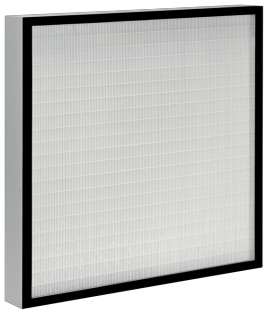
TROX® TECHNIK
The art of handling air



MFP

Conforme à VDI 6022

MFP

FOR THE MOST DEMANDING REQUIREMENTS OF AIR CLEANLINESS AND STERILITY

Prefilters or final filters for the separation of fine dust and suspended particles. Used for industrial, research, medical, pharmaceutical, and nuclear engineering applications.

- Filter classes M5, M6, F7, F9, E11, H13, H14
- Performance data tested to EN 779 or EN 1822 Meets hygiene requirements according to VDI 6022
- 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
- Perfect adjustment to individual requirements due to different pleat depths, filter frame made of various materials
- Automatic filter scan test for all filters from filter class H14
- Fitting into ceiling mounted or wall mounted particulate filters (types TFC, TFW, TFM, TFP), ducted particulate filters (types KSF, KSFS), duct casings for particulate filters (type DCA), or operating theatre ceilings

Application

Application

- Mini Pleat filter panel type MFP 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 is standard for all particulate filters of classes H13, H14

Description

Filter classes

- Fine dust filters M5, M6, F7, F9
- Particulate filters E11, H13, H14

Construction

- PLA: Frame made of plastic (depth 48, 96 and 150 mm)
- MDFF: Frame made of MDF, with header frame (depth 60 mm)
- MDF: Frame made of MDF (depth 60, 78, 150 and 292 mm)
- GAL: Frame made of galvanised steel (depth 60, 150 and 292 mm)
- STA: Frame made of stainless steel (depth 60, 150 and 292 mm)
- ALN: Frame made of extruded aluminium sections (depth 30 mm)
- ALZ: Frame made of extruded aluminium sections (depth 78 mm)
- ALY: Frame made of extruded aluminium sections (depth 150 mm)
- ALU: Frame made of extruded aluminium sections (depth 91 mm)
- ALV: Frame made of extruded aluminium sections (depth 85 mm)

Options

- FT: Pleat depth
- PU: Protection grid on the upstream side
- PD: Protection grid on the downstream side
- PB: Protection grid on both sides

- FNU: Flat section seal on the upstream side
- FND: Flat section seal on the downstream side
- FNB: Flat section seal on both sides
- TGU: Test groove seal on the upstream side (only for filter classes H13, H14)
- CSU: Continuous seal on the upstream side
- CSD: Continuous seal on the downstream side
- CSB: Continuous seal on both sides
- GPU: Fluid seal (only for ALU/ALV)
- 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)
- ST: Scan test (only for filter classes H13, H14)

Useful additions

- Filter wall (SIF)
- Universal casing (UCA)
- Ducted particulate filter, available as one unit (KSF, KSFS) or as a filter unit system (KSFSSP)
- Duct casing for particulate filters (DCA)
- Ceiling mounted particulate filter (TFC)
- Wall mounted particulate filter (TFW)
- Particulate filter module (TFM)
- Pharmaceutical clean room terminal filter (TFP)

Construction features

- Perimeter flat section seal on the upstream side for constructions MDF, GAL, STA, ALN, ALZ, ALY
- Some constructions with optional foamed continuous seal or with a test groove seal (filter classes H13, H14) on the upstream side; the flat section or continuous seal can also be fitted on the downstream side or on both sides
- As standard, constructions ALU/ALV are fitted with a fluid seal
- Protection grid made of expanded metal, can be fitted on the downstream or upstream side or both sides as required

Materials and surfaces

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

Filter class according to EN 779	M5	M6	F7	F9
Average efficiency according to EN 779	60 %	65 %	85 %	>95 %
Initial differential pressure at nominal volume flow rate	90 Pa	90 Pa	110 Pa	150 Pa
Recommended final differential pressure	450 Pa	450 Pa	450 Pa	450 Pa
Maximum operating temperature	80°C	80°C	80°C	80°C
Maximum relative humidity	100 %	100 %	100 %	100 %

Filter class according to EN 1822	E11	H13	H14
Efficiency according to EN 1822	>95 %	>99.95 %	>99.995 %
Initial differential pressure at nominal volume flow rate	125 Pa	250 Pa	120/140 Pa
Recommended final differential pressure	300 Pa	600 Pa	600 Pa
Maximum operating temperature	80°C	80°C	80°C
Maximum relative humidity	100 %	100 %	100 %

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Mini Pleat filter panels MFP 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 prefilters or final filters in ventilation 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.

