Terminal HEPA Filter

Type GT

Overview

The GT terminal high efficiency filter is designed and tested to extract the smallest particles out of the air. Each GT terminal filter contains a 'Minipleat-Mediapack' available in different heights with a new application technology of 'Hot Melt Spacers' to achieve lowest pressure drop results.

FEATURES

- **Efficiencies of 95% up to 99.9995% (@ 0.3 •m)**
- **High quality micro-fibreglass paper**
- **Lowest initial pressure drop**
- **Adjustable airflow by means of a damper**
- **Two different damper designs**

Finedust - HEPA / ULPA

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

FEATURES:

- **Anodized rigid aluminium frame**
- **High quality standards due to Quality Assurance System**
- **Tested by laser particle counting system**
- **High economic through high final pressure drop**
- **For use in clean rooms up to class 1**

Design

The filter frame is made from an anodized extruded aluminium profile with two angled corners, producing a rigid, straight filter. The zinc-coated hood with attached collar is tie-glued onto the top of the filter. At damper version A, the aerosol / pressure drop checking inlet is placed in a special middle bridge and is adjustable from downstream. The fibreglass media, which is pleated in 'Minipleat shape' and available in three (3) different heights (47, 56, & 70 mm), is cast into the frame and middle bridge. This design produces a highly active filter surface and ensures the minimal pressure drop of the GT model.

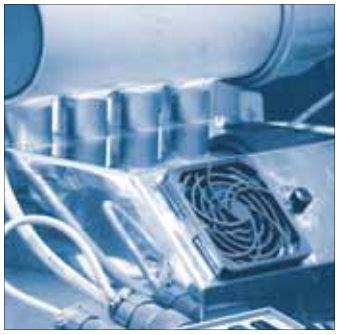
Testing

Each 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.

APPLICABLE STANDARDS:

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

PSL-Generator



Control Unit

XY-Scanning Probes

XY - Scan Testing Device

Filt Air's 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.

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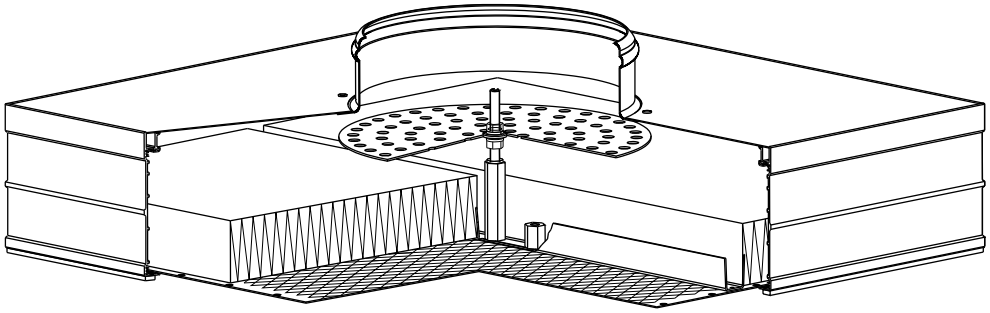
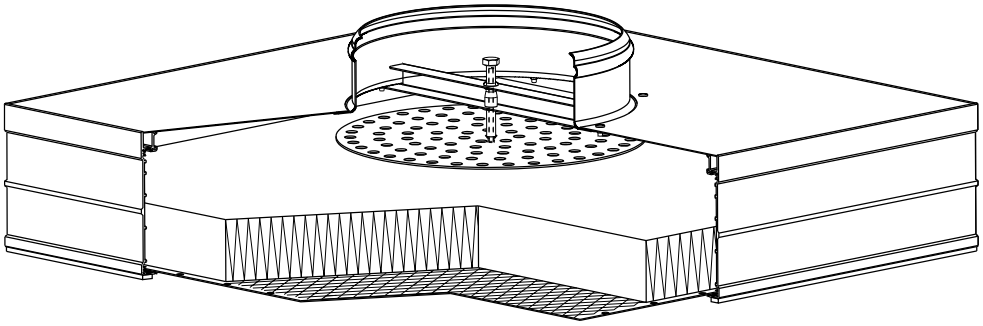
Dampers:

