PRODUCT
TECHNICAL CATALOGUE

Advanced filtration for a better future!

ulpatek

AIR FILTER TECHNOLOGY

Pioneering Air Filtration Solutions

Since its inception, Ulpatek has consistently delivered quality and innovation, setting reference points in the air filtration sector. With our extensive industry knowledge, advanced manufacturing facilities, and commitment to quality, we have paved our way to becoming a trusted name in over 80 countries worldwide. Our continuous dedication to research & development and engineering infrastructure ensures that our products meet global standards. It's not just about selling products; at Ulpatek, we offer solutions. Dive into our catalogue to discover the products that make us a preferred brand across borders.

The Milestones of Our Existence

ULPATEK, with its roots in hygienic ventilation expertise, has today transformed into a global frontrunner in air filtration; representing innovation, quality, and unwavering trust.

1979 – 2006

A team with both local and international experience, having worked at TETISAN—a company with over 45 years of expertise in industrial air conditioning and hygienic ventilation—has come together.

2007

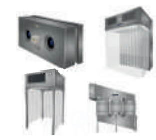
Establishment of ULPATEK to address the filtration requirements of all air conditioning systems, from simple ventilation systems to advanced cleanrooms.

2008

Introduction of the TÜBİTAK-awarded HEPA/ULPA Scanning System.

2014

Transfer of Tetisan's cleanroom equipment production to Ulpatek with technological development.



2015

Exports to 50 countries.

2017

Relocation to a new factory, leading to an increase in production capacity.

2018

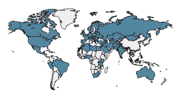
Gathering systems such as the New Topas Brand Scan Test, ULPATEK Scan Test, Performance Test, DOP Test, ISO16890 Test, and Filter Media Test System under the ULPALAB.

2020

Uninterrupted filter supply to the global market and city hospitals during the pandemic period.

2023

Exports to 80 countries.

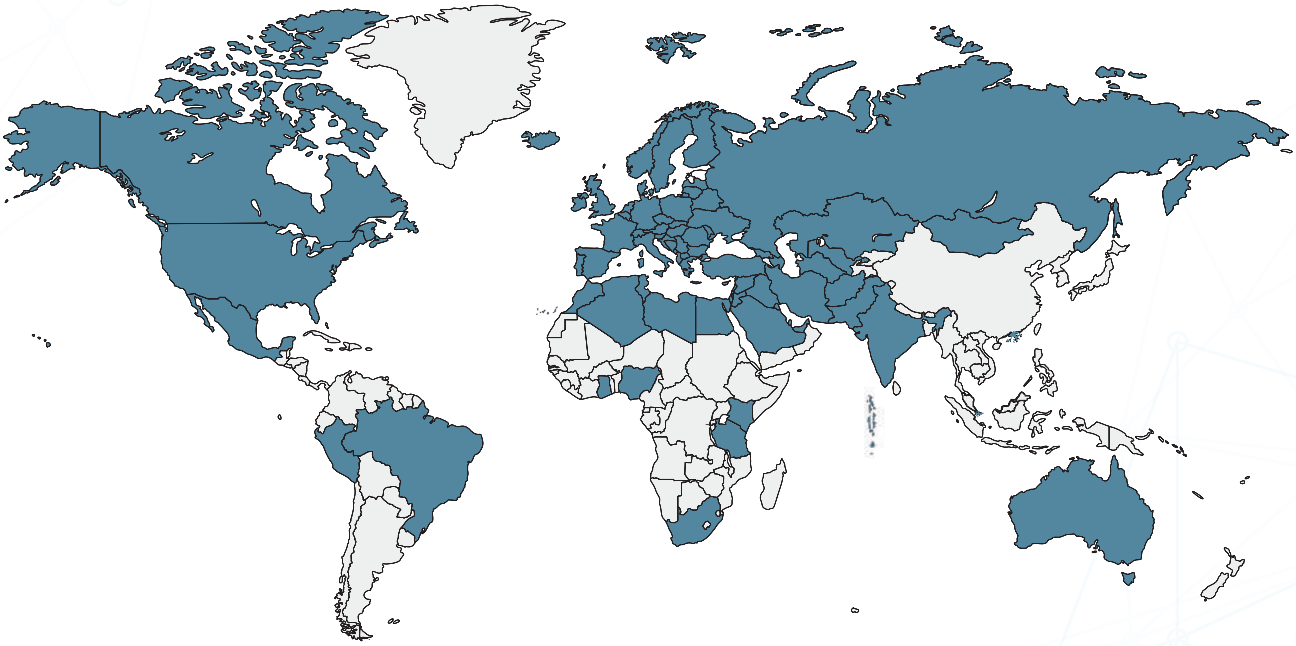


Advanced Manufacturing Facility

Welcome to Ulpatek's latest manufacturing center, where advanced technology meets sustainability. Designed with precision and environmental consciousness in mind, this facility ensures top-quality production while prioritizing safety and efficiency.

Global Presence

At Ulpatek, our dedication to superiority is without limits. With our products and services reaching over 80 countries worldwide, we are proud to have a truly global footprint. Our wide reach shows trust in our brand and showcases our dedication to meeting diverse demands and adapting to varied market nuances.



Product Excellence

We pride ourselves on our commitment to product excellence. Every piece we create is thoroughly tested in ULPALAB (Ulpatek Filter Testing Laboratory), ensuring that it meets the highest standards of quality and durability. Our expert engineers merge skill and creativity, precisely developing our products.

COARSE FILTRATION

FINE DUST FILTRATION

HIGH EFFICIENCY FILTRATION (EPA, HEPA, ULPA)

GAS-PHASE FILTRATION

ACCESSORIES

Whatever You Need, We Have the Filter, We Have the Solution

From simple ventilation systems to advanced clean rooms, our filters offer unmatched performance. Whatever the challenge, we deliver the solution.

HIGH EFFICIENCY FILTRATION (EPA, HEPA, ULPA)

ACCESSORIES

COARSE FILTRATION

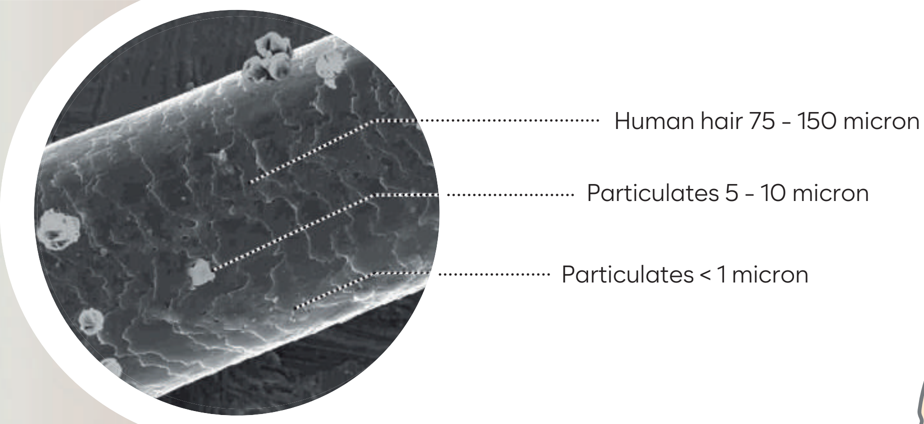
1.Particle Matter

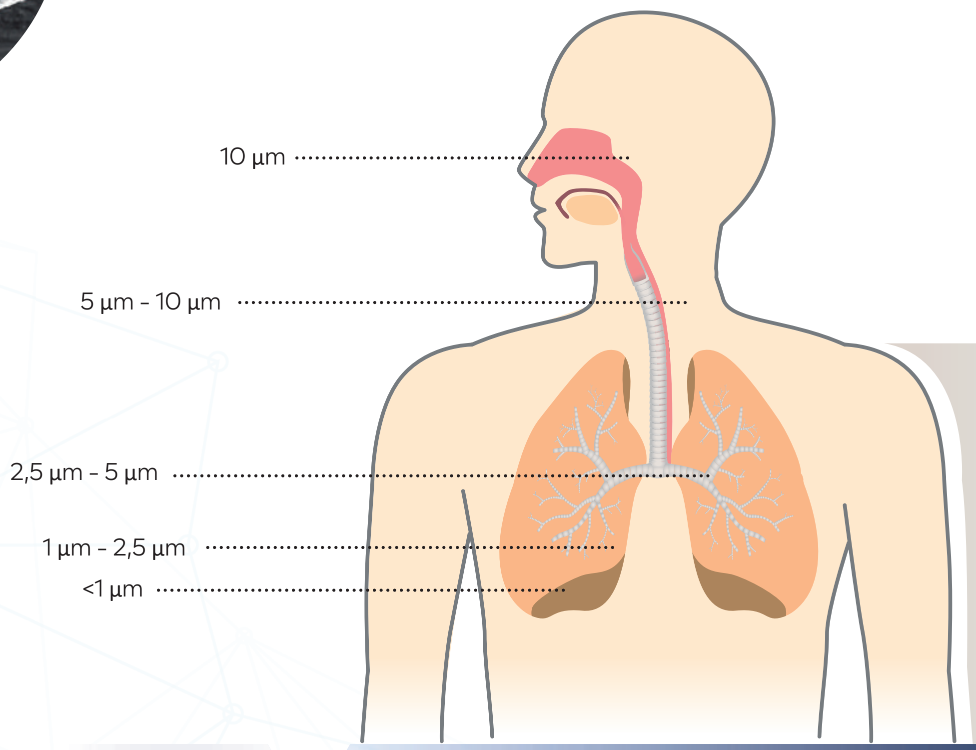
The Impact of Particulates on Human Health

Due to increased air pollution, the effects of particulates on human health has begun to be discussed in more detail. The results show that particle matter is a serious health hazard that causes respiratory diseases and cancers. Air filters for general ventilation are widely used in buildings for heating, ventilation and air conditioning applications. Air filters increase the indoor air quality by reducing the particulate matter concentration, thereby protecting human health considerably.

Particles larger than 10 µm in the atmosphere collapse very quickly and they can only hang in the air in strong wind near the source they are leaving. As an exception, some light fibers can stay in the air longer, despite their large diameter. Most particles larger than 10 µm in diameter can be seen with the naked eye in case of proper illumination and contrast. Under normal conditions, the minimum visible particle diameter is 30 µm and above.

Particles ranging in diameter from 5 to 10 µm or larger are separated and trapped by the upper respiratory tract. The intermediate sizes collaps on air channels of the lungs, then swallowed or coughed. Particles ranging in diameter from 2.5 to 5 µm are likely to be retained in human lungs and are returned to the upper respiratory tract without falling into the depths of the lungs. Particles ranging in diameter from 1 to 2.5 µm are retained in the bronchi and pose risks to human health. The particles at 1 µm and below are small enough to interfere with the blood flow from the cell membranes of the alveoli.





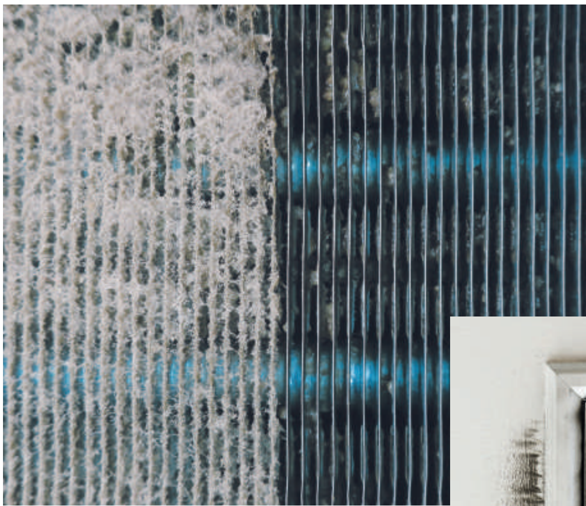
The Impact of Particulates on HVAC Equipment

HVAC (Heating, Ventilation, and Air Conditioning) systems are fundamental to maintaining a comfortable and healthy indoor environment. However, airborne contaminants, such as particulates and particle matter (PM), can significantly hinder their performance and energy efficiency, emphasizing the need for effective filtration and maintenance.

Dust Accumulation on the Coil: Over time, particulates can settle on evaporator and condenser coils (often referred to as 'serpentines' in some regions). When dust and debris accumulate on these coils, it acts as an insulator, reducing the heat exchange efficiency. This reduced efficiency means the system must work harder and longer to achieve the desired indoor temperature, resulting in higher energy consumption.

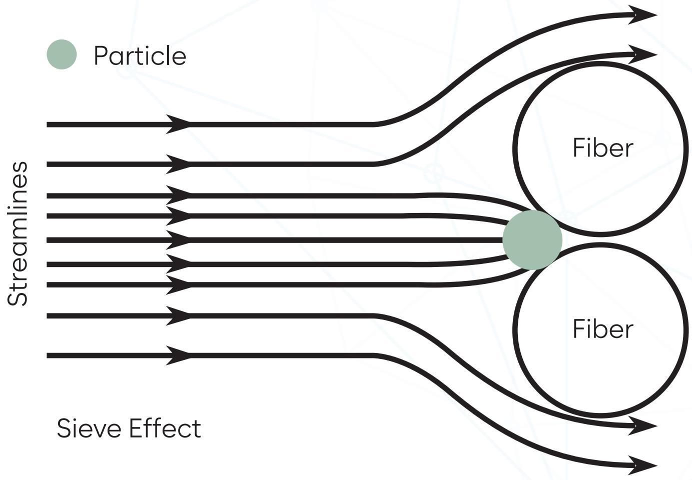
Duct Accumulation in the Air Duct: Dust and PM accumulation within ducts not only reduces airflow but also poses a potential health risk. As the HVAC system operates, it can reintroduce these contaminants into the living or working space, compromising the IAQ and posing potential health risks to occupants, especially those with respiratory conditions.

Equipment Lifespan and Wear: When particulates accumulate on critical components, such as fans and motors, they can cause premature wear. This not only reduces the efficiency of the system but can lead to costly repairs or replacements.

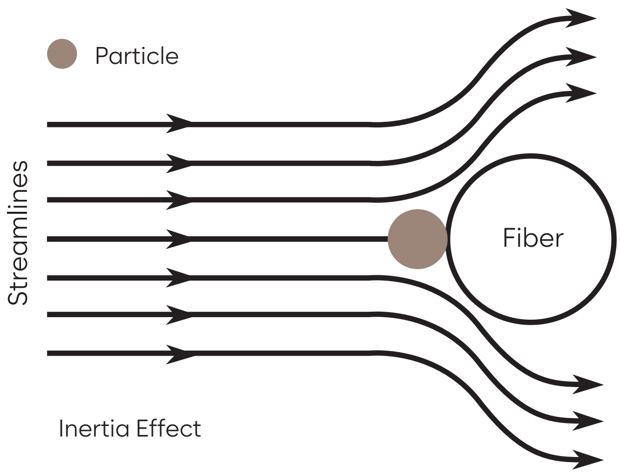


2.Basic Principles of Mechanical Filtration

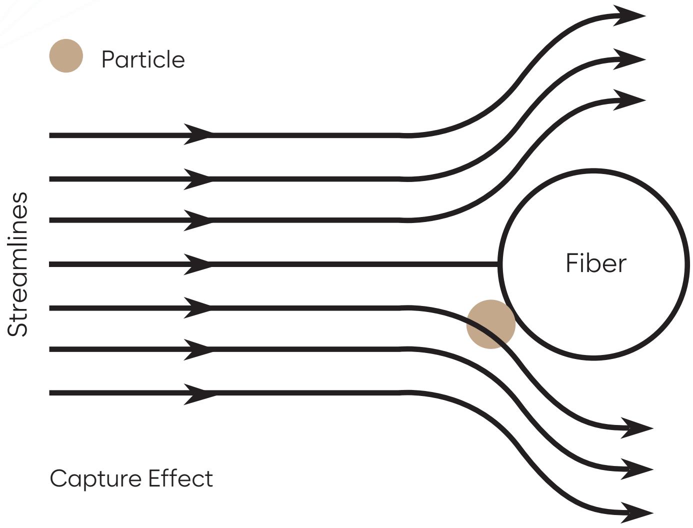
Sieve Effect: It is the simplest filtration mechanism. It is the process of capturing particles larger than the gap between the two fiber threads used as the filter element.



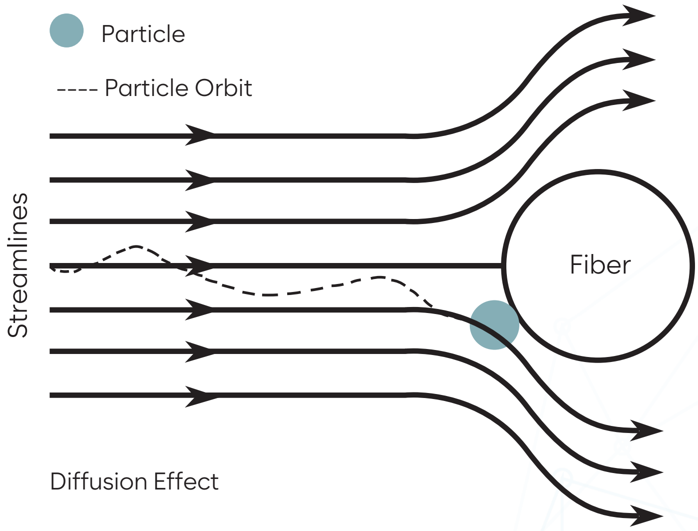
Inertia Effect: Particles, when encountering a filter fiber in their path, want to continue their journey without altering their parallel orientation. However, due to their inertia, they fail to do so and instead collide with the fiber and adhere to its surface.



