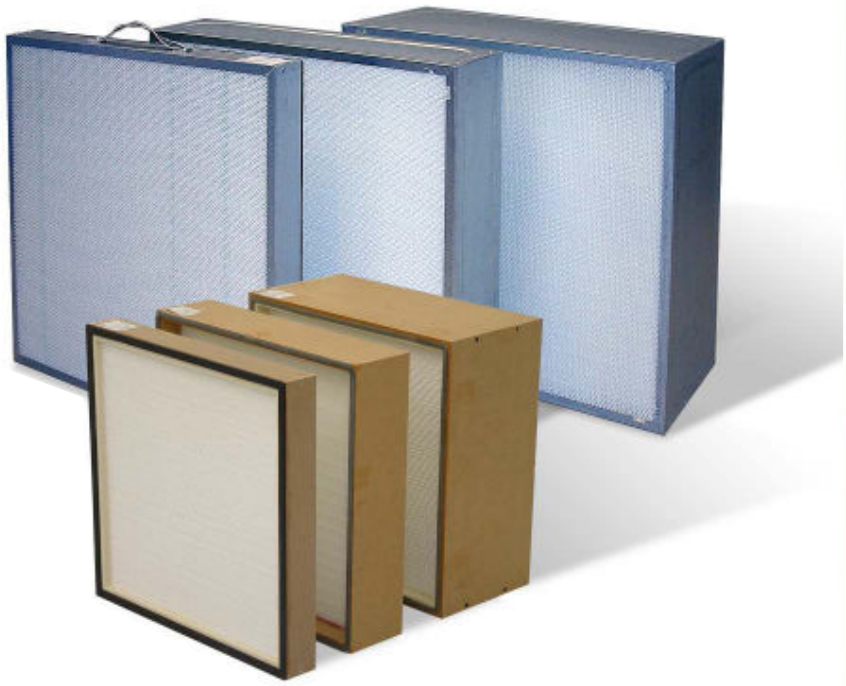
FILT AIR

Compact Finedust/HEPA Filter

Type G7

Features

- HEPA efficiencies of 95% up to 99.9995% (@ 0.3 µm).
- Finedust efficiencies of 60% up to 98% ASHRAE.
- High quality micro fibreglass media.
- Lowest initial pressure drop.
- Rigid frames.



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Overview

The G7 filter is designed and tested to extract the smallest particles out of the air. The G7 series contains a fibreglass media pack in five (5) different heights (47mm, 56mm, 70mm, 93mm, 140mm) and is available in different types and heights of frames.
The filter media is pleated in "Minipleat shape" with a new application technology of "Hot Melt Spacers" to achieve lowest pressure drop results. These many variations always give each application the best and optimal solution.

Features

- **Frame height of 68 mm up to 292 mm.**
- **High quality standard due to Quality Assurance System.**
- **HEPA filter tested by laser particle counting system.**
- **Highly economical through high final pressure drop.**
- **For use in clean rooms up to class 1.**
- **Useable in two flow directions.**

Finedust - HEPA Filter Type G7

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- Rigid frames
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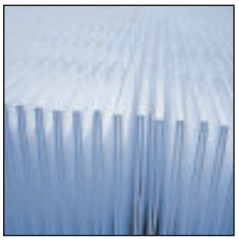
Design

Steel Frame:
The filter frame is made from zinc coated steel with bent stabilizations on each side to save space for the media pack and to get maximum mechanical strength. The fibreglass media pleated in "Minipleat shape" to a media pack and is cast into the frame. The sealing to the filter housing is achieved through a leak-free fluid or dry seal-system.



MDF Frame:
The filter frame is made from MDF-Boards and screwed together to a rigid solid frame. The fibreglass media is pleated in "Minipleat shape" to a media pack and cast into the frame. The sealing to the filter housing is achived through a leak-free dry-seal system.

Testing

Each HEPA filter is tested and packed in accordance with American Standard IEST-RP-CC001.3 (HEPA and ULPA Filters) or in accordance with the European standard EN 1822-1, 4&5 (Testing filter elements HEPA and ULPA efficiency and scan method) or customer requested testings.