Version A



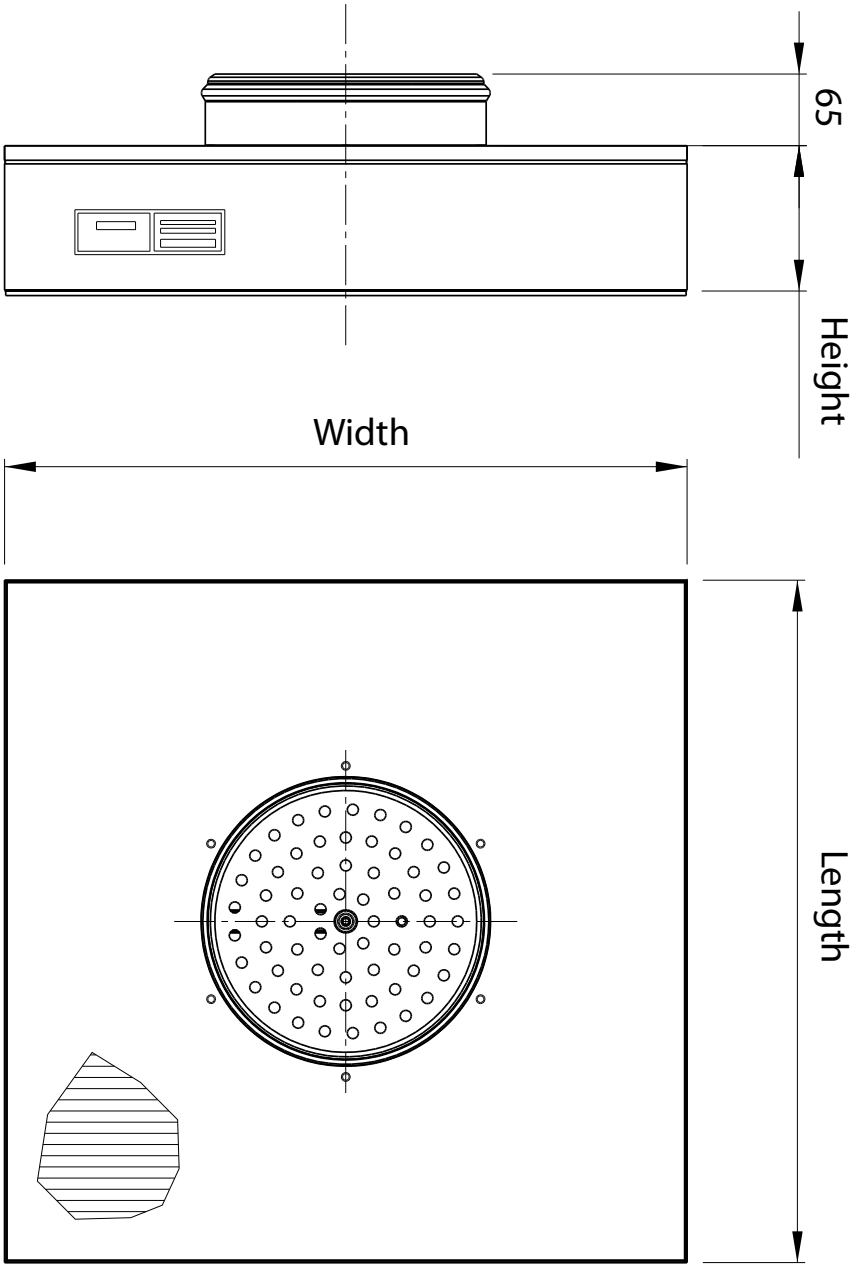
Version B



Version A of the damper system is a combination of an in-room adjustable damper with an aerosol inlet for efficient checking of the installed filter. This feature allows for easy adjustment of the airflow (filter velocity) during checking with a velocity meter from the clean room side. In addition, for DOP efficiency testing (of installed filters), an aerosol entry is provided to allow for easy channelling of the test aerosol to the upstream side of the filter media. Both are covered with a sealed screw to prevent any leaks.

Version B of the damper system offers a functional possibility for a simple low-cost adjustment of the entrance air volume. This is achieved by a bridge attached to the collar that holds the damper on a thread pin. In addition, a gasket buffer prevents movement caused by airflow.

Dimensional Drawing



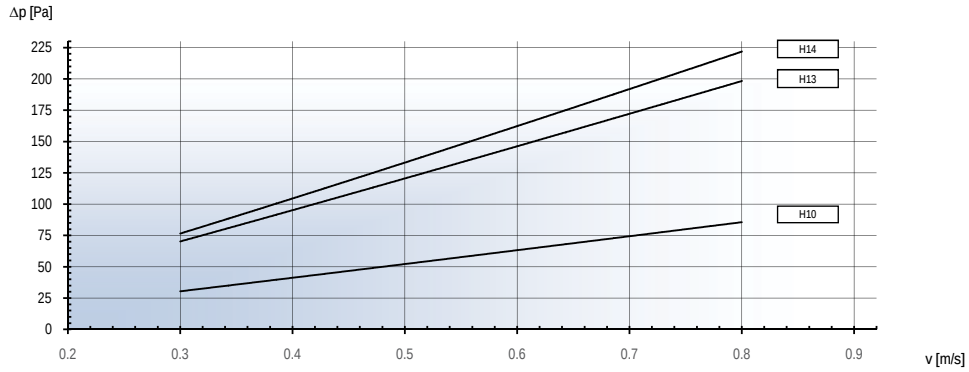
Technical Data

Filter Data		H 10	H 13	H 14
Rated face velocity	**m/s**	**0.5**	**0.5**	**0.5**
Media pack	mm	47 / 56 / 70	47 / 56 / 70	47 / 56 / 70
Initial pressure drop @ rated airflow	Pa	53 / 48 / 40	120 / 110 / 88	133 / 120 / 100
Filter class as per EN 1822		H 10	H13	H14
Initial efficiency @ rated airflow				
Test with MPPS (integral)	%	>85	>99.95	>99.995
Test with aerosol Ø 0.3 µm	%	>95	>99.995	>99.9995
Filter class as per DIN 24184		R	S	T
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

