

## Minipleat filter inserts

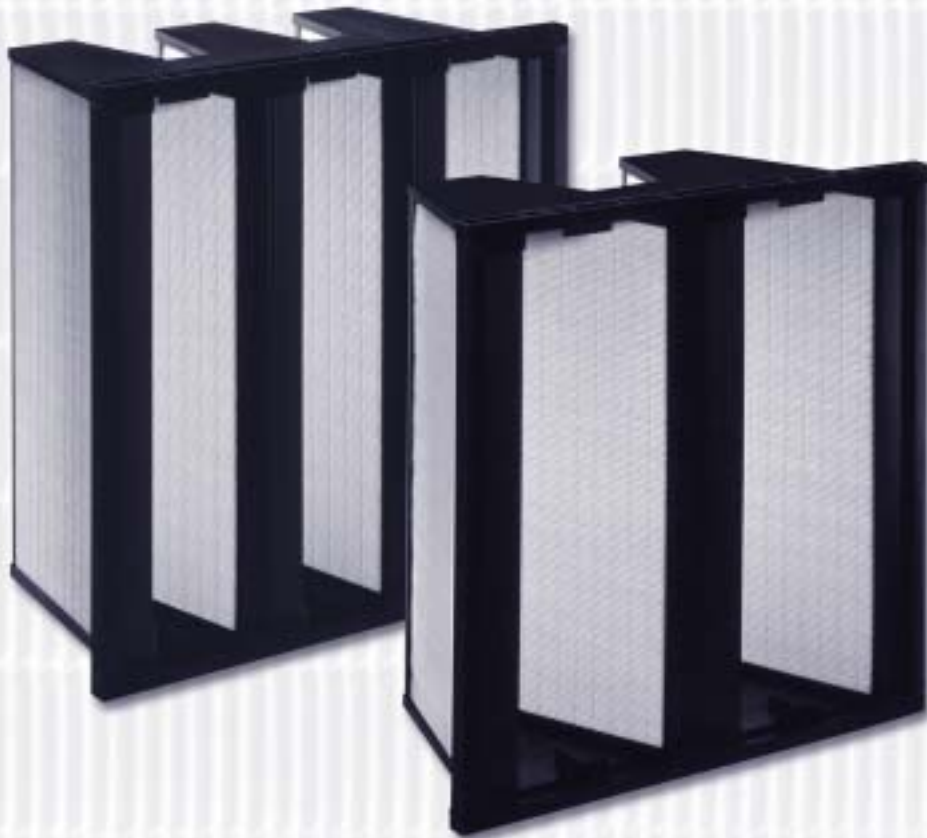
**Fine dust filters: F756, F757, F759**

**Filter classes: F6, F7, F9**

**HEPA filters: F779, F780, F781, F782**

**Filter classes: E10, E11, H13, H14**

- » Can be used as prefilters or final filters in ventilation systems for high volume flow rates
- » Air flow in either direction, assembly position and service side optional



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## Detail



Minipleat filter insert

### » Application

- Fine dust filters: Prefilters or final filters in ventilation systems for the separation of fine dust.
- HEPA filters: Main or final filters used for the most critical requirements of air purity and sterility in areas such as industry, research, medicine, pharmaceuticals, and nuclear engineering. Separation of suspended particles or aerosols, toxic dusts, viruses, bacteria etc. from the supply and extract air in ventilation systems with large volume flow rates and long filter life.

### » Filter types

Fine dust filters

- Type F756 (F6)
- Type F757 (F7)
- Type F759 (F9)

HEPA filters

- Type F779 (E10)
- Type F780 (E11)
- Type F781 (H13)
- Type F782 (H14)

### » Material

- Filter packs are made of high-quality, moisture-resistant glass-fibre paper which is folded into closely spaced shallow pleats.
- Spacers provide a uniform spacing of the pleats.
- Joint sealing compound made of permanently elastic two-component polyurethane adhesive.

### » Construction

L = Plastic frame (for filter with reduced nominal volume flow rate)

F = Plastic frame

M = Frame made of galvanised sheet steel with stoved enamel finish

S = Frame made of galvanised sheet steel with stoved enamel finish and flat section seal

### » Equipment

- Seal: Constructions L, F, and M do not require a seal since the mounting frame is equipped with a seal. Construction S is equipped with a peripheral flat section seal.
- Protection grid: As standard, HEPA filters are equipped with a side-mounted protection grid.

### » Associated TROX filter units

- Standard cell frames for wall installation (F2/1/././..).
- Mounting frames for minipleat filter inserts (F2/1.2/././..).
- Universal casings for duct installation (F3/1/././..).