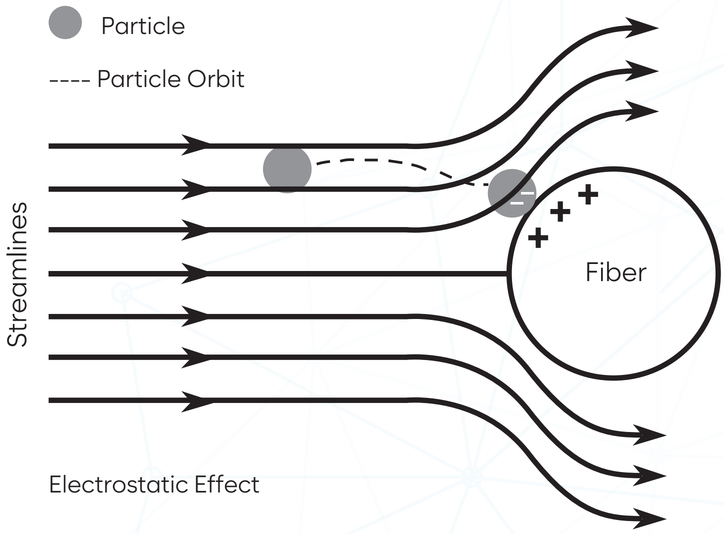
Capture Effect: If the particle size is very small, the particle can follow an orbit around the fiber thread along with the air. However, if this orbit passes closer to the fiber than half the particle radius, the particle is captured by the fiber and adheres to it.



Diffusion Effect: When the particle size is smaller than 1 µm, gas molecules colliding with the particles can cause them to move erratically. As a result of this behavior, particles colliding with the filter fiber can adhere to the filter.



Electrostatic Effect: Between charged particles and filter fibers, particles adhere to the fibers due to the principle of opposite charges attracting each other.



ISO 16890 Standard for Air Filters Used in General Ventilation

ISO 16890 standard is used as a standard for air filter instead of EN 779 and ASHRAE 52.2. Measuring the efficiency of an air filter at a particle size range of 0,3 µm to 10 µm. The classification is carried out according to standard for particle size range 0,3-1,0 µm, 0,3-2,5 µm and 0,3-10 µm. The process is considered while choosing filters according to more detailed and global standard.

Comparison Table

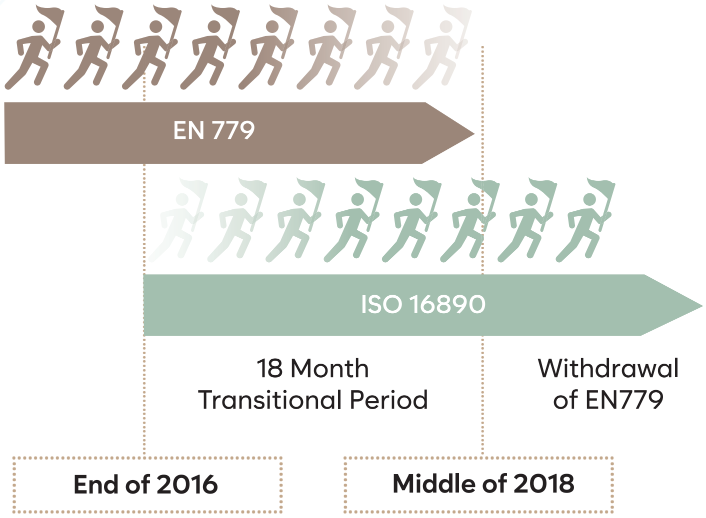
ASHRAE Standard 52.2.2017				ISO 16890: 2018				EN 779: 2012			
Min. Efficiency Reporting Value	Composite Average Particle Size Efficiency (E_m) % in Size Range			Composite Average Particle Size Efficiency % in Size Range $E_m = (E_i + E_d)/2$		Initial Efficiency (E_i)	Initial Arrestance (A_m)	Filter Class	Average Arrestance (A_m) of Synthetic Dust	Average Efficiency (E_m) at 0.4 µm	Minimum Efficiency (E_{min}) at 0.4 µm
	Range 1	Range 2	Range 3	ePM_1 %	$ePM_{2,5}$ %	ePM_{10} %	Coarse %				
(MERV)	0.3-1.0 (mm)	1.0-3.0 (mm)	3.0-10.0 (mm)	0.3-1.0 (mm)	0.3-2,5 (mm)	0.3-10 (mm)	ISO Fine Dust		%	%	%
1			$E_3 \geq 20$				$A_m < 50$	G1	$50 \leq A_m \leq 65$		
2			$E_3 \geq 20$					G2	$65 \leq A_m \leq 80$		
3			$E_3 \geq 20$								
4			$E_3 \geq 20$								
5			$E_3 \geq 20$				$A_m \geq 50$	G3	$80 \leq A_m \leq 90$		
6			$E_3 \geq 35$								
7			$E_3 \geq 50$					G4	$A_m \leq 90$		
8		$E_2 \geq 20$	$E_3 \geq 70$								
9		$E_2 \geq 35$	$E_3 \geq 75$			$E_i > 50$		M5		$40 \leq E_m \leq 60$	
10		$E_2 \geq 50$	$E_3 \geq 80$								
11	$E_1 \geq 20$	$E_2 \geq 65$	$E_3 \geq 85$		$E_m \geq 50$	$E_i > 70$		M6		$60 \leq E_m \leq 80$	
12	$E_1 \geq 35$	$E_2 \geq 80$	$E_3 \geq 90$								
13	$E_1 \geq 50$	$E_2 \geq 85$	$E_3 \geq 90$	$E_m \geq 50$	$E_m \geq 65$	$E_i > 80$		F7		$80 \leq E_m \leq 90$	$E_{min} \geq 35$
14	$E_1 \geq 75$	$E_2 \geq 90$	$E_3 \geq 95$	$E_m \geq 70$	$E_m > 80$	$E_i > 90$		F8		$90 \leq E_m \leq 95$	$E_{min} \geq 55$
15	$E_1 \geq 85$	$E_2 \geq 90$	$E_3 \geq 95$	$E_m > 80$				F9		$95 \leq E_m$	$E_{min} \geq 70$
16	$E_1 \geq 95$	$E_2 \geq 95$	$E_3 \geq 95$								

A_m= Average Arrestance, **E_m**= Average Efficiency, **E_{min}** = Minimum Efficiency, **E_d** = Discharged Efficiency, **E_i** = Initial Efficiency

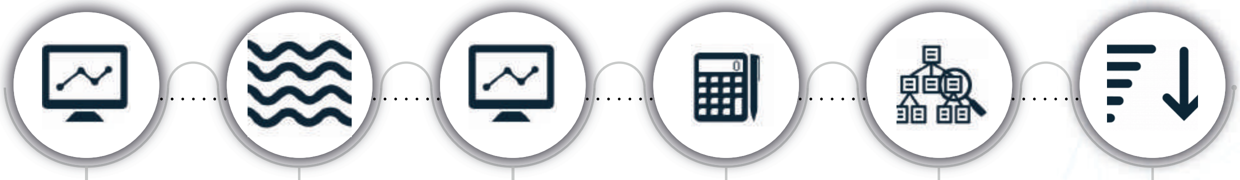
Why EN 779 replaced?

A synthetic powder called ASHRAE dust is used in the efficiency test of an air filter according to EN779: 2012 standard. The test is done by loading the filter with this powder in the laboratory environment. By this way, the efficiency of the filter can be calculated in the particle size of only 0.4 µm . In operating conditions, filters are exposed to pollutants with a variety of different sized particulate. Therefore, the data obtained in the laboratory is **insufficient to determine the performance of an air filter.**

The EN 779: 2012 standard which was used in the classification of Coarse filters, Medium Filters and Fine Filters replaced by the ISO 16890 standard. **With this change in standard, filter users will are able to choose the filter much more accurate according to their needs.**



ISO 16890 Test Procedure Step By Step

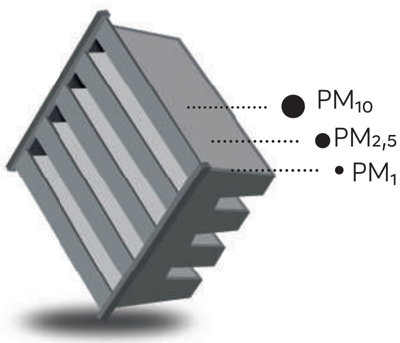


STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6
Test procedure of the ISO 16890 standard begins with measuring the efficiency of an air filter at a particle size range of 0.3 µ m to 10 µm.	The Filter is subjected to an isopropanol vapor atmosphere to eliminate efficiency of electrostatic mechanism.	Isopropanol vapor atmosphere conditioned Filter tested again to measure the minimum efficiency ePM1,min and ePM2,5,min	Efficiency for each PM size is calculated by the mean of both conditioned and the conditioned filter.	The efficiencies for ePM1 are calculated for the particle size 0,3 -1 µm , ePM2,5 for the particle size range of up to 2,5 and ePM10 for the particle size range of up to 10 microns.	Calculated efficiency values are rounded to the nearest lower value according to the efficiency values in the ISO 16890 classification groups.

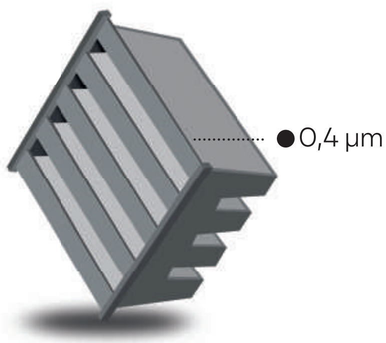
ISO 16890 Classifications

ISO ePM1	ISO ePM2,5	ISO ePM10	ISO Coarse
ePM1 95% ePM1 90% ePM1 85% ePM1 80% ePM1 75% ePM1 70% ePM1 65% ePM1 60% ePM1 55% ePM1 50% Requirement ≥50% Initial Efficiency ≥50% Discharged Efficiency	ePM2,5 95% ePM2,5 90% ePM2,5 85% ePM2,5 80% ePM2,5 75% ePM2,5 70% ePM2,5 65% ePM2,5 60% ePM2,5 55% ePM2,5 50% Requirement ≥50% Initial Efficiency ≥50% Discharged Efficiency	ePM10 95% ePM10 90% ePM10 85% ePM10 80% ePM10 75% ePM10 70% ePM10 65% ePM10 60% ePM10 55% ePM10 50% Requirement ≥50% Initial Efficiency No discharged requirement	ISO Coarse 95% ISO Coarse 90% ISO Coarse 85% ISO Coarse 80% ISO Coarse 75% ISO Coarse 70% ISO Coarse 65% ISO Coarse 60% ISO Coarse 55% ISO Coarse 50% ISO Coarse 45% ISO Coarse 40% ISO Coarse 35% ISO Coarse 30% ISO Coarse 25% ISO Coarse 20% ISO Coarse 15% ISO Coarse 10% ISO Coarse 5% No discharged requirement

ISO 16890



EN 779:2012



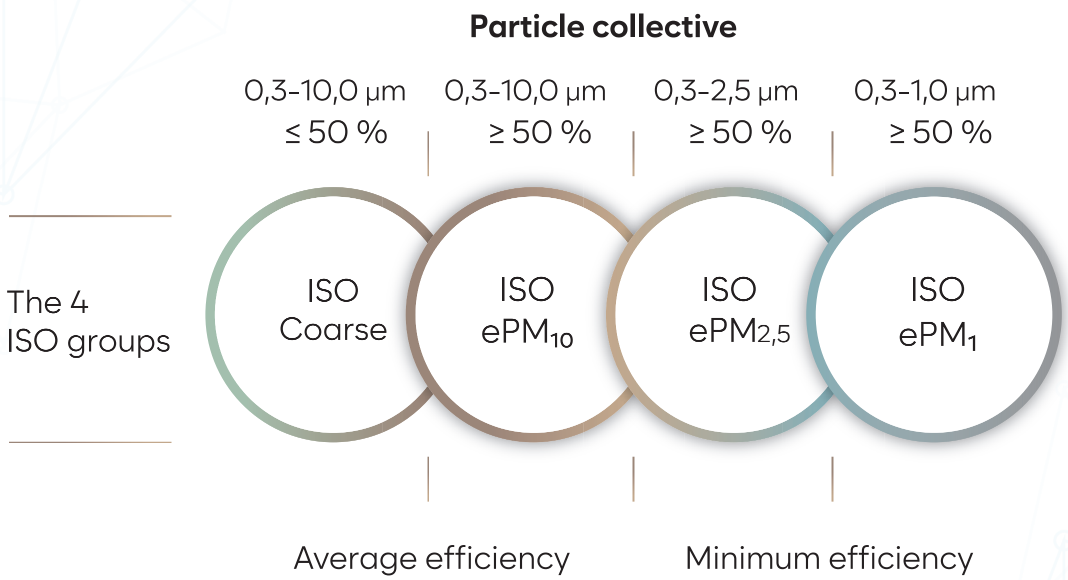
ISO 16890 standard considers for the particle size (Particulate Matter = PM) between 0,3 µm and 10 µm for efficiency evaluation.

For example; According to the test result, the F8 class V-Compact Filter is classified as "ISO ePM_1 70%". This means that the filter seperates %70 of PM_1 particles. The "e" stands for efficiency in combination with the particulate matter (PM).

Product Code	Classification according to EN 779	Particulate Matter Efficiency (%)			Classification according to ISO 16890
		ISO ePM_1	ISO $ePM_{2,5}$	ISO ePM_{10}	
FV-F8 592x592x292	F8	73	80	93	ISO ePM_1 70%

Particulate Matter	Size Range
PM_{10}	0,3 - 10 µm
$PM_{2,5}$	0,3 - 2,5 µm
PM_1	0,3 - 1 µm

	EN ISO 16890 Classification			
	ePM_1	$ePM_{2,5}$	ePM_{10}	ISO Coarse
$ePM_{1\,min}$	≥50%	—	—	—
$ePM_{2,5\,min}$	—	≥50%	—	—
$ePM_{10\,min}$	—	—	≥50%	≤50%



NOTES ....

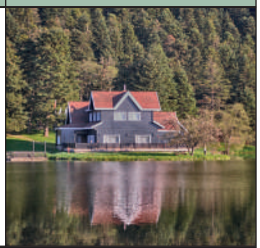
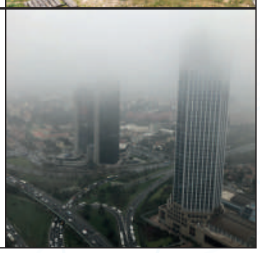
EN 779 (cancelled)	ISO 16890
Filter classes F7-F8-F9 M5-M6 G2-G3-G4	Four ISO groups ISO ePM_1 ISO $ePM_{2,5}$ ISO ePM_{10} ISO Coarse
The evaluation is carried out with a particle size of only 0,4 µm.	The evaluation is carried out with a particle size from 0,3 µm-10 µm.
Determining of average efficiency/ arrestance after loading synthetic dust. Mean of test measurements at 0,4 µm particulate size.	The efficiency is measured according to the particle range. Measuring efficiencies after 24 hours of IPA process. Calculating the ePMx efficiency with mean of test measurements.
Dust holding capacity for synthetic test dust ASHRAE	Dust holding capacity for synthetic test dust ISO A2/AC Fine
Test final ΔP G1, G2, G3, G4 = 250 Pa M5, M6, F7, F8, F9 = 450 Pa	Test final ΔP $ePM_{10} \leq 50\%$ = 200 Pa $ePM_X \geq 50\%$ = 300 Pa
Covers Europe (EN: European Standard).	Global (ISO, International Standard Organization).

EN 779:2012	EN ISO 16890 - range of actual measured average efficiencies		
Filter Class	ePM_1	$ePM_{2,5}$	ePM_{10}
M5	5%-35%	10%-40%	40%-70%
M6	10%-40%	20%-50%	60%-80%
F7	40%-65%	65%-75%	80%-90%
F8	65%-90%	75%-95%	90%-100%
F9	80%-90%	85%-95%	90%-100%

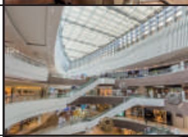
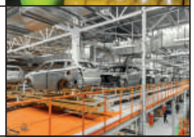
4.Selection of Filters According to ISO 16890 Standard in HVAC Applications

ISO 16890 standardizes and provides a scientific approach to this process. Selecting air filters based on the ISO 16890 standard is important for improving indoor air quality and the efficiency of HVAC (Heating, Ventilation, and Air Conditioning) systems.
Members of the Eurovent Association, which includes filter manufacturers playing a significant role in the Europe, Middle East, and Africa (EMEA) market, have published the document 'Eurovent REC 4/23.' This document provides recommendations for selecting filters to achieve the required indoor air quality according to ISO 16890 standards, drawing upon the work of the World Health Organization (WHO). To achieve the desired indoor air quality, the outdoor air particle concentration values have been categorized based on general ventilation and industrial usage. The required supply air (SUP) quality is obtained through recommended filtration efficiency to attain the desired indoor air quality.