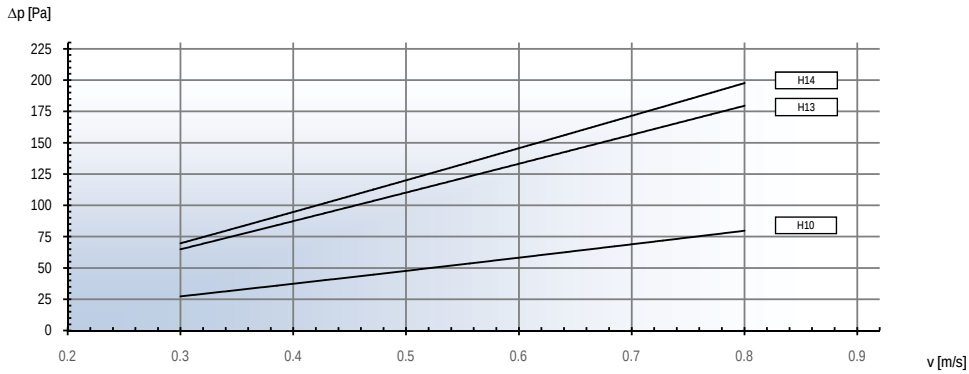
Filter Sizes

Filter Size		Rated Airflow	
610 x 610	**mm**	**670**	**m^3/h**
1220 x 610	mm	1340	m^3/h
600 x 600	mm	650	m^3/h
1210 x 600	mm	1310	m^3/h

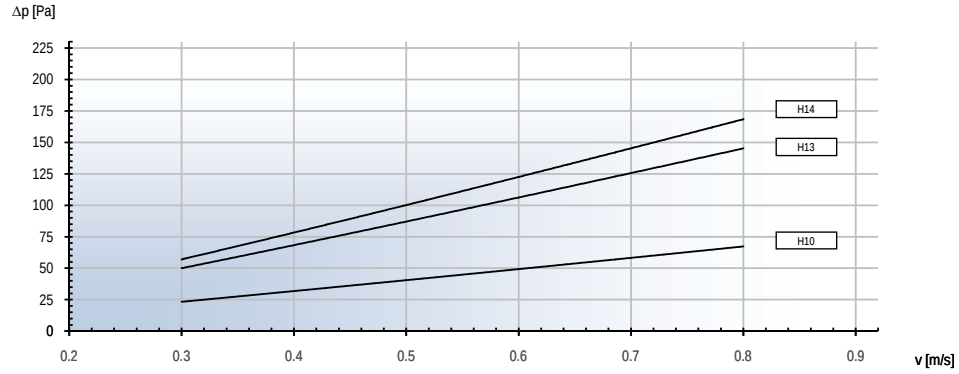
Initial Pressure Drop for 'Minipleat-Media Pack' in 47 mm Height



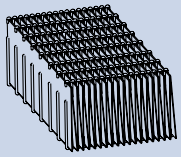
Initial Pressure Drop for 'Minipleat-Media Pack' in 56 mm Height



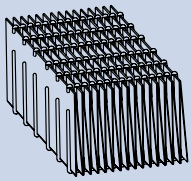
Initial Pressure Drop for 'Minipleat-Media Pack' in 70 mm Height



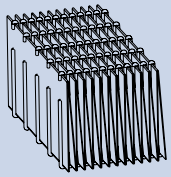
Media Pack 47 mm



Media Pack 56 mm



Media Pack 70 mm



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Order Numbers

Order no. GT	-	A	-	B	C	-	D	E	F	G
Example GT	-	4	-	13	66	-	Y	1	C	0

Media Pack	A
47 mm	4
56 mm	5
70 mm	7

Efficiency	B
H 10	10
H 13	13
H 14	14

Size L x W	C
610x610	66
1220x610	06
600x600	AD
1210x600	AE

Other dimensions available upon request

Frame	D
130mm (U15-1)	Y

Other dimensions available upon request

Damper & Collar	E
8" without Damper	A
10" without Damper	B
12" without Damper	C
8" with Damper Ver. A	1
10" with Damper Ver. A	2
12" with Damper Ver. A	3
8" with Damper Ver. B	N
10" with Damper Ver. B	P
12" with Damper Ver. B	Q

Screen Material	F
Exp. Steel / Powder Coated	C
Exp. Stainless Steel	U

Seal	G
No Seal	0
1x Down-stream	D

Specifications are subject to change without prior notice

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).

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