

Filter Units Filter Elements

2013



TROX[®] TECHNIK
The art of handling air

Filter Units

Filter Elements

2013

The Filter Units / Filter Elements catalogue corresponds to the previously used Filter catalogue.

The TROX catalogues have been completely revised and now offer several new features:

- Hardcover editions
- Simplified navigation
- List of advantages of each product at a glance
- Different chapters for principal products, additional components, and attachments

The following documentation is available to help you select and size TROX components and systems:

- Technical leaflets contained in the catalogues
- Design manuals
- Easy Product Finder design programme
- Compendium CD
- Website www.troxtechnik.com

This catalogue is a carbon neutral product.

TROX[®] TECHNİK
The art of handling air

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Air terminal devices



Air-Water Systems / Decentralised Ventilation



Multileaf Dampers / Attenuators / Weather Louvres



Fire and Smoke Protection Systems



Control Units



Control Systems



Filter Units / Filter Elements

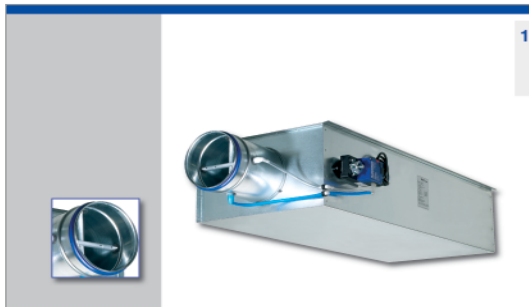
The Filter Units / Filter Elements catalogue corresponds to the previously used Filter catalogue.



X-CUBE – Air Handling Units



X-FANS – Building Fans

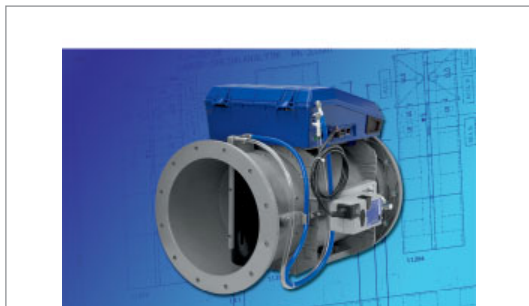


Technical leaflet

Technical leaflets

... contain:

- Product descriptions
- Information on the materials used
- Aerodynamic and acoustic data
- Dimensions
- Details on product characteristics
- Specification texts

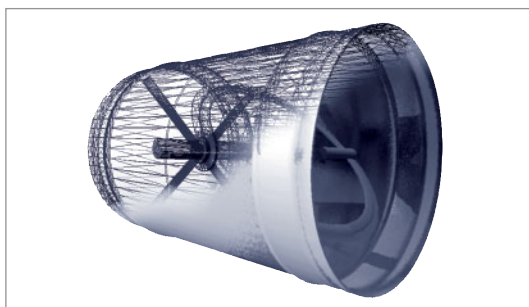


Design manual

Design manuals

... contain:

- Basic information and technical concepts
- Step-by-step product design
- Overview and explanation on how to select the ideal system components

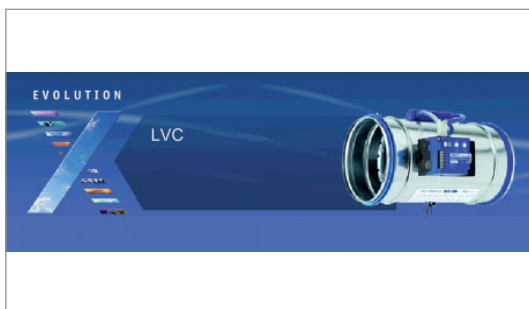


Design programme

Easy Product Finder design programme

... contains everything to select and size TROX products:

- Technical data
- Diagrams, photos
- Order codes that can be edited
- CAD drawings (3D model; export function for DXF and other standard formats)
- Specification texts for each product and variant



Website

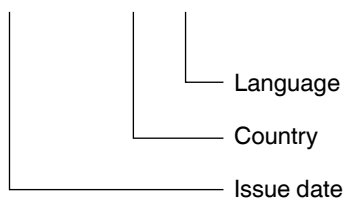
Internet www.trox.de

The entire documentation is available on the internet.

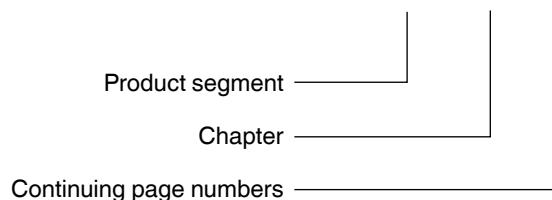
- Catalogue download center
- Individual product leaflets
- Installation examples
- References






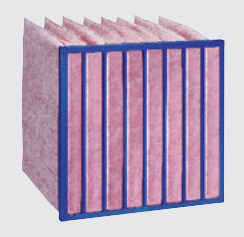
Page numbering

09/2013 – DE/en **TROX**® TECHNIK



K7 – 0.0 – 5



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6		6 Pocket filters <ul style="list-style-type: none">6.1 Pocket filters made of non-woven chemical fibres6.2 Pocket filters made of non-woven synthetic fibres6.3 Pocket filters made of NanoWave® medium6.4 Pocket filters made of non-woven glass fibres

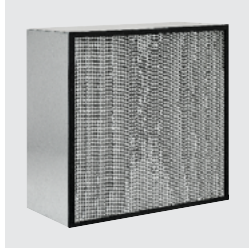


7 Mini Pleat filters

- 7.1 Filter inserts
- 7.2 Filter elements
- 7.3 Filter cells
- 7.4 Filter panels

- 7.5 Filter cartridges
- 7.6 Filter panels for clean room technology
- 7.7 Filter panels with hood

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8 Deep Pleat filters

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- 8.2 Particulate filter cells

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- 9.2 Filter cartridges
- 9.3 Filter cells

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10 Basic information and nomenclature

- 10.1 Filter units and filter elements

10

Additional information

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- Z - 3 TROX contact information



1 Filter frames for wall installation

Base element for mounting a filter wall in ventilation systems. They are used to fit filter elements for the separation of coarse dust, fine dust, and suspended particles or for the adsorption of gaseous odorous substances and contaminants.

1.1 Standard cell frames

Type

Page



Fitting of filter elements for the separation of coarse and fine dust

SCF

1.1 – 1

1.2 Filter wall



Fitting of filter elements for the separation of coarse and fine dust

SIF

1.2 – 1

1.3 Mounting frames



Fitting of filter elements for the separation of suspended particles

MF

1.3 – 1

1.4 Mounting plates



Fitting of filter elements for the adsorption of gaseous odorous substances and contaminants

MP

1.4 – 1

10.1 Basic information and nomenclature



Filter units and filter elements

10.1 – 1

Standard cell frames

Type SCF



Cell frame with groove



Clamping elements and continuous seal



Cell frame with support grid and press-in frame



Tested to VDI 6022



Fitting of filter elements for the separation of coarse and fine dust

Standard cell frames for pocket filters, Mini Pleat filter inserts, activated carbon filter inserts, Mini Pleat filter panels with plastic frames, Z-line filters, and cut-to-size filter pads. For installation in air handling units or for mounting a filter wall in ventilation systems

- Highly variable since parts of various sizes can be combined
- Robust construction; cell frame available with and without groove
- Perfect compensation of tolerances due to perimeter groove in standard cell frame
- Cell frames with a groove provide various tensioning options depending on the filter frame depth
- Standard cell frames for cut-to-size filter pads with support grid and press-in frame
- Easy handling and secure sealing due to four special clamping elements and a foamed, closed-cell, silicone-free continuous seal
- Meets the hygiene requirements of VDI 6022

Optional equipment and accessories

- Stainless steel construction
- Profiled seal (replaceable)

1

Type		Page
SCF	General information	1.1 – 2
	Order code	1.1 – 4
	Dimensions and weight – SCF-A	1.1 – 5
	Dimensions and weight – SCF-B / SCF-C	1.1 – 6
	Specification text	1.1 – 8
	Basic information and nomenclature	10.1 – 1

Variants

Product examples

**Standard cell frame without groove,
variant SCF-A**



**Standard cell frame with groove,
variant SCF-B-25**



**Standard cell frame with groove,
variant SCF-B-48**



**Standard cell frame with groove,
variant SCF-B-96**



**Standard cell frame with groove,
variant SCF-C-25**



Description

Application

- Standard cell frame type SCF as a base element for mounting a filter wall in ventilation systems
- Fitting of filter elements for the separation of coarse and fine dust
- Fitting of filter elements for the adsorption of gaseous odorous substances and contaminants
- Standard cell frame for pocket filters, Mini Pleat filter inserts, activated carbon filter inserts, Mini Pleat filter panels with plastic frames, Z-line filters, and cut-to-size filter pads.

Variants

- A: Frame without perimeter groove
- B: Frame with perimeter groove
- C: Frame with perimeter groove, support grid, and tensioning frame
- Tensioning depth: 25, 48, 96 mm

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Nominal sizes [mm]

- B x H x T

Options

- CS: Continuous seal
- PS: Profiled seal

Useful additions

- Suitable filter elements to be ordered separately
- Pocket filters made of non-woven chemical fibres (PFC)
- Pocket filters made of non-woven synthetic fibres (PFS)
- Pocket filters made of NanoWave® medium (PFN)

- Pocket filters made of non-woven glass fibres (PFG)
- Mini Pleat filter inserts (MFI)
- Activated carbon filter inserts (ACFI)
- Mini Pleat filter panels (MFP, variant PLA)
- Z-line filters (ZL)
- Cut-to-size filter pads (FMP, media type G02, C04, C11, C06, variant PAD)

Construction features

- Four clamping elements for secure sealing between the cell frame and the filter elements
- Standard cell frame without perimeter groove, with either a foamed continuous seal or a profiled seal
- Standard cell frame with support grid and press-in frame for cut-to-size filter pads
- Base elements in different sizes
- Standard cell frames of the same size can be combined into a filter wall
- Maximum height: 5 standard cell frames

Materials and surfaces

- Standard cell frames made of galvanised sheet steel or stainless steel

Standards and guidelines

- Hygiene meets the 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 13779

Maintenance

- Maintenance-free as construction and materials are not subject to wear

Order code

SCF

SCF – B – 25 – GAL / 610 × 610 × 80 / CS

1 2 3 4 5 6

1 Type

SCF Standard cell frame

2 Variant

- A Frame without perimeter groove
- B Frame with perimeter groove
- C Frame with perimeter groove, support grid, and tensioning frame

3 Tensioning depth [mm]

25
48
96

4 Material

GAL Galvanised steel
STA Stainless steel

5 Nominal size [mm]

B × H × T

6 Seal

No entry: none
CS Continuous seal
PS Profiled seal (only for SCF-A)

Order example

SCF-B-25-GAL/610×610×80/CS

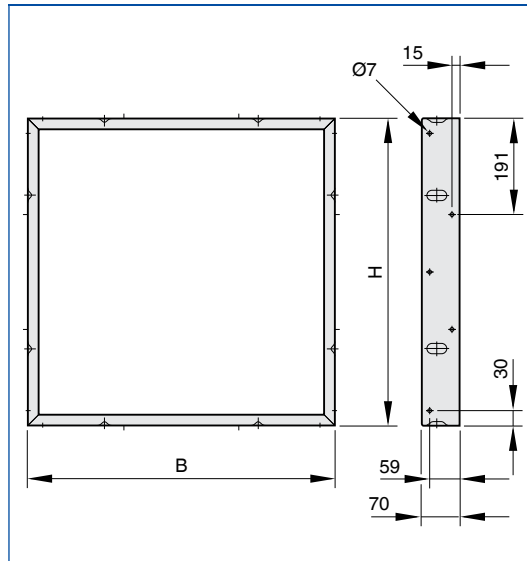
Variant	Frame with perimeter groove
Tensioning depth	25 mm
Materials	galvanised steel
Nominal size	610 × 610 × 80 mm
Seal	Continuous seal

Dimensions

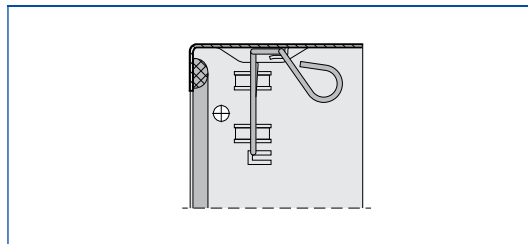


Standard cell frame without groove, variant SCF-A

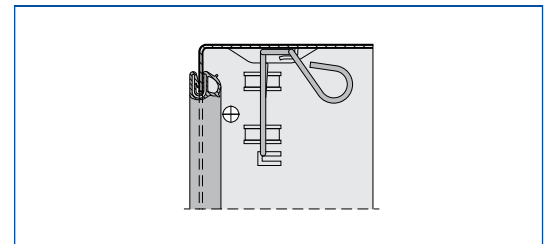
Dimensional drawing of SCF-A



Detail of SCF-A-25-.../CS



Detail of SCF-A-25-.../PS



Standard construction

Standard cell frame for pocket filters, Mini Pleat filter inserts, and activated carbon filter inserts

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T	mm	~ kg
305	305	70	25	0.9
305	610	70	25	1.3
508	610	70	25	1.6
610	610	70	25	1.8
305	910	70	25	1.8
508	910	70	25	2.1
610	910	70	25	2.2

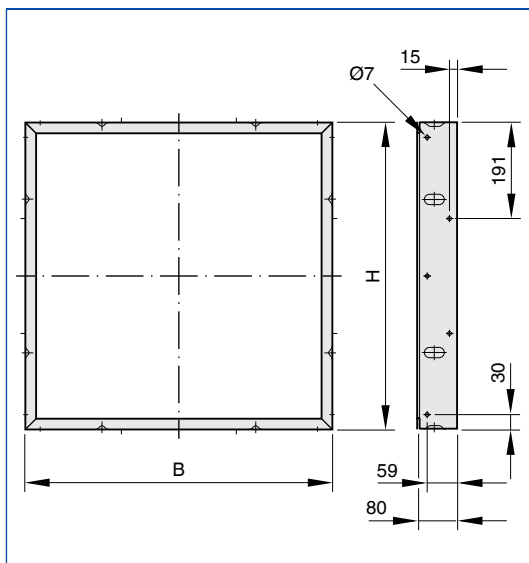
① Tensioning depth ② Weight

Dimensions

Dimensional drawing of SCF-B / SCF-C



Standard cell frame with groove, variant SCF-B

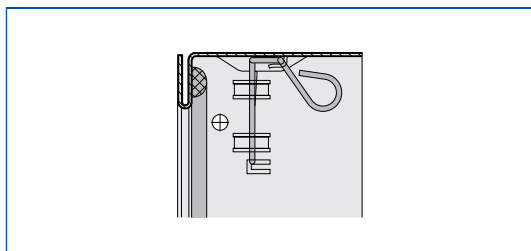


Standard construction

Standard cell frame for pocket filters, Mini Pleat filter inserts, and activated carbon filter inserts

All weights are net, without packaging.

Detail of SCF-B-25

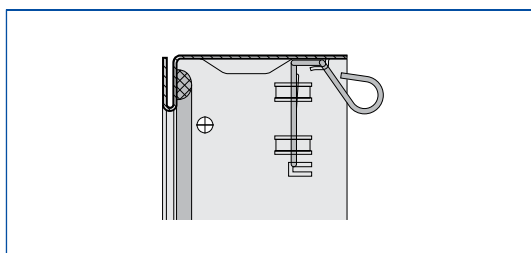


Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T	mm	~ kg
305	305	80	25	1.2
305	610	80	25	1.9
508	610	80	25	2.4
610	610	80	25	2.5
305	910	80	25	2.5
508	910	80	25	3.0
610	910	80	25	3.2

① Tensioning depth ② Weight

Detail of SCF-B-48



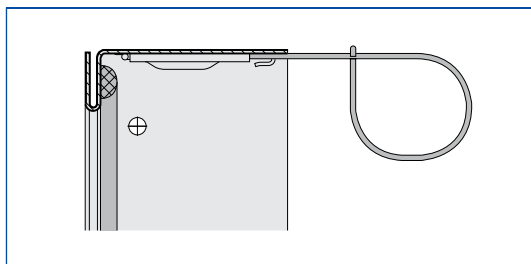
Standard cell frame for Mini Pleat filter panels with plastic frame and for Z-line filters

Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T	mm	~ kg
305	610	80	48	1.9
508	610	80	48	2.4
610	610	80	48	2.5

① Tensioning depth ② Weight

Detail of SCF-B-96



Standard cell frame for Mini Pleat filter panels with plastic frame and for Z-line filters

Dimensions [mm] and weight [kg]

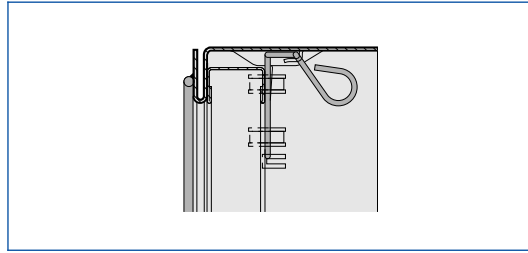
Nominal size			①	②
B	H	T	mm	~ kg
305	610	80	96	1.9
508	610	80	96	2.4
610	610	80	96	2.5

① Tensioning depth ② Weight

Detail of SCF-C-25

Standard cell frame for
 cut-to-size filter pads

All weights are net,
 without packaging.



Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T	mm	~ kg
305	610	80	25	3.0
610	610	80	25	4.1

① Tensioning depth ② Weight

Standard text

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

Standard cell frames type SCF as a base element for mounting a filter wall in air handling units and ventilation systems.

Fitting of filter elements for the separation of coarse dust and fine dust and for the adsorption of gaseous odorous substances and contaminants. Standard cell frame available in various sizes with or without groove. Construction variant with groove and foamed continuous seal for various filter frame depths.

For cut-to-size filter pads, the cell frames are equipped with support grid and press-in frame (without seal). Standard cell frame without perimeter groove, with either a foamed continuous seal or a profiled seal.

Four clamping elements for secure sealing between the cell frame and the filter element. Standard cell frames meet the hygiene requirements of VDI 6022.

Materials and surfaces

- Standard cell frames made of galvanised sheet steel or stainless steel

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Order options

1 Type

SCF Standard cell frame

2 Variant

- A** Frame without perimeter groove
- B** Frame with perimeter groove
- C** Frame with perimeter groove, support grid, and tensioning frame

3 Tensioning depth [mm]

- 25**
- 48**
- 96**

4 Material

- GAL** Galvanised steel
- STA** Stainless steel

5 Nominal size [mm]

B × H × T

6 Seal

No entry: none

- CS** Continuous seal
- PS** Profiled seal (only for SCF-A)

Filter wall

Type SIF



Fitting of filter elements for the separation of coarse and fine dust

Standard cell frames for pocket filters, Mini Pleat filter inserts, activated carbon filter inserts, Mini Pleat filter panels with plastic frames. For installation into ventilation systems

- Highly variable since parts of various sizes can be combined
- Robust construction
- Perfect compensation of tolerances due to perimeter groove in standard cell frame
- Cell frames with a groove provide various tensioning options depending on the filter frame depth
- Easy handling and secure sealing due to four special clamping elements and a foamed, closed-cell, silicone-free continuous seal
- Meets the hygiene requirements of VDI 6022

Optional equipment and accessories

- Stainless steel construction



Standard cell frame with groove, variant SCF-B-25



Tested to VDI 6022

Type		Page
SIF	General information	1.2 – 2
	Order code	1.2 – 4
	Dimensions and weight	1.2 – 5
	Specification text	1.2 – 8
	Basic information and nomenclature	10.1 – 1

Description



Filter wall, type SIF

Application

- Filter wall type SIF for ventilation systems
- Fitting of filter elements for the separation of coarse and fine dust
- Fitting of filter elements for the adsorption of gaseous odorous substances and contaminants
- Filter wall for pocket filters, Mini Pleat filter inserts, activated carbon filter inserts, Mini Pleat filter panels with plastic frames

Variants

- B: Frame with perimeter groove
- Tensioning depth: 25 mm

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Nominal sizes

- Number of cell frames – horizontally
- Number of cell frames – vertically

Useful additions

- Suitable filter elements to be ordered separately
- Pocket filters made of non-woven chemical fibres (PFC)
- Pocket filters made of non-woven synthetic fibres (PFS)
- Pocket filters made of NanoWave® medium (PFN)
- Pocket filters made of non-woven glass fibres (PFG)
- Mini Pleat filter inserts (MFI)
- Activated carbon filter inserts (ACFI)
- Mini Pleat filter panels (MFP, variant PLA)

Construction features

- Four clamping elements for secure sealing between the cell frame and the filter elements
- Cell frame with perimeter groove

Materials and surfaces

- Standard cell frames, installation subframes, and flat steel stiffeners made of galvanised sheet steel or stainless steel

Installation and commissioning

- The filter wall consists of individual standard cell frames
- The installation subframe is to be inserted into the groove of the cell frame and bolted into place at the corners
- The flat steel stiffeners provide static stability
- The installation frame is to be sealed to the structure

Standards and guidelines

- Hygiene meets the 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 13779

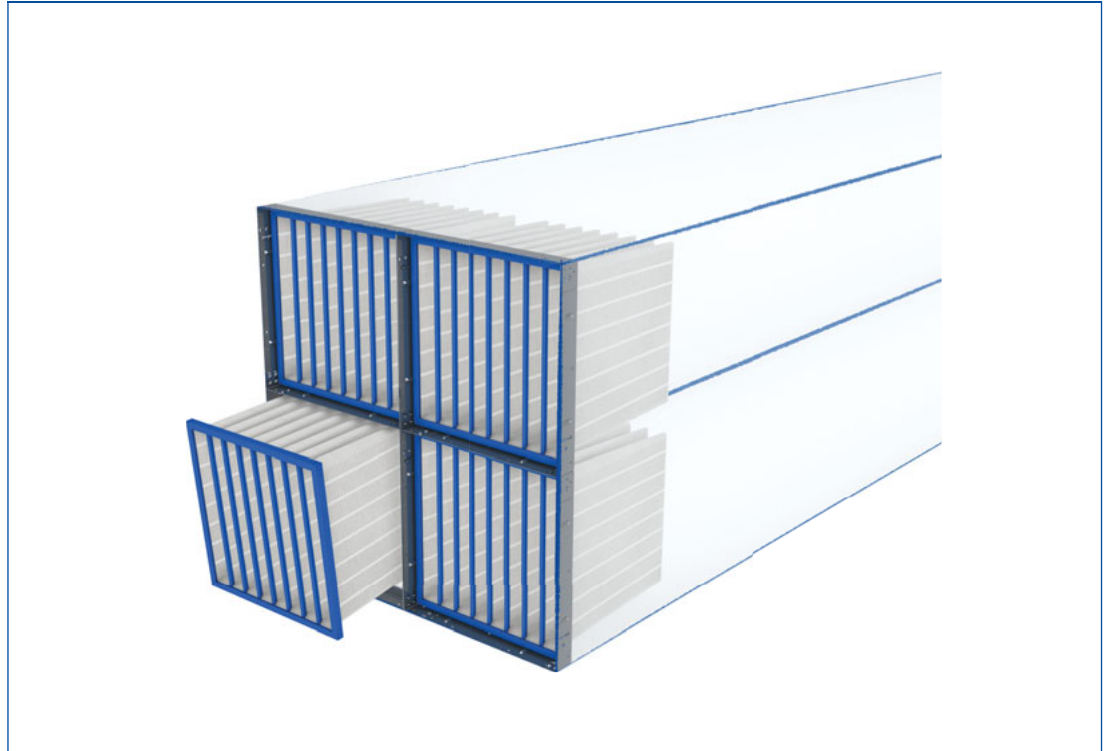
Maintenance

- Maintenance-free as construction and materials are not subject to wear

Function

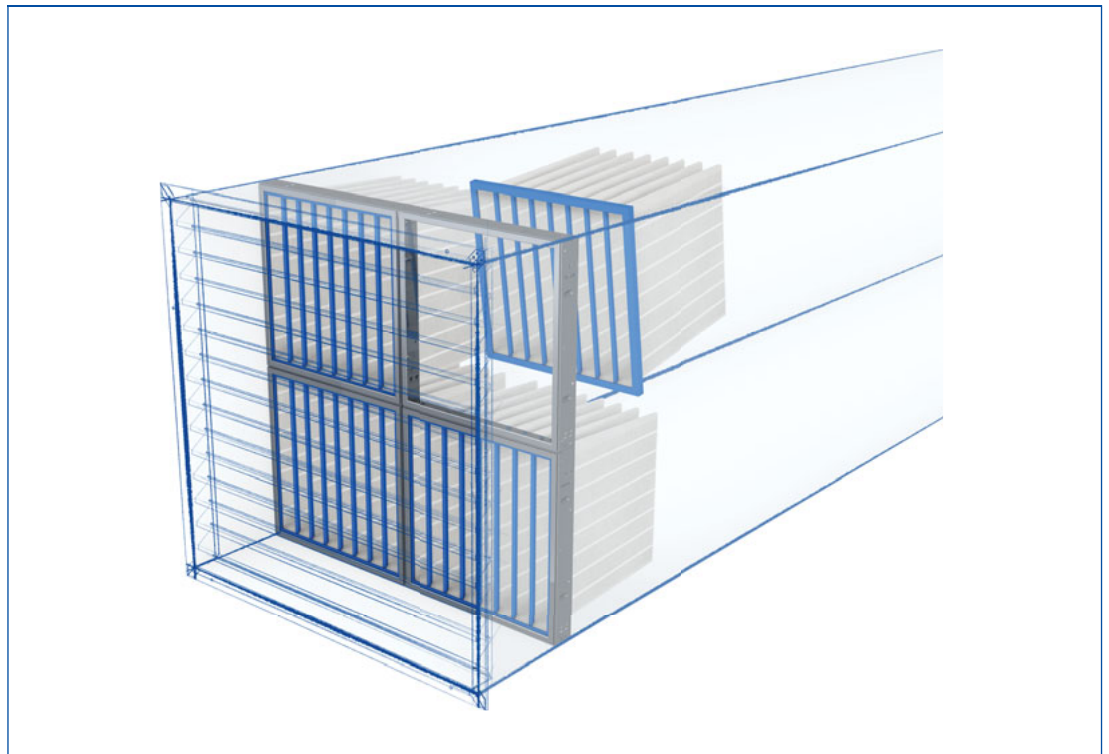
Installation with regard to filter change on the upstream side according to applicable guidelines such as VDI 6022

Schematic illustration of SIF-B



Schematic illustration of SIF-B

Installation with regard to filter change on the downstream side if unavoidable due to the construction conditions on site



Order code

SIF

SIF - B - 25 - GAL / 2,5 x 2

1 2 3 4 5 6

1 Type

SIF Filter wall

2 Variant

B Frame with perimeter groove

3 Tensioning depth [mm]

25

4 Material

GAL Galvanised steel

STA Stainless steel

5 Number of cell frames – horizontally

1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6

6 Number of cell frames – vertically

1
1.5
2
2.5
3
3.5
4
4.5
5

Order example

SIF-B-25-GAL/2.5x2

Variant	Frame with perimeter groove
Tensioning depth	25 mm
Materials	galvanised steel
Number of cell frames – horizontally	2.5
Number of cell frames – vertically	2

Technical data

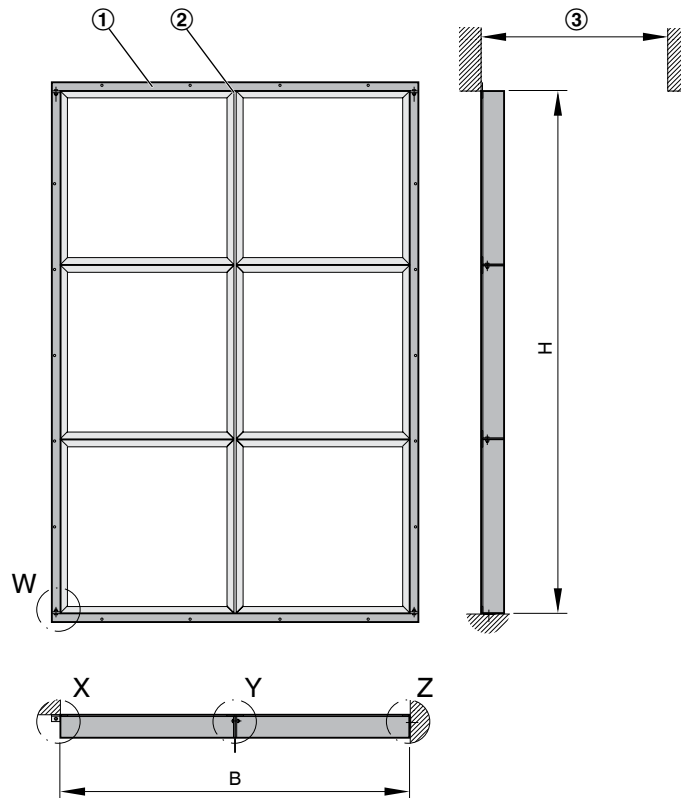


Filter wall, type SIF

The filter wall consists of individual standard cell frames.

The installation subframe is inserted into the groove of the cell frame and bolted into place at the corners. The flat steel stiffeners provide static stability.

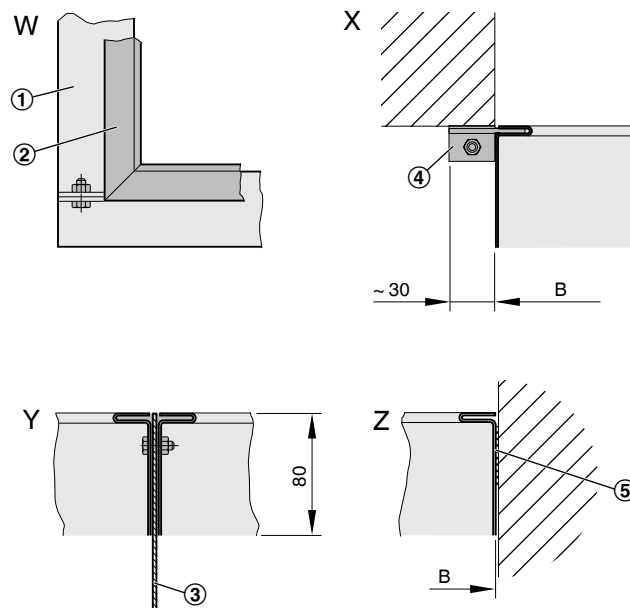
Dimensional drawing of SIF



- ① Special installation subframe
- ② Flat steel stiffener

- ③ Minimum space requirement for filter change 650 mm

Details W, X, Y, Z



- ① Special installation subframe
- ② Standard cell frame
- ③ Flat steel stiffeners, 130 mm deep (from H = 2763 mm)

- ④ Installation example with special installation subframe
- ⑤ Installation without special installation subframe

Standard construction

Dimensions [mm] and weight [kg]

1 All weights are net, without packaging.

Nominal size		①		②			③
B	H	horizontal	vertical	592 × 592	287 × 592	592 × 287	Variant B ~ kg
610	610	1	1	1	0	0	5
	915	1	1.5	1	0	1	8
	1220	1	2	2	0	0	10
	1525	1	2.5	2	0	1	11
	1830	1	3	3	0	0	13
	2135	1	3.5	3	0	1	16
	2440	1	4	4	0	0	17
919	610	1.5	1	1	1	0	8
	1220	1.5	2	2	2	0	15
	1830	1.5	3	3	3	0	23
	2440	1.5	4	4	4	0	29
1225	610	2	1	2	0	0	10
	915	2	1.5	2	0	2	15
	1220	2	2	4	0	0	18
	1525	2	2.5	4	0	2	22
	1830	2	3	6	0	0	25
	2135	2	3.5	6	0	2	29
	2440	2	4	8	0	0	33
	2745	2	4.5	8	0	2	40
	3050	2	5	10	0	0	43
1535	610	2.5	1	2	1	0	11
	1220	2.5	2	4	2	0	24
	1830	2.5	3	6	3	0	34
	2440	2.5	4	8	4	0	44
	3050	2.5	5	10	5	0	61
1840	610	3	1	3	0	0	13
	915	3	1.5	3	0	3	23
	1220	3	2	6	0	0	26
	1525	3	2.5	6	0	3	33
	1830	3	3	9	0	0	37
	2135	3	3.5	9	0	3	44
	2440	3	4	12	0	0	48
	2745	3	4.5	12	0	3	60
	3050	3	5	15	0	0	64
2145	610	3.5	1	3	1	0	16
	1220	3.5	2	6	2	0	32
	1830	3.5	3	9	3	0	46
	2440	3.5	4	12	4	0	60
	3050	3.5	5	15	5	0	83
2450	610	4	1	4	0	0	17
	915	4	1.5	4	0	4	30
	1220	4	2	8	0	0	35
	1525	4	2.5	8	0	4	44
	1830	4	3	12	0	0	49
	2135	4	3.5	12	0	4	58
	2440	4	4	16	0	0	63
	2745	4	4.5	16	0	4	81
	3050	4	5	20	0	0	87

① No. of cell frames ② No. of filter elements ③ Weight

Standard construction

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size		①		②			③
B	H	horizontal	vertical	592 × 592	287 × 592	592 × 287	Variant B ~ kg
2763	610	4.5	1	4	1	0	19
	1220	4.5	2	8	2	0	40
	1830	4.5	3	12	3	0	58
	2440	4.5	4	16	4	0	75
	3050	4.5	5	20	5	0	104
3068	610	5	1	5	0	0	21
	915	5	1.5	5	0	5	37
	1220	5	2	10	0	0	43
	1525	5	2.5	10	0	5	55
	1830	5	3	15	0	0	60
	2135	5	3.5	15	0	5	73
	2440	5	4	20	0	0	79
	2745	5	4.5	20	0	5	101
3050	5	5	25	0	0	108	
3377	1220	5.5	2	10	2	0	49
	1830	5.5	3	15	3	0	70
	2440	5.5	4	20	4	0	90
	3050	5.5	5	25	5	0	126
3683	1220	6	2	12	0	0	51
	1525	6	2.5	12	0	6	66
	1830	6	3	18	0	0	73
	2135	6	3.5	18	0	6	87
	2440	6	4	24	0	0	94
	2745	6	4.5	24	0	6	121
3050	6	5	30	0	0	130	

① No. of cell frames ② No. of filter elements ③ Weight

Standard text

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

Filter wall type SIF for installation into ventilation systems. Fitting of filter elements for the separation of coarse dust and fine dust and for the adsorption of gaseous odorous substances and contaminants.

Filter wall consisting of standard cell frames with perimeter groove as base element, installation subframes, and flat steel stiffeners.

Standard cell frame with perimeter groove for various filter frame depths.

Four clamping elements for secure sealing between the cell frame and the filter element.

The installation subframe is inserted into the groove of the cell frame and bolted into place at the corners. The flat steel stiffeners provide static stability. The filter wall meets the hygiene requirements of VDI 6022.

Materials and surfaces

- Standard cell frames, installation subframes, and flat steel stiffeners made of galvanised sheet steel or stainless steel

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Order options

1 Type

SIF Filter wall

2 Variant

B Frame with perimeter groove

3 Tensioning depth [mm]

25

4 Material

GAL Galvanised steel

STA Stainless steel

5 Number of cell frames – horizontally

1

1.5

2

2.5

3

3.5

4

4.5

5

5.5

6

6 Number of cell frames – vertically

1

1.5

2

2.5

3

3.5

4

4.5

5

Mounting frames

Type MF



Fitting of filter elements for the separation of suspended particles

Mounting frames for Mini Pleat filter inserts. For installation in air handling units or for mounting a filter wall in ventilation systems

- Highly variable since parts of various sizes can be combined
- Easy handling due to four clamping screws that ensure a secure sealing between the mounting frame and the filter element
- Meets the hygiene requirements of VDI 6022

Optional equipment and accessories

- Stainless steel construction



Clamping screw for secure sealing



Tested to VDI 6022

Type		Page
MF	General information	1.3 – 2
	Order code	1.3 – 3
	Dimensions and weight	1.3 – 4
	Specification text	1.3 – 5
	Basic information and nomenclature	10.1 – 1

Description



Mounting frame,
type MF

Application

- Mounting frame type MF as a base element for mounting a filter wall in air handling units and ventilation systems
- Fitting of filter elements for the separation of fine dust and suspended particles

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Nominal sizes [mm]

- B × H × T

Useful additions

- Suitable filter elements to be ordered separately
- Mini Pleat filter inserts (MFI, variant SPC)

Construction features

- Four clamping screws ensure a secure sealing between the mounting frame and the filter element

Materials and surfaces

- Mounting frame made of galvanised sheet steel or stainless steel

Standards and guidelines

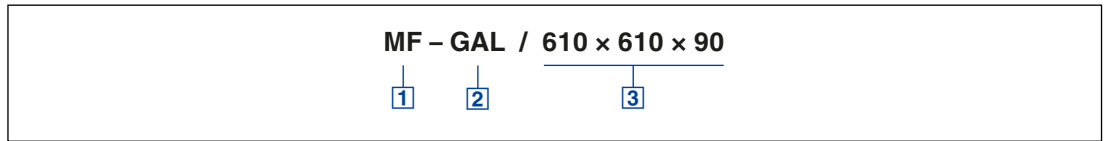
- Hygiene meets the requirements of VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3, and EN 13779

Maintenance

- Maintenance-free as construction and materials are not subject to wear

Order code

MF



1 Type

MF Mounting frame

3 Nominal size [mm]

B x H x T

2 Material

GAL Galvanised steel

STA Stainless steel

Order example

MF-GAL/610x610x90

Materials

galvanised steel

Nominal size

610 x 610 x 90 mm

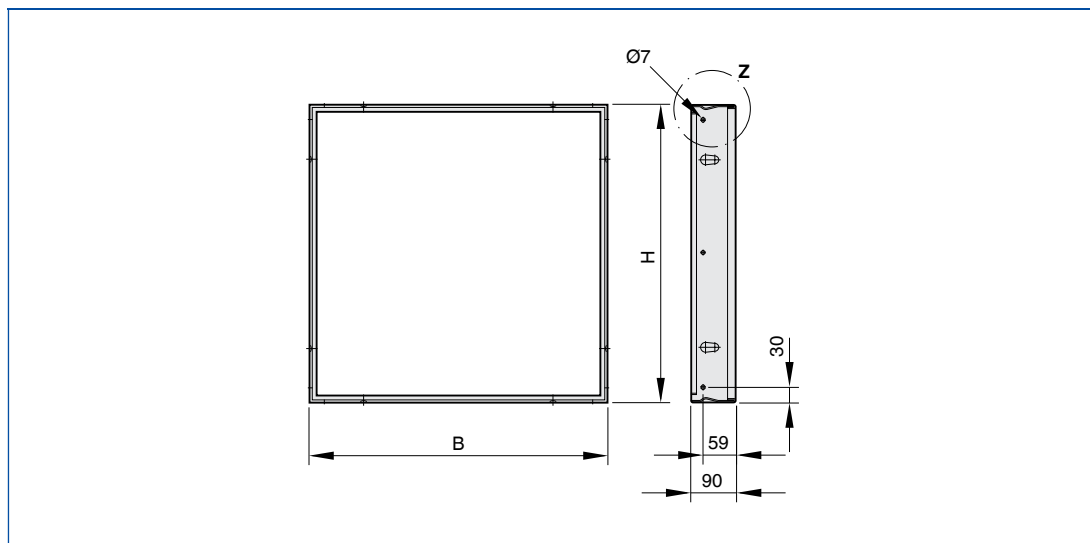
Dimensions

1

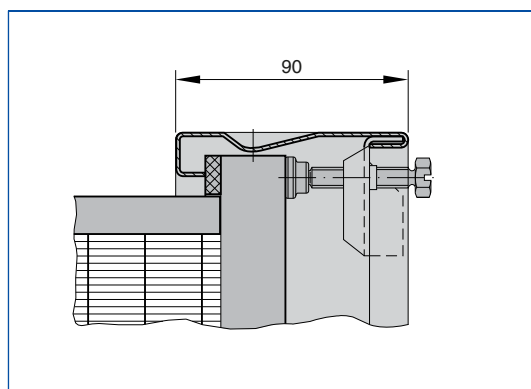


Mounting frame,
type MF

Dimensional drawing of MF



Detail Z



Standard construction

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①
B	H	T	~ kg
305	610	90	3.1
508	610	90	3.7
610	610	90	4.0

① Weight

Standard text

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

Mounting frame type MF as a base element for mounting a filter wall in air handling units and ventilation systems.
Fitting of Mini Pleat filter inserts for the separation of fine dust and suspended particles.
Four clamping screws ensure the secure sealing between the mounting frame and the Mini Pleat filter insert.
The mounting frame meets the hygiene requirements of VDI 6022.

Materials and surfaces

- Mounting frame made of galvanised sheet steel or stainless steel

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Order options

1 Type

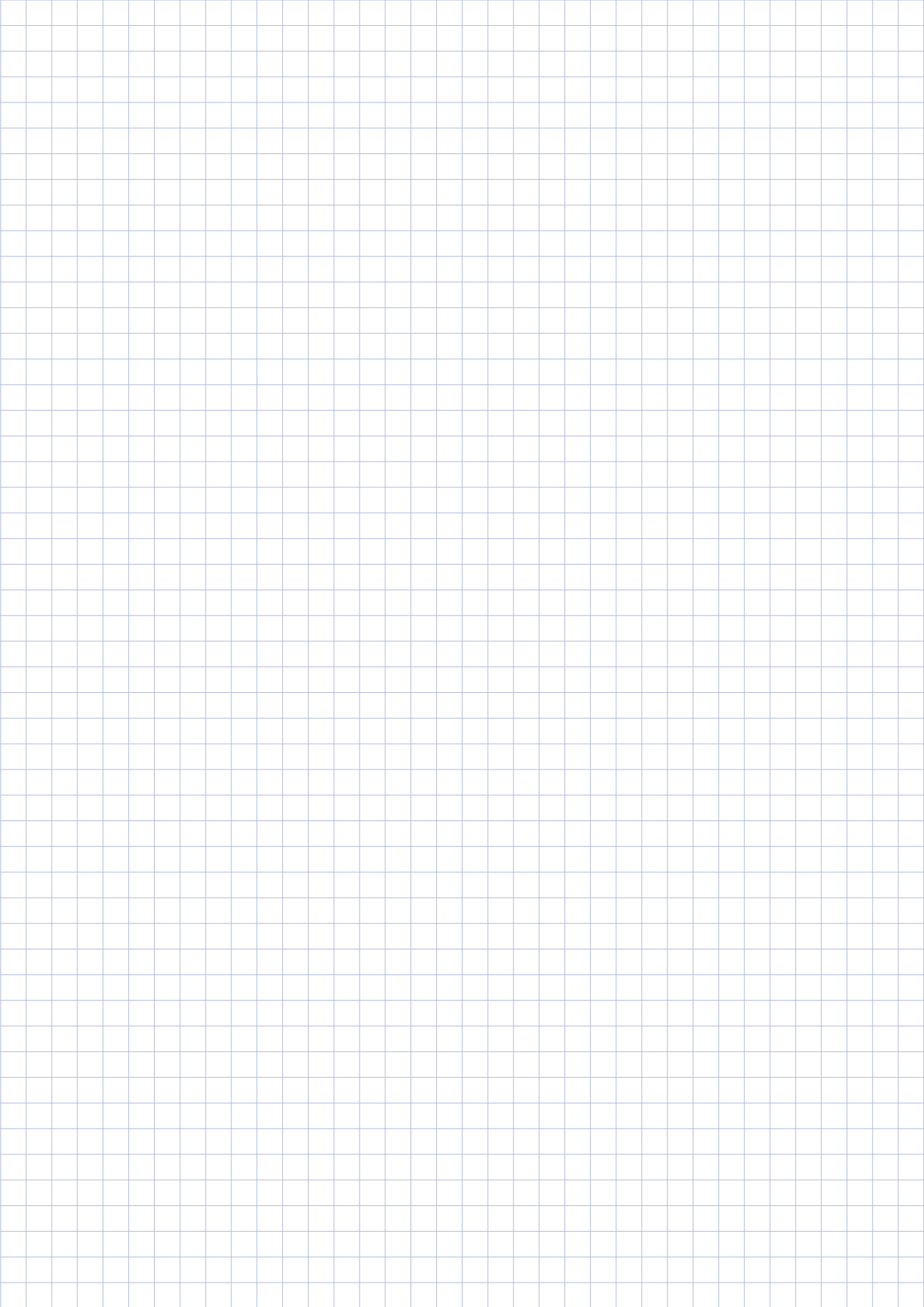
MF Mounting frame

2 Material

- GAL** Galvanised steel
- STA** Stainless steel

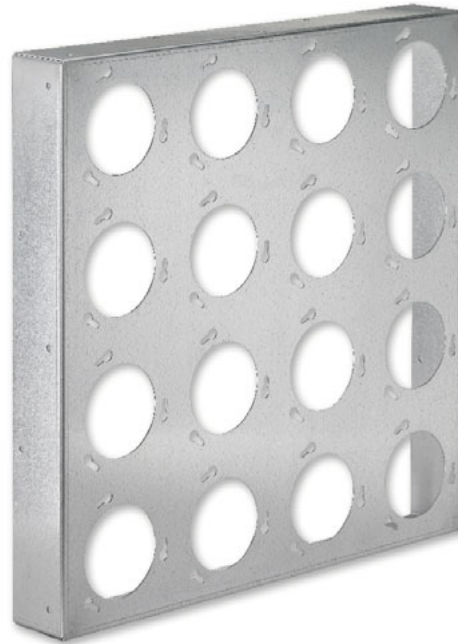
3 Nominal size [mm]

B × H × T



Mounting plates

Type MP



Fitting of filter elements for the adsorption of gaseous odorous substances and contaminants

Mounting plates for activated carbon filter cartridges. For installation in air handling units or for mounting a filter wall in ventilation systems

- Highly variable since parts of various sizes can be combined
- Easy change of the activated carbon filter cartridges due to the bayonet fixing
- Meets the hygiene requirements of VDI 6022

Optional equipment and accessories

- Stainless steel construction



Tested to VDI 6022

Type		Page
MP	General information	1.4 – 2
	Order code	1.4 – 3
	Dimensions and weight	1.4 – 4
	Specification text	1.4 – 5
	Basic information and nomenclature	10.1 – 1

Description



Mounting plate, type MP

Application

- Mounting plate type MP as a base element for mounting a filter wall in air handling units and ventilation systems
- Fitting of activated carbon filter cartridges for the adsorption of gaseous odorous substances and contaminants, hydrocarbons, and traces of inorganic compounds

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Nominal sizes [mm]

- B × H × T

Useful additions

- Suitable filter elements to be ordered separately
- Activated carbon filter cartridges (ACFC)

Construction features

- Mounting plates with openings to fit activated carbon filter cartridges (bayonet fixing)

Materials and surfaces

- Mounting plates made of galvanised sheet steel or stainless steel

Standards and guidelines

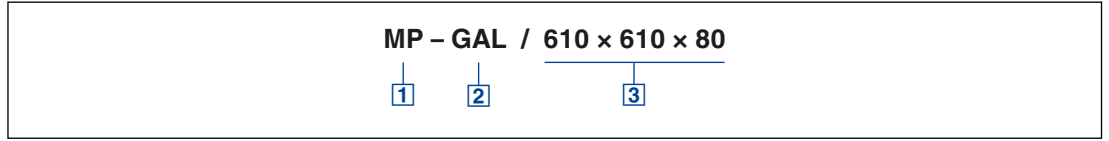
- Hygiene meets the requirements of VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3, and EN 13779

Maintenance

- Maintenance-free as construction and materials are not subject to wear

Order code

MP



1 Type

MP Mounting plate

3 Nominal size [mm]

B × H × T

2 Material

GAL Galvanised steel

STA Stainless steel

Order example

MP-GAL/610x610x80

Materials

galvanised steel

Nominal size

610 × 610 × 80 mm

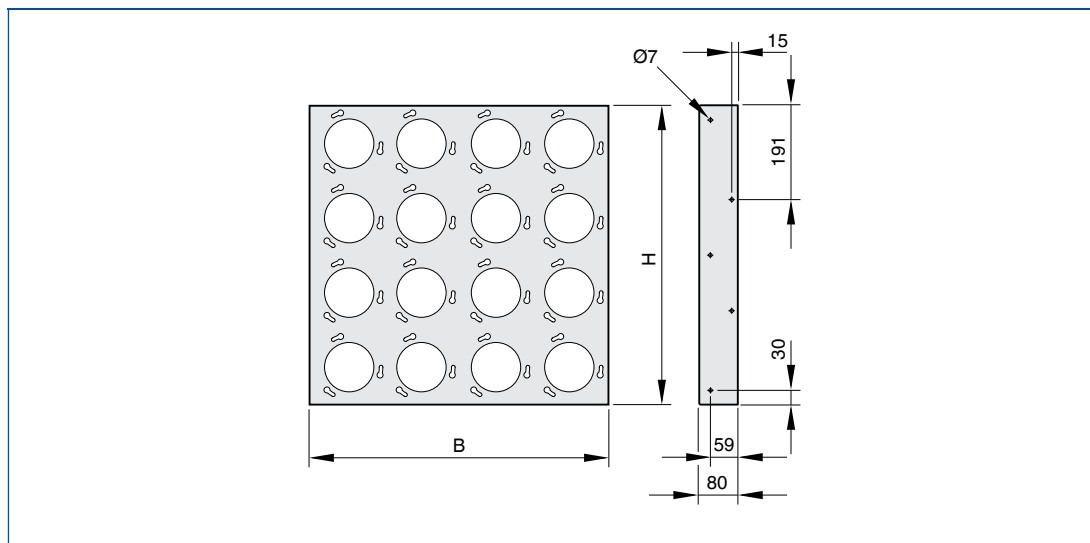
Dimensions

1



Mounting plate,
type MP

Dimensional drawing of MP



Standard construction

Filter elements to be ordered separately.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T		~ kg
305	305	80	4	0.8
305	610	80	8	1.6
610	610	80	16	3.2

① No. of cartridges ② Weight

Standard text

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

Mounting plates type MP as a base element for mounting a filter wall in air handling units and ventilation systems.
Fitting of activated carbon filter cartridges for the adsorption of gaseous odorous substances and contaminants, hydrocarbons, and traces of inorganic compounds.
Fitting of activated carbon filter cartridges with bayonet fixing.

Materials and surfaces

- Mounting plates made of galvanised sheet steel or stainless steel

Construction

- GAL: Galvanised steel
- STA: Stainless steel

Order options

1 Type

MP Mounting plate

2 Material

- GAL** Galvanised steel
- STA** Stainless steel

3 Nominal size [mm]

B × H × T

Filter casings for duct installation

Table of contents



2 Filter casings for duct installation

In ventilation systems, filter casings are integrated for installation into ducts as prefilters or final filters. Both filter elements for the separation of coarse dust, fine dust, and suspended particles and for the adsorption of gaseous odorous substances and contaminants can be used.

2.1 Universal casings

Type

Page



Fitting of filter elements for the separation of coarse and fine dust or gaseous substances

UCA

2.1 – 1

2.2 Ducted particulate filters



Fitting of filter elements for the separation of suspended particles

KSF

2.2 – 1

2.3 Ducted particulate filters for critical requirements



Fitting of filter elements for the separation of suspended particles in areas with critical requirements

KSFS

2.3 – 1

2.4 Spigots



For filter unit systems with horizontal air inlet and air outlet

KSFSSP

2.4 – 1

2.5 Duct casings for particulate filters



Fitting of filter elements for the separation of suspended particles in areas with standard requirements

DCA

2.5 – 1

10.1 Basic information and nomenclature



Filter units and filter elements

10.1 – 1

Universal casings

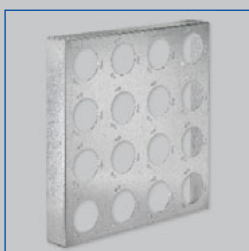
Type UCA



Cell frame for particulate filters



Clamping elements and continuous seal



Mounting plate for activated carbon filter cartridges

Fitting of filter elements for the separation of coarse and fine dust or gaseous substances

Universal casings for pocket filters, Mini Pleat filter inserts, activated carbon filter inserts, activated carbon filter cartridges or Mini Pleat filter panels with plastic frame. One-stage or two-stage construction for installation into the ductwork of ventilation systems.

- Highly variable due to different dimensions and space-saving, compact casing sizes
- Fitting of particulate filters and/or activated carbon filters in one casing depending on application
- Easy filter change through the side service door with handles and quick release clamps
- Location of the service door on the left or right when viewed in the direction of airflow
- Easy handling and secure sealing when fitting the filter elements due to four clamping elements and the continuous closed-cell foam seal of the standard cell frame mounted in the universal casing
- Quick installation without any requirement for additional attachments since the casing frame is used as connecting frame
- Delivery as fully assembled unit

Optional equipment and accessories

- Stainless steel construction

Type		Page
UCA	General information	2.1 – 2
	Order code	2.1 – 6
	Dimensions and weight – UCA-1SPF	2.1 – 7
	Dimensions and weight – UCA-2SPF	2.1 – 9
	Dimensions and weight – UCA-1SAF	2.1 – 11
	Dimensions and weight – UCA-2SAF	2.1 – 13
	Specification text	2.1 – 15
	Basic information and nomenclature	10.1 – 1

Variants

Product examples

Construction variants UCA-1SPF, UCA-2SPF and UCA-1SAF are shown with the service door on the right (when viewed in the direction of airflow)

Universal casing, variant UCA-1SPF



Universal casing, variant UCA-2SPF



Construction variant UCA-2SAF is shown with service door on the left (when viewed in the direction of airflow)

Universal casing, variant UCA-1SAF



Universal casing, variant UCA-2SAF



Description

Application

- Universal casing type UCA for installation into the ductwork of ventilation systems
- Fitting of filter elements for the separation of coarse dust and fine dust and for the adsorption of gaseous odorous substances and contaminants

Variants

- 1SPF: One stage, for coarse and fine dust filters
- 2SPF: Two stages, for coarse and fine dust filters
- 1SAF: One stage, for activated carbon filter cartridges
- 2SAF: Two stages, for fine dust filters and activated carbon filter cartridges

Construction

- GAL: Galvanised steel
- STA: Stainless steel
- R: Service door on the right (in direction of airflow)
- L: Service door on the left (in direction of airflow)

Nominal sizes [mm]

- B × H × T

Useful additions

- Suitable filter elements to be ordered separately
- Pocket filters made of non-woven chemical fibres (PFC)
- Pocket filters made of non-woven synthetic fibres (PFS)
- Pocket filters made of NanoWave® medium (PFN)
- Pocket filters made of non-woven glass fibres (PFG)
- Mini Pleat filter inserts (MFI)
- Activated carbon filter inserts (ACFI)
- Activated carbon filter cartridges (ACFC)
- Mini Pleat filter panels (MFP, construction PLA)

Construction features

- Side service door with handles and clamps
- Location of the service door on the left or right depending on the direction of airflow
- Mounting plate with openings to accommodate and fix activated carbon filter cartridges
- Standard cell frame with four clamping elements for secure sealing between the frame and the filter element

Materials and surfaces

- Casing in galvanised sheet steel or stainless steel

Installation and commissioning

- As standard, Universal casings are supplied fully assembled
- Delivery of larger units (see table) in component form in compact packages complete with connecting material and sealant
- The casing frame with wide sealing surfaces forms the connecting frame for ducts
- Pressure measurement points for each filter unit are part of the supply package but must be set up on site by others

Maintenance

- Easy filter change through the side service door

Function

Schematic illustration of the UCA-2SPF



Example of variant UCA-2SPF, with pocket filters as first and second filter stages. When using pocket filters as second filter stage, the space required for the filters in the connected ductwork must be accounted for.

Function

Schematic illustration of the UCA-2SPF



Example of variant UCA-2SPF, with pocket filters as first filter stage and Mini Pleat filter inserts as second filter stage, e.g. M5 filters as prefilters and F9 filters as final filters.

Schematic illustration of the UCA-2SAF



Example of variant UCA-2SAF, with Mini Pleat filter inserts as first filter stage and activated carbon filter cartridges as second filter stage, e.g. F7 filters as prefilters to protect the activated carbon filter cartridges for the adsorption of gaseous substances.

Order code

UCA



1 Type

UCA Universal casing

4 Nominal size [mm]

B × H × T

2 Variant

- 1SPF** One stage for particulate filters
- 2SPF** Two stages for particulate filters
- 1SAF** One stage for activated carbon filters
- 2SAF** Two stages for activated carbon filters and particulate filters

5 Service door

- R** On the right (in direction of airflow)
- L** On the left (in direction of airflow)

3 Material

- GAL** Galvanised steel
- STA** Stainless steel

Order example

UCA-1SPF-GAL/1325x1630x650/R

Variant	one stage for particulate filters
Material	galvanised steel
Nominal size	1325 × 1630 × 650 mm
Service door	on the right (in direction of airflow)

Dimensions

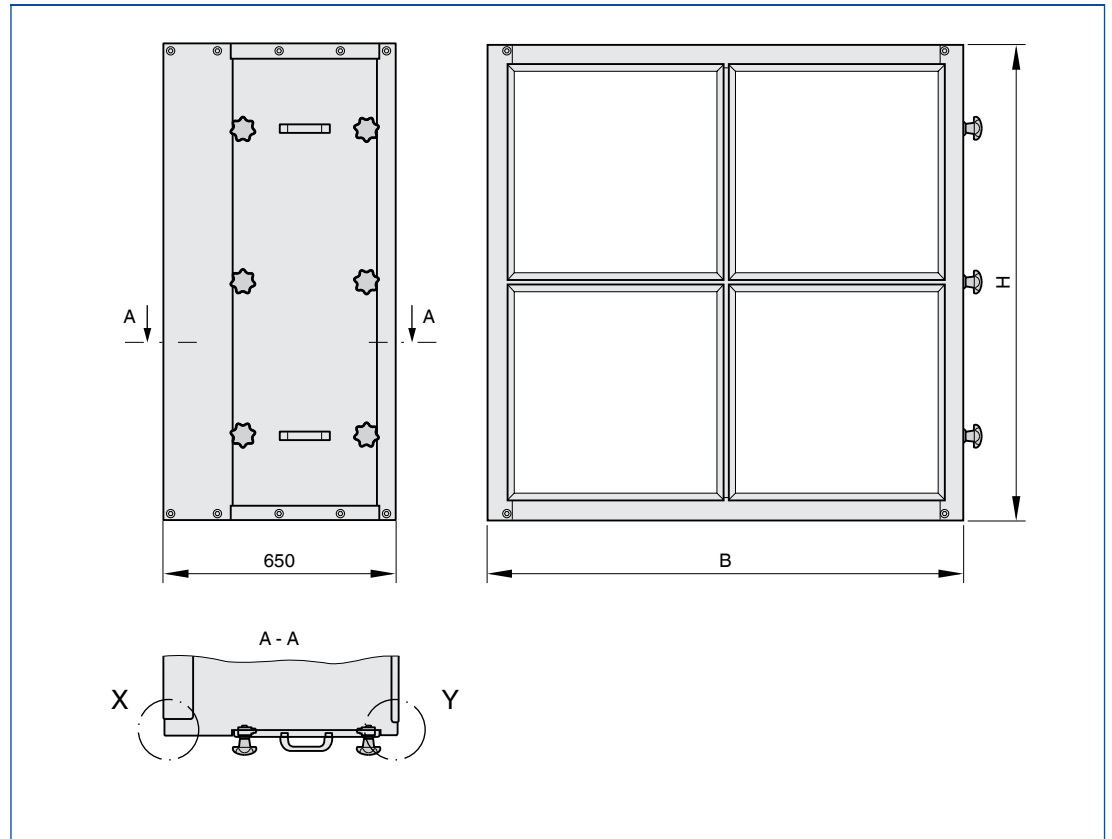


Universal casing, variant UCA-1SPF

Location of the service door on the left or right depending on the direction of airflow

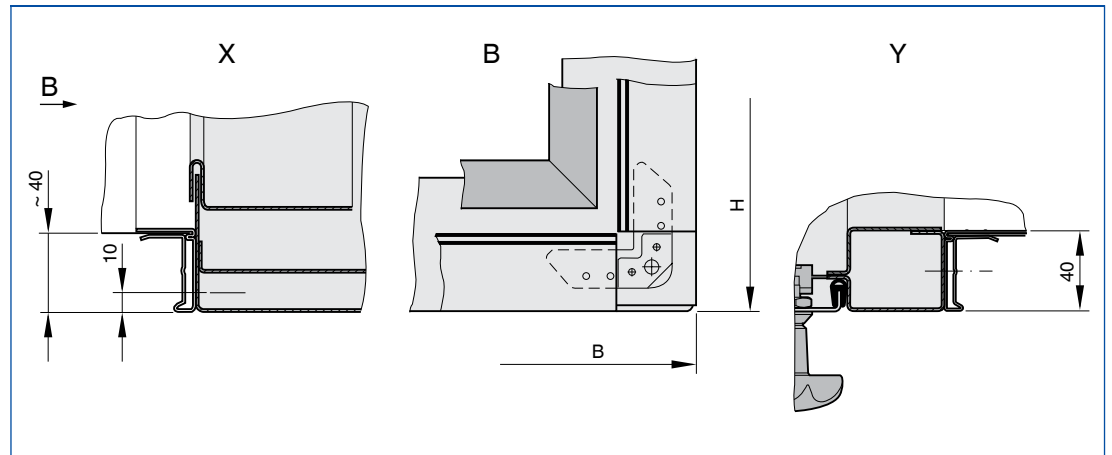
For universal casings with H = 2245 mm or H = 2555 mm the door height is 1845 mm

Dimensional drawing of UCA-1SPF



Examples of easy connection to other units or ductwork

Detail X, Y, view B



Standard construction

Filter elements to be ordered separately. In case of larger volume flow rates, two units are combined side by side. The service doors for the filter change are located on the left and right.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①		②				③
B	H	T	horizontal	vertical	592 × 592	287 × 592	592 × 287	287 × 287 ²⁾	~ kg
405	710	650	0.5	1	0	1	0	0	25
710	710	650	1	1	1	0	0	0	31
710	1015	650	1	1.5	1	0	1	0	42
710	1325	650	1	2	2	0	0	0	49
710	1630	650	1	2.5	2	0	1	0	58
710	1940	650	1	3	3	0	0	0	68
710	2245	650	1	3.5	3	0	1	0	73
710	2555	650	1	4	4	0	0	0	86
1015	710	650	1.5	1	1	1	0	0	38
1015	1015	650	1.5	1.5	1	1	1	1	51
1015	1325	650	1.5	2	2	2	0	0	60
1015	1630	650	1.5	2.5	2	2	1	1	70
1015	1940	650	1.5	3	3	3	0	0	83
1015	2245	650	1.5	3.5	3	3	1	1	90
1015	2555	650	1.5	4	4	4	0	0	105
1325	710	650	2	1	2	0	0	0	43
1325	1015	650	2	1.5	2	0	2	0	58
1325	1325	650	2	2	4	0	0	0	66
1325	1630	650	2	2.5	4	0	2	0	78
1325	1940	650	2	3	6	0	0	0	89
1325	2245	650	2	3.5	6	0	2	0	97
1325	2555	650	2	4	8	0	0	0	112
1630	710	650	2.5	1	2	1	0	0	50
1630	1015	650	2.5	1.5	2	1	2	1	67
1630	1325	650	2.5	2	4	2	0	0	77
1630	1630	650	2.5	2.5	4	2	2	1	91
1630	1940	650	2.5	3	6	3	0	0	104
1630	2245	650	2.5	3.5	6	3	2	1	113
1630	2555	650	2.5	4	8	4	0	0	131
1940	710	650	3	1	3	0	0	0	60
1940	1015	650	3	1.5	3	0	3	0	74
1940	1325	650	3	2	6	0	0	0	83
1940	1630	650	3	2.5	6	0	3	0	99
1940	1940	650	3	3	9	0	0	0	111
1940	2245	650	3	3.5	9	0	3	0	122
1940	2555	650	3	4	12	0	0	0	138
2245	710	650	3.5	1	3	1	0	0	63
2245	1015	650	3.5	1.5	3	1	3	1	84
2245	1325	650	3.5	2	6	2	0	0	94
2245	1630	650	3.5	2.5	6	2	3	1	114
2245	1940	650	3.5	3	9	3	0	0	125
2245	2245 ¹⁾	650	3.5	3.5	9	3	3	1	140
2245	2555 ¹⁾	650	3.5	4	12	4	0	0	157
2555	710	650	4	1	4	0	0	0	68
2555	1015	650	4	1.5	4	0	4	0	91
2555	1325	650	4	2	8	0	0	0	100
2555	1630	650	4	2.5	8	0	4	0	122
2555	1940	650	4	3	12	0	0	0	132
2555	2245 ¹⁾	650	4	3.5	12	0	4	0	146
2555	2555 ¹⁾	650	4	4	16	0	0	0	164

¹⁾ Delivered disassembled as compact package

²⁾ Only available as pocket filters

① No. of cell frames ② No. of filter elements ③ Weight

Dimensions

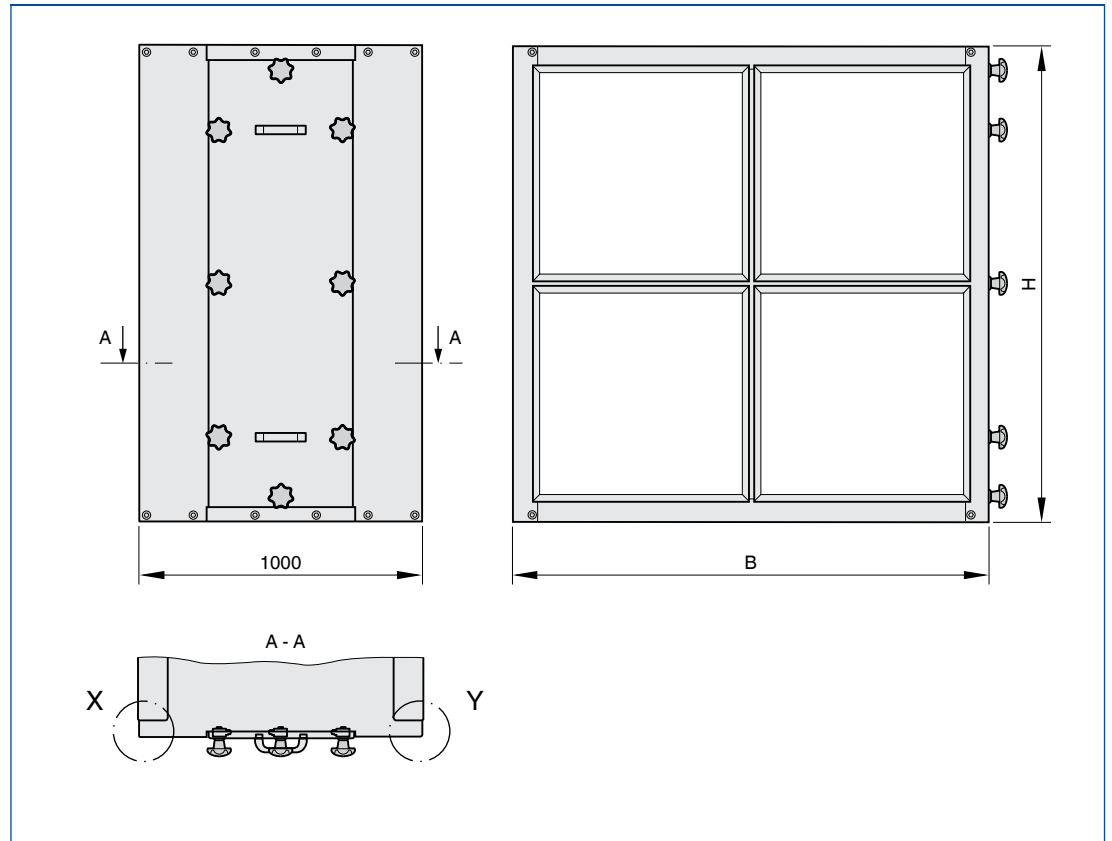


Universal casing,
variant UCA-2SPF

Location of the service door on the left or right depending on the direction of airflow

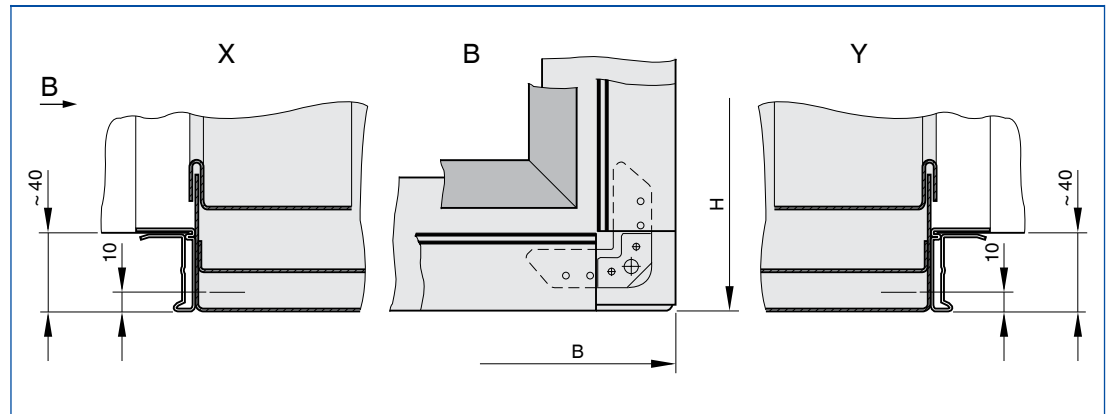
For universal casings with
H = 2245 mm or
H = 2555 mm the door height is 1845 mm

Dimensional drawing of UCA-2SPF



Examples of easy connection to other units or ductwork

Detail X, Y, view B



Standard construction

Filter elements to be ordered separately. In case of larger volume flow rates, two units are combined side by side. The service doors for the filter change are located on the left and right.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①		②				③
B	H	T	horizontal	vertical	592 × 592	287 × 592	592 × 287	287 × 287 ²⁾	~ kg
405	710	1000	0.5	1	0	2	0	0	36
710	710	1000	1	1	2	0	0	0	46
710	1015	1000	1	1.5	2	0	2	0	63
710	1325	1000	1	2	4	0	0	0	74
710	1630	1000	1	2.5	4	0	2	0	88
710	1940	1000	1	3	6	0	0	0	99
710	2245	1000	1	3.5	6	0	2	0	113
710	2555	1000	1	4	8	0	0	0	124
1015	710	1000	1.5	1	2	2	0	0	54
1015	1015	1000	1.5	1.5	2	2	2	2	74
1015	1325	1000	1.5	2	4	4	0	0	86
1015	1630	1000	1.5	2.5	4	4	2	2	102
1015	1940	1000	1.5	3	6	6	0	0	114
1015	2245	1000	1.5	3.5	6	6	2	2	131
1015	2555	1000	1.5	4	8	8	0	0	143
1325	710	1000	2	1	4	0	0	0	63
1325	1015	1000	2	1.5	4	0	4	0	85
1325	1325	1000	2	2	8	0	0	0	96
1325	1630	1000	2	2.5	8	0	4	0	113
1325	1940	1000	2	3	12	0	0	0	126
1325	2245	1000	2	3.5	12	0	4	0	144
1325	2555	1000	2	4	16	0	0	0	156
1630	710	1000	2.5	1	4	2	0	0	78
1630	1015	1000	2.5	1.5	4	2	4	2	103
1630	1325	1000	2.5	2	8	4	0	0	116
1630	1630	1000	2.5	2.5	8	4	4	2	136
1630	1940	1000	2.5	3	12	6	0	0	149
1630	2245	1000	2.5	3.5	12	6	4	2	166
1630	2555	1000	2.5	4	16	8	0	0	183
1940	710	1000	3	1	6	0	0	0	90
1940	1015	1000	3	1.5	6	0	6	0	118
1940	1325	1000	3	2	12	0	0	0	132
1940	1630	1000	3	2.5	12	0	6	0	155
1940	1940	1000	3	3	18	0	0	0	167
1940	2245	1000	3	3.5	18	0	6	0	188
1940	2555	1000	3	4	24	0	0	0	202
2245	710	1000	3.5	1	6	2	0	0	102
2245	1015	1000	3.5	1.5	6	2	6	2	133
2245	1325	1000	3.5	2	12	4	0	0	148
2245	1630	1000	3.5	2.5	12	4	6	2	171
2245	1940	1000	3.5	3	18	6	0	0	186
2245	2245 ¹⁾	1000	3.5	3.5	18	6	6	2	210
2245	2555 ¹⁾	1000	3.5	4	24	8	0	0	225
2555	710	1000	4	1	8	0	0	0	112
2555	1015	1000	4	1.5	8	0	8	0	144
2555	1325	1000	4	2	16	0	0	0	159
2555	1630	1000	4	2.5	16	0	8	0	180
2555	1940	1000	4	3	24	0	0	0	199
2555	2245 ¹⁾	1000	4	3.5	24	0	8	0	224
2555	2555 ¹⁾	1000	4	4	32	0	0	0	239

¹⁾ Delivered disassembled as compact package

²⁾ Only available as pocket filters

① No. of cell frames ② No. of filter elements ③ Weight

Dimensions

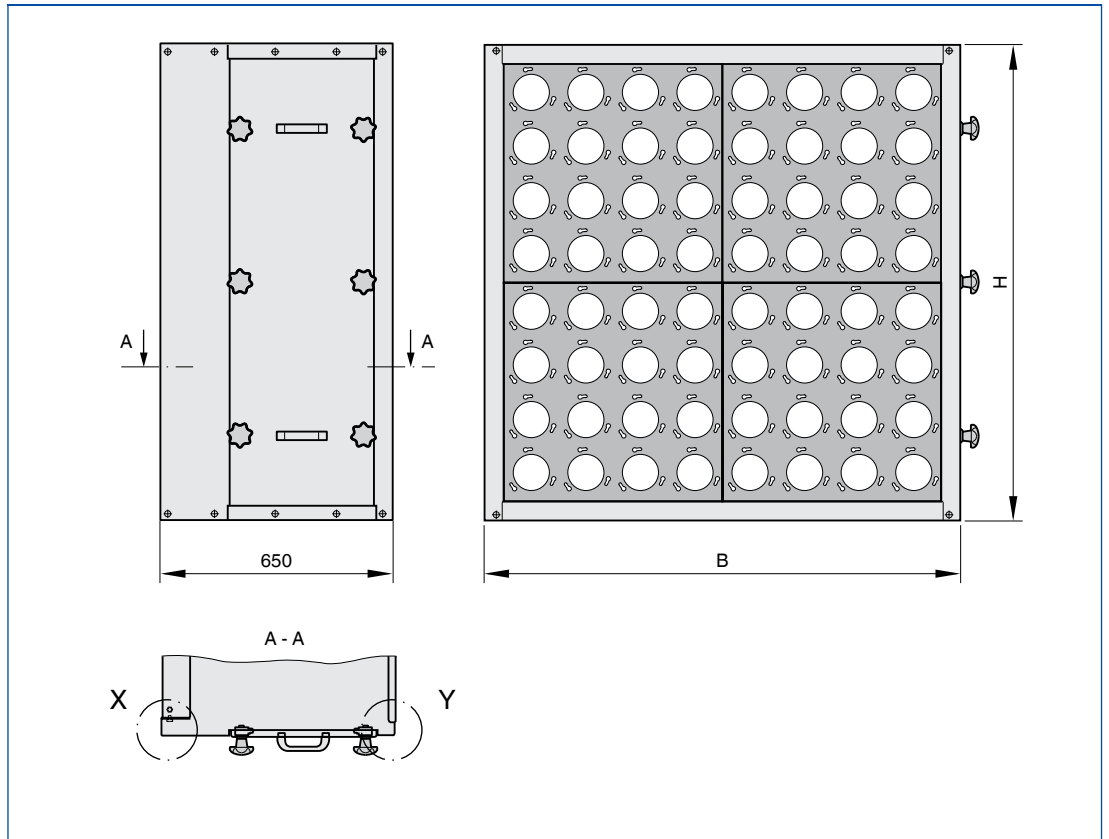


Universal casing, variant UCA-1SAF

Location of the service door on the left or right depending on the direction of airflow

