



MINI PLEAT FILTER
ELEMENT, TYPE MFE



EUROVENT-
ZERTIFIZIERUNG

Eurovent certification



TESTED TO VDI 6022

Tested to VDI 6022

MFE



VERY COMPACT, FOR MODULAR INSTALLATION

Prefilters or final filters for the separation of fine dust and particulate filters for the most critical requirements in ventilation systems

- Filter groups ISO ePM1 (fine dust filter) and EPA, HEPA (particulate filter)
- Performance data tested according to ISO 16890 or to EN 1822-1 and ISO 29463-2 to ISO 29463-5
- Eurovent certification for fine dust filters
- Filter media for special requirements, made of glass fibre papers, with spacers made of textile threads
- Low initial differential pressure due to ideal pleat position and largest possible filter area
- Meets the hygiene requirements of VDI 6022

Introduction



Application

- Mini Pleat filter element type MFE for the separation of fine dust and suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in ventilation systems with large volume flow rates and the requirement for long filter life
- Fine dust filter: Prefilter or final filter for the separation of fine dust in ventilation systems.
- Particulate filter: Main or final filter used for the most critical requirements of air cleanliness and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Special characteristics

- Leakage test, standard for all particulate filters of filter class H13

Classification

- Eurovent certification for fine dust filters

Nominal sizes

- B × H × D [mm]

Description



Filter classes

Filter groups

- ISO ePM1 to ISO 16890
- EPA according to EN 1822
- HEPA according to EN 1822

Filter classes

- ePM1 90 %
- E11
- H13

Construction

- GAL: Frame made of galvanised steel
- AL: Frame made of aluminium

Accessories

- Adhesive tape for sealing off the filter elements, width: 19 mm, length: 55 m
- One roll suffices for about 50 filter elements of size 600 × 65 × 202 mm, for about 100 filter elements of size 86.5 × 202 × 600 mm, or for about 70 filter elements of size 86.5 × 303 × 600 mm
- Order number: ACC-AT

Construction features

- Compact wedge design
- The filter elements are joined together by a special adhesive tape which also provides an air-tight seal between the filter elements and the mounting frame or installation casing
- The special adhesive tape for sealing off the filter elements must be ordered separately

Materials and surfaces

- Filter media made of high-quality, moisture-resistant glass fibre papers, pleated
- Spacers provide a uniform spacing of the pleats
- Joint sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame made of either galvanised sheet steel or aluminium

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 group ISO aPM1 depending on the tested values
- Testing of particulate filters to EN 1822 (EPA, HEPA and ULPA filters): European standard for the testing of filtration performance in the factory, particle counting method using a liquid test aerosol
- Uniform classification of particulate filters according to efficiency, using a test aerosol whose average particle size lies within the minimum efficiency (MPPS)
- Particulate filters are classified according to the values determined for the local filtration efficiency and the overall filtration efficiency as EPA (filter classes E10, E11, E12), HEPA (filter classes H13, H14) or ULPA (filter classes U15, U16, U17)
- Hygiene conformity: VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3 and EN16798

TECHNICAL INFORMATION

Technical data, Specification text, Order code, Related products



| | |
|--|-----|
| Fractional efficiency ePM10 [%] to ISO 16890 | 90 |
| Initial differential pressure [%] at nominal volume flow rate for nominal size 600 x 65 x 202 mm | 50 |
| Recommended final differential pressure [%] for nominal size 600 x 65 x 202 mm | 250 |
| Initial differential pressure [Pa] at nominal volume flow rate for nominal sizes 86.5 x 202/303 x 600 mm | 120 |
| Recommended final differential pressure [Pa] for nominal sizes 86.5 x 202/303 x 600 mm | 300 |
| Max. operating temperature [°C] | 100 |
| Maximum relative humidity [%] | 100 |

| | | |
|--|------|---------|
| Filter class according to EN 1822 | E11 | H13 |
| Efficiency [%] according to EN 1822 | > 95 | > 99.95 |
| Initial differential pressure [%] at nominal volume flow rate for nominal size 600 x 65 x 202 mm | 140 | 160 |
| Recommended final differential pressure [%] for nominal size 600 x 65 x 202 mm | 400 | 400 |
| Initial differential pressure [Pa] at nominal volume flow rate for nominal sizes 86.5 x 202/303 x 600 mm | 190 | 220 |
| Recommended final differential pressure [Pa] for nominal sizes 86.5 x 202/303 x 600 mm | 600 | 600 |
| Max. operating temperature [°C] | 100 | 100 |
| Maximum relative humidity [%] | 100 | 100 |

