Tested according to VDI 6022

Mini Pleat Filter

MFC

For large volume flow rates and long filter life

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

- Filter groups ISO ePM10, 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, glass fibre papers with spacers made of thermoplastic hot-melt adhesive
- Low initial differential pressure due to ideal pleat position and largest possible filter area
- Compact V-design with low installation depths
- Installation options in HEPA particulate filter housings for duct installation of the types KSF, KSFS and DCA
- Meets the hygiene requirements of VDI 6022

General information

Application
- Mini Pleat filter cell type 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 and air conditioning systems.
- Particulate filter: Main or final filter used for the most critical requirements of air cleanliness and sterility in areas such as production, research, medicine, pharmaceuticals industry, and nuclear engineering

Special characteristics
- Leak test as standard for all HEPA filters of filter classes H13, H14

Classification
- Eurovent Certification for fine dust filters
- Hygiene Conformity

Nominal sizes
- B × H × D [mm]

Filter classes
Filter groups
- ISO ePM10 acc. to ISO 16890
- ISO ePM1 acc. to ISO 16890
- EPA according to EN 1822
- HEPA according to EN 1822

Filter classes
- ePM10 55 %
- ePM1 60 %
- ePM1 90 %
- E11
- H13
- H14

Options
- V: Increased volume flow rate
- FNU: Flat profile seal on the upstream side
- FND: Flat profile seal on the downstream side
- TGU: Test groove seal on the upstream side (only for filter classes H13, H14)
- WS: Without seal
- OT: Oil mist test (only for filter classes H13, H14)
- OTC: Oil mist test with certificate (only for filter classes H13, H14)

Construction
- GAL: Frame made of galvanised steel
- STA: Frame made of stainless steel

Useful additions
- HEPA filter housing for duct installation available as a single unit (KSF, KSFS, DCA) or as a system combination (KSFSSP)

Construction features
- Compact V-design
- Circumferential flat profile seal on the upstream side
- Versions optionally with a test groove seal (filter classes H13, H14) on the upstream side. The flat profile seal can also be arranged on the downstream side

Material and surfaces
- Filter media made of high-quality, wet-strength glass fibre papers, pleated
- Spacers provide a uniform spacing of the pleats
- Sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame optionally made of stainless steel

Standards and guidelines
- Tested according to ISO 16890; International standard for general ventilation and air conditioning; classification of separation efficiency based on the measured fractional separation efficiency, which is processed into a reporting system for the fine dust separation efficiency (ePM)
- For fine dust filters, the fractional separation efficiency of a certain size range is determined by aerosols (DEHS and KCl)
- Depending on the test values, the filters are classified into filter groups ISO ePM10 and ISO ePM1
- Testing of particulate filters to EN 1822-1 and ISO 29463-2 up to ISO 29463-5 (EPA, HEPA and ULPA filters): Standards for testing of filtration performance in the factory, based on particle counting method using a liquid test aerosol
- Uniform classification of particulate filters according to separation efficiency, using a test aerosol with an average particle size within the minimum separation efficiency (MPPS)
- Particulate filters are classified into the filter groups EPA (filter classes E10, E11, E12), HEPA (filter classes H13, H14) and ULPA (filter classes U15, U16, U17), according to the values determined for local separation efficiency and integral separation efficiency.
- Hygiene conformity in accordance with VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6020, SWKI VA 104-01 and WKI 99-3 as well as EN 16798

Technical data

Fractional efficiency ePM10 [%] to ISO 16890	55	–	–
Fractional efficiency ePM1 [%] to ISO 16890	–	60	90
Maximum operating temperature [°C]	80	80	80
Maximum relative humidity [%]	100	100	100
Filter class according to EN 1822	E11	H13	H14
Efficiency [%] according to EN 1822	> 95	> 99.95	> 99.995
Maximum operating temperature [°C]	80	80	80
Maximum relative humidity [%]	100	100	100

Specification text

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

Specification text

Mini Pleat filter cells MFC 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. Used as fine dust filters, prefilters or final filters in AHU units; or as particulate filters, main or final filters for highest requirements of air purity and sterility, in areas such as industry, research, medicine, pharmaceuticals, and nuclear technology. Low installation depth due to compact V-design, for systems with high volume flow rates and long filter service lives. Filter media made of high-quality, wet-strength glass fibre papers, with spacers. Optimum pleat position and largest possible filter area allow low initial differential pressures. Mini Pleat filter cells available in usual market sizes, filter groups ISO ePM10, ISO ePM1 (fine dust filters) and EPA, HEPA (particulate filters). Mini pleat filter cells are equipped with a circumferential flat profile seal on the upstream side as standard. Optionally available with test groove seal on the upstream side. Mini Pleat filter cells used as fine dust filters are certified by Eurovent.

