Minipleat Filter Inserts

F756 to F759: Filter classes F6 to F9 in accordance with EN 779
F779 to F781: Filter classes H10 to H13 in accordance with EN 1822

TROX® TECHNIK

Contents · Description

Minipleat Filter Inserts are used as prefilters for extracting fine dust particles or as high efficiency filters for extracting suspended particles such as aerosols, toxic dust, viruses, germs etc. from supply and extract air.

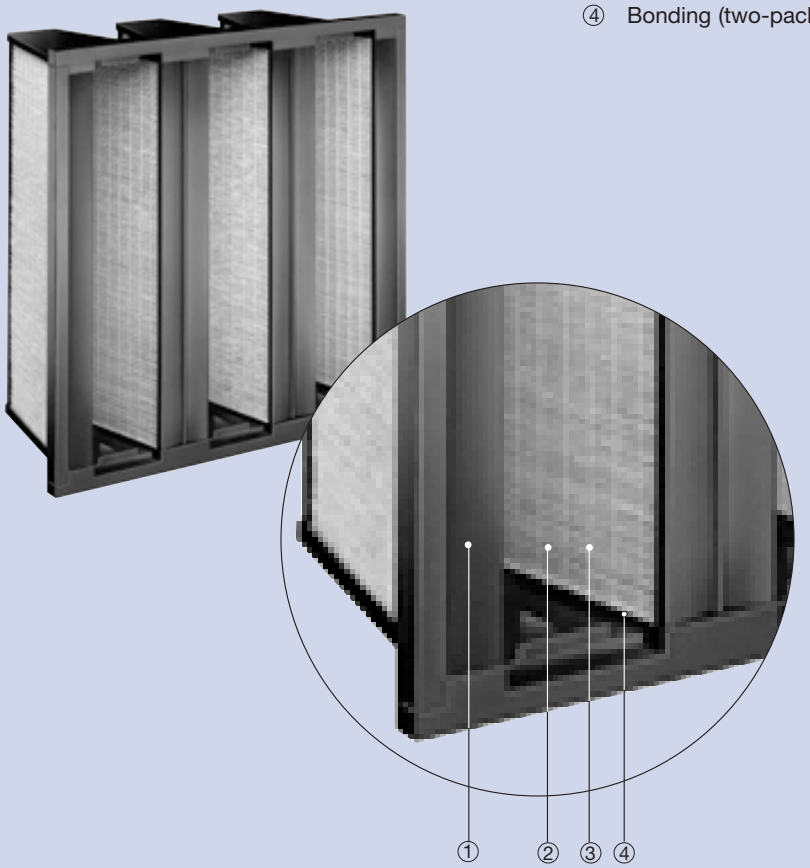
Special features of these filter inserts are the coordination of filter size, nominal volume flow, pressure differential, dust holding capacity and service life.

They are used where high volume flows and extended filter service life are required.

The Minipleat Filter Inserts fit into frame assemblies for installation into walls or ducting. Air flow direction, assembly position and servicing side is optional.

Minipleat Filter Inserts

① Filter casing (plastic or metal)
② Filter media (cellulose or glass fibre paper)
③ Spacer (textile threads)
④ Bonding (two-pack polyurethane adhesive)



Installation and Application

Standard Cell Frame

For Minipleat Filter Inserts F756 to F759 construction **L**, **M**, **F** (see Filter Technical Data).

The standard cell frames are from galvanized steel with sealing strip and quick release clamps for secure fixing of the filter insert. They can be combined to provide an assembly of any height or width based on modular dimensional steps (see leaflets F2/2/EN/ and F3/3/EN.).

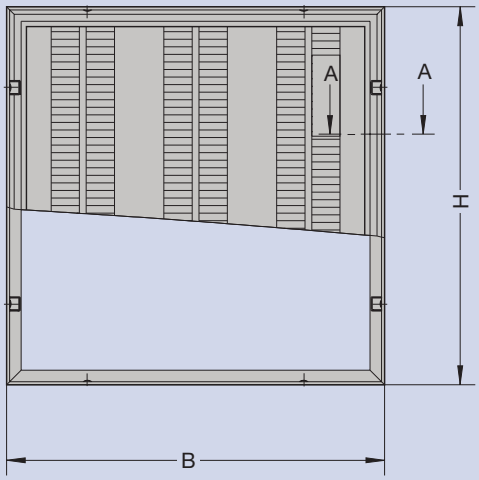
Holding Frame

For Minipleat Filter Inserts F756 to F781 Construction **S**.