### » Certification of EUROVENT

Minipleat filter inserts of filter classes F6 to F9 are certified according to Eurovent. This certification can be obtained only by manufacturers for which the technical properties of the filter, filter grade, and initial differential pressure are tested by an independent institute. In this way, the quality of the fine dust filter is guaranteed.



**Order code for fine dust filters**

<p><b>1</b> Filter type: Type F756 (F6) Type F757 (F7) Type F759 (F9)</p>	<p><b>3</b> Code number: Size of minipleat filter inserts See the code numbers in Tables 3 - 6</p>
<p><b>2</b> Construction: L = Plastic frame (for filter with reduced nominal volume flow rate) F = Plastic frame M = Frame made of galvanised sheet steel with stoved enamel finish S = Frame made of galvanised sheet steel with stoved enamel finish and flat section seal</p>	<p><b>4</b> Zeros</p>

**Example for minipleat filter insert**

- » Filter type: **F757**
- » Construction for plastic frame: **F**
- » Filter size 592 x 592 x 292 mm: **19**

**F 7 5 7 F 1 9 0 0 0 0 0 0 0 0**

**Order code for HEPA filters**

<p><b>1</b> Filter type: Type F779 (E10) Type F780 (E11) Type F781 (H13) Type F782 (H14)</p>	<p><b>3</b> Code number: Size of minipleat filter inserts See code numbers in Tables 7 and 8</p>
<p><b>2</b> Construction: S = Frame made of galvanised sheet steel with stoved enamel finish and flat section seal</p>	<p><b>4</b> Zeros</p>

**Example for minipleat filter insert**

- » Filter type: **F782**
- » Construction for frame made of galvanised sheet steel, enamel finish: **S**
- » Filter size, 592 x 592 x 292 mm: **19**

**F 7 8 2 S 1 9 0 0 0 0 0 0 0 0**

## Technical data

Filter type		F756	F757	F759
Filter class according to EN 779		F6	F7	F9
Average efficiency according to EN 779	in %	65	85	95
Initial differential pressure at nominal volume flow rate	in Pa	90	110	140
Recommended final differential pressure	in Pa	450	450	450
Max. operating temperature	in °C	80	80	80
Max. relative humidity	in %	100	100	100

Table 1: Technical data for filter types F756, F757, and F759

Filter type		F779	F780	F781	F782
Filter class according to EN 1822		E10	E11	H13	H14
Efficiency (MPPS) according to EN 1822	in %	> 85	> 95	> 99.95	> 99.995
Initial differential pressure at nominal volume flow rate	in Pa	160	160	265	300
Recommended final differential pressure	in Pa	450	450	600	600
Max. operating temperature	in °C	80	80	80	80
Max. relative humidity	in %	100	100	100	100

Table 2: Technical data for filter types F779, F780, F781, and F782

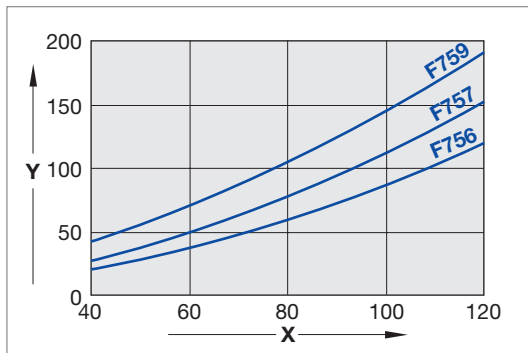


Diagram 1: Minipleat filter inserts F756, F757, F759

X = Volume flow rate in % of nominal volume flow rate  
Y = Initial differential pressure in Pa

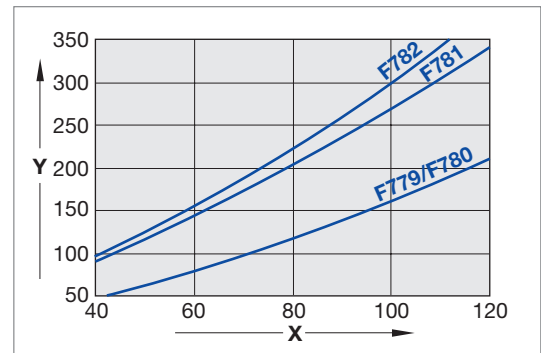


Diagram 2: Minipleat filter inserts F779, F780, F781, F782

X = Volume flow rate in % of nominal volume flow rate  
Y = Initial differential pressure in Pa

## Test

### » Testing fine dust filters

#### EN 779: Particulate filters for general ventilation.

This European standard describes the test method and test rig for measuring the filter performance.