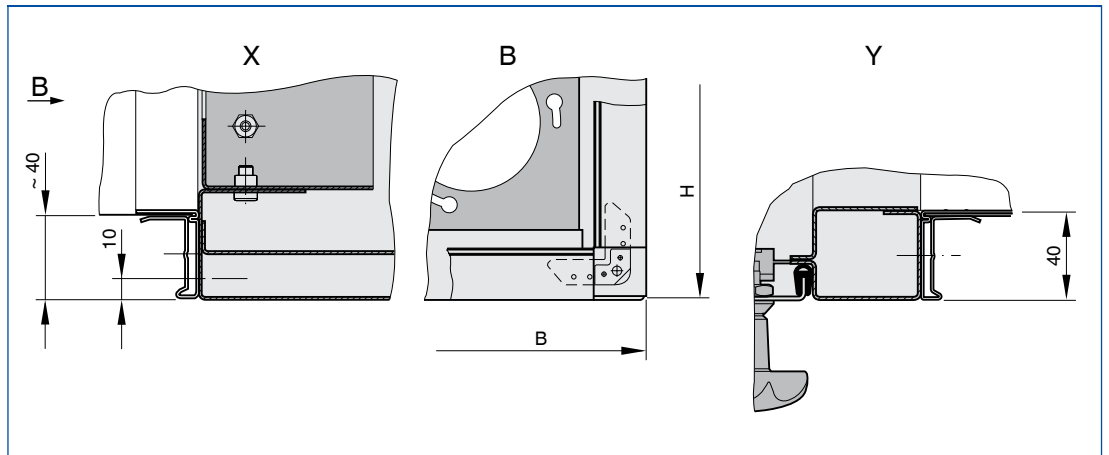
For universal casings with H = 2245 mm or H = 2555 mm the door height is 1845 mm

Dimensional drawing of UCA-1SAF



Examples of easy connection to other units or ductwork

Detail X, Y, view B



Standard construction

Filter elements to be ordered separately. In case of larger volume flow rates, two units are combined side by side. The service doors for the filter change are located on the left and right.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①		②	③ ~ kg
B	H	T	horizontal	vertical		
405	710	650	0.5	1	8	28
710	710	650	1	1	16	35
710	1015	650	1	1.5	24	47
710	1325	650	1	2	32	57
710	1630	650	1	2.5	40	66
710	1940	650	1	3	48	78
710	2245	650	1	3.5	56	84
710	2555	650	1	4	64	100
1015	710	650	1.5	1	24	43
1015	1015	650	1.5	1.5	36	59
1015	1325	650	1.5	2	48	69
1015	1630	650	1.5	2.5	60	82
1015	1940	650	1.5	3	72	96
1015	2245	650	1.5	3.5	84	105
1015	2555	650	1.5	4	96	122
1325	710	650	2	1	32	51
1325	1015	650	2	1.5	48	68
1325	1325	650	2	2	64	80
1325	1630	650	2	2.5	80	94
1325	1940	650	2	3	96	108
1325	2245	650	2	3.5	112	118
1325	2555	650	2	4	128	136
1630	710	650	2.5	1	40	60
1630	1015	650	2.5	1.5	60	80
1630	1325	650	2.5	2	80	93
1630	1630	650	2.5	2.5	100	110
1630	1940	650	2.5	3	120	126
1630	2245	650	2.5	3.5	140	137
1630	2555	650	2.5	4	160	159
1940	710	650	3	1	48	69
1940	1015	650	3	1.5	72	89
1940	1325	650	3	2	96	102
1940	1630	650	3	2.5	120	121
1940	1940	650	3	3	144	137
1940	2245	650	3	3.5	168	151
1940	2555	650	3	4	192	172
2245	710	650	3.5	1	56	75
2245	1015	650	3.5	1.5	84	100
2245	1325	650	3.5	2	112	116
2245	1630	650	3.5	2.5	140	135
2245	1940	650	3.5	3	168	156
2245	2245 ¹⁾	650	3.5	3.5	196	175
2245	2555 ¹⁾	650	3.5	4	224	196
2555	710	650	4	1	64	82
2555	1015	650	4	1.5	96	109
2555	1325	650	4	2	128	125
2555	1630	650	4	2.5	160	149
2555	1940	650	4	3	192	167
2555	2245 ¹⁾	650	4	3.5	224	185
2555	2555 ¹⁾	650	4	4	256	209

¹⁾ Delivered disassembled as compact package

① No. of mounting plates ② No. of cartridges ③ Weight

Dimensions

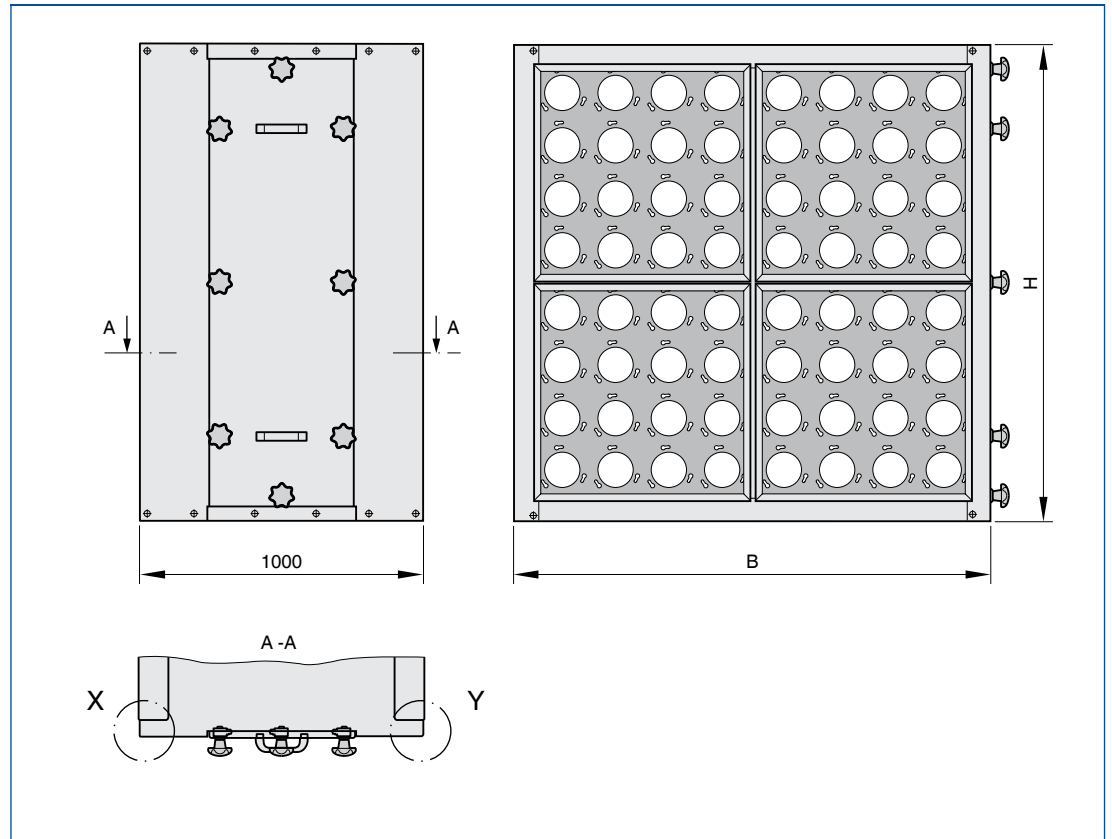


Universal casing, variant UCA-2SAF

Location of the service door on the left or right depending on the direction of airflow

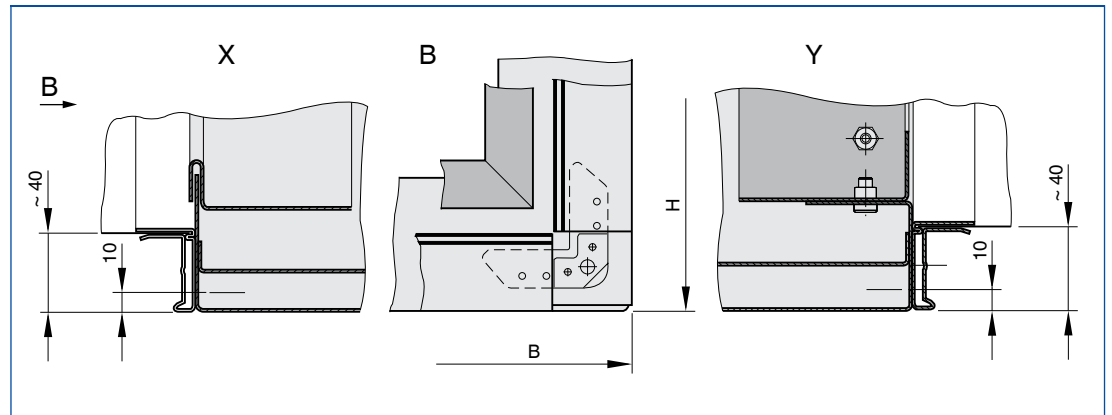
For universal casings with H = 2245 mm or H = 2555 mm the door height is 1845 mm

Dimensional drawing of UCA-2SAF



Examples of easy connection to other units or ductwork

Detail X, Y, view B



Standard construction

Filter elements to be ordered separately. In case of larger volume flow rates, two units are combined side by side. The service doors for the filter change are located on the left and right.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①		②	③				④ ~ kg
B	H	T	horizontal	vertical		592 × 592	287 × 592	592 × 287	287 × 287 ²⁾	
405	710	1000	0.5	1	8	0	1	0	0	41
710	710	1000	1	1	16	1	0	0	0	51
710	1015	1000	1	1.5	24	1	0	1	0	69
710	1325	1000	1	2	32	2	0	0	0	81
710	1630	1000	1	2.5	40	2	0	1	0	97
710	1940	1000	1	3	48	3	0	0	0	112
710	2245	1000	1	3.5	56	3	0	1	0	125
710	2555	1000	1	4	64	4	0	0	0	137
1015	710	1000	1.5	1	24	1	1	0	0	63
1015	1015	1000	1.5	1.5	36	1	1	1	1	83
1015	1325	1000	1.5	2	48	2	2	0	0	97
1015	1630	1000	1.5	2.5	60	2	2	1	1	115
1015	1940	1000	1.5	3	72	3	3	0	0	131
1015	2245	1000	1.5	3.5	84	3	3	1	1	149
1015	2555	1000	1.5	4	96	4	4	0	0	163
1325	710	1000	2	1	32	2	0	0	0	73
1325	1015	1000	2	1.5	48	2	0	2	0	95
1325	1325	1000	2	2	64	4	0	0	0	110
1325	1630	1000	2	2.5	80	4	0	2	0	129
1325	1940	1000	2	3	96	6	0	0	0	145
1325	2245	1000	2	3.5	112	6	0	2	0	166
1325	2555	1000	2	4	128	8	0	0	0	181
1630	710	1000	2.5	1	40	2	1	0	0	89
1630	1015	1000	2.5	1.5	60	2	1	2	1	116
1630	1325	1000	2.5	2	80	4	2	0	0	132
1630	1630	1000	2.5	2.5	100	4	2	2	1	155
1630	1940	1000	2.5	3	120	6	3	0	0	173
1630	2245	1000	2.5	3.5	140	6	3	2	1	194
1630	2555	1000	2.5	4	160	8	4	0	0	215
1940	710	1000	3	1	48	3	0	0	0	103
1940	1015	1000	3	1.5	72	3	0	3	0	133
1940	1325	1000	3	2	96	6	0	0	0	151
1940	1630	1000	3	2.5	120	6	0	3	0	176
1940	1940	1000	3	3	144	9	0	0	0	195
1940	2245	1000	3	3.5	168	9	0	3	0	210
1940	2555	1000	3	4	192	12	0	0	0	237
2245	710	1000	3.5	1	56	3	1	0	0	116
2245	1015	1000	3.5	1.5	84	3	1	3	1	149
2245	1325	1000	3.5	2	112	6	2	0	0	169
2245	1630	1000	3.5	2.5	140	6	2	3	1	193
2245	1940	1000	3.5	3	168	9	3	0	0	218
2245	2245 ¹⁾	1000	3.5	3.5	196	9	3	3	1	145
2245	2555 ¹⁾	1000	3.5	4	224	12	4	0	0	265
2555	710	1000	4	1	64	4	0	0	0	127
2555	1015	1000	4	1.5	96	4	0	4	0	162
2555	1325	1000	4	2	128	8	0	0	0	183
2555	1630	1000	4	2.5	160	8	0	4	0	203
2555	1940	1000	4	3	192	12	0	0	0	234
2555	2245 ¹⁾	1000	4	3.5	224	12	0	4	0	264
2555	2555 ¹⁾	1000	4	4	256	16	0	0	0	284

¹⁾ Delivered disassembled as compact package

²⁾ Only available as pocket filters

① No. of mounting plates / No. of cell frames ② No. of cartridges ③ No. of filter elements ④ Weight

Standard text

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

Universal casings type UCA for installation into the ductwork of ventilation systems.
Fitting of filter elements for the separation of coarse dust and fine dust and for the adsorption of gaseous odorous substances and contaminants. Universal casings are available as one-stage or two-stage construction; side service door with handles and clamps.
Location of the service door on the left or right depending on the direction of airflow.
Universal casing consisting of either a standard cell frame for the fitting of filter elements (one stage or two stages) or of mounting plates for the fitting of activated carbon filter cartridges (one stage).
Universal casing available as two-stage construction with standard cell frame for fine dust filters and mounting plates for activated carbon filter cartridges.
Standard cell frame with four clamping elements for secure sealing between the frame and the filter element.
Fitting of activated carbon filter cartridges with bayonet fixing. The casing frame with its wide sealing surfaces forms the connecting frame for ducts.
Pressure measurement points are part of the supply package but must be set up on site by others

Materials and surfaces

- Casing in galvanised sheet steel or stainless steel

Construction

- GAL: Galvanised steel
- STA: Stainless steel
- R: Service door on the right (in direction of airflow)
- L: Service door on the left (in direction of airflow)

Order options

1 Type

UCA Universal casing

2 Variant

- 1SPF** One stage for particulate filters
- 2SPF** Two stages for particulate filters
- 1SAF** One stage for activated carbon filters
- 2SAF** Two stages for activated carbon filters and particulate filters

3 Material

- GAL** Galvanised steel
- STA** Stainless steel

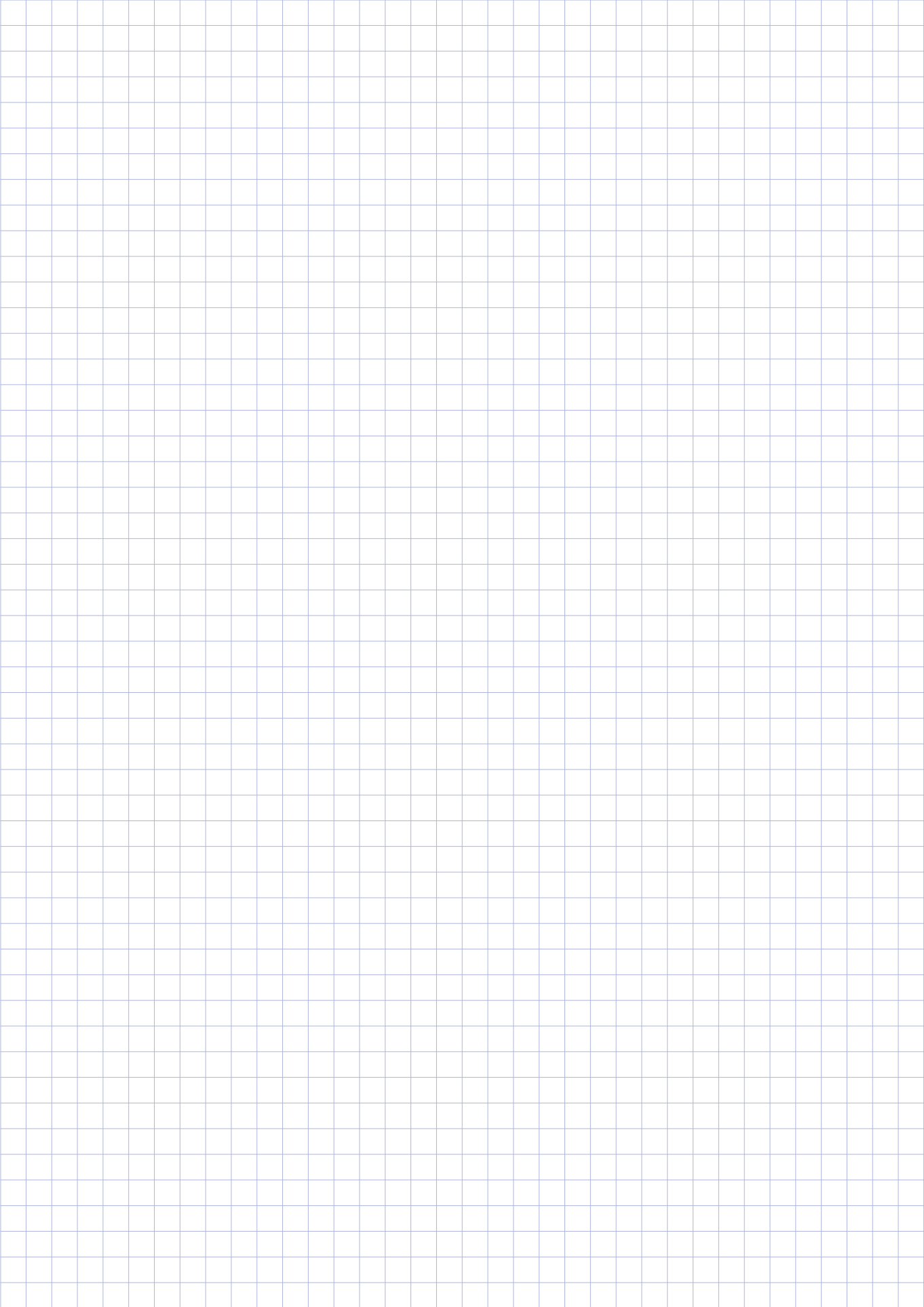
4 Nominal size [mm]

B × H × T

5 Service door

- R** On the right (in direction of airflow)
- L** On the left (in direction of airflow)

2



Ducted particulate filters

Type KSF



2

Fitting of filter elements for the separation of suspended particles

Ducted particulate filter for Mini Pleat filter panels, Mini Pleat filter cells, and activated carbon filter cells. For installation into the ductwork of ventilation systems.

- Duct casings made of sheet steel with decontaminable powder coating RAL 9010
- Robust, welded casing construction with perimeter connecting flanges with pre-drilled holes
- Casing with indentations to ensure the precise fitting of the filter elements
- Secure sealing between the casing and filter element due to turnbuckles
- Robust cover plate with profiled seal, four clamping screws, and a handle for air-tight closure
- Horizontal or vertical installation orientation

Optional equipment and accessories

- Stainless steel construction

Type		Page
KSF	General information	2.2 – 2
	Order code	2.2 – 3
	Dimensions and weight	2.2 – 4
	Specification text	2.2 – 6
	Basic information and nomenclature	10.1 – 1

2

Description



Ducted particulate filters, type KSF

Application

- Ducted particulate filter type KSF for installation into the ductwork of ventilation systems
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air
- Fitting of activated carbon filter cells for the separation of gaseous odorous substances and contaminants from the supply and extract air

Construction

- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel

Nominal sizes [mm]

- B × H × T

Useful additions

- Suitable filter elements to be ordered separately
- Mini Pleat filter panels (MFP)
- Mini Pleat filter cells (MFC)
- Activated carbon filter cells (ACF)

Construction features

- Casing with robust connecting flanges
- Turnbuckles for secure sealing between casing and filter element
- Cover plate with profiled seal and four clamping screws with star grips

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white, or of stainless steel

Installation and commissioning

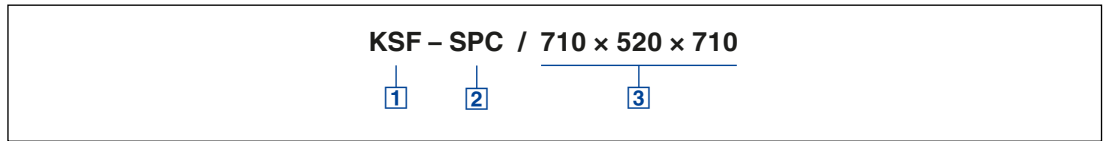
- Installation orientation: horizontal or vertical (rotated by 90°)
- Pressure measurement points for each filter unit are part of the supply package but must be set up on site by others

Maintenance

- Maintenance-free as construction and materials are not subject to wear

Order code

KSF



1 Type

KSF Ducted particulate filters

3 Nominal size [mm]

B × H × T

2 Material

SPC Steel, powder-coated RAL 9010, pure white

STA Stainless steel

Order example

KSF-SPC/710x520x710

Material

steel, powder-coated RAL 9010, pure white

Nominal size

710 × 520 × 710 mm

Dimensions

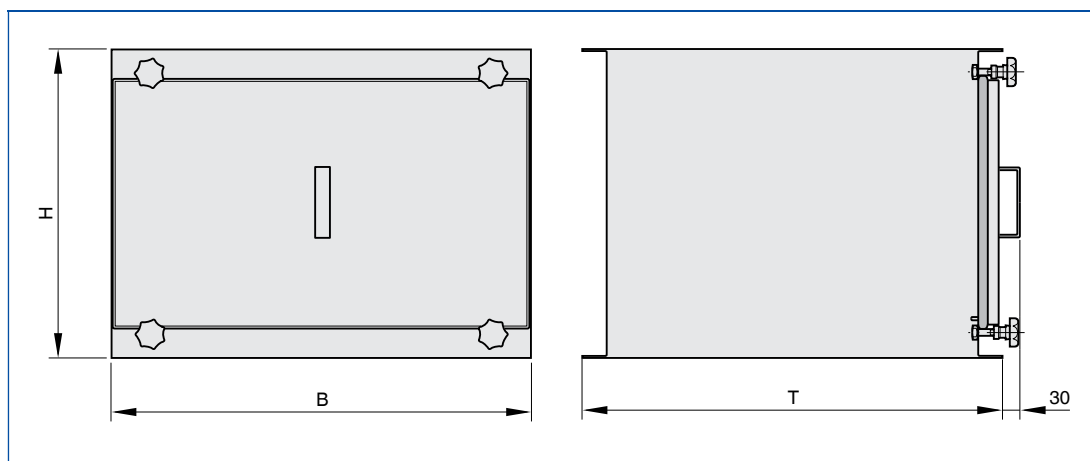


Ducted particulate filters, type KSF

2 Filter casing with perimeter connecting flanges, width 42.5 mm

Installation orientation of individual casings either as shown or rotated by 90°

Dimensional drawing of KSF



Standard construction

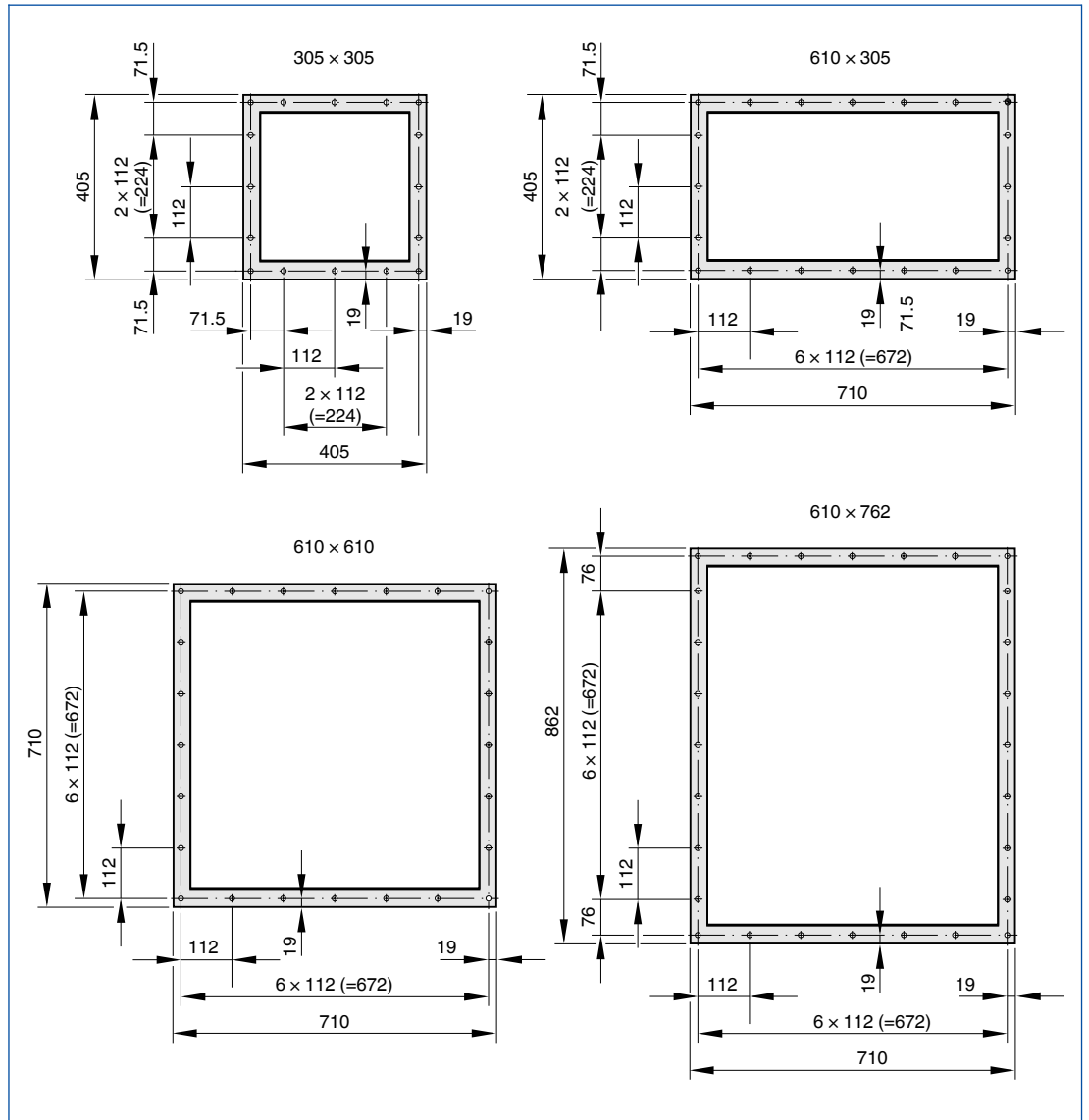
All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T	B × H × T	~ kg
405	378	405	305 × 305 × 150	16
405	378	710	305 × 610 × 150	19
710	378	405	305 × 610 × 150	19
710	378	710	610 × 610 × 150	24
710	378	862	762 × 610 × 150	27
405	520	405	305 × 305 × 292	18
405	520	710	305 × 610 × 292	21
710	520	405	305 × 610 × 292	21
710	520	710	610 × 610 × 292	28
710	520	862	762 × 610 × 292	30

① Filter size ② Weight

KSF flange dimensions



Standard text

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

Ducted particulate filters as filter casings for installation into the ductwork of ventilation systems. Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air; also for the fitting of activated carbon filter cells for the adsorption of gaseous odorous substances and contaminants. Filter casing with robust connecting flanges with pre-drilled holes. Turnbuckles guarantee secure sealing between the casing and filter element. Cover plate with profiled seal and four clamping screws with star grips. Pressure measurement points are part of the supply package but must be set up on site by others.

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white, or of stainless steel

Construction

- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel

Order options

1 Type

KSF Ducted particulate filters

2 Material

- SPC** Steel, powder-coated RAL 9010, pure white
- STA** Stainless steel

3 Nominal size [mm]

B × H × T

Ducted particulate filters for critical requirements

Type KSFS



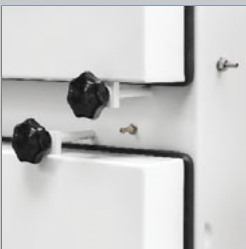
Fitting of filter elements for the separation of suspended particles in areas with critical requirements

Ducted particulate filters for Mini Pleat filter panels, Mini Pleat filter cells, and activated carbon filter cells. For installation into the ductwork of ventilation systems. Used in medicine, biology, pharmaceuticals, and sensitive technical areas.

- Ducted particulate filter made of sheet steel with decontaminable powder coating RAL 9010 and clamping mechanism made of stainless steel
- Robust, welded construction with doubled-edged perimeter flanges with pre-drilled holes ensures secure sealing
- One-stage or two-stage casing, for the fitting of fine dust filters as prefilter stage and of particulate filters as second filter stage
- Secure sealing and convenient handling due to tensioning lever for a consistent contact pressure and thus the sealing integrity between the casing and filter element
- With sealing integrity test facility for filter elements

Optional equipment and accessories

- Optional double-groove service board for contamination-free filter change ('safe change')
- Plastic service bag with cord ring for contamination-free filter change



With sealing integrity test facility



Optional double-groove service board

Type		Page
KSFS	General information	2.3 – 2
	Order code	2.3 – 4
	Dimensions and weight – KSFS-M	2.3 – 5
	Dimensions and weight – KSFS-PM	2.3 – 6
	Dimensions – KSFS	2.3 – 7
	Specification text	2.3 – 8
	Basic information and nomenclature	10.1 – 1

Variants

Product examples

Ducted particulate filters for critical requirements, variant KSFS-M



Ducted particulate filters for critical requirements, variant KSFS-PM



Description

Application

- Ducted particulate filter type KSFS for critical requirements
- Casing for duct installation
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air
- Fitting of activated carbon filter cells for the separation of gaseous odorous substances and contaminants from the supply and extract air

Variants

- M: Casing without prefilter
- PM: Casing with prefilter

Construction

- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel

Nominal sizes [mm]

- B × H × T

Options

- MD: Casing with double-groove service board

Accessories

- Plastic service bag with cord ring

Useful additions

- Suitable filter elements to be ordered separately
- Mini Pleat filter panels (MFP)
- Mini Pleat filter cells (MFC)
- Activated carbon filter cells (ACF)
- Other filter elements upon request
- Spigot (KSFSSP)

Construction features

- Casing with robust, doubled-edged connecting flanges with pre-drilled holes.
- Automatically adjusting clamping mechanism which guarantees sealing integrity between the casing and the filter element; this clamping mechanism can only be closed when the filter element is properly seated
- Cover plate with profiled seal and four clamping screws with star grips
- Prefilter casing for fitting Mini Pleat filter panels as fine dust filters
- Double-groove service board and plastic service bag for contamination-free filter change
- Sealing integrity test facility for Mini Pleat filter panels as particulate filters
- Casing with indentations to ensure the precise fitting of the filter elements
- Leakage test for each individual casing

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white, or of stainless steel
- Stainless steel clamping mechanism

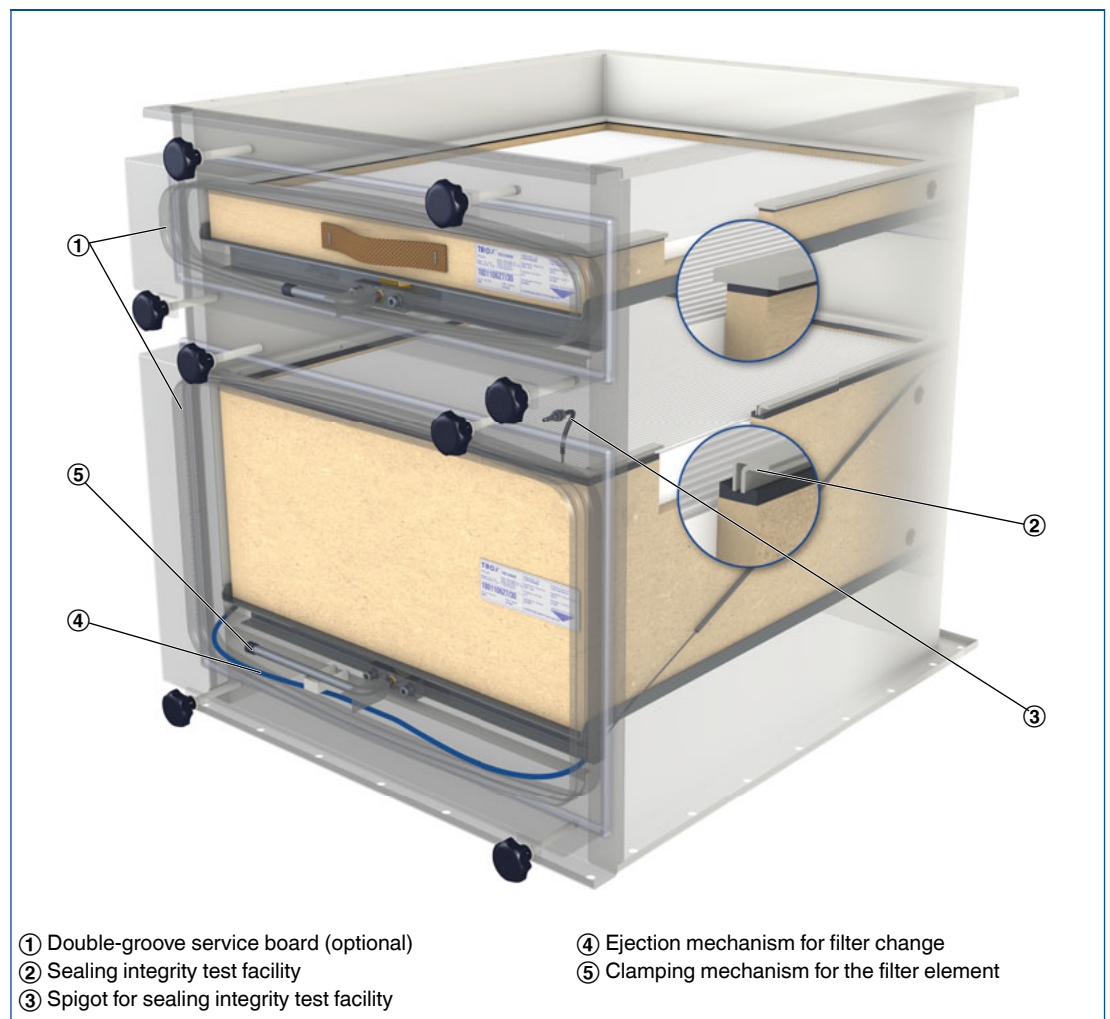
Installation and commissioning

- Installation orientation: horizontal or vertical (rotated by 90°)
- Pressure measurement points for each filter unit are part of the supply package but must be be set up on site by others

Maintenance

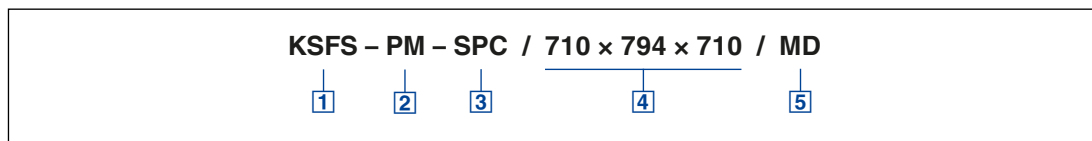
- Filter change: Ejection mechanism for the easy removal of the filter elements from the filter casing

Schematic illustration of KSFS



Order code

KSFS



1 Type

KSFS Ducted particulate filter for critical requirements

2 Variant

M Casing without prefilter
PM Casing with prefilter

3 Material

SPC Steel, powder-coated RAL 9010, pure white
STA Stainless steel

4 Nominal size [mm]

B x H x T

5 Service board

No entry: none
MD Casing with service board

Order example

KSFS-PM-SPC/710x794x710/MD

Variant	casing with prefilter
Material	steel, powder-coated RAL 9010, pure white
Nominal size	710 x 794 x 710 mm
Service board	casing with service board

Dimensions

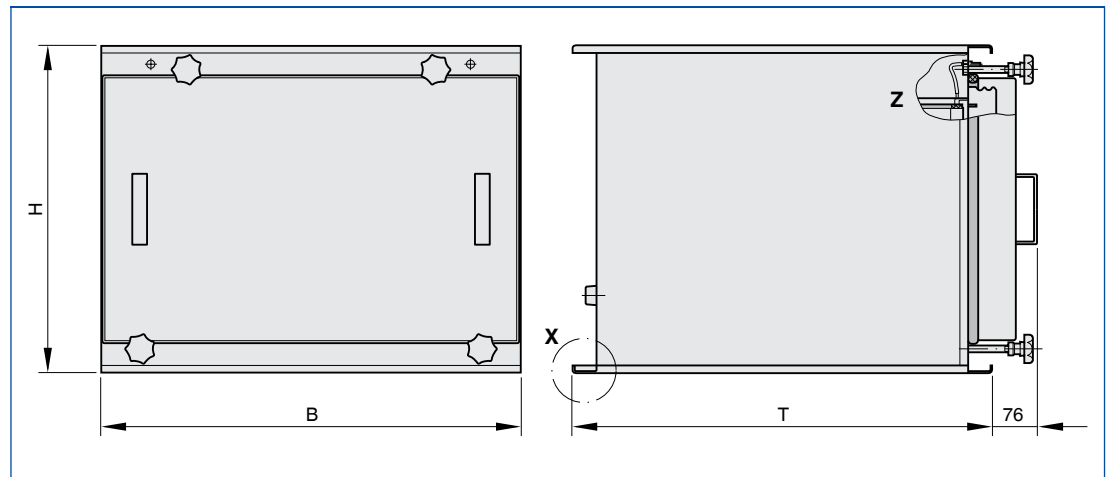


Ducted particulate filters for critical requirements, variant KSFS-M

Installation orientation of individual casings either as shown or rotated by 90°

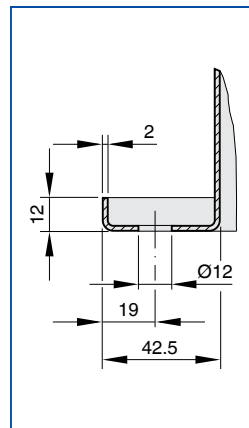
Casing with indentations to ensure the precise fitting of the filter elements

Dimensional drawing of KSFS-M

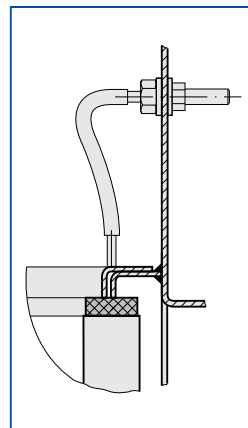


2

Detail X



Detail Z



Standard construction

All weights are net, without packaging

Dimensions [mm] and weight [kg]

Nominal size			①	②
B	H	T	B × H × T	~ kg
710	411	405	305 × 610 × 150	40
710	411	710	610 × 610 × 150	50
710	553	405	305 × 610 × 292	55
710	553	710	610 × 610 × 292	65
710	553	862	762 × 610 × 292	70

① Filter size ② Weight

Dimensions

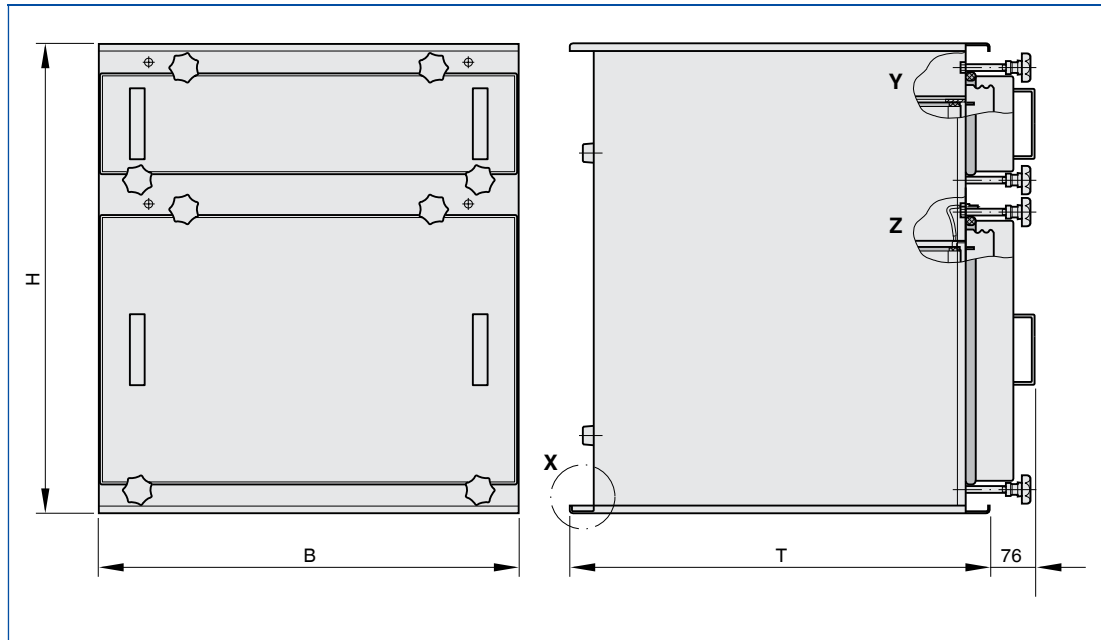


2 Ducted particulate filters for critical requirements, variant KSFS-PM

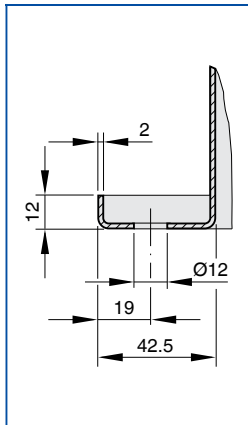
Installation orientation of individual casings either as shown or rotated by 90°

Casing with indentations to ensure the precise fitting of the filter elements

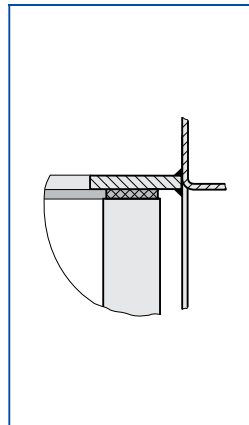
Dimensional drawing of KSFS-PM



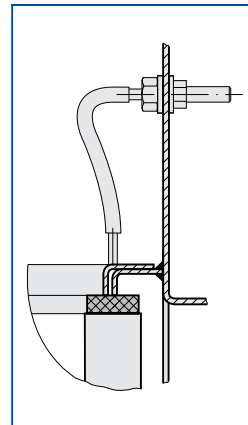
Detail X



Detail Y



Detail Z



Standard construction

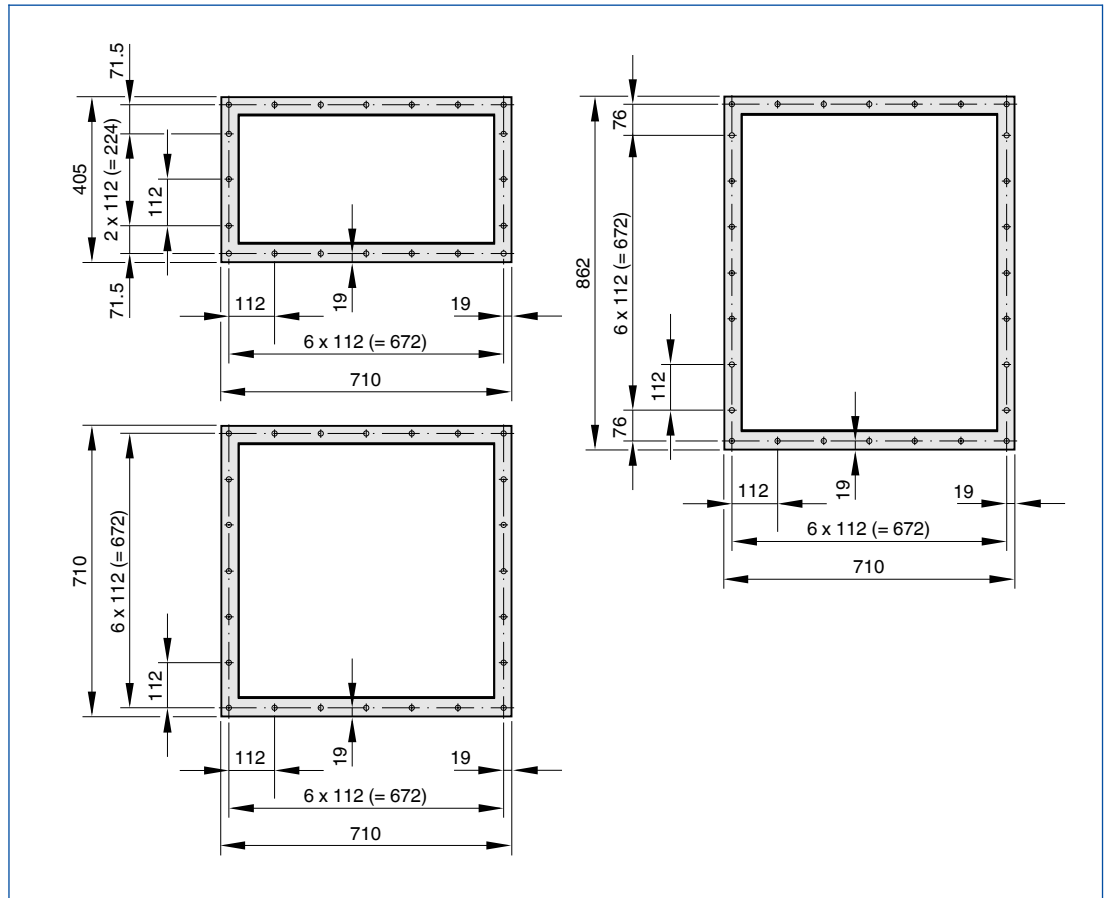
All weights are net, without packaging

Dimensions [mm] and weight [kg]

Nominal size			①	②	③
B	H	T	B × H × T	B × H × T	~ kg
710	652	405	305 × 610 × 60	305 × 610 × 150	60
710	652	710	610 × 610 × 60	610 × 610 × 150	70
710	794	405	305 × 610 × 60	305 × 610 × 292	70
710	794	710	610 × 610 × 60	610 × 610 × 292	85
710	794	862	762 × 610 × 60	762 × 610 × 292	95

① Filter size prefilter ② Filter size mainfilter ③ Weight

KSFS flange dimensions



Standard text

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

Ducted particulate filters KSFS for critical requirements as filter casings for installation into the ductwork of ventilation systems. Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air; also for the fitting of activated carbon filter cells for the adsorption of gaseous odorous substances and contaminants.

Filter casings are available as one-stage construction or two-stage construction for the fitting of fine dust filters as prefilter stage and of particulate filters as second filter stage. Ducted particulate filter KSFS with robust, doubled-edged connecting flanges with pre-drilled holes.

Clamping mechanism made of stainless steel with tensioning lever for uniform sealing integrity between the casing and filter element. Filter casing with sealing integrity test facility, available with optional double-groove service board and plastic service bag for contamination-free filter change.

The cover plate is fitted with a profiled seal and four clamping screws with star grips. Pressure measurement points are part of the supply package but must be set up on site by others. Leakage test for each casing.

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white, or of stainless steel
- Stainless steel clamping mechanism

Construction

- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel

2

Order options

1 Type

KSFS Ducted particulate filter for critical requirements

2 Variant

- M** Casing without prefilter
- PM** Casing with prefilter

3 Material

- SPC** Steel, powder-coated RAL 9010, pure white
- STA** Stainless steel

4 Nominal size [mm]

B × H × T

5 Service board

- No entry: none
- MD** Casing with service board

Spigots

Type KSFSSP



For filter unit systems with horizontal air entry and discharge

Spigot for assembling filter unit systems in ductwork

- Spigots made of sheet steel with decontaminable powder coating RAL 9010
- Air deflection plates in the air outlet spigot ensure a uniform airflow through the system, reduce the total differential pressure, and lower energy costs
- For filter unit systems of up to 6 filter casings in a row
- Leakage test for the entire filter unit system

Optional equipment and accessories

- Stainless steel construction



Filter unit system with KSFSS.../-PM and spigot KSFSSP

Type		Page
KSFSSP	General information	2.4 – 2
	Order code	2.4 – 4
	Dimensions and weight	2.4 – 5
	Dimensions	2.4 – 6
	Specification text	2.4 – 7
	Basic information and nomenclature	10.1 – 1

Description



Spigot,
type KSFSSP

Application

- Spigot type KSFSSP for assembling a filter unit system with ducted particulate filters
- type KSFS for critical requirements

Construction

- M: Casing without prefilter
- PM: Casing with prefilter
- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel
- Number of casings: 1 – 6
- MD: Casing with service board
- TLBR: Air entry at top left, air outlet at bottom right
- TRBL: Air entry at top right, air outlet at bottom left
- TRBR: Air entry at top right, air outlet at bottom right
- TLBL: Air entry at top left, air outlet at bottom left
- SPM: Casing and spigot factory assembled
- SPP: Casing and spigot separate

Nominal sizes [mm]

- B × H × T

Useful additions

- Suitable filter elements to be ordered separately
- Mini Pleat filter panels (MFP)
- Mini Pleat filter cells (MFC)
- Activated carbon filter cells (ACF)
- Other filter elements upon request
- Ducted particulate filters (KSFS)

Construction features

- Spigot with support legs, for horizontal air entry or air outlet, available for systems with up to six filter units in a row
- Air deflection plates in the air outlet spigot ensure a uniform airflow through the system, reduce the total differential pressure, and lower energy costs
- For filter unit systems consisting of four or more filter units in a row, the unit systems are divided into smaller packages for transport reasons

Materials and surfaces

- Spigot made of either sheet steel, powder-coated RAL 9010, pure white, or of stainless steel

Maintenance

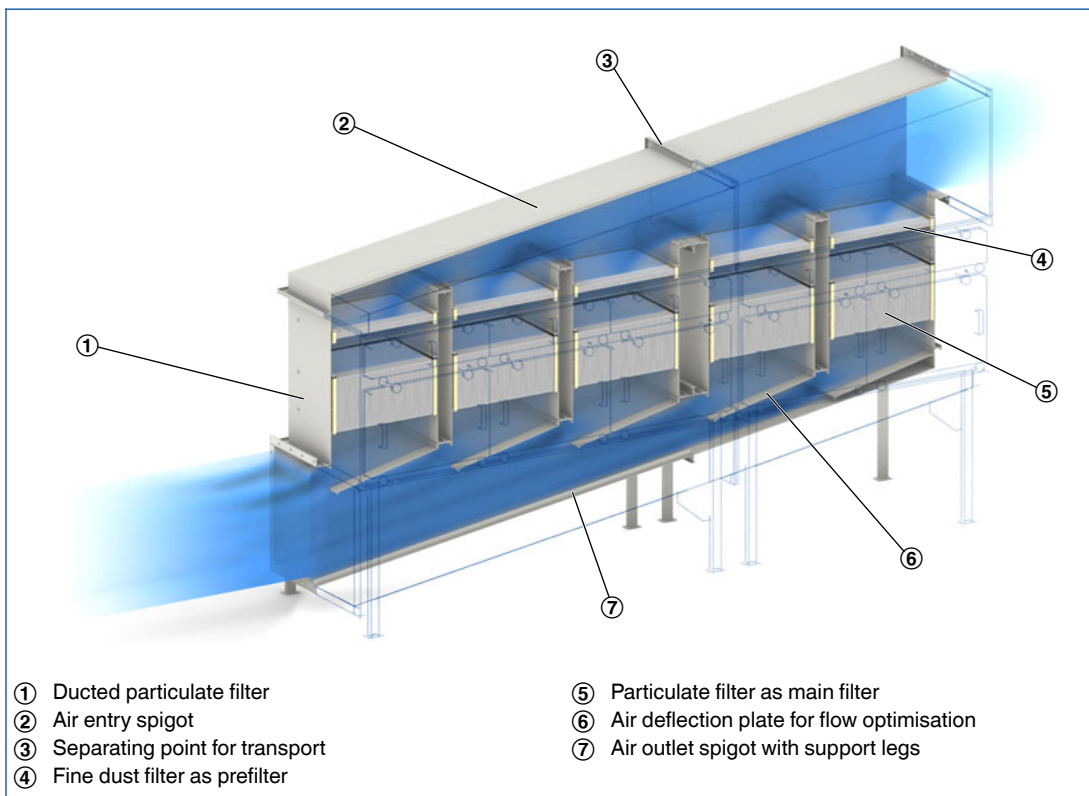
- Maintenance-free as construction and materials are not subject to wear

Function

Spigot type KSFSSP with support legs, for horizontal air entry and air outlet. Up to six ducted particulate filters can be arranged in a row to create a filter unit system. The air outlet spigot is fitted with air deflection plates that ensure a uniform airflow through the system.

For filter unit systems consisting of four or more filter units in a row, the unit systems are divided into smaller packages for transport reasons.

Schematic illustration of KSFSSP



Spigot arrangement KSFSSP

TLBR:

Air entry at top left, air outlet at bottom right

TRBL:

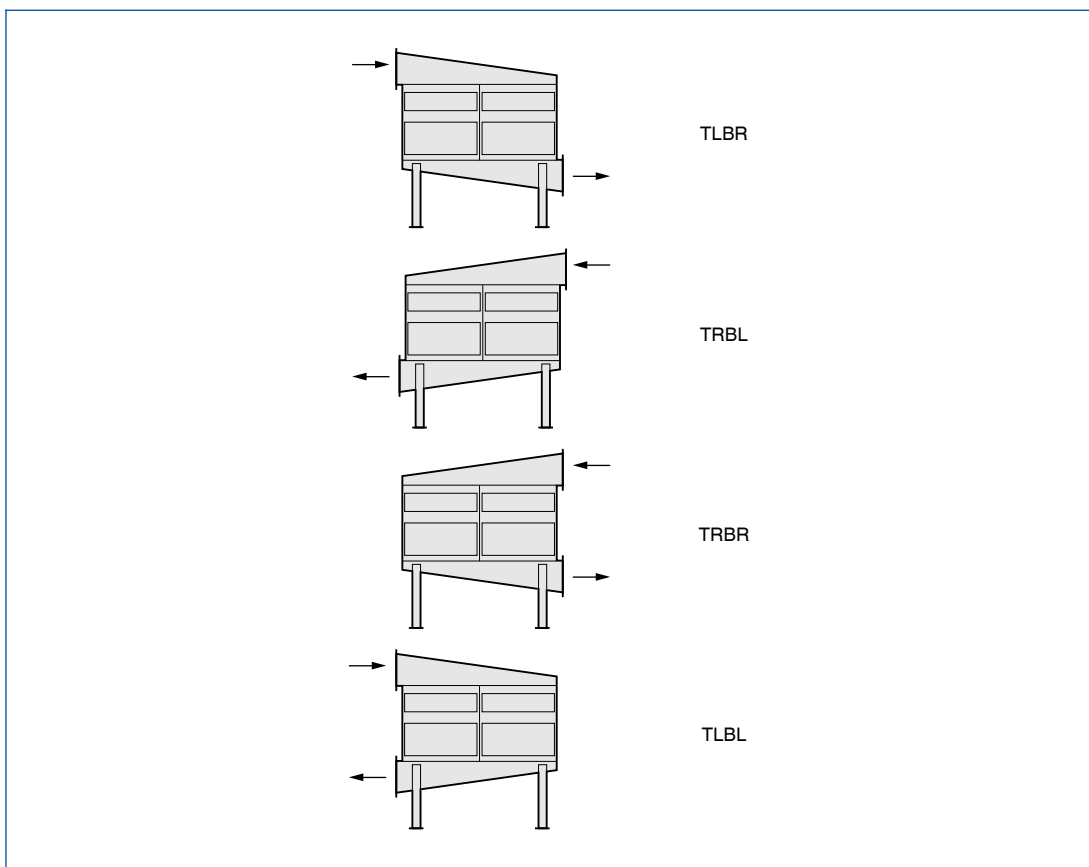
Air entry at top right, air outlet at bottom left

TRBR:

Air entry at top right, air outlet at bottom right

TLBL:

Air entry at top left, air outlet at bottom left



Order code

KSFSSP

KSFSSP – PM – SPC / 710 × 794 × 710 × 4 / MD / TLBR / SPP

1 2 3 4 5 6 7 8

1 Type

KSFSSP Spigot

2 Construction

M Casing without prefilter

PM Casing with prefilter

3 Material

SPC Steel, powder-coated RAL 9010, pure white

STA Stainless steel

4 Nominal size of KSFS [mm]

B × H × T

5 Number of casings

1

2

3

4

5

6

6 Service board

No entry: none

MD Casing with service board

7 Spigot arrangement

TLBR Air entry at top left,
air outlet at bottom right

TRBL Air entry at top right,
air outlet at bottom left

TRBR Air entry at top right,
air outlet at bottom right

TLBL Air entry at top left,
air outlet at bottom left

8 Standard construction

SPM Casing and spigot factory assembled

SPP Casing and spigot separate

Order example

KSFSSP-PM-SPC/710x794x710x4/MD/TLBR/SPP

Construction	casing with prefilter
Material	steel, powder-coated RAL 9010, pure white
Nominal size of KSFS	710 × 794 × 710 mm
Number of casings	4
Service board	casing with service board
Spigot arrangement	air entry at top left, air outlet at bottom right
Standard construction	casing and spigot separate

Description



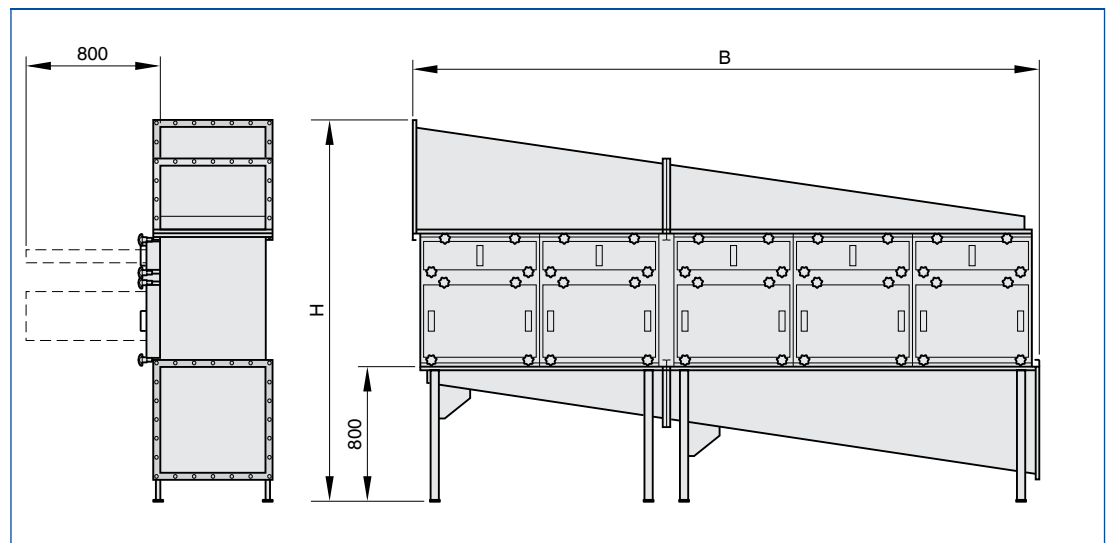
Spigot,
type KSFSSP

Dimensions

Application

- Spigot type KSFSSP for assembling a filter unit system with ducted particulate filters type KSFS for critical requirements

Dimensional drawing of KSFSSP



Standard construction

All weights are net, without packaging.

The total height of the filter unit system depends on the height of the selected ducted particulate filters type KSFS.

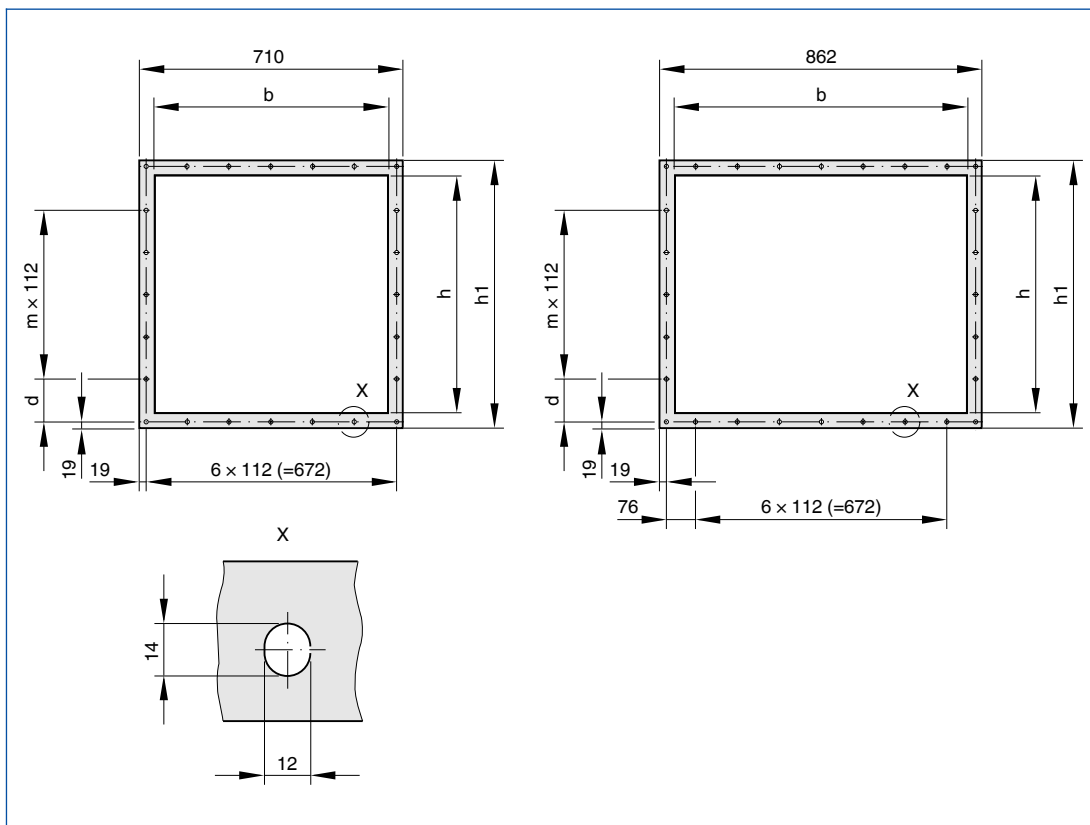
Dimensions [mm] and weight [kg]

Number of casings	Casing depth T	Total width B	Total height in combination with				Weight
			KSFS	KSFSSP	KSFS-M		
	mm						~ kg
1	710	800	1456	1598	1697	1839	45
2	710	1510	1571	1713	1812	1954	60
3	710	2220	1656	1798	1897	2039	80
4	710	3020	1756	1898	1997	2139	120
5	710	3730	1886	2028	2127	2269	145
6	710	4440	1966	2108	2207	2349	180

Dimensions [mm] and weight [kg]

Number of casings	Casing depth T	Total width B	Total height in combination with		Weight
			KSFS	KSFSSP	
	mm				~ kg
1	862	800	1598	1839	50
2	862	1510	1713	1954	65
3	862	2220	1798	2039	85
4	862	3020	1898	2139	125
5	862	3730	2028	2269	155
6	862	4440	2108	2349	190

KSFSSP flange dimensions



Flange dimensions

Number of casings	Casing depth T	b	h	h1	m x 112	d
	KSFS					
	mm					
1	710	625	200	285	1 x 112	67.5
2	710	625	315	400	2 x 112	69.0
3	710	625	400	485	3 x 112	115.5
4	710	625	500	585	4 x 112	105.5
5	710	625	630	715	5 x 112	114.5
6	710	625	710	795	6 x 112	98.5

Flange dimensions

Number of casings	Casing depth T	b	h	h1	m x 112	d
	KSFS					
	mm					
1	862	777	200	285	1 x 112	67.5
2	862	777	315	400	2 x 112	69.0
3	862	777	400	485	3 x 112	115.5
4	862	777	500	585	4 x 112	105.5
5	862	777	630	715	5 x 112	114.5
6	862	777	710	795	6 x 112	98.5

Standard text

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

Spigots type KSFSSP for assembling a filter unit system with ducted particulate filters type KSFS for critical requirements.

Filter unit system consisting of a ducted particulate filter type KSFS with support legs, for horizontal air entry and air outlet.

Spigot available for systems of up to six filter units in a row, factory assembled.

The arrangement of the spigots can be selected. The air outlet spigot is fitted with air deflection plates that ensure a uniform airflow through the system and reduce the total differential pressure. Leakage test for the entire filter unit system.

Materials and surfaces

- Spigot made of either sheet steel, powder-coated RAL 9010, pure white, or of stainless steel

Construction

- M: Casing without prefilter
- PM: Casing with prefilter
- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel
- Number of casings: 1 – 6
- MD: Casing with service board
- TLBR: Air entry at top left, air outlet at bottom right
- TRBL: Air entry at top right, air outlet at bottom left
- TRBR: Air entry at top right, air outlet at bottom right
- TLBL: Air entry at top left, air outlet at bottom left
- SPM: Casing and spigot factory assembled
- SPP: Casing and spigot separate

Order options

1 Type

KSFSSP Spigot

2 Construction

- M** Casing without prefilter
- PM** Casing with prefilter

3 Material

- SPC** Steel, powder-coated RAL 9010, pure white
- STA** Stainless steel

4 Nominal size of KSFS [mm]

B × H × T

5 Number of casings

- 1
- 2
- 3
- 4
- 5
- 6

6 Service board

- No entry: none
- MD** Casing with service board

7 Spigot arrangement

- TLBR** Air entry at top left, air outlet at bottom right
- TRBL** Air entry at top right, air outlet at bottom left
- TRBR** Air entry at top right, air outlet at bottom right
- TLBL** Air entry at top left, air outlet at bottom left

8 Standard construction

- SPM** Casing and spigot factory assembled
- SPP** Casing and spigot separate



Duct casings for particulate filters Type DCA



Fitting of filter elements for the separation of suspended particles in areas with standard requirements

Duct casing for Mini Pleat filter panels, Mini Pleat filter cells, and activated carbon filter cells. For installation into the ductwork of ventilation systems.

- Highly variable due to different dimensions and space-saving, compact casing sizes
- With side service door for easy filter change
- Easy handling and secure sealing using clamping mechanism
- Clamping mechanism for easy filter change and secure, air-tight assembly
- Quick installation without any requirement for additional attachments since the casing frame is used as connecting frame
- Delivery as fully assembled unit

Optional equipment and accessories

- Clamping screw with star grip for the service door

Type		Page
DCA	General information	2.5 – 2
	Order code	2.5 – 3
	Dimensions and weight	2.5 – 4
	Specification text	2.5 – 5
	Basic information and nomenclature	10.1 – 1

2

Description



Duct casing for particulate filters, type DCA

Application

- Duct casing for particulate filters type DCA for installation into the ductwork of ventilation systems
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air
- Fitting of activated carbon filter cells for the separation of gaseous odorous substances and contaminants from the supply and extract air

Construction

- R: Service door on the right (in direction of airflow)
- L: Service door on the left (in direction of airflow)

Nominal sizes [mm]

- B × H × T

Accessories

- Clamping screws with star grips for the service door

Useful additions

- Suitable filter elements to be ordered separately
- Mini Pleat filter panels (MFP)
- Mini Pleat filter cells (MFC)
- Activated carbon filter cells (ACF)
- Other filter elements upon request

Construction features

- Side service door for easy filter change, optionally arranged on the left or right when viewed in the direction of airflow
- Frame system made of welded aluminium profiles with support angle for fixing the filter elements
- Clamping mechanism for secure sealing between the frame system and the filter elements

Materials and surfaces

- Casing in galvanised sheet steel
- Frame system made of welded aluminium profiles

Installation and commissioning

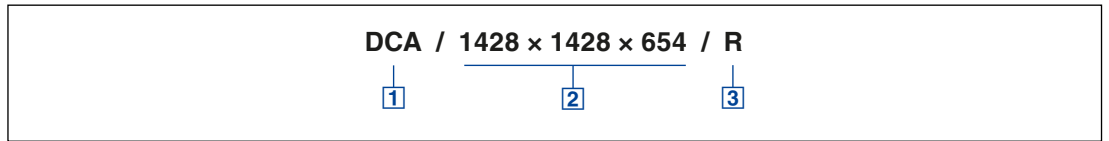
- As standard, duct casings are supplied fully assembled
- The casing frame with wide sealing surfaces forms the connecting frame for ducts
- Pressure measurement points for each filter unit are part of the supply package but must be set up on site by others

Maintenance

- Easy filter change through the side service door

Order code

DCA



1 Type

DCA Duct casing for particulate filters

2 Nominal size [mm]

B x H x T

3 Service door

R On the right (in direction of airflow)

L On the left (in direction of airflow)

Order example

DCA/1428x1428x654/R

Nominal size	1428 x 1428 x 654 mm
Service door	on the right (in direction of airflow)

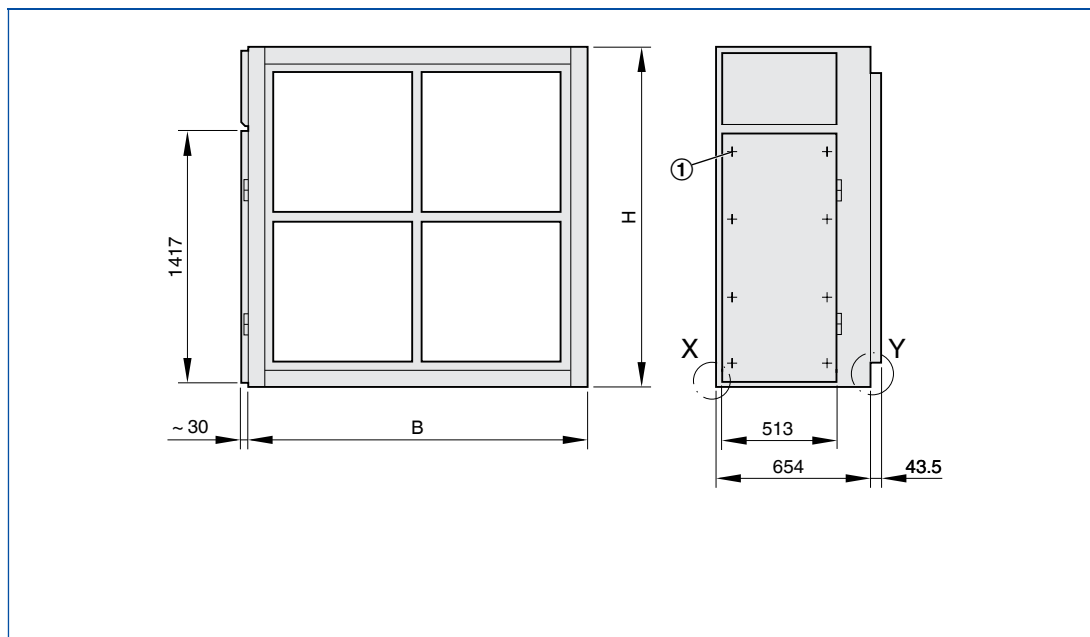
Dimensions



Duct casing for particulate filters, type DCA

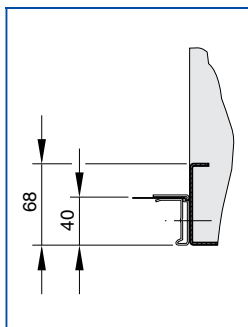
Location of the service door on the left or right depending on the direction of airflow

Dimensional drawing of DCA

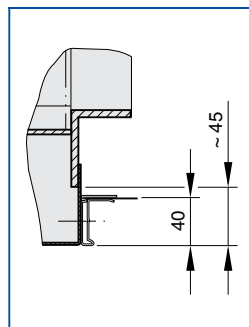


Examples of easy connection to other units or ductwork

Detail X



Detail Y



Standard construction

Filter elements to be ordered separately. In case of larger volume flow rates, two units are combined side by side. The service doors for the filter change are located on the left and right.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①			②
B	H	T	horizontal	vertical	total	~ kg
804	804	654	1	1	1	40
804	1428	654	1	2	2	55
804	2052	654	1	3	3	70
1428	804	654	2	1	2	55
1428	1428	654	2	2	4	70
1428	2052	654	2	3	6	90
1428	2676	654	2	4	8	110
2052	804	654	3	1	3	70
2052	1428	654	3	2	6	90
2052	2052	654	3	3	9	110
2052	2676	654	3	4	12	135
2676	804	654	4	1	4	85
2676	1428	654	4	2	8	110
2676	2052	654	4	3	12	135

① No. of filter elements 610 × 610 × 292 ② Weight

Standard text

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

Duct casings for particulate filters, type DCA, for installation into the ductwork of ventilation systems. Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air; also for the fitting of activated carbon filter cells for the adsorption of gaseous odorous substances and contaminants. Duct casing with side service door for easy filter change, with optional clamping screws with star grips.

Location of the service door on the left or right depending on the direction of airflow.

Duct casing with frame system made of welded aluminium profiles with support angle for fixing the filter elements.

Clamping mechanism provides secure sealing between the frame system and the filter element.

The casing frame with wide sealing surfaces forms the connecting frame for ducts.

Duct casings of various sizes are supplied fully assembled. Pressure measurement points are part of the supply package but must be set up on site by others.