The prefilters are tested in accordance with European Standard EN 779 (Particulate air filters for general ventilation). This standard is based on ASHRAE 52.1 (Gravimetric and Dust-Spot Procedures for Testing Air Cleaning Devices Used in General Ventilation for Removing Particulate Matter 1992).

XY-Scanning Probes

Control Unit

PSL-Generator

XY - Scan Testing Device

The Filt Air XY-scan testing device is able to perform automated filter leak testing of high efficiency air filters using automatic particle counters and a motorized scan table. While the particle counter probe passes over the filter face the computer compares the counted particles with the given leak tolerance setting. In addition it calculates the overall efficiency for each checked filter and measures the pressure drop @ nominal airflow.

Applicable Standards:

- **EN 1822-5**
- **IEST-RP-CC0001.3**
- **EN 779**
- **ASHRAE 52.1**
- **ISO 9001:2000**

Technical Data

Finedust Filter data		F 6	F 7	F 8	F 9
Rated face velocity	m/s	2.4	2.4	2.4	2.4
Media Pack	mm	47/56/70	47/56/70	47/56/70	47/56/70
Initial pressure drop @ rated airflow	Pa	90/75/70	125/105/100	155/130/125	200/170/165
Filter class as per EN 779		F 6	F 7	F 8	F 9
Atmospherical dust-spot efficiency					
@ rated airflow: average (final pressure drop 450 Pa)	%	65 (60-65)	85 (80-90)	95 (90-95)	97 (95-98)
Recommended final pressure drop	Pa	600	600	600	600
Flammability classification to DIN 53438		K1/F1	K1/F1	K1/F1	K1/F1
Max. relative humidity	%	100	100	100	100
Max. continuous temperature	°C	80	80	80	80

HEPA Filter data (low velocity)		H 10	H 13	H 14
Rated face velocity	m/s	0.5	0.5	0.5
Media Pack	mm	47/ 56/ 70/ 93	47/ 56/ 70/ 93	47/ 56/ 70/ 93
Initial pressure drop @ rated airflow	Pa	53/ 48/ 40/ 36	120/110/ 88/ 80	133/120/100/88
Filter class as per EN 1822		H 10	H13	H14
Filter class as per EUROVENT 4/4		EU 10	EU 13	EU 14
Filter class as per DIN 24184		R	S	T
Initial efficiency @ rated airflow				
Test with MPPS (integral)	%	>85	>99.95	>99.995
Test with aerosol Ø 0.3 µm (integral)	%	>95	>99.995	>99.9995
Recommended final pressure drop	Pa	600	600	600
Flammability classification to DIN 53438		K1/F1	K1/F1	K1/F1
Max. relative humidity	%	100	100	100
Max. continuous temperature	°C	80	80	80

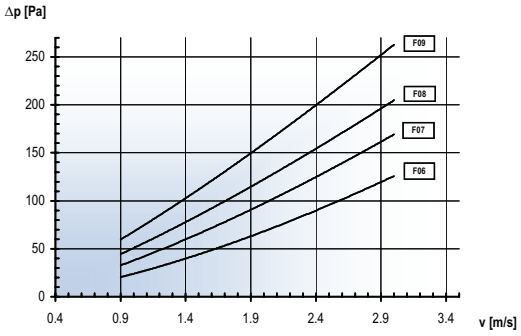
HEPA Filter data (high velocity)		H 10	H 13	H 14
Rated face velocity	m/s	1.5	1.5	1.5
Media Pack	mm	140	140	140
Initial pressure drop @ rated airflow	Pa	103	203	230
Filter class as per EN 1822		H 10	H13	H14
Filter class as per EUROVENT 4/4		EU 10	EU 13	EU 14
Filter class as per DIN 24184		R	S	T
Initial efficiency @ rated airflow				
Test with MPPS (integral)	%	>85	>99.90	>99.99
Test with aerosol Ø 0.3 µm (integral)	%	>95	>99.990	>99.999
Recommended final pressure drop	Pa	600	600	600
Flammability classification to DIN 53438		K1/F1	K1/F1	K1/F1
Max. relative humidity	%	100	100	100
Max. continuous temperature	°C	80	80	80