In Eurovent REC 4/23, outdoor air (ODA; Outdoor Air) is divided into three groups.

Category	Description	Examples
Outdoor Air 1	Temporary Dusty Outdoor Air The permissible annual average particulate matter concentration conditions specified in the WHO guidelines for outdoor air are accepted. [PM2,5: 10 μg/m³; PM10: 20 μg/m³	
Outdoor Air 2	Outdoor Air with High Particulate Matter Concentration The upper limit for annual average particulate matter concentration, exceeding 1.5 times the permissible value specified in the WHO guidelines for outdoor air, is accepted. [PM2.5: 15 μg/m³, PM10: 30 μg/m³]	
Outdoor Air 3	Outdoor Air with Very High Particulate Matter Concentration It is considered to exceed 1.5 times the permissible annual average particulate matter concentration specified in the WHO guidelines for outdoor air. [PM2.5 > 15 μg/m³, PM10 > 30 μg/m³]	

In Eurovent REC 4/23, indoor supply air (SUP) is classified into five categories.

Supply Air Category	Examples of General Ventilation	General Ventilation Examples	Examples of Industrial Ventilation	Industrial Ventilation Examples
SUP 1 PM2,5 ≤ 2,5 µg/m³ PM10 ≤ 5 µg/m³	-		Cleanrooms (Hospitals, Pharmaceutical Warehouse, Electronic and Optic Industrial)	
SUP 2 PM2,5 ≤ 5 µg/m³ PM10 ≤ 10 µg/m³	Kindergartens, offices, hotels, residential buildings, meeting rooms, exhibition halls, conference halls, theaters, cinemas, concert halls		High hygiene expectation food and beverage production facilities, etc.	
SUP 3 PM2,5 ≤ 7,5 µg/m³ PM10 ≤ 15 µg/m³	Warehouses, shopping malls, laundry rooms, server rooms, photocopy rooms		Packaging areas in food and beverage facilities, etc.	
SUP 4 PM2,5 ≤ 10 µg/m³ PM10 ≤ 20 µg/m³	Restrooms, stairwells, etc.		Production areas in the automotive industry, etc.	
SUP 5 PM2,5 ≤ 15 µg/m³ PM10 ≤ 30 µg/m³	Garbage rooms, data centers, underground parking lots, etc.		Heavy industrial production areas (steel factories, smelting and welding facilities), etc.	

The selection of filters that will provide the required efficiency according to the WHO guidelines is made by utilizing the outdoor air (ODA) and supply air (SUP) categories.

			SUPPLY AIR				
OUTDOOR AIR			SUP 1* $PM_{2,5}$≤ 2,5 PM_{10}≤ 5	SUP 2* $PM_{2,5}$≤ 5 PM_{10}≤ 10	SUP 3** $PM_{2,5}$≤ 7,5 PM_{10}≤ 15	SUP 4 $PM_{2,5}$≤ 10 PM_{10}≤ 20	SUP 5 $PM_{2,5}$≤ 15 PM_{10}≤ 30
Category	**$PM_{2,5}$**	**PM_{10}**	ePM_1	ePM_1	$ePM_{2,5}$	ePM_{10}	ePM_{10}
ODA 1	≤ 10	≤ 20	%70	%50	%50	%50	%50
ODA 2	≤ 15	≤ 30	%80	%70	%70	%80	%50
ODA 3	> 15	> 30	%90	%80	%80	%90	%80

Table 1: Recommended min. ePMx filtration efficiencies depending on ODA and SUP category. Annual mean PMx values in µg/m³

* Minimum filtration requirements ISO PM1 50% refer to a final filter stage
** Minimum filtration requirements ISO PM2.5 50% refer to a final filter stage

EN ISO 16890 RATED FILTER CLASSES MEETING RECOMMENDED MINIMUM EFFICIENCY

The recommended minimum filtration efficiency given in table 1 can be reached by applying alternative suitable filter classes (1 stage filtration) or various combinations of filter classes (multi-stage filtration).
This provides for the optimisation of a filtration system in terms of different criteria but especially the energy efficiency. Optimisation of the energy efficiency can be easily performed by joint consideration in the selection both the efficiency of particle separation and the Eurovent energy rating of respective filters.

An actual filtration efficiency can be determined directly based on ISO rating of a filter (if considered SUP category refers to the rated ePM group), efficiencies for other than rated ePM fractions, available in the technical data sheet of a filter, and additionally for multi-stage filtration – by means of the formula for combined filtration efficiency presented in chapter 5.
To facilitate tentative selection, in table 7 below some examples of classes meeting recommended filtration efficiency for respective ODA/SUP categories were presented. It must be stressed this table is not exhaustive and it is recommended to contact a filter supplier for optimal selection.

Outdoor air quality		Supply air quality				
		SUP 1	SUP 2	SUP 3	SUP 4	SUP 5
ODA 1	example 1	ePM_{10} 50% + ePM_1 60%	ePM_1 50%	$ePM_{2,5}$ 50%	ePM_{10} 50%	ePM_{10} 50%
	example 2	ePM_1 70%	-	-	-	-
ODA 2	example 1	$ePM_{2,5}$ 50% + ePM_1 60%	ePM_{10} 50% + ePM_1 60%	ePM_1 50%	$ePM_{2,5}$ 50%	ePM_{10} 50%
	example 2	ePM_1 80%	ePM_1 70%	$ePM_{2,5}$ 70%	ePM_{10} 80%	-
ODA 3	example 1	$ePM_{2,5}$ 50% + ePM_1 80%	$ePM_{2,5}$ 50% + ePM_1 60%	ePM_{10} 50% + ePM_1 60%	ePM_1 50%	$ePM_{2,5}$ 50%
	example 2	ePM_1 90%	ePM_1 80%	$ePM_{2,5}$ 80%	ePM_{10} 90%	ePM_{10} 80%

Table 2: examples of filter classes meeting respective ODA/SUP categories requirements

Filtration is not only intended to ensure indoor air quality but also to protect HVAC systems. Therefore, the efficiency of the first-stage filter should be at least 50% at ePM10. In applications where humidification is performed, the efficiency of the air leaving the humidification cell should be at least 65% at ePM2.5. Another important parameter to consider when taking into account all the filter selection recommendations for achieving the desired air quality is the cost of energy consumption. From an energy efficiency perspective, filter models with lower initial pressure drop, a larger filtration area, and longer operational life under the same operating conditions compared to their counterparts should be preferred. End-users and operators can make improvements in energy savings by following the recommendations made by filter manufacturers regarding energy efficiency according to Eurovent REC 4/21-2018.

According to the conditions specified in the EN 16798-3:2017 standard, the combined use of particle filters and gas-phase filters is recommended for situations where outdoor air (ODA) conditions are not suitable and the desired supply air (SUP) conditions need to be met.

OUTDOOR AIR QUALITY	SUPPLY AIR QUALITY				
	SUP 1	SUP 2	SUP 3	SUP 4	SUP 5
Room (G) 1	Recommended				
Room (G) 2	Required	Recommended			
Room (G) 3	Required	Required	Recommended		

The selection of air filters made according to the ISO 16890 standard helps protect process equipment, ventilation ducts, fittings, and products. Especially, filters commonly used in building heating, ventilation, and air conditioning applications reduce particle matter concentration, improve indoor air quality, and significantly safeguard human health.

5.Recommendations for Coarse Filtration Filters

Regular Inspection: Check the filter regularly for visible signs of clogging or damage. A blocked filter can hinder system performance and can be detrimental to subsequent fine filters.

Final Pressure Drop: According to the EN 13053 standard, the final pressure drop is determined. ISO Coarse class is calculated by adding 50 Pascal (Pa) to the initial pressure drop of clean filters or by calculating a value up to three times smaller than the initial pressure drop of clean filters. ISO ePM1, ISO ePM2.5, and ISO ePM10 classes is calculated by either adding 100 Pascal (Pa) to the initial pressure drop of clean filters or by calculating a value up to three times smaller than the initial pressure drop of clean filters.
This method is used to determine a recommended final pressure drop value at the end of the filter's service life.

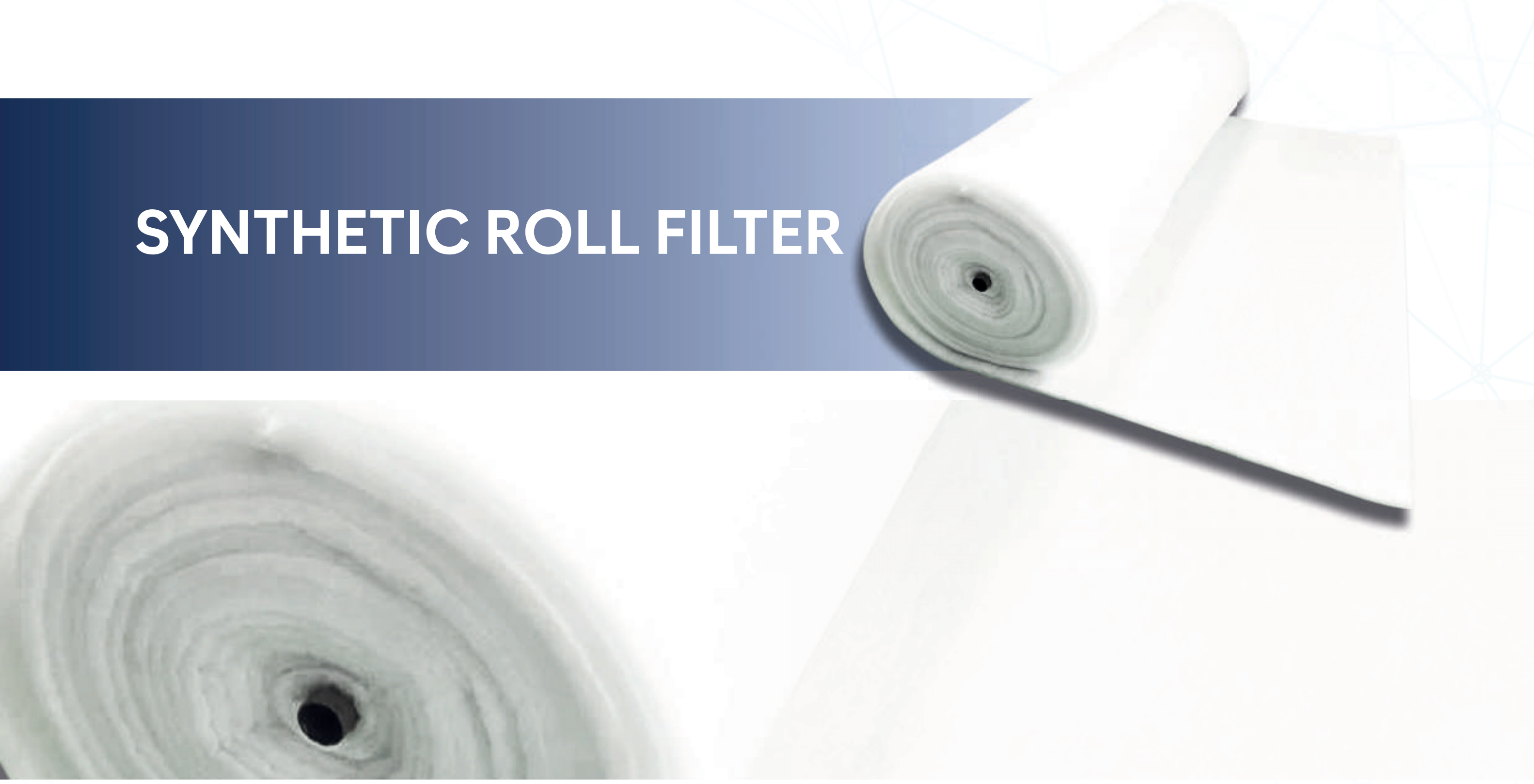
Correct Installation: Ensure the filter is correctly installed, following the manufacturer's directions. An improperly installed filter can compromise its effectiveness. The filter pleats or pockets must be mounted vertically on the ground.

Maintain a Stock: These filters are recommended to be kept in stock as they hold the most particles and require the highest replacement frequency compared to other stage filters. Always keep a replacement on hand to ensure minimal downtime during replacements.

Washing or Cleaning: Most of the coarse filters are designed for single use, some of the types might be washable or cleanable. It's essential to refer to the manufacturer's guidelines. However, repeated cleaning can reduce the filter's efficiency, so always ensure it's still performing as needed.

NOTES

SYNTHETIC ROLL FILTER



Applications:
Pre-filter for ventilation equipment and HVAC
Basic ventilation systems

Highlights:

- Fire resistant (M1 / F1)

Filter Standard:	ISO 16890	**Rec. Final Pressure Drop EN13053:**	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Filter Class:	ISO Coarse	**Max. Operating Tempature:**	80˚C
Media:	Synthetic Fiber	**Thickness:**	10 - 15 - 20 - 25- 30 mm

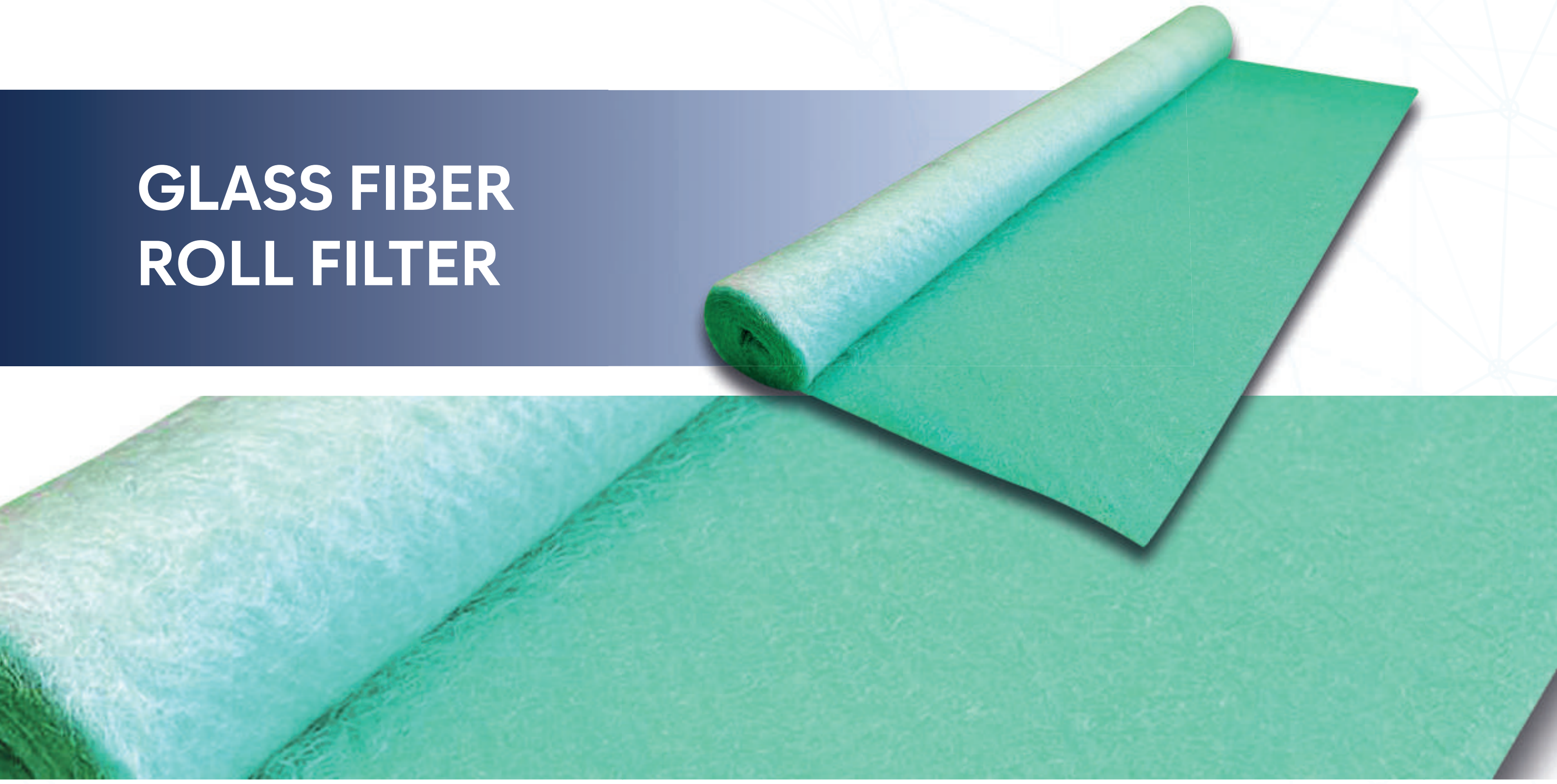
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Dimensions WxL (mm)	Thickness (mm)	Media Weight (g/m²)
GR-G2-100-T10-1000-20000	G2	Coarse 25%	Synthetic	1.000x20.000	10	100
GR-G2-100-T10-2000-20000	G2	Coarse 25%	Synthetic	2.000x20.000	10	100
GR-G3-150-T15-1000-20000	G3	Coarse 45%	Synthetic	1.000x20.000	15	150
GR-G3-150-T15-2000-20000	G3	Coarse 45%	Synthetic	2.000x20.000	15	150
GR-G4-200-T20-1000-20000	G4	Coarse 55%	Synthetic	1.000x20.000	20	200
GR-G4-200-T20-2000-20000	G4	Coarse 55%	Synthetic	2.000x20.000	20	200
GR-M5-300-T30-1000-20000	M5	Coarse 80%	Synthetic	1.000x20.000	30	300
GR-M5-300-T30-2000-20000	M5	Coarse 80%	Synthetic	2.000x20.000	30	300