Materials and surfaces

- Casing in galvanised sheet steel
- Frame system made of welded aluminium profiles

Construction

- R: Service door on the right (in direction of airflow)
- L: Service door on the left (in direction of airflow)

Order options

1 Type

DCA Duct casing for particulate filters

2 Nominal size [mm]

B × H × T

3 Service door

- R** On the right (in direction of airflow)
- L** On the left (in direction of airflow)



3. Particulate filter air terminal devices

Particulate filter air terminal devices are used as final filter stage in areas with the highest requirements for air purity and hygiene such as in the medical, biological, and pharmaceutical industries, as well as in other sensitive areas. For the fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air.

3.1 Ceiling mounted particulate filters



For critical air purity and critical hygiene requirements, suitable for ceiling installation

TFC

3.1 – 1

3.2 Wall mounted particulate filter



For critical air purity and critical hygiene requirements, suitable for wall installation

TFW

3.2 – 1

3.3 Particulate filter modules for ceilings



For critical air purity and critical hygiene requirements, suitable for ceiling installation

TFM

3.3 – 1

3.4 Pharmaceutical clean room terminal filters



For critical air purity and very critical hygiene requirements, suitable for ceiling installation

TFP

3.4 – 1

10.1 Basics and nomenclature



Filter units and filter elements

10.1 – 1



Circular spigot with lip seal



Internal measuring tube to sample particles for measurement



Air-tight shut-off damper, manually adjustable



Damper blade for volume flow rate balancing (optional)



Tested to VDI 6022

Ceiling mounted particulate filters Type TFC



For critical air purity and critical hygiene requirements, suitable for ceiling installation

Ceiling mounted particulate filters as final filter stage with Mini Pleat filter panels for the separation of suspended particles. Used in medicine, biology, pharmaceuticals, and sensitive technical areas.

- Easy, time-saving and secure filter change, can be completed by one person due to special press-in frame
- Robust, welded construction
- Compact construction, suitable for low ceilings, integration with all clean room ceiling systems of various manufacturers
- Various diffusers to ideally meet individual requirements
- Horizontal (circular, rectangular) or vertical (circular) connection
- Choice of air-tight shut-off damper or volume flow limiter for horizontal connection
- Equipment for differential pressure measurement, sealing integrity testing, and particle sampling for measurement
- For air cleanliness classes 5 to 8 according to ISO 14644-1
- Meets the hygiene requirements of VDI 6022

Type		Page
TFC	General information	3.1 – 2
	Order code	3.1 – 7
	Dimensions and weight – TFC-SC	3.1 – 8
	Dimensions and weight – TFC-SC00H	3.1 – 11
	Dimensions and weight – TFC-SCTN0	3.1 – 13
	Dimensions and weight – TFC-SCBR0	3.1 – 15
	Dimensions and weight – TFC-SCVFL	3.1 – 17
	Dimensions and weight – TFC-TC	3.1 – 19
	Dimensions and weight – TFC-SR	3.1 – 22
	Dimensions and weight – TFC-SRKSR	3.1 – 25
	Specification text	3.1 – 27
	Basic information and nomenclature	10.1 – 1

3

Variants

Product examples

Ceiling mounted particulate filter, variant TFC-SC with diffuser AIRNAMIC



Ceiling mounted particulate filter, variant TFC-SC00H with diffuser VDW



Ceiling mounted particulate filter, variant TFC-SCTN0 with diffuser DLQLF



Ceiling mounted particulate filter, variant TFC-SCBR0 with diffuser FD



Ceiling mounted particulate filter, variant
TFC-SCVFL with diffuser TDF



Ceiling mounted particulate filter, variant
TFC-TC with diffuser PCD



Ceiling mounted particulate filter, variant
TFC-SR with diffuser DLQ



Ceiling mounted particulate filter, variant
TFC-SRKSR with diffuser DLQL



Description

Application

- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Classification

- Variants SC, TC, and SR meet the hygiene requirements

Variants

- SC: Side entry circular spigot
- SC00H: Side entry circular spigot, manually adjustable shut-off damper
- SCTNO: Side entry circular spigot, shut-off damper with pneumatic actuator
- SCBR0: Side entry circular spigot, shut-off damper with electric actuator 24 – 240 V AC
- SCVFL: Side entry circular spigot, volume flow limiter
- TC: Top entry circular spigot
- SR: Side entry rectangular spigot
- SRKSR: Side entry rectangular spigot, manually adjustable shut-off damper

Construction

- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel (only for SC, TC, SR)

Nominal sizes [mm]

- 400, 500, 600, 625, 680

Attachments

- ADLQ: Ceiling diffuser
- DLQ: Ceiling diffuser
- FD: Ceiling swirl diffuser
- TDF: Ceiling swirl diffuser
- FDF: Ceiling swirl diffuser
- VDW: Ceiling swirl diffuser
- DLQLF: Ceiling diffuser
- DLQL: Ceiling diffuser with baffle element made of acoustic fleece
- PCD: PROCONDIF® diffuser
- AIRNAMIC: Ceiling swirl diffuser

Options

- D: Spigot diameter
- M: Damper blade for volume flow rate balancing
- 2: Installation subframe with 2 fixing points
- 4: Installation subframe with 4 fixing points
- T: Top suspension and measurement points
- S: Side suspension and measurement points

Useful additions

- Mini Pleat filter panels (MFP)
- Suitable filter elements to be ordered separately

Special features

- Compact construction
- Easy operation
- High operational reliability

Parts and characteristics

- Pneumatic actuator: control pressure 0.6 – 1.0 bar
- Electric actuator: mains connection 24 – 240 V, 50 Hz
- Volume flow limiter: factory set reference volume flow rate, can be readjusted within a volume flow rate range of > 5 : 1

Construction features

- Clamping mechanism with 2 fixing points for filter elements; 4 fixing points as an option
- Sealing integrity test facility for checking the filter function
- Pressure measurement points to monitor the differential operating pressure

Materials and surfaces

- Casing made of either sheet steel, powder-coated RAL 9010, pure white, or of stainless steel for variants SC, TC and SR
- Diffusers made of sheet steel, powder-coated RAL 9010, pure white (types DLQ, FD, TDF, VDW, DLQLF, DLQL), of anodised aluminium profile (type ADLQ), or of stainless steel (type FDF)
- Diffuser made of sheet steel, powder-coated RAL 9010 (pure white, matt); type PCD with internal part made of PP plastic, RAL 9010 (pure white)
- Diffuser made of high-quality ABS plastic, RAL 9010 (pure white), type AIRNAMIC

Installation and commissioning

- Fitting of filter elements with flat section seal or fluid seal
- The filter element is pressed into place using two or four (optional) easy-to-handle tensioning elements
- Diffuser with central fixing (to be provided by others)

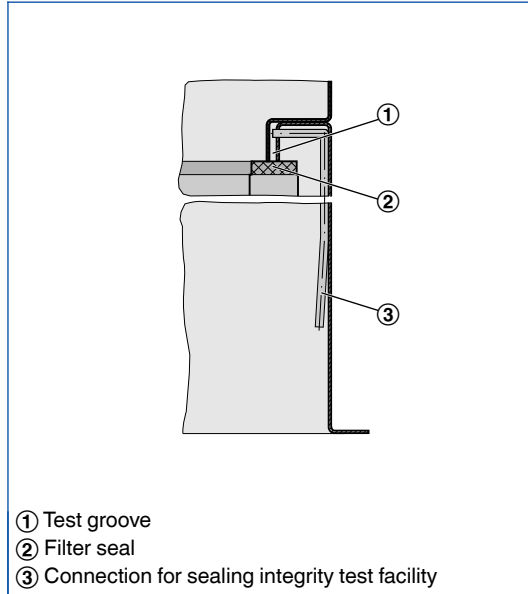
Standards and guidelines

- Hygiene meets the 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 13779

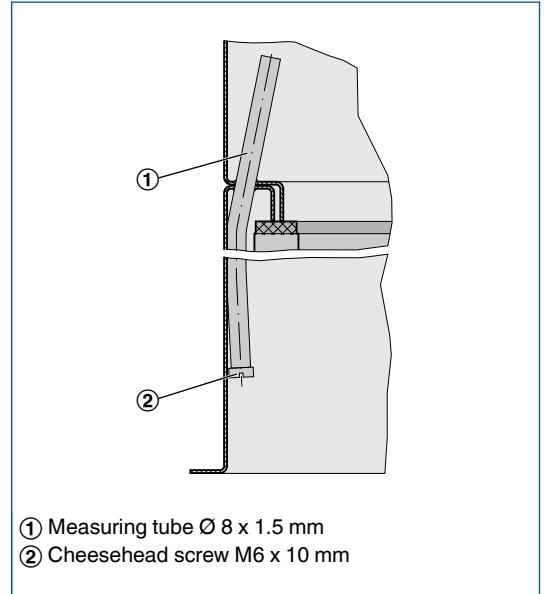
Maintenance

- For constructions with shut-off damper, the filter change and other maintenance work can be carried out without disturbance of the system operation
- Diffusers with central fixing facilitate removal for filter change and decontamination

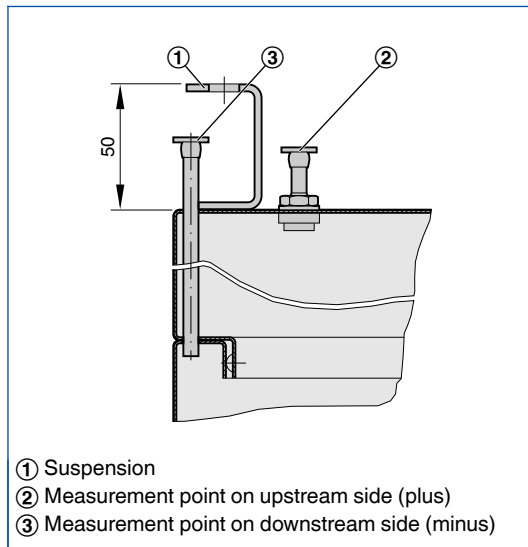
Sealing integrity test facility



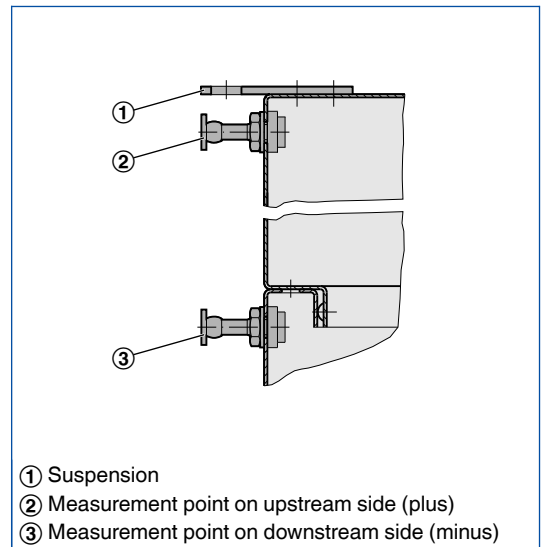
Internal measuring tube



Top suspension and measurement points

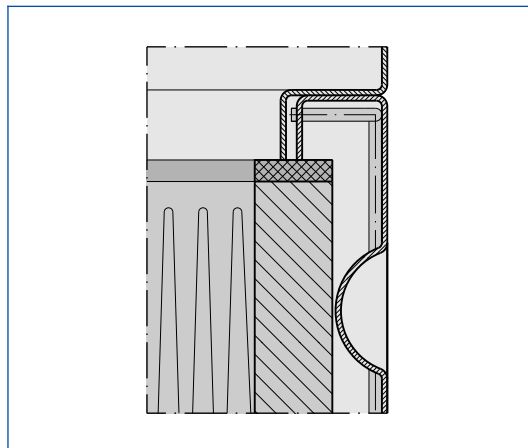


Side suspension and measurement points

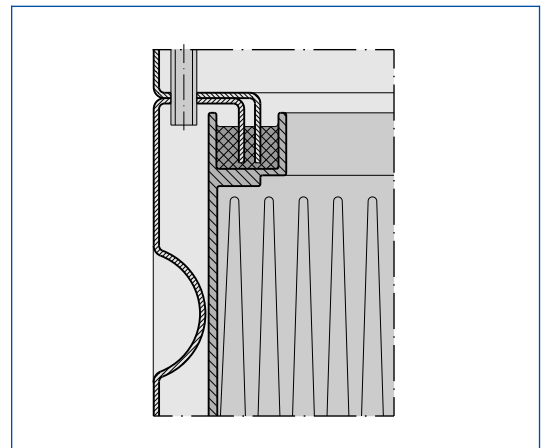


Seals

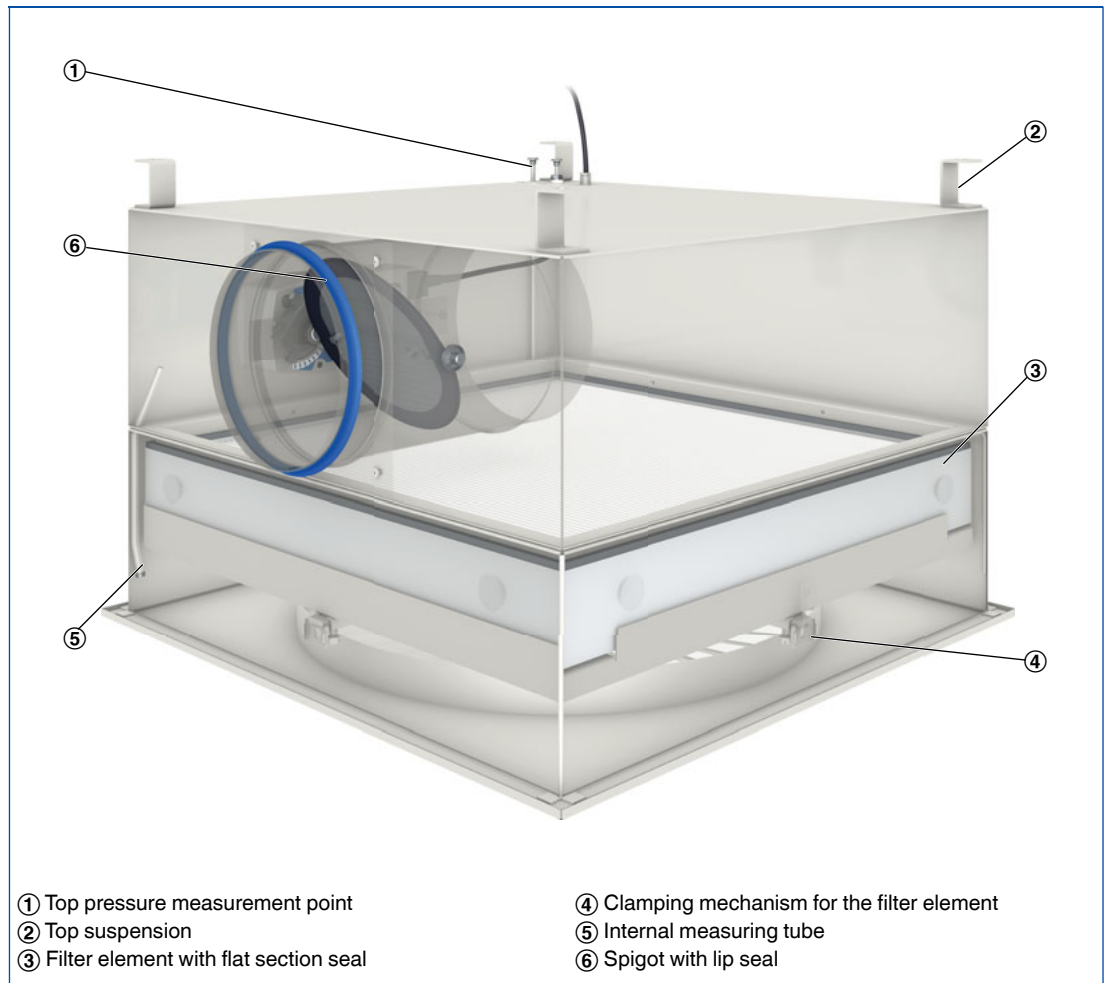
Mini Pleat filter panels with flat section seal



Mini Pleat filter panels with fluid seal



Schematic illustration of TFC-SCBR0



Description



Ceiling mounted particulate filter, variant TFC-SC with diffuser AIRNAMIC

Application

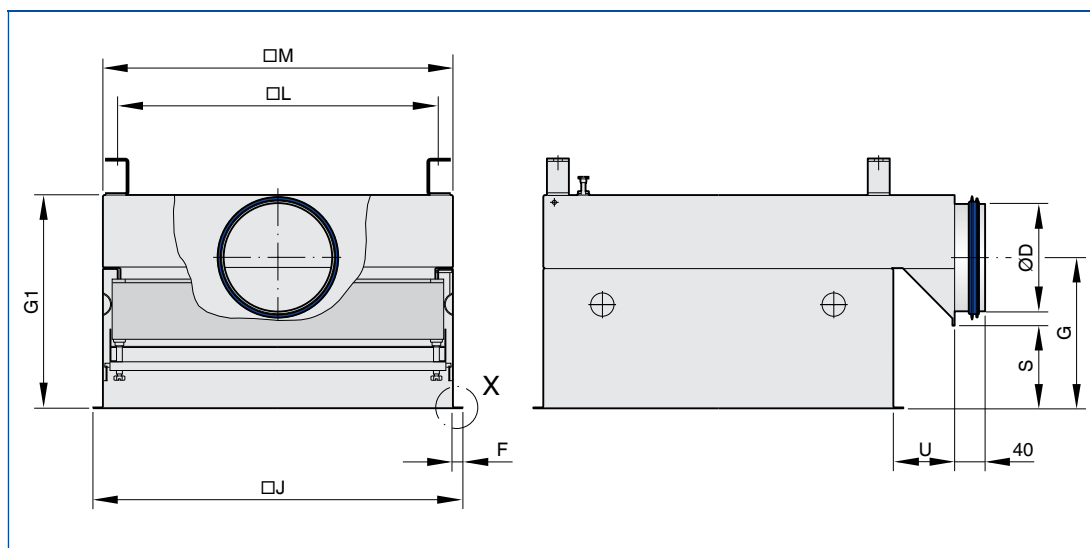
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

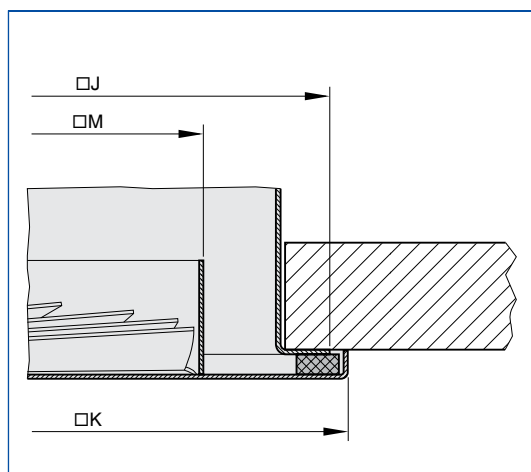
- SC: Side entry circular spigot

Dimensions

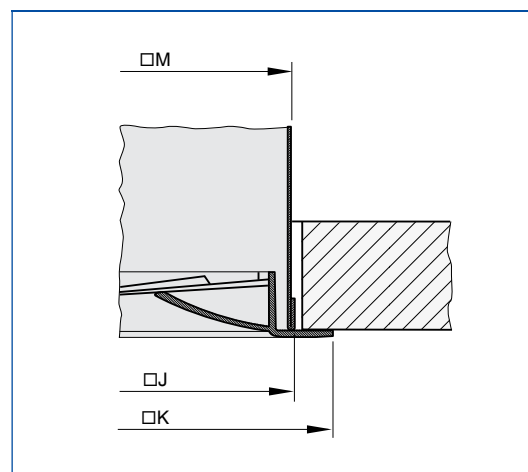
Dimensional drawing of TFC-SC



Detail X – various diffusers



Detail X – AIRNAMIC



Standard construction

Dimensions [mm] and weight [kg]

All weights are net,
without packaging.

Nominal size	Nominal size VDW	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
			Ø D	G1	K	M	J	L	F	U	S	G	~ kg
400	400 x 16	345 x 345 x 78/91	158	299	398	371	388	330	10	135	69	189	17
400	400 x 16	345 x 345 x 78/91	198	299	398	371	388	330	10	135	69	189	17
400	400 x 16	345 x 345 x 150	158	371	398	371	388	330	10	135	141	261	17
400	400 x 16	345 x 345 x 150	198	371	398	371	388	330	10	135	141	261	17
500	500 x 24	435 x 435 x 78/91	158	294	498	461	488	420	15	135	64	184	21
500	500 x 24	435 x 435 x 78/91	198	294	498	461	488	420	15	135	64	184	21
500	500 x 24	435 x 435 x 150	158	366	498	461	488	420	15	135	136	256	21
500	500 x 24	435 x 435 x 150	198	366	498	461	488	420	15	135	136	256	21
600	600 x 24	535 x 535 x 78/91	248	344	598	561	588	520	15	135	64	209	22
600	600 x 24	535 x 535 x 78/91	313	409	598	561	588	520	15	135	64	242	22
600	600 x 24	535 x 535 x 150	248	416	598	561	588	520	15	135	136	281	22
600	600 x 24	535 x 535 x 150	313	481	598	561	588	520	15	135	136	314	22
625	625 x 24	575 x 575 x 78/91	248	349	623	601	618	560	10	135	69	214	23
625	625 x 24	575 x 575 x 78/91	313	414	623	601	618	560	10	135	69	247	23
625	625 x 48	575 x 575 x 78/91	248	349	623	601	618	560	10	135	69	214	23
625	625 x 48	575 x 575 x 78/91	313	414	623	601	618	560	10	135	69	247	23
625	625 x 24	575 x 575 x 150	248	421	623	601	618	560	10	135	141	286	23
625	625 x 24	575 x 575 x 150	313	486	623	601	618	560	10	135	141	319	23
625	625 x 48	575 x 575 x 150	248	421	623	601	618	560	10	135	141	286	23
625	625 x 48	575 x 575 x 150	313	486	623	601	618	560	10	135	141	319	23
680	680 x 24	610 x 610 x 78/91	248	344	676	636	663	595	15	135	64	209	24
680	680 x 24	610 x 610 x 78/91	313	409	676	636	663	595	15	135	64	242	24
680	680 x 54	610 x 610 x 78/91	248	344	676	636	663	595	15	135	64	209	24
680	680 x 54	610 x 610 x 78/91	313	409	676	636	663	595	15	135	64	242	24
680	680 x 24	610 x 610 x 150	248	416	676	636	663	595	15	135	136	281	24
680	680 x 24	610 x 610 x 150	313	481	676	636	663	595	15	135	136	314	24
680	680 x 54	610 x 610 x 150	248	416	676	636	663	595	15	135	136	281	24
680	680 x 54	610 x 610 x 150	313	481	676	636	663	595	15	135	136	314	24

G1 + 40 mm for diffusers DLQL and PCD

- | | | |
|---|-------------------------------|---|
| ① Spigot diameter | ② Casing height | ③ Overall dimension of diffuser face plate |
| ④ Overall dimension of casing | ⑤ Overall dimension of flange | ⑥ Top suspension, distance between holes |
| ⑦ Flange width | ⑧ Casing extension | ⑨ Distance from casing flange to edge of spigot plate |
| ⑩ Dimension from flange face to centre line of spigot | ⑪ Weight | |

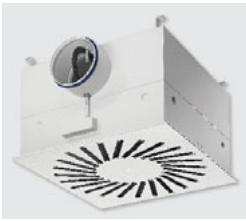
Dimensions [mm] and weight [kg] TFC-SC for AIRNAMIC

Nominal size AIRNAMIC	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
		Ø D	G1	K	M	J	L	F	U	S	G	~ kg
600	535 x 535 x 78/91	248	344	598	561	563	520	-	135	64	209	22
600	535 x 535 x 78/91	313	409	598	561	563	520	-	135	64	242	22
600	535 x 535 x 150	248	416	598	561	563	520	-	135	136	281	22
600	535 x 535 x 150	313	481	598	561	563	520	-	135	136	314	22
625	535 x 535 x 78/91	248	344	623	561	563	520	-	135	64	209	22
625	535 x 535 x 78/91	313	409	623	561	563	520	-	135	64	242	22
625	535 x 535 x 150	248	416	623	561	563	520	-	135	136	281	22
625	535 x 535 x 150	313	481	623	561	563	520	-	135	136	314	22

Casings are identical for nominal sizes 600 and 625

- | | | |
|---|-------------------------------|---|
| ① Spigot diameter | ② Casing height | ③ Overall dimension of diffuser face plate |
| ④ Overall dimension of casing | ⑤ Overall dimension of flange | ⑥ Top suspension, distance between holes |
| ⑦ Flange width | ⑧ Casing extension | ⑨ Distance from casing flange to edge of spigot plate |
| ⑩ Dimension from flange face to centre line of spigot | ⑪ Weight | |

Description



Ceiling mounted particulate filter, variant TFC-SC00H with diffuser VDW

Application

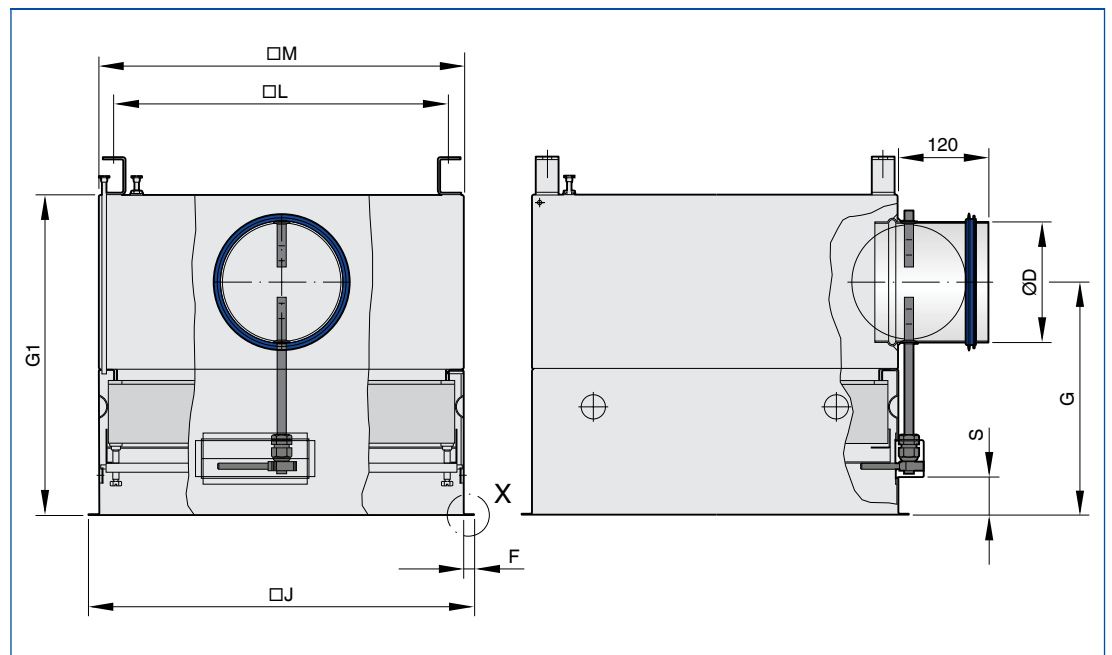
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

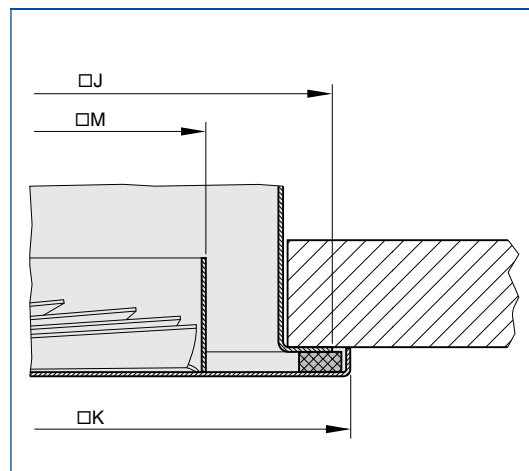
- SC00H: Side entry circular spigot, manually adjustable shut-off damper

Dimensions

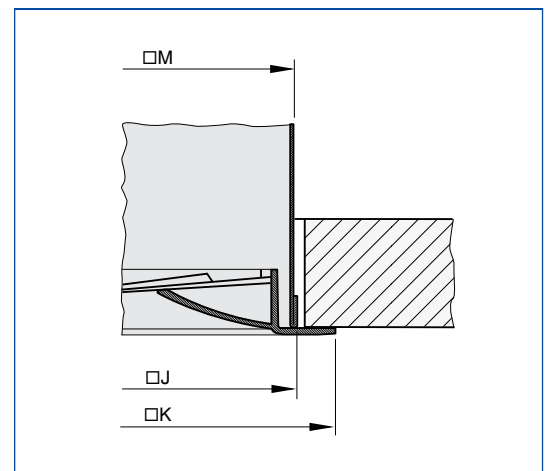
Dimensional drawing of TFC-SC00H



Detail X – various diffusers



Detail X – AIRNAMIC



Standard construction

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Nominal size VDW	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
			Ø D	G1	K	M	J	L	F	S	G	~ kg
400	400 x 16	345 x 345 x 78/91	125	428	398	371	388	330	10	54	313	27
500	500 x 24	435 x 435 x 78/91	160	423	498	461	488	420	15	49	308	31
600	600 x 24	535 x 535 x 78/91	200	423	598	561	588	520	15	49	308	32
625	625 x 24	575 x 575 x 78/91	200	428	623	601	618	560	10	54	313	33
625	625 x 48	575 x 575 x 78/91	200	428	623	601	618	560	10	54	313	33
680	680 x 24	610 x 610 x 78/91	200	423	676	636	663	595	15	49	308	35
680	680 x 54	610 x 610 x 78/91	200	423	676	636	663	595	15	49	308	35

G1 + 40 mm for diffusers DLQL and PCD

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Distance from casing flange to damper operator cover
- ⑨ Dimension from flange face to centre line of spigot
- ⑩ Weight

Dimensions [mm] and weight [kg]

TFC-SC00H for AIRNAMIC

Nominal size AIRNAMIC	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
		Ø D	G1	K	M	J	L	F	S	G	~ kg
600	535 x 535 x 78/91	200	423	598	561	563	520	-	49	308	32
625	535 x 535 x 78/91	200	423	623	561	563	520	-	49	308	32

Casings are identical for nominal sizes 600 and 625

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Distance from casing flange to damper operator cover
- ⑨ Dimension from flange face to centre line of spigot
- ⑩ Weight

Description



Ceiling mounted particulate filter, variant TFC-SCTN0 with diffuser DLQLF

Application

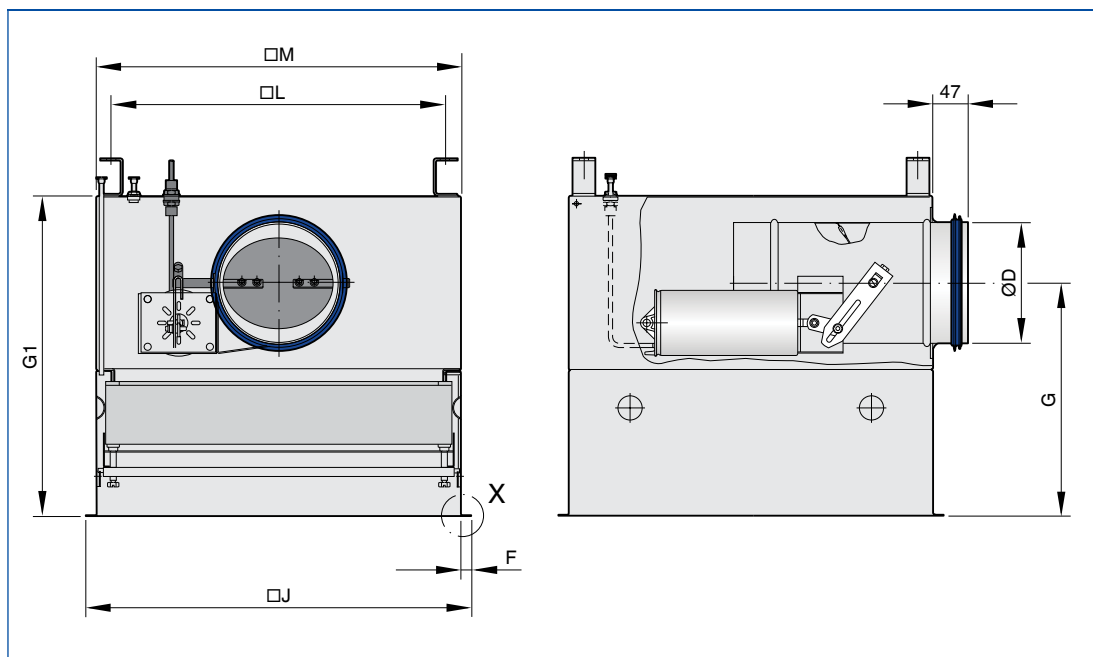
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

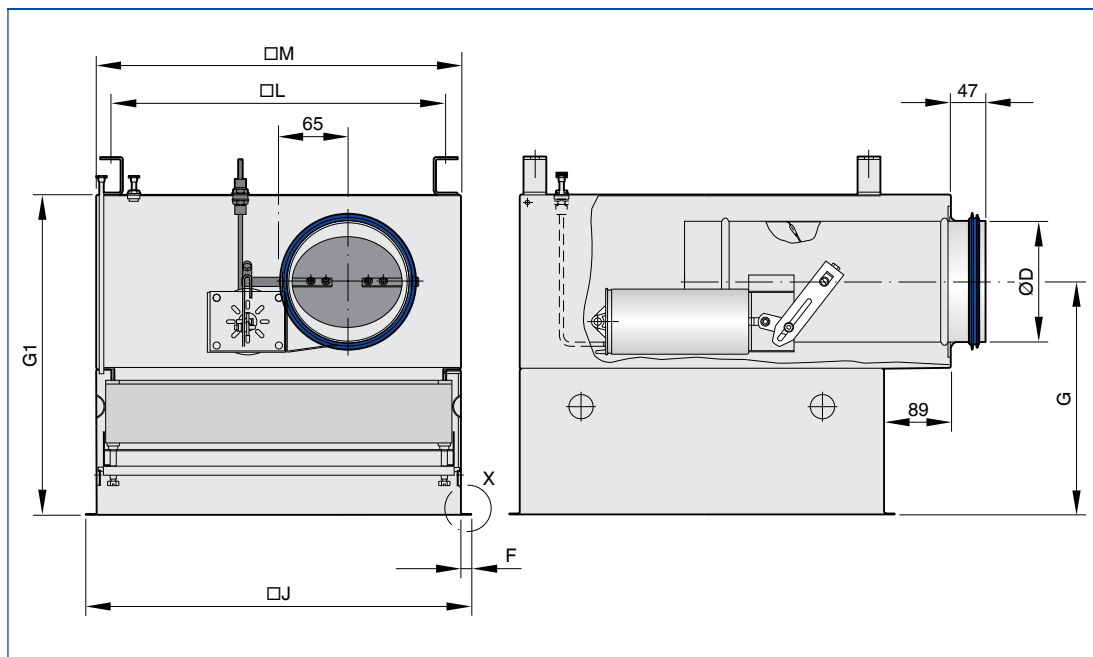
- SCTN0: Side entry circular spigot, shut-off damper with pneumatic actuator
- Pneumatic actuator: control pressure 0.6 – 1.0 bar

Dimensions

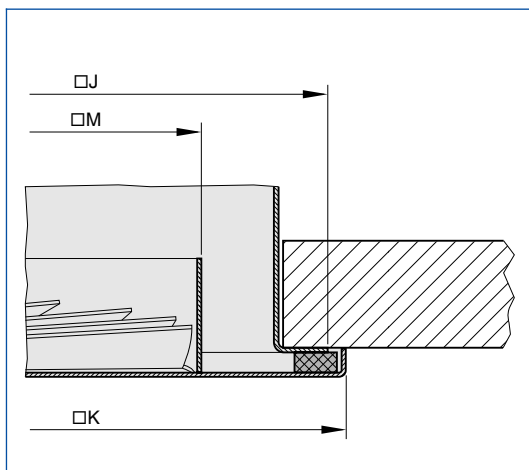
Dimensional drawing of TFC-SCTN0



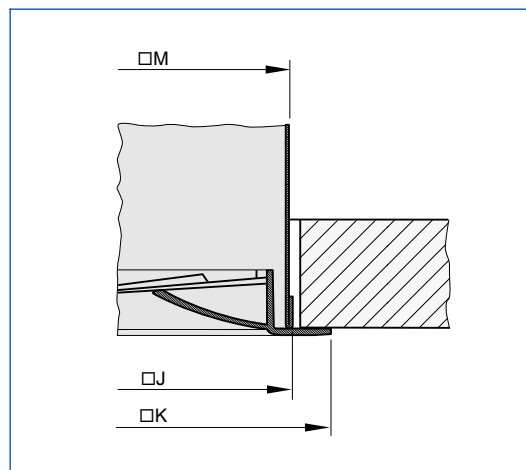
Dimensional drawing of TFC-SCTN0 – for filter size 345 x 345



Detail X – various diffusers



Detail X – AIRNAMIC



3

Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Nominal size VDW	Filter size B × H × T	①	②	③	④	⑤	⑥	⑦	⑧	⑨
			Ø D	G1	K	M	J	L	F	G	~ kg
400	400 × 16	345 × 345 × 78/91	125	428	398	371	388	330	10	313	29
500	500 × 24	435 × 435 × 78/91	160	423	498	461	488	420	15	308	33
600	600 × 24	535 × 535 × 78/91	200	423	598	561	588	520	15	308	34
625	625 × 24	575 × 575 × 78/91	200	428	623	601	618	560	10	313	35
625	625 × 48	575 × 575 × 78/91	200	428	623	601	618	560	10	313	35
680	680 × 24	610 × 610 × 78/91	200	423	676	636	663	595	15	308	37
680	680 × 54	610 × 610 × 78/91	200	423	676	636	663	595	15	308	37

G1 + 40 mm for diffusers DLQL and PCD

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Dimension from flange face to centre line of spigot
- ⑨ Weight

Dimensions [mm] and weight [kg] TFC-SCTNO for AIRNAMIC

Nominal size AIRNAMIC	Filter size B × H × T	①	②	③	④	⑤	⑥	⑦	⑧	⑨
		Ø D	G1	K	M	J	L	F	G	~ kg
600	535 × 535 × 78/91	200	423	598	561	563	520	-	308	34
625	535 × 535 × 78/91	200	423	623	561	563	520	-	308	34

Casings are identical for nominal sizes 600 and 625

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Dimension from flange face to centre line of spigot
- ⑨ Weight

Description



Ceiling mounted particulate filter, variant TFC-SCBR0 with diffuser FD

Application

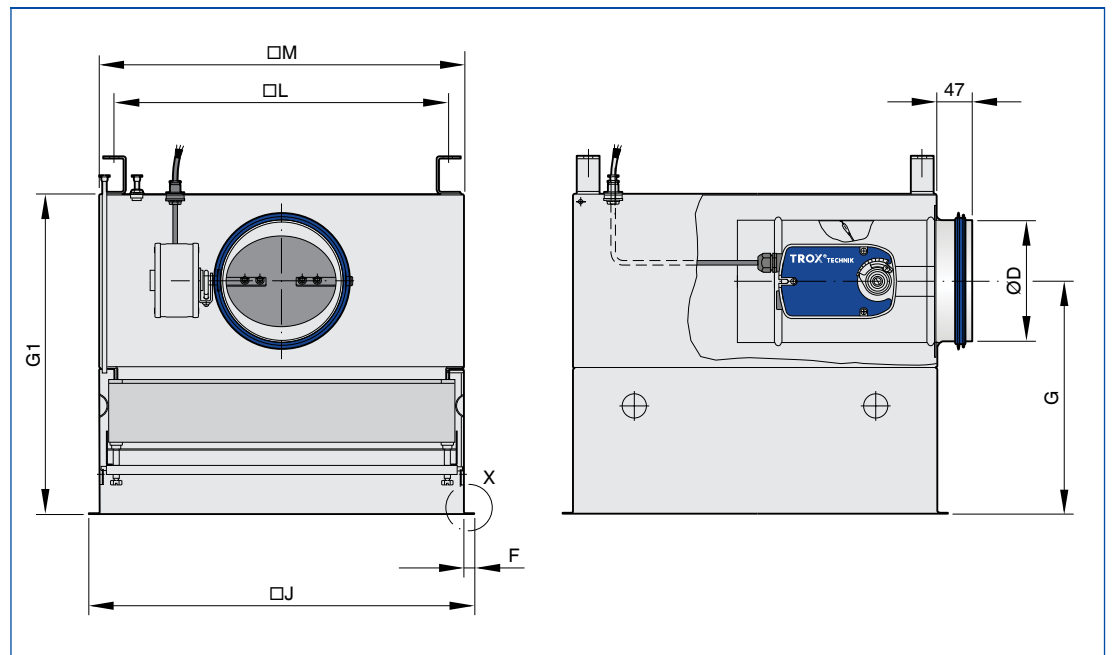
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

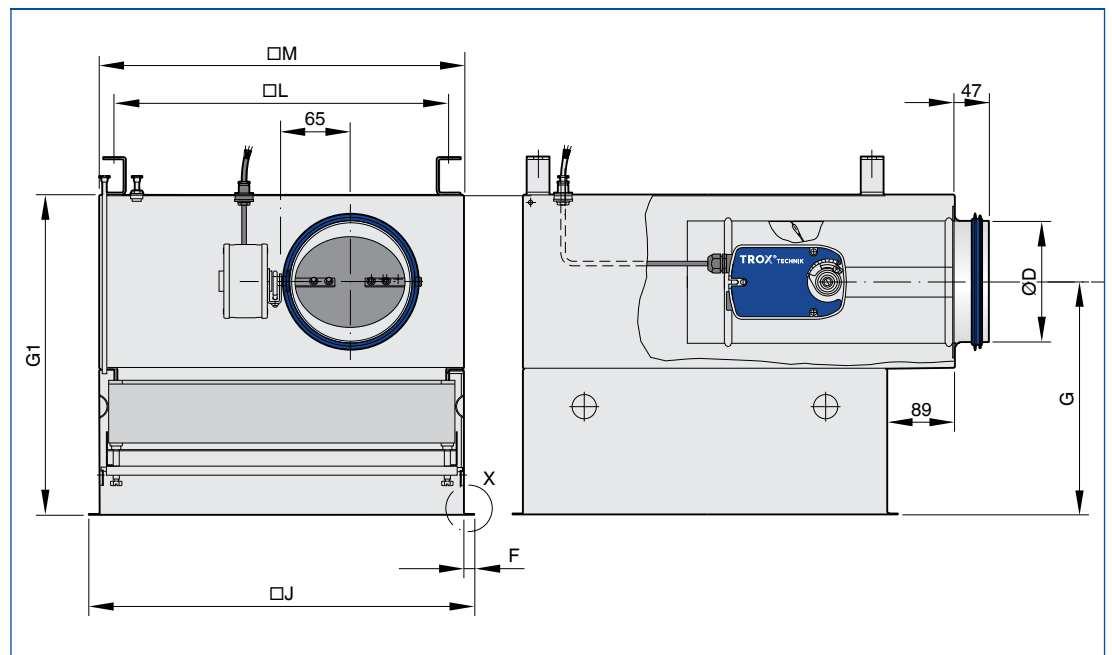
- SCBR0: Side entry circular spigot, shut-off damper with electric actuator 24 – 240 V AC

Dimensions

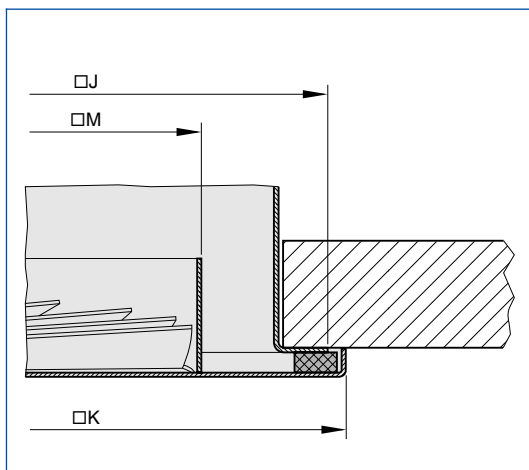
Dimensional drawing of TFC-SCBR0



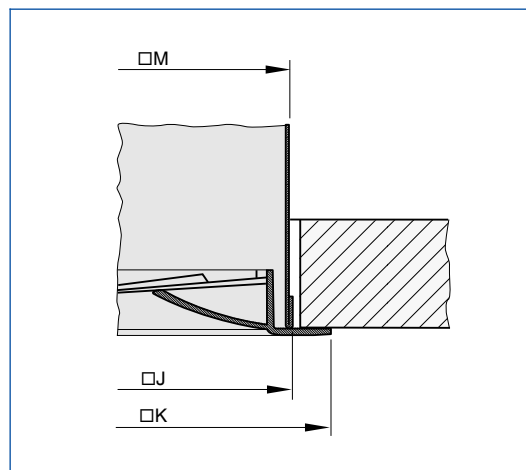
Dimensional drawing of TFC-SCBR0 – for filter size 345 × 345



Detail X – various diffusers



Detail X – AIRNAMIC



3 Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Nominal size VDW	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨
			Ø D	G1	K	M	J	L	F	G	~ kg
400	400 x 16	345 x 345 x 78/91	125	428	398	371	388	330	10	313	29
500	500 x 24	435 x 435 x 78/91	160	423	498	461	488	420	15	308	33
600	600 x 24	535 x 535 x 78/91	200	423	598	561	588	520	15	308	34
625	625 x 24	575 x 575 x 78/91	200	428	623	601	618	560	10	313	35
625	625 x 48	575 x 575 x 78/91	200	428	623	601	618	560	10	313	35
680	680 x 24	610 x 610 x 78/91	200	423	676	636	663	595	15	308	37
680	680 x 54	610 x 610 x 78/91	200	423	676	636	663	595	15	308	37

G1 + 40 mm for diffusers DLQL and PCD

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Dimension from flange face to centre line of spigot
- ⑨ Weight

Dimensions [mm] and weight [kg]
TFC-SCBR0 for AIRNAMIC

Nominal size AIRNAMIC	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨
		Ø D	G1	K	M	J	L	F	G	~ kg
600	535 x 535 x 78/91	200	423	598	561	563	520	-	308	34
625	535 x 535 x 78/91	200	423	623	561	563	520	-	308	34

Casings are identical for nominal sizes 600 and 625

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Dimension from flange face to centre line of spigot

Description



Ceiling mounted particulate filter, variant TFC-SCVFL with diffuser TDF

Application

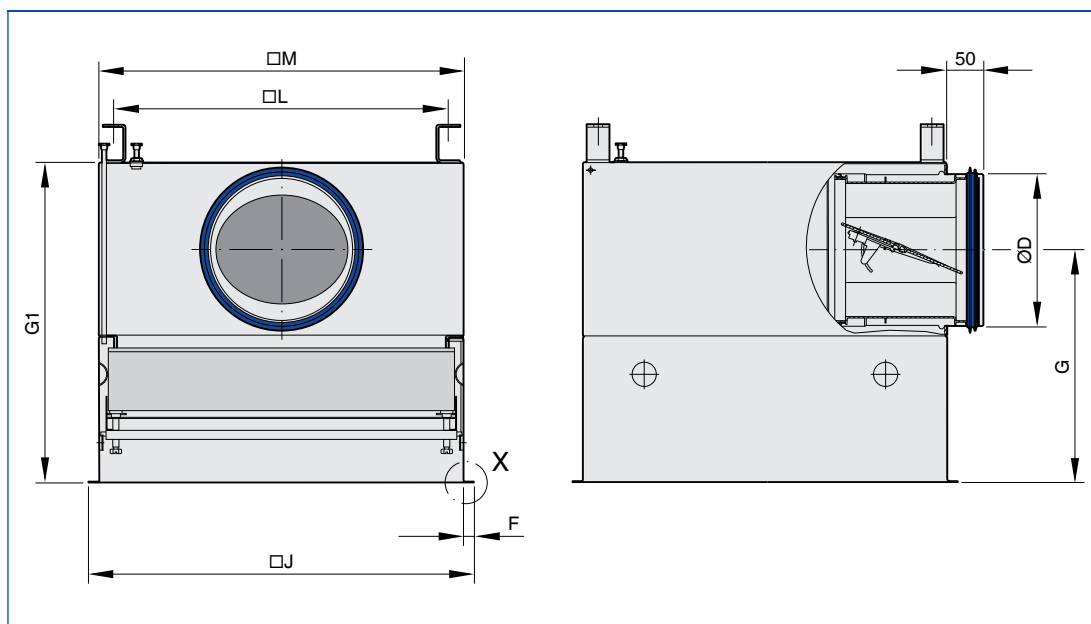
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

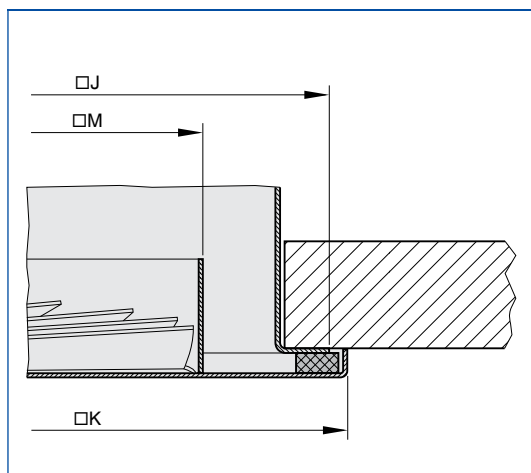
- SCVFL: Side entry circular spigot, volume flow limiter (type VFL)
- Volume flow limiter: factory set reference volume flow rate, can be readjusted within a volume flow rate range of > 5 : 1

Dimensions

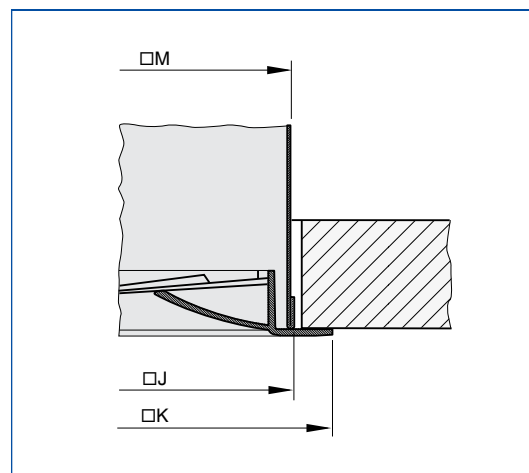
Dimensional drawing of TFC-SCVFL



Detail X – various diffusers



Detail X – AIRNAMIC



Standard construction

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Nominal size VDW	Filter size B × H × T	①	②	③	④	⑤	⑥	⑦	⑧	⑨
			Ø D	G1	K	M	J	L	F	G	~ kg
400	400 × 16	345 × 345 × 78/91	160	428	398	371	388	330	10	313	28
500	500 × 24	435 × 435 × 78/91	200	423	498	461	488	420	15	308	32
600	600 × 24	535 × 535 × 78/91	250	473	598	561	588	520	15	333	33
625	625 × 24	575 × 575 × 78/91	250	478	623	601	618	560	10	338	34
625	625 × 48	575 × 575 × 78/91	250	478	623	601	618	560	10	338	34
680	680 × 24	610 × 610 × 78/91	250	473	676	636	663	595	15	333	36
680	680 × 54	610 × 610 × 78/91	250	473	676	636	663	595	15	333	36

G1 + 40 mm for diffusers DLQL and PCD

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Dimension from flange face to centre line of spigot
- ⑨ Weight

Dimensions [mm] and weight [kg] TFC-SCVFL for AIRNAMIC

Nominal size AIRNAMIC	Filter size B × H × T	①	②	③	④	⑤	⑥	⑦	⑧	⑨
		Ø D	G1	K	M	J	L	F	G	~ kg
600	535 × 535 × 78/91	250	473	598	561	563	520	-	333	33
625	535 × 535 × 78/91	250	473	623	561	563	520	-	333	33

Casings are identical for nominal sizes 600 and 625

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Dimension from flange face to centre line of spigot
- ⑨ Weight

Description



Ceiling mounted particulate filter, variant TFC-TC with diffuser PCD

Application

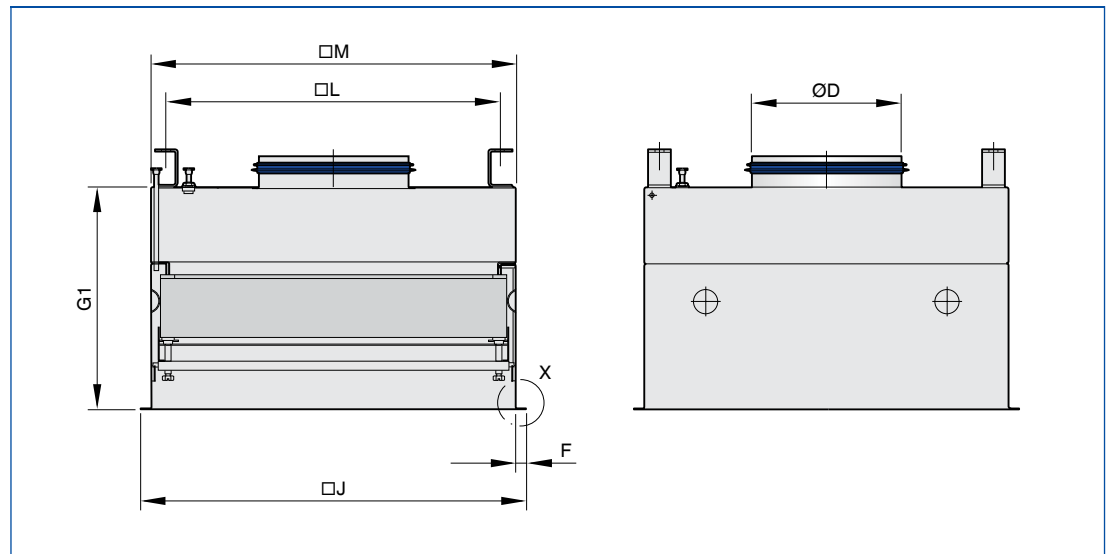
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

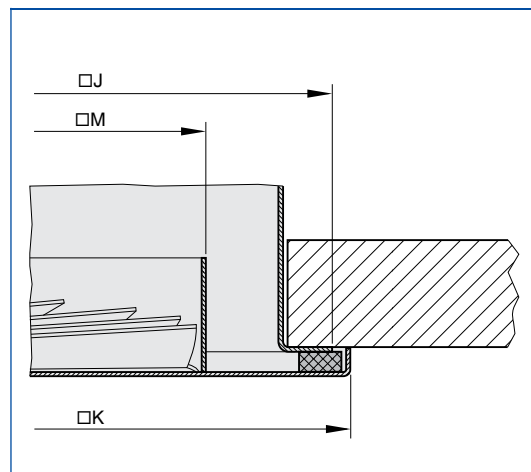
- TC: Top entry circular spigot

Dimensions

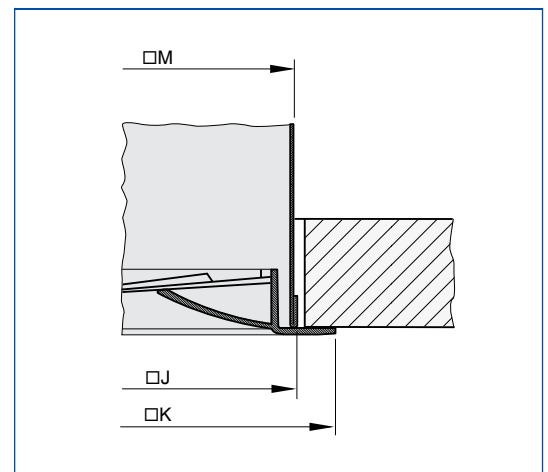
Dimensional drawing of TFC-TC



Detail X – various diffusers



Detail X – AIRNAMIC



Standard construction

Dimensions [mm] and weight [kg]

All weights are net,
without packaging.

Nominal size	Nominal size VDW	Filter size B × H × T	①	②	③	④	⑤	⑥	⑦	⑧
			Ø D	G1	K	M	J	L	F	~ kg
400	400 × 16	345 × 345 × 78/91	158	299	398	371	388	330	10	17
400	400 × 16	345 × 345 × 78/91	198	299	398	371	388	330	10	17
400	400 × 16	345 × 345 × 150	158	371	398	371	388	330	10	17
400	400 × 16	345 × 345 × 150	198	371	398	371	388	330	10	17
500	500 × 24	435 × 435 × 78/91	158	294	498	461	488	420	15	21
500	500 × 24	435 × 435 × 78/91	198	294	498	461	488	420	15	21
500	500 × 24	435 × 435 × 150	158	366	498	461	488	420	15	21
500	500 × 24	435 × 435 × 150	198	366	498	461	488	420	15	21
600	600 × 24	535 × 535 × 78/91	248	294	598	561	588	520	15	22
600	600 × 24	535 × 535 × 78/91	313	294	598	561	588	520	15	22
600	600 × 24	535 × 535 × 150	248	366	598	561	588	520	15	22
600	600 × 24	535 × 535 × 150	313	366	598	561	588	520	15	22
625	625 × 24	575 × 575 × 78/91	248	299	623	601	618	560	10	23
625	625 × 24	575 × 575 × 78/91	313	299	623	601	618	560	10	23
625	625 × 48	575 × 575 × 78/91	248	299	623	601	618	560	10	23
625	625 × 48	575 × 575 × 78/91	313	299	623	601	618	560	10	23
625	625 × 24	575 × 575 × 150	248	371	623	601	618	560	10	23
625	625 × 24	575 × 575 × 150	313	371	623	601	618	560	10	23
625	625 × 48	575 × 575 × 150	248	371	623	601	618	560	10	23
625	625 × 48	575 × 575 × 150	313	371	623	601	618	560	10	23
680	680 × 24	610 × 610 × 78/91	248	294	676	636	663	595	15	23
680	680 × 24	610 × 610 × 78/91	313	294	676	636	663	595	15	23
680	680 × 54	610 × 610 × 78/91	248	294	676	636	663	595	15	23
680	680 × 54	610 × 610 × 78/91	313	294	676	636	663	595	15	23
680	680 × 24	610 × 610 × 150	248	366	676	636	663	595	15	23
680	680 × 24	610 × 610 × 150	313	366	676	636	663	595	15	23
680	680 × 54	610 × 610 × 150	248	366	676	636	663	595	15	23
680	680 × 54	610 × 610 × 150	313	366	676	636	663	595	15	23

G1 + 40 mm for diffusers DLQL and PCD

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Weight

**Dimensions [mm] and weight [kg]
TFC-TC for AIRNAMIC**

Nominal size AIRNAMIC	Filter size B × H × T	①	②	③	④	⑤	⑥	⑦	⑧
		Ø D	G1	K	M	J	L	F	~ kg
600	535 × 535 × 78/91	248	294	598	561	563	520	-	22
600	535 × 535 × 78/91	313	294	598	561	563	520	-	22
600	535 × 535 × 150	248	366	598	561	563	520	-	22
600	535 × 535 × 150	313	366	598	561	563	520	-	22
625	535 × 535 × 78/91	248	294	623	561	563	520	-	22
625	535 × 535 × 78/91	313	294	623	561	563	520	-	22
625	535 × 535 × 150	248	366	623	561	563	520	-	22
625	535 × 535 × 150	313	366	623	561	563	520	-	22

Casings are identical for nominal sizes 600 and 625

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Flange width
- ⑧ Weight

Description



Ceiling mounted particulate filter, variant TFC-SR with diffuser DLQ

Application

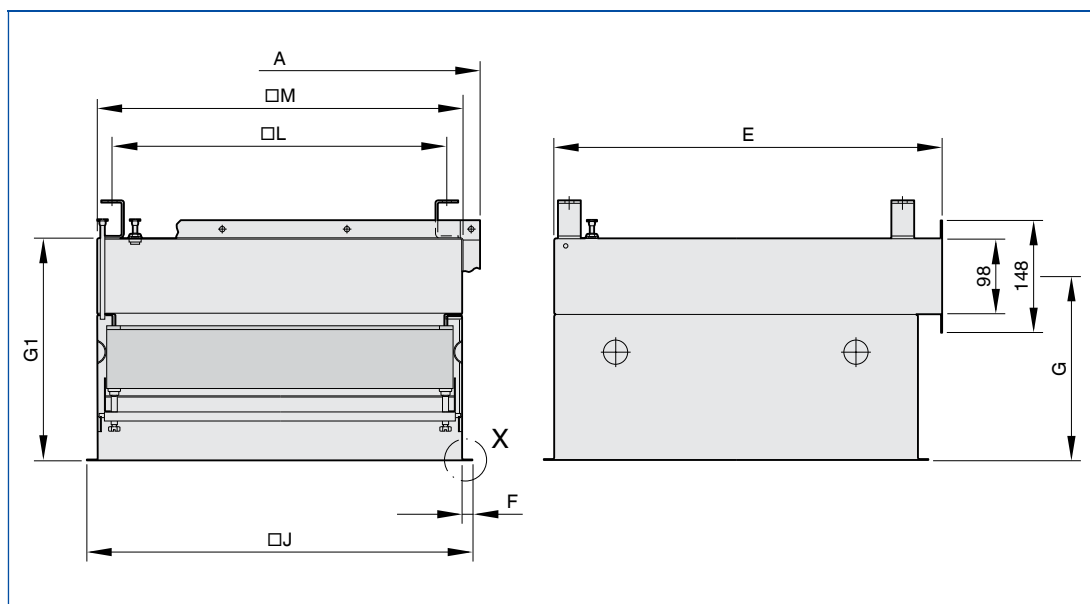
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

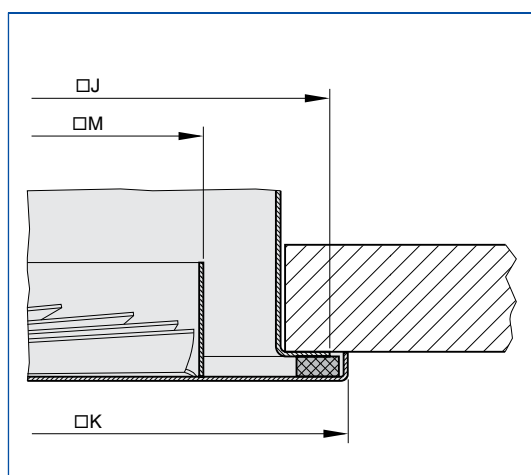
- SR: Side entry rectangular spigot

Dimensions

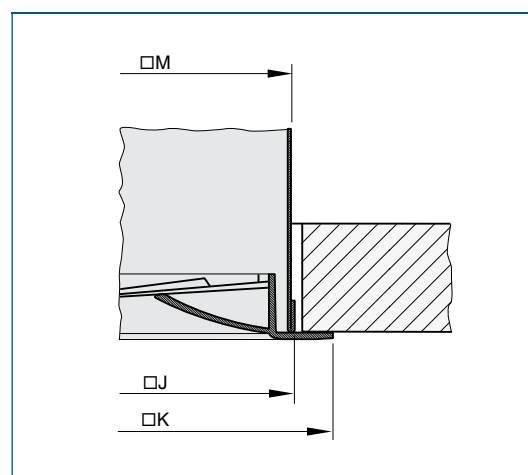
Dimensional drawing of TFC-SR



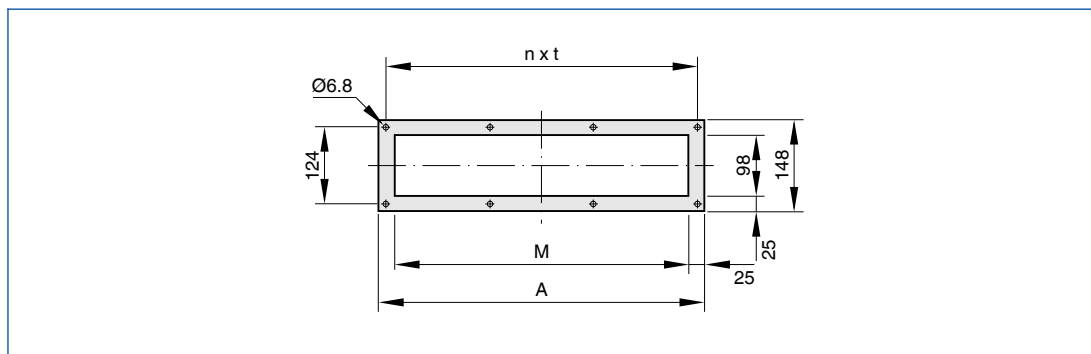
Detail X – various diffusers



Detail X – AIRNAMIC



TFC-SR flange dimensions



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Nominal size VDW	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
			G1	K	M	J	L	A	n x t	E	F	G	~ kg
400	400 x 16	345 x 345 x 78/91	299	398	371	388	330	418	3 x 131	401	10	249	17
400	400 x 16	345 x 345 x 150	371	398	371	388	330	418	3 x 131	401	10	321	17
500	500 x 24	435 x 435 x 78/91	294	498	461	488	420	508	3 x 161	491	15	244	21
500	500 x 24	435 x 435 x 150	366	498	461	488	420	508	3 x 161	491	15	316	21
600	600 x 24	535 x 535 x 78/91	294	598	561	588	520	608	4 x 146	591	15	244	22
600	600 x 24	535 x 535 x 150	366	598	561	588	520	608	4 x 146	591	15	316	22
625	625 x 24	575 x 575 x 78/91	299	623	601	618	560	648	4 x 156	631	10	249	23
625	625 x 48	575 x 575 x 78/91	299	623	601	618	560	648	4 x 156	631	10	249	23
625	625 x 24	575 x 575 x 150	371	623	601	618	560	648	4 x 156	631	10	321	23
625	625 x 48	575 x 575 x 150	371	623	601	618	560	648	4 x 156	631	10	321	23
680	680 x 24	610 x 610 x 78/91	294	676	636	663	595	683	4 x 165	666	15	244	23
680	680 x 54	610 x 610 x 78/91	294	676	636	663	595	683	4 x 165	666	15	244	23
680	680 x 24	610 x 610 x 150	366	676	636	663	595	683	4 x 165	666	15	316	23
680	680 x 54	610 x 610 x 150	366	676	636	663	595	683	4 x 165	666	15	316	23

G1 + 40 mm for diffusers DLQL and PCD

- ① Casing height
- ② Overall dimension of diffuser face plate
- ③ Overall dimension of casing
- ④ Overall dimension of flange
- ⑤ Top suspension, distance between holes
- ⑥ Overall width of connecting flange
- ⑦ Number of flange screw holes x distance between holes
- ⑧ Overall width of casing including spigot
- ⑨ Flange width
- ⑩ Dimension from flange face to centre line of spigot
- ⑪ Weight

Dimensions [mm] and weight [kg] TFC-SR for AIRNAMIC

Nominal size AIRNAMIC	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
		G1	K	M	J	L	A	n x t	E	F	G	~ kg
600	535 x 535 x 78/91	294	598	561	563	520	608	4 x 146	591	-	244	22
600	535 x 535 x 150	366	598	561	563	520	608	4 x 146	591	-	316	22
625	535 x 535 x 78/91	294	623	561	563	520	608	4 x 146	591	-	244	22
625	535 x 535 x 150	366	623	561	563	520	608	4 x 146	591	-	316	22

Casings are identical for nominal sizes 600 and 625

- ① Casing height
- ② Overall dimension of diffuser face plate
- ③ Overall dimension of casing
- ④ Overall dimension of flange
- ⑤ Top suspension, distance between holes
- ⑥ Overall width of connecting flange
- ⑦ Number of flange screw holes x distance between holes
- ⑧ Overall width of casing including spigot
- ⑨ Flange width
- ⑩ Dimension from flange face to centre line of spigot
- ⑪ Weight

Description



Ceiling mounted particulate filter, variant TFC-SRKSR with diffuser DLQL

Application

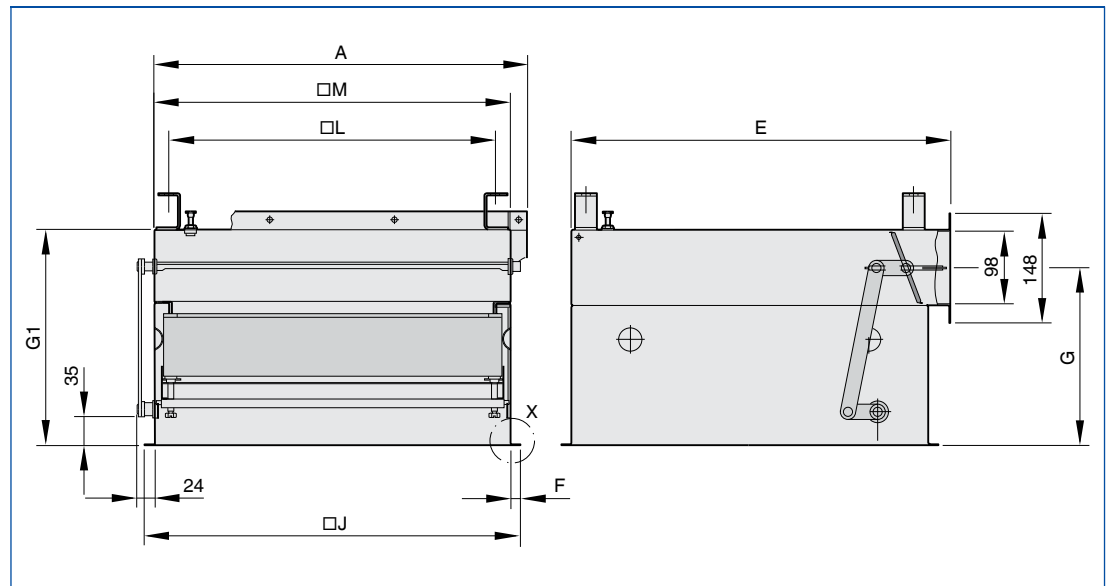
- Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

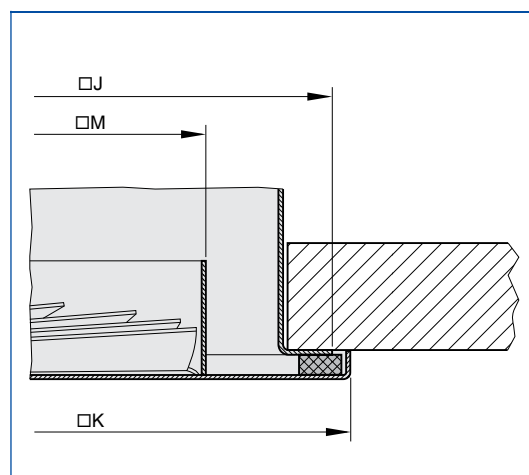
- SRKSR: Side entry rectangular spigot, manually adjustable shut-off damper

Dimensions

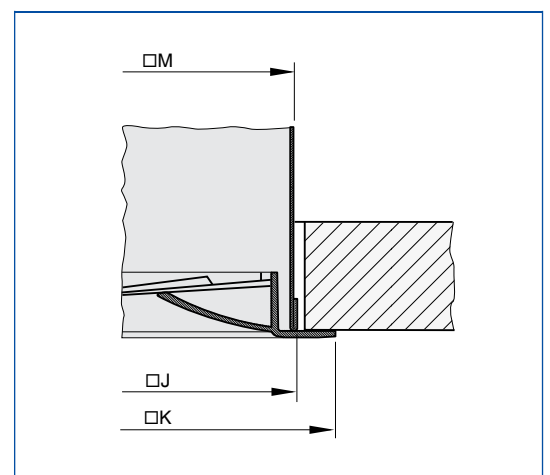
Dimensional drawing of TFC-SRKSR



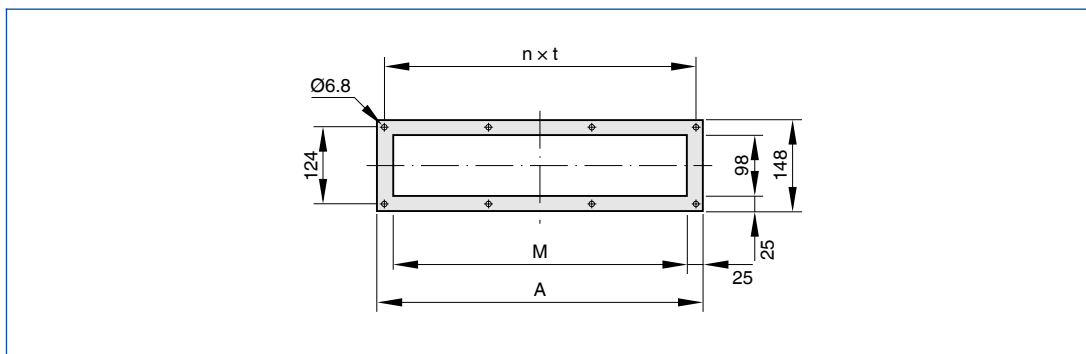
Detail X – various diffusers



Detail X – AIRNAMIC



Dimensional drawing of TFC-SRKSR flange



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Nominal size VDW	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
			G1	K	M	J	L	A	n x t	E	F	G	~ kg
400	400 x 16	345 x 345 x 78/91	299	398	371	388	330	418	3 x 131	401	10	249	17
500	500 x 24	435 x 435 x 78/91	294	498	461	488	420	508	3 x 161	491	15	244	21
600	600 x 24	535 x 535 x 78/91	294	598	561	588	520	608	4 x 146	591	15	244	22
625	625 x 24	575 x 575 x 78/91	299	623	601	618	560	648	4 x 156	631	10	249	23
625	625 x 48	575 x 575 x 78/91	299	623	601	618	560	648	4 x 156	631	10	249	23
680	680 x 24	610 x 610 x 78/91	294	676	636	663	595	683	4 x 165	666	15	244	23
680	680 x 54	610 x 610 x 78/91	294	676	636	663	595	683	4 x 165	666	15	244	23

G1 + 40 mm for diffusers DLQL and PCD

- ① Casing height
- ② Overall dimension of diffuser face plate
- ③ Overall dimension of casing
- ④ Overall dimension of flange
- ⑤ Top suspension, distance between holes
- ⑥ Overall width of connecting flange
- ⑦ Number of flange screw holes x distance between holes
- ⑧ Overall width of casing including spigot
- ⑨ Flange width
- ⑩ Dimension from flange face to centre line of spigot
- ⑪ Weight

Dimensions [mm] and weight [kg]

TFC-SRKSR for AIRNAMIC

Nominal size AIRNAMIC	Filter size B x H x T	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
		G1	K	M	J	L	A	n x t	E	F	G	~ kg
600	535 x 535 x 78/91	294	598	561	563	520	608	4 x 146	591	-	244	22
625	535 x 535 x 78/91	294	623	561	563	520	608	4 x 146	591	-	244	22

Casings are identical for nominal sizes 600 and 625

- ① Casing height
- ② Overall dimension of diffuser face plate
- ③ Overall dimension of casing
- ④ Overall dimension of flange
- ⑤ Top suspension, distance between holes
- ⑥ Overall width of connecting flange
- ⑦ Number of flange screw holes x distance between holes
- ⑧ Overall width of casing including spigot
- ⑨ Flange width
- ⑩ Dimension from flange face to centre line of spigot
- ⑪ Weight

Standard text

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

Particulate filter air terminal device type TFC for ceiling installation as final filter stage and for air distribution. Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air.

