Inlet fitting (code MIE-ID)

The MIE-ID fitting is designed to be used for inlets of outdoor air or extract air. The fitting consists of dampers, assembly rails for filter cassettes, connection gable and a housing front section for integration into the standard module (code EMM).

MIE-ID is fitted with deep-folded disposable filters made of synthetic material in class G4, M5 or M6, deep-folded disposable filters made of glass fibre material in class F7-F9, deep-folded carbon filters with integrated pre-filters in class C7 or a washable, knitted aluminium filter.

- The damper is manufactured from aluminium profiles and complies with the requirements for corrosion class C4 in accordance with SS-EN ISO 12944-2.
- The damper blades are powered by plastic cogwheels and a hose gasket made of silicon rubber creates a seal between the blades.
- Tightness class 3 in accordance with SS-EN1751 (VVS AMA-98).
- Permitted temperature: -40 to +80˚C.
  Permitted differential pressure: max. 1400 Pa.
- The filters are mounted on rails and can easily be removed and replaced.
- Filter slide rails are available in acid-proof, stainless steel.
- The filter slide rails are fitted with effective sealing strips.
- The model FB filter inserts are locked with eccentric rails.
- Measurement outlets are available for connecting differential pressure gauge.
- The inlet is fitted as standard with a connection gable.

Accessories for fitting

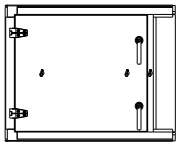
- Mounted damper (code KJST-04)
- Set of filters (code ELEF)

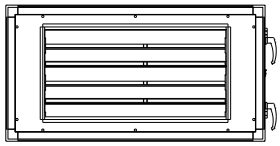
Filter section accessories

- Filter monitor, U-tube manometer (code MIET-FB-01)
- Filter monitor, Kytölä manometer (code MIET-FB-02)
- Filter monitor, Magnehelic manometer (code MIET-FB-03)

Technical data, size 360

Configuration

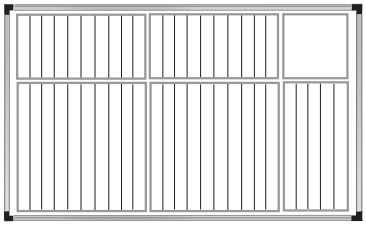




Damper

Required torque = 5 Nm

Filter



Size (cross-section) 360

Filter type	No. of filters	Dimensions (mm) W × H	Dimensions (mm) Length	No. of bags/ filters	Filter area, total (m²)
Bag filter G4	1 2 2	287 × 592 592 × 287 592 × 592	360 360 360	3 6 6	8,4
Bag filter M5	1 2 2	287 × 592 592 × 287 592 × 592	534 534 534	3 6 6	15,1
Bag filter M6	1 2 2	287 × 592 592 × 287 592 × 592	534 534 534	4 8 8	19,1
Bag filter F7–F9	1 2 2	287 × 592 592 × 287 592 × 592	534 534 534	5 10 10	23,3
Panel filter P4	3 2	292 × 596 596 × 596	48 48	–	1,2
Aluminium filter	3 2	287 × 592 592 × 592	25 25	–	1,2
Carbon filter C7	3 2	287 × 592 592 × 592	292 292	–	26,5

Insert damping (dB)

Octave band interme-diate frequency (Hz)	63	125	250	500	1000	2000	4000	8000
G4	–	–	1	2	3	3	5	6
M5, M6	2	3	6	8	14	17	19	21
F7-F9	3	3	6	8	14	17	19	21
Aluminium filter	1	1	1	2	3	3	5	6
C7	–	–	–	1	1	2	2	3

Filter types

Pre filter, fine filter and panel filter

Filters in class G4, M5 and M6 consist of deep-folder filter bags mounted on a metal frame. The filter material is synthetic fibre.

Filters in class F7, F8 and F9 consist of deep-folder filter bags with a metal frame. The filter material is glass fibre.

Panel filter in class G4 (code P4) in synthetic fibre with waxed cardboard frame (pre-filter).