Filter Sizes

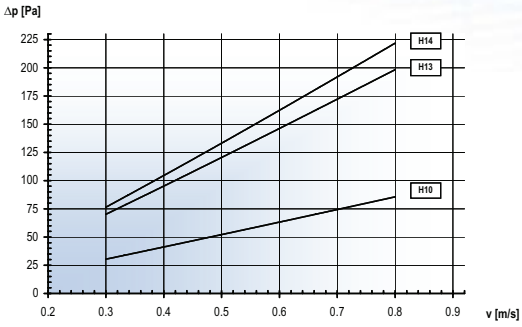
Filter size		HEPA Filter Rated Airflow Media Pack 47 - 93 mm velocity of 0.5 m/s		Rated Airflow HEPA Media Pack 140 mm velocity of 1.5 m/s		Finedust Rated Airflow Media Pack 47 - 70 mm velocity of 2.4 m/s	
305 x 305	mm	170	m³/h	500	m³/h	800	m³/h
305 x 610	mm	335	m³/h	1005	m³/h	1610	m³/h
457 x 305	mm	250	m³/h	750	m³/h	1205	m³/h
457 x 457	mm	375	m³/h	1130	m³/h	1805	m³/h
457 x 610	mm	500	m³/h	1505	m³/h	2410	m³/h
610 x 610	mm	670	m³/h	2010	m³/h	3215	m³/h
762 x 610	mm	840	m³/h	2510	m³/h	4015	m³/h
915 x 610	mm	1005	m³/h	3015	m³/h	4820	m³/h

Initial Pressure Drop

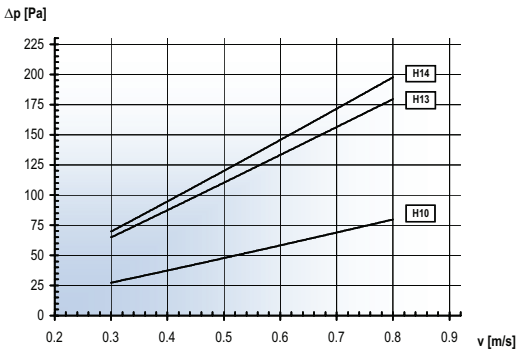
for 47mm height "Minipleat-Media Pack" in Finedust Grades



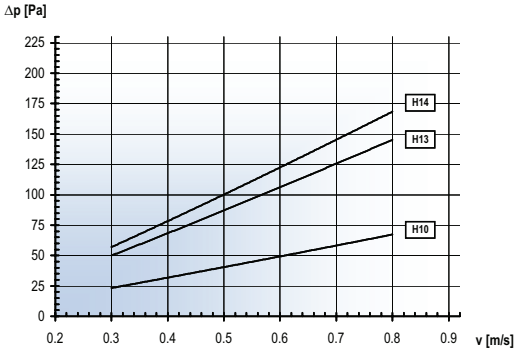
for 47mm height "Minipleat-Media Pack" in HEPA Grades



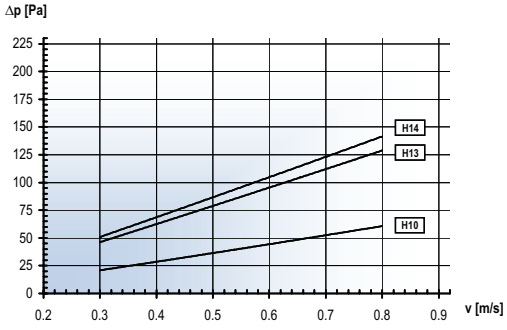
for 56mm height "Minipleat-Media Pack" in HEPA Grades



