



## Compact Finedust / HEPA Filter

### Type G7



### 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 the lowest pressure drop results. These many variations always give each application the best and most optimal solution.

### FEATURES

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



### FILT-AIR LTD.

- Fine Dust Filter
- Final Filter for Fan Filter Units
- Final Filter for Clean Rooms
- Final Filter for Channel Installation
- Highly Active Filter Surface - Low Pressure Drop
- Final Filter for Grid Systems

Finedust - HEPA / ULPA

## 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**
- **Usable in two flow directions**

## Finedust - HEPA Filter Type G7

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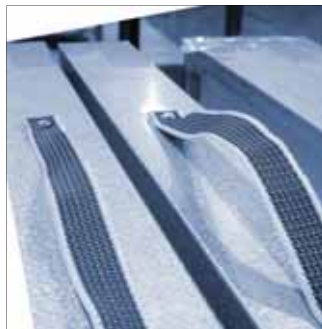
## Design

### Steel Frame:

The filter frame is made from zinc-coated steel with bent stabilizing edges that provide space for the media pack and yet achieve maximum mechanical strength.

The fibreglass media is pleated in 'Minipleat shape' into a media pack and then cast into the frame.

The filter housing seal is achieved through a leak-free fluid or dry seal-system.



### MDF Frame:

The filter frame is made from MDF-boards, screwed together to a rigid solid frame.

The fibreglass media is pleated in 'Minipleat shape' into a media pack, then cast into the frame. The filter housing seal is achieved through a leak-free fluid or dry seal-system.

## Testing

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

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).

### APPLICABLE STANDARDS:

- EN 1822-5
- IEST-RP-CC0001.3
- EN 779
- ASHRAE 52.1
- ISO 9001:2008



## 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.

Finedust - HEPA / ULPA



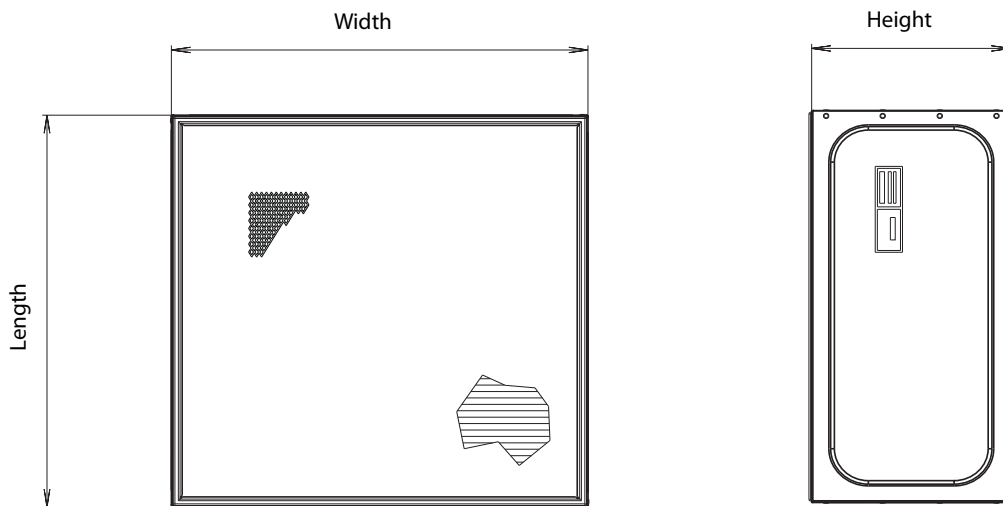
## Technical Data

Finedust Filter Data		F 6	F 7	F 8	F 9
<b>Rated Face Velocity</b>	<b>m/s</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>	<b>2.4</b>
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
<b>HEPA Filter Data (low velocity)</b>		<b>H 10</b>	<b>H 13</b>	<b>H 14</b>	
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	
<b>HEPA Filter Data (high velocity)</b>		<b>H 10</b>	<b>H 13</b>	<b>H 14</b>	
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	