The holding frames are from galvanized steel with clamp bolts for secure fixing of the filter insert. They can be combined to provide an assembly of any height or width based on modular dimensional steps.
(see leaflet F2/2/EN/.).

Dimensions: Standard Cell Frame

complete with Minipleat Filter Insert

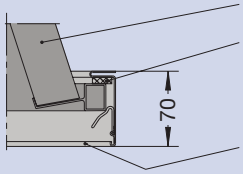


Order numbers:

Standard cell frame with Minipleat Filter Insert

Construction L, F and M (see Filter Technical Data)			
	Dimensions B x H in mm		
Filter type	610 x 305	610 x 508	610 x 610
F756	F256 . 17	F256 . 18	F256 . 19
F757	F257 . 17	F257 . 18	F257 . 19
F759	F259 . 17	F259 . 18	F259 . 19

Section A-A



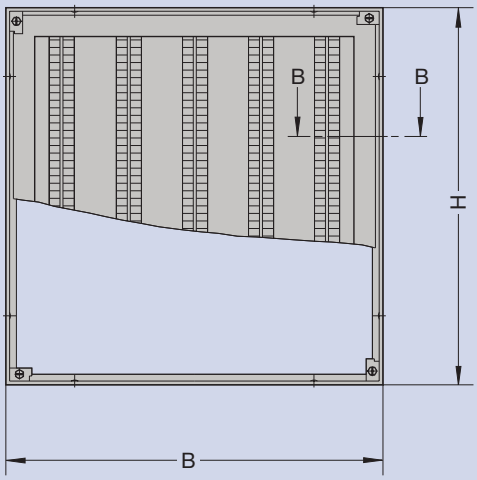
Minipleat Filter Insert

Seal
(Standard cell frame)

Standard cell frame

Dimensions: Holding Frame

complete with Minipleat Filter Insert

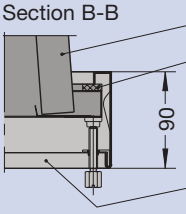


Order numbers:

Holding Frame with Minipleat Filter Insert

Model S (see Filter Technical Data)			
	Dimensions B x H in mm		
Filter type	610 x 305	610 x 508	610 x 610
F756	F256 S17	F256 S18	F256 S19
F757	F257 S17	F257 S18	F257 S19
F759	F259 S17	F259 S18	F259 S19
F779	F279 S17	F279 S18	F279 S19
F780	F280 S17	F280 S18	F280 S19
F781	F281 S17	F281 S18	F281 S19

Section B-B



Minipleat Filter Insert

Flat profile gasket

Holding frame

Dimensional tolerances + 0 mm – 1 mm

Filter Technical Data

Filter media

The filter media includes the use of high quality cellulose and glass fibre paper with various degrees of dust extraction efficiencies the structure and composition of which can meet the temperature and humidity requirements.

The filter media is folded into closely spaced shallow pleats, with textile thread spacers to ensure an optimum pleating geometry.

Filter casing

Casing from plastic or galvanised sheet steel with or without stove enamel paint finish. The components are assembled to form a rigid casing giving high stability.

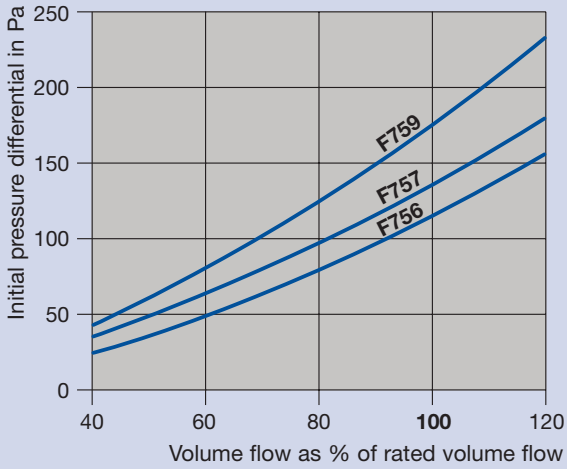
Sealing

The Minipleat Filter Cartridges Model S are supplied as standard with a flat-profile neoprene gasket which provides an airtight seal between filter casing and holding frame.

No seal is necessary for the Minipleat Filter Inserts of L, F and M construction as the holding frame is supplied with a gasket (as in Trox standard cell frame).

