Conforms to VDI 6022

ATEX construction optional

Pocket filters

PFG

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
- High energy efficiency class according to Eurovent
- Non-woven glass fibres, sewn
- Enlarged filter area due to filter pockets
- Low initial differential pressure and high dust holding capacity, ideal airflow conditions due to wedge-shaped filter pockets
- 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
- ATEX construction for protection zones 1 and 2 as well as 21 and 22

General information

Application
- Pocket filter made of non-woven glass fibres type PFG 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
- Certificate of conformity for use in areas with a potentially explosive atmosphere

Nominal sizes
- B × H × D [mm]

Filter classes
Filter groups
- ISO ePM10 to ISO 16890
- ISO ePM1 to ISO 16890

Filter classes
- ePM10 60%
- ePM10 75%
- ePM1 60%
- ePM1 75%
- ePM1 90%

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

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

Construction features
- Wedge-shaped filter pockets
- 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 glass 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 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
- Certificate of conformity for correct use in areas with a potentially explosive atmosphere in accordance with guideline 2014/34/EU and compliance with basic health and safety requirements in accordance with EN 80079-36:2016 and EN 80079-37:2016

Technical data

Fractional efficiency ePM10 [%] to ISO 16890	60	75	–	–	–
Fractional efficiency ePM1 [%] to ISO 16890	–	–	60	75	90
Initial pressure difference [Pa] at nominal flow rate	55	70	80	100	140
Recommended final pressure difference [Pa]	250 – 350	250 – 350	250 – 350	250 – 350	250 – 350
maximum operating temperature [°C] for plastic frames	60	60	60	60	60
maximum operating temperature [°C] for frame made of galvanised sheet steel	90	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

This specification text describes the general properties of the product. Texts for variants can be generated with our Easy Product Finder design program.

Specification text

Pocket filters PFG made of non-woven glass fibres as prefilters or final filters for the separation of fine dust in ventilation systems. Filter pockets provide a high dust holding capacity at a low initial differential pressure. Pocket filters made of non-woven glass 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 glass fibres are Eurovent-certified and compliant with VDI 6022 in terms of hygiene. The pocket filters with optional EX protection PFG-EX may be used in areas with potentially explosive atmospheres of zones 1 and 2 as well as zones 21 and 22 (EX II 2G Ex h IIC Gb and EX II 2D Ex h IIIB Db). The filters must be connected to the ground potential. All conductive and dissipative parts must be connected together and grounded. Conductive dusts are excluded from the application. Under no circumstances should metallic foreign materials enter the filter. Ambient temperature range: -40 °C ≤ Ta ≤ +80 °C.

Materials and surfaces

- Filter media made of non-woven glass 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]

Order code

PFG – ePM1 – 90 % – PLA – 25 / 592 × 592 × 600 × 8
1 2 3 4 5 6 7

1 Type
PFG Pocket filters made of non-woven glass 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
EX Frame made of galvanised sheet steel, for zones 1 and 2 as well as 21 and 22 in areas with potentially explosive atmospheres (EX)

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

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

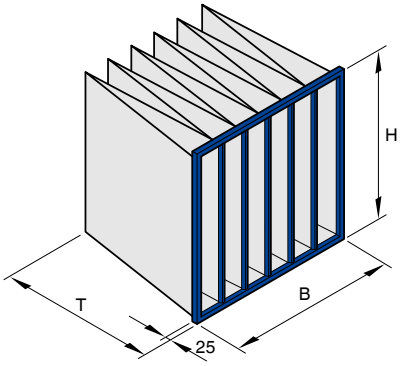
7 Number of pockets
3, 4, 5, 6, 7, 8

PFG–ePM1–90%–PLA–25/592×592×600×8

Classification	ISO ePM1 to ISO 16890
Efficiency	90 %
Construction	Plastic frame
Frame depth	25 mm
Nominal size	592 × 592 × 600 mm
Number of pockets	8