Specifications are subject to change without prior notice



## Dimensional Drawing



## Filter Sizes

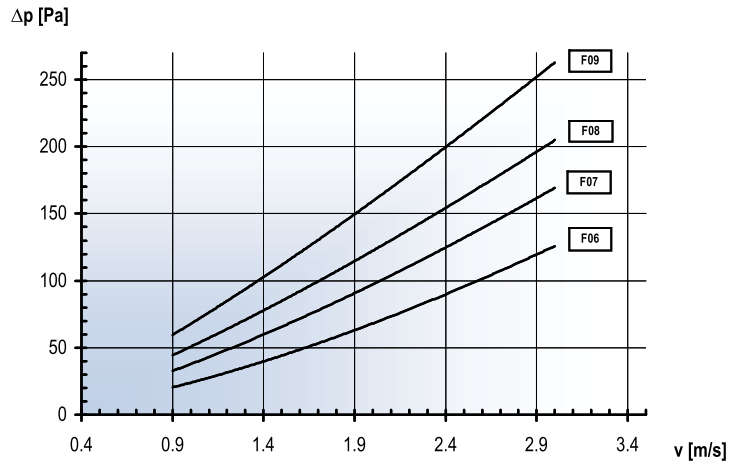
Filter Size		HEPA Filter Rated Airflow Media Pack 47 - 93 mm		Rated Airflow HEPA Media Pack 140 mm		Finedust Rated Airflow Media Pack 47 - 70 mm	
		Velocity of 0.5 m/s		Velocity of 1.5 m/s		Velocity of 2.4 m/s	
305 x 305	mm	170	m <sup>3</sup> /h	500	m <sup>3</sup> /h	800	m <sup>3</sup> /h
305 x 610	mm	335	m <sup>3</sup> /h	1005	m <sup>3</sup> /h	1610	m <sup>3</sup> /h
457 x 305	mm	250	m <sup>3</sup> /h	750	m <sup>3</sup> /h	1205	m <sup>3</sup> /h
457 x 457	mm	375	m <sup>3</sup> /h	1130	m <sup>3</sup> /h	1805	m <sup>3</sup> /h
457 x 610	mm	500	m <sup>3</sup> /h	1505	m <sup>3</sup> /h	2410	m <sup>3</sup> /h
610 x 610	mm	670	m <sup>3</sup> /h	2010	m <sup>3</sup> /h	3215	m <sup>3</sup> /h
762 x 610	mm	840	m <sup>3</sup> /h	2510	m <sup>3</sup> /h	4015	m <sup>3</sup> /h
915 x 610	mm	1005	m <sup>3</sup> /h	3015	m <sup>3</sup> /h	4820	m <sup>3</sup> /h

