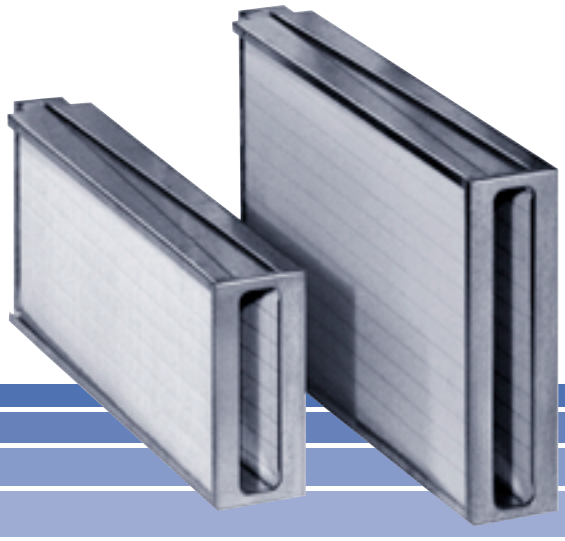
Minipleat Filter Elements

F759: Filter class F9 in accordance with EN 779
F780 and F781: Filter classes H11 and H13 in accordance with EN 1822



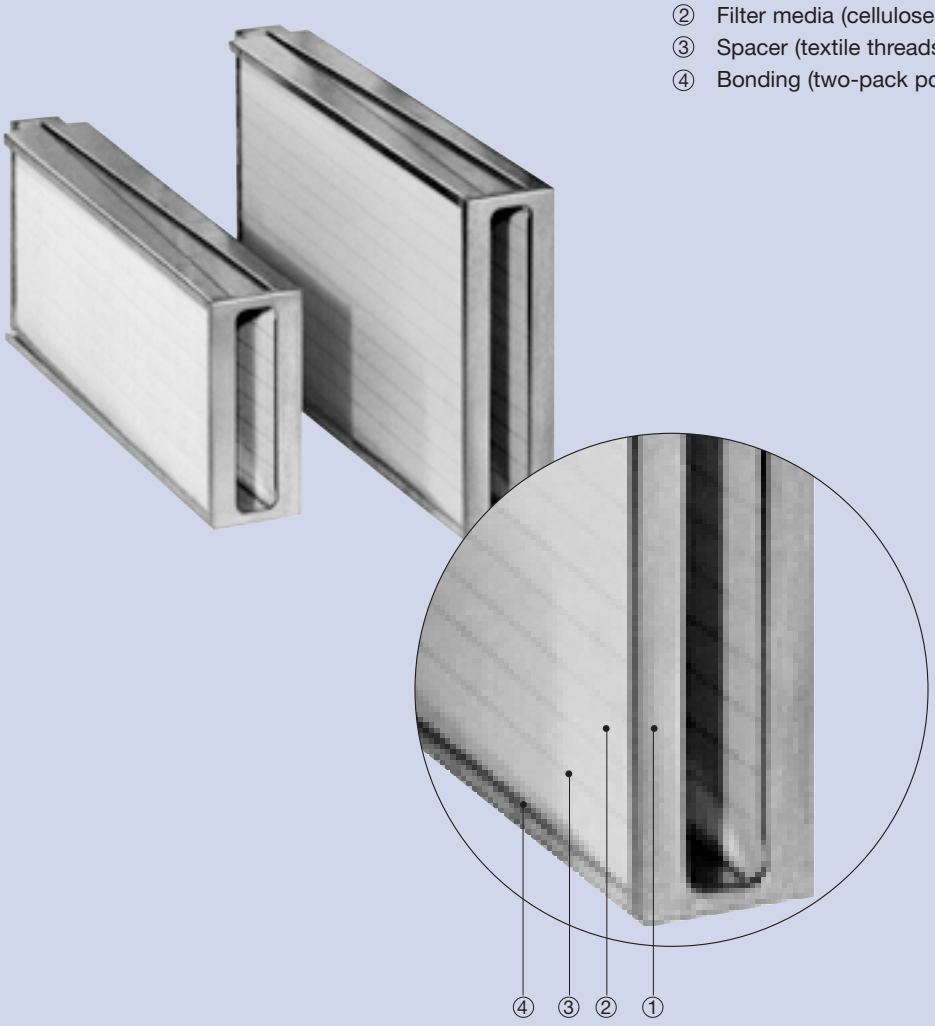
TROX® TECHNIK

Contents · Description

Minipleat Filter Elements are used as pre and main filters in air conditioning systems, where high volume flows and extended filter service life are required. Their dimensions provide an optimum matching to pre-designed installation cross sections.