For fine dust filters, the average efficiency is tested with a liquid test aerosol for a particle size of 0.4 µm diameter.

The filters are classified into filter classes F5 to F9 depending on the tested values (see Leaflet P/1/././.).

### » Testing particulate filters

#### EN 1822: High efficiency air filters (EPA, HEPA and ULPA).

This European standard defines a method for testing the filtration efficiency based on a particle counting method using a liquid test aerosol and permits a uniform classification of the particulate filters according to the filtration efficiency.

The filtration efficiency is determined using a test aerosol whose particle sizes lie within the minimum filter efficiency range. Particulate filters are classified according to the values determined for the local efficiency and the overall efficiency in EPA (filter classes E10 to E12), HEPA (filter classes H13 and H14) and ULPA (filter classes U15 to U17) see Leaflet P/2/././.).

### » Leakage test

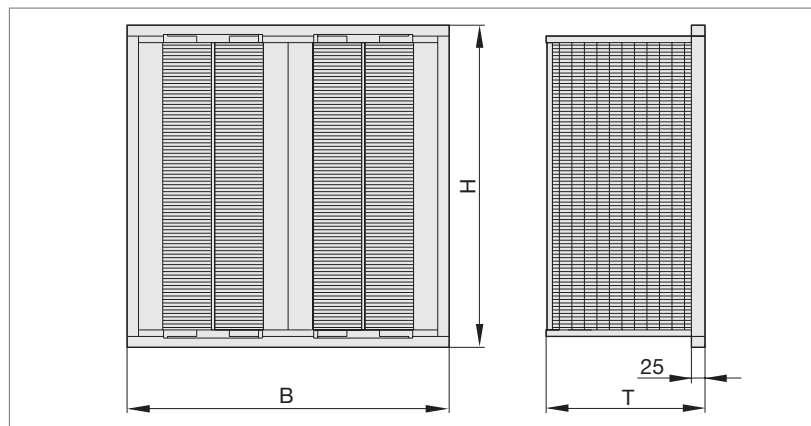
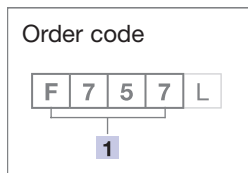
In the standard procedure, all particulate filter classes H13 and above are individually tested to prove they are leak-free.

## Detail

### 2 L = Plastic frame (for filter with reduced nominal volume flow rate)

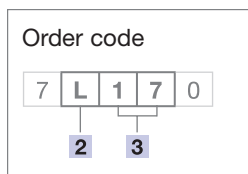
## Technical data

Dimensional tolerance:  
+ 0 mm  
- 1 mm



Detail drawing 1: Minipleat filter inserts F756, F757, F759, Construction L

### F756, F757, F759: Construction L



Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no. [3]
B	H	T	l/s	m³/h		
592	287	292	475	1700	3.5	17
592	490	292	785	2830	5.5	18
592	592	292	945	3400	6.0	19

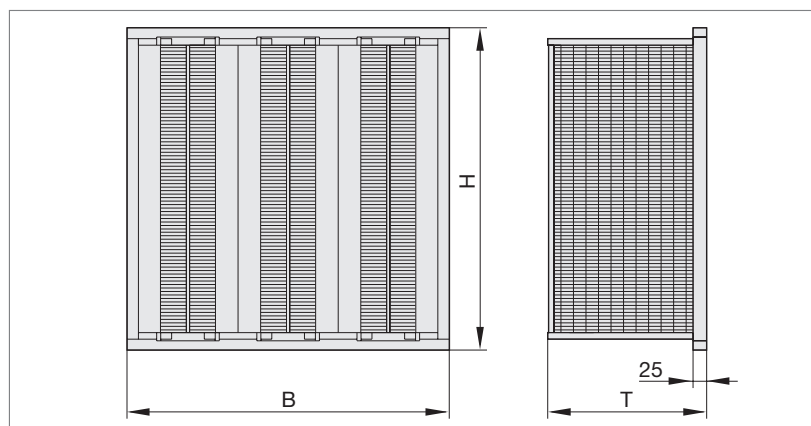
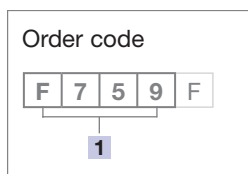
Table 3: Minipleat filter inserts F756, F757, F759

## Detail

### 2 F = Plastic frame

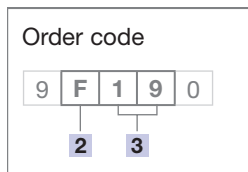
## Technical data

Dimensional tolerance:  
+ 0 mm  
- 1 mm



Detail drawing 2: Minipleat filter inserts F756, F757, F759, Construction F

### F756, F757, F759: Construction F



Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no. [3]
B	H	T	l/s	m³/h		
592	287	292	590	2125	3.5	17
592	490	292	985	3540	5.5	18
592	592	292	1180	4250	6.0	19

Table 4: Minipleat filter inserts F756, F757, F759

All weights are net, without packaging.