Finedust - HEPA / ULPA

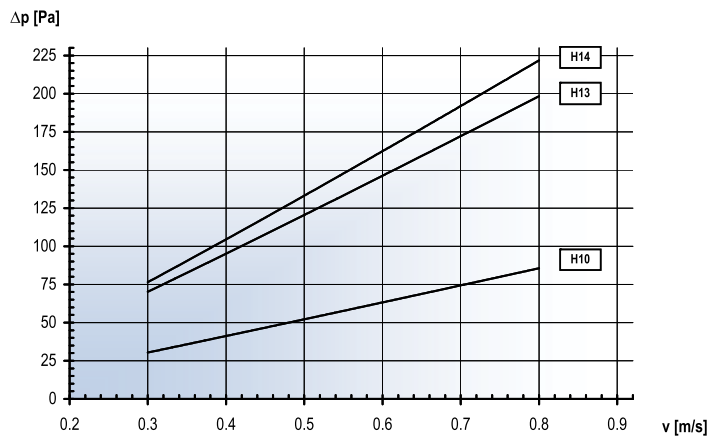


## Initial Pressure Drop

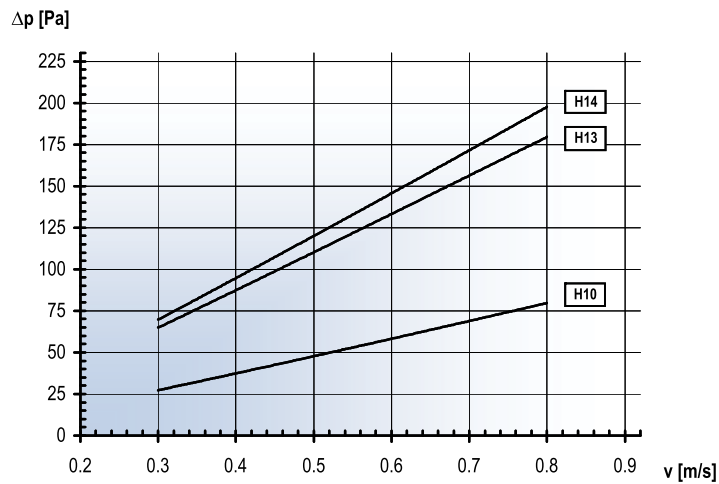
For 47 mm height 'Minipleat-Media pack' in finedust grades



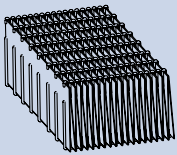
For 47 mm height 'Minipleat-Media pack' in HEPA grades



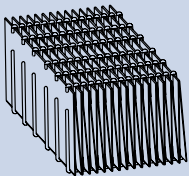
For 56 mm height 'Minipleat-Media pack' in HEPA grades