Filter data

Filter type		F 756	F 757	F 759
Filter class to BS EN 779[1)]		F 6	F 7	F 9
Average Efficiency	in %	65	85	95
Initial pressure differential at rated volume flow	in Pa	120	140	180
differential	in Pa	450	450	450
max. operational temperature	in °C	80	80	80
max. relative humidity	in %	90	100	100
Casing:		**Construction**		
–Plastic (filters with reduced nominal volume flow)		**L**	**L**	**L**
–Plastic		**F**	**F**	**F**
–galvanized steel		**M**	**M**	**M**
–stove-enamelled sheet steel		**S**	**S**	**S**



Code	Dimensions width B	height H	depth T	Nominal volume flow in l/s	in m^3/h	Approx. weight in kg
	Filter type F 756 to F 759; Construction L					
17	592	287	292	590	2125	3.5
18	592	490	292	985	3540	5.5
19	592	592	292	1180	4250	6.0
	Filter type F 756 to F 759; Construction F, M and S					
17	592	287	292	700	2500	3.5
18	592	490	292	1140	4100	5.5
19	592	592	292	1400	5000	6.0

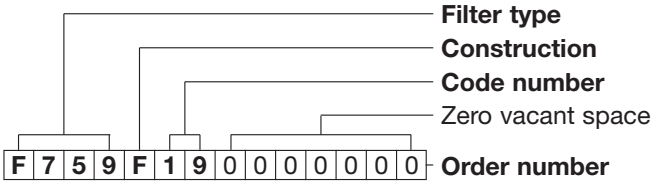
[1)] EN 779: Particulate air filters for general room air conditioning

Deviation from the nominal volume flow within the range shown has no detrimental effect on the data for the Minipleat Filter Inserts. If the value falls below this range the degree of filtration will be improved.

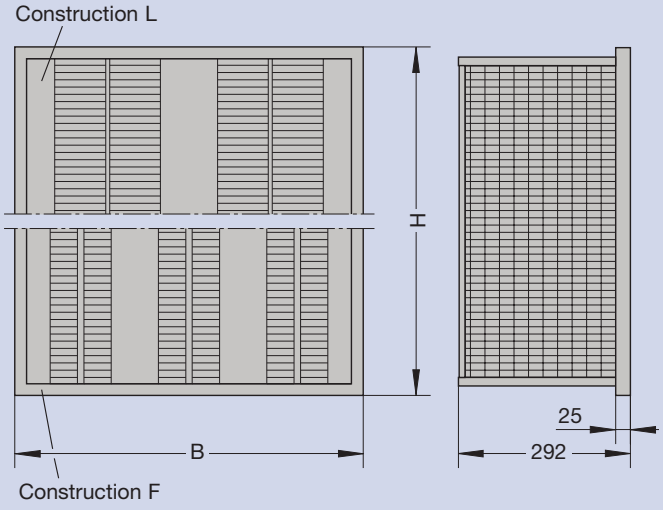
Volume flow figures in l/s have been rounded off, then converted to m^3/h.
Weights are net excluding packing;
Weight of packing per unit approx. 0.5 kg.

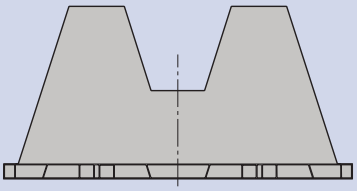
Order Code for Minipleat Filter Inserts

Filter class F 9	Filter type:	**F759**
Plastic casing	Construction:	**F**
Dimensions 592 x 592 x 292 mm	Code number:	**19**

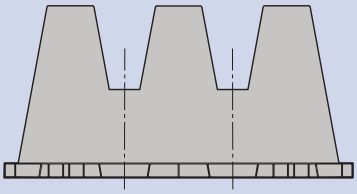


Dimensions: Construction L and F



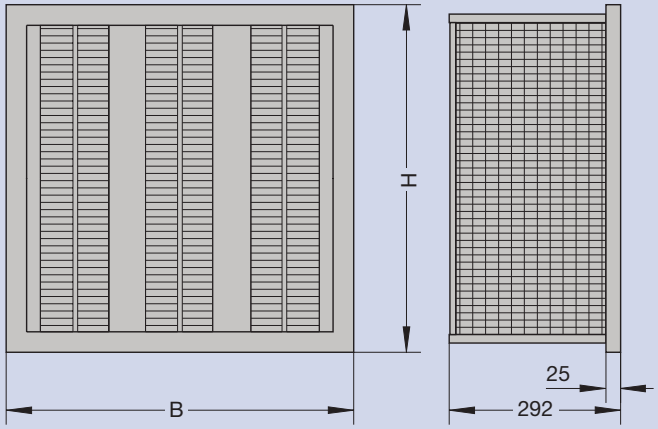


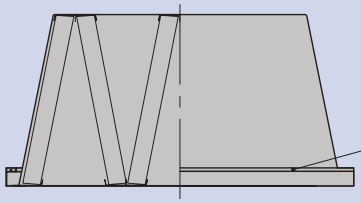
Construction L



Construction F

Dimensions: Construction M and S





Dimensional tolerances + 0 mm
– 1 mm

Filter Technical Data

Filter media

Various grades of high quality glass fibre paper are used, selected to meet the necessary temperature and humidity requirements.