Casing with side entry or top entry spigot. As standard, ceiling mounted particulate filters with circular spigots are fitted with a lip seal. With optional air-tight manually adjustable shut-off damper, pneumatic or electric actuator, or volume flow limiter.

The filter elements are pressed into place by an installation subframe with two or four (optional) fixing points. As standard, the casings are equipped with a sealing integrity test facility, internal measuring tube, and pressure measurement point for monitoring the operating differential pressure. Suspension and pressure measurement points either at the side or at the top. For fitting Mini Pleat filter panels with a flat section seal or a fluid seal. Leakage test for each casing.

Special features

- Compact construction
- Easy operation
- High operational reliability

Materials and surfaces

- Casing made of either sheet steel, powder-coated RAL 9010, pure white, or of stainless steel for variants SC, TC and SR
- Diffusers made of sheet steel, powder-coated RAL 9010, pure white (types DLQ, FD, TDF, VDW, DLQLF, DLQL), of anodised aluminium profile (type ADLQ), or of stainless steel (type FDF)
- Diffuser made of sheet steel, powder-coated RAL 9010 (pure white, matt); type PCD with internal part made of PP plastic, RAL 9010 (pure white)
- Diffuser made of high-quality ABS plastic, RAL 9010 (pure white), type AIRNAMIC

Construction

- SPC: Steel, powder-coated RAL 9010, pure white
- STA: Stainless steel (only for SC, TC, SR)

Order options

1 Type

TFC Ceiling mounted particulate filter

2 Variant

- SC** Side entry circular spigot
- SC00H** Side entry circular spigot, manually adjustable shut-off damper
- SCTN0** Side entry circular spigot, shut-off damper with pneumatic actuator
- SCBR0** Side entry circular spigot, shut-off damper with electric actuator 24 – 240 V AC
- SCVFL** Side entry circular spigot, volume flow limiter
- TC** Top entry circular spigot
- SR** Side entry rectangular spigot
- SRKSR** Side entry rectangular spigot, manually adjustable shut-off damper

3 Casing material

- SPC** Steel, powder-coated RAL 9010, pure white
- STA** Stainless steel

4 Air terminal device

No entry: none

- ADLQ**
- DLQ**
- FD**
- TDF**
- DFD**
- DLQLF**
- DLQL**
- VDW**
- PCD**
- AIRNAMIC**

5 Nominal size [mm]

ADLQ, DLQ, FD, TDF, DFD, DLQLF, DLQL

- 400**
- 500**
- 600**
- 625**
- 680**

VDW

- 400 × 16**
- 500 × 24**
- 600 × 24**
- 625 × 24**
- 625 × 48**
- 680 × 24**
- 680 × 54**

PCD

- 600**
- 625**

AIRNAMIC

- 600**
- 625**

6 Spigot diameter [mm]

- D**

7 Casing height [mm]

- G1**

8 Damper blade

No entry: none

- M** Damper blade for volume flow rate balancing (only for TFC-SC and TFC-TC)

9 Fixing points

- 2** Installation subframe with 2 fixing points
- 4** Installation subframe with 4 fixing points (not for SC00H)

10 Suspension/measurement points

- T** Top
- S** Side

11 Flange width [mm]

No entry: standard

- F** 10 – 55 mm

Wall mounted particulate filter Type TFW

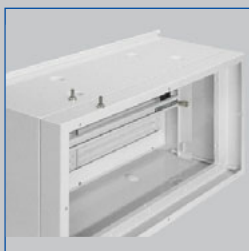


3

For critical air purity and critical hygiene requirements, suitable for wall installation

Wall mounted particulate filters as final filter stage with Mini Pleat filter panels for the separation of suspended particles. Used in medicine, biology, pharmaceuticals, and sensitive technical areas.

- Easy, time-saving and secure filter change, can be completed by one person due to special press-in frame
- For air cleanliness classes 5 to 8 according to ISO 14644-1
- Different constructions for filter elements with different frame depths
- Casing with indentations to ensure the precise fitting of the filter elements
- Equipment for differential pressure measurement, sealing integrity testing, and particle sampling for measurement
- Meets the hygiene requirements of VDI 6022



Adapter frame for
connection to ducts



Tested to VDI 6022

Type		Page
TFW	General information	3.2 – 2
	Order code	3.2 – 3
	Dimensions and weight	3.2 – 4
	Specification text	3.2 – 5
	Basic information and nomenclature	10.1 – 1

Description



3 Wall mounted particulate filters, type TFW

Application

- Particulate filter air terminal device type TFW for wall installation as final filter stage and for air distribution
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Construction

- SPC: Steel, powder-coated RAL 9010, pure white

Nominal sizes [mm]

- Casing depth 262, 334, and 476

Attachments

- SL: Ventilation grille
- ASL: Ventilation grille

Useful additions

- Mini Pleat filter panels (MFP)
- Suitable filter elements to be ordered separately

Special features

- Compact construction
- Easy connection to ducts
- High operational reliability

Construction features

- Clamping mechanism with 2 fixing points for filter elements
- Sealing integrity test facility for checking the filter function
- Pressure measurement points to monitor the differential operating pressure
- Casing with adapter frame facilitates connection to ducts

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white
- Ventilation grille SL made of sheet steel, powder-coated RAL 9010, pure white
- Ventilation grille ASL made of anodised aluminium profile

Installation and commissioning

- The filter element is pressed into place using two easy-to-handle tensioning elements
- Hidden screw fixing for grilles (fixing to be performed by customer)

Standards and guidelines

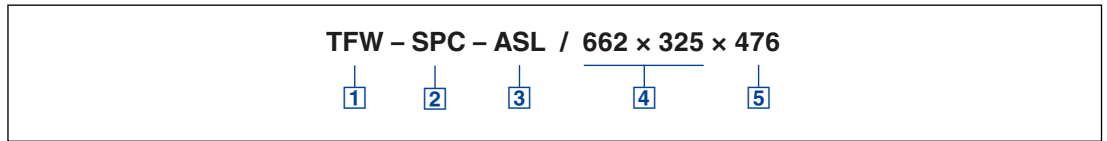
- Hygiene meets the requirements of VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3, and EN 13779

Maintenance

- Grilles with hidden screw fixing facilitate removal for filter change and decontamination

Order code

TFW



1 Type

TFW Wall mounted particulate filter

2 Casing material

SPC Steel, powder-coated RAL 9010, pure white

3 Air terminal device

No entry: none

ASL

SL

4 Nominal size [mm]

ASL

662 × 325

SL

680 × 325

5 Casing depth [mm]

G

Order example

TFW-SPC-ASL/662x325x476

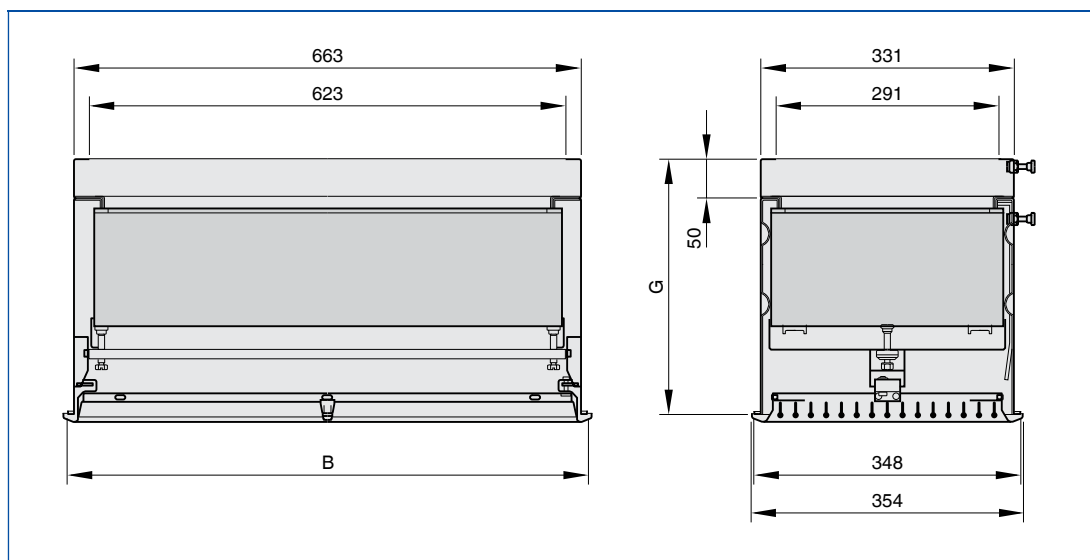
Material	steel, powder-coated RAL 9010, pure white
Air terminal device	ASL
Nominal size	662 × 325 mm
Casing depth	476 mm

Dimensions

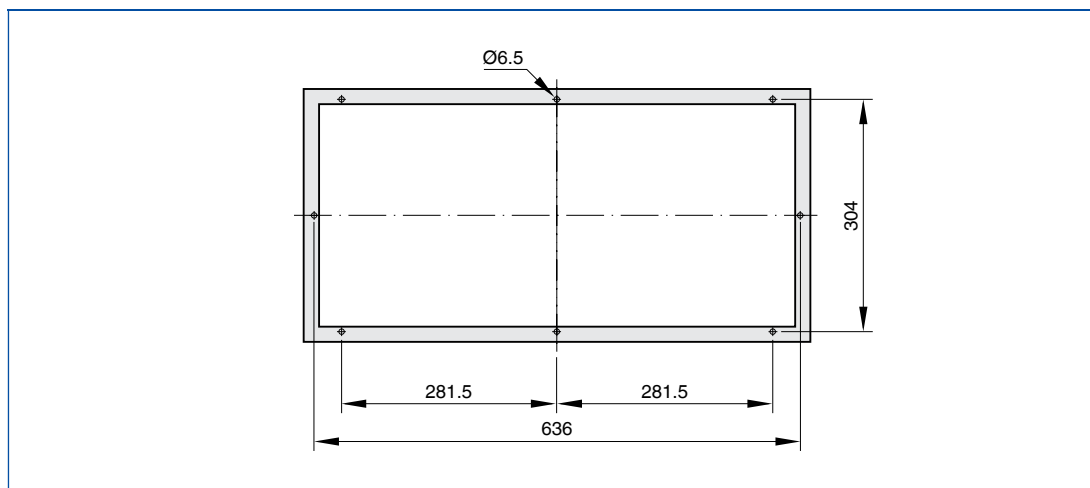


Wall mounted particulate filters, type TFW

Dimensional drawing of TFW



TFW flange dimensions



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Wall mounted particulate filter with ventilation grille ASL

Nominal size		Filter size	①	②
B	H	B × H × T	G	~ kg
662	325	305 × 610 × 78	262	10
662	325	305 × 610 × 150	334	11
662	325	305 × 610 × 292	476	12

① Casing depth ② Weight

Wall mounted particulate filter with ventilation grille SL

Nominal size		Filter size	①	②
B	H	B × H × T	G	~ kg
680	325	305 × 610 × 78	262	10
680	325	305 × 610 × 150	334	11
680	325	305 × 610 × 292	476	12

① Casing depth ② Weight

Standard text

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

Particulate filter air terminal device type TFW for wall installation as final filter stage and for air distribution.

Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air. Casing with clamping mechanism with 2 fixing points for filter elements.

As standard, the casings are equipped with a sealing integrity test facility and pressure measurement points for monitoring the operating differential pressure.

For the fitting of Mini Pleat filter panels using a flat section seal. Ventilation grille type SL made of sheet steel, powder-coated RAL 9010, pure white, or type ASL made of aluminium.

Leakage test for each casing.

Special features

- Compact construction
- Easy connection to ducts
- High operational reliability

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white
- Ventilation grille SL made of sheet steel, powder-coated RAL 9010, pure white
- Ventilation grille ASL made of anodised aluminium profile

Construction

- SPC: Steel, powder-coated RAL 9010, pure white

Order options

1 Type

TFW Wall mounted particulate filter

2 Casing material

SPC Steel, powder-coated RAL 9010, pure white

3 Air terminal device

No entry: none

ASL

SL

4 Nominal size [mm]

ASL

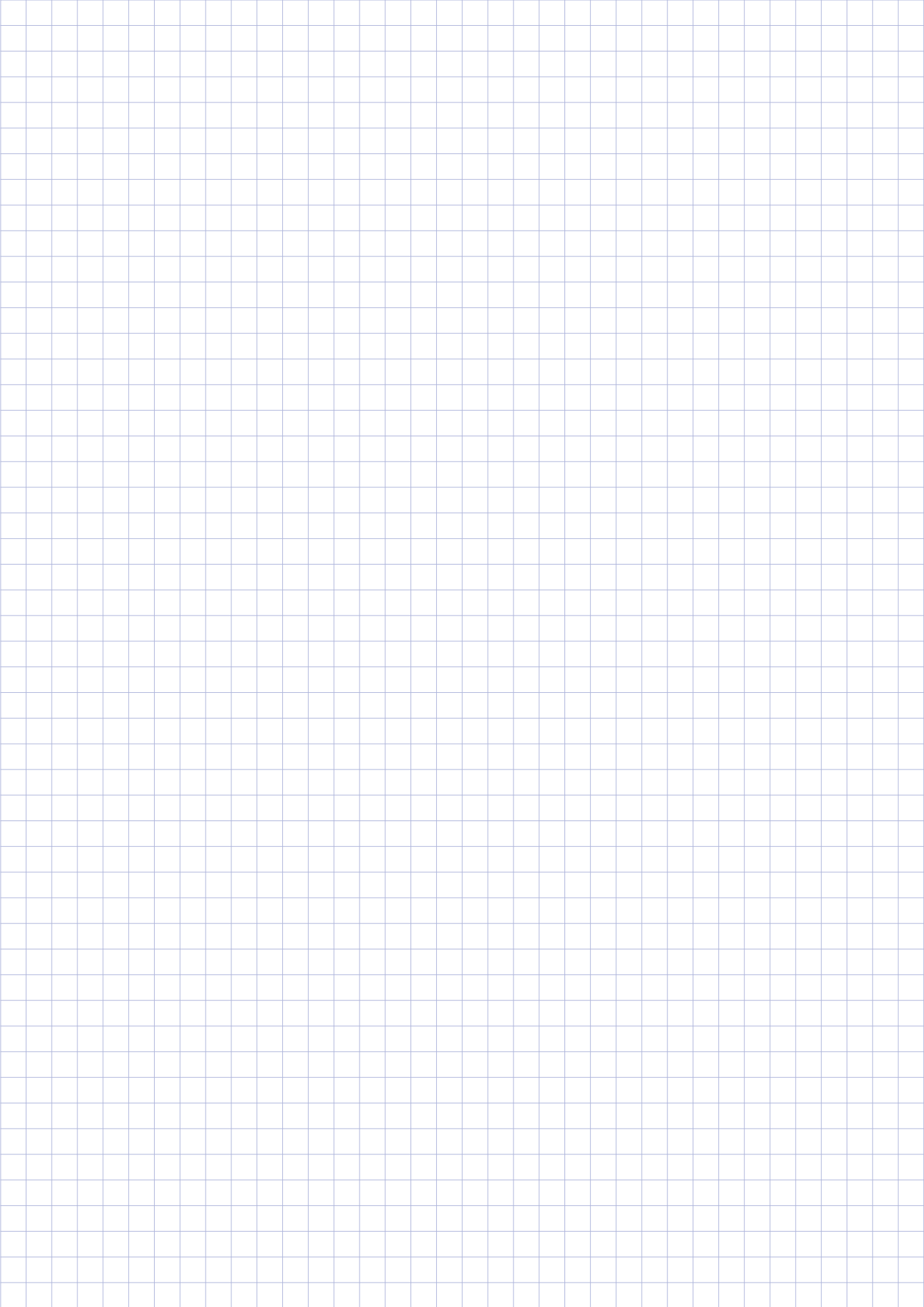
662 x 325

SL

680 x 325

5 Casing depth [mm]

G



Particulate filter modules for ceilings

Type TFM



3

For critical air purity and critical hygiene requirements, suitable for ceiling installation

Particulate filter modules as final filter stage with Mini Pleat filter panels for the separation of suspended particles. Use in laboratories, medical areas, or production rooms in the pharmaceutical and food industry.

- Individual casings can be combined to ceiling sections
- For air cleanliness classes 5 to 8 according to ISO 14644-1
- Easy, time-saving, and secure filter change due to special press-in frame
- With sealing integrity test facility for filter elements
- Equipment for differential pressure measurement
- Meets the hygiene requirements of VDI 6022



Tested to VDI 6022

Type		Page
TFM	General information	3.3 – 2
	Order code	3.3 – 3
	Dimensions and weight	3.3 – 4
	Specification text	3.3 – 5
	Basic information and nomenclature	10.1 – 1

Description



3 Particulate filter modules for ceilings, type TFM

Application

- Particulate filter module type TFM for ceiling installation as final filter stage and for air distribution in clean room technology
- Individual casings can be combined to ceiling sections
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Nominal sizes [mm]

- B × L

Useful additions

- Mini Pleat filter panels (MFP)
- Suitable filter elements to be ordered separately

Special features

- Compact construction
- Extremely easy operation
- High operational reliability
- Individual casings can be combined to ceiling sections

Construction features

- Clamping mechanism with 4 fixing points for filter elements
- Sealing integrity test facility for checking the filter function
- Pressure measurement points to monitor the differential operating pressure
- Spigot (circular, top entry)

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white
- Diffuser face plate made of perforated sheet metal with perimeter return edge, powder-coated RAL 9010, pure white

Installation and commissioning

- The filter elements are pressed into place using four easy-to-handle tensioning elements

Standards and guidelines

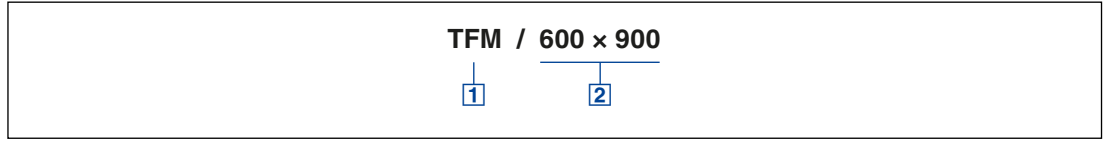
- Hygiene meets the requirements of VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3, and EN 13779

Maintenance

- Diffuser face plate for easy removal for filter change and decontamination

Order code

TFM



1 Type

TFM Particulate filter module

2 Nominal size [mm]

600 x 600

600 x 900

600 x 1200

Order example

TFM/600x900

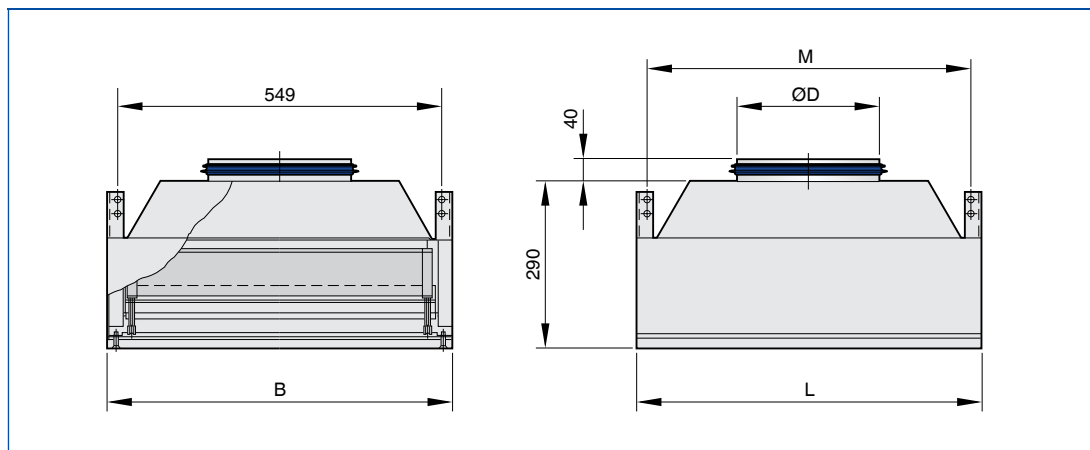
Nominal size	600 x 900 mm
--------------	--------------

Dimensions



Particulate filter modules for ceilings, type TFM

Dimensional drawing of TFM



3

Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size		Filter size	①	②	③
B	L	B × H × T	M	ØD	~ kg
600	600	535 × 535 × 78	549	248	22
600	900	835 × 535 × 78	849	313	27
600	1200	1135 × 535 × 78	1149	348	32

① Top suspension, distance between holes ② Spigot diameter ③ Weight

Standard text

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

Particulate filter modules type TFM for ceiling installation as final filter stage and for air distribution in clean room technology. Individual casings can be combined into ceiling sections. Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air. Casing with top entry spigot. Particulate filter module with clamping mechanism with 4 fixing points for filter elements. As standard, the casings are equipped with a sealing integrity test facility and pressure measurement points for monitoring the operating differential pressure. For the fitting of Mini Pleat filter panels using a flat section seal. Diffuser face plate made of perforated sheet metal with perimeter return edge, powder-coated RAL 9010, pure white. Leakage test for each casing.

Special features

- Compact construction
- Extremely easy operation
- High operational reliability
- Individual casings can be combined to ceiling sections

Materials and surfaces

- Casing made of sheet steel, powder-coated RAL 9010, pure white
- Diffuser face plate made of perforated sheet metal with perimeter return edge, powder-coated RAL 9010, pure white

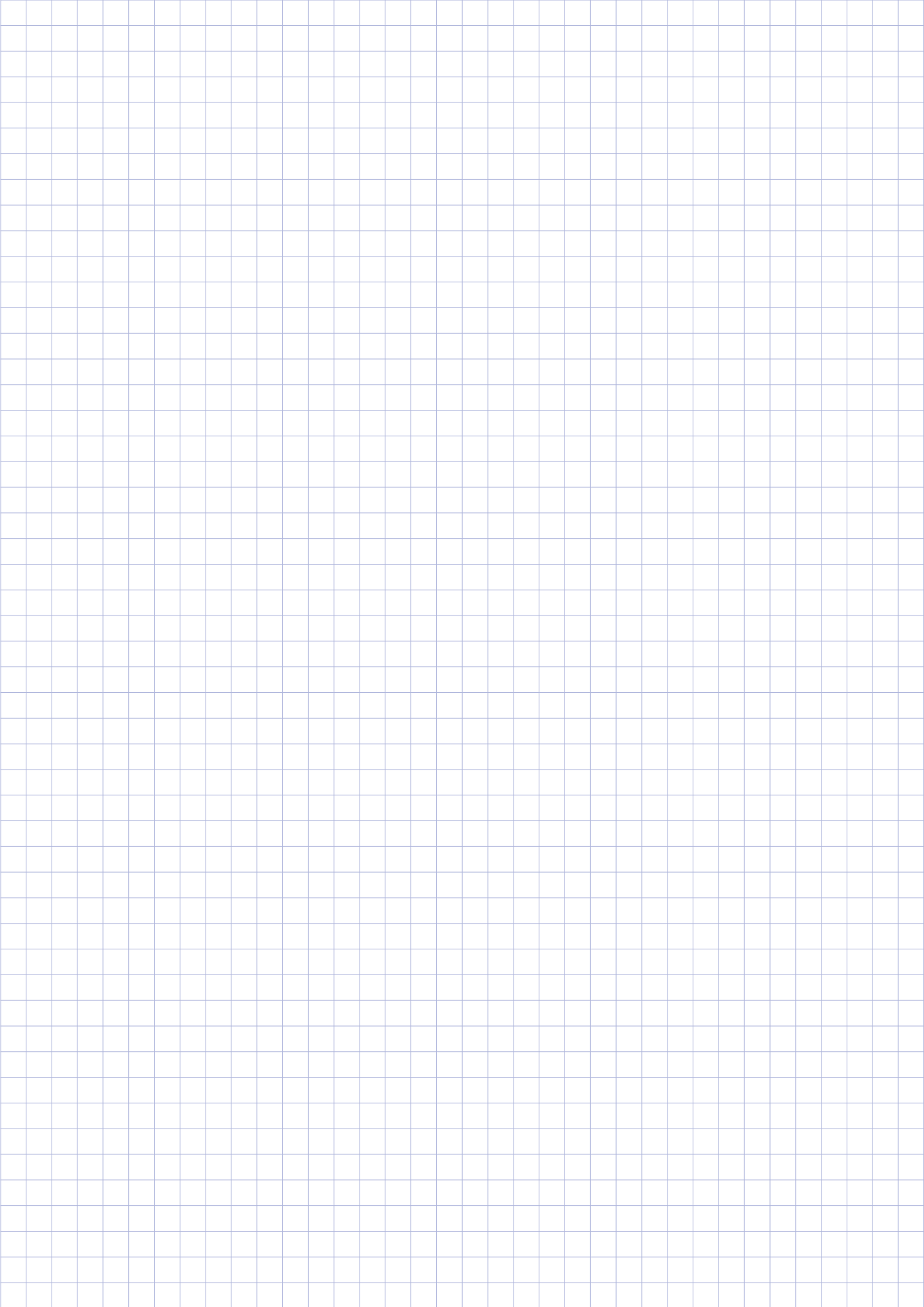
Order options

1 Type

TFM Particulate filter module

2 Nominal size [mm]

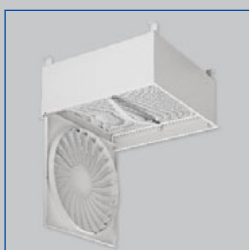
- 600 × 600
- 600 × 900
- 600 × 1200



Pharmaceutical clean room terminal filters

Type TFP

3



Easy cleaning and validation



Construction with removable spigot



Tested to VDI 6022

For critical air purity and very critical hygiene requirements, suitable for ceiling installation

Pharmaceutical clean room terminal filters as final filter stage with Mini Pleat filter panels for the separation of suspended particles. Used in highly sensitive areas in pharmaceuticals, medicine, and biology

- Mini Pleat filter panels with downstream fluid seals meet the highest hygiene requirements
- Easy, time-saving, and secure filter change
- Diffuser face plate is held in place by magnets and can be hinged down to facilitate cleaning and validation; filter change without tool
- Robust, welded construction
- Compact construction, suitable for low ceiling heights
- Various diffuser face plates to ideally meet individual requirements
- Horizontal or vertical connection
- Removable spigot for installation into closed ceilings in case of horizontal connection
- For air cleanliness classes 5 to 8 according to ISO 14644-1
- Meets the hygiene requirements of VDI 6022

Type		Page
TFP	General information	3.4 – 2
	Order code	3.4 – 5
	Dimensions and weight – TFP-TC	3.4 – 6
	Dimensions and weight – TFP-SC	3.4 – 7
	Dimensions and weight – TFP-SCR	3.4 – 8
	Specification text	3.4 – 9
	Basic information and nomenclature	10.1 – 1

Variants

Product examples

Pharmaceutical clean room terminal filter, variant TFP-TC



Pharmaceutical clean room terminal filter, variant TFP-SC



Pharmaceutical clean room terminal filter, variant TFP-SCR



Description

Application

- Pharmaceutical clean room terminal filter type TFP for ceiling installation as final filter stage and for air distribution in sensitive areas of the pharmaceutical industry
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

- TC: Top entry circular spigot
- SC: Side entry circular spigot
- SCR: Side entry circular spigot, removable

Construction

- Sheet steel, powder-coated RAL 9010, pure white

Nominal sizes [mm]

- 400, 500, 600, 625

Attachments

- FD: Ceiling swirl diffuser
- TDF: Ceiling swirl diffuser

Useful additions

- Mini Pleat filter panels (MFP)
- Suitable filter elements to be ordered separately

Special features

- Compact construction
- Flush ceiling installation
- Removable spigot for installation into closed ceilings
- Diffuser face plate can be hinged down

Construction features

- Welded filter casing with sealing frame for fixing filter elements with seal on the downstream side
- Mounted pressure measurement points to monitor the operating differential pressure, and internal measuring tube

Materials and surfaces

- Casing and diffuser face plate made of sheet steel, powder-coated RAL 9010, pure white

Installation and commissioning

- Fitting of filter elements with a fluid seal on the downstream side
- The filter element is pressed into place using a tensioning frame with knurled screws
- Diffuser face plate is hinged and held in place by magnets; no additional tools required

Standards and guidelines

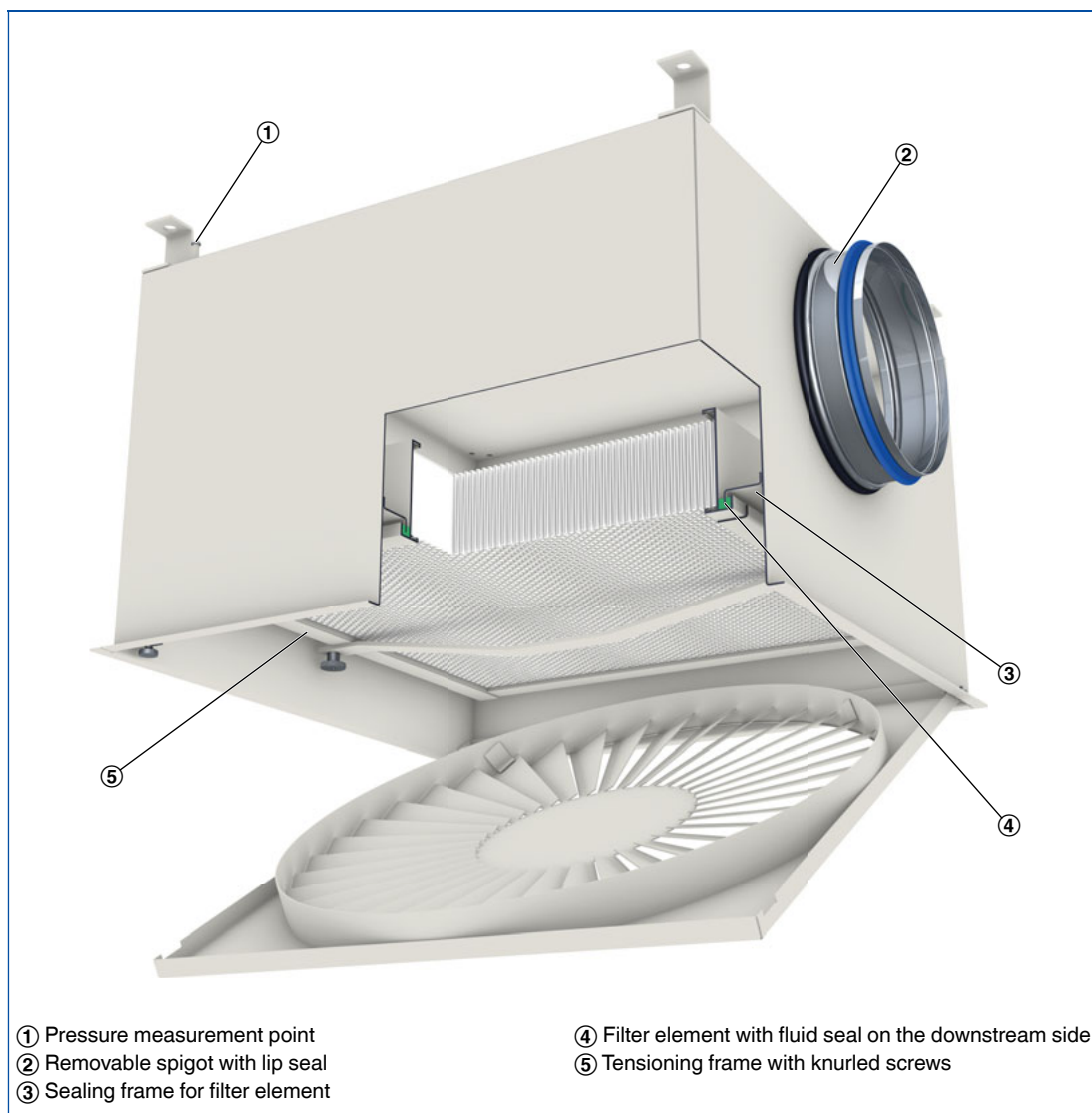
- Hygiene meets the requirements of VDI 6022, VDI 3803, DIN 1946 Part 4, ÖNORM H 6021 and ÖNORM H 6020, SWKI VA 104-01 and SWKI 99-3, and EN 13779

Maintenance

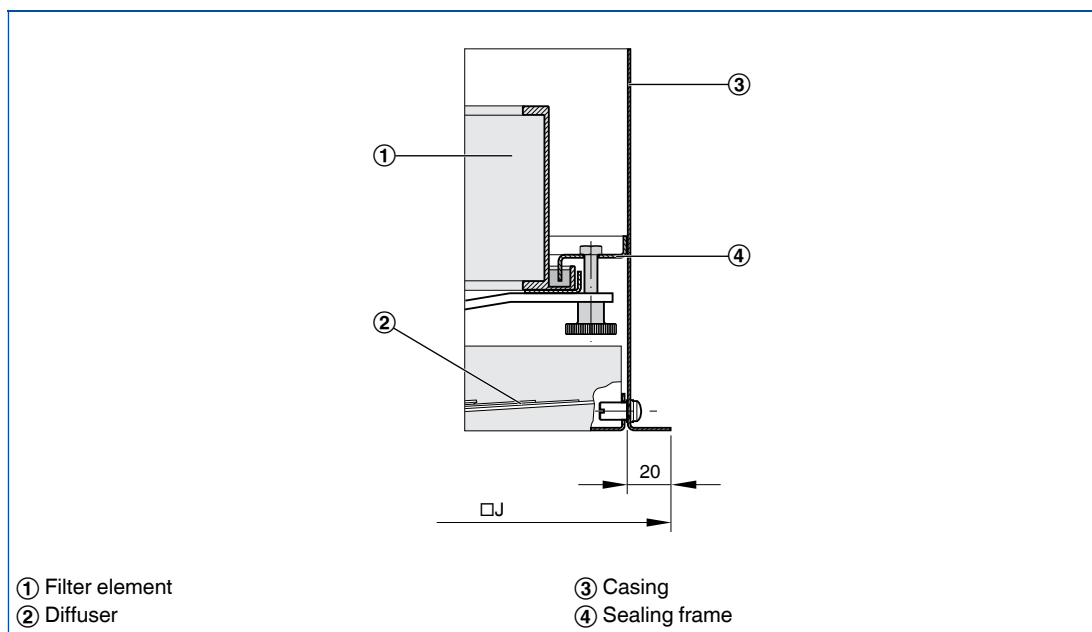
- Diffuser face plate can be hinged down to facilitate disassembly and cleaning
- Particulate filter need not be removed for cleaning (seal on downstream side)
- Easy change of filter elements due to special frame profile; no additional fluid sealing frame is necessary

3

Schematic illustration of TFP-SCR

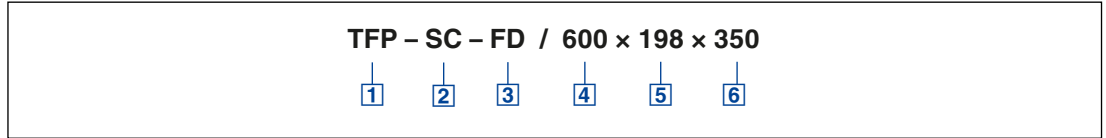


Sealing frame



Order code

TFP



1 Type

TFP Pharmaceutical clean room terminal filter

2 Construction variant

TC Top entry circular spigot

SC Side entry circular spigot

SCR Side entry circular spigot, removable

3 Air terminal device

FD

TDF

4 Nominal size [mm]

400

500

600

625

5 Spigot diameter [mm]

D

6 Casing height [mm]

250

350

Order example

TFP-SC-FD/600x198x350

Construction	side entry circular spigot
Air terminal device	FD
Nominal size	600
Spigot diameter	198 mm
Casing height	350 mm

Description



Pharmaceutical clean room terminal filter, variant TFP-TC

Application

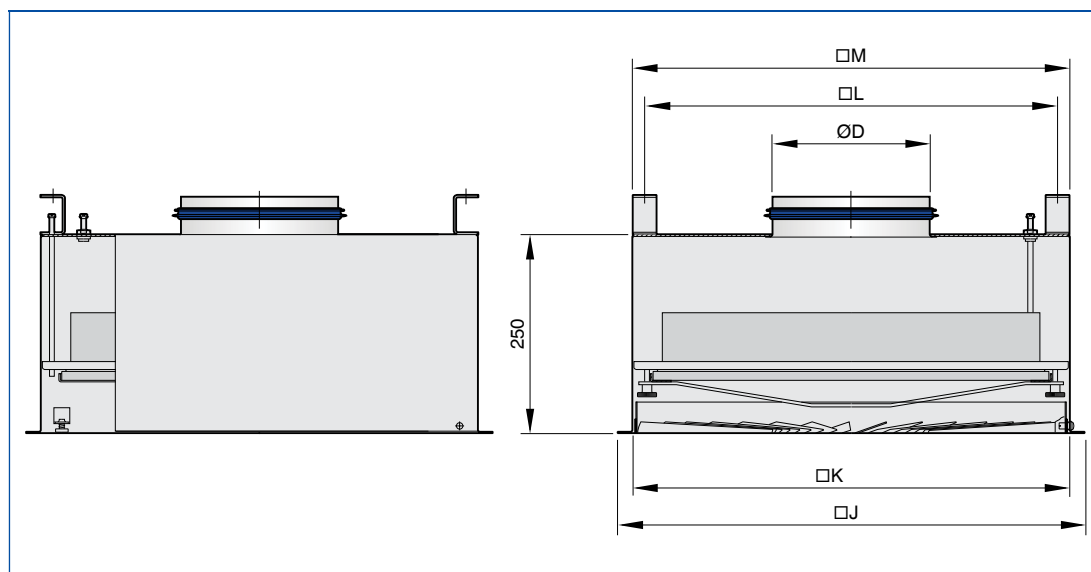
- Pharmaceutical clean room terminal filter type TFP for ceiling installation as final filter stage and for air distribution in sensitive areas of the pharmaceutical industry
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

- TC: Top entry circular spigot

Dimensions

Dimensional drawing of TFP-TC



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Filter size	①	②	③	④	⑤	⑥	⑦
	B × H × T	Ø D	G ₁	K	M	J	L	~ kg
400	295 × 295 × 85	158	250	365	371	398	340	10
500	395 × 395 × 85	198	250	465	471	498	440	15
600	495 × 495 × 85	198	250	565	571	598	540	21
625	520 × 520 × 85	198	250	590	596	623	565	23

① Spigot diameter

② Casing height

③ Overall dimension of diffuser face plate

④ Overall dimension of casing

⑤ Overall dimension of flange

⑥ Top suspension, distance between holes

⑦ Weight

Description



Pharmaceutical clean room terminal filter, variant TFP-SC

Application

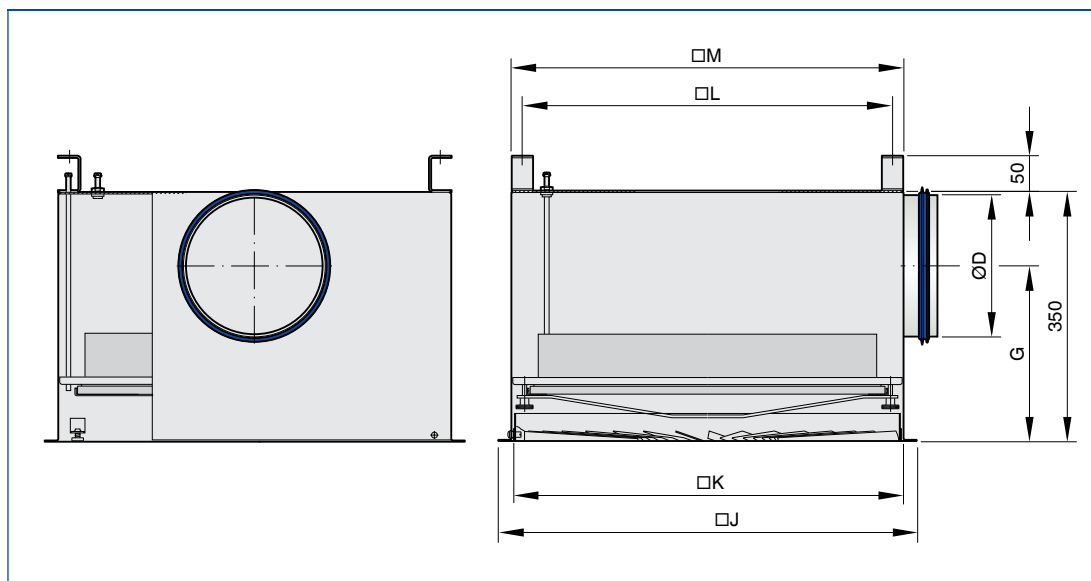
- Pharmaceutical clean room terminal filter type TFP for ceiling installation as final filter stage and for air distribution in sensitive areas of the pharmaceutical industry
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

- SC: Side entry circular spigot

Dimensions

Dimensional drawing of TFP-SC



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Filter size	①	②	③	④	⑤	⑥	⑦	⑧
	B × H × T	Ø D	G ₁	K	M	J	L	G	~ kg
400	295 × 295 × 85	158	350	365	371	398	340	265	11
500	395 × 395 × 85	198	350	465	471	498	440	245	16
600	495 × 495 × 85	198	350	565	571	598	540	245	22
625	520 × 520 × 85	198	350	590	596	623	565	245	24

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Dimension from flange face to centre line of spigot
- ⑧ Weight

Description



Pharmaceutical clean room terminal filter, variant TFP-SCR

Application

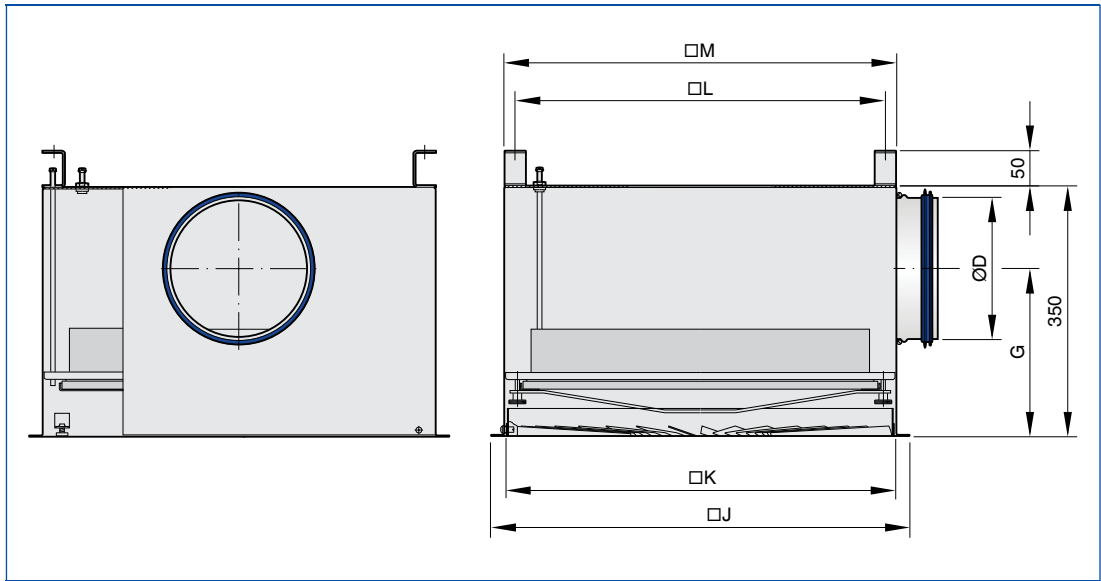
- Pharmaceutical clean room terminal filter type TFP for ceiling installation as final filter stage and for air distribution in sensitive areas of the pharmaceutical industry
- Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air

Variants

- SCR: Side entry circular spigot, removable

Dimensions

Dimensional drawing of TFP-SCR



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size	Filter size	①	②	③	④	⑤	⑥	⑦	⑧
	B × H × T	Ø D	G ₁	K	M	J	L	G	~ kg
400	295 × 295 × 85	158	350	365	371	398	340	255	11
500	395 × 395 × 85	198	350	465	471	498	440	235	16
600	495 × 495 × 85	198	350	565	571	598	540	235	22
625	520 × 520 × 85	198	350	590	596	623	565	235	24

- ① Spigot diameter
- ② Casing height
- ③ Overall dimension of diffuser face plate
- ④ Overall dimension of casing
- ⑤ Overall dimension of flange
- ⑥ Top suspension, distance between holes
- ⑦ Dimension from flange face to centre line of spigot
- ⑧ Weight

Standard text

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

Pharmaceutical clean room terminal filter type TFP for ceiling installation as final filter stage and for air distribution in sensitive areas of the pharmaceutical industry.

Fitting of filter elements for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply or extract air.

Welded filter casing with sealing frame for fixing the Mini Pleat filter panels with a fluid seal on the downstream side.

With top entry or side entry spigot; removable spigot as an option.

The Mini Pleat filter panels are pressed into place using a tensioning frame with knurled screws.

Casing with mounted pressure measurement points to monitor the operating differential pressure, and internal measuring tube.

Diffuser face plate made of sheet steel, powder-coated (RAL 9010), types FD and TDF; can be hinged down to facilitate disassembly and cleaning.

Leakage test for each casing.

Special features

- Compact construction
- Flush ceiling installation
- Removable spigot for installation into closed ceilings
- Diffuser face plate can be hinged down

Materials and surfaces

- Casing and diffuser face plate made of sheet steel, powder-coated RAL 9010, pure white

Construction

- Sheet steel, powder-coated RAL 9010, pure white

Order options

1 Type

TFP Pharmaceutical clean room terminal filter

2 Construction variant

- TC** Top entry circular spigot
- SC** Side entry circular spigot
- SCR** Side entry circular spigot, removable

3 Air terminal device

- FD**
- TDF**

4 Nominal size [mm]

- 400**
- 500**
- 600**
- 625**

5 Spigot diameter [mm]

- D**

6 Casing height [mm]

- 250**
- 350**



4 Measuring devices

Measuring devices are used in ventilation systems to display and monitor differential pressures in gaseous media such as air and neutral gases.

4.1 Pressure measuring devices

Type

Page



For the display and monitoring of differential pressures

MD

4.1 – 1

10.1 Basic information and nomenclature



Filter units and filter elements

10.1 – 1

Pressure measuring devices

Type MD



For the display and monitoring of differential pressures

Measuring devices for the display and monitoring of differential pressures for gaseous, non-aggressive media

- Mechanical and electronic measuring devices

Analog:

- U-tube manometer or inclined tube manometer

Digital:

- With display according to DIN 1946 Part 4 and VDI 3803
- Stepless adjustment of differential pressure limiting value
- Optical signal upon reaching the limiting value
- Volt-free signal output for integration into the central BMS
- Illuminated display with warning function

Type		Page
MD	Special information	4.1 – 2
	Order code	4.1 – 3
	Special information – UT	4.1 – 4
	Special information – APC	4.1 – 5
	Special information – DPC	4.1 – 6
	Specification text	4.1 – 8
	Basic information and nomenclature	10.1 – 1

Description

Application

- Pressure measuring devices type MD for installation into ventilation systems
- For the display and monitoring of differential pressures in gaseous media, such as air or inert gases
- To ensure correct maintenance of filters

Variants

- UT: U-tube manometer
- APC: Analog pressure monitor
- DPC: Digital pressure monitor

Construction

- Analog constructions: U-tube manometer and inclined tube manometer with measuring fluid
- Digital construction: with electronics
- 230 V or 24 V AC/DC supply voltage

Useful additions

- Measuring fluid, to be ordered separately

Special features

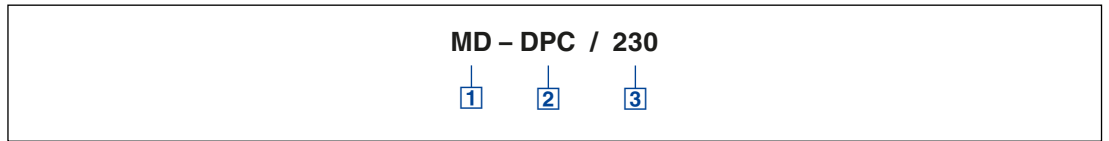
- Compact construction
- Easy operation
- Variant APC, display of 2 measuring ranges according to installation orientation
- Variant DPC, standardised measurement to DIN 1946-4 and VDI 3803
- Variant DPC, can be integrated with the central BMS

Maintenance

- Maintenance-free as construction and materials are not subject to wear

Order code

MD



1 Type

MD Measuring device

2 Variant

UT U-tube manometer
APC Analog pressure monitor
DPC Digital pressure monitor

3 Supply voltage

230 230 V / 50 Hz
24 24 V AC / DC

Order example

MD-DPC/230

Variant

Digital pressure monitor

Supply voltage

230 V / 50 Hz

Description



Measuring devices, variant MD-UT

Application

- U-tube manometer, variant UT, for displaying the differential pressures of gaseous media

Variants

- UT: U-tube manometer

Construction

- Analog construction: U-tube manometer

Nominal sizes [mm]

- Dimensions of casing (B × H): 45 × 180

Useful additions

- Measuring fluid, to be ordered separately

Special features

- Compact construction
- Easy operation

Construction features

- Profiled plastic carrier with adjustable scale

Materials and surfaces

- Measuring tube made of acrylic glass
- Measuring fluid: Water or liquid mixture with low levels of vaporisation, to be ordered separately

Standard construction

U-tube manometer

Parameter	Value
Measuring range	0 – 1000 Pa
Order code	MD-UT

Accessories

Measuring fluid



Measuring fluid, variant MD-F-UT

Parameter	Value
Liquid mixture	Low level of vaporisation (blue)
Frost-proof	Up to –15 °C
Density	1.0 kg/dm ³
Order code	MD-F-UT

Description



Measuring devices, variant MD-APC

Application

- Pressure monitor APC, an inclined tube manometer with 2 measuring ranges for displaying the differential pressures of gaseous media

Variants

- APC: Analog pressure monitor

Construction

- Analog construction: Inclined tube manometer with measuring fluid

Nominal sizes [mm]

- Dimensions of casing (B x H x T):
265 x 130 x 50

Useful additions

- Measuring fluid, to be ordered separately

Special features

- Compact construction
- Easy operation
- Variant APC, display of 2 measuring ranges according to installation orientation

Construction features

- Rigid plastic casing
- Two different measuring ranges (depending on installation orientation)

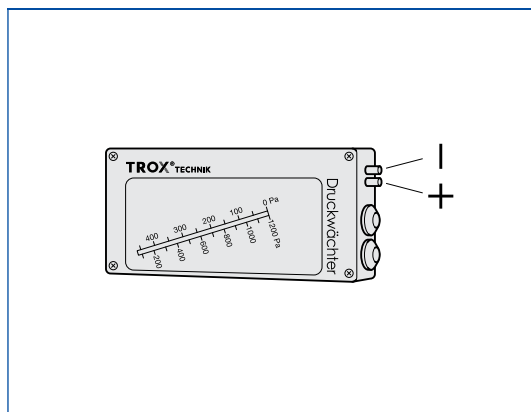
Materials and surfaces

- Measuring tube made of acrylic glass and filled with measuring fluid

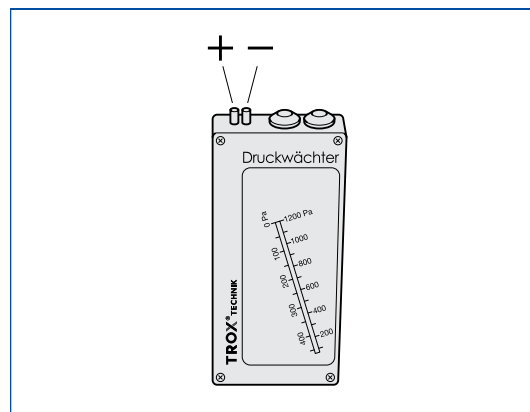
Maintenance

- Maintenance-free as construction and materials are not subject to wear

Installation orientation of the pressure monitor: horizontal



Installation orientation of the pressure monitor: vertical



Standard construction

Analog pressure monitor

Parameter	Value
Measuring range – horizontal	0 – 400 Pa
Measuring range – vertical	50 – 1200 Pa
Order code	MD-APC

Accessories



Measuring fluid, variant MD-F-APC

Measuring fluid

Parameter	Value
Liquid mixture	Low level of vaporisation (red)
Frost-proof	Up to –15 °C
Density	0.88 kg/dm ³
Order code	MD-F-APC

Description



Measuring device, variant MD-DPC

Application

- Digital pressure monitor DPC for monitoring the differential pressure in gaseous media

Variants

- DPC: Digital pressure monitor

Construction

Supply voltage

- DPC/230: 230 V/50 Hz
- DPC/24: 24 V AC/DC

Nominal sizes [mm]

- Casing dimensions (L × B × H): 115 × 86 × 45

Special features

- Compact construction
- Easy operation
- Standardised measurement to DIN 1946-4 and VDI 3803
- Can be integrated with the central BMS

Construction features

- Rigid plastic casing
- Illuminated display with warning function; a warning is issued when the differential pressure exceeds the set limit
- Push buttons to precisely set the limit
- Relay output with volt-free contact to connect an external display device

Materials and surfaces

- ABS plastic casing

Maintenance

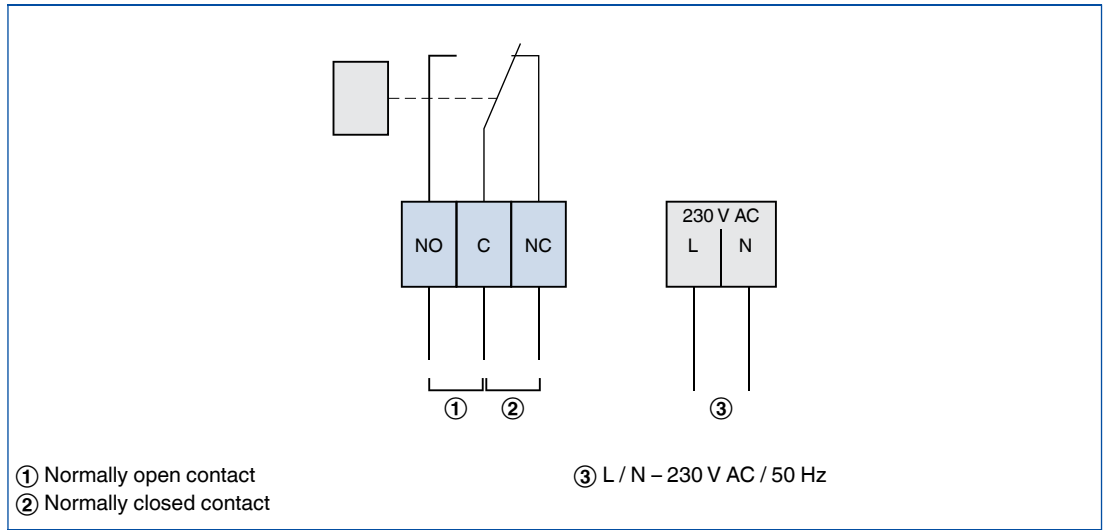
- Maintenance-free as construction and materials are not subject to wear

Standard construction

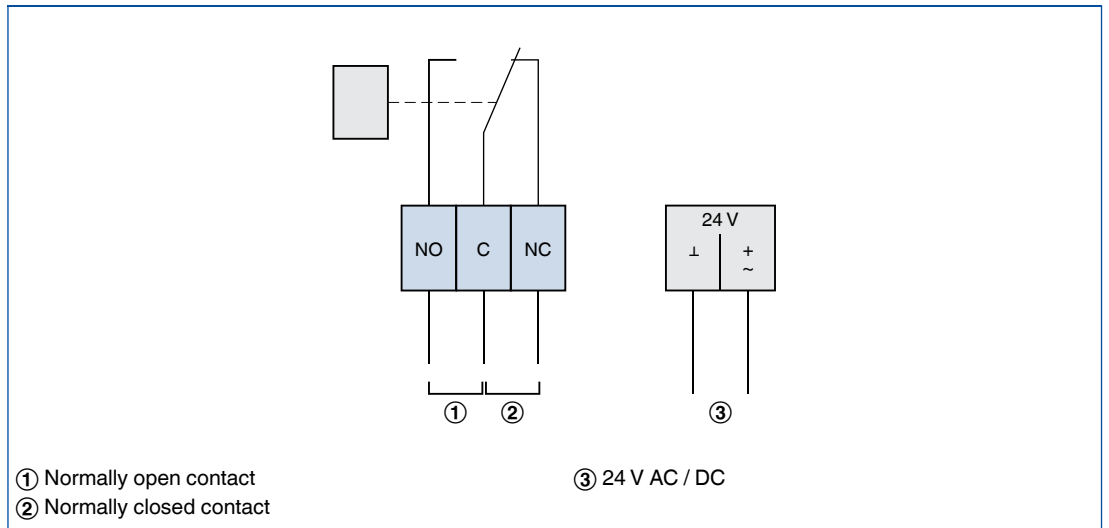
Digital pressure monitor

Parameter	Value
Measuring range	0 – 2000 Pa
Measuring tolerance	< 5 % from the measuring range
Overload protection	Up to 16000 Pa
Medium	Air and inert gases
Supply voltage	230 V/50 Hz or 24 V AC/DC
Protection level	IP 40
Relay output	Relay with make/break contact 250 V AC/2 A
Operating temperature	0 – 50 °C
Display	LCD 124 × 64 dots
Operation	4 push buttons, protected by a membrane
Casing	2-part casing from ABS plastic
Tube connection	6 mm
Casing dimensions (L × B × H)	115 × 86 × 45 mm
Order code for supply voltage 230 V, 50 Hz	MD-DPC/230
Order code for supply voltage 24 V AC/DC	MD-DPC/24

Wiring diagram for MD-DPC/230



Wiring diagram for MD-DPC/24



Standard text

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

Pressure measuring devices MD with different measuring ranges for displaying or monitoring the differential pressure of gaseous media. U-tube manometer and analog pressure monitor are measuring devices with display function. The digital pressure monitor is a monitoring and measuring device with an illuminated display and warning function; a warning is issued when the differential pressure exceeds the set limit. Relay output with volt-free contact for integration into the central BMS.

Special features

- Compact construction
- Easy operation
- Variant APC, display of 2 measuring ranges according to installation orientation
- Standardised measurement to DIN 1946-4 and VDI 3803
- Can be integrated with the central BMS

Construction

- Analog constructions: U-tube manometer and inclined tube manometer with measuring fluid
- Digital construction: with electronics
- 230 V or 24 V AC/DC supply voltage

Order options

1 Type

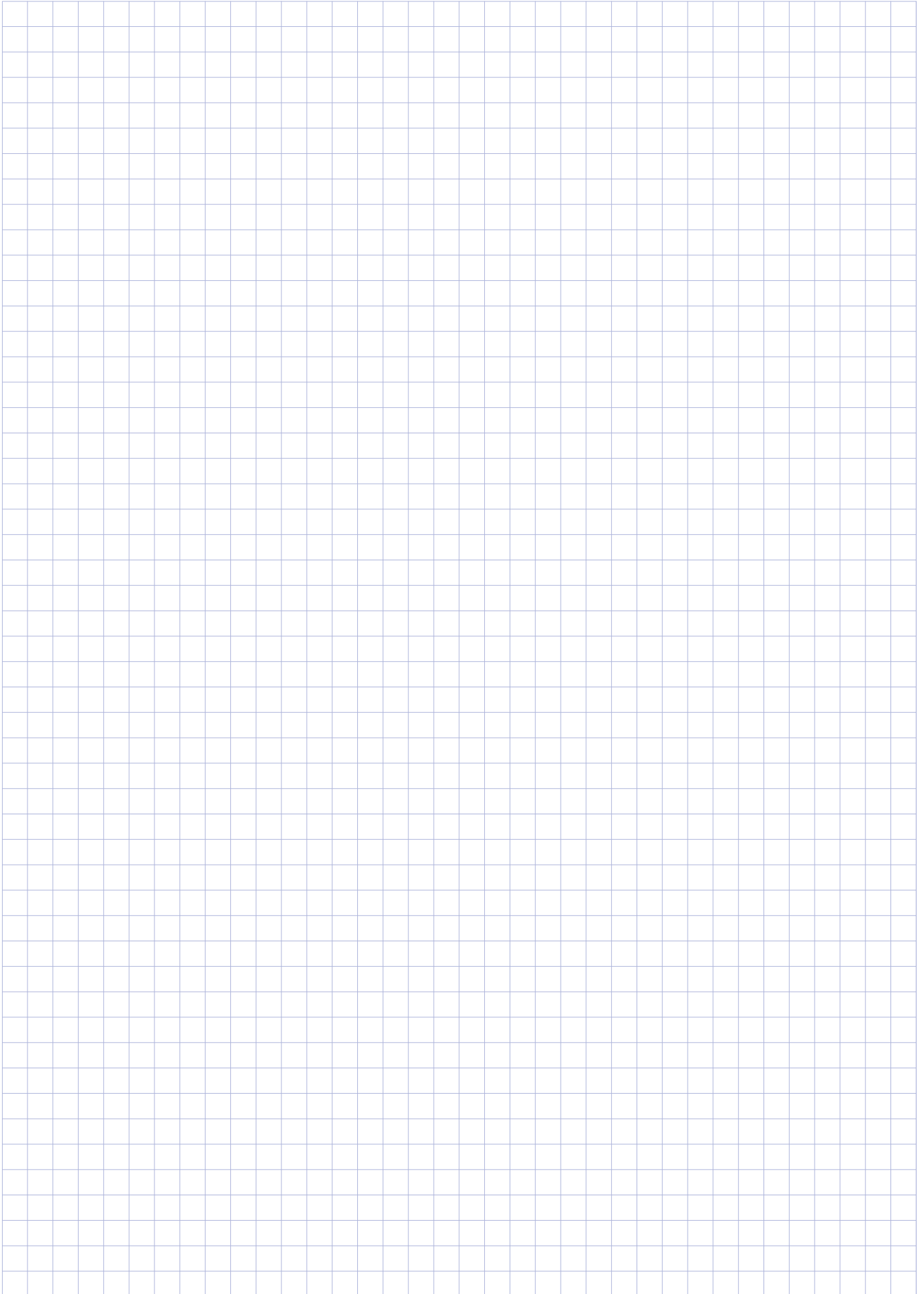
MD Measuring device

2 Variant

- UT** U-tube manometer
- APC** Analog pressure monitor
- DPC** Digital pressure monitor

3 Supply voltage

- 230** 230 V / 50 Hz
- 24** 24 V AC / DC





5 Filter media

Automatic roll filter media, roll media, cut-to-size filter pads, or Z-line filters are filter media used primarily as prefilters to separate coarse and fine dust in ventilation systems.

5.1 Automatic roll filter media



For large volume flow rates with a high dust concentration

FMC

5.1 – 1

5.2 Roll media



For high dust concentrations or as a prefilter for fine dust filters

FMR

5.2 – 1

5.3 Cut-to-size pads



For high dust concentrations or as a prefilter for fine dust filters

FMP

5.3 – 1

5.4 Z-line filters



For high dust concentrations or as a prefilter for fine dust filters

ZL

5.4 – 1

10.1 Basic information and nomenclature



Filter units and filter elements

10.1 – 1

Automatic roll filter media Type FMC



For large volume flow rates with a high dust concentration

Automatic roll filter media for the separation of coarse emissions in supply and extract air

- Filter class G3 (coarse dust filter)
- In cassettes or on steel spools for automatic roll filter units
- Tested to EN 779



Automatic roll filter media, variant FMC-CAS



Automatic roll filter media, type FMC-...

Type		Page
FMC	General information	5.1 – 2
	Order code	5.1 – 3
	Dimensions	5.1 – 4
	Specification text	5.1 – 5
	Basic information and nomenclature	10.1 – 1

Description



Automatic roll filter media, variant FMC-CAS

Application

- Automatic roll filter media type FMC for the separation of coarse dust in ventilation systems

Filter classes

- Coarse dust filters G3

Media type

- G02: Glass fibre medium (50 mm thick)
- C21: Chemical fibre medium (8 mm thick)

Construction

- CAS: Filter medium in a cassette
- CASN: Filter medium in a cassette, neutral
- RFMS: Filter medium on a cardboard tube (Schirp)
- RFMA: Filter medium on a steel spool (AAF)
- RFMD: Filter medium on a cardboard tube (Delbag)

Nominal sizes [mm]

- B

Construction features

- Glass fibre filter media sprayed with dust binding agent, resulting in increased arrestance and preventing dust carry over
- For all TROX-o-mat automatic roll filter units: in a cassette
- For automatic roll filter units of other manufacturers: on cardboard tube or steel spool
- Dimensions correspond to the unit width, filter roll length: 20 m

Materials and surfaces

- Filter media made of glass fibres or chemical fibres

Standards and guidelines

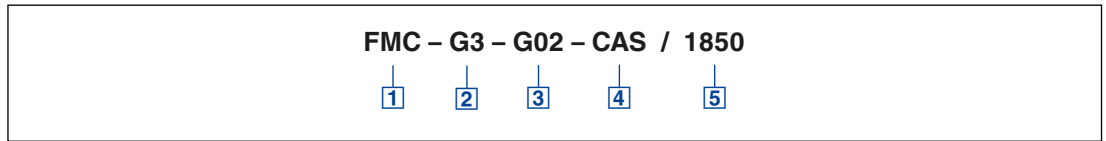
- Testing of coarse dust filters to EN 779 (Particulate Air Filters for General Ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For coarse dust filters, the average arrestance is measured with synthetic dust
- The filters are classified into filter classes G1, G2, G3, and G4 depending on the tested values

Technical data

Media type	G02	C21
Filter class according to EN 779	G3	
Average arrestance according to EN 779	86 %	86 %
Filter thickness	50 mm	8 mm
Nominal face velocity	3.1 m/s	2.5 m/s
Initial differential pressure at nominal volume flow rate	80 Pa	80 Pa
Maximum operating temperature	100 °C	100 °C

Order code

FMC



1 Type

FMC Automatic roll filter media

2 Filter class

G3 Coarse dust filter according to EN 779

3 Media type

G02 Glass fibre medium, 50 mm thick
C21 Chemical fibre medium, 8 mm thick

4 Construction

CAS Filter medium in a cassette
CASN Filter medium in a cassette, neutral
RFMS Filter medium on cardboard tube (Schirp)
RFMA Filter medium on steel spool (AAF)
RFMD Filter medium on cardboard tube (Delbag)

5 Nominal size [mm]

B

Order example

FMC-G3-G02-CAS/1850

Filter class	G3 coarse dust filter according to EN 779
Media type	glass fibre medium, 50 mm thick
Construction	filter medium in a cassette
Nominal size	1850 mm

Standard construction



Automatic roll filter media,
variant FMC-CAS

Automatic roll filter media in a cassette for TROX-o-mat

B	Filter class	Media type	Construction
480	G3	G02	CAS/CASN
650	G3	G02	CAS/CASN
950	G3	G02	CAS/CASN
1250	G3	G02	CAS/CASN
1550	G3	G02	CAS/CASN
1850	G3	G02	CAS/CASN
2150	G3	G02	CAS/CASN
480	G3	C21	CAS
650	G3	C21	CAS
950	G3	C21	CAS
1250	G3	C21	CAS
1550	G3	C21	CAS
1850	G3	C21	CAS
2150	G3	C21	CAS



Automatic roll filter media,
type FMC-...

Automatic roll filter media On cardboard tube or steel spool For automatic roll filter units of other manufacturers

B	Filter class	Media type	Construction
836	G3	G02	RFMS
1141	G3	G02	RFMS
1446	G3	G02	RFMS
1751	G3	G02	RFMS
2056	G3	G02	RFMS
836	G3	G02	RFMA
1141	G3	G02	RFMA
1446	G3	G02	RFMA
1751	G3	G02	RFMA
2056	G3	G02	RFMA
836	G3	C21	RFMA
1141	G3	C21	RFMA
1446	G3	C21	RFMA
1751	G3	C21	RFMA
2056	G3	C21	RFMA
810	G3	C21	RFMD
1110	G3	C21	RFMD
1410	G3	C21	RFMD
1710	G3	C21	RFMD
2010	G3	C21	RFMD

Standard text

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

Automatic roll filter media FMC for the separation of coarse dust in ventilation systems. Filter media available in cassettes for the TROX-o-mat automatic roll filter unit, or on cardboard tube or steel spool for the automatic roll filter units of other manufacturers. The filter roll length is 20 m, filter class G3. Automatic roll filter media available in various sizes according to the width of the unit. Glass fibre filter media are sprayed with dust binding agent, resulting in increased arrestance and preventing dust carry over.

Materials and surfaces

- Filter media made of glass fibres or chemical fibres

Construction

- CAS: Filter medium in a cassette
- CASN: Filter medium in a cassette, neutral
- RFMS: Filter medium on a cardboard tube (Schirp)
- RFMA: Filter medium on a steel spool (AAF)
- RFMD: Filter medium on a cardboard tube (Delbag)

Sizing data

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

Order options

1 Type

FMC Automatic roll filter media

2 Filter class

- G3** Coarse dust filter according to EN 779

3 Media type

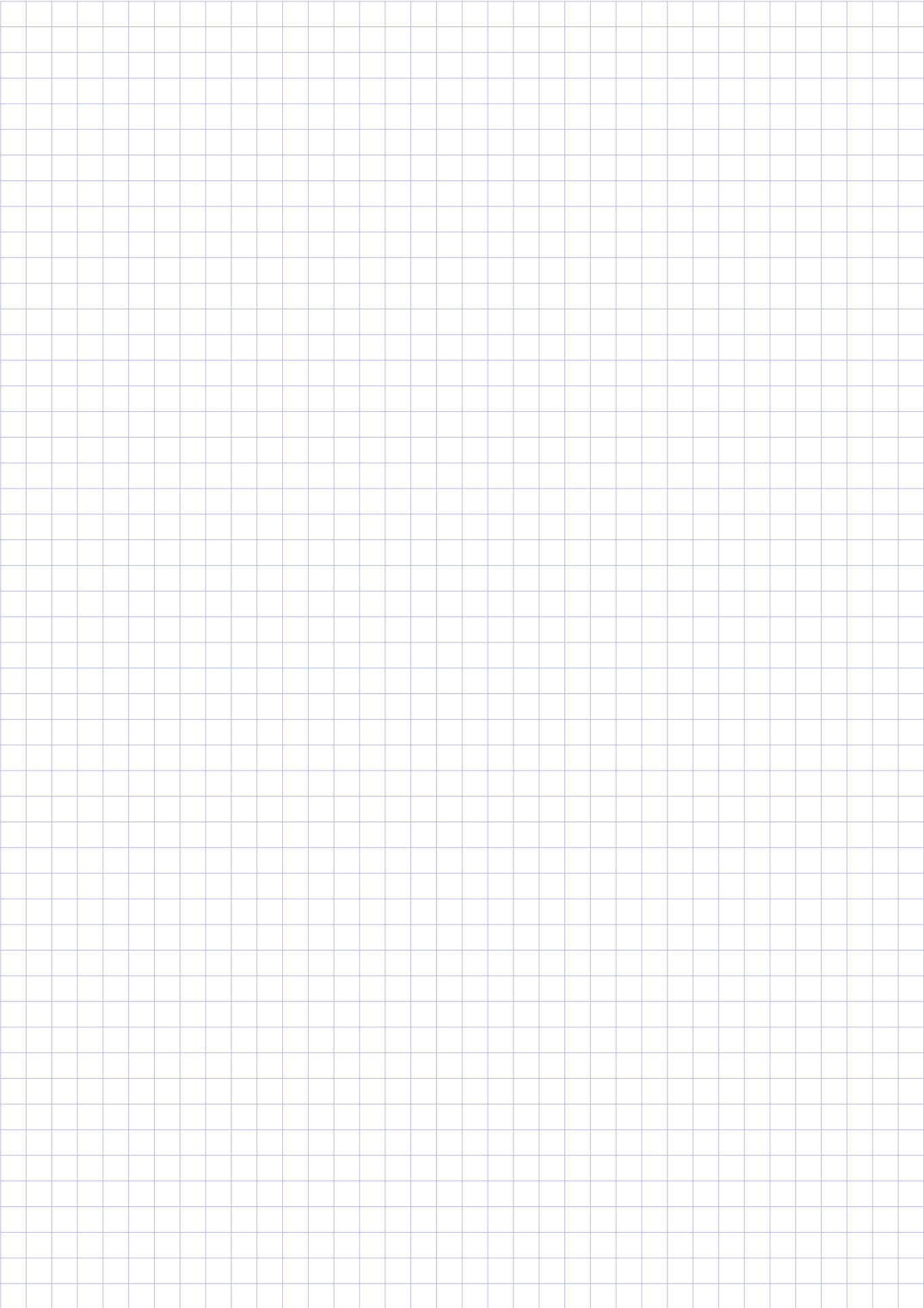
- G02** Glass fibre medium, 50 mm thick
 C21 Chemical fibre medium, 8 mm thick

4 Construction

- CAS** Filter medium in a cassette
 CASN Filter medium in a cassette, neutral
 RFMS Filter medium on cardboard tube (Schirp)
 RFMA Filter medium on steel spool (AAF)
 RFMD Filter medium on cardboard tube (Delbag)

5 Nominal size [mm]

B



5

Roll media

Type FMR



For high dust concentrations or as a prefilter for fine dust filters

Filter media for the separation of coarse and fine dust in supply and extract air for simple applications

- Filter classes G3, G4 (coarse dust filter), M5 (fine dust filter)
- Tested to EN 779

Type		Page
FMR	General information	5.2 – 2
	Order code	5.2 – 3
	Specification text	5.2 – 4
	Basic information and nomenclature	10.1 – 1

Description



Roll media, type FMR

Application

- Roll media type FMR for the separation of coarse and fine dust in ventilation systems

Filter classes

- Coarse dust filters G3, G4
- Fine dust filters M5

Media type

- G02: Glass fibre medium (50 mm thick)
- C03: Chemical fibre medium (14 mm thick)
- C04: Chemical fibre medium (15 mm thick)
- C11: Chemical fibre medium (22 mm thick)
- C15: Chemical fibre medium (22 mm thick)
- C06: Chemical fibre medium (18 mm thick)

Nominal sizes [mm]

- B × L

Construction features

- Glass fibre filter media sprayed with dust binding agent, resulting in increased arrestance and preventing dust carry over

Materials and surfaces

- Filter media made of glass fibres or chemical fibres

Standards and guidelines

- Testing of coarse and fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For coarse dust filters, the average arrestance is measured with synthetic dust
- The filters are classified into filter classes G1, G2, G3, and G4 depending on the tested values
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 depending on the tested values

Technical data

Media type	G02	C03	C04	C11	C15	C06
Filter class according to EN 779	G3		G4		M5	
Average arrestance according to EN 779	86 %	82 %	86 %	90 %	90 %	96 %
Average efficiency according to EN 779	–	–	–	–	–	47 %
Filter thickness	50 mm	14 mm	15 mm	22 mm	22 mm	18 mm
Nominal face velocity	2.5 m/s	1.5 m/s	1.5 m/s	1.5 m/s	1.5 m/s	0.9 m/s
Initial differential pressure at nominal volume flow rate	60 Pa	30 Pa	40 Pa	50 Pa	50 Pa	90 Pa
Maximum operating temperature	100 °C	100 °C	100 °C	100 °C	100 °C	100 °C

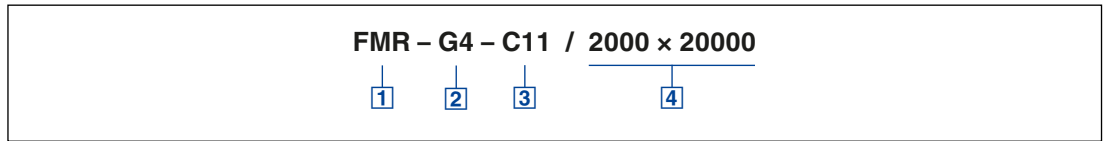
Standard construction

Roll media in standard sizes

Nominal size		Filter class	Media type
B	L		
2000	20000	G3	G02
		G3	C03
		G3	C04
		G4	C11
		G4	C15
		M5	C06

Order code

FMR



1 Type

FMR Roll media

2 Filter class

- G3** Coarse dust filter according to EN 779
- G4** Coarse dust filter according to EN 779
- M5** Fine dust filter according to EN 779

3 Media type

- G02** Glass fibre medium, 50 mm thick
- C03** Chemical fibre medium, 14 mm thick
- C04** Chemical fibre medium, 15 mm thick
- C11** Chemical fibre medium, 22 mm thick
- C15** Chemical fibre medium, 22 mm thick
- C06** Chemical fibre medium, 18 mm thick

4 Nominal size [mm]

B × L

Order example

FMR-G4-C11/2000x20000

Filter class	G4 coarse dust filter according to EN 779
Media type	chemical fibre medium, 22 mm thick
Nominal size	2000 × 20000 mm

Standard text

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

Roll media FMR for the separation of coarse and fine dust in ventilation systems.