Specification text

Mini Pleat filter elements MFE for the separation of fine dust and suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in ventilation systems. Use as fine dust filters, i.e. as pre-filters or final filters in ventilation and air conditioning systems; or as particulate filters, i.e. main or final filters for the most critical requirements of air cleanliness and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering. Large volume flow rates and long filter life due to the very compact, modular structure. Filter media of high-quality, moisture-resistant glass fibre papers with spacers. Low initial differential pressure due to ideal pleat position and largest possible filter area. Mini Pleat filter elements available in market sizes, filter groups ISO ePM1 (fine dust filter) and EPA, HEPA (particulate filter). The filter elements are joined together by a special adhesive tape which also provides an air-tight seal between the filter elements and the mounting frame or installation casing. The special adhesive tape must be ordered separately. Mini Pleat filter elements used as fine dust filters are certified by Eurovent. Mini Pleat filter elements MFE hygienically conform to VDI 6022.

Special characteristics

- Leakage test, standard for all particulate filters of filter class H13

Materials and surfaces

- Filter media made of high-quality, moisture-resistant glass fibre papers, pleated
- Spacers provide a uniform spacing of the pleats
- Joint sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame made of either galvanised sheet steel or aluminium

Construction

- GAL: Frame made of galvanised steel
- AL: Frame made of aluminium

Sizing data

- Filter group [ISO 16890]
- Efficiency [%]
- Filter class [EN 1822]
- Volume flow rate [m³/h]
- Initial differential pressure [Pa]
- Nominal size [mm]

MFE - ePM1 - 90% - GAL / 600 x 65 x 202
 | | | | |
 1 2 3 4 5

1 Type
MFE Mini Pleat filter element

2 Classification
ePM1 Fractional efficiency ePM1 to ISO 16890
E11 Particulate filter according to EN 1822
H13 Particulate filter according to EN 1822

3 Efficiency [%]
according to ISO 16890 (not with E11 and H13)

4 Construction
GAL Frame made of galvanised steel
AL Frame made of aluminium

5 Nominal size [mm]
B x H x T

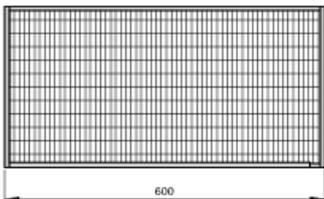
MFE-H13-GAL/600x65x202
Filter class H13 particulate filter according to EN 1822
Construction Frame made of galvanised steel
Nominal size 600 x 65 x 202 mm

Dimensions

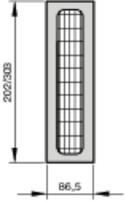


| ① | | | Filter class | ② | | ③ ΔpA [Pa] | ④ m² | ⑤ kg |
|--------|--------|--------|--------------|----------|-----------|------------|------|------|
| B [mm] | H [mm] | T [mm] | | qv [l/s] | qv [m³/h] | | | |
| 600 | 65 | 202 | ePM1 90 % | 56 | 200 | 50 | 3,4 | 1,2 |
| 86,5 | 202 | 600 | ePM1 90 % | 56 | 200 | 120 | 3,4 | 1,4 |
| 86,5 | 303 | 600 | ePM1 90 % | 83 | 300 | 120 | 5,1 | 1,5 |
| 600 | 65 | 202 | E11 | 56 | 200 | 140 | 3,6 | 1,2 |
| 86,5 | 202 | 600 | E11 | 56 | 200 | 190 | 3,6 | 1,4 |
| 86,5 | 303 | 600 | E11 | 83 | 300 | 190 | 5,4 | 1,5 |
| 600 | 65 | 202 | H13 | 56 | 200 | 160 | 3,6 | 1,2 |
| 86,5 | 202 | 600 | H13 | 56 | 200 | 220 | 3,6 | 1,4 |
| 86,5 | 303 | 600 | H13 | 83 | 300 | 220 | 5,4 | 1,5 |

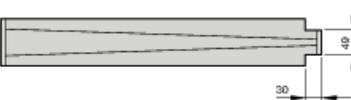
Dimensions MFE - Height 202/203



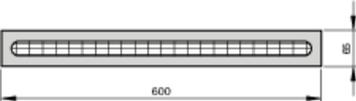
Dimensions MFE - Height 202/203



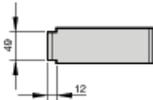
Dimensions MFE - Height 202/203



Dimensions MFE - Height 65



Dimensions MFE - Height 65



Dimensions MFE - Height 65