The filter media is folded into closely spaced shallow pleats, with textile thread spacers to ensure uniform spacing of the pleats.

Filter casing

The Minipleat Filter Insert is constructed with a rigid galvanized, stove-enamelled sheet steel casing to guarantee high stability.

Protective grid

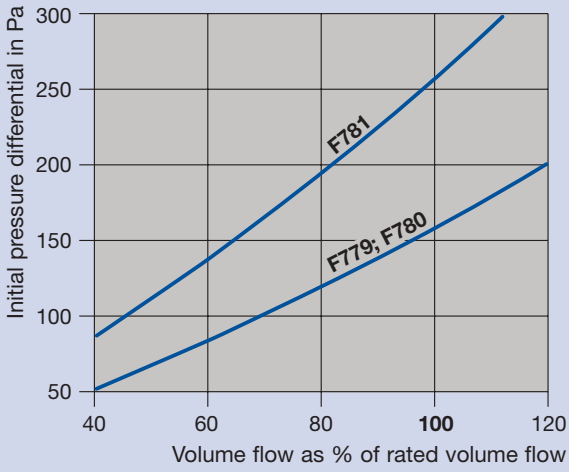
Side-mounted protective grid is standard.

Sealing

The filter inserts are supplied with a flat profile gasket as standard which provides an air tight seal between filter casing and holding frame.

Filter Data

Filter type		F779	F780	F781
Filter class to EN 1822[1)]		H 10	H 11	H 13
Extraction efficiency to EN 1822	in %	> 85	> 95	> 99.95
Initial pressure differential at nominal volume flow	in Pa	160	160	265
Rec. final pressure differential	in Pa	450	450	600
max. operating temp.	in °C	100	100	100
max. relative humidity	in %	100	100	100
Casing:		Construction		
– galvanized stove-enamelled sheet steel		S	S	S



Code	Dimensions in mm			Nominal volume flow		Approx. weight
	B	H	T	in l/s	in m^3/h	in kg
	Filter type F779					
17	592	287	292	590	2125	3.5
18	592	490	292	985	3540	5.5
19	592	592	292	1180	4250	6.0
	Filter type F780 and F781					
17	592	287	292	420	1500	4.5
18	592	490	292	670	2400	6.5
19	592	592	292	830	3000	8.0

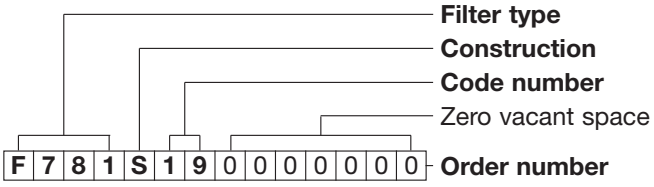
[1)] EN 1822: High efficiency terminal filter (HEPA and ULPA).

Volume flows in l/s have been rounded off and converted to m^3/h. Weights are net excluding packing; Weight of packing per unit approx. 0.5 kg.

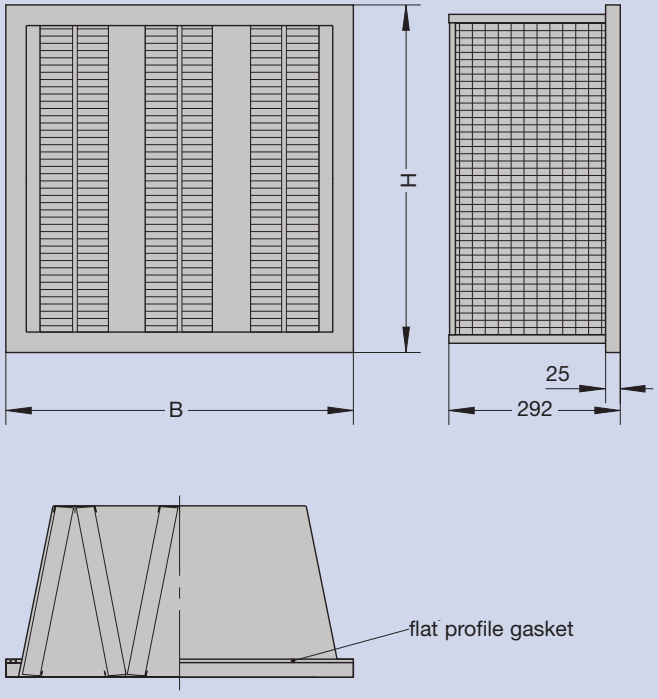
Deviation from the nominal volume flow within the range shown has no influence on filter performance. However, service life will increase at reduced volume flow.