Compact depth construction, suitable for systems with high volume flow rates and a requirement for long filter life.

The filter media are made of high-quality, moisture-resistant 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.

Mini Pleat filter panels are available in standard and special sizes, with different pleat depths, filter classes M5, M6, F7, F9, E11, H13, H14.

Depending on the frame design, Mini Pleat filter panels are fitted with no seal, with a flat section seal on the upstream side, or with a fluid seal.

Some constructions are available with an optional foamed continuous seal on one or both sides, with a test groove seal on the upstream side, or with a protection grid, fitting as required.

Mini Pleat filter panels used as fine dust filters are certified by Eurovent.

Constructions with a frame made of extruded aluminium sections meet the hygiene requirements of VDI 6022.

Special characteristics

- Leakage test is standard for all particulate filters of classes H13, H14

Materials and surfaces

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

Construction

- PLA: Frame made of plastic (depth 48, 96 and 150 mm)
- MDFF: Frame made of MDF, with header frame (depth 60 mm)
- MDF: Frame made of MDF (depth 60, 78, 150 and 292 mm)
- GAL: Frame made of galvanised steel (depth 60, 150 and 292 mm)
- STA: Frame made of stainless steel (depth 60, 150 and 292 mm)
- ALN: Frame made of extruded aluminium sections (depth 30 mm)
- ALZ: Frame made of extruded aluminium sections (depth 78 mm)
- ALY: Frame made of extruded aluminium sections (depth 150 mm)
- ALU: Frame made of extruded aluminium sections (depth 91 mm)
- ALV: Frame made of extruded aluminium sections (depth 85 mm)

Sizing data

- Filter class
- Volume flow rate [m³/h]
- Initial differential pressure [Pa]
- Nominal size [mm]

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MFP

MFP – H13 – MDF / 610 × 610 × 78 × 50 / PD / FNU / ST
1 2 3 4 5 6 7 8

1 Type
MFP Mini Pleat filter panel

2 Filter class
M5 Fine dust filter according to EN 779
M6 Fine dust filter according to EN 779
F7 Fine dust filter according to EN 779
F9 Fine dust filter according to EN 779
E11 Particulate filter according to EN 1822
H13 Particulate filter according to EN 1822
H14 Particulate filter according to EN 1822

3 Construction
PLA Frame made of plastic
MDFF Frame made of MDF, with header frame
MDF Frame made of MDF
GAL Frame made of galvanised steel
STA Frame made of stainless steel
ALN Frame made of extruded aluminium profile (depth 30 mm)
ALZ Frame made of extruded aluminium profile (depth 78 mm)
ALY Frame made of extruded aluminium profile (depth 150 mm)
ALU Frame made of extruded aluminium profile (depth 91 mm)
ALV Frame made of extruded aluminium profile (depth 85 mm)

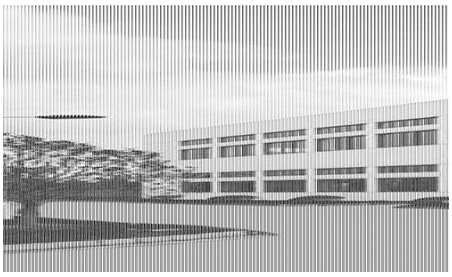
4 Nominal size [mm]
B × H × T

5 Pleat depth
FT

6 Protection grid
No entry: none
PU Protection grid on the upstream side
PD Protection grid on the downstream side
PB Protection grid on both sides

7 Seal
WS Without seal
FNU Flat section seal on the upstream side
FND Flat section seal on the downstream side
FNB Flat section seal on both sides
TGU Test groove seal on the upstream side
CSU Continuous seal on the upstream side
CSD Continuous seal on the downstream side
CSB Continuous seal on both sides
GPU Fluid seal (only for ALU/ALV)

8 Testing
No entry: no leakage test
OT Oil mist test (only for filter classes H13, H14)
OTC Oil mist test with certificate (only for filter classes H13, H14)
ST Scan test (only for filter classes H13, H14)



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