Roll media is available in standard sizes, filter classes G3, G4, M5.

Glass fibre filter media are sprayed with dust binding agent, resulting in increased arrestance and preventing dust carry over.

Order options

1 Type

FMR Roll media

2 Filter class

- G3** Coarse dust filter according to EN 779
- G4** Coarse dust filter according to EN 779
- M5** Fine dust filter according to EN 779

Materials and surfaces

- Filter media made of glass fibres or chemical fibres

Sizing data

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

3 Media type

- G02** Glass fibre medium, 50 mm thick
- C03** Chemical fibre medium, 14 mm thick
- C04** Chemical fibre medium, 15 mm thick
- C11** Chemical fibre medium, 22 mm thick
- C15** Chemical fibre medium, 22 mm thick
- C06** Chemical fibre medium, 18 mm thick

4 Nominal size [mm]

B × L

Cut-to-size pads

Type FMP



For high dust concentrations or as a prefilter for fine dust filters

Filter media for the separation of coarse and fine dust in supply and extract air for simple applications

- Filter classes G3, G4 (coarse dust filter), M5 (fine dust filter)
- As roll media or cut-to-size pads
- Tested to EN 779

Type		Page
FMP	General information	5.3 – 2
	Order code	5.3 – 3
	Dimensions	5.3 – 4
	Specification text	5.3 – 5
	Basic information and nomenclature	10.1 – 1

Description



Filter medium, type FMP

Application

- Filter media type FMP for the separation of coarse and fine dust in ventilation systems

Filter classes

- Coarse dust filters G3, G4
- Fine dust filters M5

Media type

- G02: Glass fibre medium (50 mm thick)
- C03: Chemical fibre medium (14 mm thick)
- C04: Chemical fibre medium (15 mm thick)
- C11: Chemical fibre medium (22 mm thick)
- C15: Chemical fibre medium (22 mm thick)
- C06: Chemical fibre medium (18 mm thick)

Construction

- ROL: Filter media as roll media
- PAD: Cut-to-size filter pads

Nominal sizes [mm]

- B × L

Construction features

- Glass fibre filter media sprayed with dust binding agent, resulting in increased arrestance and preventing dust carry over
- Filter media available in standard and special sizes: roll media, cut-to-size filter pads

Materials and surfaces

- Filter media made of glass fibres or chemical fibres

Standards and guidelines

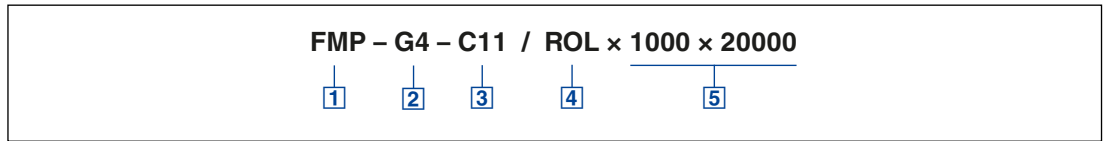
- Testing of coarse and fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For coarse dust filters, the average arrestance is measured with synthetic dust
- The filters are classified into filter classes G1, G2, G3, and G4 depending on the tested values
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 depending on the tested values

Technical data

Media type	G02	C03	C04	C11	C15	C06
Filter class according to EN 779	G3		G4		M5	
Average arrestance according to EN 779	86 %	82 %	86 %	90 %	90 %	96 %
Average efficiency according to EN 779	–	–	–	–	–	47 %
Filter thickness	50 mm	14 mm	15 mm	22 mm	22 mm	18 mm
Nominal face velocity	2.5 m/s	1.5 m/s	1.5 m/s	1.5 m/s	1.5 m/s	0.9 m/s
Initial differential pressure at nominal volume flow rate	60 Pa	30 Pa	40 Pa	50 Pa	50 Pa	90 Pa
Maximum operating temperature	100 °C	100 °C	100 °C	100 °C	100 °C	100 °C

Order code

FMP



1 Type

FMP Filter medium

2 Filter class

- G3** Coarse dust filter according to EN 779
- G4** Coarse dust filter according to EN 779
- M5** Fine dust filter according to EN 779

3 Media type

- G02** Glass fibre medium, 50 mm thick
- C03** Chemical fibre medium, 14 mm thick
- C04** Chemical fibre medium, 15 mm thick
- C11** Chemical fibre medium, 22 mm thick
- C15** Chemical fibre medium, 22 mm thick
- C06** Chemical fibre medium, 18 mm thick

4 Construction

- ROL** Filter medium as roll media
- PAD** Cut-to-size filter pads

5 Nominal size [mm]

B × L

Order example

FMP-G4-C11/ROL×1000×20000

Filter class	G4 coarse dust filter according to EN 779
Media type	chemical fibre medium, 22 mm thick
Construction	filter medium as roll media
Nominal size	1000 × 20000 mm

Standard construction



Filter medium, type FMP

Cut-to-size filter pads in standard sizes

Nominal size		Filter class	Media type	Construction	Quantity
B	L				
630	630	G3	G02	PAD	20 pieces
630	630	G3	C04	PAD	15 pieces
630	630	G4	C11	PAD	15 pieces
630	630	M5	C06	PAD	15 pieces

Cut-to-size filter pads in special sizes

B × L	Filter class	Media type	Construction
per m ²	G3	G02	PAD
per m ²	G3	C03	PAD
per m ²	G3	C04	PAD
per m ²	G4	C11	PAD
per m ²	G4	C15	PAD
per m ²	M5	C06	PAD

Filter medium as roll media in special sizes

Nominal size		Filter class	Media type	Construction
B	L			
200 – 500 to 1000 to 2000	20000	G3	G02	ROL
		G3	G02	ROL
		G3	G02	ROL
200 – 500 to 1000 to 2000		G3	C03	ROL
		G3	C03	ROL
		G3	C03	ROL
200 – 500 to 1000 to 2000		G3	C04	ROL
		G3	C04	ROL
		G3	C04	ROL
200 – 500 to 1000 to 2000		G4	C11	ROL
		G4	C11	ROL
		G4	C11	ROL
200 – 500 to 1000 to 2000		G4	C15	ROL
		G4	C15	ROL
		G4	C15	ROL
200 – 500 to 1000 to 2000	M5	C06	ROL	
	M5	C06	ROL	
	M5	C06	ROL	

Standard text

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

Cut-to-size filter pads, type FMP, for the separation of coarse and fine dust in ventilation systems.
Available as roll media in special sizes or as cut-to-size pads in standard and special sizes, filter classes G3, G4, M5.
Glass fibre filter media are sprayed with dust binding agent, resulting in increased arrestance and preventing dust carry over.

Materials and surfaces

- Filter media made of glass fibres or chemical fibres

Construction

- ROL: Filter media as roll media
- PAD: Cut-to-size filter pads

Sizing data

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

Order options

1 Type

FMP Filter medium

2 Filter class

- G3** Coarse dust filter according to EN 779
- G4** Coarse dust filter according to EN 779
- M5** Fine dust filter according to EN 779

3 Media type

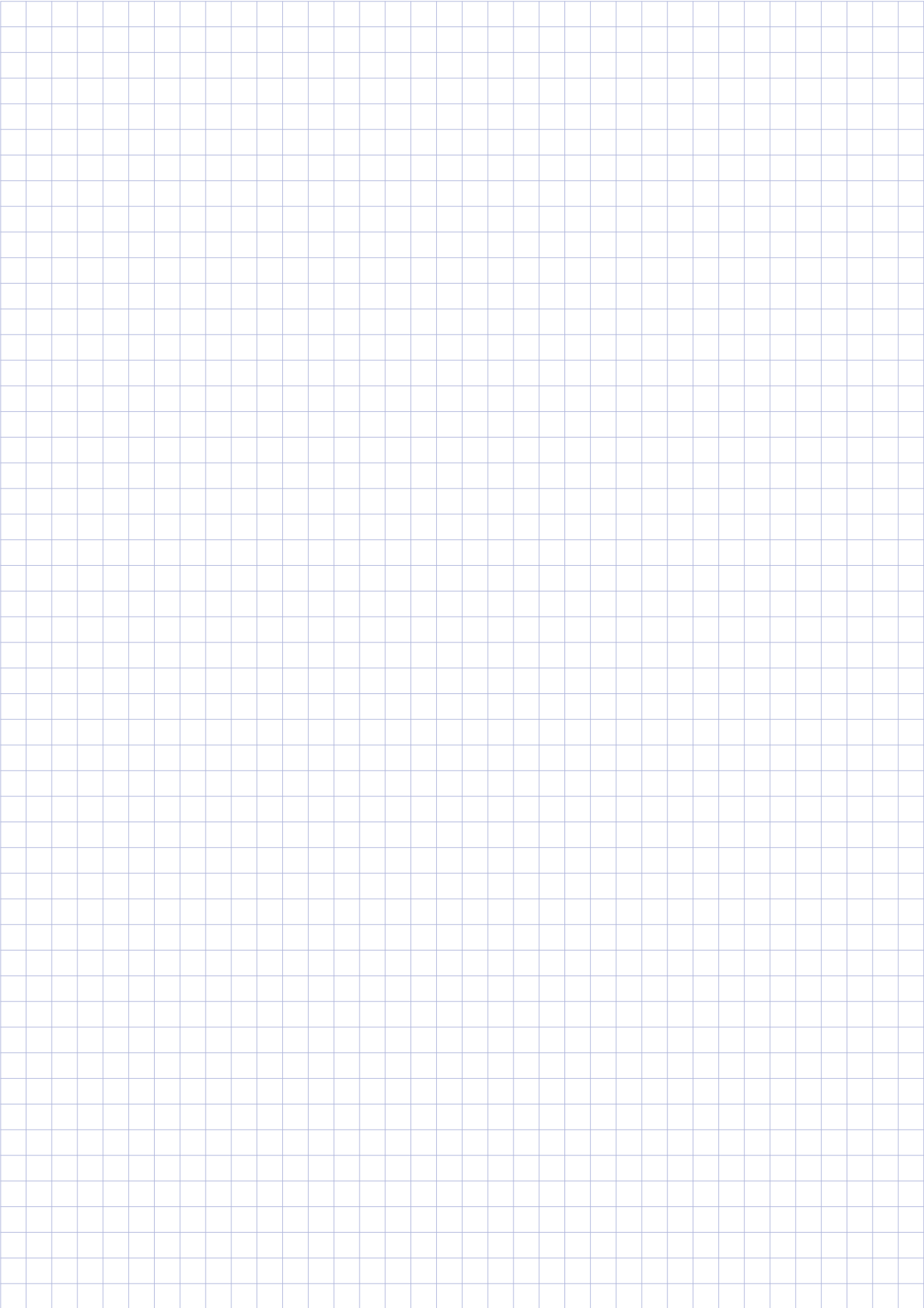
- G02** Glass fibre medium, 50 mm thick
- C03** Chemical fibre medium, 14 mm thick
- C04** Chemical fibre medium, 15 mm thick
- C11** Chemical fibre medium, 22 mm thick
- C15** Chemical fibre medium, 22 mm thick
- C06** Chemical fibre medium, 18 mm thick

4 Construction

- ROL** Filter medium as roll media
- PAD** Cut-to-size filter pads

5 Nominal size [mm]

B × L



5

Z-line filters

Type ZL



For high dust concentrations or as a prefilter for fine dust filters

Z-line filters for the separation of coarse and fine dust, used as the first stage in ventilation and air handling units or as prefilters for high-quality filter stages

- Filter classes G4 (coarse dust filter), M5 (fine dust filter)
- Large filter area due to folding
- Low differential pressures at high volume flow rates
- Moisture-resistant frame made of non-woven fibres or plastic
- Tested to EN 779



Z-line filter, construction NWO



Z-line filter, construction PLA

Type		Page
ZL	General information	5.4 – 2
	Order code	5.4 – 3
	Dimensions and weight	5.4 – 4
	Specification text	5.4 – 5
	Basic information and nomenclature	10.1 – 1

Description



Z-line filter, construction NWO

Application

- Z-line filter type ZL for the separation of coarse and fine dust in ventilation systems
- Coarse dust filter: Prefilter in ventilation systems
- Fine dust filter: Prefilter or final filter in ventilation systems

Filter classes

- Coarse dust filters G4
- Fine dust filters M5

Construction

- NWO: Frame made of non-woven fibres
- PLA: Frame made of plastic

Nominal sizes [mm]

- B × H × T

Useful additions

- Standard cell frame (SCF-B)

Special features

- High dust holding capacity at low initial differential pressure
- Long filter life
- Quick assembly and removal
- Low weight and small transport volume
- Can be easily and safely disposed of in municipal refuse incineration plants as emissions are low in harmful substances

Construction features

- Folded filter media
- Moisture-resistant, rigid filter frame
- Available in various filter classes and sizes, including commercial installation depths and cross-sections

Materials and surfaces

- Filter media made of synthetic fibres
- Frame made of non-woven fibres or plastic

Standards and guidelines

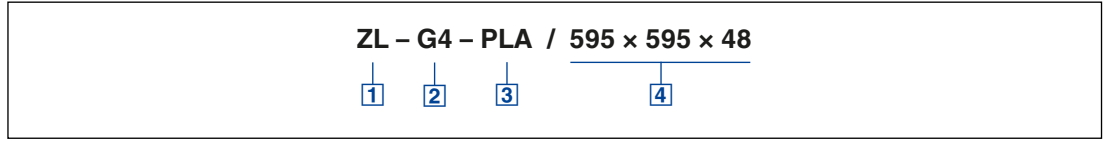
- Testing of coarse and fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For coarse dust filters, the average arrestance is measured with synthetic dust
- The filters are classified into filter classes G1, G2, G3, and G4 depending on the tested values
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 depending on the tested values

Technical data

Filter class according to EN 779	G4	M5
Average arrestance according to EN 779	91 %	>98 %
Average efficiency according to EN 779	30 %	45 %
Nominal face velocity	2.5 m/s	2.5 m/s
Initial differential pressure at nominal volume flow rate for T = 48 mm	50 Pa	90 Pa
Initial differential pressure at nominal volume flow rate for T = 96 mm	35 Pa	70 Pa
Maximum operating temperature	80 °C	80 °C
Maximum relative humidity	100 %	100 %

Order code

ZL



1 Type

ZL Z-line filter

2 Filter class

G4 Coarse dust filter according to EN 779

M5 Fine dust filter according to EN 779

3 Construction

NWO Frame made of non-woven fibres

PLA Frame made of plastic

4 Nominal size [mm]

B × H × T

Order example

ZL-G4-PLA/595x595x48

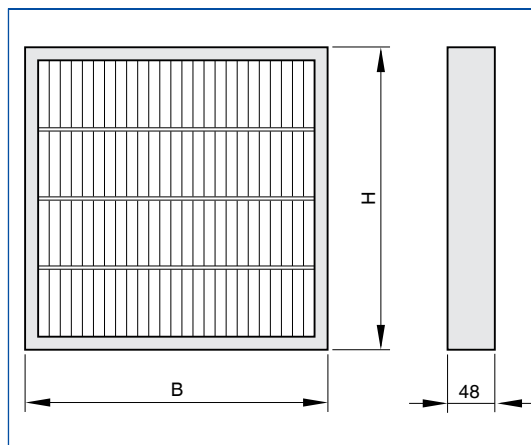
Filter class	G4 coarse dust filter according to EN 779
Construction	plastic frame
Nominal size	595 × 595 × 48 mm

Dimensions

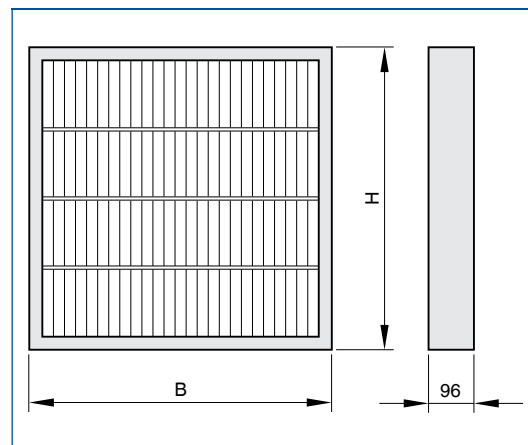


Z-line filter, construction NWO

Dimensional drawing of ZL



Dimensional drawing of ZL



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h	Pa	m ²	~ kg
394	495	48	G4	488	1755	50	0,7	0,5
495	495	48	G4	613	2205	50	0,9	0,6
290	595	48	G4	432	1555	50	0,7	0,4
595	595	48	G4	885	3185	50	1,4	0,8
394	622	48	G4	613	2205	50	0,9	0,6
495	622	48	G4	769	2770	50	1,2	0,7
394	495	96	G4	488	1755	35	1,5	0,9
495	495	96	G4	613	2205	35	1,9	1,1
290	595	96	G4	432	1555	35	1,3	0,8
595	595	96	G4	885	3185	35	2,7	1,5
394	622	96	G4	613	2205	35	1,9	1,1
495	622	96	G4	769	2770	35	2,4	1,3
394	495	48	M5	488	1755	90	0,7	0,5
495	495	48	M5	613	2205	90	0,9	0,6
290	595	48	M5	432	1555	90	0,7	0,4
595	595	48	M5	885	3185	90	1,4	0,8
394	622	48	M5	613	2205	90	0,9	0,6
495	622	48	M5	769	2770	90	1,2	0,7
394	495	96	M5	488	1755	70	1,5	0,9
495	495	96	M5	613	2205	70	1,9	1,1
290	595	96	M5	432	1555	70	1,3	0,8
595	595	96	M5	885	3185	70	2,7	1,5
394	622	96	M5	613	2205	70	1,9	1,1
495	622	96	M5	769	2770	70	2,4	1,3

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

Standard text

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

Z-line filters type ZL for the separation of coarse dust when used as a prefilter, and for the separation of fine dust when used as a prefilter or final filter in ventilation systems. Available in various filter classes and sizes, including common installation depths and cross-sections, filter classes G4, M5. Filter media is folded; this increases the dust holding capacity and extends the filter life.

Special features

- High dust holding capacity at low initial differential pressure
- Long filter life
- Quick assembly and removal
- Low weight and small transport volume
- Can be easily and safely disposed of in municipal refuse incineration plants as emissions are low in harmful substances

Materials and surfaces

- Filter media made of synthetic fibres
- Frame made of non-woven fibres or plastic

Construction

- NWO: Frame made of non-woven fibres
- PLA: Frame made of plastic

Sizing data

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

Order options

1 Type

ZL Z-line filter

2 Filter class

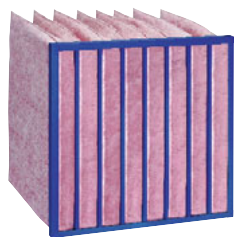
- G4** Coarse dust filter according to EN 779
- M5** Fine dust filter according to EN 779

3 Construction

- NWO** Frame made of non-woven fibres
- PLA** Frame made of plastic

4 Nominal size [mm]

B × H × T



6 Pocket filters

Depending on the filter class, pocket filters are used as prefilters or final filters for the separation of coarse dust and fine dust in ventilation systems. Filter pockets provide a high dust holding capacity at a low initial differential pressure.

6.1 Pocket filters made of non-woven chemical fibres



Type	Page
PFC	6.1 – 1

6.2 Pocket filters made of non-woven synthetic fibres



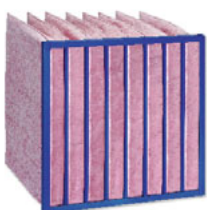
PFS	6.2 – 1
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6.3 Pocket filters made of NanoWave® medium



PFN	6.3 – 1
-----	---------

6.4 Pocket filters made of non-woven glass fibres



PFG	6.4 – 1
-----	---------

10.1 Basic information and nomenclature



Filter units and filter elements	10.1 – 1
----------------------------------	----------

Pocket filters made of non-woven chemical fibres

Type PFC



Prefilters in ventilation systems

Pocket filters for the separation of coarse and fine dust

- Filter classes G4, M5
- Performance data tested to EN 779
- Eurovent certification for fine dust filters
- Non-woven chemical fibres, welded
- Enlarged filter area due to filter pockets
- Low initial differential pressure and high dust holding capacity
- Variable number of pockets and pocket depth
- 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



Eurovent certification

Type		Page
PFC	General information	6.1 – 2
	Order code	6.1 – 3
	Dimensions and weight	6.1 – 4
	Specification text	6.1 – 5
	Basic information and nomenclature	10.1 – 1

Description



Pocket filter, type PFC

Application

- Pocket filter made of non-woven chemical fibres type PFC for the separation of coarse and fine dust
- Coarse dust filter: Prefilter in ventilation systems for the separation of coarse dust
- Fine dust filter: Prefilter or final filter for the separation of fine dust in ventilation systems

Classification

- Eurovent certification for fine dust filters

Filter classes

- Coarse dust filters G4
- Fine dust filters M5

Construction

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

Nominal sizes [mm]

- B × H × T

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, 5, 6

Materials and surfaces

- Filter media made of high-quality non-woven chemical fibres
- Frame made of plastic or galvanised sheet steel

Standards and guidelines

- Testing of coarse and fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For coarse dust filters, the average arrestance is measured with synthetic dust
- The filters are classified into filter classes G1, G2, G3, and G4 depending on the tested values
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 depending on the tested values

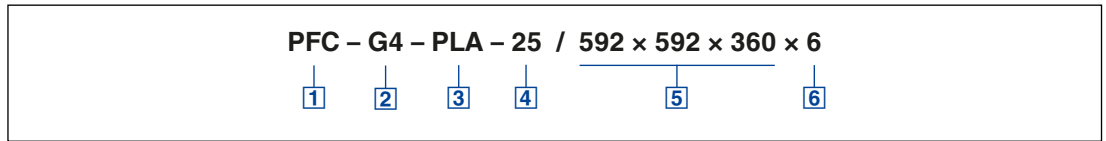
6

Technical data

Filter class according to EN 779	G4	M5
Average arrestance according to EN 779	90 %	96 %
Average efficiency according to EN 779	–	47 %
Initial differential pressure at nominal volume flow rate for T = 360 mm	35 Pa	–
Initial differential pressure at nominal volume flow rate for T = 600 mm	30 Pa	40 Pa
Recommended final differential pressure	250 – 350 Pa	250 – 350 Pa
Max. operating temperature for frames made of plastic	60°C	60°C
Max. operating temperature for frames made of galvanised sheet steel	90°C	90°C

Order code

PFC



1 Type

PFC Pocket filters made of non-woven chemical fibres

4 Frame depth [mm]

20 (Only with GAL)
25

2 Filter class

G4 Coarse dust filter according to EN 779
M5 Fine dust filter according to EN 779

5 Nominal size [mm]

B × H × T

3 Construction

PLA Frame made of plastic
GAL Frame made of galvanised steel

6 Number of pockets

3
5
6

Order example

PFC-G4-PLA-25/592x592x360x6

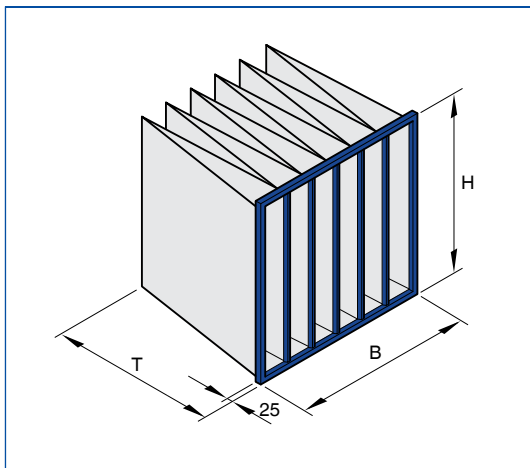
Filter class	G4 coarse dust filter according to EN 779
Construction	plastic frame
Frame depth	25 mm
Nominal size	592 × 592 × 360 mm
Number of pockets	6

Dimensions



Pocket filter, type PFC

Dimensional drawing of PFC-...-PLA/...



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m³/h			
592	592	360	6	G4	C	944	3400	35	2,7	0,8
490	592	360	5	G4	C	778	2800	35	2,2	0,7
287	592	360	3	G4	C	472	1700	35	1,3	0,5
592	490	360	6	G4	C	778	2800	35	2,2	0,7
592	287	360	6	G4	C	472	1700	35	1,3	0,5
287	287	360	3	G4	C	236	850	35	0,7	0,3
592	892	360	6	G4	C	1417	5100	35	4,1	1,1
490	892	360	5	G4	C	1167	4200	35	3,4	1,0
287	892	360	3	G4	C	708	2550	35	2,0	0,7
592	592	600	6	G4	A	944	3400	30	4,4	1,3
490	592	600	5	G4	A	778	2800	30	3,7	1,2
287	592	600	3	G4	A	472	1700	30	2,2	0,8
592	490	600	6	G4	A	778	2800	30	3,6	1,1
592	287	600	6	G4	A	472	1700	30	2,1	0,8
287	287	600	3	G4	A	236	850	30	1,1	0,5
592	892	600	6	G4	A	1417	5100	30	6,6	2,0
490	892	600	5	G4	A	1167	4200	30	5,5	1,7
287	892	600	3	G4	A	708	2550	30	3,3	1,1
592	592	600	6	M5	A	944	3400	40	4,4	1,3
490	592	600	5	M5	A	778	2800	40	3,7	1,2
287	592	600	3	M5	A	472	1700	40	2,2	0,8
592	490	600	6	M5	A	778	2800	40	3,6	1,1
592	287	600	6	M5	A	472	1700	40	2,1	0,8
287	287	600	3	M5	A	236	850	40	1,1	0,5
592	892	600	6	M5	A	1417	5100	40	6,6	2,0
490	892	600	5	M5	A	1167	4200	40	5,5	1,7
287	892	600	3	M5	A	708	2550	40	3,3	1,1

① Number of pockets ② Filter class ③ Energy class ④ Nominal volume flow rate ⑤ Initial differential pressure
⑥ Filter area ⑦ Weight

Standard text

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

Pocket filters PFC made of non-woven chemical fibres for the separation of coarse dust when used as a prefilter, and for the separation of fine dust when used as a prefilter or final filter in ventilation systems.

Filter pockets provide a high dust holding capacity at a low initial differential pressure.

Pocket filters made of non-woven chemical fibres are available in standard and special sizes; variable number of pockets and pocket depth; filter classes G4, M5.

Pocket filters used as fine dust filters are certified by Eurovent.

Materials and surfaces

- Filter media made of high-quality non-woven chemical fibres
- Frame made of plastic or galvanised sheet steel

Construction

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

Sizing data

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

Order options

1 Type

PFC Pocket filters made of non-woven chemical fibres

2 Filter class

- G4** Coarse dust filter according to EN 779
- M5** Fine dust filter according to EN 779

3 Construction

- PLA** Frame made of plastic
- GAL** Frame made of galvanised steel

4 Frame depth [mm]

- 20** (Only with GAL)
- 25**

5 Nominal size [mm]

B × H × T

6 Number of pockets

- 3**
- 5**
- 6**



Pocket filters made of non-woven synthetic fibres

Type PFS



Prefilters or final filters in ventilation systems

Pocket filters for the separation of fine dust

- Filter classes M5, M6, F7
- Performance data tested to EN 779
- Eurovent certification for fine dust filters
- Meets the hygiene requirements of VDI 6022
- Non-woven synthetic fibres, welded
- Enlarged filter area due to filter pockets
- Low initial differential pressure and high dust holding capacity
- Variable number of pockets and pocket depth
- 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



Eurovent certification



Tested to VDI 6022

Type		Page
PFS	General information	6.2 – 2
	Order code	6.2 – 3
	Dimensions and weight	6.2 – 4
	Specification text	6.2 – 5
	Basic information and nomenclature	10.1 – 1

Description



Pocket filter, type PFS

Application

- Pocket filter made of non-woven synthetic fibres type PFS 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

Filter classes

- Fine dust filters M5, M6, F7

Construction

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

Nominal sizes [mm]

- $B \times H \times T$

Useful additions

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

Construction features

- 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 synthetic fibres
- Frame made of plastic or galvanised sheet steel

Standards and guidelines

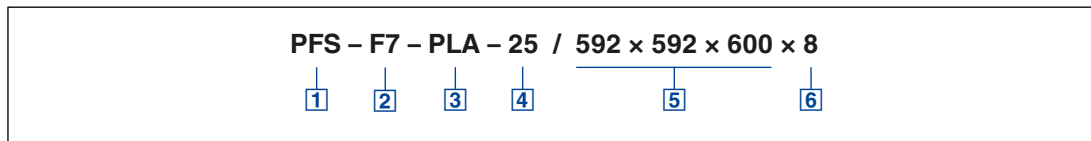
- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 μm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 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 13779

Technical data

Filter class according to EN 779	M5	M6	F7
Average arrestance according to EN 779	98 %	>98 %	>98 %
Average efficiency according to EN 779	55 %	65 %	85 %
Initial differential pressure at nominal volume flow rate	50 Pa	70 Pa	125 Pa
Recommended final differential pressure	250 – 350 Pa	250 – 350 Pa	250 – 350 Pa
Max. operating temperature for frames made of plastic	60°C	60°C	60°C
Max. operating temperature for frames made of galvanised sheet steel	90°C	90°C	90°C

Order code

PFS



1 Type

PFS Pocket filters made of non-woven synthetic fibres

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

3 Construction

PLA Frame made of plastic
GAL Frame made of galvanised steel

4 Frame depth [mm]

20 (Only with GAL)
25

5 Nominal size [mm]

B × H × T

6 Number of pockets

3
4
5
6
7
8

Order example

PFS-F7-PLA-25/592x592x600x8

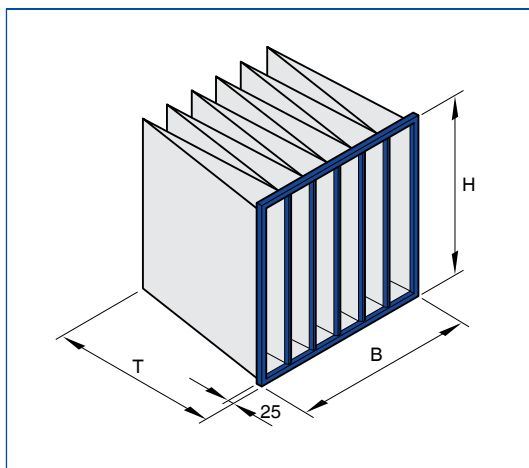
Filter class	F7 fine dust filter according to EN 779
Construction	plastic frame
Frame depth	25 mm
Nominal size	592 × 592 × 600 mm
Number of pockets	8

Dimensions



Pocket filter, type PFS

Dimensional drawing of PFS-...-PLA/...



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m³/h			
592	592	600	6	M5	G	944	3400	50	4,4	1,5
490	592	600	5	M5	G	778	2800	50	3,7	1,3
287	592	600	3	M5	G	472	1700	50	2,2	0,9
592	490	600	6	M5	G	778	2800	50	3,6	1,4
592	287	600	6	M5	G	472	1700	50	2,1	0,9
287	287	600	3	M5	G	236	850	50	1,1	0,5
592	892	600	6	M5	G	1417	5100	50	6,6	2,0
490	892	600	5	M5	G	1167	4200	50	5,5	1,6
287	892	600	3	M5	G	708	2550	50	3,3	1,1
592	592	600	6	M6	G	944	3400	70	4,4	1,5
490	592	600	5	M6	G	778	2800	70	3,7	1,3
287	592	600	3	M6	G	472	1700	70	2,2	0,9
592	490	600	6	M6	G	778	2800	70	3,6	1,4
592	287	600	6	M6	G	472	1700	70	2,1	0,9
287	287	600	3	M6	G	236	850	70	1,1	0,5
592	892	600	6	M6	G	1417	5100	70	6,6	2,0
490	892	600	5	M6	G	1167	4200	70	5,5	1,6
287	892	600	3	M6	G	708	2550	70	3,3	1,1
592	592	600	8	F7	D	944	3400	125	5,9	2,0
490	592	600	7	F7	D	778	2800	125	5,1	1,7
287	592	600	4	F7	D	472	1700	125	2,9	1,1
592	490	600	8	F7	D	778	2800	125	4,9	1,7
592	287	600	8	F7	D	472	1700	125	2,8	1,1
287	287	600	4	F7	D	236	850	125	1,4	0,6
592	892	600	8	F7	D	1417	5100	125	8,8	2,4
490	892	600	7	F7	D	1167	4200	125	7,7	2,2
287	892	600	4	F7	D	708	2550	125	4,4	1,4

- ① Number of pockets ② Filter class ③ Energy class ④ Nominal volume flow rate ⑤ Initial differential pressure
⑥ Filter area ⑦ Weight

Standard text

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

Pocket filters PFS made of non-woven synthetic 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 synthetic fibres are available in standard and special sizes; variable number of pockets and pocket depth; filter classes M5, M6, F7.

Pocket filters made of non-woven synthetic fibres are certified by Eurovent and meet the hygiene requirements of VDI 6022.

Materials and surfaces

- Filter media made of non-woven synthetic fibres
- Frame made of plastic or galvanised sheet steel

Construction

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

Sizing data

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

Order options

1 Type

- PFS** Pocket filters made of non-woven synthetic fibres

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

3 Construction

- PLA** Frame made of plastic
- GAL** Frame made of galvanised steel

4 Frame depth [mm]

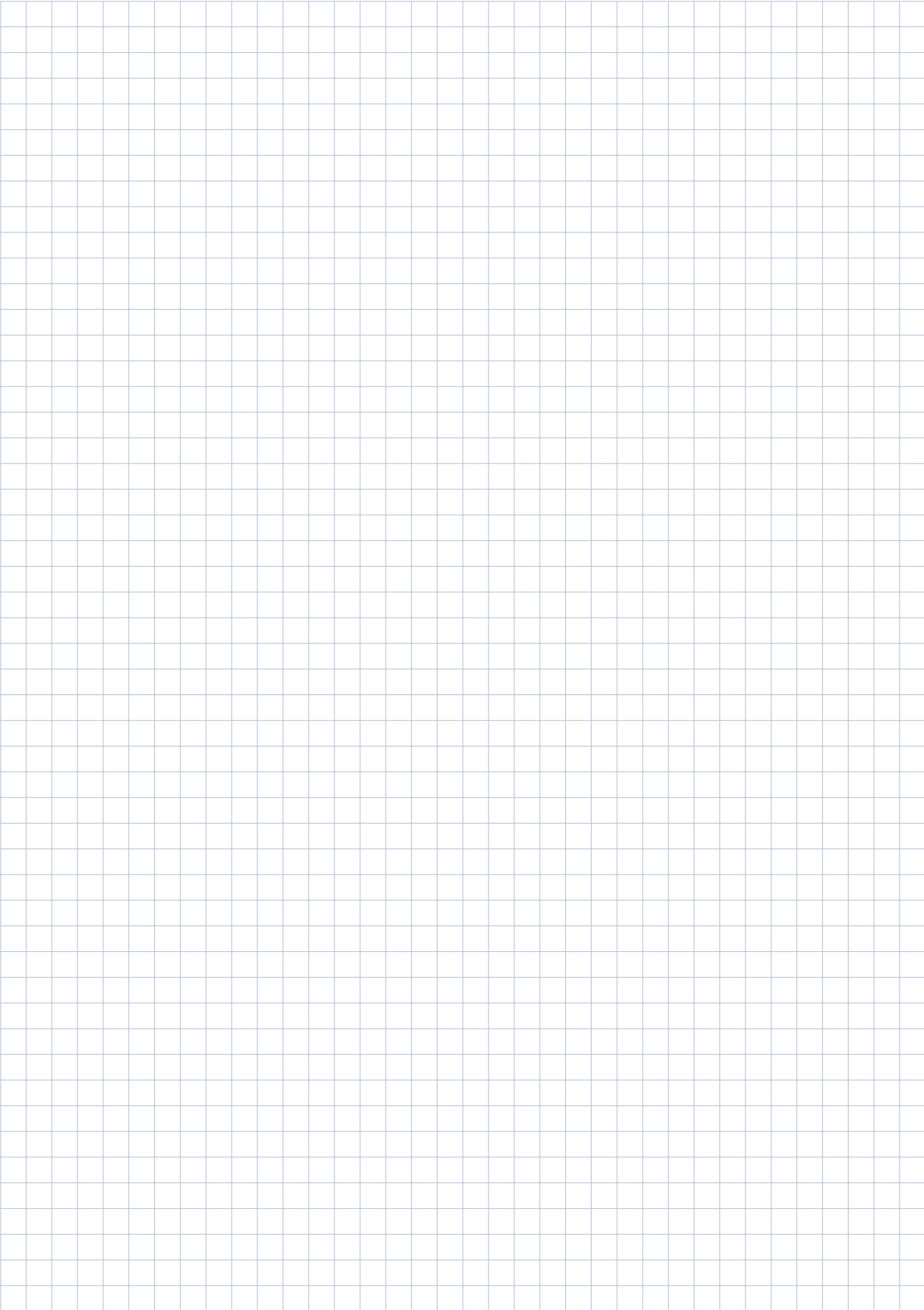
- 20** (Only with GAL)
- 25**

5 Nominal size [mm]

B × H × T

6 Number of pockets

- 3**
- 4**
- 5**
- 6**
- 7**
- 8**



Pocket filters made of NanoWave® medium Type PFN



Prefilters or final filters in ventilation systems

Pocket filters for the separation of fine dust

- Filter classes M6, F7, F9
- Performance data tested to EN 779
- Eurovent certification for fine dust filters
- Meets the hygiene requirements of VDI 6022
- Highest energy efficiency according to Eurovent document 4/11
- NanoWave® medium, sewn
- Enlarged filter area due to filter pockets
Variable number of pockets and pocket depth
- NanoWave® medium with extremely low initial differential pressure and highest possible dust holding capacity, ideal airflow conditions due to trapezoidal filter pockets
- 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



Eurovent certification



Tested to VDI 6022

Type		Page
PFN	General information	6.3 – 2
	Order code	6.3 – 3
	Dimensions and weight	6.3 – 4
	Specification text	6.3 – 5
	Basic information and nomenclature	10.1 – 1

Description



Pocket filter, type PFN

Application

- Pocket filter made of NanoWave® medium type PFN 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

Filter classes

- Fine dust filters M6, F7, F9

Construction

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

Nominal sizes [mm]

- $B \times H \times T$

Useful additions

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

Construction features

- Wedge-shaped filter pockets
- Multi-layer filter medium with a prefilter layer and a layer of corrugated extra fine fibres
- Frame depth of construction PLA: 25 mm
- Frame depth of construction GAL: 20, 25 mm
- Number of pockets: 3, 4, 5, 6, 7, 8, 10

Materials and surfaces

- Filter media made of synthetic fibres
- Frame made of plastic or galvanised sheet steel

Standards and guidelines

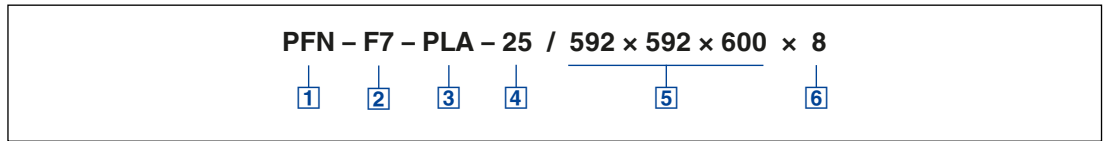
- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 μm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 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 13779

Technical data

Filter class according to EN 779	M6	F7	F9
Average arrestance according to EN 779	>98 %	>98 %	>98 %
Average efficiency according to EN 779	65 %	85 %	>95 %
Initial differential pressure at nominal volume flow rate	60 Pa	80 Pa	130 Pa
Recommended final differential pressure	250 – 350 Pa	250 – 350 Pa	250 – 350 Pa
Max. operating temperature for frames made of plastic	60°C	60°C	60°C
Max. operating temperature for frames made of galvanised sheet steel	90°C	90°C	90°C

Order code

PFN



1 Type

PFN Pocket filters made of NanoWave® medium

2 Filter class

M6 Fine dust filter according to EN 779
F7 Fine dust filter according to EN 779
F9 Fine dust filter according to EN 779

3 Construction

PLA Frame made of plastic
GAL Frame made of galvanised steel

4 Frame depth [mm]

20 (Only with GAL)
25

5 Nominal size [mm]

B x H x T

6 Number of pockets

3
4
5
6
7
8
10

Order example

PFN-F7-PLA-25/592x592x600x8

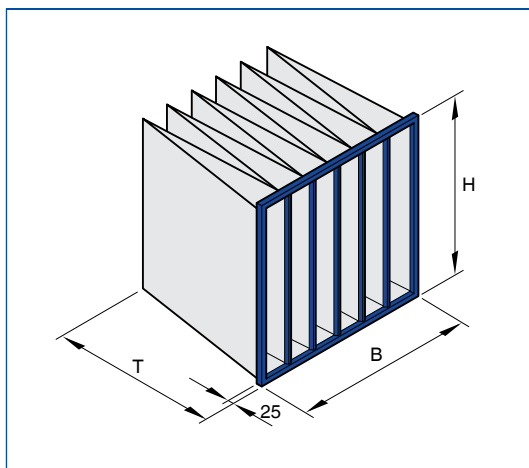
Filter class	F7 fine dust filter according to EN 779
Construction	plastic frame
Frame depth	25 mm
Nominal size	592 x 592 x 600 mm
Number of pockets	8

Dimensions



Pocket filter, type PFN

Dimensional drawing of PFN-...-PLA/...



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m³/h			
592	592	600	6	M6	E	944	3400	60	4,4	1,5
490	592	600	5	M6	E	778	2800	60	3,7	1,3
287	592	600	3	M6	E	472	1700	60	2,2	0,9
592	490	600	6	M6	E	778	2800	60	3,6	1,4
592	287	600	6	M6	E	472	1700	60	2,1	0,9
287	287	600	3	M6	E	236	850	60	1,1	0,5
592	892	600	6	M6	E	1417	5100	60	6,6	2,0
490	892	600	5	M6	E	1167	4200	60	5,5	1,6
287	892	600	3	M6	E	708	2550	60	3,3	1,1
592	592	600	8	F7	A	944	3400	80	5,9	2,0
490	592	600	7	F7	A	778	2800	80	5,1	1,7
287	592	600	4	F7	A	472	1700	80	2,9	1,1
592	490	600	8	F7	A	778	2800	80	4,9	1,7
592	287	600	8	F7	A	472	1700	80	2,8	1,1
287	287	600	4	F7	A	236	850	80	1,4	0,6
592	892	600	8	F7	A	1417	5100	80	8,8	2,4
490	892	600	7	F7	A	1167	4200	80	7,7	2,2
287	892	600	4	F7	A	708	2550	80	4,4	1,4
592	592	600	10	F9	A	944	3400	130	7,3	2,2
490	592	600	8	F9	A	778	2800	130	5,9	1,8
287	592	600	5	F9	A	472	1700	130	3,7	1,2
592	490	600	10	F9	A	778	2800	130	6,1	1,9
592	287	600	10	F9	A	472	1700	130	3,6	1,3
287	287	600	5	F9	A	236	850	130	1,8	0,7
592	892	600	10	F9	A	1417	5100	130	11,1	2,6
490	892	600	8	F9	A	1167	4200	130	8,8	2,3
287	892	600	5	F9	A	708	2550	130	5,5	1,5

- ① Number of pockets ② Filter class ③ Energy class ④ Nominal volume flow rate ⑤ Initial differential pressure
 ⑥ Filter area ⑦ Weight

Standard text

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

Pocket filter PFN made of NanoWave® medium as prefilters or final filters for the separation of fine dust in ventilation systems.

Wedge-shaped filter pockets ensure ideal airflow conditions.

Highest possible dust holding capacity with an extremely low initial differential pressure due to a multi-layer filter medium with a prefilter layer and a layer of corrugated extra fine fibres.

Pocket filters made of NanoWave® medium are available in standard sizes; variable number of pockets and pocket depth; filter classes M6, F7, F9. Pocket filters made of NanoWave® medium are certified by Eurovent and meet the hygiene requirements of VDI 6022.

Materials and surfaces

- Filter media made of synthetic fibres
- Frame made of plastic or galvanised sheet steel

Construction

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

Sizing data

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

Order options

1 Type

- PFN** Pocket filters made of NanoWave® medium

2 Filter class

- M6** Fine dust filter according to EN 779
- F7** Fine dust filter according to EN 779
- F9** Fine dust filter according to EN 779

3 Construction

- PLA** Frame made of plastic
- GAL** Frame made of galvanised steel

4 Frame depth [mm]

- 20** (Only with GAL)
- 25**

5 Nominal size [mm]

B × H × T

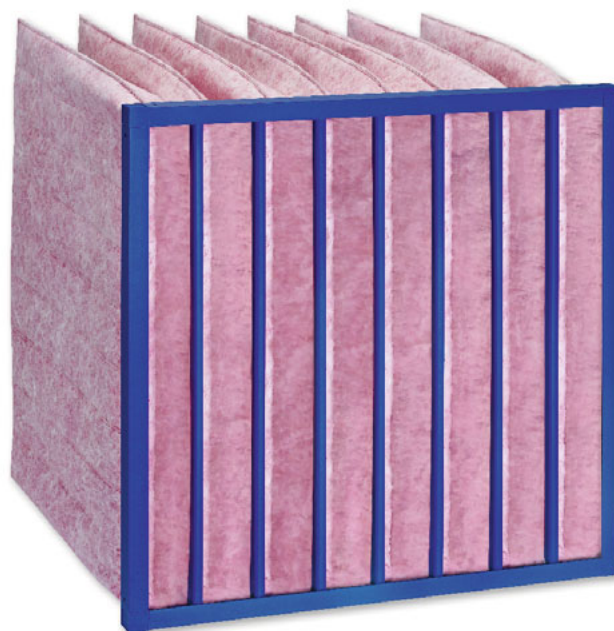
6 Number of pockets

- 3**
- 4**
- 5**
- 6**
- 7**
- 8**
- 10**



Pocket filters made of non-woven glass fibres

Type PFG



Prefilters or final filters in ventilation systems

Pocket filters for the separation of fine dust

- Filter classes M5, M6, F7, F9
- Performance data tested to EN 779
- Eurovent certification for fine dust filters
- Meets the hygiene requirements of VDI 6022
- Highest energy efficiency according to Eurovent document 4/11
- Non-woven glass fibres, sewn
- Enlarged filter area due to filter pockets
Variable number of pockets and pocket depth
- Low initial differential pressure and high dust holding capacity, ideal airflow conditions due to trapezoidal filter pockets
- 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



Eurovent certification



Tested to VDI 6022

Type		Page
PFG	General information	6.4 – 2
	Order code	6.4 – 3
	Dimensions and weight	6.4 – 4
	Specification text	6.4 – 6
	Basic information and nomenclature	10.1 – 1

Description



Pocket filter, type PFG

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

Filter classes

- Fine dust filters M5, M6, F7, F9

Construction

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

Nominal sizes [mm]

- $B \times H \times T$

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

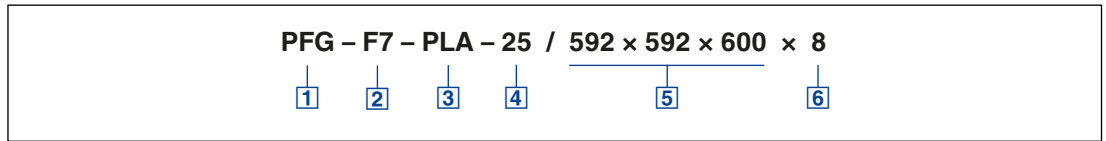
- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 μm
- The filters are classified into filter classes M5, M6, F7, F8, and F9 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 13779

Technical data

Filter class according to EN 779	M5	M6	F7	F9
Average arrestance according to EN 779	98 %	>98 %	>98 %	>98 %
Average efficiency according to EN 779	55 %	65 %	85 %	>95 %
Initial differential pressure at nominal volume flow rate	50 Pa	70 Pa	100 Pa	140 Pa
Recommended final differential pressure	250 – 350 Pa	250 – 350 Pa	250 – 350 Pa	250 – 350 Pa
Max. operating temperature for frames made of plastic	60°C	60°C	60°C	60°C
Max. operating temperature for frames made of galvanised sheet steel	90°C	90°C	90°C	90°C

Order code

PFG



1 Type

PFG Pocket filters made of non-woven glass fibres

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

3 Construction

- PLA** Frame made of plastic
- GAL** Frame made of galvanised steel

4 Frame depth [mm]

- 20** (Only with GAL)
- 25**

5 Nominal size [mm]

B × H × T

6 Number of pockets

- 3**
- 4**
- 5**
- 6**
- 7**
- 8**

Order example

PFG–F7–PLA–25/592×592×600×8

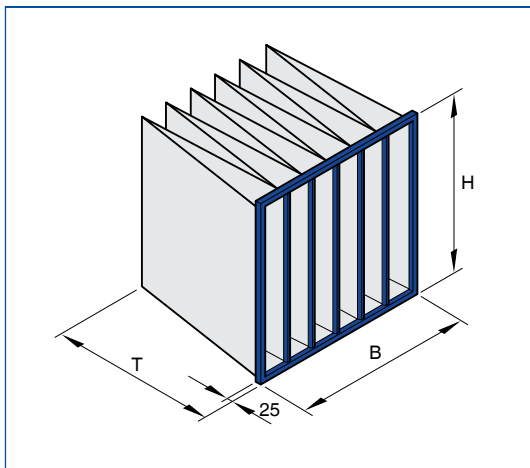
Filter class	F7 fine dust filter according to EN 779
Construction	plastic frame
Frame depth	25 mm
Nominal size	592 × 592 × 600 mm
Number of pockets	8

Dimensions



Pocket filter, type PFG

Dimensional drawing of PFG-...-PLA/...



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m ³ /h			
592	592	600	6	M5	A	944	3400	50	4,4	1,5
490	592	600	5	M5	A	778	2800	50	3,7	1,3
287	592	600	3	M5	A	472	1700	50	2,2	0,9
592	490	600	6	M5	A	778	2800	50	3,6	1,4
592	287	600	6	M5	A	472	1700	50	2,1	0,9
287	287	600	3	M5	A	236	850	50	1,1	0,5
592	892	600	6	M5	A	1417	5100	50	6,6	2,0
490	892	600	5	M5	A	1167	4200	50	5,5	1,6
287	892	600	3	M5	A	708	2550	50	3,3	1,1
592	592	600	6	M6	B	944	3400	70	4,4	1,5
490	592	600	5	M6	B	778	2800	70	3,7	1,3
287	592	600	3	M6	B	472	1700	70	2,2	0,9
592	490	600	6	M6	B	778	2800	70	3,6	1,4
592	287	600	6	M6	B	472	1700	70	2,1	0,9
287	287	600	3	M6	B	236	850	70	1,1	0,5
592	892	600	6	M6	B	1417	5100	70	6,6	2,0
490	892	600	5	M6	B	1167	4200	70	5,5	1,6
287	892	600	3	M6	B	708	2550	70	3,3	1,1
592	592	600	8	F7	B	944	3400	100	5,9	2,0
490	592	600	7	F7	B	778	2800	100	5,1	1,7
287	592	600	4	F7	B	472	1700	100	2,9	1,1
592	490	600	8	F7	B	778	2800	100	4,9	1,7
592	287	600	8	F7	B	472	1700	100	2,8	1,1
287	287	600	4	F7	B	236	850	100	1,4	0,6
592	892	600	8	F7	B	1417	5100	100	8,8	2,4
490	892	600	7	F7	B	1167	4200	100	7,7	2,2
287	892	600	4	F7	B	708	2550	100	4,4	1,4
592	592	600	8	F9	A	944	3400	140	5,9	2,0
490	592	600	7	F9	A	778	2800	140	5,1	1,7
287	592	600	4	F9	A	472	1700	140	2,9	1,1
592	490	600	8	F9	A	778	2800	140	4,9	1,7
592	287	600	8	F9	A	472	1700	140	2,8	1,1
287	287	600	4	F9	A	236	850	140	1,4	0,6
592	892	600	8	F9	A	1417	5100	140	8,8	2,4
490	892	600	7	F9	A	1167	4200	140	7,7	2,2
287	892	600	4	F9	A	708	2550	140	4,4	1,4

① Number of pockets ② Filter class ③ Energy class ④ Nominal volume flow rate ⑤ Initial differential pressure
⑥ Filter area ⑦ Weight

Standard text

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

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 classes M5, M6, F7, F9.

Pocket filters made of non-woven glass fibres are certified by Eurovent and meet the hygiene requirements of VDI 6022.

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

Order options

1 Type

PFG Pocket filters made of non-woven glass fibres

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

3 Construction

- PLA** Frame made of plastic
- GAL** Frame made of galvanised steel

4 Frame depth [mm]

- 20** (Only with GAL)
- 25**

5 Nominal size [mm]

B × H × T

6 Number of pockets

- 3**
- 4**
- 5**
- 6**
- 7**
- 8**



7. Mini Pleat filters

Mini Pleat filters are used as prefilters or final filters 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. They are available in various construction styles as filter inserts, filter elements, filter cells, filter panels, or filter cartridges.

7.1 Filter inserts	Type	Page
	Compact construction for large volume flow rates	MFI 7.1 – 1
7.2 Filter elements		
	Very compact, for modular installation	MFE 7.2 – 1
7.3 Filter cells		
	For large volume flow rates and long filter life	MFC 7.3 – 1
7.4 Filter panels		
	For the most demanding requirements of air purity and sterility	MFP 7.4 – 1

7.5 Filter cartridges **Type** **Page**



Compact construction for special applications

MFCA

7.5 – 1

7.6 Filter panels for clean room technology



For the most demanding requirements on the purity of indoor air, workstations, and their media

MFPCR

7.6 – 1

7.7 Filter panels with hood



For the most critical requirements in clean room areas

FHD

7.7 – 1

10.1 Basic information and nomenclature



Filter units and filter elements

10.1 – 1

Filter inserts

Type MFI



Mini Pleat filter insert
type MFI



Mini Pleat filter insert
type MFI, construction
SPC



Eurovent certification



Tested to VDI 6022



Compact construction for large volume flow rates

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

- Filter classes M5, M6, F7, F9, E10, E11, H13, H14
- Performance data to EN 779 or EN 1822
- Eurovent certification for fine dust filters
- Meets the hygiene requirements of VDI 6022
- Highest energy efficiency according to Eurovent document 4/11
- Filter media for special requirements, glass fibre papers, with spacers made of hot-melt adhesive or textile threads
- Low initial differential pressure due to ideal pleat position and largest possible filter area
- Compact depth construction
- Fitting into standard cell frames for filter walls (type SIF), into mounting frames (type MF), or into universal casings (type UCA) for duct installation

Type		Page
MFI	General information	7.1 – 2
	Order code	7.1 – 4
	Dimensions and weight	7.1 – 5
	Specification text	7.1 – 8
	Basic information and nomenclature	10.1 – 1

Description



Mini Pleat filter insert type MFI, construction PLA

Application

- Mini Pleat filter insert type MFI 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 purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Classification

- Eurovent certification for fine dust filters
- Meets the hygiene requirements

Filter classes

- Fine dust filters M5, M6, F7, F9
- Particulate filters E10, E11, H13, H14

Construction

- PLA: Frame made of plastic
- SPC Frame made of galvanised steel, powder-coated RAL 9010, pure white

Nominal sizes [mm]

- B x H x T

Options

- Number of filter packs
- FNU: Flat section seal on the upstream side
- FND: Flat section seal on the downstream side
- OT: Oil mist test (only for filter classes H13, H14)
- OTC: Oil mist test with certificate (only for filter classes H13, H14)

Useful additions

- Filter wall (SIF)
- Mounting frame (MF)
- Universal casing (UCA)

Special features

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

Construction features

- As standard, constructions PLA and SPC used as fine dust filters have no seal.
- Constructions PLA and SPC with optional flat section seal
- Construction SPC as particulate filter with flat section seal. Filter classes E11, H13 and H14 with protection grid on the downstream 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
- Frame made of plastic (option) or of galvanised sheet steel, powder-coated RAL 9010, pure white

Standards and guidelines

- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8 and F9 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)
- Constructions PLA and SPC meet the hygiene requirements of VDI 6022, VDI 3803, DIN 1946, part 4, ÖNORM H 6020, SWKI VA 104-01, SWKI 99-3, and EN 13779

Technical data

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	140 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	E10	E11	H13	H14
Efficiency according to EN 1822	>85 %	>95 %	>99.95 %	>99.995 %
Initial differential pressure at nominal volume flow rate	160 Pa	160 Pa	265 Pa	300 Pa
Recommended final differential pressure	450 Pa	450 Pa	600 Pa	600 Pa
Maximum operating temperature	80 °C	80 °C	80 °C	80 °C
Maximum relative humidity	100 %	100 %	100 %	100 %

Order code

MFI

MFI – H13 – SPC / 592 × 592 × 292 × 8 / PD / FND / OT

1 2 3 4 5 6 7 8

1 Type

MFI Mini Pleat filter insert

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
E10 Particulate filter according to EN 1822
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
SPC Frame made of galvanised steel,
 powder-coated RAL 9010, pure white

4 Nominal size [mm]

B × H × T

5 Number of filter packs

6
8

6 Protection grid

No entry: none
PD Protection grid on the downstream side
 (only for filter classes E11, H13 and H14)

7 Seal

No entry: none
FNU Flat section seal on the upstream side
FND Flat section seal on the downstream side

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)

Order example

MFI-H13-SPC/592x592x292x8/PD/FND/OT

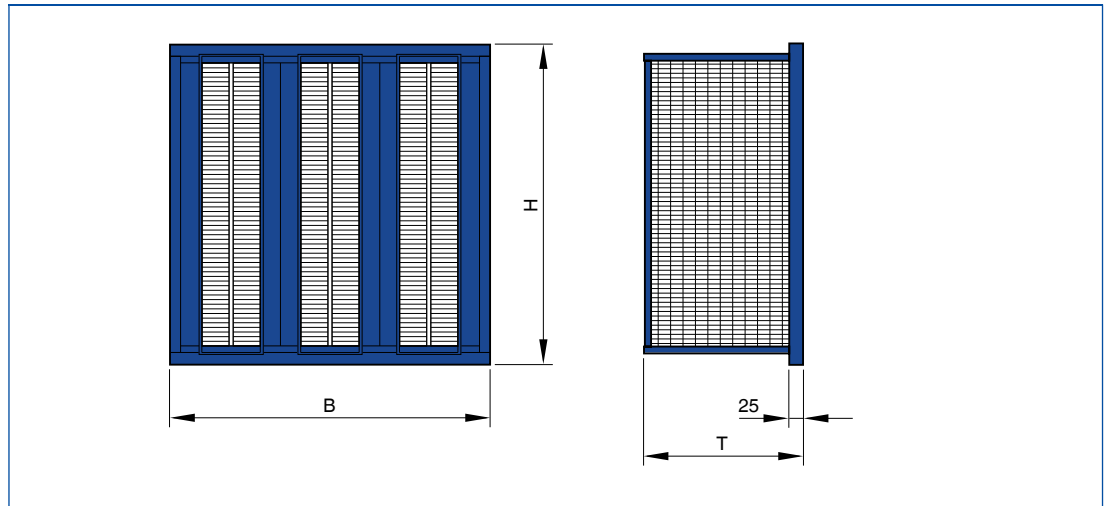
Filter class	H13 particulate filter according to EN 1822
Construction	frame made of galvanised steel, powder-coated RAL 9010, pure white
Nominal size	592 × 592 × 292 mm
Number of filter packs	8
Protection grid	downstream side
Seal	flat section seal on the downstream side
Testing	oil mist test

Dimensions



Mini Pleat filter insert
type MFI, construction PLA

Dimensional drawing of MFI-...-PLA-...



Standard construction

As standard, Mini Pleat filter inserts with plastic frame have no seal.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m ³ /h			
592	287	292	6	M5	C	590	2125	90	7,6	3
592	490	292	6	M5	C	983	3540	90	13,7	4
592	592	292	6	M5	C	1181	4250	90	16,8	5
592	287	292	6	M6	C	590	2125	90	7,6	3
592	490	292	6	M6	C	983	3540	90	13,7	4
592	592	292	6	M6	C	1181	4250	90	16,8	5
592	287	292	6	F7	A	590	2125	110	7,6	3
592	490	292	6	F7	A	983	3540	110	13,7	4
592	592	292	6	F7	A	1181	4250	110	16,8	5
592	287	292	6	F9	A	590	2125	140	7,6	3
592	490	292	6	F9	A	983	3540	140	13,7	4
592	592	292	6	F9	A	1181	4250	140	16,8	5

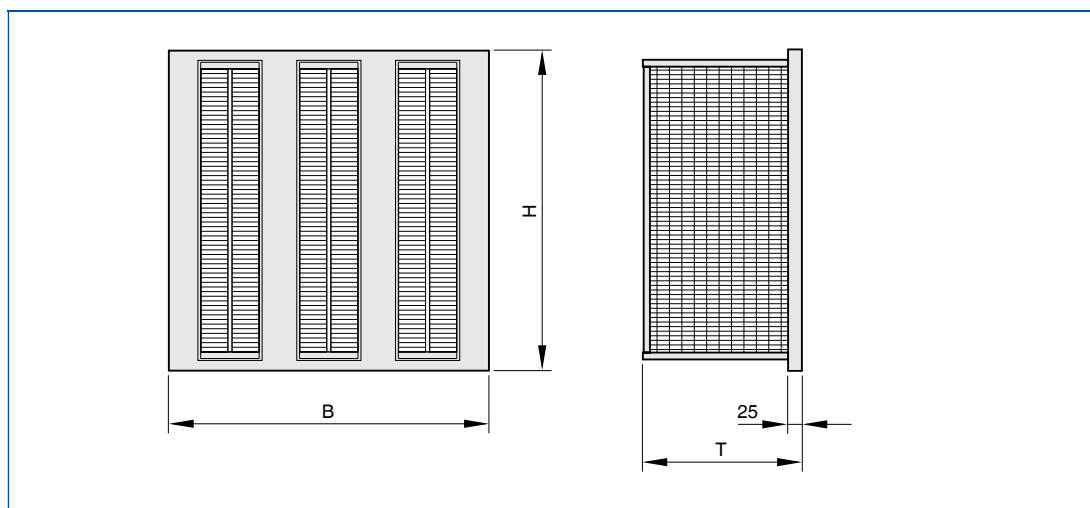
- ① Number of filter packs ② Filter class ③ Energy class ④ Nominal volume flow rate
 ⑤ Initial differential pressure ⑥ Filter area ⑦ Weight

Dimensions



Mini Pleat filter insert
type MFI, construction
SPC

Dimensional drawing of MFI-...-SPC-...



Standard construction

As standard, Mini Pleat filter inserts with a frame made of galvanised sheet steel, powder-coated, have no seal.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m ³ /h			
592	287	292	6	M5	C	590	2125	90	7,7	4
592	490	292	6	M5	C	983	3540	90	14,2	6
592	592	292	6	M5	C	1181	4250	90	17,5	7
592	287	292	6	M6	C	590	2125	90	7,7	4
592	490	292	6	M6	C	983	3540	90	14,2	6
592	592	292	6	M6	C	1181	4250	90	17,5	7
592	287	292	6	F7	A	590	2125	110	7,7	4
592	490	292	6	F7	A	983	3540	110	14,2	6
592	592	292	6	F7	A	1181	4250	110	17,5	7
592	287	292	6	F9	A	590	2125	140	7,7	4
592	490	292	6	F9	A	983	3540	140	14,2	6
592	592	292	6	F9	A	1181	4250	140	17,5	7

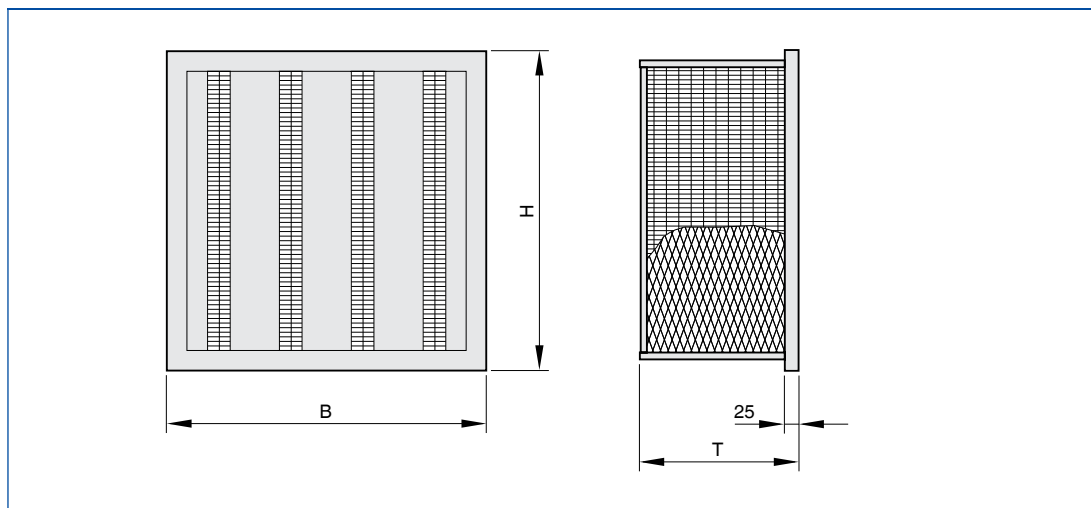
- ① Number of filter packs ② Filter class ③ Energy class ④ Nominal volume flow rate
 ⑤ Initial differential pressure ⑥ Filter area ⑦ Weight

Dimensions



Mini Pleat filter insert
type MFI, construction
SPC

Dimensional drawing of MFI-...-SPC-...



Standard construction

As standard, Mini Pleat filter inserts with a frame made of galvanised sheet steel, powder-coated, are fitted with a flat section seal. Filter classes E11, H13 and H14 with protection grid on the downstream side.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
592	287	292	6	E10	590	2125	160	7,7	4
592	490	292	6	E10	983	3540	160	14,2	6
592	592	292	6	E10	1181	4250	160	17,5	7
592	287	292	8	E11	417	1500	160	13,6	7
592	490	292	8	E11	694	2500	160	25,0	10
592	592	292	8	E11	833	3000	160	30,6	12
592	287	292	8	H13	417	1500	265	13,6	7
592	490	292	8	H13	694	2500	265	25,0	10
592	592	292	8	H13	833	3000	265	30,6	12
592	287	292	8	H14	417	1500	300	13,6	7
592	490	292	8	H14	694	2500	300	25,0	10
592	592	292	8	H14	833	3000	300	30,6	12

① Number of filter packs ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure
⑤ Filter area ⑥ Weight

Standard text

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

Mini Pleat filter insert type MFI 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 purity 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.

Filter medium is made 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 inserts are available in all commercial sizes, filter classes M5, M6, F7, F9, E10, E11, H13, H14.

As standard, fine dust filters have no seal.

As particulate filters with flat section seal.

Filter classes E11, H13, H14 also with protection grid on the downstream side.

Mini Pleat filter inserts used as fine dust filters are certified by Eurovent. Mini Pleat filter inserts meet the hygiene requirements of VDI 6022.

Special features

- 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 provide a uniform spacing of the pleats
- Joint sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame made of plastic (option) or of galvanised sheet steel, powder-coated RAL 9010, pure white

Construction

- PLA: Frame made of plastic
- SPC: Frame made of galvanised steel, powder-coated RAL 9010, pure white

Sizing data

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

Order options

1 Type

MFI Mini Pleat filter insert

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
- E10** Particulate filter according to EN 1822
- 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
- SPC** Frame made of galvanised steel, powder-coated RAL 9010, pure white

4 Nominal size [mm]

B × H × T

5 Number of filter packs

- 6**
- 8**

6 Protection grid

- No entry: none
- PD** Protection grid on the downstream side (only for filter classes E11, H13 and H14)

7 Seal

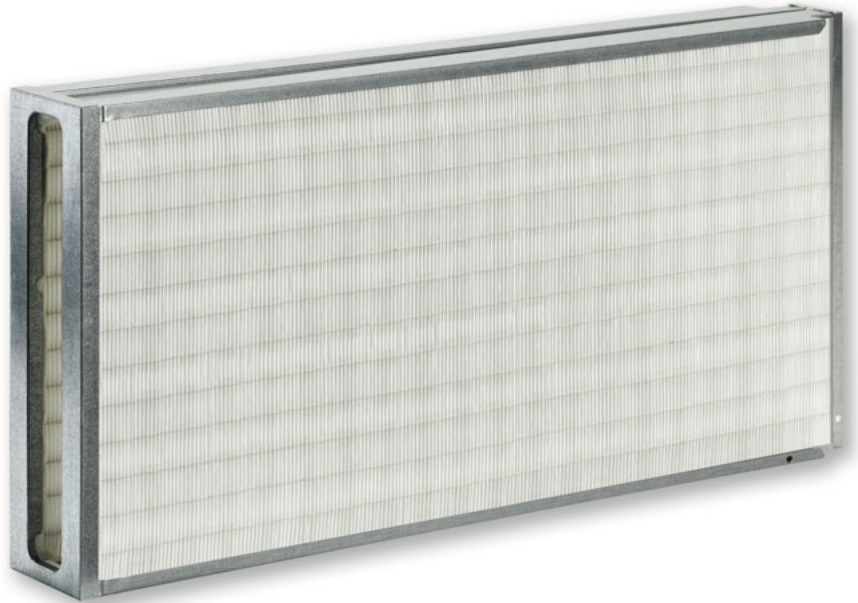
- No entry: none
- FNU** Flat section seal on the upstream side
- FND** Flat section seal on the downstream side

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)

Filter elements

Type MFE



Very compact, for modular installation

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

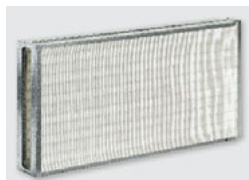
- Filter classes F9, E11, H13
- Performance data to EN 779 or EN 1822
- Eurovent certification for fine dust filters
- Filter media for special requirements, made of glass fibre papers, with spacers made of textile threads
- Low initial differential pressure due to ideal pleat position and largest possible filter area



Eurovent certification

Type		Page
MFE	General information	7.2 – 2
	Order code	7.2 – 4
	Dimensions and weight	7.2 – 5
	Specification text	7.2 – 6
	Basic information and nomenclature	10.1 – 1

Description



Mini Pleat filter element, type MFE

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 purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Classification

- Eurovent certification for fine dust filters

Filter classes

- Fine dust filters F9
- Particulate filters E11, H13

Construction

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

Nominal sizes [mm]

- B × H × T

Accessories

- Adhesive tape for sealing off the filter elements, width: 19 mm, length: 55 m
Order number: ACC-AT
- 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

Special features

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

Construction features

- 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

- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8 and F9 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)

Technical data

Filter class according to EN 779	F9
Average efficiency according to EN 779	>95 %
Initial differential pressure at nominal volume flow rate for nominal size 600 × 65 × 202 mm	50 Pa
Recommended final differential pressure for nominal size 600 × 65 × 202 mm	250 Pa
Initial differential pressure at nominal volume flow rate for nominal sizes 86.5 × 202/303 × 600 mm	120 Pa
Recommended final differential pressure for nominal sizes 86.5 × 202/303 × 600 mm	300 Pa
Maximum operating temperature	100 °C
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 × 65 × 202 mm	140 Pa	160 Pa
Recommended final differential pressure for nominal size 600 × 65 × 202 mm	400 Pa	400 Pa
Initial differential pressure at nominal volume flow rate for nominal sizes 86.5 × 202/303 × 600 mm	190 Pa	220 Pa
Recommended final differential pressure for nominal sizes 86.5 × 202/303 × 600 mm	600 Pa	600 Pa
Maximum operating temperature	100 °C	100 °C
Maximum relative humidity	100 %	100 %

Order code

MFE

MFE – H13 – GAL / 600 × 65 × 202

1

2

3

4

1 Type

MFE Mini Pleat filter element

2 Filter class

F9 Fine dust filter according to EN 779

E11 Particulate filter according to EN 1822

H13 Particulate filter according to EN 1822

3 Construction

GAL Frame made of galvanised steel

AL Frame made of aluminium

4 Nominal size [mm]

B × H × T

Order example

MFE-H13-GAL/600×65×202

Filter class

H13 particulate filter according to EN 1822

Construction

frame made of galvanised steel

Nominal size

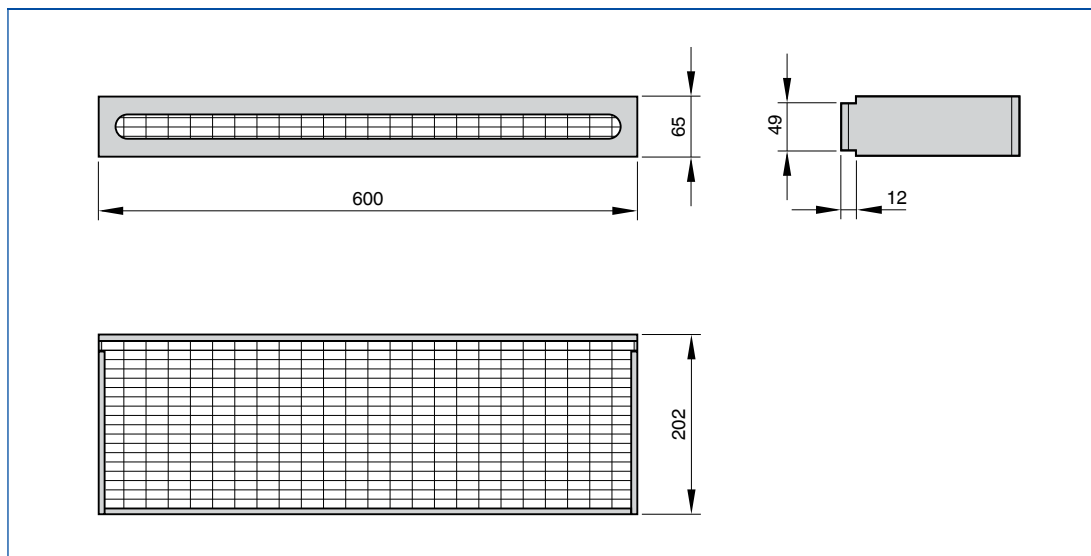
600 × 65 × 202 mm

Dimensions

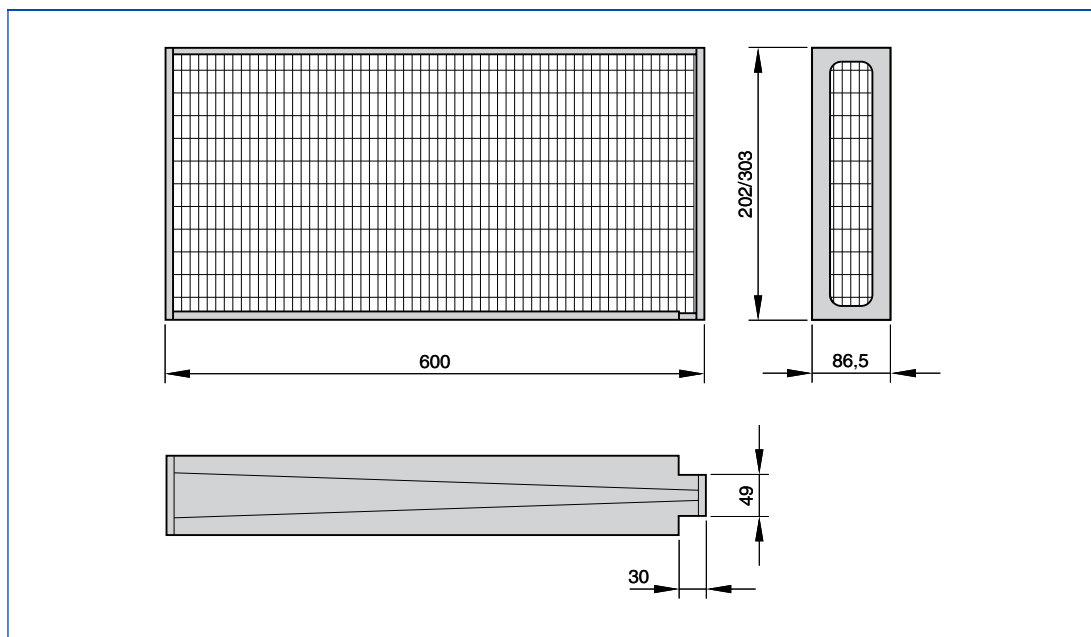


Mini Pleat filter element, type MFE

Dimensional drawing of MFE



Dimensional drawing of MFE



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h			
600	65	202	F9	56	200	50	3,4	1
86,5	202	600	F9	56	200	120	3,4	1
86,5	303	600	F9	83	300	120	5,1	2
600	65	202	E11	56	200	140	3,6	1
86,5	202	600	E11	56	200	190	3,6	1
86,5	303	600	E11	83	300	190	5,4	2
600	65	202	H13	56	200	160	3,6	1
86,5	202	600	H13	56	200	220	3,6	1
86,5	303	600	H13	83	300	220	5,4	2

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

Standard text

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

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 prefilters or final filters in ventilation systems; or as particulate filters, i.e. main or final filters for the most critical requirements of air purity 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 medium is made 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 are available in all commercial sizes, filter classes F9, E11, H13. 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.

