TROX® TECHNIK
The art of handling air

TESTED TO
VDI 6022

Conforms to VDI 6022

MINI PLEAT FILTER
CARTRIDGE, TYPE MFCA

MFCA

COMPACT CONSTRUCTION FOR SPECIAL APPLICATIONS

Final filters for the separation of suspended particles to meet the highest requirements

- Filter classes E11, H13
- Performance tested in accordance with EN 1822-1 and ISO 29463-2 to ISO 29463-5
- 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
- Meets the hygiene requirements of VDI 6022

Introduction

Application

- Mini Pleat filter cartridges type MFCA for the separation of suspended particles such as aerosols, toxic dusts, viruses, bacteria from the supply and extract air 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

Nominal sizes

- D × H [mm]

Description

Filter classes

Filter groups

- EPA according to EN 1822
- HEPA according to EN 1822

Filter classes
• E11
• H13

Construction

- AL: Casing made of aluminium

Construction features

- Cylindrical design
- Casing made of perforated sheet metal, aluminium
- As standard, the filter cartridge is fitted with a continuous seal on the upstream side

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
- Casing made of aluminium

Standards and guidelines

- 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)

TECHNICAL INFORMATION

Technical Data, Specification Text, Order Code

Filter class according to EN 1822	E11	H13
Efficiency [%] according to EN 1822	> 95	> 99.95
Initial differential pressure [Pa] at nominal volume flow rate	100	200
Recommended final differential pressure [Pa]	450	600
Max. operating temperature [°C]	80	80
Maximum relative humidity [%]	100	100

Specification text

Mini Pleat filter cartridges MFCA for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in ventilation systems. Use 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. 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 cartridges are available in standard sizes, filter classes E11, H13. As standard, Mini Pleat filter cartridges are fitted with a continuous seal. Hygiene conformity in accordance with 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
- Casing made of aluminium

Materials and surfaces

- AL: Casing made of aluminium

Sizing data

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

MFCA	–	H13	–	AL	/	175 × 280
1		2		3		4

1 Type
MFCA Mini Pleat filter cartridge

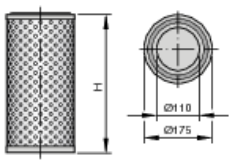
2 Filter class
E11 Particulate filter according to EN 1822
H13 Particulate filter according to EN 1822

3 Construction
AL Casing made of aluminium

4 Nominal size [mm]
D × H

MFCA–H13–AL/175×180
Filter class H13 particulate filter according to EN 1822
Construction Casing made of aluminium
Nominal size 175 × 280 mm

Dimensions

①			②		③	④	⑤
D [mm]	H [mm]	Filter class	qv [l/s]	qv [m³/h]	ΔpA [Pa]	m²	kg
175	177	E11	36	130	100	1,3	0,5
175	227	E11	47	170	100	1,7	0,8
175	280	E11	56	200	100	2,1	1,1
175	177	H13	36	130	200	1,3	0,5
175	227	H13	47	170	200	1,7	0,8
175	280	H13	56	200	200	2,1	1,1

Dimensional drawing of MFCA