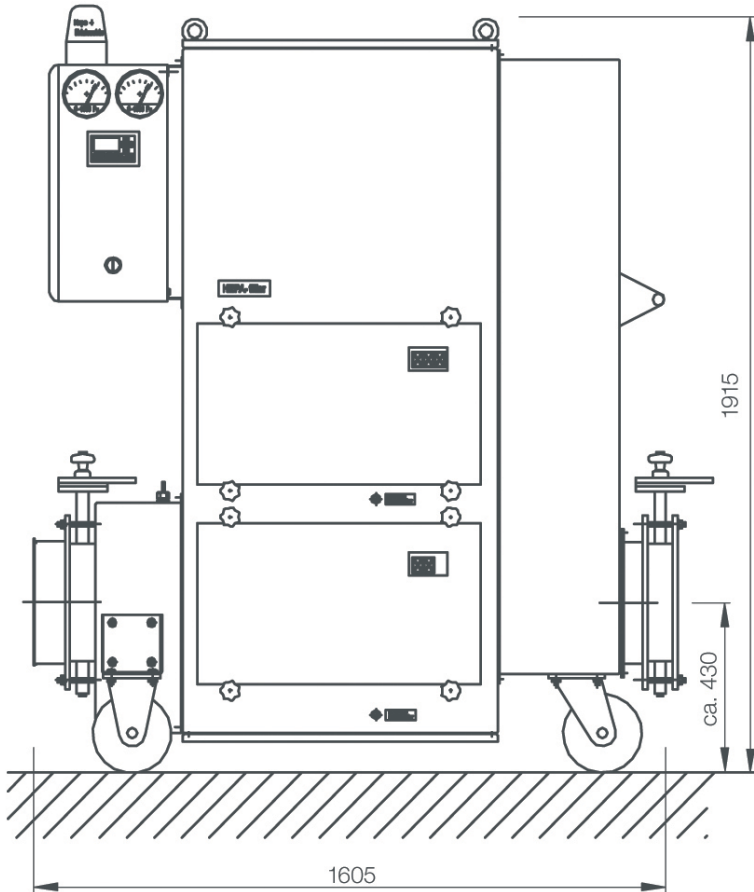


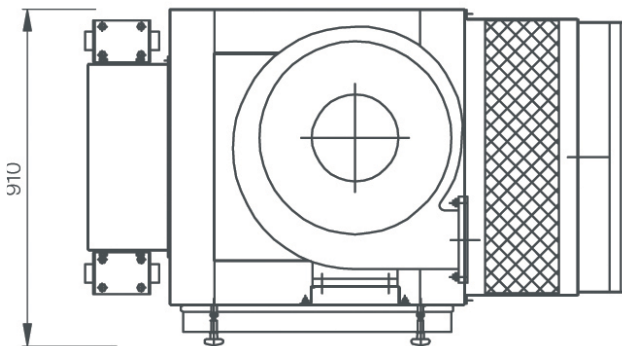
Type MFU | hightec 1x1-F6/H13  
Mobile HEPA filter unit



**Mobile HEPA filter unit**  
**Type MFU | hightec 1x1-F6/H13**



Schnitt A - A



## Text for tender

The mobile HEPA filter unit separates airborne dust and aerosols and is designed for horizontal fitting with accompanying particle air filter elements:

**Fine dust filter element**  
 W/H/D 610/610/292 mm  
 Filter class F6 to EN 779

**HEPA filter element**  
 W/H/D 610/610/292 mm  
 Filter class H13 to EN 1822

When welding, consideration of DIN 25 496, paragraph 6.2 (4), i. e. use of stabilised steels with austenitic materials, e. g. 1.4541; 1.4571 and use of tempered steels with ferritic materials.

To ensure easy decontamination, all components in contact with the media are free from any gaps and continuously welded.

The clamping mechanisms for the fine dust and HEPA filter element can be operated from the outside and are dimensioned such that, at maximum permitted loading and with soft sealing elements, compliance with the sealing criterion in DIN 25 496, table 3, at the seat of the filter element is guaranteed.

The filter housing is designed so that changing filter elements according to the bag in bag safe exchange method is possible without contaminating the environment.

The sealing of the screwed housing walls is guaranteed by the use of silicone profile seals. It is beneficial that this sealing system does not bond and is therefore easy to break for servicing and re-usable.