Special features

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

Order options

1 Type

MFE Mini Pleat filter element

2 Filter class

- F9** Fine dust filter according to EN 779
- E11** Particulate filter according to EN 1822
- H13** Particulate filter according to EN 1822

3 Construction

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

4 Nominal size [mm]

B × H × T

Filter cells

Type MFC



For large volume flow rates and long filter life

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

- Filter classes M6, F7, F9, E11, H13, H14
- Performance data to EN 779 or EN 1822
- 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
- Compact depth construction
- Fitting into ducted particulate filters (types KSF, KSFS) and duct casings for particulate filters (type DCA)



Eurovent certification

Type		Page
MFC	General information	7.3 – 2
	Order code	7.3 – 4
	Dimensions and weight	7.3 – 5
	Specification text	7.3 – 7
	Basic information and nomenclature	10.1 – 1

Description



Mini Pleat filter cells, type MFC

Application

- Mini Pleat filter cell type 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 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 purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Classification

- Eurovent certification for fine dust filters

Filter classes

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

Construction

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

Nominal sizes [mm]

- $B \times H \times T$

Options

- Number of filter packs: 3, 5, 6, 10, 12
- HMS: Increased filter area
- 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
- 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)

Useful additions

- Ducted particulate filter, available as one unit (KSF, KSFS) or as a filter unit system (KSFSSP)
- Duct casing for particulate filters (DCA)

Special features

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

Construction features

- Perimeter flat section seal on the upstream side
- 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

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 MDF, galvanised sheet steel, or stainless steel

Standards and guidelines

- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 μm
- The filters are classified into filter classes M5, M6, F7, F8 and F9 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)

Technical data

Filter class according to EN 779	M6	F7	F9
Average efficiency according to EN 779	65 %	85 %	>95 %
Initial differential pressure at nominal volume flow rate	90 Pa	110 Pa	140 Pa
Recommended final differential pressure	450 Pa	450 Pa	450 Pa
Maximum operating temperature	80 °C	80 °C	80 °C
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 %
Initial differential pressure at nominal volume flow rate	125 Pa	250 Pa	250 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 %

Order code

MFC

MFC – H13 – GAL / 610 × 610 × 292 × 10 / HMS / FNU / OT



1 Type

MFC Mini Pleat filter cell

2 Filter class

- 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

- MDF** Frame made of MDF
- GAL** Frame made of galvanised steel
- STA** Frame made of stainless steel

4 Nominal size [mm]

B × H × T

5 Number of filter packs

- 3**
- 5**
- 6**
- 10**
- 12**

6 Filter pack

- No entry: Standard
- HMS** Increased filter area

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

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)

Order example

MFC–H13–GAL/610×610×292×10/HMS/FNU/OT

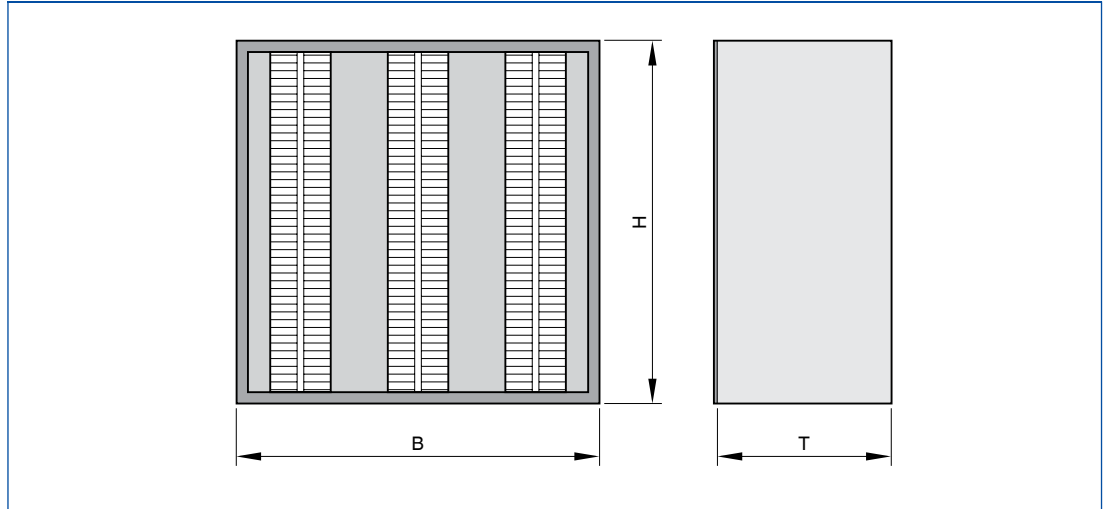
Filter class	H13 particulate filter according to EN 1822
Construction	frame made of galvanised steel
Nominal size	610 × 610 × 292 mm
Number of filter packs	10
Filter pack	increased filter area
Seal	flat section seal on the upstream side
Testing	oil mist test

Dimensions



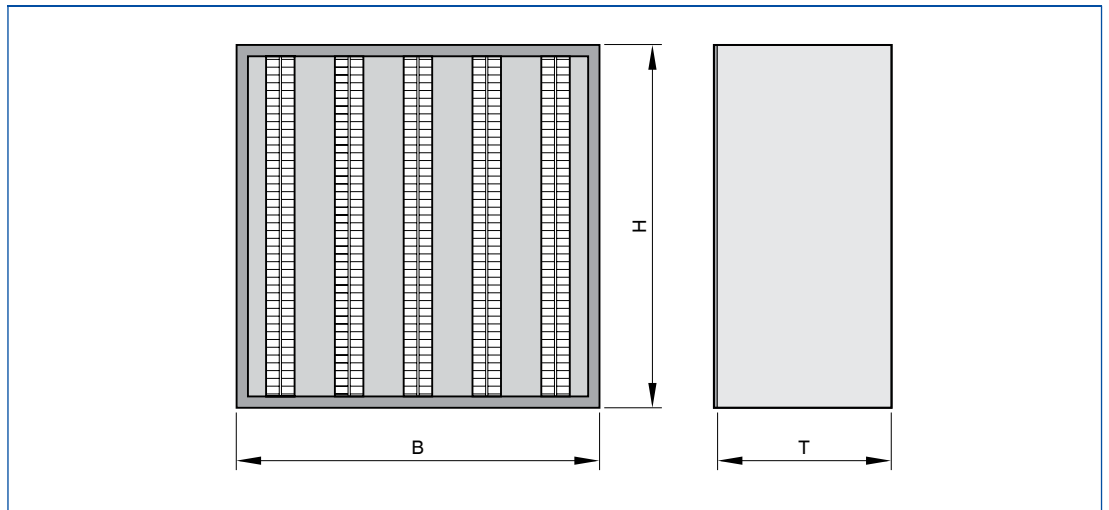
Mini Pleat filter cells, type MFC

Dimensional drawing of MFC-...



Number of filter packs:
B = 305 mm : 3
B = 610 mm : 6

Dimensional drawing of MFC-...



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

Standard construction

Mini Pleat filter cells MFC-...-MDF-...

7 All weights are net, without packaging.

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	610	292	3	M6	590	2125	90	9,2	8
610	610	292	6	M6	1181	4250	90	18,4	15
305	610	292	3	F7	590	2125	110	9,2	8
610	610	292	6	F7	1181	4250	110	18,4	15
305	610	292	3	F9	590	2125	140	9,2	8
610	610	292	6	F9	1181	4250	140	18,4	15
305	610	292	3	E11	306	1100	125	10,1	8
305	610	292	5	E11	417	1500	125	16,1	9
610	610	292	6	E11	611	2200	125	20,2	15
610	610	292	10	E11	833	3000	125	32,2	18
762	610	292	12	E11	1042	3750	125	38,6	22
203	610	292	3	H13	242	870	250	9,7	7
305	610	292	3	H13	306	1100	250	10,1	8
305	610	292	5	H13	417	1500	250	16,1	9
610	610	292	6	H13	611	2200	250	20,2	15
610	610	292	10	H13	833	3000	250	32,2	18
762	610	292	12	H13	1042	3750	250	38,6	22
305	610	292	5	H14	367	1320	250	16,1	9
610	610	292	10	H14	733	2640	250	32,2	18
762	610	292	12	H14	881	3170	250	38,6	22

① Number of filter packs ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure
⑤ Filter area ⑥ Weight

Mini Pleat filter cells MFC-...-GAL/STA...

Nominal size			①	②	③	④		⑤	⑥	⑦
B	H	T				l/s	m ³ /h	Pa	m ²	~ kg
305	610	292	3	M6		590	2125	90	9,8	9
610	610	292	6	M6		1181	4250	90	19,5	15
305	610	292	3	F7		590	2125	110	9,8	9
610	610	292	6	F7		1181	4250	110	19,5	15
305	610	292	3	F9		590	2125	140	9,8	9
610	610	292	6	F9		1181	4250	140	19,5	15
305	610	292	3	E11		347	1250	125	10,7	8
305	610	292	5	E11		472	1700	125	17,6	9
610	610	292	6	E11		694	2500	125	21,5	15
610	610	292	10	E11		944	3400	125	35,1	18
762	610	292	12	E11		1181	4250	125	42,1	22
203	610	292	3	H13		347	1250	250	10,7	7
305	610	292	5	H13		472	1700	250	17,6	9
610	610	292	6	H13		694	2500	250	21,5	15
610	610	292	10	H13		944	3400	250	35,1	18
762	610	292	12	H13		1181	4250	250	42,1	22
203	610	292	3	H13	HMS	320	1150	250	11,0	8
305	610	292	5	H13	HMS	556	2000	250	18,1	10
610	610	292	10	H13	HMS	1111	4000	250	36,2	19
762	610	292	12	H13	HMS	1389	5000	250	43,4	23
305	610	292	5	H14		417	1500	250	17,6	9
610	610	292	10	H14		833	3000	250	35,1	15
762	610	292	12	H14		1000	3600	250	42,1	22

① Number of filter packs ② Filter class ③ Filter pack ④ Nominal volume flow rate ⑤ Initial differential pressure
⑥ Filter area ⑦ Weight

Standard text

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

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.

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 purity 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.

Filter medium is made 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 cells are available in all commercial sizes, filter classes M6, F7, F9, E11, H13, H14.

As standard, Mini Pleat filter cells are supplied with a perimeter flat section seal on the upstream side.

Some constructions are available with optional foamed continuous seal on one or both sides or with a test groove seal on the upstream side.

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

Special features

- 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 provide a uniform spacing of the pleats
- Joint sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame made of either MDF, galvanised sheet steel, or stainless steel

Construction

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

Sizing data

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

Order options

1 Type

MFC Mini Pleat filter cell

2 Filter class

- 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

- MDF** Frame made of MDF
- GAL** Frame made of galvanised steel
- STA** Frame made of stainless steel

4 Nominal size [mm]

B × H × T

5 Number of filter packs

- 3
- 5
- 6
- 10
- 12

6 Filter pack

- No entry: Standard
- HMS** Increased filter area

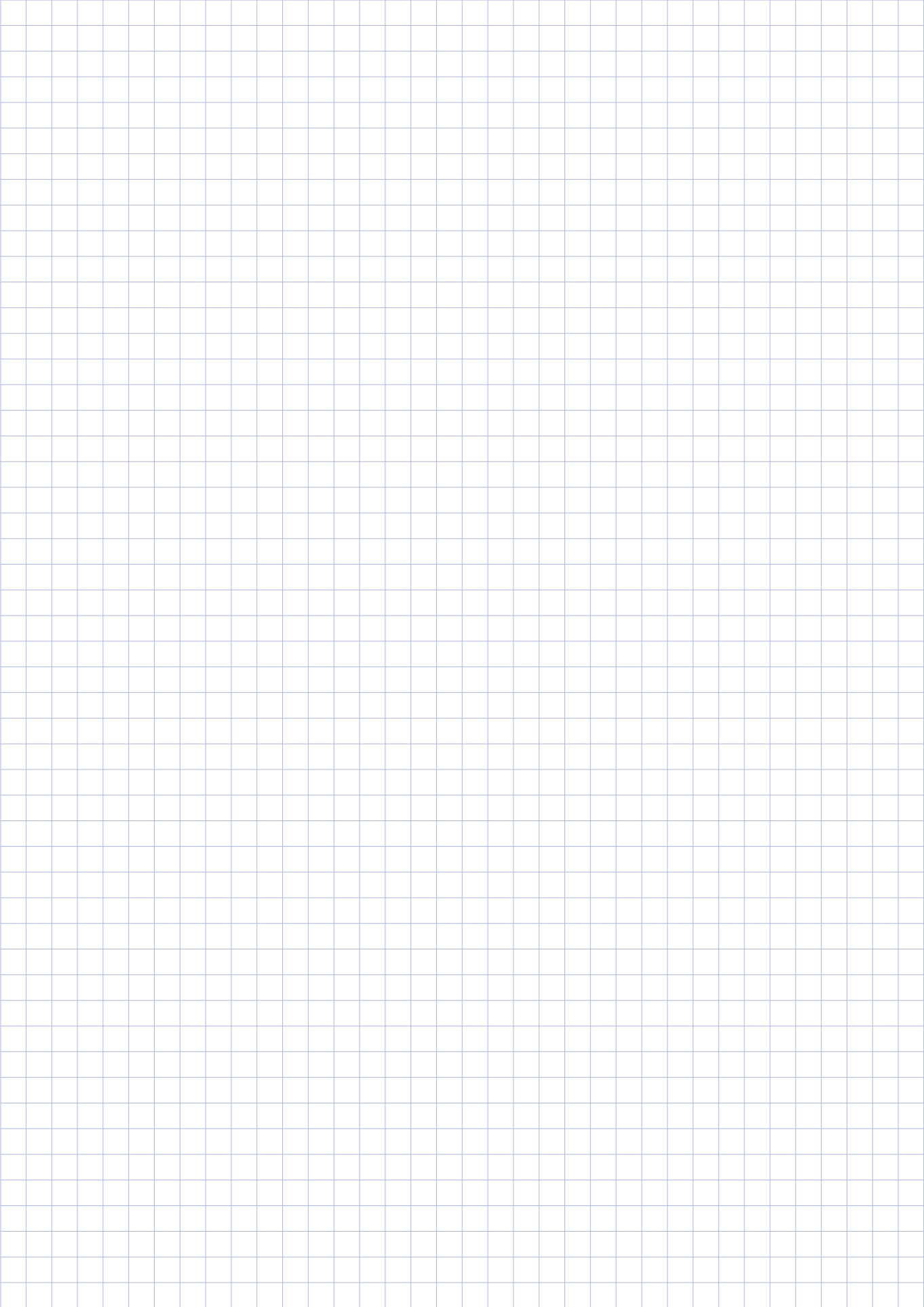
7 Seal

- 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

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)

7



Filter panels

Type MFP



For the most demanding requirements of air purity 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



Eurovent certification



Tested to VDI 6022

Type		Page
MFP	General information	7.4 – 2
	Order code	7.4 – 5
	Dimensions and weight – MFP-PLA	7.4 – 6
	Dimensions and weight – MFP-MDFF/MDF	7.4 – 8
	Dimensions and weight – MFP-GAL/STA	7.4 – 10
	Dimensions and weight – MFP-MDF	7.4 – 11
	Dimensions and weight – MFP-ALN	7.4 – 20
	Dimensions and weight – MFP-ALZ	7.4 – 21
	Dimensions and weight – MFP-ALY	7.4 – 23
	Dimensions and weight – MFP-ALU	7.4 – 25
	Dimensions and weight – MFP-ALV	7.4 – 26
	Specification text	7.4 – 27
	Basic information and nomenclature	10.1 – 1

Description



Mini Pleat filter panels, type MFP

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 purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Classification

- Eurovent certification for fine dust filters
- Constructions ALN, ALZ, ALY, ALU and ALV meet hygiene requirements

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 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)

Nominal sizes [mm]

- B × H × T

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)

Special features

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

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 profile

Standards and guidelines

- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8 and F9 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)
- Constructions ALN, ALZ, ALY, ALU and ALV meet the hygiene requirements of VDI 6022, VDI 3803, DIN 1946, part 4, ÖNORM H 6020, SWKI VA 104-01, SWKI 99-3, and EN 13779

Technical data

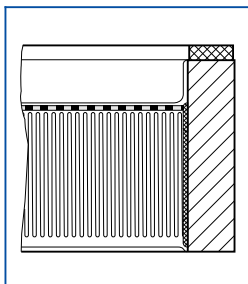
Filter class according to EN 779	M5	M6	F7	F9
Average efficiency according to EN 779	60 %	65 %	85 %	>95 %
Initial differential pressure at nominal volume flow rate	90 Pa	90 Pa	110 Pa	150 Pa
Recommended final differential pressure	450 Pa	450 Pa	450 Pa	450 Pa
Maximum operating temperature	80°C	80°C	80°C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

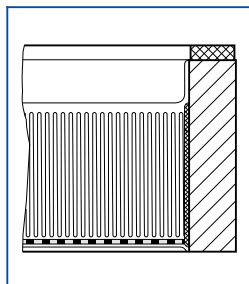
7

Protection grid

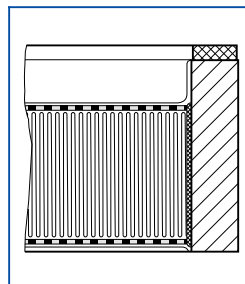
Upstream side



Downstream side

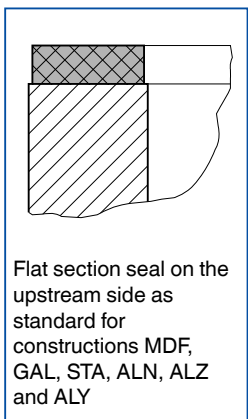


Both sides

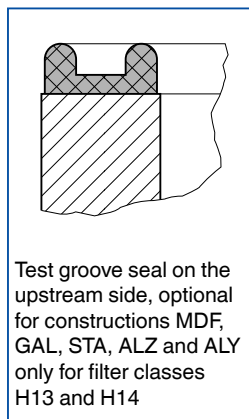


Seal

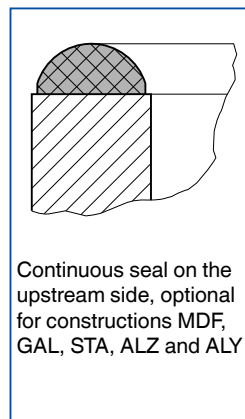
Flat section seal as standard



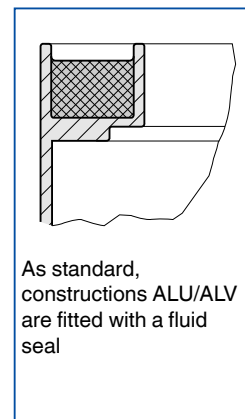
Seal with test groove



Continuous seal



Fluid seal



Order code

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
- MDF** 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)

Order example

MFP-H13-MDF/610x610x78x50/PD/FNU/ST

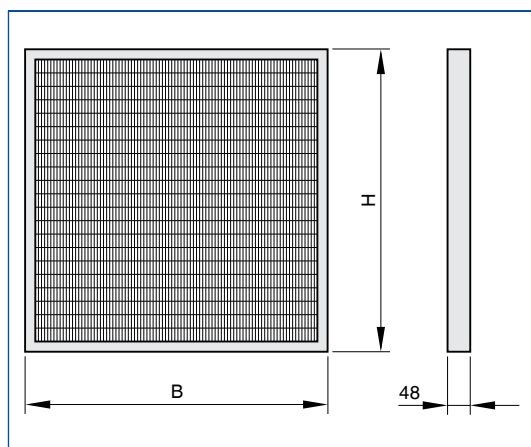
Filter class	H13 particulate filter according to EN 1822
Construction	frame made of MDF
Nominal size	610 × 610 × 78 mm
Pleat depth	50
Protection grid	downstream side
Seal	flat section seal on the upstream side
Testing	scan test

Dimensions

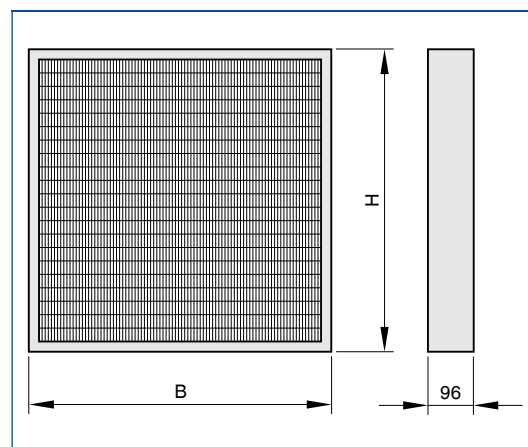


Mini Pleat filter panels
type MFP,
construction PLA

Dimensional drawing of MFP-...-PLA



Dimensional drawing of MFP-...-PLA



Standard construction

As standard, Mini Pleat filter panels with plastic frames are supplied without seal. Optional flat section seal or continuous seal, or optional protection grid, fitting as required.

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
287	287	48	40	M5	139	500	90	1,7	1
287	592	48	40	M5	306	1100	90	3,5	1
490	592	48	40	M5	564	2030	90	6,2	2
592	592	48	40	M5	694	2500	90	7,5	2
287	287	48	40	M6	139	500	90	1,7	1
287	592	48	40	M6	306	1100	90	3,5	1
490	592	48	40	M6	564	2030	90	6,2	2
592	592	48	40	M6	694	2500	90	7,5	2
287	287	48	40	F7	139	500	110	1,7	1
287	592	48	40	F7	306	1100	110	3,5	1
490	592	48	40	F7	564	2030	110	6,2	2
592	592	48	40	F7	694	2500	110	7,5	2
287	287	48	40	F9	139	500	150	1,7	1
287	592	48	40	F9	306	1100	150	3,5	1
490	592	48	40	F9	564	2030	150	6,2	2
592	592	48	40	F9	694	2500	150	7,5	2
287	287	96	80	M5	186	670	90	2,4	1
287	592	96	80	M5	417	1500	90	5,0	2
490	592	96	80	M5	769	2770	90	8,8	3
592	592	96	80	M5	944	3400	90	10,7	4
287	287	96	80	M6	186	670	90	2,4	1
287	592	96	80	M6	417	1500	90	5,0	2
490	592	96	80	M6	769	2770	90	8,8	3
592	592	96	80	M6	944	3400	90	10,7	4
287	287	96	80	F7	186	670	110	2,4	1
287	592	96	80	F7	417	1500	110	5,0	2
490	592	96	80	F7	769	2770	110	8,8	3
592	592	96	80	F7	944	3400	110	10,7	4
287	287	96	80	F9	186	670	150	2,4	1
287	592	96	80	F9	417	1500	150	5,0	2
490	592	96	80	F9	769	2770	150	8,8	3
592	592	96	80	F9	944	3400	150	10,7	4

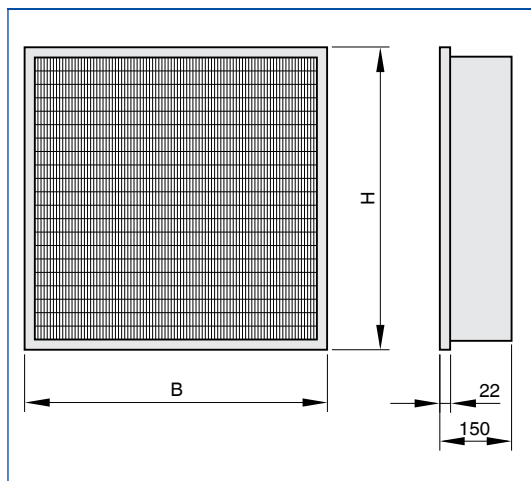
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction PLA

Dimensional drawing of MFP-...-PLA



Standard construction

As standard, Mini Pleat filter panels with plastic frames are supplied without seal. Optional flat section seal or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
287	287	150	120	M5	150	540	90	2,2	1
287	592	150	120	M5	378	1360	90	5,1	3
490	592	150	120	M5	756	2720	90	9,6	4
592	592	150	120	M5	944	3400	90	11,8	5
287	287	150	120	M6	150	540	90	2,2	1
287	592	150	120	M6	378	1360	90	5,1	3
490	592	150	120	M6	756	2720	90	9,6	4
592	592	150	120	M6	944	3400	90	11,8	5
287	287	150	120	F7	150	540	110	2,2	1
287	592	150	120	F7	378	1360	110	5,1	3
490	592	150	120	F7	756	2720	110	9,6	4
592	592	150	120	F7	944	3400	110	11,8	5
287	287	150	120	F9	150	540	150	2,2	1
287	592	150	120	F9	378	1360	150	5,1	3
490	592	150	120	F9	756	2720	150	9,6	4
592	592	150	120	F9	944	3400	150	11,8	5

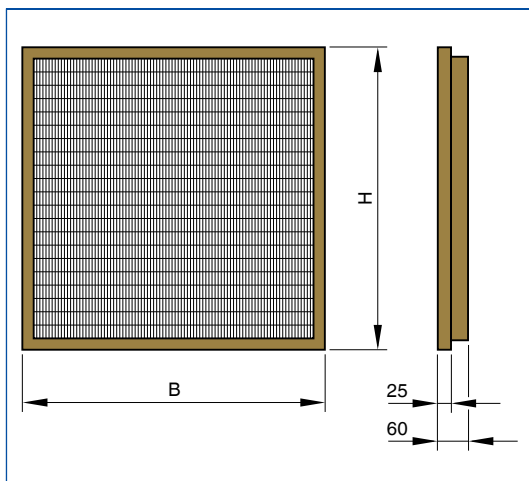
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction MDFF

Dimensional drawing of MFP...-MDFF



Standard construction

As standard, Mini Pleat filter panels with a frame made of MDFF have no seal.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
287	592	60	50	M6	303	1090	90	3,2	2
592	592	60	50	M6	694	2500	90	7,3	4
287	592	60	50	F7	303	1090	110	3,2	2
592	592	60	50	F7	694	2500	110	7,3	4
287	592	60	50	F9	303	1090	150	3,2	2
592	592	60	50	F9	694	2500	150	7,3	4

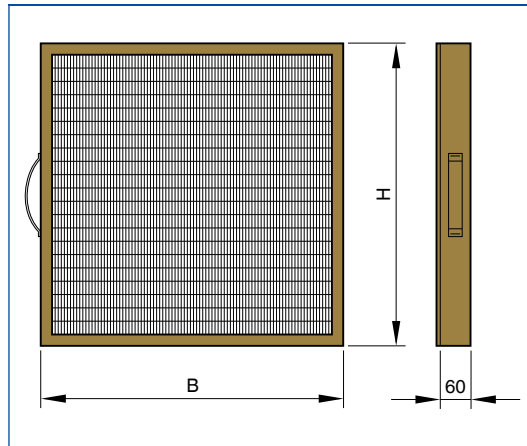
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction MDF

Dimensional drawing of MFP-...-MDF



Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side and with a handle (prefilters for ducted particulate filters type KSFS).

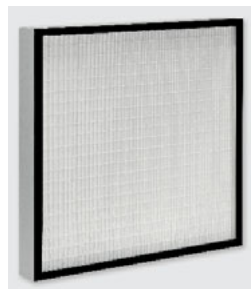
All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	610	60	50	M6	389	1400	90	3,8	2
610	610	60	50	M6	833	3000	90	8,2	3
762	610	60	50	M6	1056	3800	90	10,3	4
305	610	60	50	F7	389	1400	110	3,8	2
610	610	60	50	F7	833	3000	110	8,2	3
762	610	60	50	F7	1056	3800	110	10,3	4
305	610	60	50	F9	389	1400	150	3,8	2
610	610	60	50	F9	833	3000	150	8,2	3
762	610	60	50	F9	1056	3800	150	10,3	4

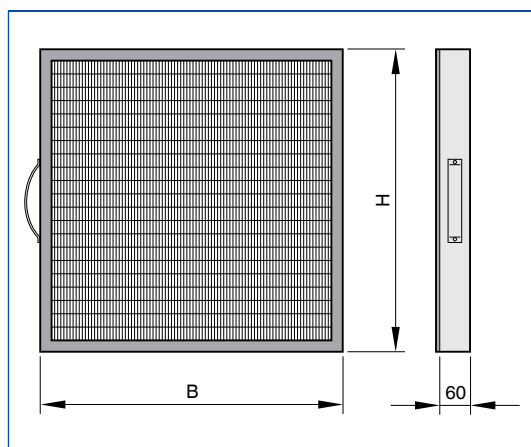
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction GAL/STA

Dimensional drawing of MFP-...-GAL/STA



Standard construction

As standard, Mini Pleat filter panels with a frame made of galvanised sheet steel or stainless steel are fitted with a flat section seal on the upstream side and with a handle (prefilters for ducted particulate filters type KSFS).

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	610	60	50	M6	389	1400	90	4,5	3
610	610	60	50	M6	833	3000	90	9,1	3
762	610	60	50	M6	1056	3800	90	11,4	4
305	610	60	50	F7	389	1400	110	4,5	3
610	610	60	50	F7	833	3000	110	9,1	3
762	610	60	50	F7	1056	3800	110	11,4	4
305	610	60	50	F9	389	1400	150	4,5	3
610	610	60	50	F9	833	3000	150	9,1	3
762	610	60	50	F9	1056	3800	150	11,4	4

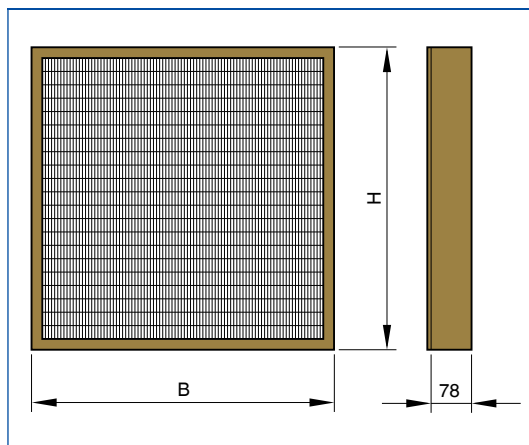
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction MDF

Dimensional drawing of MFP-...-MDF



Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side. Optional flat section seal or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m³/h			
305	305	78	50	M6	182	655	90	1,8	2
345	345	78	50	M6	240	865	90	2,3	2
435	435	78	50	M6	401	1445	90	3,9	2
457	457	78	50	M6	447	1610	90	4,4	3
535	535	78	50	M6	629	2265	90	6,2	3
575	575	78	50	M6	735	2645	90	7,2	3
305	610	78	50	M6	389	1400	90	3,8	3
610	610	78	50	M6	833	3000	90	8,2	4
305	305	78	50	F7	182	655	110	1,8	2
345	345	78	50	F7	240	865	110	2,3	2
435	435	78	50	F7	401	1445	110	3,9	2
457	457	78	50	F7	447	1610	110	4,4	3
535	535	78	50	F7	629	2265	110	6,2	3
575	575	78	50	F7	735	2645	110	7,2	3
305	610	78	50	F7	389	1400	110	3,8	3
610	610	78	50	F7	833	3000	110	8,2	4
305	305	78	50	F9	182	655	150	1,8	2
345	345	78	50	F9	240	865	150	2,3	2
435	435	78	50	F9	401	1445	150	3,9	2
457	457	78	50	F9	447	1610	150	4,4	3
535	535	78	50	F9	629	2265	150	6,2	3
575	575	78	50	F9	735	2645	150	7,2	3
305	610	78	50	F9	389	1400	150	3,8	3
610	610	78	50	F9	833	3000	150	8,2	4

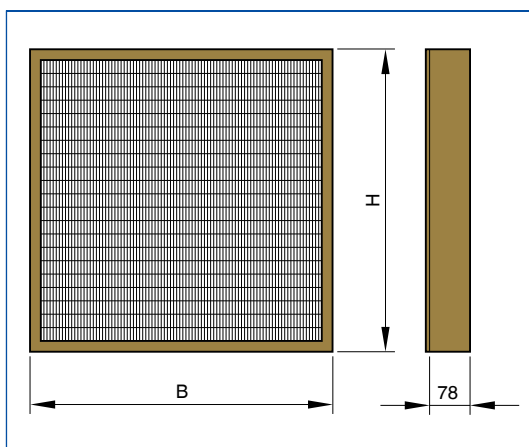
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions

Dimensional drawing of MFP-...-MDF



Mini Pleat filter panels
type MFP,
construction MDF



Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid (only for FT = 50), fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
203	203	78	50	E11	28	100	125	0,7	1
305	305	78	50	E11	72	260	125	1,9	2
345	345	78	50	E11	96	345	125	2,5	2
435	435	78	50	E11	160	575	125	4,2	2
457	457	78	50	E11	178	640	125	4,7	3
535	535	78	50	E11	250	900	125	6,6	3
835	535	78	50	E11	400	1440	125	10,7	4
1135	535	78	50	E11	551	1985	125	14,7	5
557	557	78	50	E11	272	980	125	7,2	3
575	575	78	50	E11	292	1050	125	7,8	3
305	610	78	50	E11	154	555	125	4,1	3
457	610	78	50	E11	242	870	125	6,4	3
610	610	78	50	E11	331	1190	125	8,8	4
762	610	78	50	E11	418	1505	125	11,1	4
915	610	78	50	E11	507	1825	125	13,5	5
1220	610	78	50	E11	683	2460	125	18,2	6
203	203	78	50	H13	28	100	250	0,7	1
305	305	78	50	H13	72	260	250	1,9	2
345	345	78	50	H13	96	345	250	2,5	2
435	435	78	50	H13	160	575	250	4,2	2
457	457	78	50	H13	178	640	250	4,7	3
535	535	78	50	H13	250	900	250	6,6	3
835	535	78	50	H13	400	1440	250	10,7	4
1135	535	78	50	H13	551	1985	250	14,7	5
557	557	78	50	H13	272	980	250	7,2	3
575	575	78	50	H13	292	1050	250	7,8	3
305	610	78	50	H13	154	555	250	4,1	3
457	610	78	50	H13	242	870	250	6,4	3
610	610	78	50	H13	331	1190	250	8,8	4
762	610	78	50	H13	418	1505	250	11,1	4
915	610	78	50	H13	507	1825	250	13,5	5
1220	610	78	50	H13	683	2460	250	18,2	6

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid (only for FT = 50), fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m³/h			
203	203	78	50	H14	14	50	120	0,8	1
305	305	78	50	H14	36	130	120	2,1	2
345	345	78	50	H14	49	175	120	2,8	2
435	435	78	50	H14	81	290	120	4,7	2
457	457	78	50	H14	90	325	120	5,2	3
535	535	78	50	H14	126	455	120	7,4	3
835	535	78	50	H14	203	730	120	11,8	4
1135	535	78	50	H14	281	1010	120	16,3	5
557	557	78	50	H14	139	500	120	8,0	3
575	575	78	50	H14	149	535	120	8,6	3
305	610	78	50	H14	78	280	120	4,6	3
457	610	78	50	H14	124	445	120	7,2	3
610	610	78	50	H14	168	605	120	9,8	4
762	610	78	50	H14	213	765	120	12,4	4
915	610	78	50	H14	258	930	120	15,0	5
1220	610	78	50	H14	347	1250	120	20,2	6
203	203	78	68	H13	35	125	250	1,0	1
305	305	78	68	H13	90	325	250	2,5	2
345	345	78	68	H13	119	430	250	3,3	2
435	435	78	68	H13	201	725	250	5,5	2
457	457	78	68	H13	224	805	250	6,2	3
535	535	78	68	H13	314	1130	250	8,7	3
835	535	78	68	H13	504	1815	250	14,0	4
1135	535	78	68	H13	694	2500	250	19,2	5
557	557	78	68	H13	343	1235	250	9,5	3
575	575	78	68	H13	367	1320	250	10,2	3
305	610	78	68	H13	194	700	250	5,4	3
457	610	78	68	H13	306	1100	250	8,4	3
610	610	78	68	H13	417	1500	250	11,5	4
762	610	78	68	H13	528	1900	250	14,6	4
915	610	78	68	H13	639	2300	250	17,7	5
1220	610	78	68	H13	861	3100	250	23,8	6
203	203	78	68	H14	18	65	120	1,1	1
305	305	78	68	H14	46	165	120	2,8	2
345	345	78	68	H14	60	215	120	3,7	2
435	435	78	68	H14	101	365	120	6,2	2
457	457	78	68	H14	113	405	120	6,9	3
535	535	78	68	H14	158	570	120	9,7	3
835	535	78	68	H14	251	905	120	15,6	4
1135	535	78	68	H14	350	1260	120	21,4	5
557	557	78	68	H14	172	620	120	10,6	3
575	575	78	68	H14	185	665	120	11,3	3
305	610	78	68	H14	97	350	120	6,0	3
457	610	78	68	H14	154	555	120	9,4	3
610	610	78	68	H14	210	755	120	12,9	4
762	610	78	68	H14	265	955	120	16,3	4
915	610	78	68	H14	322	1160	120	19,7	5
1220	610	78	68	H14	433	1560	120	26,6	6

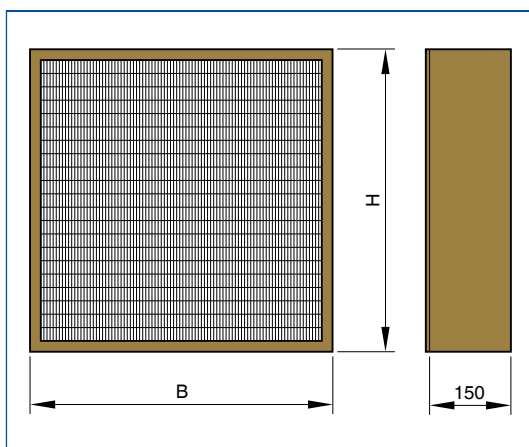
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions

Dimensional drawing of MFP-...-MDF



Mini Pleat filter panels
type MFP,
construction MDF



Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
203	203	150	50	E11	28	100	125	0,7	1
305	305	150	50	E11	72	260	125	1,9	3
345	345	150	50	E11	96	345	125	2,5	4
435	435	150	50	E11	160	575	125	4,2	5
457	457	150	50	E11	178	640	125	4,7	5
535	535	150	50	E11	250	900	125	6,6	7
575	575	150	50	E11	292	1050	125	7,8	7
305	610	150	50	E11	154	555	125	4,1	5
457	610	150	50	E11	242	870	125	6,4	6
610	610	150	50	E11	331	1190	125	8,8	8
762	610	150	50	E11	418	1505	125	11,1	9
915	610	150	50	E11	507	1825	125	13,5	10
1220	610	150	50	E11	683	2460	125	18,2	13
203	203	150	50	H13	28	100	250	0,7	1
305	305	150	50	H13	72	260	250	1,9	3
345	345	150	50	H13	96	345	250	2,5	4
435	435	150	50	H13	160	575	250	4,2	5
457	457	150	50	H13	178	640	250	4,7	5
535	535	150	50	H13	250	900	250	6,6	7
575	575	150	50	H13	292	1050	250	7,8	7
305	610	150	50	H13	154	555	250	4,1	5
457	610	150	50	H13	242	870	250	6,4	6
610	610	150	50	H13	331	1190	250	8,8	8
762	610	150	50	H13	418	1505	250	11,1	9
915	610	150	50	H13	507	1825	250	13,5	10
1220	610	150	50	H13	683	2460	250	18,2	13

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
203	203	150	68	H13	35	125	250	1,0	1
305	305	150	68	H13	90	325	250	2,5	3
345	345	150	68	H13	119	430	250	3,3	4
435	435	150	68	H13	201	725	250	5,5	5
457	457	150	68	H13	224	805	250	6,2	6
535	535	150	68	H13	314	1130	250	8,7	7
575	575	150	68	H13	367	1320	250	10,2	8
305	610	150	68	H13	194	700	250	5,4	5
457	610	150	68	H13	306	1100	250	8,4	6
610	610	150	68	H13	417	1500	250	11,5	8
762	610	150	68	H13	528	1900	250	14,6	10
915	610	150	68	H13	639	2300	250	17,7	11
1220	610	150	68	H13	861	3100	250	23,8	14
203	203	150	120	H13	49	175	250	1,5	2
305	305	150	120	H13	128	460	250	3,9	4
345	345	150	120	H13	168	605	250	5,2	5
435	435	150	120	H13	281	1010	250	8,7	5
457	457	150	120	H13	313	1125	250	9,6	6
535	535	150	120	H13	440	1585	250	13,6	7
575	575	150	120	H13	514	1850	250	15,9	8
305	610	150	120	H13	272	980	250	8,4	6
457	610	150	120	H13	428	1540	250	13,2	7
610	610	150	120	H13	583	2100	250	18,0	9
762	610	150	120	H13	739	2660	250	22,8	10
915	610	150	120	H13	894	3220	250	27,6	12
1220	610	150	120	H13	1206	4340	250	37,2	15
203	203	150	120	H14	26	95	140	1,5	2
305	305	150	120	H14	69	250	140	3,9	4
345	345	150	120	H14	92	330	140	5,2	5
435	435	150	120	H14	154	555	140	8,7	5
457	457	150	120	H14	171	615	140	9,6	6
535	535	150	120	H14	242	870	140	13,6	7
575	575	150	120	H14	282	1015	140	15,9	8
305	610	150	120	H14	149	535	140	8,4	6
457	610	150	120	H14	233	840	140	13,2	7
610	610	150	120	H14	319	1150	140	18,0	9
762	610	150	120	H14	404	1455	140	22,8	10
915	610	150	120	H14	490	1765	140	27,6	12
1220	610	150	120	H14	660	2375	140	37,2	15

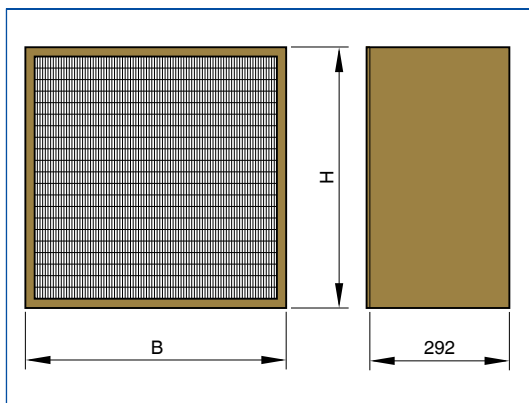
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP, construction
MDF

Dimensional drawing of MFP-...-MDF



Standard construction

As standard, Mini Pleat filter panels with a frame made of MDF are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	292	150	E11	128	460	125	4,5	6
457	457	292	150	E11	314	1130	125	11,0	10
305	610	292	150	E11	272	980	125	9,6	9
457	610	292	150	E11	428	1540	125	15,0	11
610	610	292	150	E11	583	2100	125	20,5	14
762	610	292	150	E11	739	2660	125	26,0	17
915	610	292	150	E11	875	3150	125	30,8	20
1220	610	292	150	E11	1186	4270	125	41,8	27
305	305	292	120	H13	128	460	250	3,9	6
457	457	292	120	H13	314	1130	250	9,6	10
305	610	292	120	H13	272	980	250	8,4	9
457	610	292	120	H13	428	1540	250	13,2	11
610	610	292	120	H13	583	2100	250	18,0	14
762	610	292	120	H13	739	2660	250	22,8	17
915	610	292	120	H13	875	3150	250	27,0	20
1220	610	292	120	H13	1186	4270	250	36,6	27
305	305	292	180	H13	151	545	250	4,8	7
457	457	292	180	H13	372	1340	250	12,0	11
305	610	292	180	H13	324	1165	250	10,4	10
457	610	292	180	H13	508	1830	250	16,3	12
610	610	292	180	H13	694	2500	250	22,3	15
762	610	292	180	H13	879	3165	250	28,2	19
915	610	292	180	H13	1042	3750	250	33,5	22
1220	610	292	180	H13	1413	5085	250	45,3	30
305	305	292	180	H14	90	325	140	4,8	7
457	457	292	180	H14	224	805	140	12,0	11
305	610	292	180	H14	194	700	140	10,4	10
457	610	292	180	H14	306	1100	140	16,3	12
610	610	292	180	H14	417	1500	140	22,3	15
762	610	292	180	H14	528	1900	140	28,2	19
915	610	292	180	H14	625	2250	140	33,5	22
1220	610	292	180	H14	847	3050	140	45,3	30

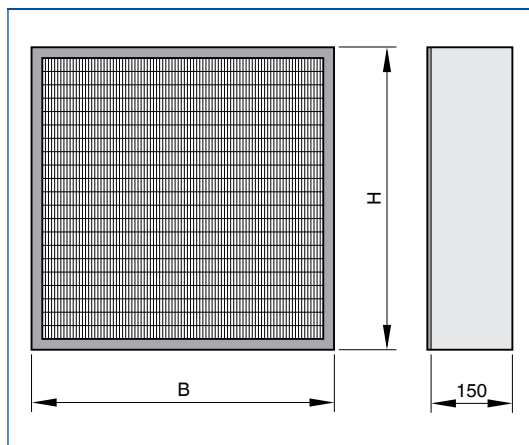
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction GAL/STA

Dimensional drawing of MFP-...-GAL/STA



Standard construction

As standard, Mini Pleat filter panels with a frame made of galvanised sheet steel or stainless steel are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	305	150	50	E11	79	285	125	2,4	3
345	345	150	50	E11	104	375	125	3,1	4
435	435	150	50	E11	174	625	125	5,0	5
457	457	150	50	E11	194	700	125	5,5	5
535	535	150	50	E11	272	980	125	7,6	7
575	575	150	50	E11	318	1145	125	8,7	7
305	610	150	50	E11	168	605	125	4,9	5
457	610	150	50	E11	264	950	125	7,4	6
610	610	150	50	E11	361	1300	125	9,8	8
762	610	150	50	E11	457	1645	125	12,3	9
915	610	150	50	E11	554	1995	125	14,8	11
1220	610	150	50	E11	746	2685	125	19,7	13
305	305	150	50	H13	79	285	250	2,4	3
345	345	150	50	H13	104	375	250	3,1	4
435	435	150	50	H13	174	625	250	5,0	5
457	457	150	50	H13	194	700	250	5,5	5
535	535	150	50	H13	272	980	250	7,6	7
575	575	150	50	H13	318	1145	250	8,7	7
305	610	150	50	H13	168	605	250	4,9	5
457	610	150	50	H13	264	950	250	7,4	6
610	610	150	50	H13	361	1300	250	9,8	8
762	610	150	50	H13	457	1645	250	12,3	9
915	610	150	50	H13	554	1995	250	14,8	11
1220	610	150	50	H13	746	2685	250	19,7	13

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

As standard, Mini Pleat filter panels with a frame made of galvanised sheet steel or stainless steel are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	150	68	H13	100	360	250	3,2	4
345	345	150	68	H13	132	475	250	4,1	5
435	435	150	68	H13	221	795	250	6,5	5
457	457	150	68	H13	246	885	250	7,2	6
535	535	150	68	H13	346	1245	250	9,9	7
575	575	150	68	H13	404	1455	250	11,4	8
305	610	150	68	H13	214	770	250	6,4	5
457	610	150	68	H13	336	1210	250	9,6	6
610	610	150	68	H13	458	1650	250	12,9	8
762	610	150	68	H13	581	2090	250	16,1	10
915	610	150	68	H13	703	2530	250	19,4	11
1220	610	150	68	H13	947	3410	250	25,9	14
305	305	150	120	H13	140	505	250	4,9	4
345	345	150	120	H13	185	665	250	6,3	5
435	435	150	120	H13	310	1115	250	10,2	5
457	457	150	120	H13	344	1240	250	11,2	6
535	535	150	120	H13	485	1745	250	15,4	7
575	575	150	120	H13	565	2035	250	17,9	8
305	610	150	120	H13	300	1080	250	10,0	6
457	610	150	120	H13	469	1690	250	15,1	7
610	610	150	120	H13	642	2310	250	20,1	9
762	610	150	120	H13	813	2925	250	25,2	10
915	610	150	120	H13	983	3540	250	30,3	12
1220	610	150	120	H13	1326	4775	250	40,4	14
305	305	150	120	H14	76	275	140	4,9	4
345	345	150	120	H14	101	365	140	6,3	5
435	435	150	120	H14	169	610	140	10,2	5
457	457	150	120	H14	189	680	140	11,2	6
535	535	150	120	H14	265	955	140	15,4	7
575	575	150	120	H14	310	1115	140	17,9	8
305	610	150	120	H14	164	590	140	10,0	6
457	610	150	120	H14	257	925	140	15,1	7
610	610	150	120	H14	351	1265	140	20,1	9
762	610	150	120	H14	444	1600	140	25,2	10
915	610	150	120	H14	539	1940	140	30,3	12
1220	610	150	120	H14	726	2615	140	40,4	14

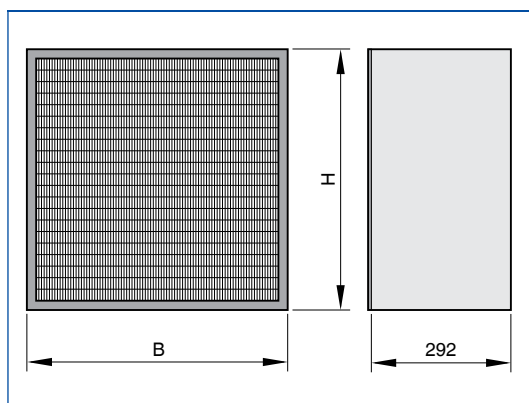
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction GAL/STA

Dimensional drawing of MFP-...-GAL/STA



Standard construction

As standard, Mini Pleat filter panels with a frame made of galvanised sheet steel or stainless steel are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

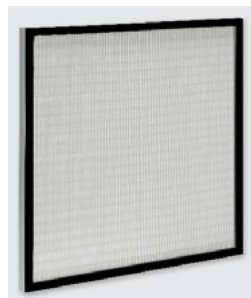
All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	292	150	E11	140	505	125	5,6	7
457	457	292	150	E11	344	1240	125	12,8	11
305	610	292	150	E11	300	1080	125	11,4	10
457	610	292	150	E11	469	1690	125	17,2	12
610	610	292	150	E11	642	2310	125	23,0	15
762	610	292	150	E11	813	2925	125	28,7	19
305	305	292	120	H13	140	505	250	4,9	7
457	457	292	120	H13	344	1240	250	11,2	11
305	610	292	120	H13	300	1080	250	10,0	10
457	610	292	120	H13	469	1690	250	15,1	12
610	610	292	120	H13	642	2310	250	20,1	15
762	610	292	120	H13	813	2925	250	25,2	19
305	305	292	180	H13	167	600	250	6,1	7
457	457	292	180	H13	410	1475	250	13,9	11
305	610	292	180	H13	357	1285	250	12,4	10
457	610	292	180	H13	560	2015	250	18,7	13
610	610	292	180	H13	764	2750	250	25,0	16
762	610	292	180	H13	967	3480	250	31,2	20
305	305	292	180	H14	100	360	140	6,1	7
457	457	292	180	H14	246	885	140	13,9	11
305	610	292	180	H14	214	770	140	12,4	10
457	610	292	180	H14	336	1210	140	18,7	13
610	610	292	180	H14	458	1650	140	25,0	16
762	610	292	180	H14	581	2090	140	31,2	20

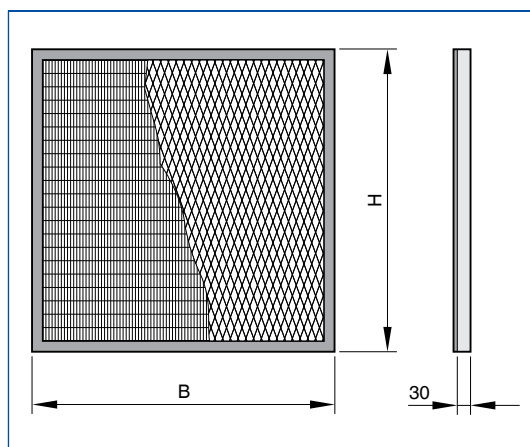
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction ALN

Dimensional drawing of MFP-...-ALN



Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a flat section seal on the upstream side and a protection grid on the downstream side. Filter class H13 with leakage test. Optional flat section or continuous seal, or optional protection grid, fitting as required.

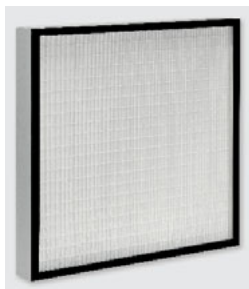
All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
610	610	30	20	E11	149	535	125	5,1	3
762	610	30	20	E11	189	680	125	6,4	3
915	610	30	20	E11	228	820	125	7,7	4
1220	610	30	20	E11	308	1110	125	10,3	5
610	610	30	20	H13	149	535	250	5,1	3
762	610	30	20	H13	189	680	250	6,4	3
915	610	30	20	H13	228	820	250	7,7	4
1220	610	30	20	H13	308	1110	250	10,3	5

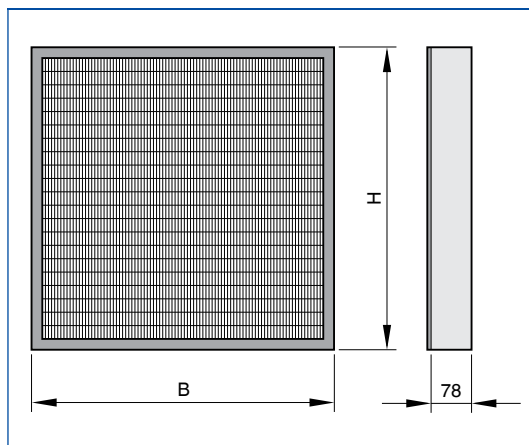
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction ALZ

Dimensional drawing of MFP-...-ALZ



Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a flat section seal on the upstream side. Optional flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	78	50	M6	182	655	90	2,2	2
345	345	78	50	M6	240	865	90	2,9	2
435	435	78	50	M6	401	1445	90	4,6	2
457	457	78	50	M6	447	1610	90	5,1	3
535	535	78	50	M6	629	2265	90	7,0	3
575	575	78	50	M6	735	2645	90	8,1	3
305	610	78	50	M6	389	1400	90	4,5	3
610	610	78	50	M6	833	3000	90	9,2	4
305	305	78	50	F7	182	655	110	2,2	2
345	345	78	50	F7	240	865	110	2,9	2
435	435	78	50	F7	401	1445	110	4,6	2
457	457	78	50	F7	447	1610	110	5,1	3
535	535	78	50	F7	629	2265	110	7,0	3
575	575	78	50	F7	735	2645	110	8,1	3
305	610	78	50	F7	389	1400	110	4,5	3
610	610	78	50	F7	833	3000	110	9,2	4
305	305	78	50	F9	182	655	150	2,2	2
345	345	78	50	F9	240	865	150	2,9	2
435	435	78	50	F9	401	1445	150	4,6	2
457	457	78	50	F9	447	1610	150	5,1	3
535	535	78	50	F9	629	2265	150	7,0	3
575	575	78	50	F9	735	2645	150	8,1	3
305	610	78	50	F9	389	1400	150	4,5	3
610	610	78	50	F9	833	3000	150	9,2	4

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m³/h			
305	305	78	50	E11	72	260	125	2,4	2
345	345	78	50	E11	96	345	125	3,1	2
435	435	78	50	E11	160	575	125	5,0	2
457	457	78	50	E11	178	640	125	5,5	3
535	535	78	50	E11	250	900	125	7,6	3
835	535	78	50	E11	400	1440	125	11,9	4
1135	535	78	50	E11	551	1985	125	16,2	5
557	557	78	50	E11	272	980	125	8,2	3
575	575	78	50	E11	292	1050	125	8,8	3
305	610	78	50	E11	154	555	125	4,9	3
457	610	78	50	E11	242	870	125	7,4	3
610	610	78	50	E11	331	1190	125	9,9	4
762	610	78	50	E11	418	1505	125	12,4	4
915	610	78	50	E11	507	1825	125	14,9	5
1220	610	78	50	E11	683	2460	125	19,8	6
305	305	78	50	H13	72	260	250	2,4	2
345	345	78	50	H13	96	345	250	3,1	2
435	435	78	50	H13	160	575	250	5,0	2
457	457	78	50	H13	178	640	250	5,5	3
535	535	78	50	H13	250	900	250	7,6	3
835	535	78	50	H13	400	1440	250	11,9	4
1135	535	78	50	H13	551	1985	250	16,2	5
557	557	78	50	H13	272	980	250	8,2	3
575	575	78	50	H13	292	1050	250	8,8	3
305	610	78	50	H13	154	555	250	4,9	3
457	610	78	50	H13	242	870	250	7,4	3
610	610	78	50	H13	331	1190	250	9,9	4
762	610	78	50	H13	418	1505	250	12,4	4
915	610	78	50	H13	507	1825	250	14,9	5
1220	610	78	50	H13	683	2460	250	19,8	6
305	305	78	50	H14	36	130	120	2,7	2
345	345	78	50	H14	49	175	120	3,5	2
435	435	78	50	H14	81	290	120	5,5	2
457	457	78	50	H14	90	325	120	6,1	3
535	535	78	50	H14	126	455	120	8,4	3
835	535	78	50	H14	203	730	120	13,2	4
1135	535	78	50	H14	281	1010	120	17,9	5
557	557	78	50	H14	139	500	120	9,1	3
575	575	78	50	H14	149	535	120	9,7	3
305	610	78	50	H14	78	280	120	5,5	3
457	610	78	50	H14	124	445	120	8,2	3
610	610	78	50	H14	168	605	120	11,0	4
762	610	78	50	H14	213	765	120	13,7	4
915	610	78	50	H14	258	930	120	16,5	5
1220	610	78	50	H14	342	1230	120	22,0	6

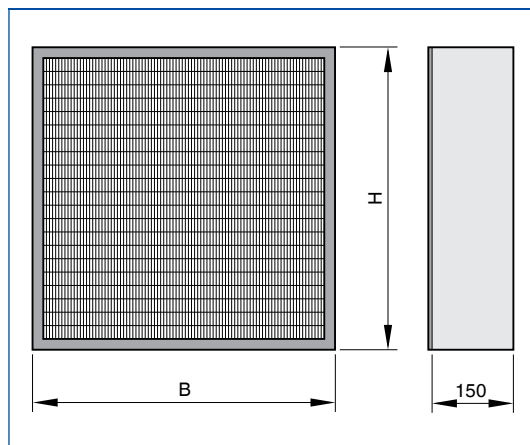
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels
type MFP,
construction ALY

Dimensional drawing of MFP-...-ALY



Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	150	50	E11	72	260	125	2,1	3
345	345	150	50	E11	96	345	125	2,8	4
435	435	150	50	E11	160	575	125	4,5	5
457	457	150	50	E11	178	640	125	5,0	5
535	535	150	50	E11	250	900	125	7,0	6
575	575	150	50	E11	292	1050	125	8,2	7
305	610	150	50	E11	154	555	125	4,4	5
457	610	150	50	E11	242	870	125	6,8	6
610	610	150	50	E11	331	1190	125	9,2	8
762	610	150	50	E11	418	1505	125	11,6	9
915	610	150	50	E11	507	1825	125	14,0	11
1220	610	150	50	E11	683	2460	125	18,9	13
305	305	150	50	H13	72	260	250	2,1	3
345	345	150	50	H13	96	345	250	2,8	4
435	435	150	50	H13	160	575	250	4,5	5
457	457	150	50	H13	178	640	250	5,0	5
535	535	150	50	H13	250	900	250	7,0	6
575	575	150	50	H13	292	1050	250	8,2	7
305	610	150	50	H13	154	555	250	4,4	5
457	610	150	50	H13	242	870	250	6,8	6
610	610	150	50	H13	331	1190	250	9,2	8
762	610	150	50	H13	418	1505	250	11,6	9
915	610	150	50	H13	507	1825	250	14,0	11
1220	610	150	50	H13	683	2460	250	18,9	13
305	305	150	68	H13	90	325	250	2,8	4
345	345	150	68	H13	119	430	250	3,6	5
435	435	150	68	H13	201	725	250	5,9	5
457	457	150	68	H13	224	805	250	6,6	6
535	535	150	68	H13	314	1130	250	9,2	7
575	575	150	68	H13	367	1320	250	10,7	8
305	610	150	68	H13	194	700	250	5,8	5
457	610	150	68	H13	306	1100	250	8,9	6
610	610	150	68	H13	417	1500	250	12,1	8
762	610	150	68	H13	528	1900	250	15,2	10
915	610	150	68	H13	639	2300	250	18,4	11
1220	610	150	68	H13	861	3100	250	24,7	14

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a flat section seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional test groove seal on the upstream side (for filter classes H13 and H14), flat section or continuous seal, or optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	150	120	H13	128	460	250	4,3	4
345	345	150	120	H13	168	605	250	5,7	5
435	435	150	120	H13	281	1010	250	9,3	5
457	457	150	120	H13	313	1125	250	10,3	6
535	535	150	120	H13	440	1585	250	14,4	7
575	575	150	120	H13	514	1850	250	16,7	8
305	610	150	120	H13	272	980	250	9,1	6
457	610	150	120	H13	428	1540	250	14,0	7
610	610	150	120	H13	583	2100	250	18,9	9
762	610	150	120	H13	739	2660	250	23,8	11
915	610	150	120	H13	894	3220	250	28,7	12
1220	610	150	120	H13	1206	4340	250	38,6	15
305	305	150	120	H14	69	250	140	4,3	4
345	345	150	120	H14	92	330	140	5,7	5
435	435	150	120	H14	154	555	140	9,3	5
457	457	150	120	H14	171	615	140	10,3	6
535	535	150	120	H14	242	870	140	14,4	7
575	575	150	120	H14	282	1015	140	16,7	8
305	610	150	120	H14	149	535	140	9,1	6
457	610	150	120	H14	233	840	140	14,0	7
610	610	150	120	H14	319	1150	140	18,9	9
762	610	150	120	H14	404	1455	140	23,8	11
915	610	150	120	H14	490	1765	140	28,7	12
1220	610	150	120	H14	660	2375	140	38,6	15

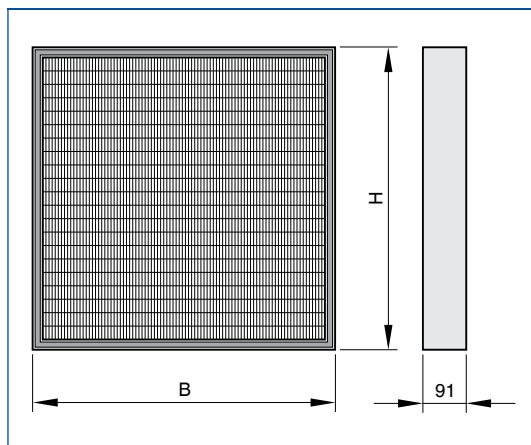
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions

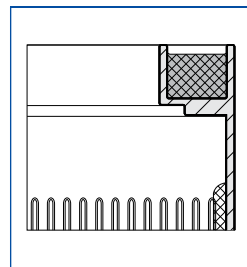


Mini Pleat filter panels
type MFP,
construction ALU

Dimensional drawing of MFP-...-ALU



Detail of MFP-...-ALU



Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a fluid seal on the upstream side. Filter classes H13 and H14 with leakage test. Optional protection grid, fitting as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	91	50	H13	72	260	250	2,4	2
345	345	91	50	H13	96	345	250	3,1	2
435	435	91	50	H13	160	575	250	5,0	2
457	457	91	50	H13	178	640	250	5,5	3
535	535	91	50	H13	250	900	250	7,6	3
835	535	91	50	H13	400	1440	250	11,9	4
1135	535	91	50	H13	551	1985	250	16,2	5
575	575	91	50	H13	292	1050	250	8,8	3
610	610	91	50	H13	331	1190	250	9,9	4
305	305	91	50	H14	36	130	120	2,7	2
345	345	91	50	H14	49	175	120	3,5	2
435	435	91	50	H14	81	290	120	5,5	2
457	457	91	50	H14	90	325	120	6,1	3
535	535	91	50	H14	126	455	120	8,4	3
835	535	91	50	H14	203	730	120	13,2	4
1135	535	91	50	H14	281	1010	120	17,9	5
575	575	91	50	H14	149	535	120	9,7	3
610	610	91	50	H14	168	605	120	11,0	4

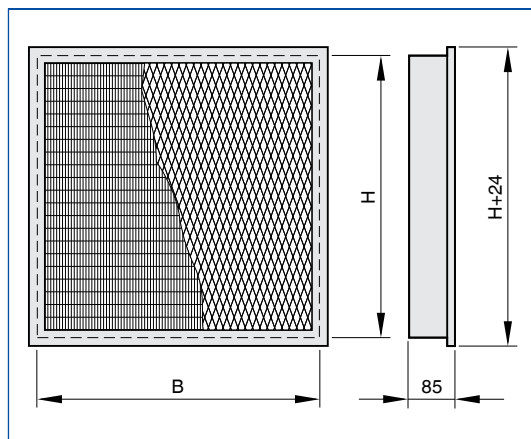
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

7 Dimensions

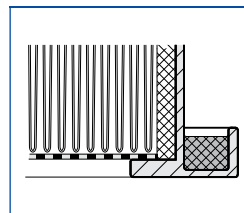


Mini Pleat filter panels
type MFP,
construction ALV

Dimensional drawing of MFP-...-ALV



Detail of MFP-...-ALV



Standard construction

As standard, Mini Pleat filter panels with a frame made of extruded aluminium profile are fitted with a fluid seal and a protection grid on the downstream side. Filter classes H13 and H14 with leakage test. Protection grid on both sides as an option.

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
295	295	85	50	E11	67	240	125	2,3	3
395	395	85	50	E11	128	460	125	4,1	4
495	495	85	50	E11	211	760	125	6,5	5
520	520	85	50	E11	235	845	125	7,2	6
295	295	85	50	H13	67	240	250	2,3	3
395	395	85	50	H13	128	460	250	4,1	4
495	495	85	50	H13	211	760	250	6,5	5
520	520	85	50	H13	235	845	250	7,2	6
295	295	85	68	H14	42	150	120	3,3	3
395	395	85	68	H14	81	290	120	6,0	4
495	495	85	68	H14	133	480	120	9,5	5
520	520	85	68	H14	147	530	120	10,5	6

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard text

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

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 purity 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 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 profile meet the hygiene requirements of VDI 6022.

Special features

- 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 profile

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 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)

Sizing data

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

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)

Filter cartridges

Type MFCA



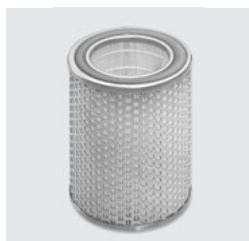
Compact construction for special applications

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

- Filter classes E11, H13
- Performance data tested to EN 1822
- 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

Type		Page
MFCA	General information	7.5 – 2
	Order code	7.5 – 3
	Dimensions and weight	7.5 – 4
	Specification text	7.5 – 5
	Basic information and nomenclature	10.1 – 1

Description



Mini Pleat filter cartridge, type MFCA

Application

- Mini Pleat filter cartridge type MFCA for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in ventilation systems
- Particulate filter: Main or final filter used for the most critical requirements of air purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Filter classes

- Particulate filters E11, H13

Construction

- AL: Casing made of aluminium

Nominal sizes [mm]

- D × H

Special features

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

Construction features

- 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

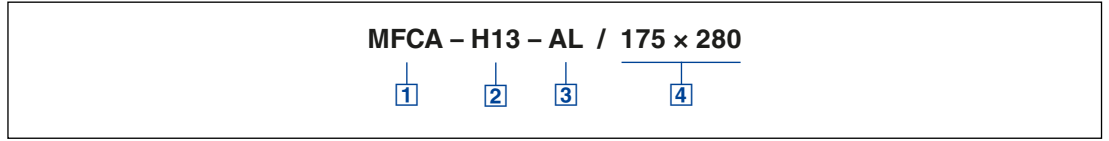
- Testing of particulate filters to EN 1822 (EPA, HEPA and ULPA filters): European standard for the testing of filtration performance in the factory, particle counting method using a liquid test aerosol
- Uniform classification of particulate filters according to efficiency, using a test aerosol whose 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 data

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

Order code

MFCA



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 x H

Order example

MFCA-H13-AL/175x180

Filter class

H13 particulate filter according to EN 1822

Construction

casing made of aluminium

Nominal size

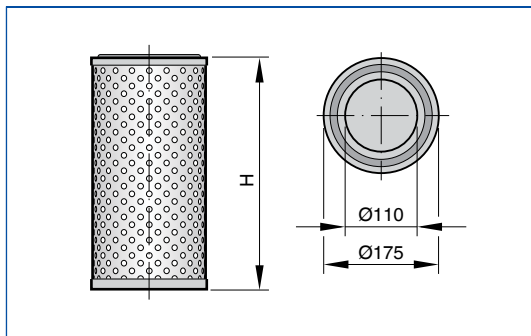
175 x 280 mm

Dimensions

Dimensional drawing of MFCA



Mini Pleat filter cartridge,
type MFCA



Standard construction

All weights are net,
without packaging.

Dimensions [mm] and weight [kg]

Nominal size		①	②		③	④	⑤
D	H		l/s	m ³ /h	Pa	m ²	~ kg
175	177	E11	25	90	100	1,3	1
175	227	E11	47	170	100	1,7	1
175	280	E11	56	200	100	2,1	1
175	177	H13	25	90	200	1,3	1
175	227	H13	47	170	200	1,7	1
175	280	H13	56	200	200	2,1	1

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

Standard text

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

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 purity 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.