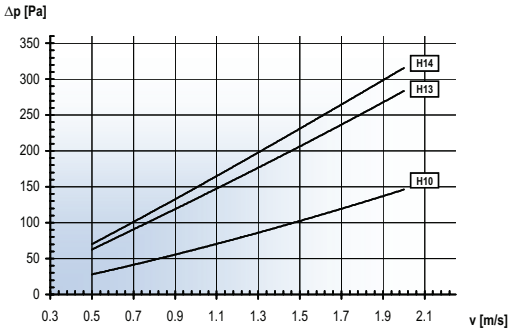
for 70mm height "Minipleat-Media Pack" in HEPA Grades



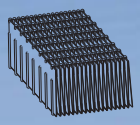
for 93mm height "Minipleat-Media Pack" in HEPA Grades



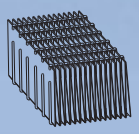
for 140mm height "Minipleat-Media Pack" in HEPA Grades



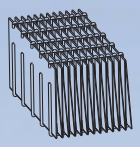
Media Pack 47 mm



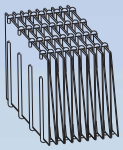
Media Pack 56 mm



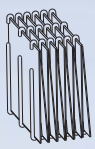
Media Pack 70 mm



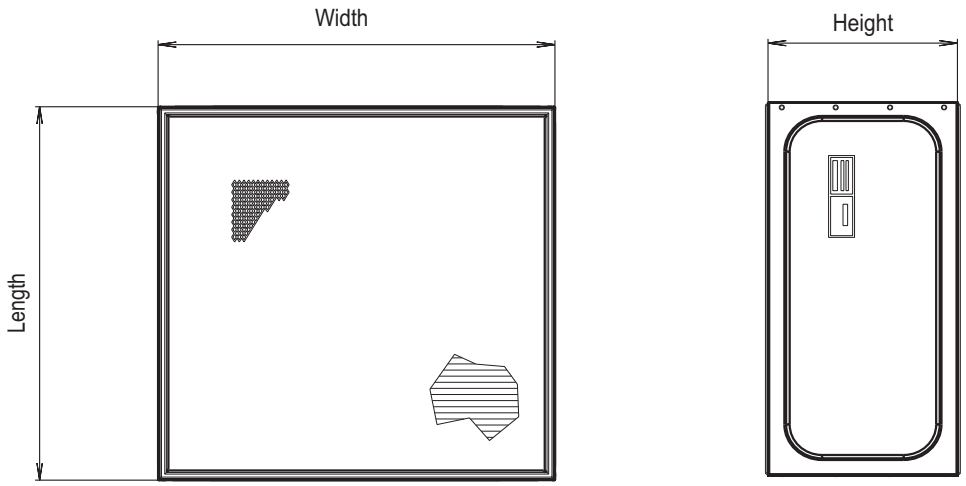
Media Pack 93 mm



Media Pack 140 mm



Dimensional Drawing



Order Numbers

Order no.	G7	-	A	-	B	C	-	D	E	F	G
Example	G7	-	5	-	13	66	-	D	9	2	1

Media Pack	A
47 mm	4
56 mm	5
70 mm	7
93 mm	9
140 mm	B

Efficiency	B
F 6	06
F 7	07
F 8	08
F 9	09
H10	10
H13	13
H14	14

Size L x W	C
305 x 305 mm	33
305 x 610 mm	36
457 x 305 mm	43
457 x 457 mm	44
457 x 610 mm	46
610 x 610 mm	66
762 x 610 mm	76
915 x 610 mm	96

Other dimensions available upon request

Frame	D
MDF	4
Steel Zinc Coated	D

Frame Height	E
60 mm	6
68 mm	7
78 mm	8
90 mm	9
110 mm	B
130 mm	D
150 mm	F
292 mm	J

Other height available upon request

Screen	F
No Screen	0
1x Screen on Seal Side	1
1x Screen on Seal Opposide	2
2x Screen	3

Seal	G
No Seal	0
1x Dry	1
Both Side, Dry	2

Specifications are subject to change without prior notice