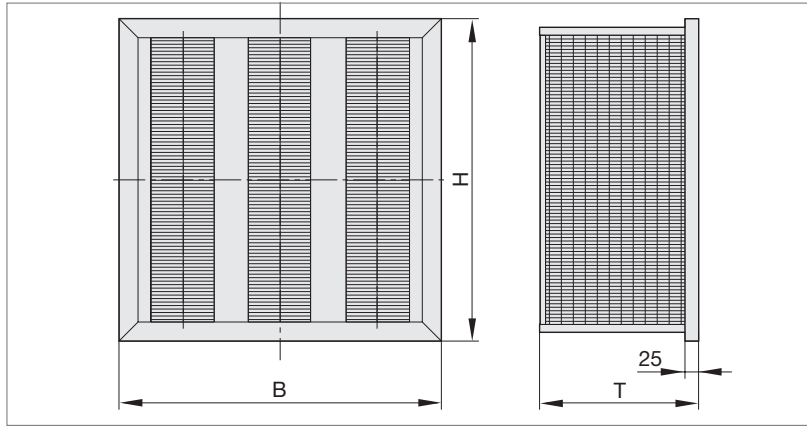
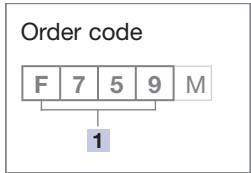
# Construction M and S

## Detail

**2 M= Frame made of galvanised sheet steel with stoved enamel finish**

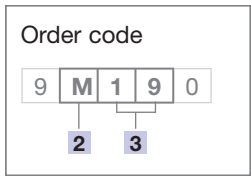
## Technical data

Dimensional tolerance:  
+ 0 mm  
- 1 mm



Detail drawing 3: Minipleat filter inserts F756, F757, F759, Construction M

### F756, F757, F759: Construction M



B	Dimensions in mm		Nominal volume flow rate		Weight Approx. kg	Code no. [3]
	H	T	l/s	m³/h		
592	287	292	590	2125	3.5	17
592	490	292	985	3540	5.5	18
592	592	292	1180	4250	6.0	19

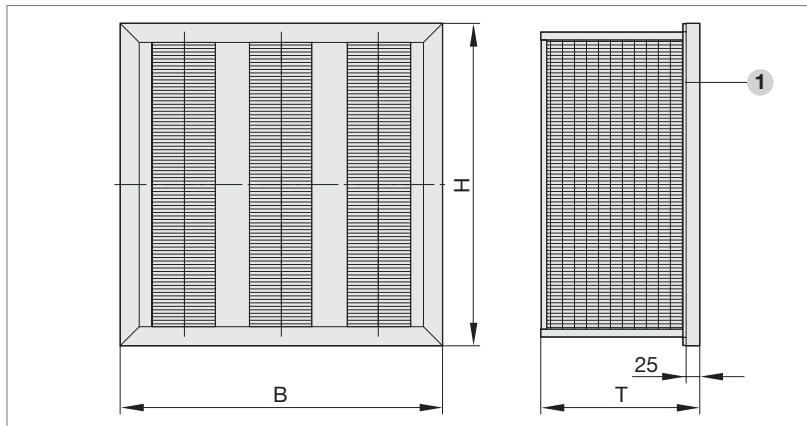
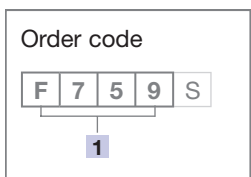
Table 5: Minipleat filter inserts F756, F757, F759

## Detail

**2 S = Frame made of sheet steel with stoved enamel finish and flat section seal**

## Technical data

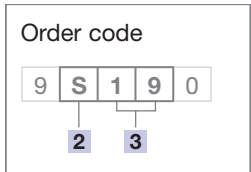
Dimensional tolerance:  
+ 0 mm  
- 1 mm