ULPATEK SYNTHETIC ROLL FILTERS		GR-G3	GR-G4	GR-M5
Filter Class according to EN 779 (cancelled)		G3	G4	M5
Filter Class according to ISO 16890		Coarse 45%	Coarse 55%	Coarse 80%
Nominal Face Velocity	m/s	1,5	1,5	1,5
Nominal Air Flow	m³/h.m²	5400	5400	5400
Initial Pressure Drop at Nominal Air Flow	Pa	25	30	35
Final Pressure Drop according to ISO 16890	Pa	250	250	250
Final Pressure Drop according to EN 13053	Pa	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower		
Dust Holding Capacity	g	137	148	160
Average Arrestance (Am)	%	82,5	92	98
Thickness	mm	15	20	30
Weight	g/m²	150	200	300
Roll Dimensions (W x L)	m	2 x 20		
Temperature Resistance	˚C	80		
Maximum Relative Humidity	%	100		
Filter Media		Synthetic		

SYNTHETIC ROLL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Media Weight (g/m)	Thickness (mm)	Width (mm)	Length (mm)
GR : Synthetic Roll Filter	G2 G3 G4 M5	100 150 200 250 300	T10 T15 T20 T25 T30	1000-2000	10.000-20.000

GLASS FIBER ROLL FILTER



Applications:
Pre-filter for ventilation equipment and HVAC
Paint booths

Highlights:
- High dust holding capacity
- Dust / paint holder

Filter Standard:	ISO 16890	Rec. Final Pressure Drop EN13053:	250 Pa
Filter Class:	ISO Coarse	Max. Operating Tempature:	120°C
Media:	Glass Fiber	Thickness:	75 - 100 mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Dimensions WxL (mm)	Thickness (mm)	Media Weight (g/m²)
GC-G3-T75-1000-20000	G3	Coarse 45%	Glass Fiber	1.000x20.000	75	250
GC-G3-T75-2000-20000	G3	Coarse 45%	Glass Fiber	2.000x20.000	75	250
GC-G4-T100-1000-20000	G4	Coarse 55%	Glass Fiber	1.000x20.000	100	300
GC-G4-T100-2000-20000	G4	Coarse 55%	Glass Fiber	2.000x20.000	100	300

ULPATEK ROLL FILTERS		GR-G3	GR-G4
Filter Class according to EN 779 (cancelled)		G3	G4
Filter Class according to EN 16890		Coarse 45%	Coarse 55%
Nominal Face Velocity	m/s	1,5	1,5
Nominal Air Flow	m³/h.m²	5400	5400
Initial Pressure Drop at Nominal Air Flow	Pa	30	40
Final Pressure Drop	Pa	250	250
Average Arrestance (Am)	%	82,5	92
Thickness	mm	75	100
Weight	g/m²	250	300
Roll Dimensions (W x L)	m	2 x 20	
Temperature Resistance	˚C	120	
Maximum Relative Humidity	%	100	
Filter Media		Glass Fiber	

GLASS FIBER ROLL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Thickness (mm)	Width (mm)	Length (mm)
GC : Glass Fiber Roll Filter	G3 G4	T75 T100	1000-2000	10.000-20.000

GLASS FIBER PANEL FILTER

Applications:
Pre-filter for ventilation equipment and HVAC
Paint booths

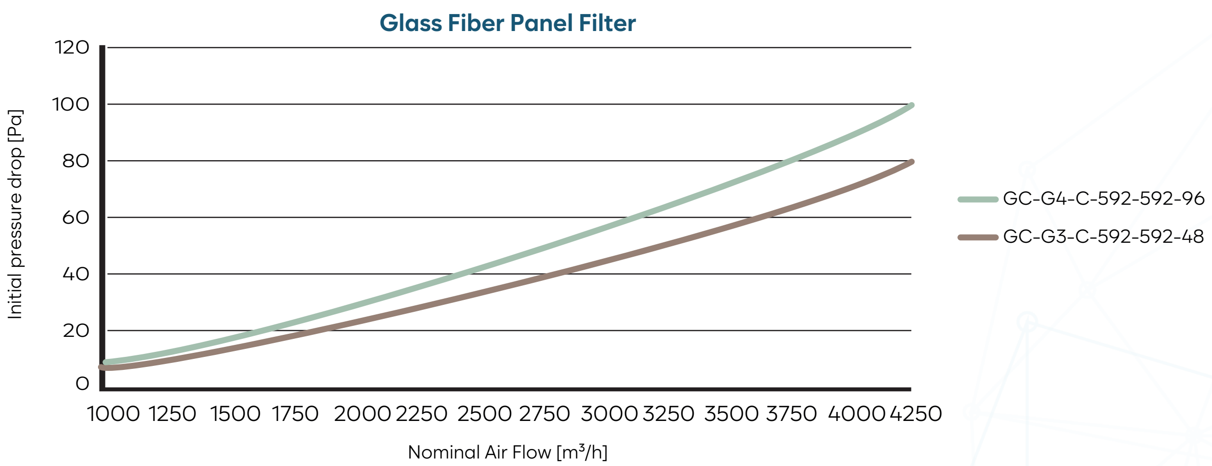
Highlights:
- High dust holding capacity
- Dust / paint holder

Filter Standard:	ISO 16890	Frame:	Cardboard
Filter Class:	ISO Coarse	Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Media:	Glass Fiber	Max. Operating Tempature:	80˚C

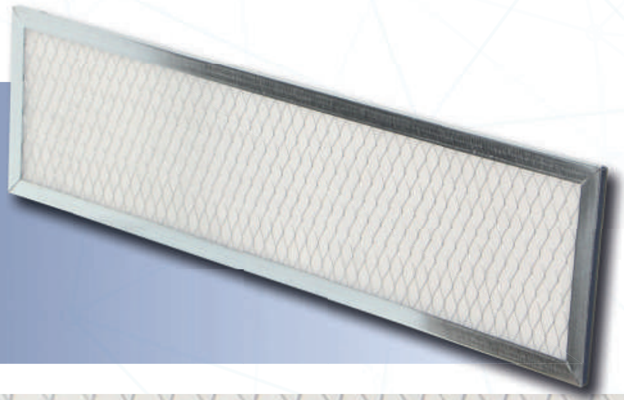
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Dimensions WxHxD (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
GC-G3-C-287-592-48	G3	Coarse 45%	Glass Fiber	287x592x48	1700	55
GC-G3-C-592-592-48	G3	Coarse 45%	Glass Fiber	592x592x48	3400	55
GC-G4-C-287-592-96	G4	Coarse 55%	Glass Fiber	287x592x96	1700	70
GC-G4-C-592-592-96	G4	Coarse 55%	Glass Fiber	592x592x96	3400	70
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"						

GLASS FIBER PANEL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)
GC : Glass Fiber Panel Filter	G3 G4	C: Cardboard	592x592x48



FANCOIL FILTER



Applications:
Fan-coil Units

Highlights:
- Robust construction

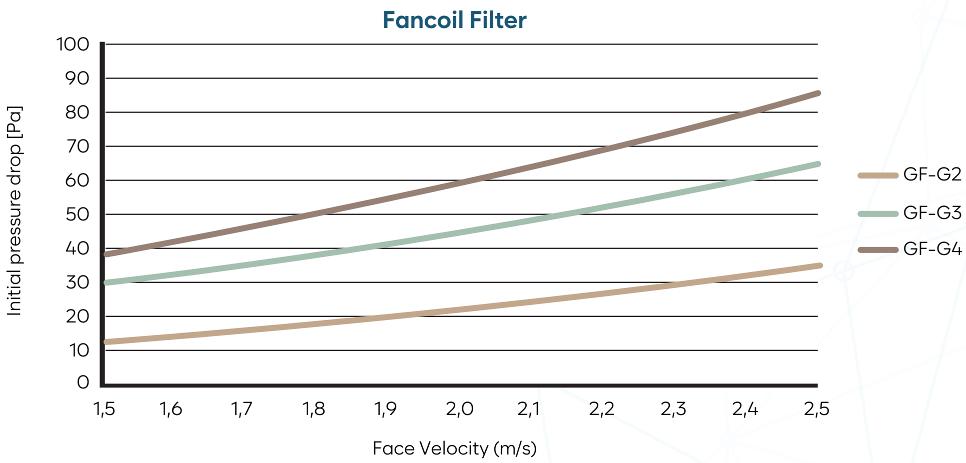
Filter Standard:	ISO 16890	**Rec. Final Pressure Drop EN13053:**	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Filter Class:	ISO Coarse	**Max. Operating Tempature:**	80˚C
Media:	Synthetic Fiber	**Standard depth:**	6 - 8 - 10 mm
Frame:	Galvanized	**Expended Metal (Mesh):**	Double Side

Filter Model	Filter Class EN 779 (cancelled)	ISO 16890	Media Material	Width (mm)	Height (mm)	Depth (mm)	Air Velocity (m/s)	Initial Pressure Drop (Pa)
GF-G2-G-175-(400 to 1500)-6	G2	Coarse 25%	Synthetic	175	400-1500	6	2	20
GF-G2-G-185-(400 to 1500)-6	G2	Coarse 25%	Synthetic	185	400-1500	6	2	20
GF-G2-G-205-(400 to 1500)-6	G2	Coarse 25%	Synthetic	205	400-1500	6	2	20
GF-G2-G-210-(400 to 1500)-6	G2	Coarse 25%	Synthetic	210	400-1500	6	2	20
GF-G2-G-245-(400 to 1500)-6	G2	Coarse 25%	Synthetic	245	400-1500	6	2	20
GF-G3-G-175-(400 to 1500)-8	G3	Coarse 45%	Synthetic	175	400-1500	8	2	45
GF-G3-G-185-(400 to 1500)-8	G3	Coarse 45%	Synthetic	185	400-1500	8	2	45
GF-G3-G-205-(400 to 1500)-8	G3	Coarse 45%	Synthetic	205	400-1500	8	2	45
GF-G3-G-210-(400 to 1500)-8	G3	Coarse 45%	Synthetic	210	400-1500	8	2	45
GF-G3-G-245-(400 to 1500)-8	G3	Coarse 45%	Synthetic	245	400-1500	8	2	45
GF-G4-G-175-(400 to 1500)-10	G4	Coarse 55%	Synthetic	175	400-1500	10	2	60
GF-G4-G-185-(400 to 1500)-10	G4	Coarse 55%	Synthetic	185	400-1500	10	2	60
GF-G4-G-205-(400 to 1500)-10	G4	Coarse 55%	Synthetic	205	400-1500	10	2	60
GF-G4-G-210-(400 to 1500)-10	G4	Coarse 55%	Synthetic	210	400-1500	10	2	60
GF-G4-G-245-(400 to 1500)-10	G4	Coarse 55%	Synthetic	245	400-1500	10	2	60

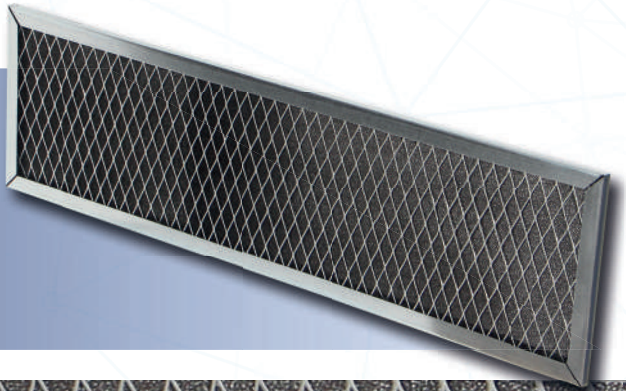
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

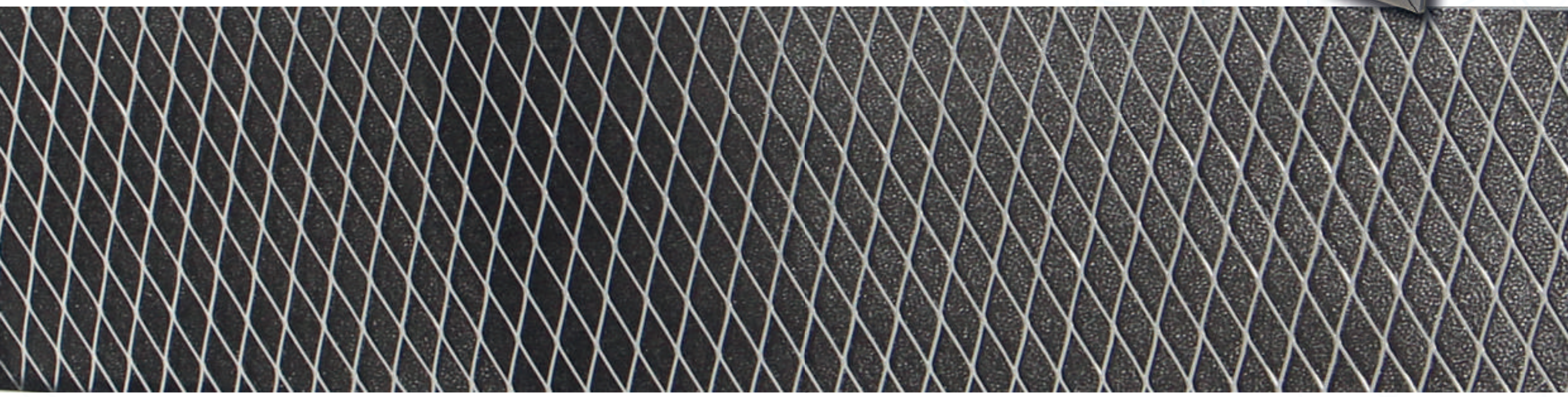
FANCOIL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)
GF : Fancoil Filter	G2 G3 G4	G: Galvanized	592x592x6



POLYURETHANE FANCOIL FILTER





Applications:
Fan-coil Units

Highlights:
- Robust construction
- Washable

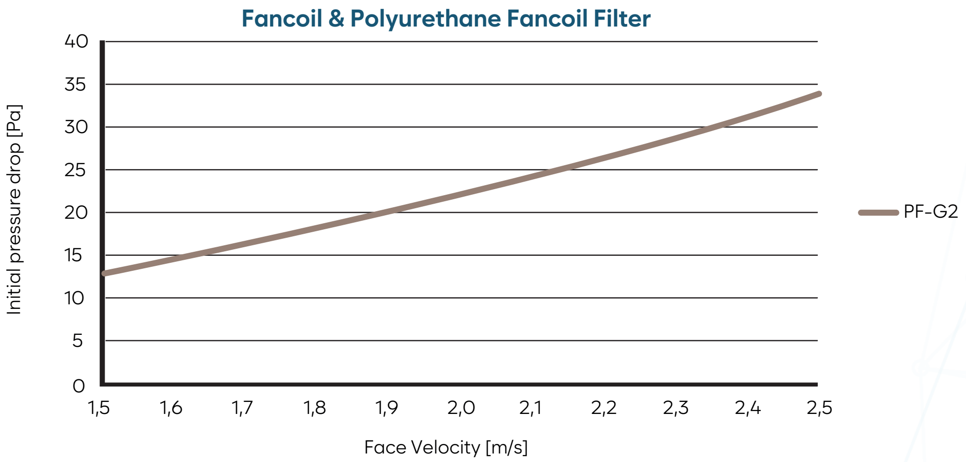
Filter Standard:	ISO 16890	Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Filter Class:	ISO Coarse	Max. Operating Tempature:	80˚C
Media:	Polyurethane	Standard depth:	6 - 8 - 10 mm
Frame:	Galvanized	Expended Metal (Mesh):	Double Side

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Width (mm)	Height (mm)	Depth (mm)	Air Velocity (m/s)	Initial Pressure Drop (Pa)
PF-G2-G-175-(400 to 1500)-8	G2	Coarse 25%	Polyurethane	175	400-1500	8	2	45
PF-G2-G-185-(400 to 1500)-8	G2	Coarse 25%	Polyurethane	185	400-1500	8	2	45
PF-G2-G-205-(400 to 1500)-8	G2	Coarse 25%	Polyurethane	205	400-1500	8	2	45
PF-G2-G-210-(400 to 1500)-8	G2	Coarse 25%	Polyurethane	210	400-1500	8	2	45
PF-G2-G-245-(400 to 1500)-8	G2	Coarse 25%	Polyurethane	245	400-1500	8	2	45

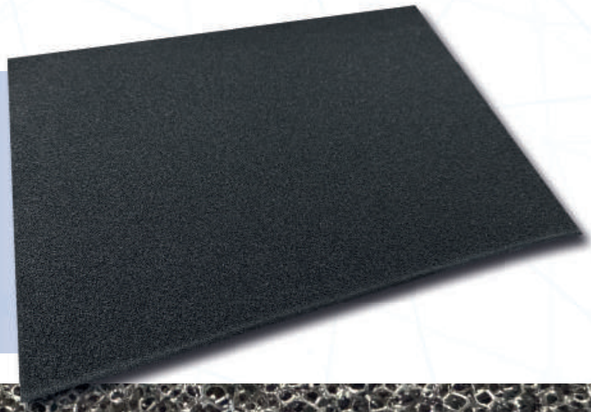
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