Order Code for Minipleat Filter Inserts

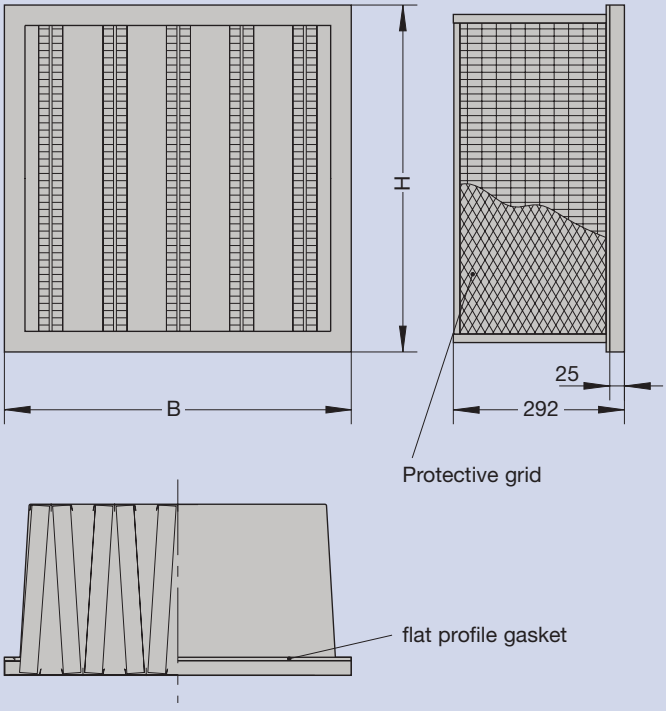
Filter class H 13	Filter type:	**F 781**
Galvanized steel filter casing	Construction:	**S**
Dimensions 592 x 592 x 292 mm	Code number:	**19**



Dimensions: Filter type F779



Dimensions: Filter type F780/F781



Dimensional tolerances + 0 mm / – 1 mm

Testing · Specification Text

Testing of particulate filters EN 779: Particulate air filters for general room air-conditioning

This norm is concerned with the performance testing of particulate air filters with an efficiency grade against atmospheric dust of up to 98% (see leaflet: F0/2/EN/.). The particulate filters are divided into filter grades F5 to F9 according to their test results.

Testing of high efficiency terminal filters EN 1822: High efficiency particulate filters (HEPA and ULPA)

This testing procedure to new European norms is based on particle counting using a liquid test aerosol with varying particle sizes.
The filters are rated by filter class according to their filtration performance (degree of extraction or permeability).

Leak test

This test is carried out in accordance with EN 1822 using the oil mist test to prove that the filters are free from leaks. Depending on the filter type Trox offers as standard the following guarantees for the filters:

F781: Filter elements individually tested for leaks by the oil-mist test.

Specification Text

Item	Qty.	Description
		Trox Minipleat Filter Inserts F756, F757 and F759 comprising: Plastic or galvanized sheet steel casing; Filter medium of high-grade cellulose or glass fibre paper with textile spacer. The Minipleat Filter Inserts are packed in damage-resistant cartons for transportation. **Trox Minipleat Filter Inserts F779, F780 and F781 comprising:** Galvanized sheet steel, stove-enamelled casing; filter medium in high-grade moisture resistant glass fibre paper with textile spacer. The Minipleat Filter Insert F781 is factory-tested for leaks using the oil-mist test. Minipleat Filter Inserts are packed in damage resistant cartons for transportation. **Technical data:** Filter class to EN 779 _____ Average efficiency _____ % Filter class to EN 1822 _____ Extraction efficiency to EN 1822 _____ % Dimensions (B x H x T) _____ mm Nominal volume flow _____ l/s (m^3/h) Initial pressure differential _____ Pa Max. operating temperature _____ °C Max. relative humidity _____ % Net weight _____ kg Order number _____ Manufacture: Trox
		Price / Each