1 Flat section seal

Detail drawing 4: Minipleat filter inserts F756, F757, F759, F779, Construction S

### F756, F757, F759: Construction S



B	Dimensions in mm		Nominal volume flow rate		Weight Approx. kg	Code no. [3]
	H	T	l/s	m³/h		
592	287	292	590	2125	3.5	17
592	490	292	985	3540	5.5	18
592	592	292	1180	4250	6.0	19

Table 6: Minipleat filter inserts F756, F757, F759

### F779: Construction S

B	Dimensions in mm		Nominal volume flow rate		Weight Approx. kg	Code no. [3]
	H	T	l/s	m³/h		
592	287	292	590	2125	3.5	17
592	490	292	985	3540	5.5	18
592	592	292	1180	4250	6.0	19

Table 7: Minipleat filter inserts F779

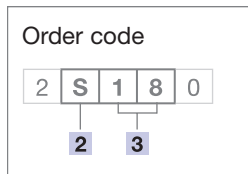
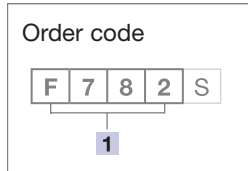
All weights are net, without packaging.

## Detail

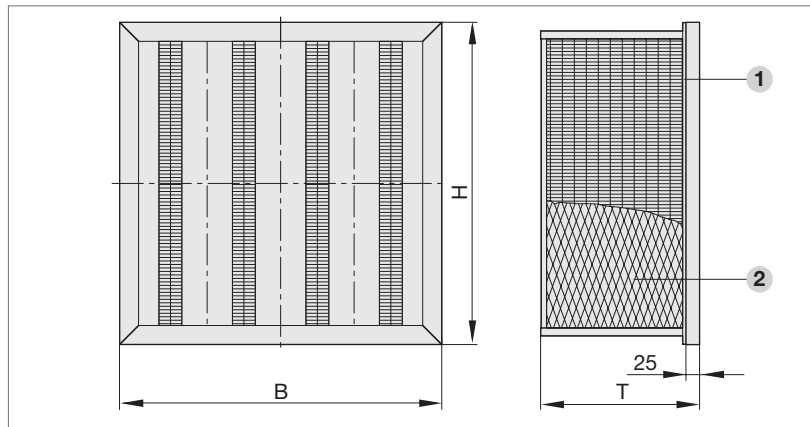
**2 S = Frame made of sheet steel with stoved enamel finish and flat section seal**

## Technical data

Dimensional tolerance:  
+ 0 mm  
- 1 mm



All weights are net, without packaging.



1	Flat section seal
2	Protection grid

Detail drawing 5: Minipleat filter inserts F780, F781, F782, Construction S

## F780, F781, F782: Construction S

Dimensions in mm			Nominal volume flow rate		Weight Approx.	Code no.
B	H	T	l/s	m <sup>3</sup> /h	kg	[3]
592	287	292	420	1500	3.5	17
592	490	292	690	2500	6.5	18
592	592	292	830	3000	8.0	19

Table 8: Minipleat filter inserts F780, F781, F782

## Specification text

### TROX minipleat filter inserts F756, F757 and F759:

- » Frame made of plastic or galvanised sheet steel, enamel finish.
- » Filter packs are made of high-quality, moisture-resistant glass-fibre paper.
- » Tested according to EN 779.
- » Packed in stable carton suitable for transport.

### TROX minipleat filter inserts F779, F780, F781 and F782:

- » Frame made of galvanised sheet steel, enamel finish.
- » Flat section seal on the downstream side.
- » Filter packs are made of high-quality, moisture-resistant glass-fibre paper.
- » Tested according to EN 1822.
- » Minipleat filter inserts F781 and F782, leak-tested at the factory according to EN 1822.
- » Packed in stable carton suitable for transport.

### Technical data:

Filter class according to EN 779 \_\_\_\_\_  
 Average efficiency according to EN 779 \_\_\_\_\_ %  
 Filter class according to EN 1822 \_\_\_\_\_  
 Efficiency (MPPS) according to EN 1822 \_\_\_\_\_ %  
 Dimensions (B x H x T) \_\_\_\_\_ mm  
 Nominal volume flow rate \_\_\_\_\_ l/s (m<sup>3</sup>/h)  
 Initial differential pressure \_\_\_\_\_ Pa  
 Max. operating temperature \_\_\_\_\_ °C  
 Max. relative humidity \_\_\_\_\_ %  
 Net weight \_\_\_\_\_ kg  
 Order number \_\_\_\_\_  
 Make: TROX

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Filters

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