 2 | 123 |
| HOUK 8000 + mano ²⁾ | 900 / 1200 | 8000 | 38 | 4 | 2 | - | 1 | 183 |
| HOUK 8000, HEPA + 2 mano ²⁾ | 1100 / 1500 | 8000 | 38 | 4 | 2 | 2 | 2 | 280 |
| HOUK 12000 + mano ²⁾ | 900 / 1200 | 12000 | 57 | 6 | 3 | - | 1 | 252 |
| HOUK 12000, HEPA + 2 mano ²⁾ | 1100 / 1500 | 12000 | 57 | 6 | 3 | 3 | 2 | 390 |
| HOUK 16000+ mano ²⁾ | 900 / 1200 | 16000 | 77 | 8 | 4 | - | 1 | 342 |
| HOUK 16000, HEPA + 2 mano ²⁾ | 1100 / 1500 | 16000 | 77 | 8 | 4 | 4 | 2 | 500 |

¹⁾ Pressure drop stated over filter cartridge

²⁾ Pore filter 35 in aluminium frame, 495x495x50 mm

³⁾ Compact filter F9 in plastic frame, 592x592x292 mm

⁴⁾ Absolute filter in metal frame, HEPA/H13, 610x610x292 mm

⁵⁾ Minihelic-differential pressure manometer 0-1 kPa

Dimensions :

| Model | A (mm) | B (mm) | C (mm) | Ø D (mm) | Ø E (mm) | F (mm) | G (mm) | H (mm) | I (mm) |
|--------------------|-----------|-----------|-----------|-------------|-------------|-----------|-----------|-----------|-----------|
| HOUK 4000 M7 | 727 | 771 | 1577 | 315 | 315 | 350 | 350 | 632 | 332 |
| HOUK 4000 M7, HEPA | 700 | 768 | 1958 | 315 | 315 | 350 | 350 | 632 | 332 |
| HOUK 8000 | 1445 | 765 | 1785 | 400 | 400 | 700 | 350 | 750 | 342 |
| HOUK 8000, HEPA | 1445 | 766 | 2338 | 400 | 400 | 700 | 350 | 750 | 342 |
| HOUK 12000 | 2145 | 765 | 1785 | 500 | 500 | 1050 | 350 | 750 | 342 |
| HOUK 12000, HEPA | 2145 | 766 | 2338 | 500 | 500 | 1050 | 350 | 750 | 342 |
| HOUK 16000 | 2845 | 765 | 1785 | 630 | 630 | 1400 | 350 | 750 | 342 |
| HOUK 16000, HEPA | 2845 | 766 | 2338 | 630 | 630 | 1400 | 350 | 750 | 342 |

Easy connection and operation

Oil mist filter HOUK is placed on the floor with the included 400 mm bend or mounted on wall with Flex-mountings. Inlet connection is as standard placed in the left side, but can easily be moved to the right side. Separated oil/cooling lubricant is easily tapped by cock in bottom.



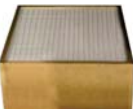
Surface :

The filter cabinet is made in 2 mm black steel plate.
Surface powder enamelled RAL 5007/7011.

Filter monitoring :

Continuous monitoring must be kept with pressure drop above filters for timely replacement of these. For this Minihelic-differential pressure manometer can be mounted in front door of HOUK or filter guard type L1.

Filter media :

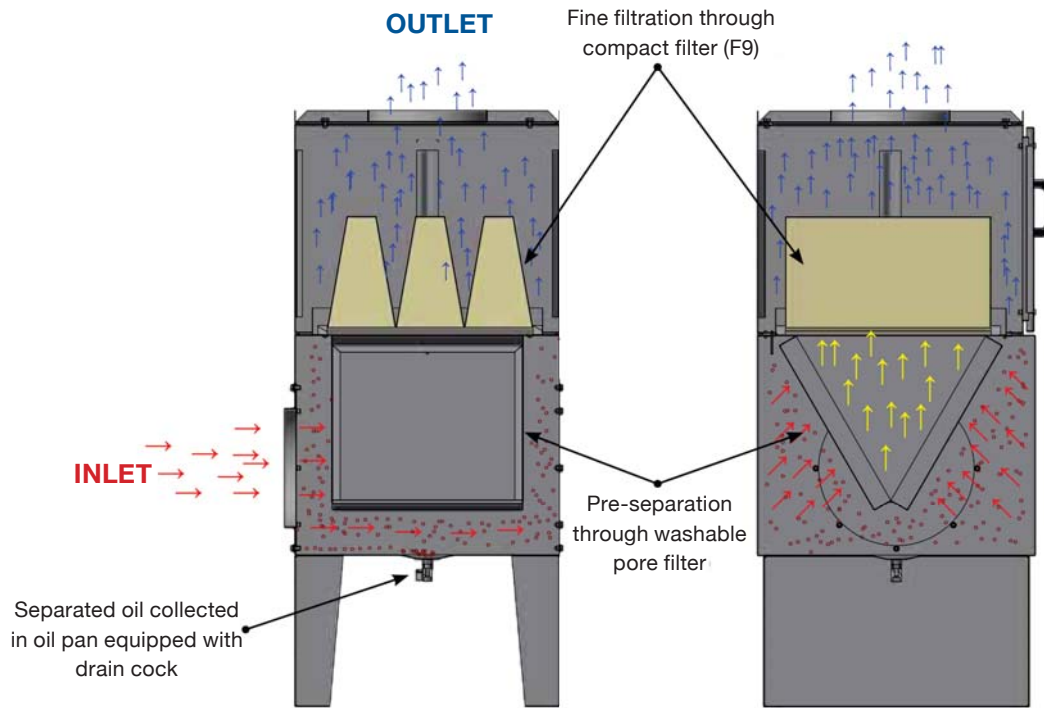
| Model | Standard | Material | Filtration efficiency (%) |
|---|--|---|---|
|  | Pre-separation in grease filter (filter step 2) | Pore filter 35 open-celled polyurethane foam (washable) mounted in aluminium frame 495x495x50 mm | Up to 85% |
|  | Fine filtration in compact filter* (filter step 3) | Synthetic filter material mounted in plastic frame 592x592x290 mm | > 95% corresponding to filter class F9 according to DS EN779 |
|  | Fine filtration through HEPA-absolute filter (filter step 4) | HS-Mikro SFV High Efficiency Particular Air filter, micro-filter (glass fiber) mounted in metal frame 610x610x292 mm | > 99,95% corresponding to filter class H13 according to DS EN1822 |

* If oil or cooling lubricant contain boric acid, the fine filter must be mounted in galvanized steel frame! Also joints and sealings must be changed.

HOUK - Oil mist filters

Working principle of flow through HOUK filter unit:

Standard model :



Model with HEPA filter :