Dimensions

Dimensional drawing of PFG-…-PLA/…



Product specific data

1					2		3	4	5
B [mm]	H [mm]	T [mm]	Number of pockets	Filter class	qv [l/s]	qv [m³/h]	ΔpA [Pa]	m²	kg
592	592	600	6	ePM10 60 %	944	3400	55	4.4	1.5
490	592	600	5	ePM10 60 %	778	2800	55	3.7	1.3
287	592	600	3	ePM10 60 %	472	1700	55	2.2	0.9
592	490	600	6	ePM10 60 %	778	2800	55	3.6	1.4
592	287	600	6	ePM10 60 %	472	1700	55	2.1	0.9
287	287	600	3	ePM10 60 %	236	850	55	1.1	0.5
592	892	600	6	ePM10 60 %	1417	5100	55	6.6	2
490	892	600	5	ePM10 60 %	1167	4200	55	5.5	1.6
287	892	600	3	ePM10 60 %	708	2550	55	3.3	1.1
592	592	600	6	ePM10 75 %	944	3400	70	4.4	1.5
490	592	600	5	ePM10 75 %	778	2800	70	3.7	1.3
287	592	600	3	ePM10 75 %	472	1700	70	2.2	0.9
592	490	600	6	ePM10 75 %	778	2800	70	3.6	1.4
592	287	600	6	ePM10 75 %	472	1700	70	2.1	0.9
287	287	600	3	ePM10 75 %	236	850	70	1.1	0.5
592	892	600	6	ePM10 75 %	1417	5100	70	6.6	2
490	892	600	5	ePM10 75 %	1167	4200	70	5.5	1.6
287	892	600	3	ePM10 75 %	708	2550	70	3.3	1.1
592	592	600	8	ePM1 60 %	944	3400	80	5.9	2
490	592	600	7	ePM1 60 %	778	2800	80	5.1	1.7
287	592	600	4	ePM1 60 %	472	1700	80	2.9	1.1
592	490	600	8	ePM1 60 %	778	2800	80	4.9	1.7
592	287	600	8	ePM1 60 %	472	1700	80	2.8	1.1
287	287	600	4	ePM1 60 %	236	850	80	1.4	0.6
592	892	600	8	ePM1 60 %	1417	5100	80	8.8	2.4
490	892	600	7	ePM1 60 %	1167	4200	80	7.7	2.2
287	892	600	4	ePM1 60 %	708	2550	80	4.4	1.4
592	592	600	8	ePM1 75 %	944	3400	100	5.9	2
490	592	600	7	ePM1 75 %	778	2800	100	5.1	1.7
287	592	600	4	ePM1 75 %	472	1700	100	2.9	1.1
592	490	600	8	ePM1 75 %	778	2800	100	4.9	1.7
592	287	600	8	ePM1 75 %	472	1700	100	2.8	1.1
287	287	600	4	ePM1 75 %	236	850	100	1.4	0.6
592	892	600	8	ePM1 75 %	1417	5100	100	8.8	2.4
490	892	600	7	ePM1 75 %	1167	4200	100	7.7	2.2
287	892	600	4	ePM1 75 %	708	2550	100	4.4	1.4
592	592	600	8	ePM1 90 %	944	3400	140	5.9	2

1					2		3	4	5
B [mm]	H [mm]	T [mm]	Number of pockets	Filter class	qv [l/s]	qv [m³/h]	ΔpA [Pa]	m²	kg
490	592	600	7	ePM1 90 %	778	2800	140	5.1	1.7
287	592	600	4	ePM1 90 %	472	1700	140	2.9	1.1
592	490	600	8	ePM1 90 %	778	2800	140	4.9	1.7
592	287	600	8	ePM1 90 %	472	1700	140	2.8	1.1
287	287	600	4	ePM1 90 %	236	850	140	1.4	0.6
592	892	600	8	ePM1 90 %	1417	5100	140	8.8	2.4
490	892	600	7	ePM1 90 %	1167	4200	140	7.7	2.2
287	892	600	4	ePM1 90 %	708	2550	140	4.4	1.4

① Nominal size ② Nominal volume flow rate ③ Initial differential pressure ④ Filter area ⑤ Weight