Special features

- 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

Construction

- AL: Casing made of aluminium

Sizing data

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

Order options

1 Type

MFCA Mini Pleat filter cartridge

2 Filter class

- E11** Particulate filter according to EN 1822
- H13** Particulate filter according to EN 1822

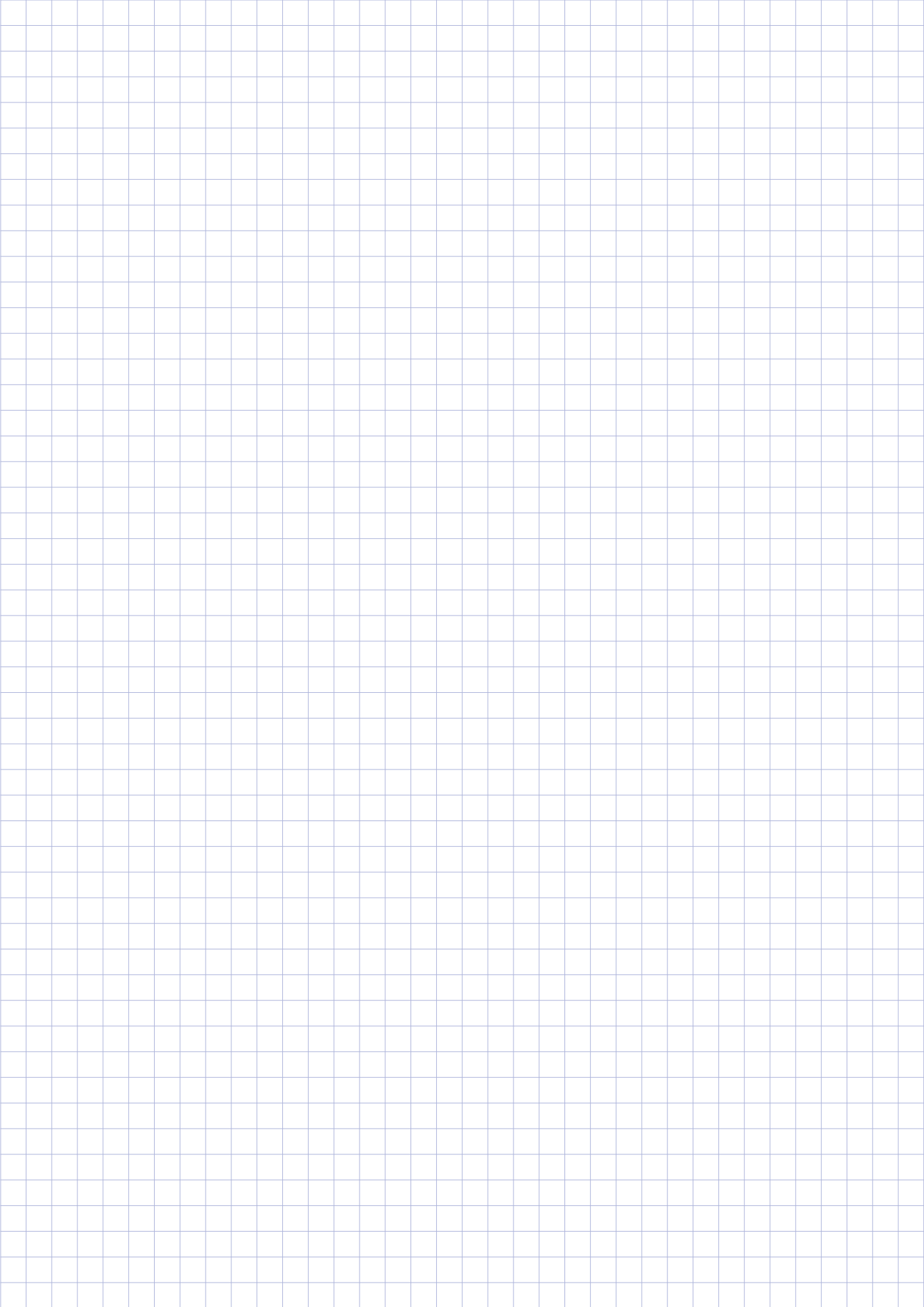
3 Construction

AL Casing made of aluminium

4 Nominal size [mm]

D × H

7



Filter panels for clean room technology

Type MFPCR



For the most demanding requirements on the purity of indoor air, workstations, and devices

HEPA and ULPA filters as high-efficiency particulate filters for the separation of suspended particles in clean room systems. Used for industrial, research, medical, pharmaceutical, and nuclear engineering applications.

- Filter classes H14, U15, U16
- Performance data tested to EN 1822
- Meets the hygiene requirements of VDI 6022
- Filter media for special requirements, glass fibre papers with spacers made of thermoplastic hot-melt adhesive
- Perfect adjustment to individual requirements due to variable pleat depths
- Low initial differential pressure due to ideal pleat position and largest possible filter area
- Automatic filter scan test
- Fitting into filter fan units, clean room workbenches, or operating theatre ceilings



Tested to VDI 6022

Type		Page
MFPCR	General information	7.6 – 2
	Order code	7.6 – 4
	Dimensions and weight – MFPCR-ALB	7.6 – 5
	Dimensions and weight – MFPCR-ALC	7.6 – 7
	Dimensions and weight – MFPCR-ALG	7.6 – 9
	Specification text	7.6 – 11
	Basic information and nomenclature	10.1 – 1

Description



Mini Pleat filter panels for clean room technology, type MFPCR

Application

- Mini Pleat filter panel type MFPCR for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in clean room systems with controlled air purity and airflow
- Particulate filter: Final filter for the most critical requirements of air purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Classification

- Meets the hygiene requirements

Filter classes

- Particulate filters H14, U15, U16

Construction

- ALB: Frame made of extruded aluminium profile (depth 69 mm)
- ALC: Frame made of extruded aluminium profile (depth 78 mm)
- ALG: Frame made of extruded aluminium profile (depth 90 mm)

Special construction:

- Filter frame with knife edge profile
- Filter frame with U-profile, filled with a gel as fluid seal

Nominal sizes [mm]

- $B \times H \times T$

Options

- FT: Pleat depth
- PU: Protection grid on the upstream side
- PD: Protection grid on the downstream side
- PB: Protection grid on both sides
- CSU: Continuous seal on the upstream side
- CSD: Continuous seal on the downstream side
- CSB: Continuous seal on both sides
- OT: Oil mist test (only for filter class H14)

Special features

- Ideal pleat geometry of the filter medium
- Low initial differential pressure at high filtration performance
- Low-turbulence airflow on the downstream side
- Filter scan test ensures leak-free state as well as compliance with the efficiency and differential pressure

Construction features

- Perimeter continuous seal on the upstream side as standard
- Some constructions with optional continuous seal on the downstream side or on both sides
- 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 extruded aluminium profile

Standards and guidelines

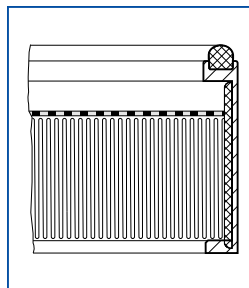
- Testing of particulate filters to EN 1822 (EPA, HEPA and ULPA filters): European standard for the testing of filtration performance in the factory, particle counting method using a liquid test aerosol
- Uniform classification of particulate filters according to efficiency, using a test aerosol whose 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)
- Hygiene meets the 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 13779

Technical data

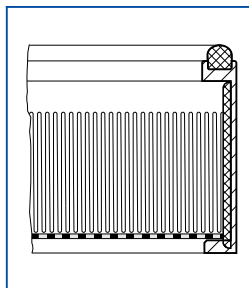
Filter class according to EN 1822	H14	U15	U16
Efficiency according to EN 1822	>99.995 %	>99.9995 %	>99.99995 %
Nominal face velocity	0.45 m/s	0.45 m/s	0.45 m/s
Initial differential pressure at nominal face velocity for frame ALB	110 Pa	130 Pa	–
Initial differential pressure at nominal face velocity for frame ALC	95 Pa	115 Pa	140 Pa
Initial differential pressure at nominal face velocity for frame ALG	85 Pa	100 Pa	120 Pa
Maximum operating temperature	80°C	80°C	80°C
Maximum relative humidity	100 %	100 %	100 %

Protection grid

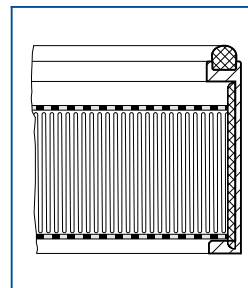
Upstream side



Downstream side

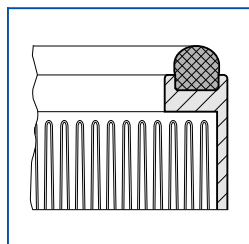


Both sides



Seal

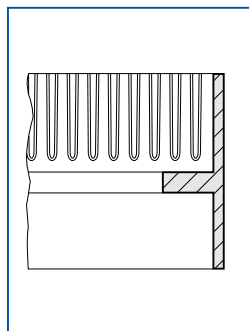
Continuous seal as standard



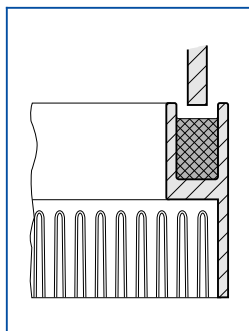
Special construction

In addition to the standard construction, Mini Pleat filter panels for clean room technology are also available as follows: filter frames of different depths, filter frame with knife edge profile, U-profiled filter frame with a gel as fluid seal

Knife edge profile



Fluid seal



Order code

MFPCR

MFPCR – H14 – ALC / 1220 × 610 × 78 × 58 / PD / CSU / ST

1 2 3 4 5 6 7 8

1 Type

MFPCR Mini Pleat filter panel
for clean room technology

2 Filter class

H14 Particulate filter according to EN 1822
U15 Particulate filter according to EN 1822
U16 Particulate filter according to EN 1822

3 Construction

ALB Frame made of extruded aluminium profile
(depth 69 mm)
ALC Frame made of extruded aluminium profile
(depth 78 mm)
ALG Frame made of extruded aluminium profile
(depth 90 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

CSU Continuous seal on the upstream side

CSD Continuous seal on the downstream side

CSB Continuous seal on both sides

8 Testing

ST Scan test

OT Oil mist test (only for filter class H14)

Order example

MFPCR-H14-ALC/1220x610x78x58/PD/CSU/ST

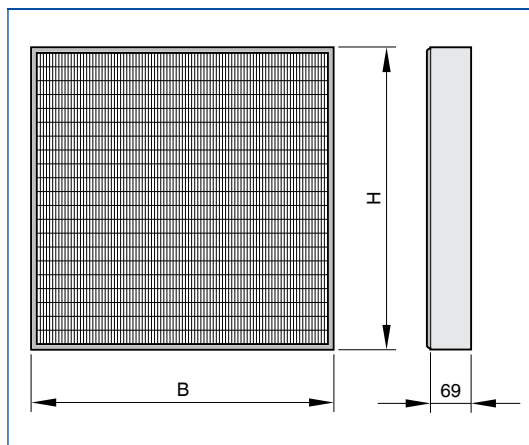
Filter class	H14 particulate filter according to EN 1822
Construction	frame made of extruded aluminium profile (depth 78 mm)
Nominal size	1220 × 610 × 78 mm
Pleat depth	58
Protection grid	downstream side
Seal	continuous seal on the upstream side
Testing	scan test

Dimensions



Mini Pleat filter panels for clean room technology, type MFPCR

Dimensional drawing of MFPCR-...-ALB



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	305	69	50	H14	42	150	110	2.8	1
457	457	69	50	H14	94	340	110	6.3	2
305	610	69	50	H14	83	300	110	5.7	2
457	610	69	50	H14	125	450	110	8.5	3
610	610	69	50	H14	168	605	110	11.2	4
762	610	69	50	H14	210	755	110	14.0	4
915	610	69	50	H14	251	905	110	16.8	5
1220	610	69	50	H14	335	1205	110	22.3	6
1525	610	69	50	H14	418	1505	110	27.8	8
1830	610	69	50	H14	503	1810	110	33.3	9
762	762	69	50	H14	261	940	110	17.5	5
915	762	69	50	H14	314	1130	110	21.0	5
1220	762	69	50	H14	418	1505	110	27.9	7
1525	762	69	50	H14	522	1880	110	34.8	9
1830	762	69	50	H14	628	2260	110	41.7	10
915	915	69	50	H14	376	1355	110	25.2	6
1220	915	69	50	H14	501	1805	110	33.5	8
1525	915	69	50	H14	628	2260	110	41.9	10
1830	915	69	50	H14	753	2710	110	50.2	12

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

Dimensions [mm] and weight [kg]

All weights are net,
 without packaging.

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	69	50	U15	42	150	130	2.8	1
457	457	69	50	U15	94	340	130	6.3	2
305	610	69	50	U15	83	300	130	5.7	2
457	610	69	50	U15	125	450	130	8.5	3
610	610	69	50	U15	168	605	130	11.2	4
762	610	69	50	U15	210	755	130	14.0	4
915	610	69	50	U15	251	905	130	16.8	5
1220	610	69	50	U15	335	1205	130	22.3	6
1525	610	69	50	U15	418	1505	130	27.8	8
1830	610	69	50	U15	503	1810	130	33.3	9
762	762	69	50	U15	261	940	130	17.5	5
915	762	69	50	U15	314	1130	130	21.0	5
1220	762	69	50	U15	418	1505	130	27.9	7
1525	762	69	50	U15	522	1880	130	34.8	9
1830	762	69	50	U15	628	2260	130	41.7	10
915	915	69	50	U15	376	1355	130	25.2	6
1220	915	69	50	U15	501	1805	130	33.5	8
1525	915	69	50	U15	628	2260	130	41.9	10
1830	915	69	50	U15	753	2710	130	50.2	12

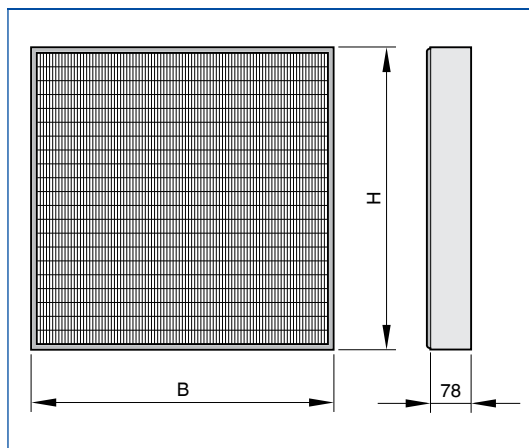
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels for clean room technology, type MFPCR

Dimensional drawing of MFPCR...-ALC



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	305	78	58	H14	42	150	95	3.3	2
457	457	78	58	H14	94	340	95	7.3	3
305	610	78	58	H14	83	300	95	6.6	3
457	610	78	58	H14	125	450	95	9.8	3
610	610	78	58	H14	168	605	95	13.0	4
762	610	78	58	H14	210	755	95	16.2	5
915	610	78	58	H14	251	905	95	19.4	5
1220	610	78	58	H14	335	1205	95	25.9	7
1525	610	78	58	H14	418	1505	95	32.3	9
1830	610	78	58	H14	503	1810	95	38.7	10
762	762	78	58	H14	261	940	95	20.3	5
915	762	78	58	H14	314	1130	95	24.3	6
1220	762	78	58	H14	418	1505	95	32.4	8
1525	762	78	58	H14	522	1880	95	40.4	10
1830	762	78	58	H14	628	2260	95	48.4	12
915	915	78	58	H14	376	1355	95	29.3	7
1220	915	78	58	H14	501	1805	95	38.9	9
1525	915	78	58	H14	628	2260	95	48.6	12
1830	915	78	58	H14	753	2710	95	58.2	14

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

Dimensions [mm] and weight [kg]

7 All weights are net, without packaging.

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	78	58	U15	42	150	115	3.3	2
457	457	78	58	U15	94	340	115	7.3	3
305	610	78	58	U15	83	300	115	6.6	3
457	610	78	58	U15	125	450	115	9.8	3
610	610	78	58	U15	168	605	115	13.0	4
762	610	78	58	U15	210	755	115	16.2	5
915	610	78	58	U15	251	905	115	19.4	5
1220	610	78	58	U15	335	1205	115	25.9	7
1525	610	78	58	U15	418	1505	115	32.3	9
1830	610	78	58	U15	503	1810	115	38.7	10
762	762	78	58	U15	261	940	115	20.3	5
915	762	78	58	U15	314	1130	115	24.3	6
1220	762	78	58	U15	418	1505	115	32.4	8
1525	762	78	58	U15	522	1880	115	40.4	10
1830	762	78	58	U15	628	2260	115	48.4	12
915	915	78	58	U15	376	1355	115	29.3	7
1220	915	78	58	U15	501	1805	115	38.9	9
1525	915	78	58	U15	628	2260	115	48.6	12
1830	915	78	58	U15	753	2710	115	58.2	14

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	78	58	U16	42	150	140	3.3	2
457	457	78	58	U16	94	340	140	7.3	3
305	610	78	58	U16	83	300	140	6.6	3
457	610	78	58	U16	125	450	140	9.8	3
610	610	78	58	U16	168	605	140	13.0	4
762	610	78	58	U16	210	755	140	16.2	5
915	610	78	58	U16	251	905	140	19.4	5
1220	610	78	58	U16	335	1205	140	25.9	7
1525	610	78	58	U16	418	1505	140	32.3	9
1830	610	78	58	U16	503	1810	140	38.7	10
762	762	78	58	U16	261	940	140	20.3	5
915	762	78	58	U16	314	1130	140	24.3	6
1220	762	78	58	U16	418	1505	140	32.4	8
1525	762	78	58	U16	522	1880	140	40.4	10
1830	762	78	58	U16	628	2260	140	48.4	12
915	915	78	58	U16	376	1355	140	29.3	7
1220	915	78	58	U16	501	1805	140	38.9	9
1525	915	78	58	U16	628	2260	140	48.6	12
1830	915	78	58	U16	753	2710	140	58.2	14

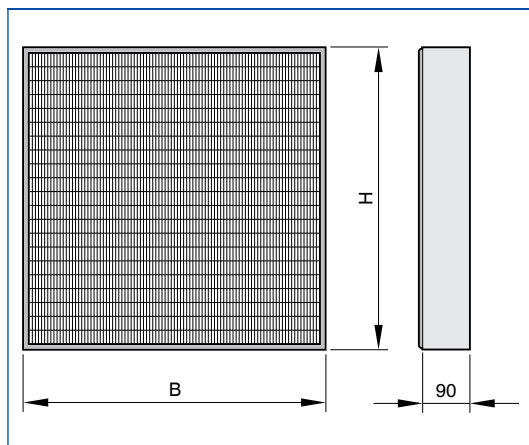
① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions



Mini Pleat filter panels for clean room technology, type MFPCR

Dimensional drawing of MFPCR-...-ALG



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
305	305	90	70	H14	42	150	85	3.8	2
457	457	90	70	H14	94	340	85	8.6	3
305	610	90	70	H14	83	300	85	7.7	3
457	610	90	70	H14	125	450	85	11.5	3
610	610	90	70	H14	168	605	85	15.2	5
762	610	90	70	H14	210	755	85	18.9	5
915	610	90	70	H14	251	905	85	22.7	6
1220	610	90	70	H14	335	1205	85	30.2	8
1525	610	90	70	H14	418	1505	85	37.6	10
1830	610	90	70	H14	503	1810	85	45.1	12
762	762	90	70	H14	261	940	85	23.7	6
915	762	90	70	H14	314	1130	85	28.4	7
1220	762	90	70	H14	418	1505	85	37.8	9
1525	762	90	70	H14	522	1880	85	47.1	12
1830	762	90	70	H14	628	2260	85	56.5	14
915	915	90	70	H14	376	1355	85	34.1	8
1220	915	90	70	H14	501	1805	85	45.4	10
1525	915	90	70	H14	628	2260	85	56.6	14
1830	915	90	70	H14	753	2710	85	67.9	16

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

Dimensions [mm] and weight [kg]

7 All weights are net, without packaging.

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	90	70	U15	42	150	100	3.8	2
457	457	90	70	U15	94	340	100	8.6	3
305	610	90	70	U15	83	300	100	7.7	3
457	610	90	70	U15	125	450	100	11.5	3
610	610	90	70	U15	168	605	100	15.2	5
762	610	90	70	U15	210	755	100	18.9	5
915	610	90	70	U15	251	905	100	22.7	6
1220	610	90	70	U15	335	1205	100	30.2	8
1525	610	90	70	U15	418	1505	100	37.6	10
1830	610	90	70	U15	503	1810	100	45.1	12
762	762	90	70	U15	261	940	100	23.7	6
915	762	90	70	U15	314	1130	100	28.4	7
1220	762	90	70	U15	418	1505	100	37.8	9
1525	762	90	70	U15	522	1880	100	47.1	12
1830	762	90	70	U15	628	2260	100	56.5	14
915	915	90	70	U15	376	1355	100	34.1	8
1220	915	90	70	U15	501	1805	100	45.4	10
1525	915	90	70	U15	628	2260	100	56.6	14
1830	915	90	70	U15	753	2710	100	67.9	16

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	90	70	U16	42	150	120	3.8	2
457	457	90	70	U16	94	340	120	8.6	3
305	610	90	70	U16	83	300	120	7.7	3
457	610	90	70	U16	125	450	120	11.5	3
610	610	90	70	U16	168	605	120	15.2	5
762	610	90	70	U16	210	755	120	18.9	5
915	610	90	70	U16	251	905	120	22.7	6
1220	610	90	70	U16	335	1205	120	30.2	8
1525	610	90	70	U16	418	1505	120	37.6	10
1830	610	90	70	U16	503	1810	120	45.1	12
762	762	90	70	U16	261	940	120	23.7	6
915	762	90	70	U16	314	1130	120	28.4	7
1220	762	90	70	U16	418	1505	120	37.8	9
1525	762	90	70	U16	522	1880	120	47.1	12
1830	762	90	70	U16	628	2260	120	56.5	14
915	915	90	70	U16	376	1355	120	34.1	8
1220	915	90	70	U16	501	1805	120	45.4	10
1525	915	90	70	U16	628	2260	120	56.6	14
1830	915	90	70	U16	753	2710	120	67.9	16

① Pleat depth ② Filter class ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard text

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

Mini Pleat filter panels MFPCR for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in clean room systems with controlled air purity and airflow.

Use as particulate filters, i.e. main or final filters, for the most critical requirements of air purity 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. Different pleat depths enable perfect adjustment to individual requirements.

Mini Pleat filter panels for clean room technology available in standard and special sizes, filter classes H14, U15, U16.

As standard, Mini Pleat filter panels for clean room technology are fitted with a perimeter continuous seal on the upstream side.

Some constructions are available with optional seal on the downstream side or on both sides, or with a protection grid, fitting as required.

As standard, Mini Pleat filter panels for clean room technology are subjected to an automatic filter scan test.

Special features

- Ideal pleat geometry of the filter medium
- Low initial differential pressure at high filtration performance
- Low-turbulence airflow on the downstream side
- Filter scan test ensures leak-free state as well as compliance with the efficiency and differential pressure

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 extruded aluminium profile

Construction

- ALB: Frame made of extruded aluminium profile (depth 69 mm)
- ALC: Frame made of extruded aluminium profile (depth 78 mm)
- ALG: Frame made of extruded aluminium profile (depth 90 mm)

Special construction:

- Filter frame with knife edge profile
- Filter frame with U-profile, filled with a gel as fluid seal

Sizing data

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

Order options

1 Type

MFPCR Mini Pleat filter panel for clean room technology

2 Filter class

- H14** Particulate filter according to EN 1822
- U15** Particulate filter according to EN 1822
- U16** Particulate filter according to EN 1822

3 Construction

- ALB** Frame made of extruded aluminium profile (depth 69 mm)
- ALC** Frame made of extruded aluminium profile (depth 78 mm)
- ALG** Frame made of extruded aluminium profile (depth 90 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

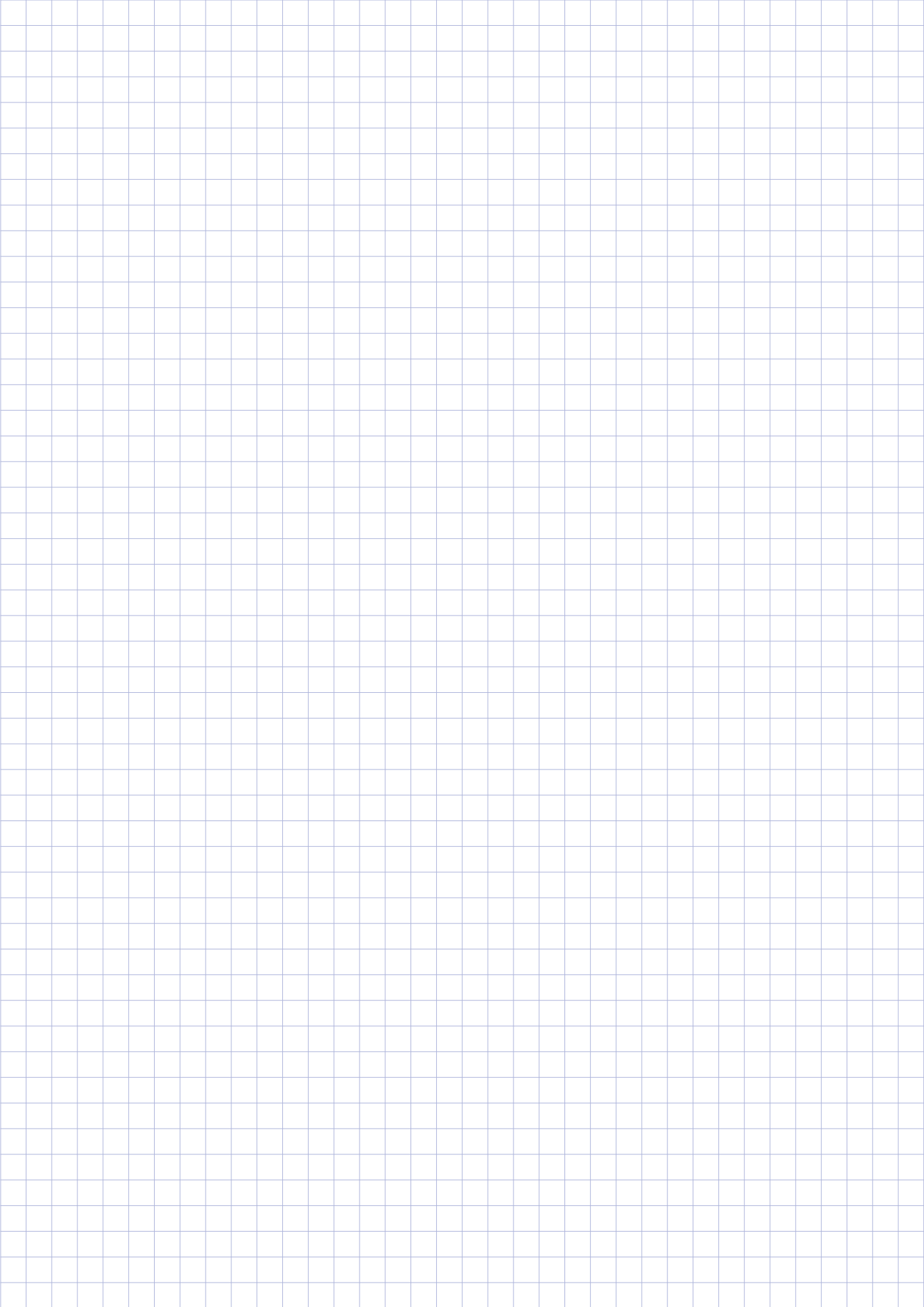
7 Seal

- CSU** Continuous seal on the upstream side
- CSD** Continuous seal on the downstream side
- CSB** Continuous seal on both sides

8 Testing

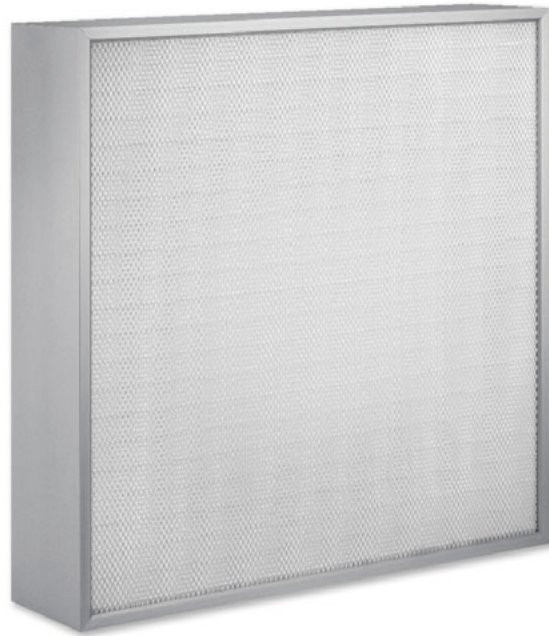
- ST** Scan test
- OT** Oil mist test (only for filter class H14)

7



Filter panels with hood

Type FHD



Spigot with fixed baffle plate



Spigot with adjustable baffle plate



Spigot with damper blade

For the most critical requirements in clean room areas

Final filters for the separation of suspended particles, suitable for industrial, research, medical, and pharmaceutical applications

- Filter classes E11, H13, H14, U15
- Performance data factory tested to EN 1822
- 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 constructions
- Filter hood available in various sizes and the usual grid sizes
- Automatic filter scan test for all filters from filter class H14

Optional equipment and accessories

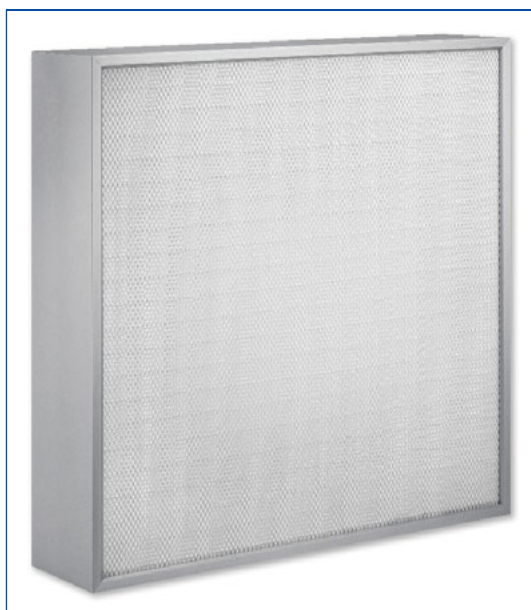
- Mechanism for volume flow rate setting

Type		Page
FHD	General information	7.7 – 2
	Order code	7.7 – 4
	Dimensions and weight	7.7 – 5
	Specification text	7.7 – 6
	Basic information and nomenclature	10.1 – 1

Variants

Product examples

Mini Pleat filter panels with hood, type FHD



Mini Pleat filter panels with hood, constructions FHD-...-D/..., FHD-...-R/..., FHD-...-V/...



Description

Application

- Mini Pleat filter panel with hood, type FHD, for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in clean room systems with controlled air purity and airflow
- Particulate filters: Final filters for the most critical requirements of air purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Filter classes

- Particulate filters E11, H13, H14, U15

Construction

- Without centre mullion, spigot with fixed baffle plate
- D: Centre mullion with pressure measurement point on the downstream side, spigot with fixed baffle plate
- R: Centre mullion with pressure measurement point on the downstream side, spigot with adjustable baffle plate for volume flow rate balancing
- V: Centre mullion with pressure measurement point on the downstream side, spigot with damper blade for volume flow rate balancing

Nominal sizes [mm]

- $B \times H \times T$

Options

- D: Spigot diameter
- PD: Protection grid on the downstream side
- SD: Stainless steel protection grid on the downstream side
- SPD: Perforated stainless steel plate on the downstream side
- APD: Perforated aluminium plate on the downstream side
- FND: Flat section seal on the downstream side
- 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, U15)

Special features

- Ideal pleat geometry of the filter medium
- Low-turbulence airflow on the downstream side
- Leakage test, standard for all particulate filters of filter classes H13, H14, U15

Construction features

- Hood with top entry circular spigot
- Spigot diameter available in commercial sizes
- Some constructions are fitted with an optional flat section seal on the downstream side
- Protection grid on downstream side: expanded metal or stainless steel
- Perforated stainless steel or aluminium plate on the downstream side

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 extruded aluminium profile
- Hood with spigot made of galvanised sheet steel

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 data

Filter class according to EN 1822	E11	H13	H14	U15
Efficiency according to EN 1822	>95 %	>99.95 %	>99.995 %	>99.9995 %
Nominal face velocity	0.82 m/s	0.82 m/s	0.45 m/s	0.45 m/s
Initial differential pressure at nominal face velocity	125 Pa	250 Pa	125 Pa	145 Pa
Recommended final differential pressure	300 Pa	600 Pa	600 Pa	300 Pa
Maximum operating temperature	80°C	80°C	80°C	80°C
Maximum relative humidity	100 %	100 %	100 %	100 %

Order code

FHD

FHD – H13 – D / 1220 × 610 × 140 × 313 / PD / FND / ST

↓
↓
↓
↓
↓
↓
↓
↓

1 Type

FHD Mini Pleat filter panel with hood

2 Filter class

- E11** Particulate filter according to EN 1822
- H13** Particulate filter according to EN 1822
- H14** Particulate filter according to EN 1822
- U15** Particulate filter according to EN 1822

3 Construction

- No entry: without centre mullion; spigot with fixed baffle plate
- D** Centre mullion with pressure measurement point on the downstream side, spigot with fixed baffle plate
- R** Centre mullion with pressure measurement point on the downstream side, spigot with adjustable baffle plate for volume flow rate balancing
- V** Centre mullion with pressure measurement point on the downstream side, spigot with damper blade for volume flow rate balancing

4 Nominal size [mm]

B × H × T

5 Spigot diameter [mm]

D

6 Protection grid

- PD** Protection grid on the downstream side
- SD** Stainless steel protection grid on the downstream side
- SPD** Perforated stainless steel plate on the downstream side
- APD** Perforated aluminium plate on the downstream side

7 Seal

- WS** Without seal
- FND** Flat section seal on the downstream side

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, U15)

Order example

FHD-H13-D/1220x610x140x313/PD/FND/ST

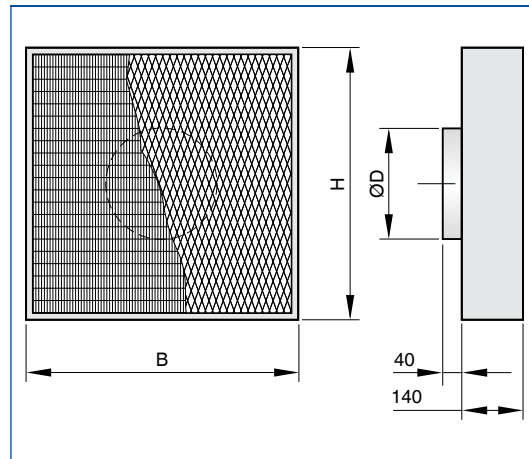
Filter class	H13 particulate filter according to EN 1822
Construction	centre mullion with pressure measurement point on the downstream side, spigot with fixed baffle plate
Nominal size	1220 × 610 × 140 mm
Spigot diameter	313 mm
Protection grid	downstream side
Seal	flat section seal on the downstream side
Testing	scan test

Dimensions

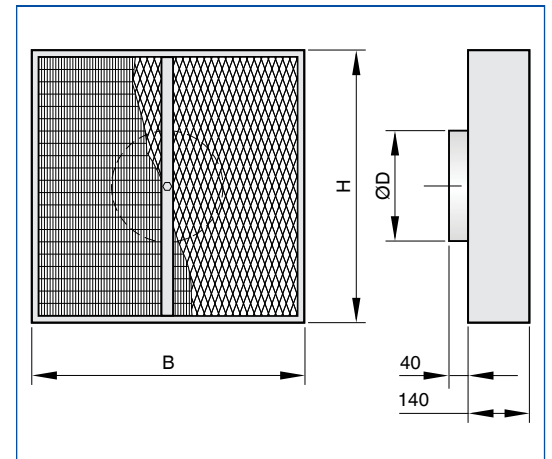


Mini Pleat filter panels with hood, type FHD

Dimensional drawing of FHD-...



Dimensional drawing of FHD-...-D/..., FHD-...-R/..., FHD-...-V/...



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h			
305	305	140	E11	148	76	275	125	2.8	4
457	457	140	E11	198	172	620	125	6.2	6
305	610	140	E11	198	153	550	125	5.7	6
610	610	140	E11	248	306	1100	125	11.1	8
915	610	140	E11	248	458	1650	125	16.6	11
1220	610	140	E11	313	611	2200	125	22.1	14
305	305	140	H13	148	76	275	250	2.8	4
457	457	140	H13	198	172	620	250	6.2	6
305	610	140	H13	198	153	550	250	5.7	6
610	610	140	H13	248	306	1100	250	11.1	8
915	610	140	H13	248	458	1650	250	16.6	11
1220	610	140	H13	313	611	2200	250	22.1	14
305	305	140	H14	148	42	150	125	2.8	4
457	457	140	H14	198	94	340	125	6.2	6
305	610	140	H14	198	83	300	125	5.7	6
610	610	140	H14	248	168	605	125	11.1	8
915	610	140	H14	248	250	900	125	16.6	11
1220	610	140	H14	313	333	1200	125	22.1	14
305	305	140	U15	148	42	150	145	2.8	4
457	457	140	U15	198	94	340	145	6.2	6
305	610	140	U15	198	83	300	145	5.7	5
610	610	140	U15	248	168	605	145	11.1	8
915	610	140	U15	248	250	900	145	16.6	11
1220	610	140	U15	313	333	1200	145	22.1	14

① Filter class ② Spigot diameter ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard text

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

Mini Pleat filter panels with hood, type FHD, for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in clean room systems with controlled air purity and airflow.

Use as particulate filters, i.e. main or final filters, for the most critical requirements of air purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering.

Mini Pleat filter panels with hood, consisting of an extruded aluminium frame, filter medium, and a hood with top entry circular spigot; filter media 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. Filter hood available in various sizes and the usual grid sizes, filter classes E11, H13, H14 and U15.

Optional flat section seal and protection grid on the downstream side. Choice of expanded metal, powder-coated (RAL 9010) protection grid, stainless steel protection grid, or perforated plate made of stainless steel or aluminium.

Mini Pleat filter panels from filter class H14 are subjected to an automatic filter scan test.

Special features

- Ideal pleat geometry of the filter medium
- Low-turbulence airflow on the downstream side
- Leakage test, standard for all particulate filters of filter classes H13, H14, U15

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 extruded aluminium profile
- Hood with spigot made of galvanised sheet steel

Construction

- Without centre mullion, spigot with fixed baffle plate
- D: Centre mullion with pressure measurement point on the downstream side, spigot with fixed baffle plate
- R: Centre mullion with pressure measurement point on the downstream side, spigot with adjustable baffle plate for volume flow rate balancing
- V: Centre mullion with pressure measurement point on the downstream side, spigot with damper blade for volume flow rate balancing

Sizing data

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

Order options

1 Type

FHD Mini Pleat filter panel with hood

2 Filter class

- E11** Particulate filter according to EN 1822
- H13** Particulate filter according to EN 1822
- H14** Particulate filter according to EN 1822
- U15** Particulate filter according to EN 1822

3 Construction

No entry: without centre mullion; spigot with fixed baffle plate

- D** Centre mullion with pressure measurement point on the downstream side, spigot with fixed baffle plate
- R** Centre mullion with pressure measurement point on the downstream side, spigot with adjustable baffle plate for volume flow rate balancing
- V** Centre mullion with pressure measurement point on the downstream side, spigot with damper blade for volume flow rate balancing

4 Nominal size [mm]

B × H × T

5 Spigot diameter [mm]

D

6 Protection grid

- PD** Protection grid on the downstream side
- SD** Stainless steel protection grid on the downstream side
- SPD** Perforated stainless steel plate on the downstream side
- APD** Perforated aluminium plate on the downstream side

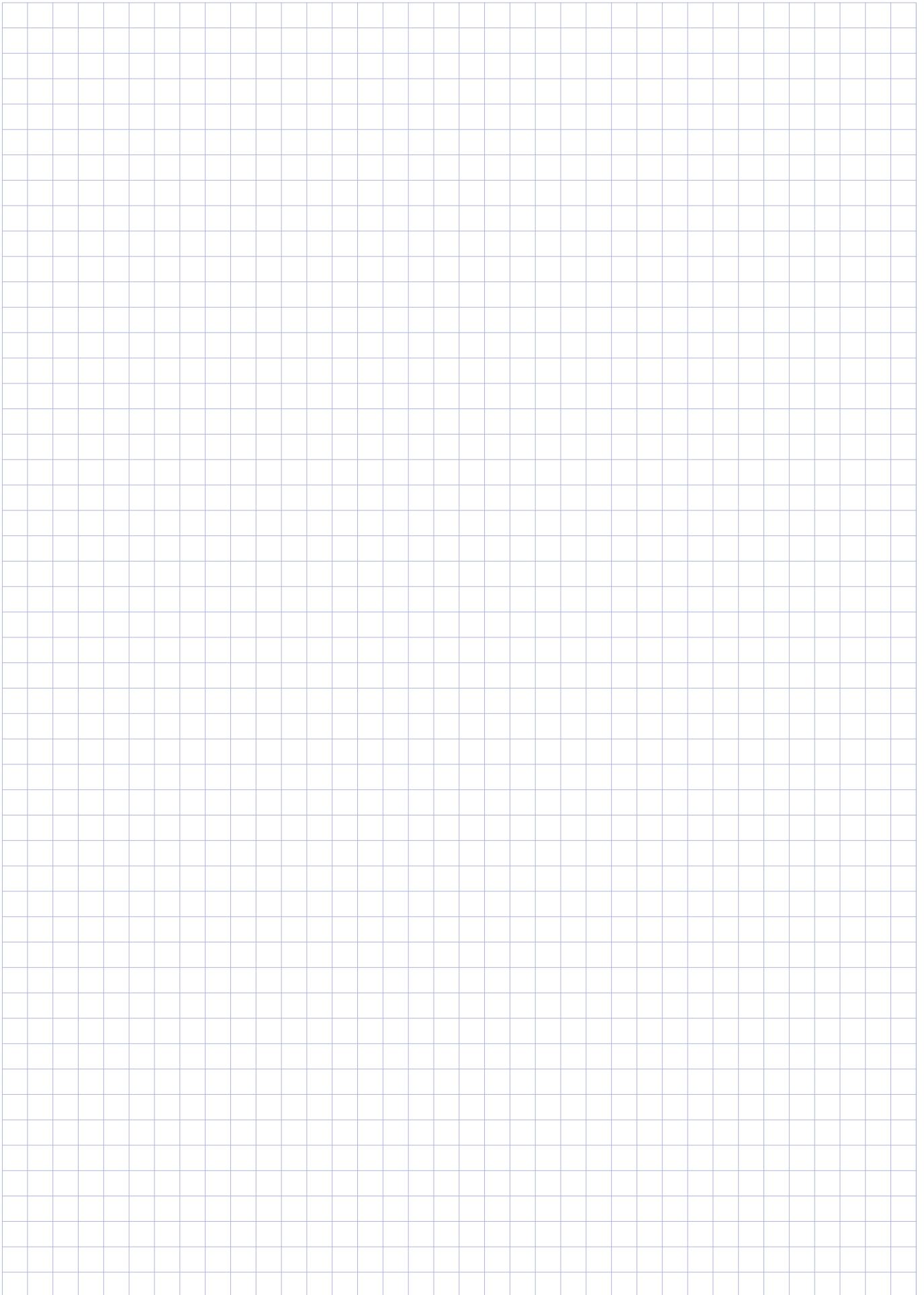
7 Seal

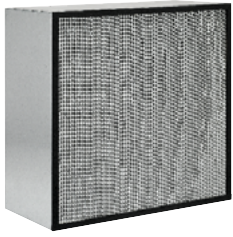
- WS** Without seal
- FND** Flat section seal on the downstream side

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, U15)





8. Deep Pleat filters

Deep Pleat filters can be used as compact fine dust filters for the separation of fine dust in ventilation systems. They are suitable for ventilation systems with extreme operating conditions or for the supply air of gas turbines. Deep Pleat filters can also be used as particulate filter cells for the separation of suspended particles such as aerosols, toxic dusts, viruses and bacteria from the supply and extract air in ventilation systems.

8.1 Compact fine dust filters

Type

Page



For industrial applications with extreme operating conditions

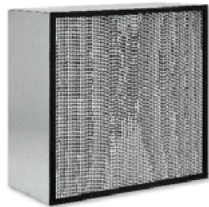
DFP

8.1 – 1

8.2 Particulate filter cells

Type

Page



For very critical requirements

DFH

8.2 – 1

10.1 Basic information and nomenclature



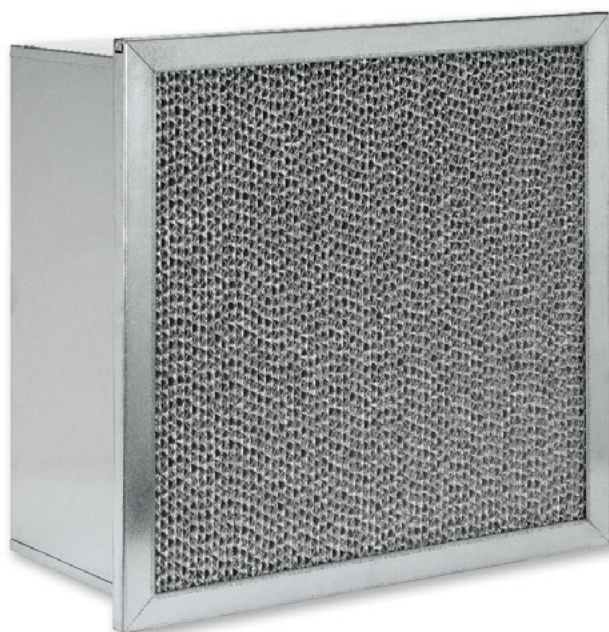
Filter units and filter elements

10.1 – 1

Compact fine dust filters

Type DFF

8



For industrial applications with extreme operating conditions

Prefilters or final filters for the separation of fine dust

- Filter classes M6, F7, F9
- Performance data tested to EN 779
- Eurovent certification for fine dust filters
- Filter media for special requirements, made of glass fibre papers, with spacers made of profiled aluminium foil
- High efficiency at low differential pressures and with long filter life
- Rigid, air-tight frame construction, can be fitted into all commercially available mounting frames
- Fine dust filters for industrial applications with high volume flow rates
- Developed for gas turbines and industrial applications with extreme operating conditions



Eurovent certification

Type		Page
DFF	General information	8.1 – 2
	Order code	8.1 – 4
	Dimensions and weight – DFF-MDF	8.1 – 5
	Dimensions and weight – DFF-GAL/STA	8.1 – 6
	Dimensions and weight – DFF-GALSF	8.1 – 7
	Dimensions and weight – DFF-GALSF/GALDF	8.1 – 8
	Specification text	8.1 – 9
	Basic information and nomenclature	10.1 – 1

Description



Deep Pleat compact fine dust filter, type DFF, variant GALSF

Application

- Deep Pleat compact fine dust filter type DFF for the separation of fine dust
- Fine dust filter: Prefilter or final filter for the separation of fine dust in ventilation systems with large volume flow rates and the requirement for long filter life
- Compact filters for ventilation systems with extreme operating conditions
- Supply air filter for gas turbines

Classification

- Eurovent certification for fine dust filters

Filter classes

- Fine dust filters M6, F7, F9

Construction

Compact fine dust filters

- MDF: Frame made of MDF
- GAL: Frame made of galvanised steel
- GALSF: Frame made of galvanised steel, single flange
- STA: Frame made of stainless steel

Compact fine dust filters for gas turbines

- GALSF: Frame made of galvanised steel, single flange (depth 292 mm)
- GALDF: Frame made of galvanised steel, double flanges (depth 292 mm)

Nominal sizes [mm]

- B × H × T

Options

- SMG: Gas turbine filter with standard medium
- HMG: Gas turbine filter with increased filter area
- GU: Protection grid on the upstream side
- GD: Protection grid on the downstream side
- GB: 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
- WS: Without seal

Useful additions

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

Construction features

- Perimeter flat section seal for compact fine dust filters without a flange, can be fitted on the downstream or upstream side or on both sides
- Compact fine dust filters with a flange do not require a seal since the mounting frame is equipped with a seal
- Protection grid made of expanded metal, can be fitted on the downstream or upstream side or on both sides as required

Materials and surfaces

- Filter media made of high-quality, moisture-resistant glass fibre papers, pleated
- Spacers made of profiled aluminium foil provide a uniform spacing of the pleats
- Frame made of MDF, of galvanised sheet steel with single flange or double flanges, or of stainless steel

Standards and guidelines

- Testing of fine dust filters to EN 779 (Particulate air filters for general ventilation): European standard for the test procedure and the test rig for the determination of filter performance
- For fine dust filters, the average efficiency is tested using a liquid test aerosol with a particle size diameter of 0.4 µm
- The filters are classified into filter classes M5, M6, F7, F8 and F9 depending on the tested values

Technical data

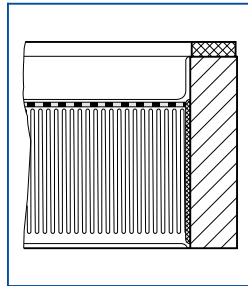
Filter class according to EN 779	M6	F7	F9
Average efficiency according to EN 779	65 %	85 %	95 %
Initial differential pressure at nominal volume flow rate	130 Pa	150 Pa	170 Pa
Recommended final differential pressure	450 Pa	450 Pa	450 Pa
Maximum operating temperature	120°C	120°C	120°C
Maximum relative humidity	100 %	100 %	100 %

For gas turbines

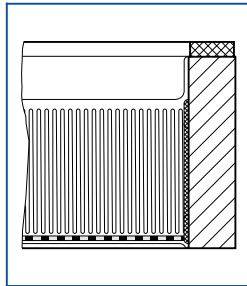
Filter class according to EN 779	M6	M6/HMS	F9	F9/HMS
Average efficiency according to EN 779	65 %	65 %	95 %	95 %
Initial differential pressure at nominal volume flow rate	130 Pa	190 Pa	180 Pa	240 Pa
Recommended final differential pressure	600 Pa	600 Pa	600 Pa	600 Pa
Maximum operating temperature	120°C	120°C	120°C	120°C
Maximum relative humidity	100 %	100 %	100 %	100 %

Protection grid

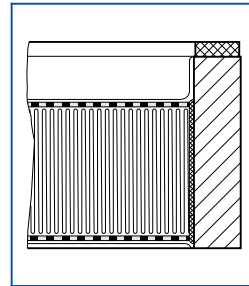
Upstream side



Downstream side



Both sides



Order code

DFF

DFF – F9 – GALSF / 592 × 592 × 292 / HMG / GD / WS



1 Type

DFF Deep Pleat compact fine dust filter

2 Filter class

M6 Fine dust filter according to EN 779

F7 Fine dust filter according to EN 779

F9 Fine dust filter according to EN 779

3 Construction

MDF Frame made of MDF

GAL Frame made of galvanised steel

GALSF Frame made of galvanised steel, single flange

GALDF Frame made of galvanised steel, double flanges

STA Frame made of stainless steel

4 Nominal size [mm]

B × H × T

5 Filter pack

No entry: standard filter pack

SMG Gas turbine filter with standard medium

HMG Gas turbine filter with increased filter area

6 Protection grid

No entry: none

GU Protection grid on the upstream side

GD Protection grid on the downstream side

GB 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

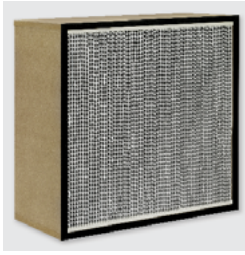
FNB Flat section seal on both sides

Order example

DFF-F9-GALSF/592x592x292/HMG/GD/WS

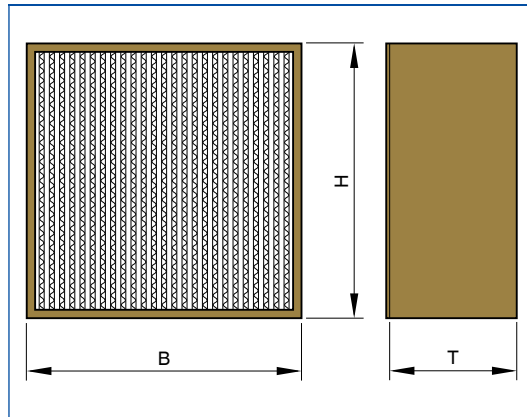
Filter class	F9 fine dust filter according to EN 779
Construction	frame made of galvanised steel with single flange
Nominal size	592 × 592 × 292 mm
Filter pack	gas turbine filter with increased filter area
Protection grid	downstream side
Seal	without seal

Dimensions



Deep Pleat compact fine dust filter, type DFF, variant MDF

Dimensional drawing of DFF-...-MDF



Standard construction

As standard, compact fine dust filters with a frame made of MDF are fitted with a flat section seal on the upstream side.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h			
305	305	150	M6	139	500	130	1.6	4
287	592	150	M6	264	950	130	3.0	5
592	592	150	M6	528	1900	130	6.7	8
305	610	150	M6	278	1000	130	3.4	5
610	610	150	M6	556	2000	130	7.2	8
305	305	150	F7	139	500	150	1.6	4
287	592	150	F7	264	950	150	3.0	5
592	592	150	F7	528	1900	150	6.7	8
305	610	150	F7	278	1000	150	3.4	5
610	610	150	F7	556	2000	150	7.2	8
305	305	150	F9	139	500	170	1.6	4
287	592	150	F9	264	950	170	3.0	5
592	592	150	F9	528	1900	170	6.7	8
305	610	150	F9	278	1000	170	3.4	5
610	610	150	F9	556	2000	170	7.2	8
287	592	292	M6	472	1700	130	6.3	7
592	592	292	M6	944	3400	130	14.0	14
305	610	292	M6	500	1800	130	7.0	8
610	610	292	M6	1000	3600	130	15.0	15
762	610	292	M6	1250	4500	130	19.0	18
287	592	292	F7	472	1700	150	6.3	7
592	592	292	F7	944	3400	150	14.0	14
305	610	292	F7	500	1800	150	7.0	8
610	610	292	F7	1000	3600	150	15.0	15
762	610	292	F7	1250	4500	150	19.0	18
287	592	292	F9	472	1700	170	6.3	7
592	592	292	F9	944	3400	170	14.0	14
305	610	292	F9	500	1800	170	7.0	8
610	610	292	F9	1000	3600	170	15.0	15
762	610	292	F9	1250	4500	170	19.0	18

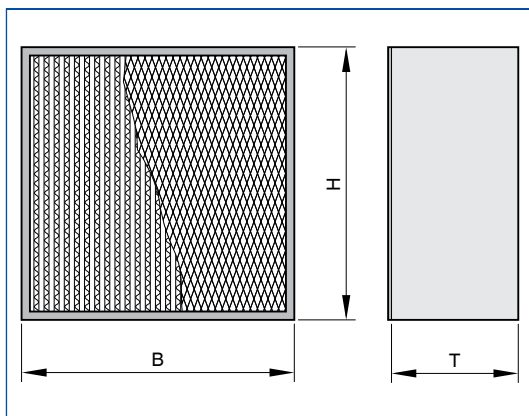
① Filter class ② Nominal volume flow rate ③ Initial differential pressure ④ Filter area ⑤ Weight

Dimensions



Deep Pleat compact fine dust filter, type DFF, variant GAL/STA

Dimensional drawing of DFF-...-GAL/STA



Standard construction

As standard, compact fine dust filters with a frame made of galvanised sheet steel are fitted with a flat section seal on the upstream side and protection grids on both sides. Optional flat section seal or protection grid can be fitted as required.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h	Pa	m ²	~ kg
305	305	150	M6	139	500	130	2.0	4
287	592	150	M6	264	950	130	3.7	5
592	592	150	M6	528	1900	130	7.6	8
305	610	150	M6	278	1000	130	4.0	5
610	610	150	M6	556	2000	130	8.1	8
305	305	150	F7	139	500	150	2.0	4
287	592	150	F7	264	950	150	3.7	5
592	592	150	F7	528	1900	150	7.6	8
305	610	150	F7	278	1000	150	4.0	5
610	610	150	F7	556	2000	150	8.1	8
305	305	150	F9	139	500	170	2.0	4
287	592	150	F9	264	950	170	3.7	5
592	592	150	F9	528	1900	170	7.6	8
305	610	150	F9	278	1000	170	4.0	5
610	610	150	F9	556	2000	170	8.1	8
287	592	292	M6	472	1700	130	7.7	7
592	592	292	M6	944	3400	130	15.9	14
305	610	292	M6	500	1800	130	8.4	8
610	610	292	M6	1000	3600	130	16.9	15
762	610	292	M6	1250	4500	130	21.1	18
287	592	292	F7	472	1700	150	7.7	7
592	592	292	F7	944	3400	150	15.9	14
305	610	292	F7	500	1800	150	8.4	8
610	610	292	F7	1000	3600	150	16.9	15
762	610	292	F7	1250	4500	150	21.1	18
287	592	292	F9	472	1700	170	7.7	7
592	592	292	F9	944	3400	170	15.9	14
305	610	292	F9	500	1800	170	8.4	8
610	610	292	F9	1000	3600	170	16.9	15
762	610	292	F9	1250	4500	170	21.1	18

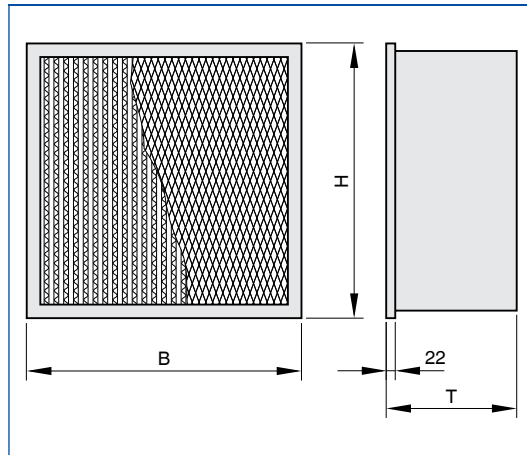
① Filter class ② Nominal volume flow rate ③ Initial differential pressure ④ Filter area ⑤ Weight

Dimensions



Deep Pleat compact fine dust filter, type DFF, variant GALSF

Dimensional drawing of DFF-...-GALSF



Standard construction

As standard, compact fine dust filters with a frame made of galvanised sheet steel and with a single flange have no seal. With protection grids on both sides.

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h	Pa	m ²	~ kg
287	592	150	M6	264	950	130	2.9	5
592	592	150	M6	528	1900	130	6.5	8
287	592	150	F7	264	950	150	2.9	5
592	592	150	F7	528	1900	150	6.5	8
287	592	150	F9	264	950	170	2.9	5
592	592	150	F9	528	1900	170	6.5	8
287	592	292	M6	472	1700	130	6.0	6
592	592	292	M6	944	3400	130	13.6	10
287	592	292	F7	472	1700	150	6.0	6
592	592	292	F7	944	3400	150	13.6	10
287	592	292	F9	472	1700	170	6.0	6
592	592	292	F9	944	3400	170	13.6	10

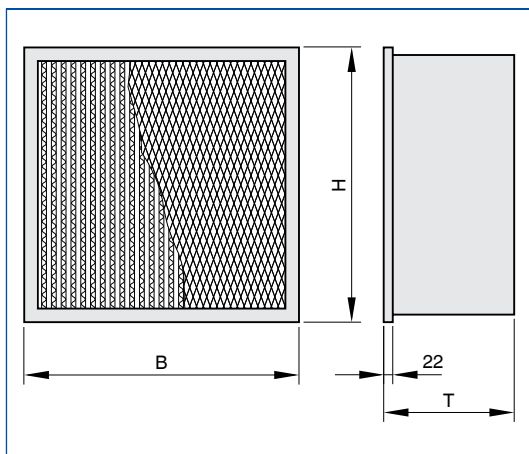
① Filter class ② Nominal volume flow rate ③ Initial differential pressure ④ Filter area ⑤ Weight

Dimensions

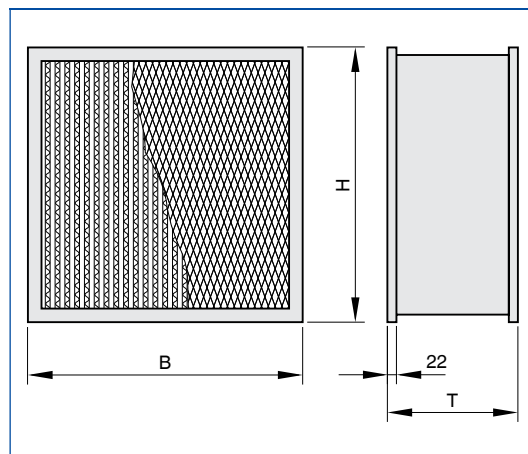


Deep Pleat compact fine dust filter, type DFF, variant GALSF

Dimensional drawing of DFF-...-GALSF



Dimensional drawing of DFF-...-GALDF



Standard construction

As standard, compact fine dust filters with a frame made of galvanised sheet steel and with a single flange have no seal. With protection grids on both sides.

All weights are net, without packaging.

Dimensions [mm] and weight [kg] DFF-...-GALSF

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
287	592	292	M6	SMG	472	1700	130	6.0	6
592	592	292	M6	SMG	944	3400	130	13.6	10
287	592	292	M6	HMG	583	2100	190	7.8	6
592	592	292	M6	HMG	1181	4250	190	17.8	10
287	592	292	F9	SMG	472	1700	180	6.0	6
592	592	292	F9	SMG	944	3400	180	13.6	10
287	592	292	F9	HMG	583	2100	240	7.8	6
592	592	292	F9	HMG	1181	4250	240	17.8	10

① Filter class ② Filter pack ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard construction

As standard, compact fine dust filters with a frame made of galvanised sheet steel and with double flanges have no seal. With protection grids on both sides.

All weights are net, without packaging.

Dimensions [mm] and weight [kg] DFF-...-GALDF

Nominal size			①	②	③		④	⑤	⑥
B	H	T			l/s	m ³ /h	Pa	m ²	~ kg
287	592	292	M6	SMG	472	1700	130	6.0	6
592	592	292	M6	SMG	944	3400	130	13.6	10
287	592	292	M6	HMG	583	2100	190	7.8	6
592	592	292	M6	HMG	1181	4250	190	17.8	10
287	592	292	F9	SMG	472	1700	180	6.0	6
592	592	292	F9	SMG	944	3400	180	13.6	10
287	592	292	F9	HMG	583	2100	240	7.8	6
592	592	292	F9	HMG	1181	4250	240	17.8	10

① Filter class ② Filter pack ③ Nominal volume flow rate ④ Initial differential pressure ⑤ Filter area ⑥ Weight

Standard text

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

Deep Pleat compact fine dust filters DFF for the separation of fine dust in ventilation systems. Use as prefilters or final filters in ventilation systems, in ventilation systems with extreme operating conditions, or as supply air filters of gas turbines.

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

Deep Pleat compact fine dust filters are available in all commercial sizes, filter classes M6, F7, F9. As standard, construction variants without a flange are fitted with a perimeter flat section seal on the upstream side.

Construction variants with a flange do not require a seal since the mounting frames are fitted with seals.

With optional protection grid on one or both sides. Deep Pleat compact fine dust filters are certified by Eurovent.

Materials and surfaces

- Filter media made of high-quality, moisture-resistant glass fibre papers, pleated
- Spacers made of profiled aluminium foil provide a uniform spacing of the pleats
- Frame made of MDF, of galvanised sheet steel with single flange or double flanges, or of stainless steel

Construction

Compact fine dust filters

- MDF: Frame made of MDF
- GAL: Frame made of galvanised steel
- GALSF: Frame made of galvanised steel, single flange
- STA: Frame made of stainless steel

Compact fine dust filters for gas turbines

- GALSF: Frame made of galvanised steel, single flange (depth 292 mm)
- GALDF: Frame made of galvanised steel, double flanges (depth 292 mm)

Sizing data

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

Order options

1 Type

DFF Deep Pleat compact fine dust filter

2 Filter class

- M6** Fine dust filter according to EN 779
- F7** Fine dust filter according to EN 779
- F9** Fine dust filter according to EN 779

3 Construction

- MDF** Frame made of MDF
- GAL** Frame made of galvanised steel
- GALSF** Frame made of galvanised steel, single flange
- GALDF** Frame made of galvanised steel, double flanges
- STA** Frame made of stainless steel

4 Nominal size [mm]

B × H × T

5 Filter pack

- No entry: standard filter pack
- SMG** Gas turbine filter with standard medium
- HMG** Gas turbine filter with increased filter area

6 Protection grid

- No entry: none
- GU** Protection grid on the upstream side
- GD** Protection grid on the downstream side
- GB** Protection grid on both sides

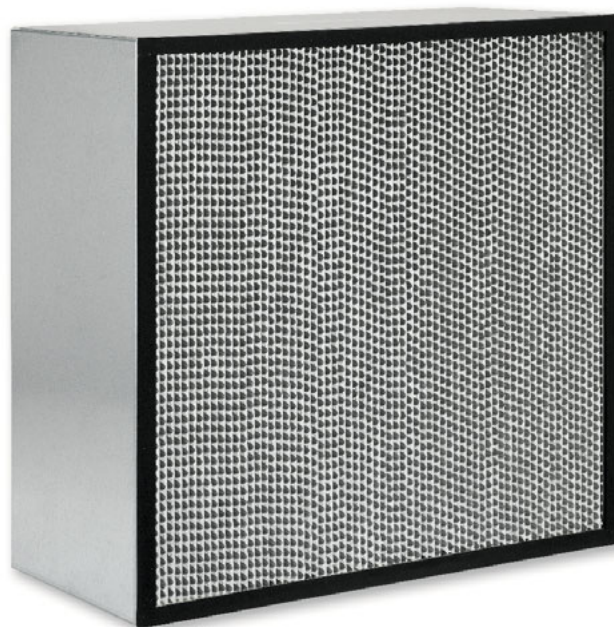
7 Seal

- 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



Particulate filter cells

Type DFH



For very critical requirements

Final filters for the separation of suspended particles, suitable for industrial, research, medical, pharmaceutical, and nuclear engineering applications

- Filter classes E11, H13
- Performance data tested to EN 1822
- Filter media for special requirements, made of glass fibre papers, with spacers made of profiled aluminium foil
- High-efficiency filters for very high demands

Type		Page
DFH	General information	8.2 – 2
	Order code	8.2 – 3
	Dimensions and weight – DFH-MDF	8.2 – 4
	Dimensions and weight – DFH-GAL/STA	8.2 – 5
	Specification text	8.2 – 6
	Basic information and nomenclature	10.1 – 1

8

Description



Deep Pleat particulate filter cells, type DFH, construction GAL/STA

Application

- Deep Pleat particulate filter cell type DFH for the separation of 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
- Particulate filter: Main or final filter used for the most critical requirements of air purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering

Filter classes

- Particulate filters E11, H13

Construction

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

Nominal sizes [mm]

- B x H x T

Options

- GU: Protection grid on the upstream side
- GD: Protection grid on the downstream side
- GB: 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
- CSU: Continuous seal on the upstream side
- CSD: Continuous seal on the downstream side
- CSB: Continuous seal on both sides
- WS: Without seal
- OT: Oil mist test (only for filter class H13)
- OTC: Oil mist test with certificate (only for filter class H13)
- ST: Scan test (only for filter class H13)

Useful additions

- Ducted particulate filter, available as one unit (KSF, KSFS) or as a filter unit system (KSFSSP)
- Duct casing for particulate filters (DCA)

Special features

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

Construction features

- Perimeter flat section seal on the upstream side as standard
- Some construction variants are available with an optional foamed continuous seal on one or both sides, or with a test groove seal (H13) on the upstream side
- Protection grid made of expanded metal, can be fitted on the downstream or upstream side or on both sides as required

Materials and surfaces

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

Standards and guidelines

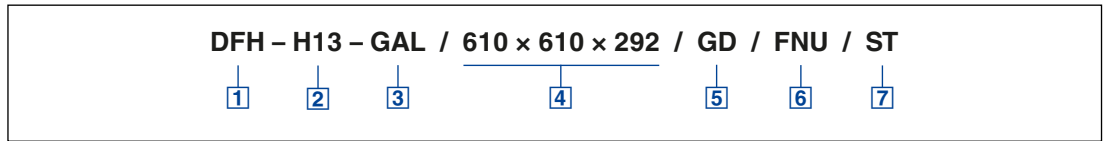
- Testing of particulate filters to EN 1822 (EPA, HEPA and ULPA filters): European standard for the testing of filtration performance in the factory, particle counting method using a liquid test aerosol
- Uniform classification of particulate filters according to efficiency, using a test aerosol whose 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 data

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

Order code

DFH



1 Type

DFH Deep Pleat particulate filter cell

2 Filter class

E11 Particulate filter according to EN 1822

H13 Particulate filter according to EN 1822

3 Construction

MDF Frame made of MDF

GAL Frame made of galvanised steel

STA Frame made of stainless steel

4 Nominal size [mm]

B × H × T

5 Protection grid

No entry: none

GU Protection grid on the upstream side

GD Protection grid on the downstream side

GB Protection grid on both sides

6 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

7 Testing

No entry: no leakage test

OT Oil mist test (only for filter class H13)

OTC Oil mist test with certificate

(only for filter class H13)

ST Scan test (only for filter class H13)

Order example

DFH-H13-GAL/610×610×292/GD/FNU/ST

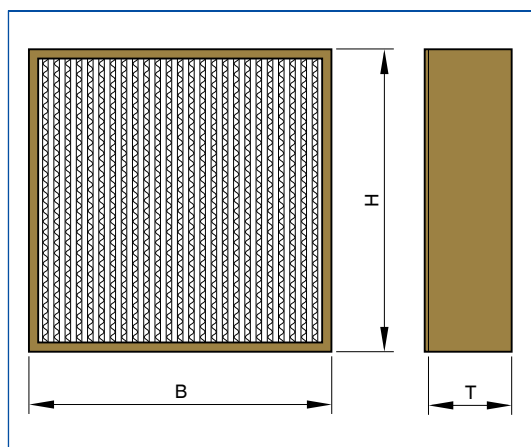
Filter class	H13 particulate filter according to EN 1822
Construction	frame made of galvanised steel
Nominal size	610 × 610 × 292 mm
Protection grid	downstream side
Seal	flat section seal on the upstream side
Test	scan test

Dimensions



Deep Pleat particulate filter cells, type DFH, construction MDF

Dimensional drawing of DFH...-MDF



Standard construction

As standard, Deep Pleat particulate filter cells with a frame made of MDF are fitted with a flat section seal on the upstream side

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h			
305	305	150	E11	69	250	125	2.0	4
287	592	150	E11	146	525	125	4.0	5
592	592	150	E11	301	1085	125	8.8	8
305	610	150	E11	150	540	125	4.4	6
610	610	150	E11	319	1150	125	9.4	10
762	610	150	E11	403	1450	125	11.9	11
305	305	150	H13	69	250	250	2.0	4
287	592	150	H13	146	525	250	4.0	5
592	592	150	H13	301	1085	250	8.8	8
305	610	150	H13	150	540	250	4.4	6
610	610	150	H13	319	1150	250	9.4	10
762	610	150	H13	403	1450	250	11.9	11
305	305	292	E11	146	525	125	4.2	4
287	592	292	E11	267	960	125	8.3	5
592	592	292	E11	550	1980	125	18.4	8
305	610	292	E11	292	1050	125	9.1	6
610	610	292	E11	583	2100	125	19.6	10
762	610	292	E11	729	2625	125	24.8	11
305	305	292	H13	146	525	250	4.2	4
287	592	292	H13	267	960	250	8.3	5
592	592	292	H13	550	1980	250	18.4	8
305	610	292	H13	292	1050	250	9.1	6
610	610	292	H13	583	2100	250	19.6	10
762	610	292	H13	729	2625	250	24.8	11

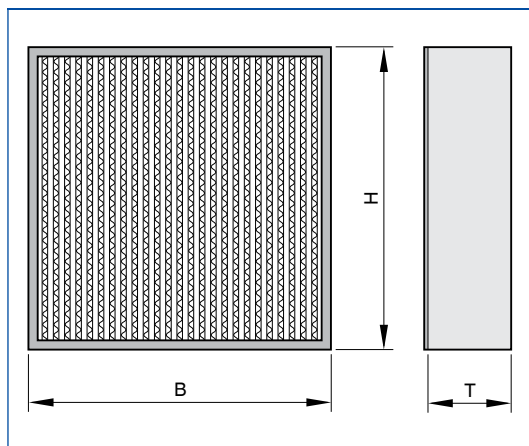
① Filter class ② Nominal volume flow rate ③ Initial differential pressure ④ Filter area ⑤ Weight

Dimensions



Deep Pleat particulate filter cells, type DFH, construction GAL/STA

Dimensional drawing of DFH-...-GAL/DFH-...-STA



Standard construction

As standard, Deep Pleat particulate filter cells with a frame made of galvanised sheet steel or stainless steel are fitted with a flat section seal on the upstream side

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④	⑤
B	H	T		l/s	m ³ /h			
305	305	150	E11	69	250	125	2.7	4
287	592	150	E11	146	525	125	4.9	5
592	592	150	E11	301	1085	125	10.1	8
305	610	150	E11	150	540	125	5.3	6
610	610	150	E11	319	1150	125	10.7	10
762	610	150	E11	403	1450	125	13.4	11
305	305	150	H13	69	250	250	2.7	4
287	592	150	H13	146	525	250	4.9	5
592	592	150	H13	301	1085	250	10.1	8
305	610	150	H13	150	540	250	5.3	6
610	610	150	H13	319	1150	250	10.7	10
762	610	150	H13	403	1450	250	13.4	11
305	305	292	E11	146	525	125	5.6	4
287	592	292	E11	267	960	125	10.2	5
592	592	292	E11	550	1980	125	21.1	8
305	610	292	E11	292	1050	125	11.2	6
610	610	292	E11	583	2100	125	22.4	10
762	610	292	E11	729	2625	125	28.0	11
305	305	292	H13	146	525	250	5.6	4
287	592	292	H13	267	960	250	10.2	5
592	592	292	H13	550	1980	250	21.1	8
305	610	292	H13	292	1050	250	11.2	6
610	610	292	H13	583	2100	250	22.4	10
762	610	292	H13	729	2625	250	28.0	11

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

Standard text

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

Deep Pleat particulate filter cells DFH 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 purity 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.

Deep Pleat particulate filter cells are available in all commercial sizes, filter classes E11, H13. As standard, Deep Pleat particulate filter cells are fitted with a perimeter flat section seal on the upstream side.

Some construction variants are available with 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.