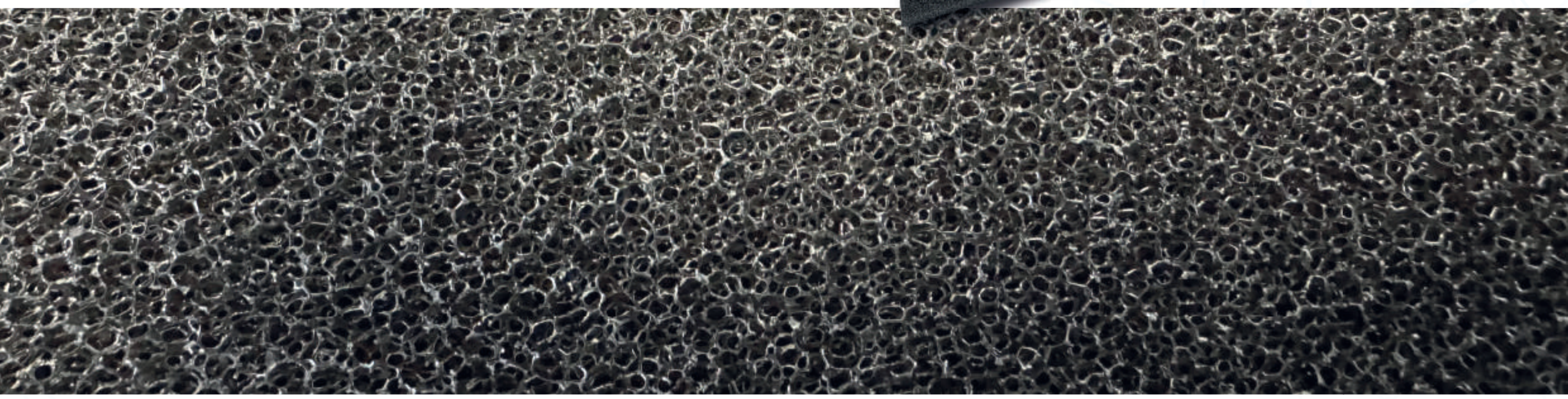
POLYURETHANE FANCOIL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)
PF : Polyurethane Fancoil Filter	G2	G: Galvanized	400-1500x8 mm



POLYURETHANE FILTER MAT





Applications:
Pre-filter for ventilation equipment and HVAC

Highlights:

- Washable

Filter Standard:	ISO 16890
Filter class:	ISO Coarse
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower

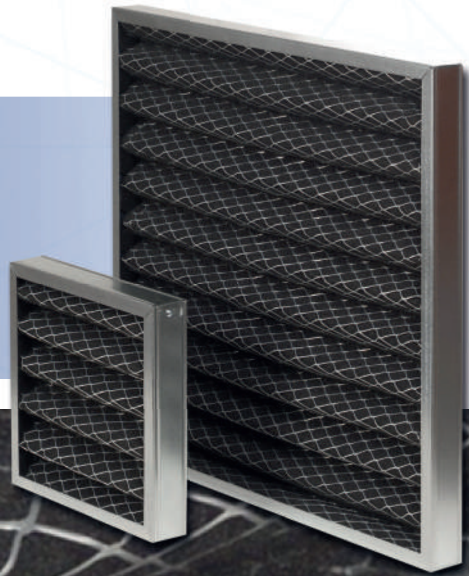
Max. Operating Tempature:	80˚C
Standard depth:	6 - 8 - 10 - 20 mm

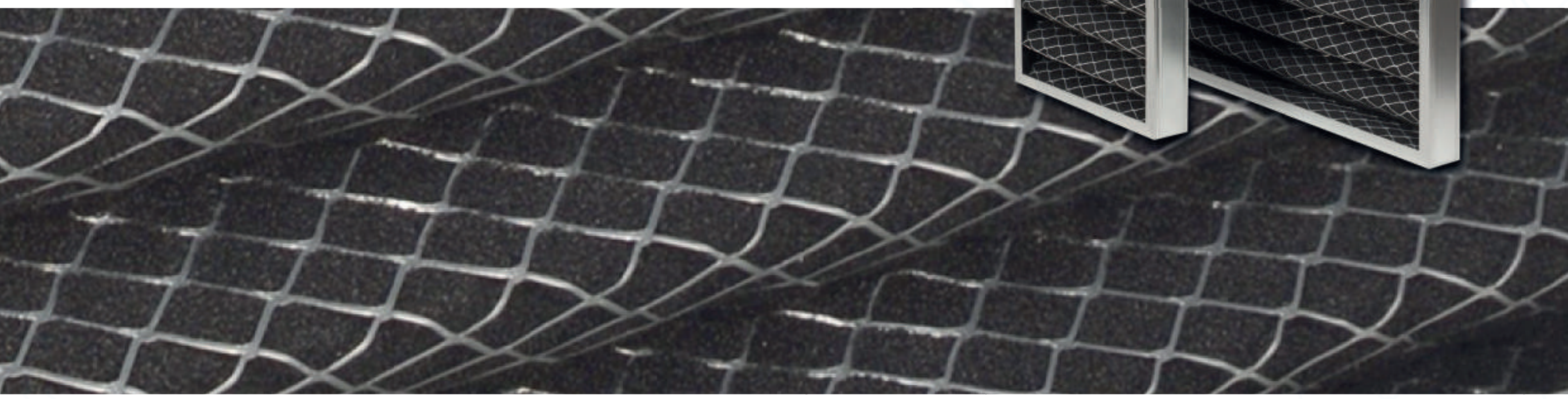
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Dimensions WxL (mm)	Thickness (mm)	Air Velocity (m/s)	Initial Pressure Drop (Pa)
PT-G2-T6-1000-2000	G2	Coarse 25%	Polyurethane	1.000x2.000	6	2	20
PT-G2-T8-1000-2000	G2	Coarse 25%	Polyurethane	1.000x2.000	8	2	20
PT-G3-T10-1000-2000	G3	Coarse 40%	Polyurethane	1.000x2.000	10	2	30
PT-G3-T20-1000-2000	G3	Coarse 40%	Polyurethane	1.000x2.000	20	2	30
PT-G2-T6-1570-2000	G2	Coarse 25%	Polyurethane	1.570x2.000	6	2	20
PT-G2-T8-1570-2000	G2	Coarse 25%	Polyurethane	1.570x2.000	8	2	20
PT-G3-T10-1570-2000	G3	Coarse 40%	Polyurethane	1.570x2.000	10	2	30
PT-G3-T20-1570-2000	G3	Coarse 40%	Polyurethane	1.570x2.000	20	2	30

POLYURETHANE FILTER MAT CODE CONFIGURATION

Filter Type	Filter Class	Thickness (mm)	Width (mm)	Length (mm)
PT : Polyurethane Filter Mat	G2 G3	T6 : 6 mm T8 : 8 mm T10 : 10 mm T20 : 20 mm	1000-1570	2000

POLYURETHANE ZIG-ZAG FILTER





Applications:
Pre-filter for ventilation equipment and HVAC

Highlights:
- Washable
- Optimized operational costs
- Easy to handle and install
- Robust construction (two side mesh)

Filter Standard:	ISO 16890
Filter class:	ISO Coarse
Media:	Polyurethane
Frame:	Galvanized, Stainless Steel

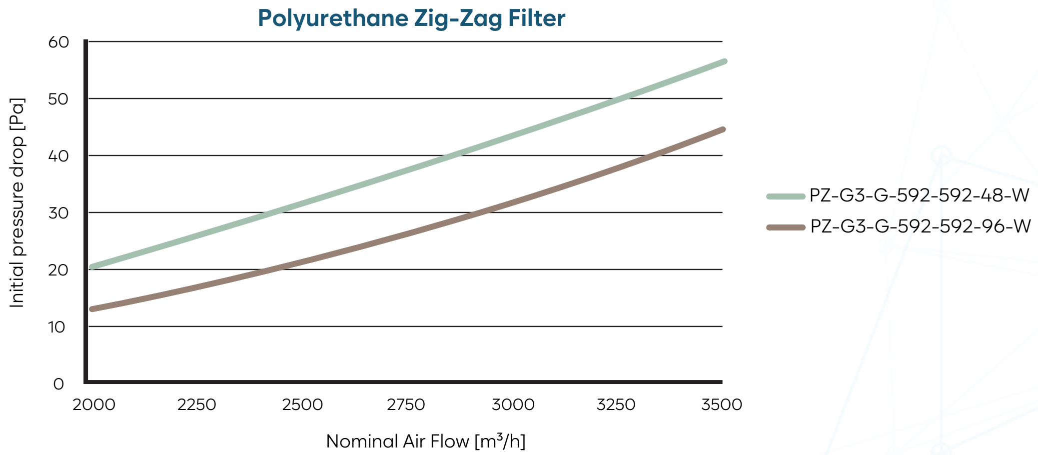
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Tempature:	80˚C
Standard depth:	48 - 96 mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
PZ-G3-G-287-287-48-W	G3	Coarse 40%	Polyurethane	287x287x48	0,1	850	50
PZ-G3-G-287-592-48-W	G3	Coarse 40%	Polyurethane	287x592x48	0,3	1750	50
PZ-G3-G-592-592-48-W	G3	Coarse 40%	Polyurethane	592x592x48	0,6	3400	50
PZ-G3-G-287-287-96-W	G3	Coarse 40%	Polyurethane	287x287x96	0,2	850	40
PZ-G3-G-287-592-96-W	G3	Coarse 40%	Polyurethane	287x592x96	0,5	1750	40
PZ-G3-G-592-592-96-W	G3	Coarse 40%	Polyurethane	592x592x96	0,9	3400	40

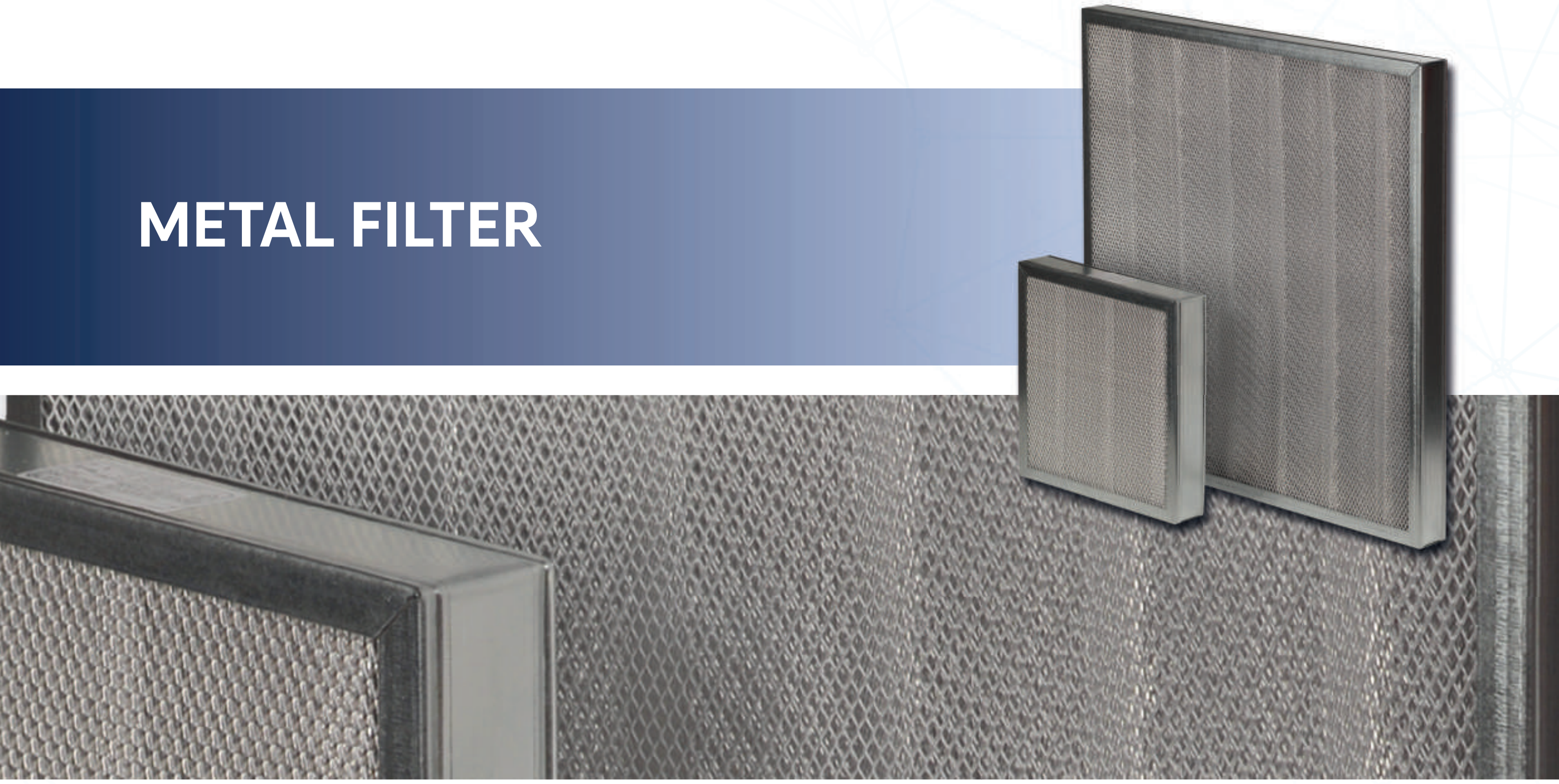
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

POLYURETHANE ZIG-ZAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Gasket
PZ : Polyurethane Zig-Zag	G3	G : Galvanized SS: Stainless Steel	592x592x48	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides



METAL FILTER



Applications:
Grease or oil mist seperation in kitchen ventilation applications
Coarse particle trapper

Highlights:
- Resistance to high temperatures
- Robust construction
- Washable
- Optimized operational cost

Filter Standard:	ISO16890
Filter class:	ISO Coarse
Media:	Expanded metal, wire mesh (Aluminium, Galvanized, Stainless Steel)
Frame:	Galvanized, Aluminium, Stainless Steel

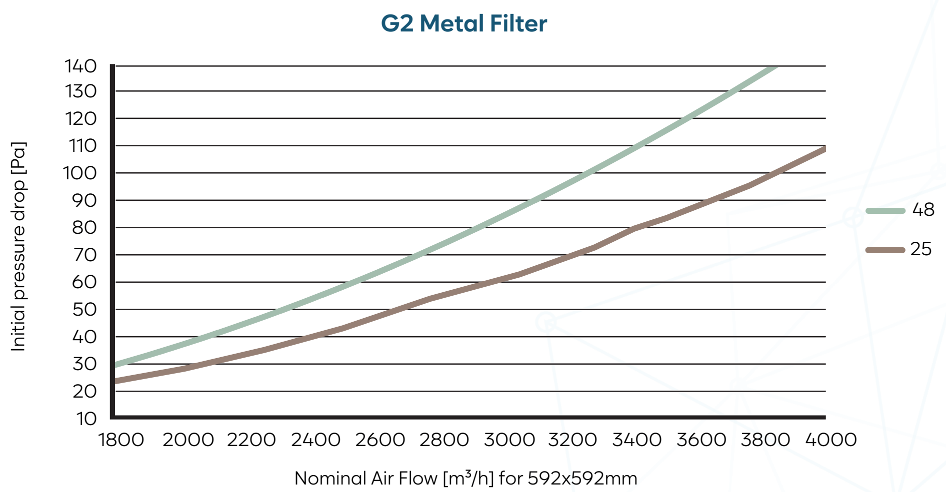
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Tempature:	200˚C
Standard depth:	25 - 48mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Media Material	Dimensions WxHxD (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
MPG-G2-G-EA-287-287-25	G2	Coarse 25%	Aluminium	287x287x25	850	90
MPG-G2-G-EA-287-592-25	G2	Coarse 25%	Aluminium	287x592x25	1750	90
MPG-G2-G-EA-437-592-25	G2	Coarse 25%	Aluminium	437x592x25	2600	90
MPG-G2-G-EA-592-592-25	G2	Coarse 25%	Aluminium	592x592x25	3400	90
MPG-G2-G-EA-287-287-48	G2	Coarse 25%	Aluminium	287x287x48	850	65
MPG-G2-G-EA-287-592-48	G2	Coarse 25%	Aluminium	287x592x48	1750	65
MPG-G2-G-EA-592-592-48	G2	Coarse 25%	Aluminium	592x592x48	3400	65
MPG-G3-G-WG-287-287-25	G3	Coarse 40%	Galvanized	287x287x25	850	90
MPG-G3-G-WG-287-592-25	G3	Coarse 40%	Galvanized	287x592x25	1750	90
MPG-G3-G-WG-437-592-25	G3	Coarse 40%	Galvanized	437x592x25	2600	90
MPG-G3-G-WG-592-592-25	G3	Coarse 40%	Galvanized	592x592x25	3400	90
MPG-G3-G-WG-287-287-48	G3	Coarse 40%	Galvanized	287x287x48	850	65
MPG-G3-G-WG-287-592-48	G3	Coarse 40%	Galvanized	287x592x48	1750	65
MPG-G3-G-WG-592-592-48	G3	Coarse 40%	Galvanized	592x592x48	3400	65