Minipleat Filter Elements

① Filter casing (galvanized steel, aluminium or stainless steel)
② Filter media (cellulose or glass fibre paper)
③ Spacer (textile threads)
④ Bonding (two-pack polyurethane adhesive)



Product types

- Filter elements offering a choice of two air inlet dimensions and 600 mm installation depth for high volume flows and small installation cross section.
- Filter Elements with 202 mm installation depth for applications where extremely small installation depths are required.

Filter media

The filter media includes the use of high quality cellulose and glass fibre paper, the composition and structure of which can meet temperature and humidity requirements.

Filter casing

Casings can be constructed from galvanised steel, aluminium or stainless steel to provide the appropriate corrosion protection.

Sealing

The Filter Elements joined together by special adhesive tape to the holding frame or installation housing which also provides an airtight seal.

Special adhesive tape for sealing Filter Elements:
Order number: M645 APO
Width 19 mm; length 55 mm

1 roll is sufficient for approx.:
50 filter elements 600 x 65 x 202 mm
70 filter elements 86.5 x 303 x 600 mm
100 filter elements 86.5 x 202 x 600 mm

Filter data

Filter type		F759	F780	F781
Filter class to DIN EN 779[1]		F 9	-	-
Average Efficiency	in %	95	-	-
Filter class to EN 1822[2]		-	H 11	H 13
Extraction efficiency to EN 1822	in %	-	>95	>99.95
max. operating temperature	in °C	100	100	100
max. relative humidity	in %	90	100	100
Filter casing:		Construction		
–galvanized steel		**M**	**M**	**M**
–aluminium		**A**	**A**	**A**
–stainless steel		**E**	**E**	**E**

Code 10				
Dimensions (B x H x T) in mm		**600 x 65 x 202**		
Nominal volume flow	in l/s	55	55	55
	in m³/h	200	200	200
Initial pressure differential for nominal volume flow	in Pa	50	140	160
Recommended final Δp	in Pa	130	400	500
Weight	in kg	1.2	1.5	1.4

Code 11				
Dimensions (B x H x T) in mm		**86.5 x 303 x 600**		
Nominal volume flow	in l/s	85	85	85
	in m³/h	300	300	300
Initial pressure differential for nominal volume flow	in Pa	120	190	220
Recommended final Δp	in Pa	300	550	700
Weight	in kg	1.7	2.1	1.9

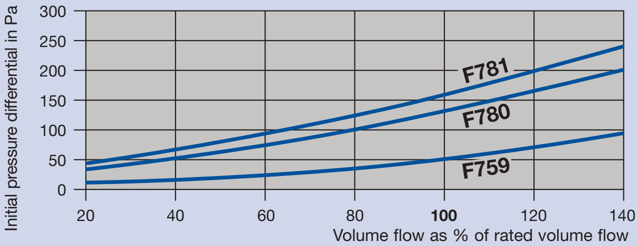
Code 12				
Dimensions (B x H x T) in mm		**86.5 x 202 x 600**		
Nominal volume flow	in l/s	55	55	55
	in m³/h	200	200	200
Initial pressure differential for nominal volume flow	in Pa	120	190	220
Recommended final Δp	in Pa	300	550	700
Weight	in kg	1.4	1.7	1.6

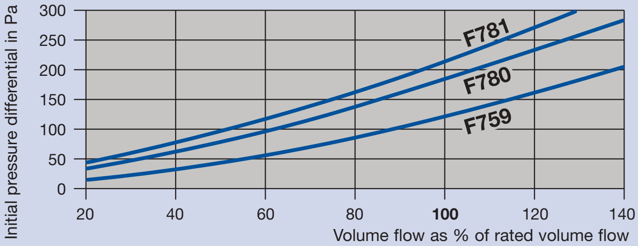
[1] EN 779: Particulate air filters for general room air conditioning

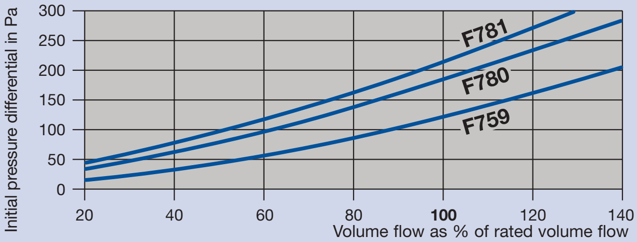
[2] EN 1822: High efficiency particulate filters (HEPA and ULPA).