Carbon filter with pre-filter

The class 7 filter consists of deep-folder filter bags containing active carbon and an integrated class 7 pre-filter.

The filter is suitable for minimising the effect of, for example, cooking smells and car exhaust fumes in comfort systems.

Aluminium filter

The washable knitted aluminium filter is a smooth filter, 25 mm thick, and designed for use in air containing fats.

Damper, Operation and Maintenance Instructions

The function of the dampers is to control, block and divert the air.

Faulty function gives rise to disturbances that may result in serious problems. For example, if the outdoor air damper does not close completely when the unit stops, the air heating coil is likely to freeze.

If the damper is leaking, this results in increased energy consumption because of leaks caused by thermal buoyancy forces.
If the exhaust gas damper is leaking, the ventilation effect is impaired and the air is heated for no benefit.

If the outdoor air damper does not open fully, the air flow is reduced.

Inspection

1. Check function of the damper actuator.
2. Check the dampers for tightness when they are closed. If not, adjust the damper actuator to make the damper tight.
3. Check the sealing strips.

Cleaning

Clean the damper blades with a cloth. If they are severely fouled, an environmentally friendly degreasing agent can be used.

Filter, Operation and Maintenance Instructions

The air filters in a ventilation system are designed to prevent dust and other impurities from entering the building. They should also protect sensitive components inside the unit, e.g. coils and heat exchangers, from exposure to impurities.

The dust separation efficiency varies considerably between various filter types. The dust collecting efficiency also varies substantially. It is therefore important to use filters of the same quality and capacity when you replace them.

Dust separation class is specified with standard designations:

- Pre filter G4
- Medium filters M5 and M6
- Fine filters F7, F8 and F9

Higher digits denote a higher collecting efficiency. The filter is designed for one-time use. If the filter becomes fouled, the unit will lose capacity. The filter should therefore be changed if the pressure drop across it exceeds the specified value.

It is important to stop the unit before changing filters to prevent dust from coming loose and being drawn into the unit. The inside surfaces of the filter section should therefore also be cleaned when the filter is changed.

Inspection

Check the pressure drop across the filter. The pressure drop is measured with a manometer connected to measurement outlets. The measurement outlets are connected to each side of the filter. If the filter has reached its specified final pressure drop, it must be changed.

Filter replacement

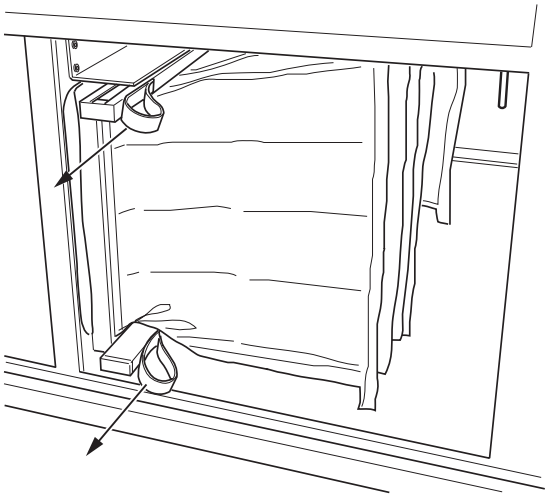
1. Shut down the unit via the control terminal and lock the safety switch in the 0 position.

   NB: The safety switch is not designed for starting/stopping the unit. Always start and shut down the unit by means of the control equipment.

2. Wait until the fans have stopped, then open the inspection door.

   WARNING:
   Positive pressure inside the unit, risk of personal injury. Allow the pressure to drop before you open the inspection doors.

3. Release the eccentric rails.



Eccentric rails

4. Remove the old filter by pulling it towards you.
5. Clean the filter cabinets.
6. Install the new filter, press in the eccentric rails to engage them and close the inspection door.
7. If there is a non-removable filter monitor: attach the probes on each side of the filter.
8. Start the unit.

Cleaning

Vacuum and use a damp cloth to wipe clean the inside of the filter section.