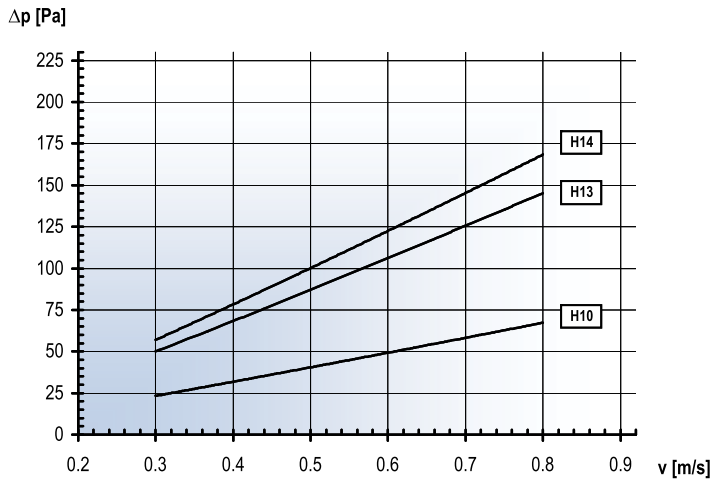
Media Pack 47 mm



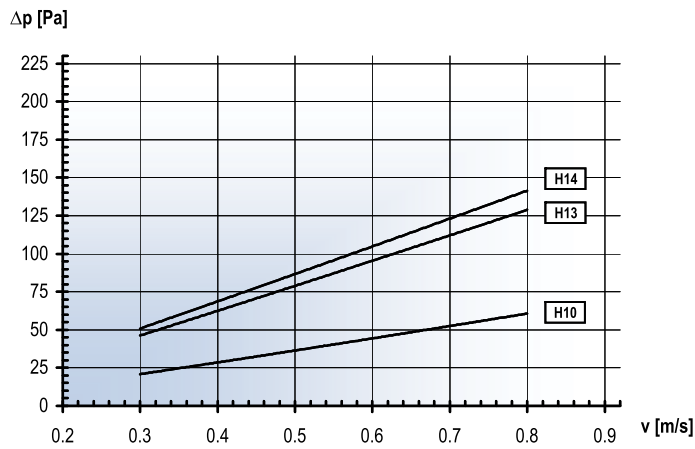
Media Pack 56 mm



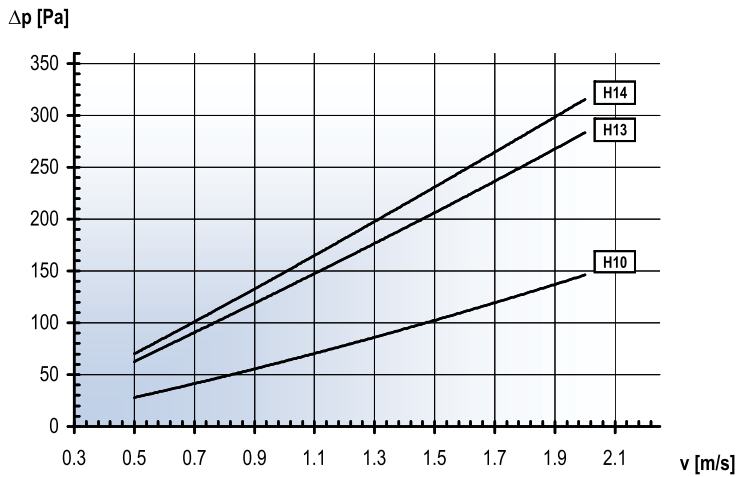
For 70 mm height 'Minipleat-Media pack' in HEPA grades



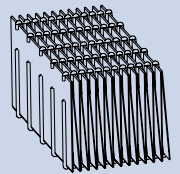
For 93 mm height 'Minipleat-Media pack' in HEPA grades



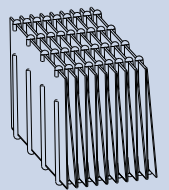
For 140 mm height 'Minipleat-Media pack' in HEPA grades



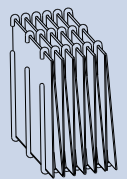
Media Pack 70 mm



Media Pack 93 mm



Media Pack 140 mm



Finedust - HEPA / ULPA



## Order Numbers

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

Media Pack	A	Efficiency	B	Size L x W	C	Frame	D	Frame Height	E	Screen	F	Seal	G			
47 mm	4	F 6	06	305x305	33	MDF	4	60 mm	6	No Screen	0	No Seal	0			
56 mm	5	F 7	07	305x610	36	Steel Zinc Coated	D	68 mm	7	1x Screen on seal side	1	1x Dry	1			
70 mm	7	F 8	08	457x305	43			78 mm	8	1x Screen on opposite of side	2	Both sides, Dry	2			
93 mm	9	F 9	09	457x457	44	90 mm	9									
140 mm	B	H 10	10	457x610	46	Other dimensions available upon request		110 mm	B	2x Screen	3					
		H 13	13	610x610	66			130 mm	D							
		H 14	14	762x610	76			150 mm	F							
915x610	96	292 mm	J													
Other dimensions available upon request																

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## HEPA & ULPA Filters for Industrial Clean Rooms

FILT AIR Ltd. specializes in the use of advanced technologies to implement a purified air supply for high-tech industry clean rooms, the microelectronics business sectors, and pharmaceutical industries. FILT AIR Ltd. has a broad range of client groups, such as hospitals, industrial plants, commercial buildings, and companies requiring clean air inside gas turbines.

FILT AIR's range of products is designed and produced in order to achieve the highest possible quality and offers safety and reliability with optimum prices and product availability. Since 2001, FILT AIR Ltd. has been registered and certified for Quality Management according to ISO 9001 (Registration No: IQNet: IL-24203).

### FILT-AIR Ltd.

Member of the Beth-El Group

Main Office: P.O. Box 166  
Zikhron Yaaqov, 3095101, Israel

Tel: + 972-4-610 7777

Fax: + 972-4-635 0396

info@filt-air.com

www.filt-air.com