Volume flows in l/s have been rounded off then converted to m³/h. Weights are net without packing; weight of packing per unit approx. 0.5 kg.

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





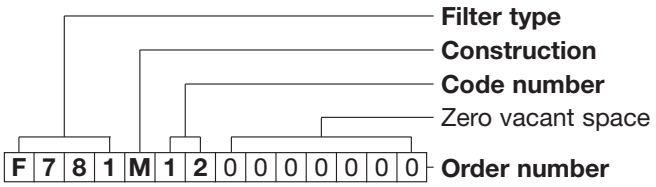


Order Example for Minipleat Filter Elements

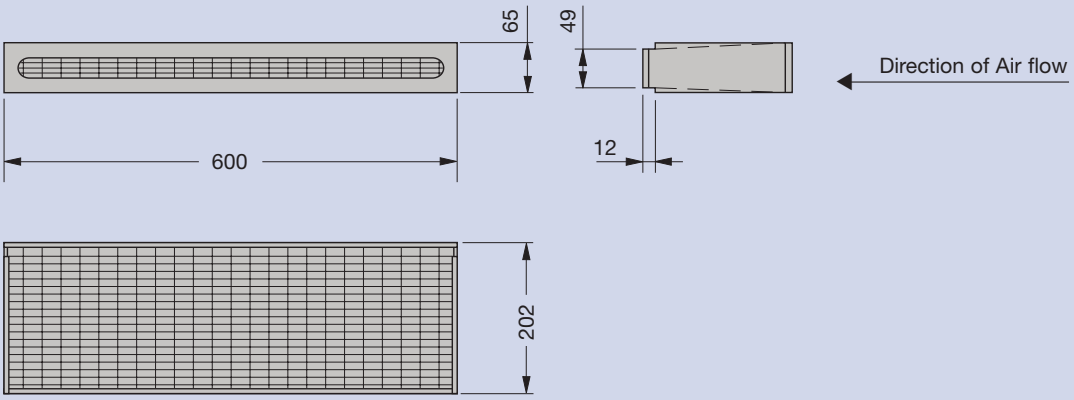
Filter class H 13 _____ Filter type: **F781**

Filter casing of galvanized steel _____ Construction: **M**

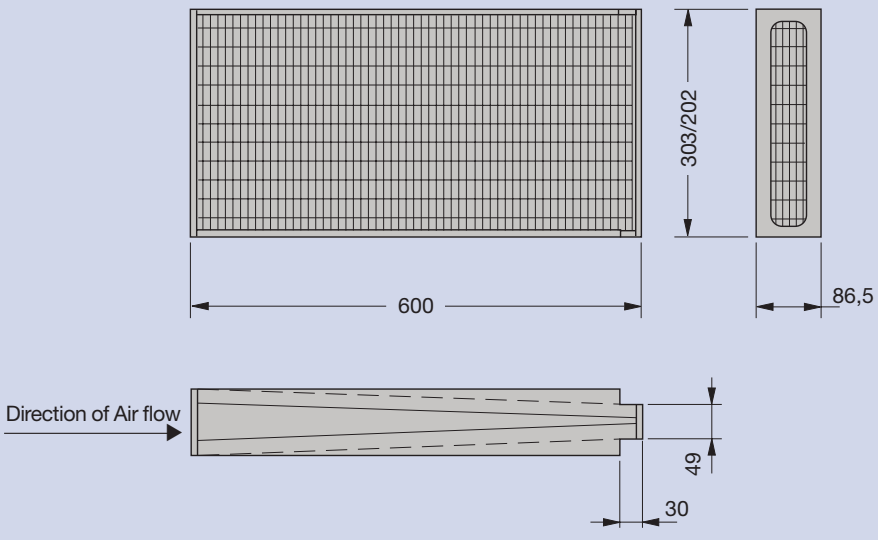
Dimensions 86.5 x 2020 x 600 mm __ Code number: **12**



Dimensions: Code 10



Dimensions: Code 11 and 12



Dimensional tolerance + 0 mm – 1 mm

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 Elements F759 comprising: Galvanized sheet steel, sheet aluminium or stainless sheet steel casing; Filter medium of high-grade cellulose paper with textile spacer. The Minipleat Filter elements are packed in damage-resistant cartons for transportation. **Trox Minipleat Filter Elements F780 comprising:** Galvanized sheet steel, sheet aluminium or stainless sheet steel casing; Filter medium in high-grade moisture resistant glass fibre paper with textile spacer. The Minipleat Filter Element is factory-tested for leaks using the oil-mist test. Minipleat Filter Elements F780 and F781 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