Special features

- Leak test as standard for all HEPA filters of filter classes H13, H14

Materials and surfaces

- Filter media made of high-quality, wet-strength glass fibre papers, pleated
- Spacers provide a uniform spacing of the pleats
- Sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame optionally made of stainless steel

Construction

- GAL: Frame made of galvanised steel
- STA: Frame made of stainless steel

Sizing data

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

Order code

MFC – H13 – – GAL / 610 × 610 × 292 / S / FNU / OT
1 2 3 4 5 6 7 8

1 Type
MFC Mini Pleat filter cell

2 Classification
ePM1 Fractional efficiency ePM1 acc. to ISO 16890
ePM10 Fractional efficiency ePM10 acc. to ISO 16890
E11 Filter class E11 according to EN 1822
H13 Filter class H13 according to EN 1822
H14 Filter class H14 according to EN 1822

3 Separation efficiency
Degree of separation according to ISO 16890

4 Construction
GAL Frame made of galvanised sheet steel
STA Frame made of stainless steel

5 Nominal size [mm]
Width × height × depth

Width and depth cannot be changed

Height
305, 610, 762

6 Category Volume flow rate
S Standard
M medium
X high

7 Seal
WS without seal
FNU Flat seal on the upstream side
TGU Test groove seal on the upstream side
FND Flat seal on the downstream side

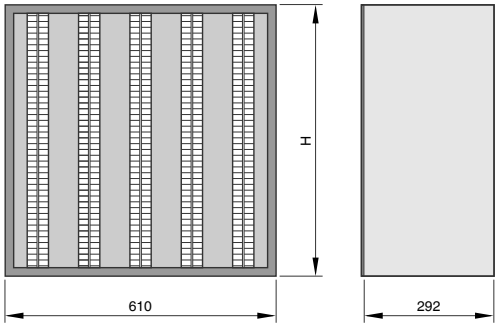
8 Testing
No registration: without leakage test
OT Oil mist test (only H13, H14)
OTC Oil mist test with certificate (only H13, H14)

Order example: MFC-H13-GAL/610×610×292/S/FNU/OT

Type	MFC – Mini Pleat filter cell
Classification	Filter class H13 according to EN 1822
Construction variant	Frame made of galvanised sheet steel
Nominal size [mm]	Width 610, height 610, depth 292
Seal	Flat seal on the upstream side
Testing	Oil mist test
Category Volume flow rate	Standard

Dimensions

Dimensional drawing of MFC-…



Number of filter packs: B = 203 mm : 3; B = 305 mm : 5; B = 610 mm : 10; B = 762 mm : 12

Product-specific data MFC-...-GAL/STA-...

1			Filter class	Category Volume flow rate	2		3	4	5
B	H	T			l/s	m³/h	Pa	Filter area	Weight
610	305	292	ePM10 55 %	S	590	2125	90	7.7	6.5
610	610	292	ePM10 55 %	S	1181	4250	90	15.4	12.9
610	762	292	ePM10 55 %	S	1472	5300	90	19.3	16.1
610	305	292	ePM1 60 %	S	590	2125	110	7.7	6.6
610	610	292	ePM1 60 %	S	1181	4250	110	15.4	13.3
610	762	292	ePM1 60 %	S	1472	5300	110	19.3	16.6
610	305	292	ePM1 90 %	S	590	2125	140	7.7	6.6
610	610	292	ePM1 90 %	S	1181	4250	140	15.4	13.3
610	762	292	ePM1 90 %	S	1472	5300	140	19.3	16.6
610	305	292	E11	S	347	1250	125	10.9	7
610	305	292	E11	X	472	1700	125	14.6	7.4
610	610	292	E11	S	694	2500	125	22	14.1
610	610	292	E11	X	944	3400	125	29.3	14.7
610	762	292	E11	S	875	3150	125	27.5	17.6
610	762	292	E11	X	1181	4250	125	36.7	18.4
610	305	292	H13	S	472	1700	250	15.3	7.3
610	305	292	H13	M	556	2000	250	18.2	7.5
610	305	292	H13	X	694	2500	400	14.6	7.2
610	610	292	H13	S	944	3400	250	30.8	14.6
610	610	292	H13	M	1111	4000	250	36.6	15.1
610	610	292	H13	X	1389	5000	400	29.3	14.5
610	762	292	H13	S	1181	4250	250	38.5	18.2
610	762	292	H13	M	1389	5000	250	45.8	18.8
610	762	292	H13	X	1736	6250	400	36.7	18.1
610	305	292	H14	S	417	1500	250	16.4	7.4
610	305	292	H14	X	556	2000	320	18.2	7.5
610	610	292	H14	S	833	3000	250	33	14.8
610	610	292	H14	X	1111	4000	320	36.6	15.1
610	762	292	H14	S	1000	3600	250	41.2	18.4
610	762	292	H14	X	1389	5000	320	45.8	18.8

1 Nominal size, 2 Nominal volume flow, 3 Initial pressure difference, 4 Filter area, 5 Weight