Special features

- 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 made of profiled aluminium foil provide a uniform spacing of the pleats
- Joint sealing compound made of permanently elastic two-component polyurethane adhesive
- Frame made of either MDF, galvanised sheet steel, or stainless steel

Construction

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

Sizing data

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

Order options

1 Type

DFH Deep Pleat particulate filter cell

2 Filter class

- E11** Particulate filter according to EN 1822
- H13** Particulate filter according to EN 1822

3 Construction

- MDF** Frame made of MDF
- GAL** Frame made of galvanised steel
- STA** Frame made of stainless steel

4 Nominal size [mm]

B × H × T

5 Protection grid

No entry: none

- GU** Protection grid on the upstream side
- GD** Protection grid on the downstream side
- GB** Protection grid on both sides

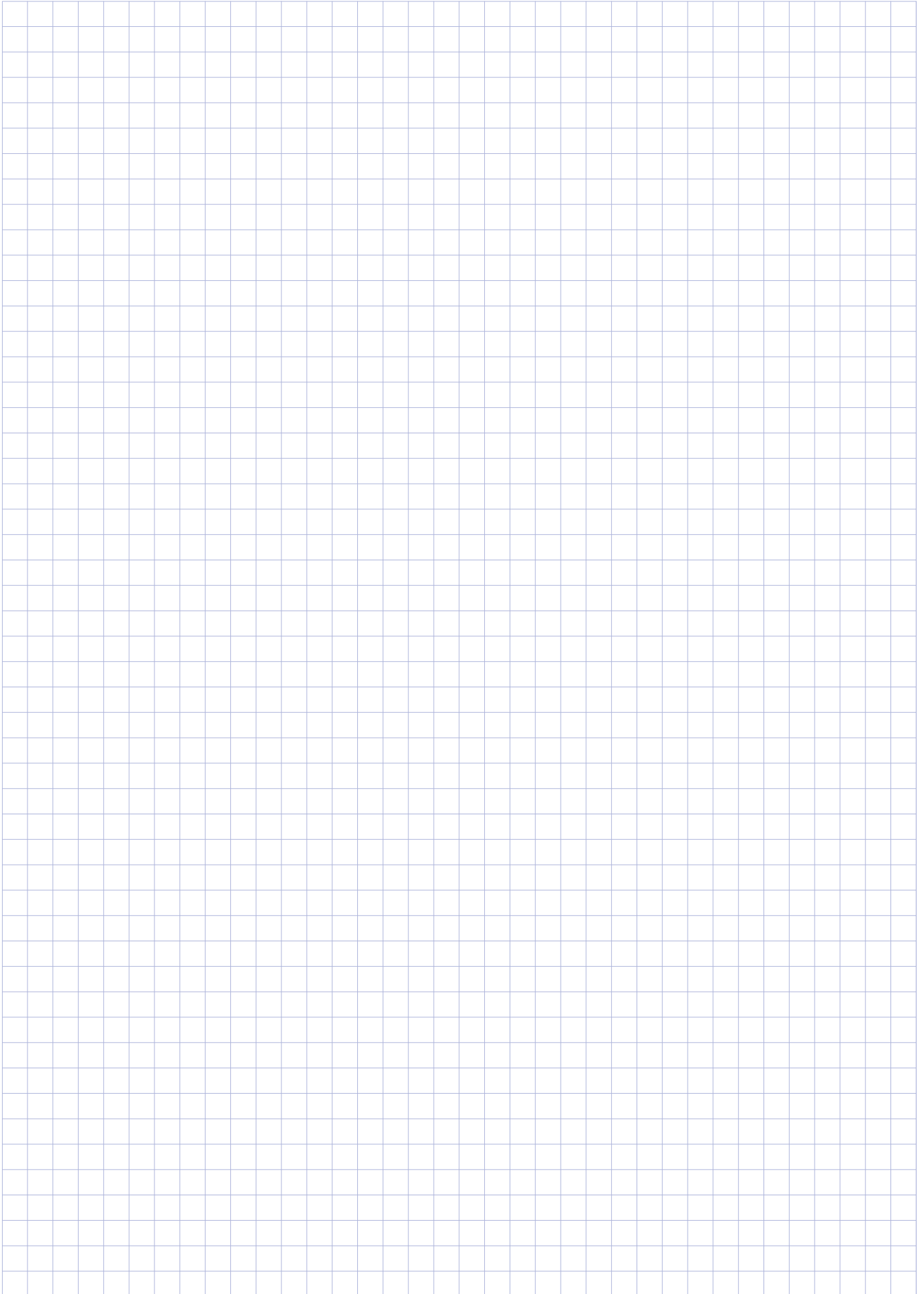
6 Seal

- 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

7 Testing

No entry: no leakage test

- OT** Oil mist test (only for filter class H13)
- OTC** Oil mist test with certificate (only for filter class H13)
- ST** Scan test (only for filter class H13)





9. Activated carbon filters

Activated carbon filters are used for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air. They are available as filter inserts, filter cartridges and filter cells.

9.1 Filter inserts



For the adsorption of gaseous odorous substances and contaminants

Type

ACFI

Page

9.1 – 1

9.2 Filter cartridges



For the adsorption of gaseous odorous substances and contaminants

Type

ACFC

Page

9.2 – 1

9.3 Filter cells



For the adsorption of gaseous odorous substances and contaminants

Type

ACF

Page

9.3 – 1

10.1 Basic information and nomenclature



Filter units and filter elements

10.1 – 1

Filter inserts

Type ACFI



For the adsorption of gaseous odorous substances and contaminants

To improve the indoor air quality in offices, hotels, and airports

- Available with different carbon types for various areas of application and operating conditions
- Available with F7 prefilter made of non-woven fibres
- Compact depth construction
- Various constructions for different applications
- Fitting into standard cell frames for filter walls (type SIF)
- Fitting into universal casings (type UCA) for duct installation

Type		Page
ACFI	General information	9.1 – 2
	Order code	9.1 – 3
	Dimensions and weight	9.1 – 4
	Specification text	9.1 – 5
	Basic information and nomenclature	10.1 – 1

Description



Activated carbon filter insert, type ACFI

Application

- Filter insert type ACFI for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air

Variants

- PF: With prefilter

Construction

- Activated carbon filter insert:
- PLA: Frame made of plastic

Nominal sizes [mm]

- B x H x T

Options

- FNU: Flat section seal on the upstream side
- FND: Flat section seal on the downstream side

Useful additions

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

Special features

- Upon request, filter inserts can be provided with other carbon types for special applications and operating conditions, e.g. for the adsorption of sulphur and chlorine compounds.

Construction features

- As standard, construction PLA has no seal
- Some constructions are fitted with an optional flat section seal on the downstream side or upstream side

Materials and surfaces

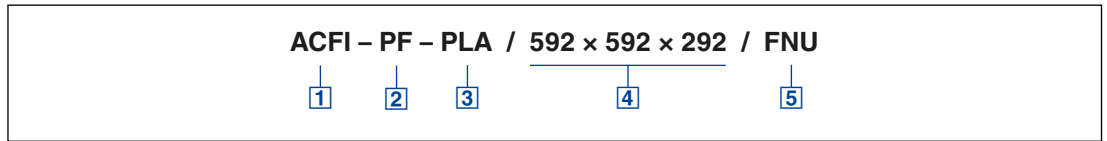
- Granulated activated carbon with a backing layer of non-woven synthetic fibres
- Plastic frame

Technical data

Parameter	Value
Differential pressure at nominal volume flow rate without prefilter	65 Pa
Differential pressure at nominal volume flow rate with prefilter	100 Pa
Maximum operating temperature	30°C
Maximum relative humidity	60 %

Order code

ACFI



1 Type

ACFI Activated carbon filter insert

2 Variant

No entry: no prefilter
PF With prefilter F7 according to EN 779

3 Construction

PLA Frame made of plastic

4 Nominal size [mm]

B × H × T

5 Seal

No entry: none
FNU Flat section seal on the upstream side
FND Flat section seal on the downstream side

Order example

ACFI-PF-PLA/592x592x292/FNU

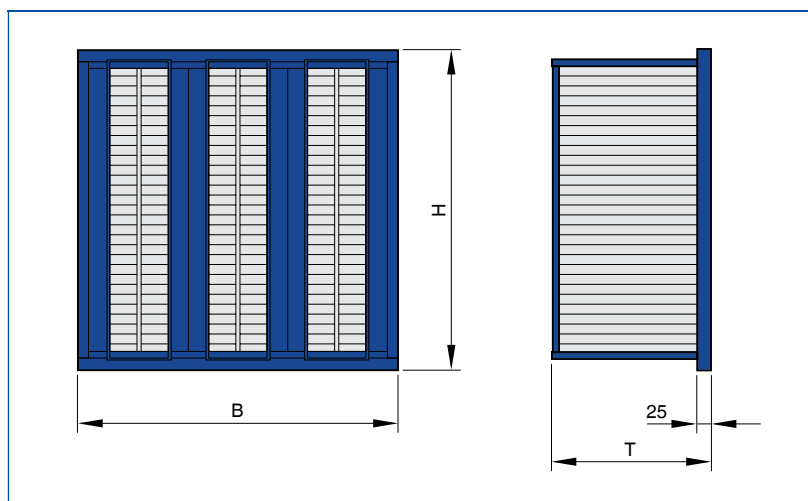
Variant	with prefilter F7
Construction	plastic frame
Nominal size	592 × 592 × 292 mm
Seal	flat section seal on the upstream side

Dimensions



Activated carbon filter insert, type ACFI

Dimensional drawing of ACFI-...-PLA/...



9

Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①	②		③	④
B	H	T		l/s	m ³ /h	Pa	~ kg
592	287	292	-	472	1700	65	4
592	490	292	-	778	2800	65	6
592	592	292	-	944	3400	65	6
592	287	292	PF	472	1700	100	4
592	490	292	PF	778	2800	100	6
592	592	292	PF	944	3400	100	6

① Variant ② Nominal volume flow rate ③ Differential pressure ④ Weight

Standard text

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

Activated carbon filter inserts ACFI for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air.

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

Activated carbon filter inserts are available in all commercial sizes.

As standard, the filter inserts have no seal but can be provided with an optional flat section seal on the upstream or downstream side.

Choice of activated carbon filter inserts with or without prefilter.

Special features

- Upon request, filter inserts can be provided with other carbon types for special applications and operating conditions, e.g. for the adsorption of sulphur and chlorine compounds.

Materials and surfaces

- Granulated activated carbon with a backing layer of non-woven synthetic fibres
- Plastic frame

Construction

Activated carbon filter insert:

- PLA: Frame made of plastic

Sizing data

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

Order options

1 Type

ACFI Activated carbon filter insert

2 Variant

No entry: no prefilter

- PF** With prefilter F7 according to EN 779

3 Construction

- PLA** Frame made of plastic

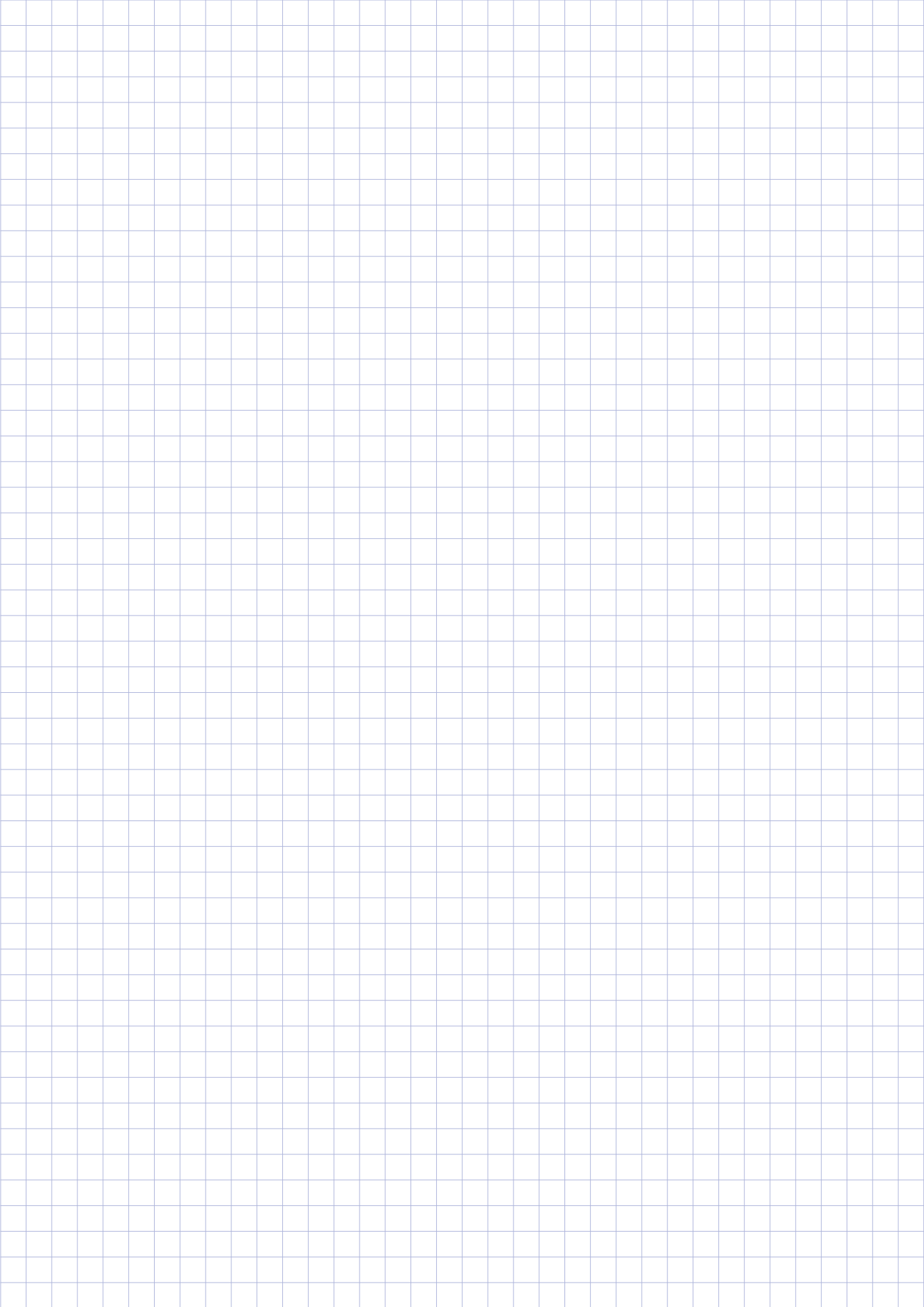
4 Nominal size [mm]

B × H × T

5 Seal

No entry: none

- FNU** Flat section seal on the upstream side
- FND** Flat section seal on the downstream side



Filter cartridges

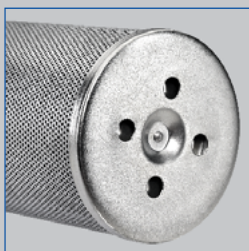
Type ACFC



For the adsorption of gaseous odorous substances and contaminants

To improve the indoor air quality in offices, hotels, and airports

- Available with different carbon types for various areas of application and operating conditions
- Cylinder made of perforated sheet steel, stainless steel, or plastic, available in different lengths
- Plastic cylinders are completely corrosion-resistant; cartridges are completely incinerable and thus easily disposed of
- Easy fitting and secure sealing due to triple bayonet fixing
- Fitting into mounting plates (type MP) for filter walls
- Fitting into universal casings (type UCA) for duct installation



Activated carbon filter cartridge, type ACFC, construction STA

Type		Page
ACFC	General information	9.2 – 2
	Order code	9.2 – 3
	Dimensions and weight	9.2 – 4
	Specification text	9.2 – 5
	Basic information and nomenclature	10.1 – 1

Description



Activated carbon filter cartridge, type ACFC, construction PLA

Application

- Filter cartridge type ACFC for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air

Construction

- PLA: Casing made of plastic
- GAL: Casing made of galvanised steel
- STA: Casing made of stainless steel

Nominal sizes [mm]

- D × H

Useful additions

- Mounting plates (MP)
- Universal casing (UCA)

Special features

- Cylinder with profiled base and cover plates
- Upon request, filter cartridges can be provided with other carbon types for special applications and operating conditions, e.g. for the adsorption of sulphur and chlorine compounds

Construction features

- Flat section seal as standard

Materials and surfaces

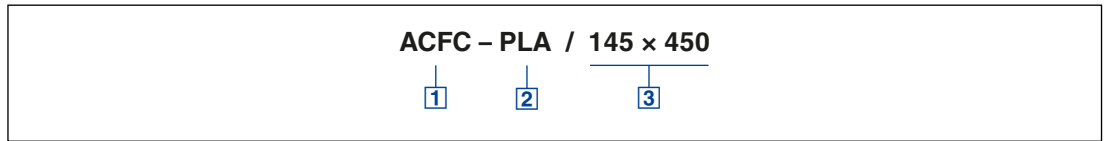
- Activated carbon sticks
- Casing made of plastic, galvanised sheet steel, or stainless steel

Technical data

Parameter	Value	Method
CTC (carbon tetrachloride adsorption)	> 60 %	ASTM D3467
Toluene adsorption	> 14 %	-
Water content	< 3 %	ASTM D2867
Ash content	~ 8 %	ASTM D2866
Compacted dry density	480 - 500 g/l	ASTM D2854
BET surface	> 1100 m ² /g	BET-N2
Hardness	> 99 %	ASTM D3802
Iodine number	> 99 mg/g	ASTM D4607
Ignition point	> 375 °C	ASTM D3466
Pellet diameter	3 mm	-
Maximum operating temperature	50°C	-
Maximum relative humidity	70 %	-

Order code

ACFC



1 Type

ACFC Activated carbon filter cartridge

3 Nominal size [mm]

D × H

2 Construction

PLA Casing made of plastic

GAL Casing made of galvanised steel

STA Casing made of stainless steel

Order example

ACFC-PLA/145x450

Construction

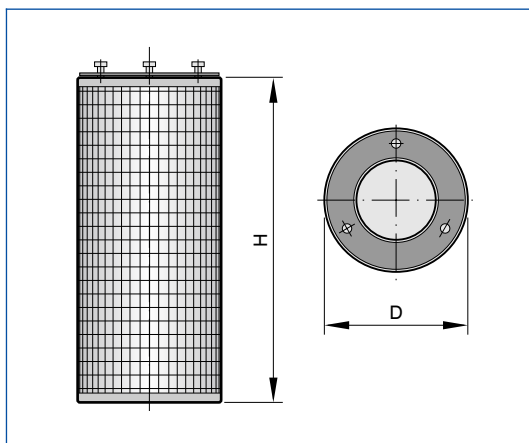
casing made of plastic

Nominal size

145 × 450 mm

Dimensions

Dimensional drawing of ACFC



Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg] ACFC-PLA

Nominal size		①		②	③	④	⑤	⑥
D	H	l/s	m ³ /h	Pa	s	l	mm	~ kg
145	450	42	150	80	0.1	4.3	26	3
145	600	56	200	120	0.1	5.7	26	3

① Nominal volume flow rate
④ Activated carbon volume

② Differential pressure
⑤ Layer thickness

③ Contact time
⑥ Weight

Dimensions [mm] and weight [kg] ACFC-GAL/STA

Nominal size		①		②	③	④	⑤	⑥
D	H	l/s	m ³ /h	Pa	s	l	mm	~ kg
145	450	42	150	70	0.1	4.3	26	4
145	600	56	200	95	0.1	5.7	26	5

① Nominal volume flow rate
④ Activated carbon volume

② Differential pressure
⑤ Layer thickness

③ Contact time
⑥ Weight

Standard text

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

Activated carbon filter cartridges ACFC for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air.

Easy fitting and secure sealing due to bayonet fixing.

Activated carbon filter cartridges available in all commercial sizes.

Flat section seal as standard.

Special features

- Cylinder with profiled base and cover plates
- Upon request, filter cartridges can be provided with other carbon types for special applications and operating conditions, e.g. for the adsorption of sulphur and chlorine compounds

Materials and surfaces

- Activated carbon sticks
- Casing made of plastic, galvanised sheet steel, or stainless steel

Construction

- PLA: Casing made of plastic
- GAL: Casing made of galvanised steel
- STA: Casing made of stainless steel

Sizing data

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

Order options

1 Type

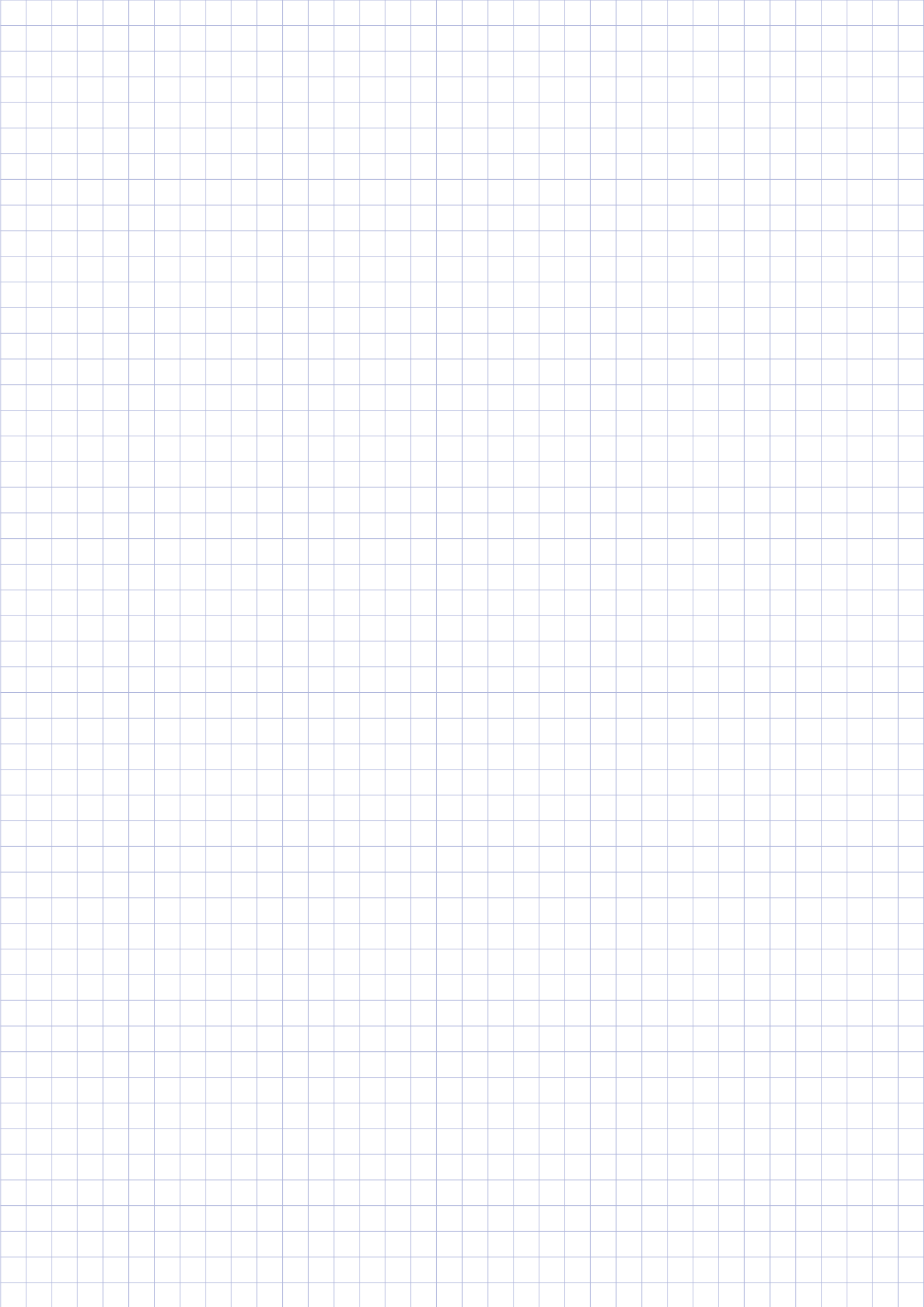
ACFC Activated carbon filter cartridge

3 Construction

- PLA** Casing made of plastic
- GAL** Casing made of galvanised steel
- STA** Casing made of stainless steel

3 Nominal size [mm]

D × H



Filter cells

Type ACF



For the adsorption of gaseous odorous substances and contaminants

To improve the indoor air quality in offices, hotels, and airports

- Available with different carbon types for various areas of application and operating conditions
- Compact depth construction
- Various constructions for different applications
- Fitting into ducted particulate filters (types KSF, KSFS) and duct casings for particulate filters (type DCA)

Type		Page
ACF	General information	9.3 – 2
	Order code	9.3 – 3
	Dimensions and weight	9.3 – 4
	Specification text	9.3 – 5
	Basic information and nomenclature	10.1 – 1

Description



Activated carbon filter cell type ACF

Application

- Filter cell type ACF for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air

Nominal sizes [mm]

- B × H × T

Useful additions

- Ducted particulate filter, available as one unit (KSF, KSFS) or as a filter unit system (KSFSSP)
- Duct casing for particulate filters (DCA)

Special features

- Upon request, filter cells can be provided with other carbon types for special applications and operating conditions, e.g. for the adsorption of sulphur and chlorine compounds

Construction features

- Flat section seal as standard

Materials and surfaces

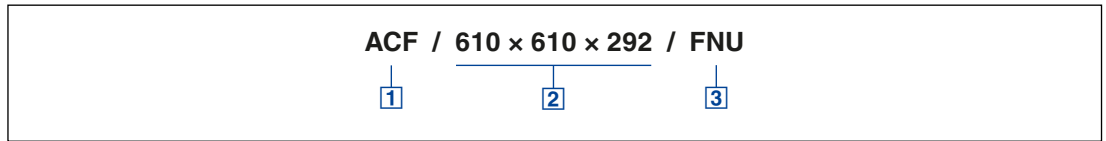
- Activated carbon sticks
- Frame made of moisture-resistant particle board

Technical data

Parameter	Value
Differential pressure at nominal volume flow rate	45 Pa
Maximum operating temperature	50°C
Maximum relative humidity	70 %

Order code

ACF



1 Type

ACF Activated carbon filter cell

2 Nominal size [mm]

B x H x T

3 Seal

No entry: none

FNU Flat section seal on the upstream side

Order example

ACF/610x610x292/FNU

Nominal size

610 x 610 x 292 mm

Seal

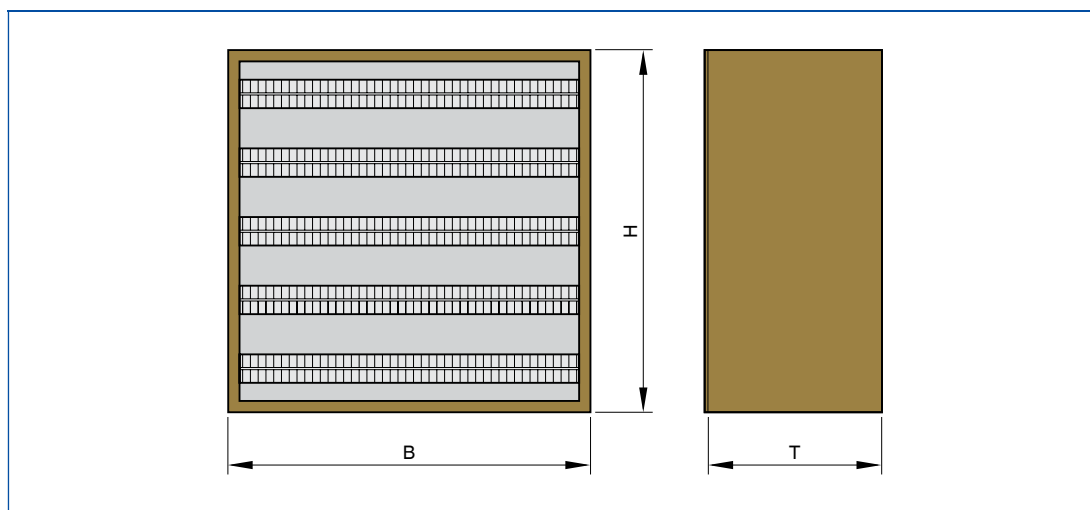
flat section seal on the upstream side

Dimensions



Activated carbon filter cell type ACF

Dimensional drawing of ACF/...



9

Standard construction

All weights are net, without packaging.

Dimensions [mm] and weight [kg]

Nominal size			①		②	③
B	H	T	l/s	m ³ /h	Pa	~ kg
305	610	292	280	1000	45	25
610	610	292	560	2000	45	30

① Nominal volume flow rate

② Differential pressure

③ Weight

Standard text

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

Activated carbon filter cells ACF for the adsorption of gaseous odorous substances and contaminants and for the adsorption of hydrocarbons and traces of inorganic compounds from supply or recirculated air. Compact depth construction. Activated carbon filter cells are available in standard sizes. Flat section seal as standard.

Special features

- Upon request, filter cells can be provided with other carbon types for special applications and operating conditions, e.g. for the adsorption of sulphur and chlorine compounds

Materials and surfaces

- Activated carbon sticks
- Frame made of moisture-resistant particle board

Sizing data

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

Order options

1 Type

ACF Activated carbon filter cell

2 Nominal size [mm]

B × H × T

3 Seal

No entry: none

FNU Flat section seal on the upstream side



Filter units and filter elements

Basic information and nomenclature



- Selection of filter elements
- Test method according to EN 779
- Eurovent certification
- Energy efficiency according to Eurovent document 4/11
- Test method according to EN 1822
- Easy Product Finder
- New product names

Filter units and filter elements

Basic information and nomenclature

	Filter class	Construction	Area of application	Examples
Coarse dust filter, particle size > 10 µm				
Insects, textile threads, sand, flue ash, pollen, spores, cement dust, carbon dust	G3 G4	Type FMC (Automatic roll filter media)	Prefilters and recirculated air filters	Civilian shelters
		Type FMR (roll media made of glass fibres or chemical fibres)	Extract air	Paint spray booths and kitchen extract air
		Type FMP (filter medium as roll media or cut-to-size pads)	Used to protect air handling units and compact units from contamination	Room air conditioners, fans
		Type ZL (Z-line filters) Type PFC (pocket filters made of non-woven chemical fibres)	Prefilters	For filter classes M5 to F9
Fine dust filters, particle size 1 – 10 µm				
Pollen, spores, cement dust, bacteria and germs Aerosol insecticides	M5 M6 F7	Type FMR (roll media made of chemical fibres)	Fresh air filters for rooms with low requirements	Factory buildings, storage rooms, and garages
		Type FMP (filter medium as roll media or cut-to-size pads)	Prefilters and recirculated air filters	Ventilation plant rooms
		Type ZL (Z-line filters) Type PFC (pocket filters made of non-woven chemical fibres)	Final filters in air conditioning systems	Sales rooms, department stores, offices
Oil spray and accumulated soot, tobacco smoke, metal oxide smoke	F7 F8 F9	Type PFS (pocket filters made of non-woven synthetic fibres)	Prefilters in air conditioning systems	For filter classes F7 to F9
		Type PFG (pocket filters made of non-woven glass fibres)	Final filters in air conditioning systems	Offices, production rooms, central control rooms, hospitals, computer centres
		Type PFN (pocket filters made of NanoWave® medium)	Prefilters	For filter classes E11, E12 and H13
		Type MFI (Mini Pleat filter inserts) Type MFE (Mini Pleat filter elements) Type MFC (Mini Pleat filter cells) Type MFP (Mini Pleat filter panels) Type DFF (Deep Pleat compact fine dust filter)		
Particulate filters, particle size < 1 µm				
Bacteria and viruses tobacco smoke metal oxide smoke asbestos dust	E10 E11 H13	Type MFI (Mini Pleat filter inserts)	Final filters for the most critical requirements	Laboratories, production rooms in the food processing and pharmaceutical industries
		Type MFE (Mini Pleat filter elements)		Fine-mechanical, optical, and electronic industries
		Type MFC (Mini Pleat filter cells) Type MFP (Mini Pleat filter panels) Type DFH (Deep Pleat particulate filter cells)		Medicine
Particulate filters for clean room technology				
Particle size < 1 µm see Particulate filters	H13	Type MFI (Mini Pleat filter inserts) Type MFE (Mini Pleat filter elements) Type MFC (Mini Pleat filter cells) Type MFP (Mini Pleat filter panels) Type DFH (Deep Pleat particulate filter cells)	Final filters	For rooms rated to an ISO class between 7 and 9, or class 10000 or 100000 according to Federal Standard
Various stages of oil vapour and soot suspended radioactive particles	H14	Type MFI (Mini Pleat filter inserts) Type MFC (Mini Pleat filter cells) Type MFP (Mini Pleat filter panels)		For rooms rated to an ISO class between 5 and 7, or class 100, 1000 or 10000 according to Federal Standard
Aerosols	H14 U15 U16	Type MFPCR (Mini Pleat filter panels for clean room technology)		For rooms rated to an ISO class between 1 and 4, or class 1 or 10 according to Federal Standard

Test method



Pocket filter, type PFG



Mini Pleat filter insert
type MFI, construction PLA



Mini Pleat filter panel
type MFP

EN 779 – test method

Coarse and fine dust filters are used for separating contaminants from the atmospheric air for general use in ventilation and air conditioning systems as well as in process engineering.

For the testing of coarse and fine dust filters, European standard EN 779, 'Particulate air filters for general ventilation', describes a uniform, reproducible test method, the requirements for particulate filters, and the test rig for measurement.

Measurement of the initial differential pressure

The initial differential pressure is the differential pressure of the clean sample. It is measured at least at 50 %, 75 %, 100 %, and 125 % of the nominal volume flow rate to which the filter is subjected. The measurement results are used to create a curve of the differential pressure as a function of the volume flow rate.

Measurement of the arresstance

For the determination of the arresstance, synthetic dust (ASHRAE dust) is fed at increments at nominal volume flow rate. The composition of the synthetic test dust is based on weight percentages of the following:

- 72 weight percent of 'fine' test dust to ISO 12103-1 A2
- 23 weight percent of black carbon
- 5 weight percent of lint cotton

Downstream of the sample, a final filter takes up the dust that has not been arrested by the sample. From the weight gain of the final filter and the amount of dust fed, the arresstance is determined gravimetrically, i.e. by weighing the final filter after every dust feed procedure. Every dust feed results in an increase of the differential pressure of the filter. The test is continued until the final differential pressure defined in the standard is reached.

The maximum final differential pressure is 250 Pa for coarse dust filters, and 450 Pa for fine dust filters.

Then the average arresstance for the entire duration of the test is calculated.

Calculation of the dust holding capacity

The dust holding capacity is the product of the total mass of dust fed and the average arresstance.

Measurement of the efficiency

For fine dust filters, the efficiency is measured together with the arresstance.

First, the initial efficiency of the clean filter is determined. The efficiency is then measured again after each measurement of the arresstance. To determine the efficiency, the sample is treated with a test aerosol made of DEHS (di-ethyl-hexyl sebacate). The efficiency is determined at the beginning and directly after each dust feed (ASHRAE test dust) by counting particles. The particle counter used can count particles as small as 0.1 μm .

For the test, an aerosol made of DEHS and with a particle size of 0.2 – 3.0 μm is mixed with the test air. Upstream and downstream of the filter, partial airflows are sampled and fed to the particle counter. The test is stopped at a final differential pressure of 450 Pa. Finally, the average efficiency for the entire duration of the test is calculated. The classifying particle size is 0.4 μm .

Efficiency after electrostatic discharge

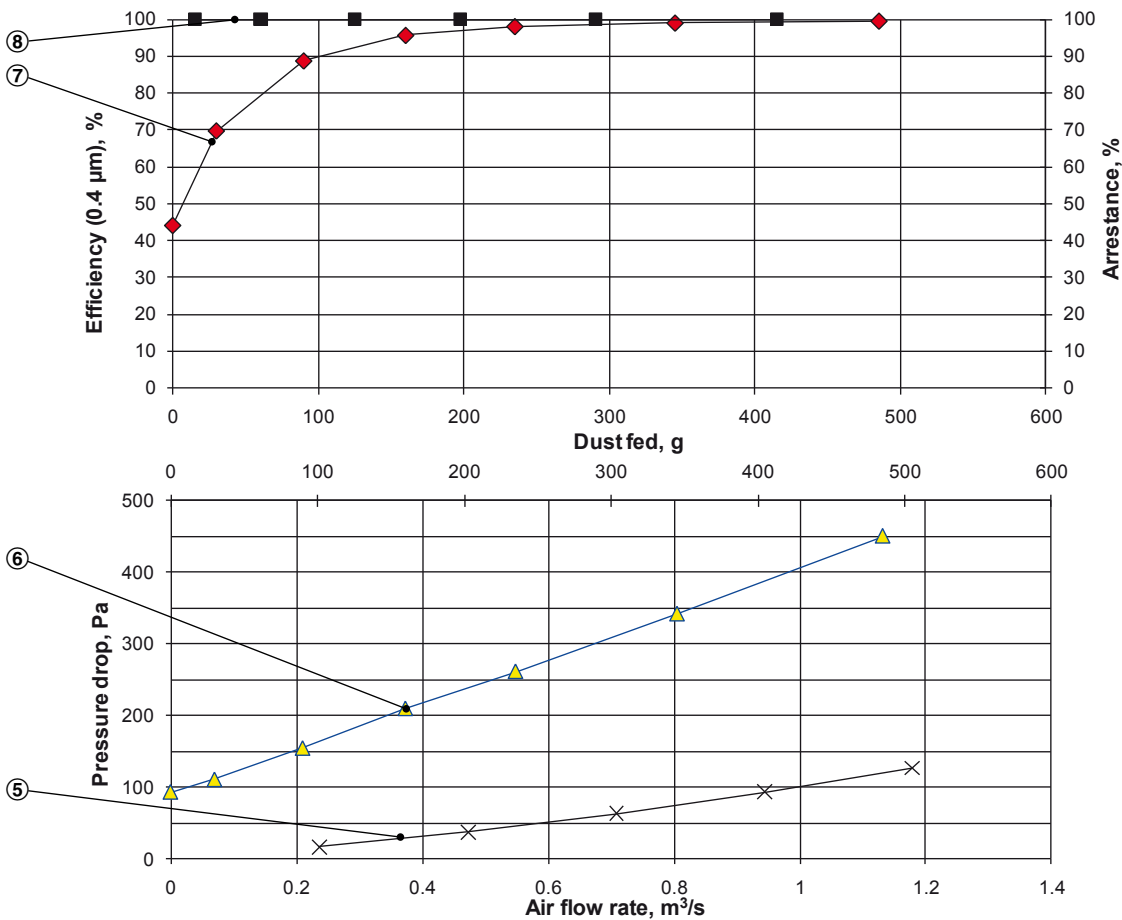
Certain synthetic filter media rely on electrostatic effects to achieve a high efficiency. Since electrostatic charges can be neutralised by some contaminants in the air, the efficiency of a filter is also determined after a complete discharge.

For this purpose, the IPA test method (isopropanol treatment) is described in detail in the EN 779:2012 standard. The process is such that representative samples from the filter to be tested are dipped in isopropanol, dried, and then the efficiency is measured with a particle size of 0.4 μm .

EN779:2012 AIR FILTER RESULTS

① GENERAL				
Test no.: SP201103101	Date of test: 08/03/2011 - 11/03/2011		Supervisor: CM/TER	
Test requested by: TROX GmbH		Device receiving date		
Device delivered by: TROX GmbH		07/03/2011		
② DEVICE TESTED				
Model: PFN-F7-GAL-25		Manufacturer: TROX GmbH	Construction: Pocket filter, 8 pockets	
Type of media: Synthetic		Net effective filtering area: 6.4 m ²	Filter dimensions (width x height x depth): 592 mm x 592 mm x 600 mm	
③ TEST DATA				
Test air flow rate: 0.944 m ³ /s	Test air temperature: 28 to 33 °C	Test air relative humidity: 11 to 18 %	Test aerosol: DEHS	Loading dust: ASHRAE 52/76
④ RESULTS				
Initial pressure drop: 93 Pa	Initial arrestance: >99 %	Initial efficiency (0.4 µm): 44 %	Test dust capacity: 217 / 353 / 480 g	Untreated/ discharged efficiency of media (0.4 µm): 46.5 % / 39,8 %
Final test pressure drop: 250 / 350 / 450 Pa	Average arrestance: >99% / >99% / >99%	Average efficiency (0.4 µm): 85% / 90% / 93%	Filter class (450 Pa): F7	Remarks:
Note: The performance results are only valid for the tested item and cannot by themselves be quantitatively applied to predict efficiency and lifetime in service				

10



- ① General information
- ② Information on the tested filter
- ③ Test data
- ④ Test results
- ⑤ Differential pressure as a function of the volume flow rate (clean sample)

- ⑥ Differential pressure as a function of the dust fed at the test volume flow rate
- ⑦ Efficiency (0.4µm) as a function of the dust fed at the test volume flow rate
- ⑧ Filtration efficiency as a function of the dust fed at the test volume flow rate

Classification

The new EN 779:2012 standard now requires specific minimum efficiencies for filter classes F7 to F9.

No minimum efficiency is required for filter classes F5 and F6. To differentiate them from filter classes F7, F8 and F9, the new filter group M has been created. The filters continue to be classified based on the average efficiency.

Group	Filter class	Final differential pressure	Average arrestance (Am) of the synthetic test dust	Average efficiency (Em) for particles of 0.4 µm	Minimum efficiency for particles of 0.4 µm
		Pa	%		
Coarse	G1	250	50 ≤ Am < 65	–	–
Coarse	G2	250	65 ≤ Am < 80	–	–
Coarse	G3	250	80 ≤ Am < 90	–	–
Coarse	G4	250	90 ≤ Am	–	–
Medium	M5	450	–	40 ≤ Em < 60	–
Medium	M6	450	–	60 ≤ Em < 80	–
Fine	F7	450	–	80 ≤ Em < 90	35
Fine	F8	450	–	90 ≤ Em < 95	55
Fine	F9	450	–	95 ≤ Em	70

Eurovent certification



Objective and contents

The objective of the certification programme is the creation of shared databases with data on the technical properties of air filters that are tested by independent organisations. These independent organisations check whether the data given in a manufacturer's catalogue corresponds to the actual results of filter tests.

Once a sample product has been successfully tested by an independent organisation, the resulting certification applies to the defined product range and applications.

Certification is officially performed by the Eurovent Certification Company.

In addition to the certification number, the EUROVENT logo may be used.

Usually filters of classes M5 to F9 are tested. The tests are performed by independent, accredited testing institutes. For filters, these are VTT in Finland and SP in Sweden.

Quality management as a prerequisite for participation

Participation in the Eurovent certification programme is voluntary. Manufacturers who want to have their filter portfolio certified must have a quality management system such as ISO 9001.

Random selection of samples

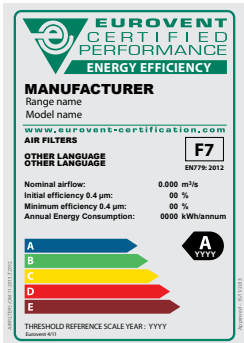
Once a year, Eurovent selects one filter to be tested from four different product groups for each manufacturer. Product groups and the respective filters are selected at random.

The certificate

If all four filters have successfully passed the test, Eurovent provides the manufacturer with a certificate that is valid for one year. The certificate applies to all fine dust filters of the manufacturer (the 'certify all' principle). The tests are repeated every year.



Energy efficiency according to Eurovent document 4/11



The energy label makes the decision easy

The energy consumption of ventilation systems is decisive for the economic efficiency of the entire building. Filters have a great influence on the energy consumption of ventilation systems since they generate differential pressures that have to be compensated by an increase in the energy supply. Up to 80% of the costs for air filtration are energy costs. This is why every facilities manager would like to know about the energy efficiency of filters.

Eurovent document 4/11 describes a uniform method to evaluate the energy efficiency of filter classes G4, M5, M6, and F7 to F9.

Practical calculation of the average differential pressure

The average differential pressure is calculated according to EN 779 as a function of the dust feed at the test volume flow rate.

Based on the measuring results, the average differential pressure is calculated using the following formula: fit fourth degree polynomial. In the process, filter group G filters are fed with 350 g of ASHRAE dust, group M filters with 250 g, and group F filters with 100 g. This corresponds to the average dust load of the filter in one year of operation.

What do the energy classes mean?

There are seven energy classes (A to G). Class A filters are particularly energy-efficient. Class G filters, on the other hand, have a comparatively high energy consumption.

Which filters may carry the energy label?

The Eurovent energy label applies to filters of classes G4 to F9 which are tested to the EN 779:2012 standard. It can only be used by manufacturers whose filters are certified by Eurovent.

Environmental protection and economic efficiency

The energy classification according to Eurovent is a reliable method for realistically estimating the energy consumption of filters in all kinds of systems. It is recognised by all important European manufacturers and represents an important contribution to the reduction of energy consumption and CO2 emissions.

Calculation of the average differential pressure

$$\overline{\Delta p} = \frac{1}{M} \int_0^M \Delta p(m) \times d(m) = \frac{1}{5}a \times M^4 + \frac{1}{4}b \times M^3 + \frac{1}{3}c \times M^2 + \frac{1}{2}d \times M + \Delta p_i$$

Calculation of the energy consumption for a filter

$$W = \frac{q_v \times \overline{\Delta p} \times t}{\eta \times 1000}$$

W: Energy consumption
 q_v : Volume flow rate
 Δp : Average differential pressure
 t: Operating time
 η : Fan efficiency
Given data
 $q_v = 0.944 \text{ m}^3/\text{s}$
 $t = 6000 \text{ h}$
 $\eta = 0.50$

Eurovent limits for the energy classification of filters

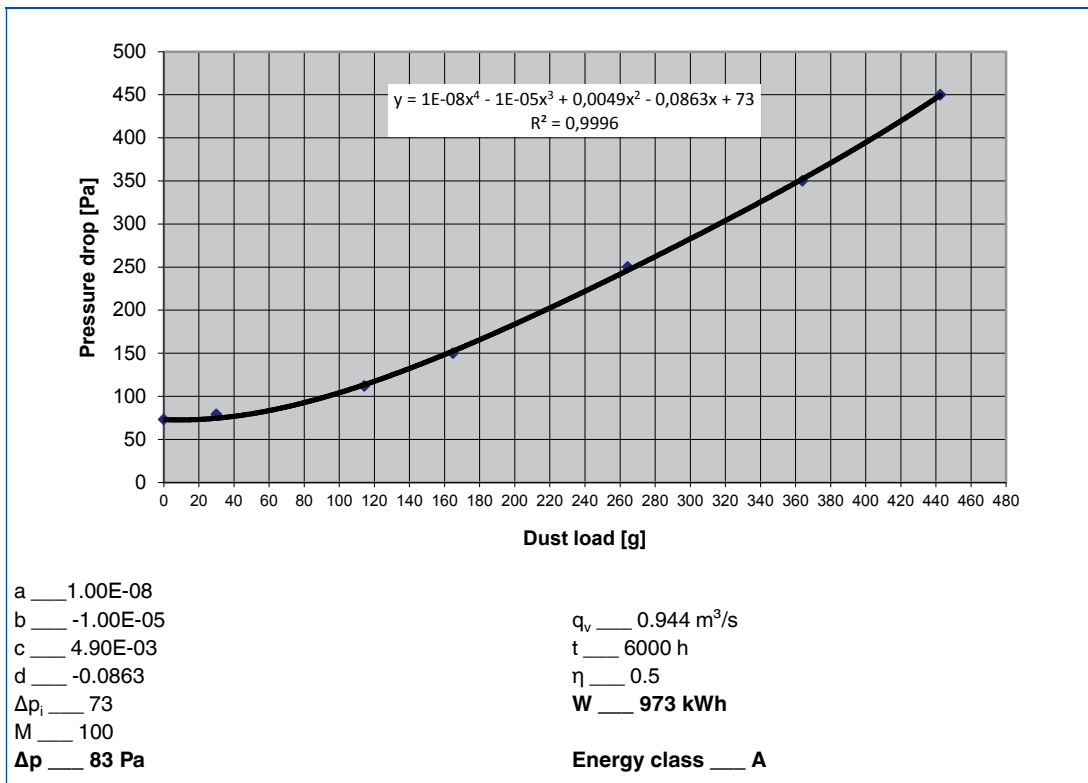
Filter class	G4	M5	M6	F7	F8	F9
MTE	-			MTE ≥ 35 %	MTE ≥ 55 %	MTE ≥ 70 %
	M _G = 350 g ASHRAE	M _M = 250 g ASHRAE		M _F = 100 g ASHRAE		
	kWh					
A	0 – 600	0 – 650	0 – 800	0 – 1200	0 – 1600	0 – 2000
B	>600 – 700	>650 – 780	>800 – 950	>1200 – 1450	>1600 – 1950	>2000 – 2500
C	>700 – 800	>780 – 910	>950 – 1100	>1,450 – 1700	>1950 – 2300	>2500 – 3000
D	>800 – 900	>910 – 1040	>1100 – 1250	>1700 – 1950	>2300 – 2650	>3000 – 3500
E	>900 – 1000	>1040 – 1170	>1250 – 1400	>1950 – 2200	>2650 – 3000	>3500 – 4000
F	>1000 – 1100	>1170 – 1300	>1400 – 1550	>2200 – 2450	>3000 – 3350	>4000 – 4500
G	>1100	>1300	>1550	>2450	>3350	>4500

MTE: Minimum test efficiency

Calculation of the average differential pressure

$$\bar{\Delta p} = \frac{1}{M_0} \int \Delta p(m) \times d(m) = \frac{1}{5} a \times M^4 + \frac{1}{4} b \times M^3 + \frac{1}{3} c \times M^2 + \frac{1}{2} d \times M + \Delta p_i$$

Example: Calculation of average differential pressure and energy consumption

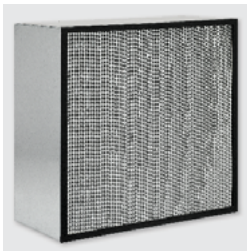




Mini Pleat filter panels for clean room technology, type MFPCR



Mini Pleat filter cells, type MFC



Deep Pleat particulate filter cells, type DFH

EN 1822 – test method

The EN 1822 standard applies to tests for the filtration performance of efficient particulate air filters (EPA), high-efficiency particulate air filters (HEPA) and ultra low penetration air filters (ULPA) in the manufacturer's production facility.

The European EN 1822 standard was first published in 1998 and last revised in 2011. The standard consists of five parts.

It defines a method for testing the efficiency by counting particles using a liquid or solid test aerosol. The test aims at determining the particle size at which the filter shows its minimum filtration efficiency.

This particle size is called the 'most penetrating particle size, or MPPS'. As a rule, particulate filters with glass fibre papers can separate particles as small as 0.1 to 0.25 µm.

Part 1 – Classification, performance test, and labelling

Part 1 of the standard deals with the classification, performance testing, and labelling of particulate filters. On the basis of the values for local efficiency and overall efficiency, the filter is assigned to a filter class according to the table below.

Filter class	Overall		Local	
	Efficiency	Penetration	Efficiency	Penetration
%				
E10	≥ 85	≤ 15	–	–
E11	≥ 95	≤ 5	–	–
E12	≥ 99.5	≤ 0.5	–	–
H13	≥ 99.95	≤ 0.05	≥ 99.75	≤ 0.25
H14	≥ 99.995	≤ 0.005	≥ 99.975	≤ 0.025
U15	≥ 99.9995	≤ 0.0005	≥ 99.9975	≤ 0.0025
U16	≥ 99.99995	≤ 0.00005	≥ 99.99975	≤ 0.00025
U17	≥ 99.999995	≤ 0.000005	≥ 99.99999	≤ 0.0001

Part 2 – Measuring devices and aerosol generators

Part 2 of the standard describes the measuring devices and aerosol generators used for the test. It also explains the statistical basis for particle counting in cases where the testing equipment registers only very few counts.

Part 3 – Determination of fractional efficiency and MPPS

Part 3 of the standard describes how the fractional efficiency and the MPPS are determined. The flat sheet filter medium is fixed in a frame and subjected to the test air flow. The test air flow contains a test aerosol. Upstream and downstream of the filter, partial air flows are sampled in order to determine the concentration of particles of various sizes. The results of the measurement are shown as a fractional efficiency curve. The particle size with the highest penetration is known as MPPS.



Test rig EN 1822-4

Part 4 – Leakage test, determination of local efficiency and overall efficiency

Part 4 of the standard is dedicated to the leakage testing of filter elements using a scan test.

With a test aerosol whose average particle size equals the MPPS, the filter element is checked for leakage. The overall efficiency is calculated from the measured local filtration efficiencies. The leakage test serves to test the filter element for local penetration values that exceed the permissible levels.

For the leakage test, the test filter is fixed in a mounting assembly and subjected to a test air flow that is equal to the nominal volume flow rate. After the measurement of the differential pressure at the nominal volume flow rate, the filter is purged and the test aerosol produced by the aerosol generator is mixed with the prepared test air along a mixing duct such that it is spread homogeneously over the cross-section of the duct.

The particle flow rate on the downstream side of the tested filter is smaller than the particle flow

rate on the upstream side by the factor mean penetration.

Downstream of the filter, the manufacturing irregularities of the filter material or leaks in the filter material lead to a variation of the particle flow rate over the filter cross section. In addition, leaks at the edges of the filter or within the components of the test filter (sealant, filter frame, seal of the filter mounting assembly) may lead locally to an increase in the particle flow rate on the downstream side of the test filter.

During the leakage test, the particle flow distribution on the downstream side of the filter is determined to check if and where the limit values are exceeded. For this purpose a measuring probe is connected to the downstream particle counters.

When the filter is leak-free and fulfils the criteria of the overall efficiency, a test report is created. The test report contains the test number, the target data for the filter, and the actual data of the sample. The leak-free state of the filter is confirmed, and the filter is assigned a number .

Test rig EN 1822-4



Repair of leakage points

If the specified signal value is not exceeded during the probe run, the filter is free of leaks. If the signal value is exceeded, then this is an indication that the limit value for locally permissible penetration has been exceeded at this position. Should it be necessary to check the local penetration, then the probe is returned to the coordinates at which the signal values were reached in the scan test. The aim is to find the point with the maximum count rate.

At that point the count rate is measured with a stationary probe. At the same time the concentration of the aerosol on the upstream side is also measured continuously or intermittently. The filter may be repaired when the following

parameters apply. The filter shall be retested after repair.

» All repairs in total (including those made by the filter manufacturer) must neither block nor restrict more than 0.5 % of the filter face area (not including the frame).

» The maximum length of each repair point must not exceed 3.0 cm.

Part 5 Efficiency test of the filter element

The last part of the standard deals with the efficiency test of filter elements that could not be tested according to Part 4 due to their design. The downstream sampling to determine the overall efficiency takes place using stationary sampling probes.

Sizing example

Mini Pleat filter panels for clean room technology, type MFPCR

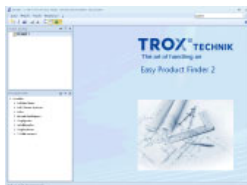
Sizing data

- Filter class _____ H14
- Volume flow rate _____ 1205 [m³/h]
- Initial differential pressure _____ 85 [Pa]
- Nominal size _____ 1220 x 610 [mm]
- Pleat depth _____ 70 [mm]

Construction

- ALG: Frame made of extruded aluminium profile (depth 90 mm)

Easy Product Finder



The Easy Product Finder allows you to size products using your project-specific data.

You will find the Easy Product Finder on our website.

MFPCR_EasyProductFinder

The screenshot shows the software interface with the following input parameters:

- Neue Position: Bestellschlüssel: MFPCRXX
- Produktauswahl: Ausführung (Aluminiumprofil selected)
- Abmessungen: Breite 1.220 mm (305...1830), Höhe 610 mm (305...1220)
- Faltenhöhe: Faltenhöhe 70 mm (50...120)
- Volumenstrom: Volumenstrom 1.205 m³/h (0...7132)

The results table is as follows:

Details	Diagramm Druckdifferenz	Diagramm Durchlassgrad	50%	60%	70%	80%	90%	100%	110%	120%
Anteil vom Volumenstrom in %			50%	60%	70%	80%	90%	100%	110%	120%
Volumenstrom [m ³ /h]			602	723	844	964	1084	1205	1325	1446
Anfangsdruckdifferenz [Pa]			43	51	60	69	78	87	97	106
Abscheidegrad [%]			99,9987	99,9987	99,9986	99,9985	99,9983	99,9980	99,9977	99,9972

Sizing results

- Initial differential pressure: _____ 87 [Pa]
- Overall efficiency: _____ 99.9980 [%]

- Requirement for filter class H14:
- Overall efficiency: _____ >99.995 [%]

Sizing example

Ceiling mounted particulate filters, type TFC

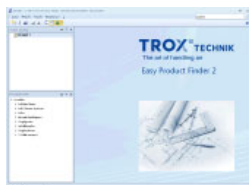
Sizing data

- Variant _____ SC
- Material _____ Casing SPC
- Air terminal device _____ VDW
- Nominal size _____ 600 × 24
- Spigot diameter _____ 248 mm
- Casing height _____ 344 mm
- Damper blade _____ M
- Fixing points _____ 2
- Suspension/measurement points _____ S
- Flange width _____ 15 mm
- Volume flow rate _____ 600 m³/h
- Required sound power level _____ 40 dB(A)

Selection of Mini Pleat filter panel

- MFP-H13-ALU/535×535×91×50

Easy Product Finder



The Easy Product Finder allows you to size products using your project-specific data.

You will find the Easy Product Finder on our website.

TFC_EasyProductFinder

[Projekt 1] - TROX Easy Product Finder - Standort des Projektes: Deutschland - Preisliste: 2013

Datei Ansicht Projekt Assistenten ?

Neue Position: Bestellschlüssel

TFC-SC-SPC-VDW / 600x24x248x344 / M / 2 / S / 15

Produktauswahl Zeichnung Bestelldetails

Volumenstrom
 Volumenstrom m³/h (216...900)

Zwischenräume/Abstände [m]

A	<input type="text" value="1,20"/>	(≥0,8)
H ₁	<input type="text" value="1,20"/>	(0,9...2,0)
X	<input type="text" value="3,00"/>	(≥1,2)
B	<input type="text" value="0,00"/>	

L = H₁ + X = 4,20

Enreihige Anordnung

Temperaturunterschied [K]

Δt_r (-12,0...+4,0)

Geeignete Filtermedien

MFP-H13-ALU / 535x535x91x50 (Rahmen aus Aluminium-Strangpressprofil (Tiefe 91mm))

Ergebnisse

v _{st}	0,24	m/s
Δt _{st}	-0,7	K
v _L	0,26	m/s
Δt _L	0,2	K
Filterbreite	535	mm
Filterhöhe	535	mm
Filtertiefe	91	mm

Anwendung/Foto/Video

TFC-SC VDW

Produktfoto

Akustische Ergebnisse

Zuluft			
Bezeichnung	Wert	Maßeinheiten	
dpt	193	Pa	
LWA	37	dB(A)	
LWNC	30		

Sizing results

- Total differential pressure: _____ 193 [Pa]
- Sound power level: _____ 37 [dB(A)]

New product names for filter units

①	②	③	④	
F210	SCF	C	Filter frames for wall installation	Standard cell frames
F220	SCF	B	Filter frames for wall installation	Standard cell frames
F240	SCF	B	Filter frames for wall installation	Standard cell frames
F242	SCF	A	Filter frames for wall installation	Standard cell frames
F250	MF	-	Filter frames for wall installation	Mounting frames
F270	MP	-	Filter frames for wall installation	Mounting plate
F340	UCA	1SPF	Filter casings for duct installation	Universal casings
F341	UCA	1SAF	Filter casings for duct installation	Universal casings
F344	UCA	2SPF	Filter casings for duct installation	Universal casings
F345	UCA	2SAF	Filter casings for duct installation	Universal casings
F353	KSF	-	Filter casings for duct installation	Ducted particulate filters
F360	KSFS	M	Filter casings for duct installation	Ducted particulate filters for critical requirements
F370	KSFS	PM	Filter casings for duct installation	Ducted particulate filters for critical requirements
F352	KSF	-	Filter casings for duct installation	Ducted particulate filters
F383	DCA	-	Filter casings for duct installation	Duct casings for particulate filters
F620	TFP	TC	Particulate filter air terminal devices	Pharmaceutical clean room terminal filters
F622	TFP	SC	Particulate filter air terminal devices	Pharmaceutical clean room terminal filters
F624	TFP	SCR	Particulate filter air terminal devices	Pharmaceutical clean room terminal filters
F631	TFM	-	Particulate filter air terminal devices	Particulate filter modules for ceilings
F640	TFC	SC	Particulate filter air terminal devices	Ceiling mounted particulate filters
F650	TFC	SR	Particulate filter air terminal devices	Ceiling mounted particulate filters
F654	TFC	SC00H	Particulate filter air terminal devices	Ceiling mounted particulate filters
F655	TFC	SCTN0	Particulate filter air terminal devices	Ceiling mounted particulate filters
F656	TFC	SCBR0	Particulate filter air terminal devices	Ceiling mounted particulate filters
F659	TFC	SCVFL	Particulate filter air terminal devices	Ceiling mounted particulate filters
F660	TFC	TC	Particulate filter air terminal devices	Ceiling mounted particulate filters
F670	TFW	-	Particulate filter air terminal devices	Wall mounted particulate filter
M536AB3	MD	DPC/230	Measuring devices	Pressure measuring devices
M536AB4	MD	DPC/24	Measuring devices	Pressure measuring devices
M536AC4	MD	APC	Measuring devices	Pressure measuring devices
M536AD4	MD	UT	Measuring devices	Pressure measuring devices
New type	SIF	B	Filter frames for wall installation	Filter wall
	KSFSSP	-	Filter casings for duct installation	Spigots
New variant	TFC	SRKSR	Particulate filter air terminal devices	Ceiling mounted particulate filters

① Previous name ② New name ③ Variant ④ Product

New product names for filter elements

①	②	③	④	⑤	
F702A...	FMC	G02-CAS	G3	Automatic roll filter media	Filter media
F702B...	FMR	G02	G3	Roll media	Filter media
F702B...	FMP	G02-ROL	G3	Cut-to-size pads	Filter media
F702C...	FMC	G02-RFMS/RFMA	G3	Automatic roll filter media	Filter media
F702D...	FMP	G02-PAD	G3	Cut-to-size pads	Filter media
F702N...	FMC	G02-CASN	G3	Automatic roll filter media	Filter media
F703B...	FMP	C03-ROL	G3	Cut-to-size pads	Filter media
F703B...	FMR	C03	G3	Roll media	Filter media
F703D...	FMP	C03-PAD	G3	Cut-to-size pads	Filter media
F704B...	FMR	C04	G3	Roll media	Filter media
F704B...	FMP	C04-ROL	G3	Cut-to-size pads	Filter media
F704D...	FMP	C04-PAD	G3	Cut-to-size pads	Filter media
F706B...	FMR	C06	M5	Roll media	Filter media
F706B...	FMP	C06-ROL	M5	Cut-to-size pads	Filter media
F706D...	FMP	C06-PAD	M5	Cut-to-size pads	Filter media
F711B...	FMR	C11	G4	Roll media	Filter media
F711B...	FMP	C11-ROL	G4	Cut-to-size pads	Filter media
F711D...	FMP	C11-PAD	G4	Cut-to-size pads	Filter media
F715B...	FMR	C15	G4	Roll media	Filter media
F715B...	FMP	C15-ROL	G4	Cut-to-size pads	Filter media
F715D...	FMP	C15-PAD	G4	Cut-to-size pads	Filter media
F718E...	ZL	NWO	G4	Z-Line filters	Filter media
F718K...	ZL	PLA	G4	Z-Line filters	Filter media
F719E...	ZL	NWO	M5	Z-Line filters	Filter media
F719K...	ZL	PLA	M5	Z-Line filters	Filter media
F721A...	FMC	C21-CAS	G3	Automatic roll filter media	Filter media
F721C...	FMC	C21-RFMA/RFMD	G3	Automatic roll filter media	Filter media
F725...	PFS	PLA, GAL	M5	Pocket filters made of non-woven synthetic fibres	Pocket filter
F726...	PFS	PLA, GAL	M6	Pocket filters made of non-woven synthetic fibres	Pocket filter
F728...	PFS	PLA, GAL	F7	Pocket filters made of non-woven synthetic fibres	Pocket filter
F736G...	DFF	GALSF/SMG/HMG	M6	Compact fine dust filters	Deep Pleat filters
F736M...	DFF	GALSF	M6	Compact fine dust filters	Deep Pleat filters
F736W...	DFF	MDF	M6	Compact fine dust filters	Deep Pleat filters
F736X...	DFF	GALDF/SMG/HMG	M6	Compact fine dust filters	Deep Pleat filters
F736Y...	DFF	GAL	M6	Compact fine dust filters	Deep Pleat filters
F737M...	DFF	GALSF	F7	Compact fine dust filters	Deep Pleat filters
F737W...	DFF	MDF	F7	Compact fine dust filters	Deep Pleat filters
F737Y...	DFF	GAL	F7	Compact fine dust filters	Deep Pleat filters
F739G...	DFF	GALSF/SMG/HMG	F9	Compact fine dust filters	Deep Pleat filters
F739M...	DFF	GALSF	F9	Compact fine dust filters	Deep Pleat filters
F739W...	DFF	MDF	F9	Compact fine dust filters	Deep Pleat filters
F739X...	DFF	GALDF/SMG/HMG	F9	Compact fine dust filters	Deep Pleat filters
F739Y...	DFF	GAL	F9	Compact fine dust filters	Deep Pleat filters

① Previous name ② New name ③ Construction ④ Filter class ⑤ Product

New product names for filter elements

①	②	③	④	⑤	
F743...	PFC	PLA, GAL	G4	Pocket filters made of non-woven chemical fibres	Pocket filter
F744...	PFG	PLA, GAL	M5	Pocket filters made of non-woven glass fibres	Pocket filter
F746...	PFG	PLA, GAL	M6	Pocket filters made of non-woven glass fibres	Pocket filter
F748...	PFG	PLA, GAL	F7	Pocket filters made of non-woven glass fibres	Pocket filter
F749...	PFG	PLA, GAL	F9	Pocket filters made of non-woven glass fibres	Pocket filter
F755F...	MFI	PLA	M5	Filter inserts	Mini Pleat filters
F755K...	MFP	PLA	M5	Filter panels	Mini Pleat filters
F755M...	MFI	SPC	M5	Filter inserts	Mini Pleat filters
F755S...	MFI	SPC	M5	Filter inserts	Mini Pleat filters
F756E...	MFC	STA	M6	Filter cells	Mini Pleat filters
F756E...	MFP	STA	M6	Filter panels	Mini Pleat filters
F756F...	MFI	PLA	M6	Filter inserts	Mini Pleat filters
F756K...	MFP	PLA	M6	Filter panels	Mini Pleat filters
F756M...	MFI	SPC	M6	Filter inserts	Mini Pleat filters
F756M...	MFC	GAL	M6	Filter cells	Mini Pleat filters
F756M...	MFP	GAL	M6	Filter panels	Mini Pleat filters
F756S...	MFI	SPC	M6	Filter inserts	Mini Pleat filters
F756W...	MFC	MDF	M6	Filter cells	Mini Pleat filters
F756W...	MFP	MDF/MDFF	M6	Filter panels	Mini Pleat filters
F757E...	MFC	STA	F7	Filter cells	Mini Pleat filters
F757E...	MFP	STA	F7	Filter panels	Mini Pleat filters
F757F...	MFI	PLA	F7	Filter inserts	Mini Pleat filters
F757K...	MFP	PLA	F7	Filter panels	Mini Pleat filters
F757M...	MFI	SPC	F7	Filter inserts	Mini Pleat filters
F757M...	MFC	GAL	F7	Filter cells	Mini Pleat filters
F757M...	MFP	GAL	F7	Filter panels	Mini Pleat filters
F757S...	MFI	SPC	F7	Filter inserts	Mini Pleat filters
F757W...	MFC	MDF	F7	Filter cells	Mini Pleat filters
F757W...	MFP	MDF/MDFF	F7	Filter panels	Mini Pleat filters
F759A...	MFE	AL	F9	Filter elements	Mini Pleat filters
F759E...	MFC	STA	F9	Filter cells	Mini Pleat filters
F759E...	MFP	STA	F9	Filter panels	Mini Pleat filters
F759F...	MFI	PLA	F9	Filter inserts	Mini Pleat filters
F759K...	MFP	PLA	F9	Filter panels	Mini Pleat filters
F759M...	MFI	SPC	F9	Filter inserts	Mini Pleat filters
F759M...	MFE	GAL	F9	Filter elements	Mini Pleat filters
F759M...	MFC	GAL	F9	Filter cells	Mini Pleat filters
F759M...	MFP	GAL	F9	Filter panels	Mini Pleat filters
F759S...	MFI	SPC	F9	Filter inserts	Mini Pleat filters
F759W...	MFC	MDF	F9	Filter cells	Mini Pleat filters
F759W...	MFP	MDF/MDFF	F9	Filter panels	Mini Pleat filters
F760E...	ACFC	STA		Filter cartridges	Activated carbon filters
F760F...	ACFI	PLA	-	Filter inserts	Activated carbon filters
F760J...	ACF			Filter cells	Activated carbon filters
F760K...	ACFC	PLA		Filter cartridges	Activated carbon filters
F760M...	ACFC	GAL		Filter cartridges	Activated carbon filters
F766...	PFN	PLA, GAL	M6	Pocket filters made of NanoWave® medium	Pocket filter
F768...	PFN	PLA, GAL	F7	Pocket filters made of NanoWave® medium	Pocket filter
F769...	PFN	PLA, GAL	F9	Pocket filters made of NanoWave® medium	Pocket filter

① Previous name ② New name ③ Construction ④ Filter class ⑤ Product

New product names for filter elements

①	②	③	④	⑤	
F770E...	DFH	STA	E11	Particulate filter cells	Deep Pleat filters
F770M...	DFH	GAL	E11	Particulate filter cells	Deep Pleat filters
F770W...	DFH	MDF	E11	Particulate filter cells	Deep Pleat filters
F771E...	DFH	STA	H13	Particulate filter cells	Deep Pleat filters
F771M...	DFH	GAL	H13	Particulate filter cells	Deep Pleat filters
F771W...	DFH	MDF	H13	Particulate filter cells	Deep Pleat filters
F779S...	MFI	SPC	E10	Filter inserts	Mini Pleat filters
F780A...	MFE	AL	E11	Filter elements	Mini Pleat filters
F780AR...	MFCA	AL	E11	Filter cartridges	Mini Pleat filters
F780E...	MFC	STA	E11	Filter cells	Mini Pleat filters
F780E...	MFP	STA	E11	Filter panels	Mini Pleat filters
F780M...	MFE	GAL	E11	Filter elements	Mini Pleat filters
F780M...	MFC	GAL	E11	Filter cells	Mini Pleat filters
F780M...	MFP	GAL	E11	Filter panels	Mini Pleat filters
F780N...	MFP	ALN	E11	Filter panels	Mini Pleat filters
F780S...	MFI	SPC	E11	Filter inserts	Mini Pleat filters
F780V...	MFP	ALV	E11	Filter panels	Mini Pleat filters
F780W...	MFC	MDF	E11	Filter cells	Mini Pleat filters
F780W...	MFP	MDF	E11	Filter panels	Mini Pleat filters
F780Y...	MFP	ALY	E11	Filter panels	Mini Pleat filters
F780Z...	MFP	ALZ	E11	Filter panels	Mini Pleat filters
F781A...	MFE	AL	H13	Filter elements	Mini Pleat filters
F781AR...	MFCA	AL	H13	Filter cartridges	Mini Pleat filters
F781E...	MFP	STA	H13	Filter panels	Mini Pleat filters
F781E...	MFC	STA	H13	Filter cells	Mini Pleat filters
F781M...	MFE	GAL	H13	Filter elements	Mini Pleat filters
F781M...	MFC	GAL	H13	Filter cells	Mini Pleat filters
F781M...	MFP	GAL	H13	Filter panels	Mini Pleat filters
F781N...	MFP	ALN	H13	Filter panels	Mini Pleat filters
F781S...	MFI	SPC	H13	Filter inserts	Mini Pleat filters
F781U...	MFP	ALU	H13	Filter panels	Mini Pleat filters
F781V...	MFP	ALV	H13	Filter panels	Mini Pleat filters
F781W...	MFC	MDF	H13	Filter cells	Mini Pleat filters
F781W...	MFP	MDF	H13	Filter panels	Mini Pleat filters
F781Y...	MFP	ALY	H13	Filter panels	Mini Pleat filters
F781Z...	MFP	ALZ	H13	Filter panels	Mini Pleat filters
F782B...	MFPCR	ALB	H14	Filter panels for clean room technology	Mini Pleat filters
F782C...	MFPCR	ALC	H14	Filter panels for clean room technology	Mini Pleat filters
F782E...	MFC	STA	H14	Filter cells	Mini Pleat filters
F782E...	MFP	STA	H14	Filter panels	Mini Pleat filters
F782G...	MFPCR	ALG	H14	Filter panels for clean room technology	Mini Pleat filters
F782M...	MFC	GAL	H14	Filter cells	Mini Pleat filters
F782M...	MFP	GAL	H14	Filter panels	Mini Pleat filters
F782S...	MFI	SPC	H14	Filter inserts	Mini Pleat filters
F782U...	MFP	ALU	H14	Filter panels	Mini Pleat filters
F782V...	MFP	ALV	H14	Filter panels	Mini Pleat filters
F782W...	MFC	MDF	H14	Filter cells	Mini Pleat filters
F782W...	MFP	MDF	H14	Filter panels	Mini Pleat filters
F782Y...	MFP	ALY	H14	Filter panels	Mini Pleat filters
F782Z...	MFP	ALZ	H14	Filter panels	Mini Pleat filters

① Previous name ② New name ③ Construction ④ Filter class ⑤ Product

New product names for filter elements

①	②	③	④	⑤
F783B...	MFPCR	ALB	U15	Filter panels for clean room technology Mini Pleat filters
F783C...	MFPCR	ALC	U15	Filter panels for clean room technology Mini Pleat filters
F783G...	MFPCR	ALG	U15	Filter panels for clean room technology Mini Pleat filters
F784C...	MFPCR	ALC	U16	Filter panels for clean room technology Mini Pleat filters
F784G...	MFPCR	ALG	U16	Filter panels for clean room technology Mini Pleat filters
New variant	MFP	ALZ	M6	Filter panels Mini Pleat filters
New variant	MFP	ALZ	F7	Filter panels Mini Pleat filters
New variant	MFP	ALZ	F9	Filter panels Mini Pleat filters
New type	FHD	D, R, V	E11	Filter panels with hood Mini Pleat filters
New type	FHD	D, R, V	H13	Filter panels with hood Mini Pleat filters
New type	FHD	D, R, V	H14	Filter panels with hood Mini Pleat filters
New type	FHD	D, R, V	U15	Filter panels with hood Mini Pleat filters
New variant	ACFI	PLA	PF	Filter inserts Activated carbon filters

① Previous name ② New name ③ Construction ④ Filter class ⑤ Product

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