TROX® TECHNIK
The art of handling air

POCKET FILTER, TYPE PFS

TESTED TO
VDI 6022

Tested to VDI 6022

Eurovent certification

PFS

PREFILTERS OR FINAL FILTERS IN VENTILATION SYSTEMS

Pocket filters for the separation of fine dust

- Filter groups ISO ePM10 and ISO ePM1 (fine dust filters)
- Performance tested to ISO 16890
- Eurovent certification for fine dust filters
- Meets the hygiene requirements of VDI 6022
- Non-woven synthetic fibres, welded
- Enlarged filter area due to trapezoidal filter medium
- Low initial differential pressure and high dust holding capacity
- Different numbers of pockets and pocket depths
- Quick installation and filter changing times due to easy, safe handling
- Fitting into standard cell frames for filter walls (type SIF) or into universal casings (type UCA) for duct installation

Optional equipment and accessories

- Front frame made of plastic or galvanised sheet steel

General information

Application

- Pocket filter made of non-woven synthetic fibres for the separation of fine dust
- Fine dust filter: Prefilter or final filter in ventilation systems

Classification

- Eurovent certification for fine dust filters
- Meets the hygiene requirements

Nominal sizes

- B × H × T [mm]

Filter classes

Filter groups

- ISO ePM10 to ISO 16890
- ISO ePM1 to ISO 16890

Filter classes

- ePM10 60 %
- ePM10 75 %
- ePM1 60 %
- ePM1 80 %

Construction

- PLA: Frame made of plastic
- GAL: Frame made of galvanised steel

Useful additions

- Filter wall (SIF)
- Universal casing (UCA)

Construction features

- Frame depth of construction PLA: 25 mm
- Frame depth of construction GAL: 20, 25 mm
- Number of pockets: 3, 4, 5, 6, 7, 8

Materials and surfaces

- Filter media made of non-woven synthetic fibres
- Frame made of plastic or galvanised sheet steel

Standards and guidelines

- Test according to ISO 16890; international standard for general room air distribution; classification of arrestance efficiency based on the measured fractional arrestance efficiency, which is processed into a reporting system for the fine dust arrestance efficiency (ePM)
- For fine dust filters, the fractional arrestance efficiency of a certain size range is determined by aerosols (DEHS and KCl)
- The filters are classified into filter groups ISO ePM10, ISO ePM2.5 and ISO ePM1 depending on the tested values
- Construction PLA meets the hygiene requirements of VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3, and EN 16798

TECHNICAL INFORMATION

Fractional efficiency ePM10 [%] to ISO 16890	60	75	–	–
Fractional efficiency ePM1 [%] to ISO 16890	–	–	60	80
Initial differential pressure [Pa] at nominal flow rate	75	95	110	185
maximum final differential pressure [Pa]	250 – 350	250 – 350	250 – 350	250 – 350
maximum operating temperature [°C] for plastic frames	60	60	60	60
maximum operating temperature [°C] for frames made of galvanised sheet steel	90	90	90	90

Changing the filter/Final differential pressure

The aim is to find the optimum of the longest possible service life with energetically low differential pressure and safe hygiene. A fixed, recommended value for the final differential pressure can tempt people to insist on keeping to this value, irrespective of its usefulness and today's standards with regard to, for example, energy saving, sustainability or resource conservation. To save costs and energy, we generally recommend the use of technically high-quality filters with low initial differential pressure and a flat differential pressure curve. In addition, the preferred criterion for a filter change should be the differential pressure. For further information, please refer to the installation and maintenance instructions.

Specification text

Pocket filters PFS made of non-woven synthetic fibres as prefilters or final filters for the separation of fine dust in ventilation and air conditioning systems. Filter pockets provide a high dust holding capacity at a low initial differential pressure. Pocket filters made of non-woven synthetic fibres are available in standard and special sizes; variable number of pockets and pocket depth; filter groups ISO ePM10 and ISO ePM1 according to ISO 16890. Pocket filters made of non-woven synthetic fibres are Eurovent-certified and compliant with VDI 6022 in terms of hygiene.

Materials and surfaces

- Filter media made of non-woven synthetic fibres
- Frame made of plastic or galvanised sheet steel

Construction

- PLA: Frame made of plastic
- GAL: Frame made of galvanised steel

Sizing data

- Filter group [ISO 16890]
- Efficiency [%]
- Volume flow rate [m³/h]
- Initial differential pressure [Pa]
- Nominal size [mm]

Life cycle assessment
A life cycle assessment is available for the product series in form of an Environmental Product Declaration (EPD) that has been checked and published by a programme holder.

PFS	–	ePM1	–	60 %	–	PLA	–	25	/	592 × 592 × 600	×	8
1		2		3		4		5		6		7

1 Type
PFS Pocket filters made of non-woven synthetic fibres

2 Classification
ePM1 Fractional efficiency ePM1 acc. to ISO 16890
ePM10 Fractional efficiency ePM10 acc. to ISO 16890

3 Separation efficiency
Separation efficiency [%] according to ISO 16890

4 Construction
PLA Plastic frame
GAL Frame made of galvanised sheet steel

5 Frame depth [mm]
20 (construction GAL only)
25

6 Nominal size [mm]
Specify size (width × height × depth)

7 Number of pockets
3, 4, 5, 6, 7, 8