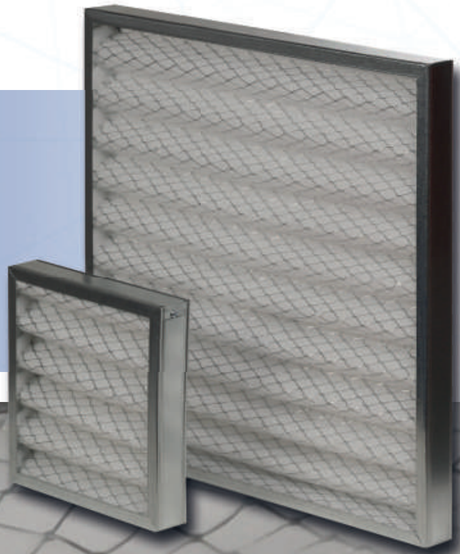
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

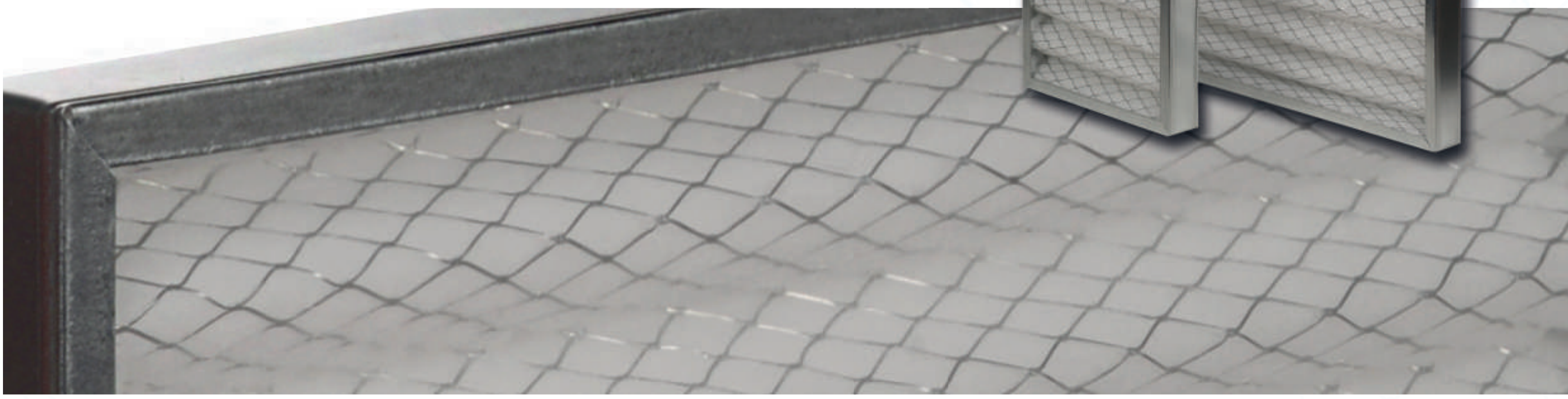
METAL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Media
MPG : Metal Filter	G2 G3	G : Galvanized SS : Stainless Steel A : Aluminium	592x592x48	EA : Aluminium / Expanded Metal EG : Galvanised / Expanded Metal ESS: Stainless Steel / Expanded Metal WG: Galvanised / Woven wire mesh WSS : Woven wire mesh



ZIG-ZAG FILTER





Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust

Highlights:

- Robust design
- Easy installation
- Various frame sizes with any dimensions

Filter Standard:	ISO 16890
Filter Class:	ISO Coarse
Media:	Synthetic Fiber
Frame:	Galvanized Metal, Stainless Steel

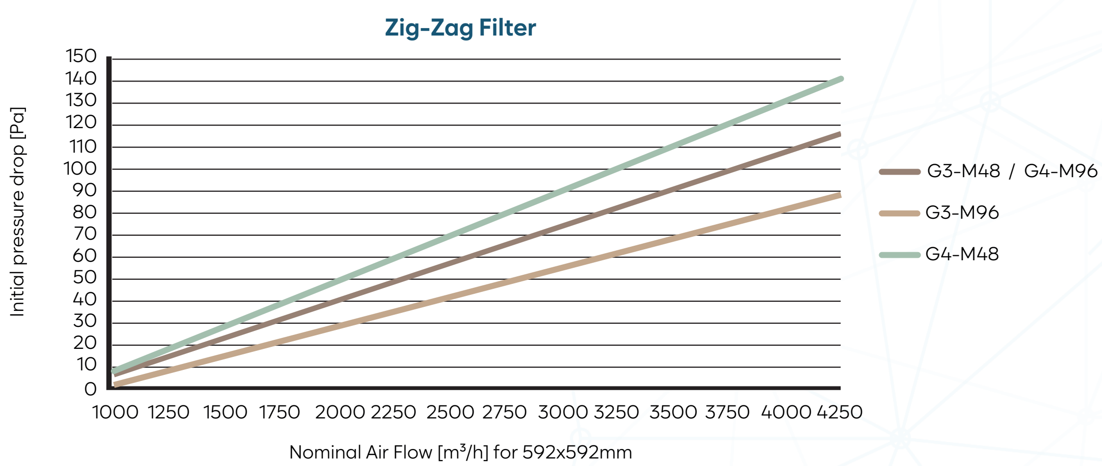
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Standard depth:	48 - 96mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
GZ-G3-G-2-M-287-287-48-W	G3	Coarse 45%	287x287x48	0,1	850	70
GZ-G3-G-2-M-287-437-48-W	G3	Coarse 45%	287x437x48	0,2	1220	70
GZ-G3-G-2-M-287-592-48-W	G3	Coarse 45%	287x592x48	0,3	1700	70
GZ-G3-G-2-M-437-592-48-W	G3	Coarse 45%	437x592x48	0,4	2500	70
GZ-G3-G-2-M-490-592-48-W	G3	Coarse 45%	490x592x48	0,5	2800	70
GZ-G3-G-2-M-592-592-48-W	G3	Coarse 45%	592x592x48	0,6	3400	70
GZ-G3-G-2-M-287-592-96-W	G3	Coarse 45%	287x592x96	0,5	1700	45
GZ-G3-G-2-M-592-592-96-W	G3	Coarse 45%	592x592x96	0,9	3400	45
GZ-G4-G-2-M-287-287-48-W	G4	Coarse 55%	287x287x48	0,1	850	80
GZ-G4-G-2-M-287-437-48-W	G4	Coarse 55%	287x437x48	0,2	1220	80
GZ-G4-G-2-M-287-592-48-W	G4	Coarse 55%	287x592x48	0,3	1700	80
GZ-G4-G-2-M-437-592-48-W	G4	Coarse 55%	437x592x48	0,4	2500	80
GZ-G4-G-2-M-490-592-48-W	G4	Coarse 55%	490x592x48	0,5	2800	80
GZ-G4-G-2-M-592-592-48-W	G4	Coarse 55%	592x592x48	0,6	3400	80
GZ-G4-G-2-M-287-592-96-W	G4	Coarse 55%	287x592x96	0,5	1700	55
GZ-G4-G-2-M-592-592-96-W	G4	Coarse 55%	592x592x96	0,9	3400	55

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

ZIG-ZAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Expanded Metal (Mesh)	Capacity	Dimensions (mm)	Gasket
GZ : Zig-Zag Filter	G3 G4	G: Galvanized	1: Single Side 2: Double Sides	M Standard H: High	592x592x48	W Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides



Filter Model	Filter Class EN 779 (cancelled)	ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
GZ-G3-G-2-H-287-287-48-W	G3	Coarse 45%	287x287x48	0,3	850	70
GZ-G3-G-2-H-287-437-48-W	G3	Coarse 45%	287x437x48	0,5	1220	70
GZ-G3-G-2-H-287-592-48-W	G3	Coarse 45%	287x592x48	0,6	1700	70
GZ-G3-G-2-H-437-592-48-W	G3	Coarse 45%	437x592x48	1,0	2500	70
GZ-G3-G-2-H-490-592-48-W	G3	Coarse 45%	490x592x48	1,1	2800	70
GZ-G3-G-2-H-592-592-48-W	G3	Coarse 45%	592x592x48	1,2	3400	70
GZ-G3-G-2-H-287-592-96-W	G3	Coarse 45%	287x592x96	0,8	1700	45
GZ-G3-G-2-H-592-592-96-W	G3	Coarse 45%	592x592x96	1,7	3400	45
GZ-G4-G-2-H-287-287-48-W	G4	Coarse 55%	287x287x48	0,3	850	85
GZ-G4-G-2-H-287-437-48-W	G4	Coarse 55%	287x437x48	0,5	1220	85
GZ-G4-G-2-H-287-592-48-W	G4	Coarse 55%	287x592x48	0,6	1700	85
GZ-G4-G-2-H-437-592-48-W	G4	Coarse 55%	437x592x48	1,0	2500	85
GZ-G4-G-2-H-490-592-48-W	G4	Coarse 55%	490x592x48	1,1	2800	85
GZ-G4-G-2-H-592-592-48-W	G4	Coarse 55%	592x592x48	1,2	3400	85
GZ-G4-G-2-H-287-592-96-W	G4	Coarse 55%	287x592x96	0,8	1700	55
GZ-G4-G-2-H-592-592-96-W	G4	Coarse 55%	592x592x96	1,7	3400	55

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

NOTES

CARDBOARD FRAME ZIG-ZAG FILTER

Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust

Highlights:

- Simple and light weight
- Disposable
- Moisture resistant cardboard

Filter Standard:	ISO 16890
Filter Class:	ISO Coarse
Media:	Synthetic Fiber
Frame:	Cardboard

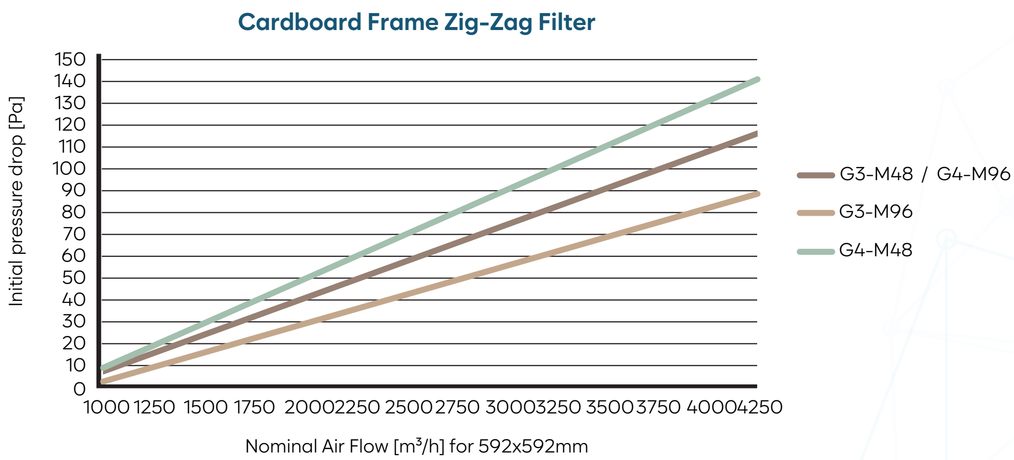
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Standard depth:	48 - 96mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
GZ-G4-C-1-M-287-287-48	G4	Coarse 65%	287x287x48	0,2	850	80
GZ-G4-C-1-M-287-592-48	G4	Coarse 65%	287x592x48	0,4	1700	80
GZ-G4-C-1-M-592-592-48	G4	Coarse 65%	592x592x48	0,9	3400	80
GZ-G4-C-1-M-287-287-96	G4	Coarse 65%	287x287x96	0,4	850	55
GZ-G4-C-1-M-287-592-96	G4	Coarse 65%	287x592x96	0,7	1700	55
GZ-G4-C-1-M-592-592-96	G4	Coarse 65%	592x592x96	1,4	3400	55

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

CARDBOARD FRAME ZIG-ZAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Expanded Metal (Mesh)	Capacity	Dimensions (mm)
GZ-C-M : Cardboard Frame Zig-Zag Filter	G4	C: Cardboard	1: Single Side	M Standard	592x592x48



CARDBOARD FRAME ZIG-ZAG FILTER
(METAL FREE)

Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust

Highlights:
- Disposable
- Simple and light weight
- Higher filtration area
- Energy efficient
- Longer lifespan with high holding capacity
- Hot-melt reinforced pleats, robust construction

Filter Standard:	ISO 16890
Filter Class:	ISO Coarse
Media:	Synthetic Fiber
Frame:	Cardboard

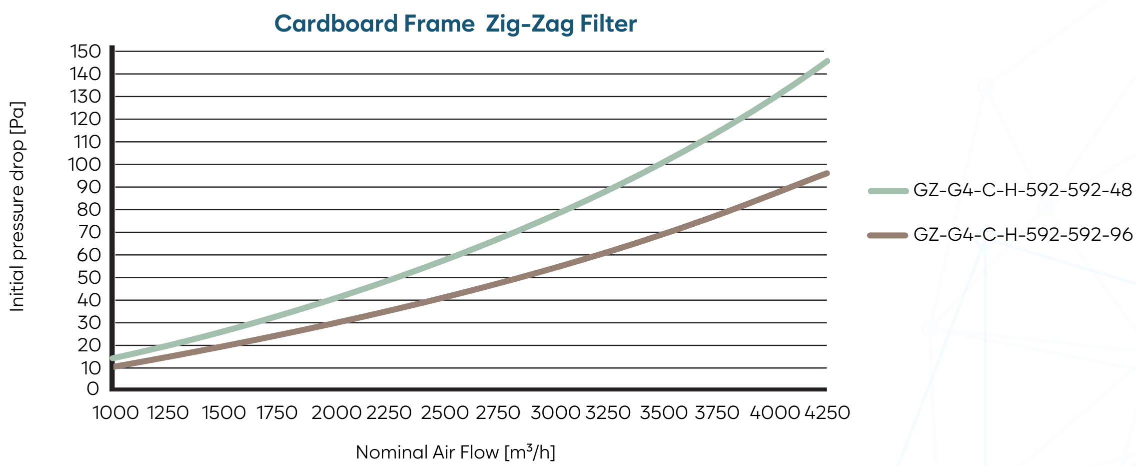
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Standard depth:	48 - 96mm

Filter Model	Filter Class EN 779 (cancelled)	ISO16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
GZ-G4-C-H-287-287-48	G4	Coarse 65%	287x287x48	0,3	850	80
GZ-G4-C-H-287-592-48	G4	Coarse 65%	287x592x48	0,6	1700	80
GZ-G4-C-H-592-592-48	G4	Coarse 65%	592x592x48	1,2	3400	80
GZ-G4-C-H-287-287-96	G4	Coarse 65%	287x287x96	0,6	850	55
GZ-G4-C-H-287-592-96	G4	Coarse 65%	287x592x96	1,2	1700	55
GZ-G4-C-H-592-592-96	G4	Coarse 65%	592x592x96	2,4	3400	55

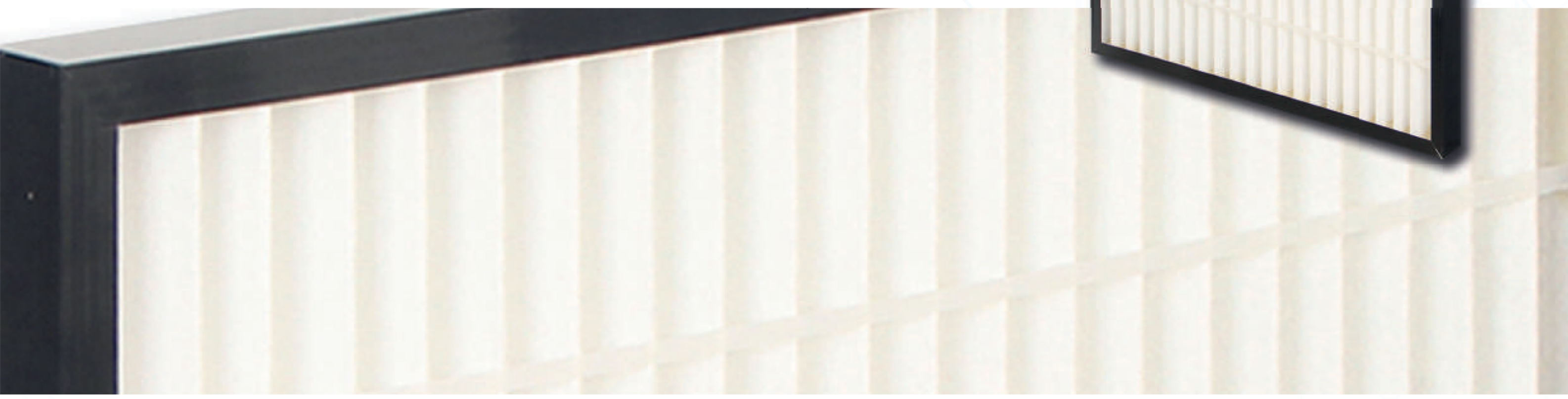
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