## Design

- **Air intake block**
- **Stable filter housing**, stainless steel, material 1.4541, in a gas-tight design to the sealing requirements of DIN 25 496, table 3, including:
  - Large rollers for optimum mobility, of which two are steered and two fixed
  - Craning eyes
  - Steering and handle
- **Gas-tight circular shut-off damper, Raw gas side Stable**, zero maintenance version, designed for systems with demanding sealing requirements. The permitted leakage rates according to DIN 25 496 for damper housings and damper seats were met with ease.
- **Fan block**  
 Stable stainless steel housing, material 1.4541, in a gas-tight design to the sealing requirements of DIN 25 496, table 3, with integrated radial fan, drive motor, switch-gear box (IP 54).
- **Sound damper block**  
 Stable stainless steel filter housing, material 1.4541, in a gas-tight design to the sealing requirements of DIN 25 496, table 3, with integrated sound damping cushions, clean gas side with stainless steel volume flow measuring device DN 300 for volume flow constancy in conjunction with measurement transformer and frequency converter.
- **Gas-tight circular shut-off damper, Clean gas side Stable**, zero maintenance version, designed for systems with demanding sealing requirements. The permitted leakage rates according to DIN 25 496 for valve housings and valve seats were met with ease.
- **Device control**  
 The following components for controlling the air conveyor block are fitted to the outside of the filter housing:
  - Frequency converter for constant volume flow control (rms processing of the input signal)
  - Pressure difference transformer 0–300 Pa/ 4–20 mA for constant volume flow control
  - 20 metre run of flex with Cekon 16A plug, including cable holder, stainless steel cable holder, fastened to the housing directly over the frequency converter
- **Switchgear box to IP 54 protection class, integrated therein:**
  - Pressure difference display for each of the 2 HEPA filter stages, pointer manufacturer Magnehelic®
  - Differential pressure switch for reporting downstream safety filter contaminated
  - Master switch with emergency cutout function, START / STOP switch
  - „Collective fault“ light alarm
  - Volume flow indicator via frequency converter display
  - Socket for handling a collective fault signal from an external device (mobile online recleanable HEPA filter block)
  - 230V/50Hz socket for connecting an external device (mobile online recleanable HEPA filter block)
  - Flashing lights for optical collective fault signalling
  - Horn for acoustic signalling of the collective fault
  - „Horn Reset“ button

### Technical specification

- Manufacturer: Krantz
- Type: MFU | hightec 1x1 F6/H13
- Volume flow: 3,000 m<sup>3</sup>/h
- Total pressure differential fan: 3,500 Pa
- Permitted pressure difference: ±6,000 Pa
- Permitted working temperature: 70 °C
- Fan motor output: 4.3 kW (400 V / 50 Hz)
- Outer sealing (filter housing) according to DIN 25 496: Leakage volume flow <math> < 3 \cdot 10^{-5}</math> of rated volume flow at  $\Delta p = 2,000$  Pa
- Inner sealing: (filter seating) Leakage volume flow <math> < 3 \cdot 10^{-5}</math> of rated volume flow at  $\Delta p = 2,000$  Pa
- Dimensions – W/H/D:  
910/1915/1605 mm

### Fine dust filter element

- Filter class: F6 to EN 779
- Dimensions – W/H/D: 610/610/292 mm
- Acceptance capacity: 1 unit

### HEPA filter element

- Filter class: H13 to EN 1822
- Dimensions – W/H/D: 610/610/292 mm
- Acceptance capacity: 1 unit

## Contacts

Caverion Deutschland GmbH  
Riesstraße 25  
80992 München, Germany  
Phone: +49 89 374288-500  
Fax: +49 89 374288-520

Krantz Filter Systems and Dampers  
Uersfeld 24  
52072 Aachen, Germany  
Phone: +49 241 434-1  
Fax: +49 241 434-500

Production workshop  
Mallersdorf  
Schillerstraße 16  
84066 Mallersdorf-Pfaffenberg, Germany

Claus Schweinheim  
Division Manager  
Krantz Filter Systems and Dampers  
Phone: +49 241 434-501  
Fax: +49 241 434-500  
Mobile: +49 173 3888718  
email: [claus.schweinheim@krantz.de](mailto:claus.schweinheim@krantz.de)

Reinhold Goettgens  
Sales Manager  
Phone: +49 241 434-269  
Fax: +49 241 434-500  
Mobile: +49 174 1658185  
email: [reinhold.goettgens@krantz.de](mailto:reinhold.goettgens@krantz.de)