CARDBOARD FRAME ZIG-ZAG FILTER (METAL FREE) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)
GZ-C-H: Cardboard Frame Zig-Zag Filter (Metal Free)	G4	C: Cardboard	H: High	592x592x48



PLASTIC FRAME ZIG-ZAG FILTER



Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust
Air Intake Systems

Highlights:
- Simple and light weight
- Disposable
- Plastic frame

Filter Standard:	ISO 16890
Filter Class:	ISO Coarse
Media:	Synthetic Fiber
Frame:	Polystyrene

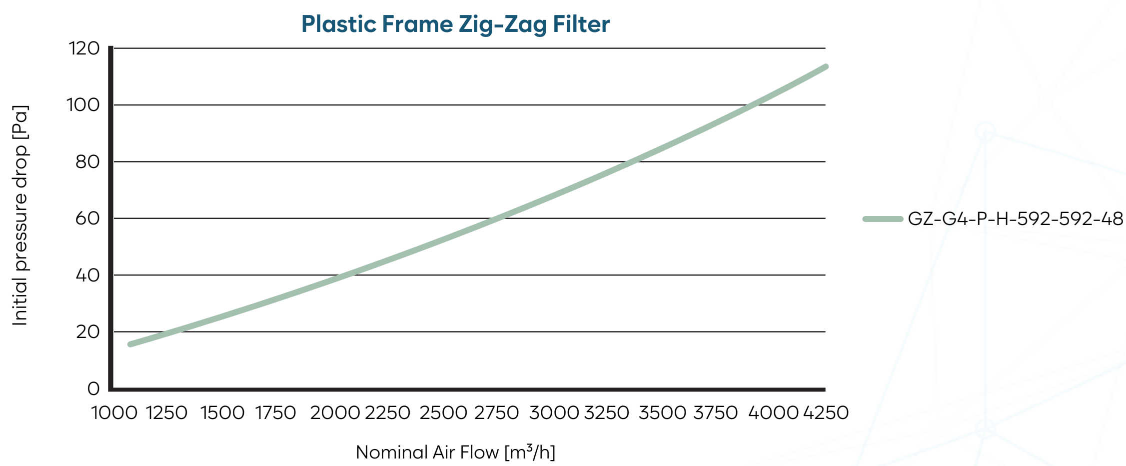
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Standard depth:	48 - 96 mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
GZ-G4-P-H-287-287-48	G4	Coarse 65%	287x287x48	0,3	850	80
GZ-G4-P-H-287-592-48	G4	Coarse 65%	287x592x48	0,6	1700	80
GZ-G4-P-H-592-592-48	G4	Coarse 65%	592x592x48	1,2	3400	80
GZ-G4-P-H-287-287-96	G4	Coarse 65%	287x287x96	0,6	850	55
GZ-G4-P-H-287-592-96	G4	Coarse 65%	287x592x96	1,2	1700	55
GZ-G4-P-H-592-592-96	G4	Coarse 65%	592x592x96	2,4	3400	55

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

PLASTIC FRAME ZIG-ZAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Faceguard	Gasket
GZ-P-H : Plastic Frame Zig-Zag Filter	G4	P : Plastic	H: High	592x592x48	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides



SYNTHETIC BLUE ZIG-ZAG FILTER

Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust

Highlights:
- Robust fiber structure
- Disposable
- Simple and light weight
- Moisture resistant cardboard
- Various capacity options enable energy-efficient models with high dust holding capacity (H model)

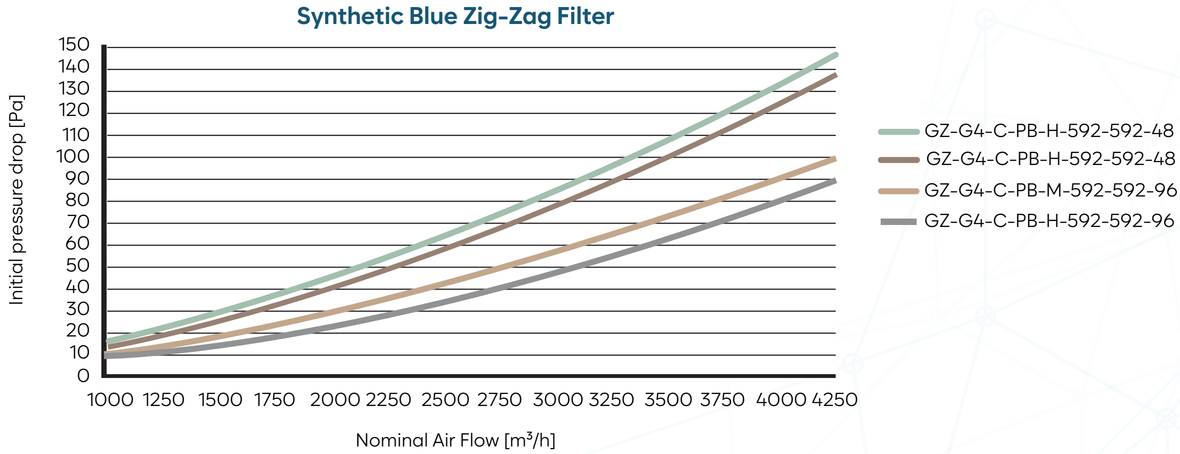
Filter Standard:	ISO 16890
Filter Class:	ISO Coarse
Media:	Synthetic Blue
Frame:	Cardboard
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Standard depth:	48 - 96mm

Filter Model	Filter Class		Media Material	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 779 (cancelled)	ISO 16890					
GZ-G4-C-PB-M-287-287-48	G4	Coarse 55%	Synthetic Blue	287x287x48	0,2	850	80
GZ-G4-C-PB-M-287-592-48	G4	Coarse 55%	Synthetic Blue	287x592x48	0,4	1700	80
GZ-G4-C-PB-M-592-592-48	G4	Coarse 55%	Synthetic Blue	592x592x48	0,8	3400	80
GZ-G4-C-PB-M-287-287-96	G4	Coarse 55%	Synthetic Blue	287x287x96	0,4	850	55
GZ-G4-C-PB-M-287-592-96	G4	Coarse 55%	Synthetic Blue	287x592x96	0,6	1700	55
GZ-G4-C-PB-M-592-592-96	G4	Coarse 55%	Synthetic Blue	592x592x96	1,3	3400	55
GZ-G4-C-PB-H-287-287-48	G4	Coarse 55%	Synthetic Blue	287x287x48	0,3	850	75
GZ-G4-C-PB-H-287-592-48	G4	Coarse 55%	Synthetic Blue	287x592x48	0,6	1700	75
GZ-G4-C-PB-H-592-592-48	G4	Coarse 55%	Synthetic Blue	592x592x48	1,2	3400	75
GZ-G4-C-PB-H-287-287-96	G4	Coarse 55%	Synthetic Blue	287x287x96	0,5	850	50
GZ-G4-C-PB-H-287-592-96	G4	Coarse 55%	Synthetic Blue	287x592x96	0,9	1700	50
GZ-G4-C-PB-H-592-592-96	G4	Coarse 55%	Synthetic Blue	592x592x96	1,9	3400	50

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

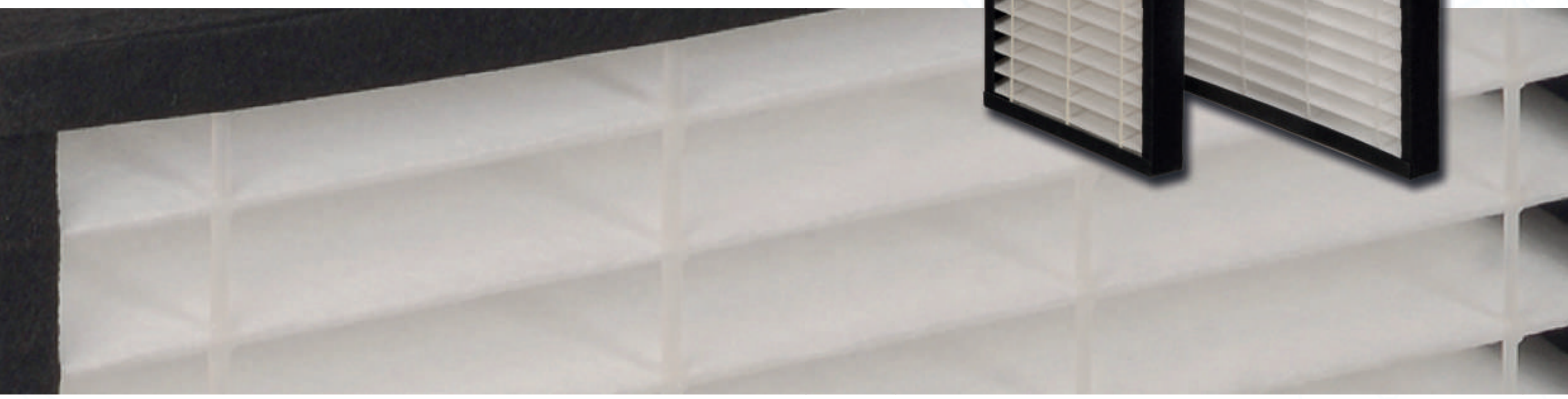
SYNTHETIC BLUE ZIG-ZAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Media	Capacity	Dimensions (mm)
GZ-C-PB : Synthetic Blue Zig-Zag Filter	G4	C: Cardboard	PB: Synthetic Blue	M Standard H: High	592x592x48



SYNTHETIC FRAME ZIG-ZAG FILTER

(METAL FREE)



Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust

Highlights:

- Robust construction with synthetic frame
- Highly resistant to moisture
- Disposable
- Simple and light weight
- Higher filtration area
- Energy efficient
- Longer lifespan with high holding capacity
- Hot-melt reinforced pleats

Filter Standard:	ISO 16890
Filter Class:	ISO Coarse
Media:	Synthetic Fiber
Frame:	Synthetic

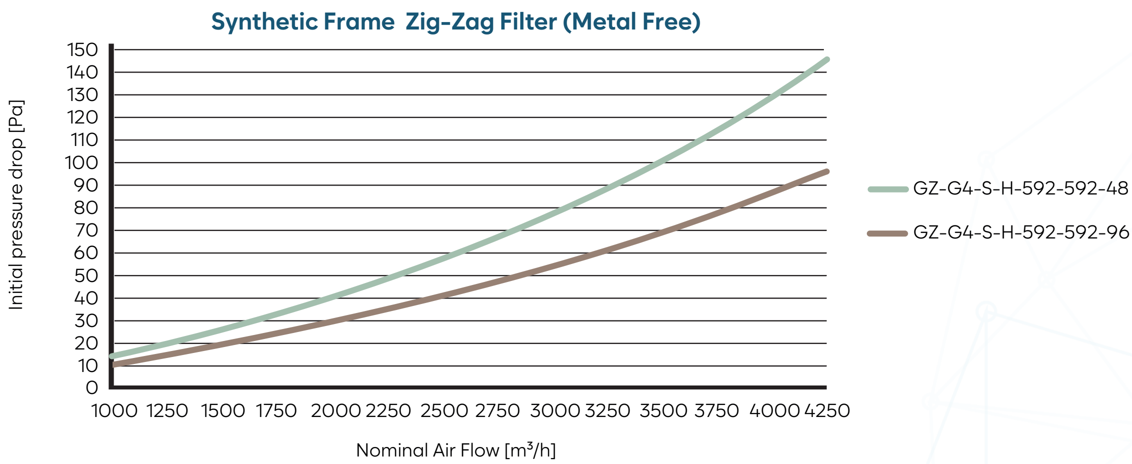
Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Standard depth:	48 - 96mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
GZ-G4-S-H-287-287-48	G4	Coarse 65%	287x287x48	0,3	850	75
GZ-G4-S-H-287-592-48	G4	Coarse 65%	287x592x48	0,6	1700	75
GZ-G4-S-H-490-592-48	G4	Coarse 65%	490x592x48	0,9	2600	75
GZ-G4-S-H-592-592-48	G4	Coarse 65%	592x592x48	1,2	3400	75

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

SYNTHETIC FRAME ZIG-ZAG FILTER (METAL FREE) CODE CONFIGURATION

Filter Type	Filter Class	Media	Capacity	Dimensions (mm)
GZ-S-H : Synthetic Frame Zig-Zag Filter (Metal Free)	G4	S : Synthetic	H: High	592x592x48



PRO BAG FILTER

Applications:
Pre-filter for ventilation equipment and HVAC
Power plants

Highlights:

- Self supporting pockets
- No special mechanical support required
- High dust holding capacity
- Robust construction

Filter Standard:	ISO16890	**Rec. Final Pressure Drop EN13053:**	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Filter Class:	ISO Coarse	**Max. Operating Temperature:**	80°C
Media:	Synthetic Fiber	**Frame depth:**	20 - 25 mm
Frame:	Galvanized		

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO16890	Dimensions WxHxD (mm)	Pocket Number	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
GBP-G3-P3-25-287-592-360	G3	Coarse 45%	287x592x360	3	1,3	1700	40
GBP-G3-P5-25-490-592-360	G3	Coarse 45%	490x592x360	5	2,1	2800	40
GBP-G3-P6-25-592-592-360	G3	Coarse 45%	592x592x360	6	2,6	3400	40
GBP-G3-P3-25-287-592-500	G3	Coarse 45%	287x592x500	3	1,8	1700	35
GBP-G3-P5-25-490-592-500	G3	Coarse 45%	490x592x500	5	3	2800	35
GBP-G3-P6-25-592-592-500	G3	Coarse 45%	592x592x500	6	3,6	3400	35
GBP-G3-P3-25-287-592-600	G3	Coarse 45%	287x592x600	3	2,1	1700	30
GBP-G3-P5-25-490-592-600	G3	Coarse 45%	490x592x600	5	3,6	2800	30
GBP-G3-P6-25-592-592-600	G3	Coarse 45%	592x592x600	6	4,3	3400	30
GBP-G4-P3-25-287-592-360	G4	Coarse 55%	287x592x360	3	1,3	1700	50
GBP-G4-P5-25-490-592-360	G4	Coarse 55%	490x592x360	5	2,1	2800	50
GBP-G4-P6-25-592-592-360	G4	Coarse 55%	592x592x360	6	2,6	3400	50
GBP-G4-P3-25-287-592-500	G4	Coarse 55%	287x592x500	3	1,8	1700	45
GBP-G4-P5-25-490-592-500	G4	Coarse 55%	490x592x500	5	3	2800	45
GBP-G4-P6-25-592-592-500	G4	Coarse 55%	592x592x500	6	3,6	3400	45
GBP-G4-P3-25-287-592-600	G4	Coarse 55%	287x592x600	3	2,1	1700	40
GBP-G4-P5-25-490-592-600	G4	Coarse 55%	490x592x600	5	3,6	2800	40
GBP-G4-P6-25-592-592-600	G4	Coarse 55%	592x592x600	6	4,3	3400	40

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

PRO BAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Pocket Number	Flange	Dimensions (mm)
GBP : Pro Bag Filter	G3 G4	P3 P4 P5 P6 P7 P8	20, 25	592x592x500

ECO BAG FILTER

Applications:
Pre-filter for ventilation equipment and HVAC
Highly effective with coarse dust

Highlights:

- Middle support prevents bypass between filter pockets

Filter Standard:	ISO16890
Filter Class:	ISO Coarse
Media:	Synthetic Fiber
Frame:	Galvanized

Rec. Final Pressure Drop EN13053:	Initial ΔP +50 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Frame depth:	20 - 25 mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO16890	Dimensions WxHxD (mm)	Pocket Number	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
GB-G4-P3-25-287-592-360	G4	Coarse 55%	287x592x360	3	2,4	1700	50
GB-G4-P5-25-490-592-360	G4	Coarse 55%	490x592x360	5	4	2800	50
GB-G4-P6-25-592-592-360	G4	Coarse 55%	592x592x360	6	4,8	3400	50
GB-G4-P3-25-287-592-500	G4	Coarse 55%	287x592x500	3	3,5	1700	45
GB-G4-P5-25-490-592-500	G4	Coarse 55%	490x592x500	5	5,8	2800	45
GB-G4-P6-25-592-592-500	G4	Coarse 55%	592x592x500	6	7	3400	45
GB-G4-P3-25-287-592-600	G4	Coarse 55%	287x592x600	3	4	1700	40
GB-G4-P5-25-490-592-600	G4	Coarse 55%	490x592x600	5	6,7	2800	40
GB-G4-P6-25-592-592-600	G4	Coarse 55%	592x592x600	6	8	3400	40

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

ECO BAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Pocket Number	Flange	Dimensions (mm)
GB : Eco Bag Filter	G4	P3 P4 P5 P6 P7 P8 P9 P10	20, 25	592x592x500

FINE DUST FILTRATION

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Trust: A globally recognized seal, ensuring our filters meet strict performance standards.
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Air Filters / *Filtres à Air*

Granted on March 25, 2014 - *Date 1ère admission 25 mars 2014*

This document is valid at the date of issue - Check the current validity on:
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34555 Arnavutköy / Istanbul , Turkey

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ECP FIL - « Air Filters » in force at established date.

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THIS CERTIFICATE HAS BEEN ISSUED ON 23/08/2023
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Paris, 23 août 2023

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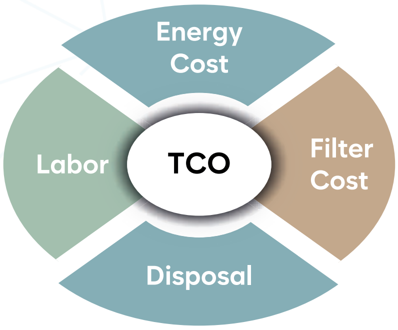
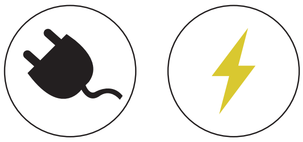
The Total Cost of Ownership of Air Filters

It is essential to understand the total cost of ownership (TCO) of air filters before making any purchasing decisions. There are various factors affecting TCO, such as, energy cost, filter cost, labor, and disposal, to help you make an informed decision.



Energy Cost



Energy consumption is one of the most significant contributors to the TCO of an air filter. Higher energy consumption results in higher operating costs. Factor that affect energy consumption is the pressure drop of filter. Pressure drop is the reduction in air pressure as it passes through the filter media. A higher pressure drop means the HVAC system must work harder, increasing energy consumption and operating costs. To minimize TCO, consider filters with a lower pressure drop that allow for optimal airflow and reduced energy usage.

Filter Cost

The initial purchase price of the air filter is an essential component of TCO. High-efficiency filters may have a higher initial cost, but they often require less frequent replacement and provide better air quality, leading to long-term savings. Consider the overall lifetime value of a filter instead of focusing solely on its initial cost.

Labor

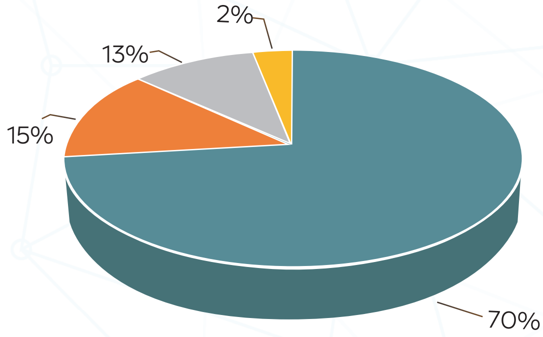
The labor cost associated with filter replacement and maintenance contributes to the TCO. High-quality filters typically have a longer lifespan, reducing the frequency of replacements and labor costs. When evaluating TCO, consider the cost of hiring technicians and the time required for filter replacements.

Disposal

Disposing of used filters contributes to the TCO as it involves costs for transportation and waste management. Selecting filters with extended lifespans and recyclable materials can help reduce disposal costs and minimize the environmental impact.

To calculate the Total Cost of Ownership, it is necessary to first calculate the energy consumption. The energy consumption formula is as follows.

$$E = \frac{Q \,.\, \Delta P \,.t}{\eta \,.\, 1000} = \frac{(m^3/s) \,.\, Pa \,.\, s}{\eta \,.\, 1000}$$



E : Energy Consumption (kWh) Q = Airflow (m^3/s)

ΔP : Pressure Drop (Pa)

t : Operating Time (hour)

η : Fan Efficiency (0,6 – 0,8)

Under Other Costs, there are expenses related to storage, transportation, losses due to damage, and waste disposal costs.

	Ulpatek V-Compact Filter	X Brand V-Compact Filter
Filter Specifications		
Filter Media	Glass Fiber	Glass Fiber
Filter Model	FVH-F9-592x592x292	F9-592x592x292
Filter Depth / Flange	292 mm / 25 mm	292 mm / 25 mm
Filter Class (EN 779)	F9	F9
Filter Class (ISO 16890)	ePM1 85%	ePM1 80%
Filtration Area	20 m^2	14 m^2
Nominal Airflow (Q)	3400 m^3/h (0,944 m^3/s)	3400 m^3/h (0,944 m^3/s)
Initial Pressure (ΔPi)	100 Pa	120 Pa
Frame Type	Plastic	Plastic
Final Pressure Drop (ΔPs)	200 Pa	320 Pa
Filter Differential Pressure ($\Delta Ps-\Delta Pi$)	100 Pa (200-100)	200 Pa (320-120)
Filter Operating Time	6000 hour	6000 hour
Fan Efficiency (η)	0,7	0,7
Energy Consumption	$E = \frac{(0{,}944.100.6000)}{(0{,}7.1000)} = 809$ kWh	$E = \frac{(0{,}944.200.6000)}{(0{,}7.1000)} = 1618$ kWh
Energy Cost	229 €/year (809 x 0,283 €/kWh)	458 €/year (1618 x 0,283 €/kWh)
Filter Cost	45 €/piece	30 €/piece
Maintenance and Other Costs	6 €/piece	6 €/piece
Annual Operating Cost	280 €/year	494 €/year
Savings Achieved (with Ulpatek)	214 €/year - 43 %	

Conclusion

Understanding the total cost of ownership of air filters is crucial for making informed purchasing decisions. By considering factors such as pressure drop, energy cost, filter cost, labor and disposal, cleaning, you can choose the right filter for your needs while minimizing long-term expenses. Remember that investing in high-quality, energy-efficient filters can lead to significant savings and better indoor air quality in the long run.

Recommendations for Fine Dust Filtration Filters

Regular Inspection: Check the filter regularly for visible signs of clogging or damage. A blocked filter can hinder system performance.

Final Pressure Drop: According to the EN 13053 standard, the final pressure drop is determined. ISO ePM1, ISO ePM2.5, and ISO ePM10 classes is calculated by either adding 100 Pascal (Pa) to the initial pressure drop of clean filters or by calculating a value up to three times smaller than the initial pressure drop of clean filters.
This method is used to determine a recommended final pressure drop value at the end of the filter's service life.

Correct Installation: Ensure the filter is correctly installed, following the manufacturer's directions. An improperly installed filter can decrease the efficiency. The filter pleats or filter pockets must be mounted vertically on the ground.

Washing or Cleaning: Almost all of the fine dust filters are designed for single use; only a few might be washable or cleanable. It's essential to consult the manufacturer's guidelines.

NOTES..

SYNTHETIC BAG FILTER

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Middle support prevents bypass between filter pockets
- Any special dimensions

Filter Standard:	ISO 16890
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10
Media:	Synthetic Fiber
Frame:	Galvanized

Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C
Frame depth:	20 - 25 mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO16890	Dimensions WxHxD (mm)	Pocket Number	Filtration Area (m^2)
FB-M5-P3-25-287-592-360	M5	Coarse 85%	287x592x360	3	1,5
FB-M5-P4-25-287-592-360	M5	Coarse 85%	287x592x360	4	2
FB-M5-P5-25-490-592-360	M5	Coarse 85%	490x592x360	5	2,5
FB-M5-P6-25-592-592-360	M5	Coarse 85%	592x592x360	6	3
FB-M5-P8-25-592-592-360	M5	Coarse 85%	592x592x360	8	4
FB-M5-P3-25-287-592-500	M5	Coarse 85%	287x592x500	3	2
FB-M5-P4-25-287-592-500	M5	Coarse 85%	287x592x500	4	2,7
FB-M5-P5-25-490-592-500	M5	Coarse 85%	490x592x500	5	3,4
FB-M5-P6-25-592-592-500	M5	Coarse 85%	592x592x500	6	4
FB-M5-P8-25-592-592-500	M5	Coarse 85%	592x592x500	8	5,5
FB-M5-P3-25-287-592-600	M5	Coarse 85%	287x592x600	3	2,4
FB-M5-P4-25-287-592-600	M5	Coarse 85%	287x592x600	4	3,2
FB-M5-P5-25-490-592-600	M5	Coarse 85%	490x592x600	5	4
FB-M5-P6-25-592-592-600	M5	Coarse 85%	592x592x600	6	4,8
FB-M5-P8-25-592-592-600	M5	Coarse 85%	592x592x600	8	6,4
FB-M6-P3-25-287-592-360	M6	ePM10 70%	287x592x360	3	1,5
FB-M6-P4-25-287-592-360	M6	ePM10 70%	287x592x360	4	2
FB-M6-P5-25-490-592-360	M6	ePM10 70%	490x592x360	5	2,5
FB-M6-P6-25-592-592-360	M6	ePM10 70%	592x592x360	6	3
FB-M6-P8-25-592-592-360	M6	ePM10 70%	592x592x360	8	4
FB-M6-P3-25-287-592-500	M6	ePM10 70%	287x592x500	3	2
FB-M6-P4-25-287-592-500	M6	ePM10 70%	287x592x500	4	2,7
FB-M6-P5-25-490-592-500	M6	ePM10 70%	490x592x500	5	3,4
FB-M6-P6-25-592-592-500	M6	ePM10 70%	592x592x500	6	4
FB-M6-P8-25-592-592-500	M6	ePM10 70%	592x592x500	8	5,5
FB-M6-P3-25-287-592-600	M6	ePM10 70%	287x592x600	3	2,4
FB-M6-P4-25-287-592-600	M6	ePM10 70%	287x592x600	4	3,2
FB-M6-P5-25-490-592-600	M6	ePM10 70%	490x592x600	5	4
FB-M6-P6-25-592-592-600	M6	ePM10 70%	592x592x600	6	4,8
FB-M6-P8-25-592-592-600	M6	ePM10 70%	592x592x600	8	6,4

SYNTHETIC BAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Pocket Number	Flange	Dimensions (mm)
FB : Synthetic Bag Filter	M5 M6 F7 F8 F9	P3 P4 P5 P6 P7 P8 P9 P10 P11 P12	20, 25	592x592x360

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO16890	Dimensions WxHxD (mm)	Pocket Number	Filtration Area (m^2)
FB-F7-P4-25-287-592-360	F7	ePM2,5 60%	287x592x360	4	2
FB-F7-P6-25-490-592-360	F7	ePM2,5 60%	490x592x360	6	3
FB-F7-P8-25-592-592-360	F7	ePM2,5 60%	592x592x360	8	4
FB-F7-P4-25-287-592-500	F7	ePM2,5 60%	287x592x500	4	2,7
FB-F7-P6-25-490-592-500	F7	ePM2,5 60%	490x592x500	6	4
FB-F7-P8-25-592-592-500	F7	ePM2,5 60%	592x592x500	8	5,5
FB-F7-P4-25-287-592-600	F7	ePM2,5 60%	287x592x600	4	3,2
FB-F7-P6-25-490-592-600	F7	ePM2,5 60%	490x592x600	6	4,8
FB-F7-P8-25-592-592-600	F7	ePM2,5 60%	592x592x600	8	6,4
FB-F8-P4-25-287-592-360	F8	ePM2,5 75%	287x592x360	4	2
FB-F8-P6-25-490-592-360	F8	ePM2,5 75%	490x592x360	6	3
FB-F8-P8-25-592-592-360	F8	ePM2,5 75%	592x592x360	8	4
FB-F8-P4-25-287-592-500	F8	ePM2,5 75%	287x592x500	4	2,7
FB-F8-P6-25-490-592-500	F8	ePM2,5 75%	490x592x500	6	4
FB-F8-P8-25-592-592-500	F8	ePM2,5 75%	592x592x500	8	5,5
FB-F8-P4-25-287-592-600	F8	ePM2,5 75%	287x592x600	4	3,2
FB-F8-P6-25-490-592-600	F8	ePM2,5 75%	490x592x600	6	4,8
FB-F8-P8-25-592-592-600	F8	ePM2,5 75%	592x592x600	8	6,4
FB-F9-P4-25-287-592-360	F9	ePM2,5 85%	287x592x360	4	2
FB-F9-P6-25-490-592-360	F9	ePM2,5 85%	490x592x360	6	3
FB-F9-P8-25-592-592-360	F9	ePM2,5 85%	592x592x360	8	4
FB-F9-P4-25-287-592-500	F9	ePM2,5 85%	287x592x500	4	2,7
FB-F9-P6-25-490-592-500	F9	ePM2,5 85%	490x592x500	6	4
FB-F9-P8-25-592-592-500	F9	ePM2,5 85%	592x592x500	8	5,5
FB-F9-P4-25-287-592-600	F9	ePM2,5 85%	287x592x600	4	3,2
FB-F9-P6-25-490-592-600	F9	ePM2,5 85%	490x592x600	6	4,8
FB-F9-P8-25-592-592-600	F9	ePM2,5 85%	592x592x600	8	6,4

NOTES

GLASS FIBER BAG FILTER

Applications:
Capturing fine particles
Second or final stage in HVAC
Pre-filter for HEPA filters

Highlights:

- High dust holding capacity
- Longer lifespan
- Low initial pressure drop
- Less energy consumption
- Middle support prevents bypass between filter pockets

Filter Standard:	ISO 16890
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10
Media:	Glass Fiber
Frame:	Galvanized

Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	100°C
Frame depth:	20 - 25 mm

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO16890	Dimensions WxHxD (mm)	Pocket Number	Filtration Area (m^2)
FBG-M5-P5-25-287-592-360	M5	ePM10 60%	287x592x360	5	2,5
FBG-M5-P8-25-490-592-360	M5	ePM10 60%	490x592x360	8	4
FBG-M5-P10-25-592-592-360	M5	ePM10 60%	592x592x360	10	5
FBG-M5-P5-25-287-592-535	M5	ePM10 60%	287x592x535	5	3,4
FBG-M5-P8-25-490-592-535	M5	ePM10 60%	490x592x535	8	5,5
FBG-M5-P10-25-592-592-535	M5	ePM10 60%	592x592x535	10	6,8
FBG-M5-P5-25-287-592-635	M5	ePM10 60%	287x592x635	5	4
FBG-M5-P8-25-490-592-635	M5	ePM10 60%	490x592x635	8	6,4
FBG-M5-P10-25-592-592-635	M5	ePM10 60%	592x592x635	10	8
FBG-M6-P5-25-287-592-360	M6	ePM10 65%	287x592x360	5	2,5
FBG-M6-P8-25-490-592-360	M6	ePM10 65%	490x592x360	8	4
FBG-M6-P10-25-592-592-360	M6	ePM10 65%	592x592x360	10	5
FBG-M6-P5-25-287-592-535	M6	ePM10 65%	287x592x535	5	3,4
FBG-M6-P8-25-490-592-535	M6	ePM10 65%	490x592x535	8	5,5
FBG-M6-P10-25-592-592-535	M6	ePM10 65%	592x592x535	10	6,8
FBG-M6-P5-25-287-592-635	M6	ePM10 65%	287x592x635	5	4
FBG-M6-P8-25-490-592-635	M6	ePM10 65%	490x592x635	8	6,4
FBG-M6-P8-25-592-592-635	M6	ePM10 65%	592x592x635	10	8
FBG-F7-P5-25-287-592-360	F7	ePM1 55%	287x592x360	5	2,5
FBG-F7-P8-25-490-592-360	F7	ePM1 55%	490x592x360	8	4
FBG-F7-P10-25-592-592-360	F7	ePM1 55%	592x592x360	10	5
FBG-F7-P5-25-287-592-535	F7	ePM1 55%	287x592x535	5	3,4
FBG-F7-P8-25-490-592-535	F7	ePM1 55%	490x592x535	8	5,5
FBG-F7-P10-25-592-592-535	F7	ePM1 55%	592x592x535	10	6,8
FBG-F7-P5-25-287-592-635	F7	ePM1 55%	287x592x635	5	4
FBG-F7-P8-25-490-592-635	F7	ePM1 55%	490x592x635	8	6,4
FBG-F7-P10-25-592-592-635	F7	ePM1 55%	592x592x635	10	8
FBG-F8-P5-25-287-592-360	F8	ePM1 80%	287x592x360	5	2,5
FBG-F8-P8-25-490-592-360	F8	ePM1 80%	490x592x360	8	4
FBG-F8-P10-25-592-592-360	F8	ePM1 80%	592x592x360	10	5
FBG-F8-P5-25-287-592-535	F8	ePM1 80%	287x592x535	5	3,4
FBG-F8-P8-25-490-592-535	F8	ePM1 80%	490x592x535	8	5,5
FBG-F8-P8-25-592-592-535	F8	ePM1 80%	592x592x535	10	6,8
FBG-F8-P5-25-287-592-635	F8	ePM1 80%	287x592x635	5	4
FBG-F8-P8-25-490-592-635	F8	ePM1 80%	490x592x635	8	6,4
FBG-F8-P10-25-592-592-635	F8	ePM1 80%	592x592x635	10	8
FBG-F9-P5-25-287-592-360	F9	ePM1 85%	287x592x360	5	2,5
FBG-F9-P8-25-490-592-360	F9	ePM1 85%	490x592x360	8	4
FBG-F9-P10-25-592-592-360	F9	ePM1 85%	592x592x360	10	5
FBG-F9-P5-25-287-592-535	F9	ePM1 85%	287x592x535	5	3,4
FBG-F9-P8-25-490-592-535	F9	ePM1 85%	490x592x535	8	5,5
FBG-F9-P10-25-592-592-535	F9	ePM1 85%	592x592x535	10	6,8
FBG-F9-P5-25-287-592-635	F9	ePM1 85%	287x592x635	5	4
FBG-F9-P8-25-490-592-635	F9	ePM1 85%	490x592x635	8	6,4
FBG-F9-P10-25-592-592-635	F9	ePM1 85%	592x592x635	10	8

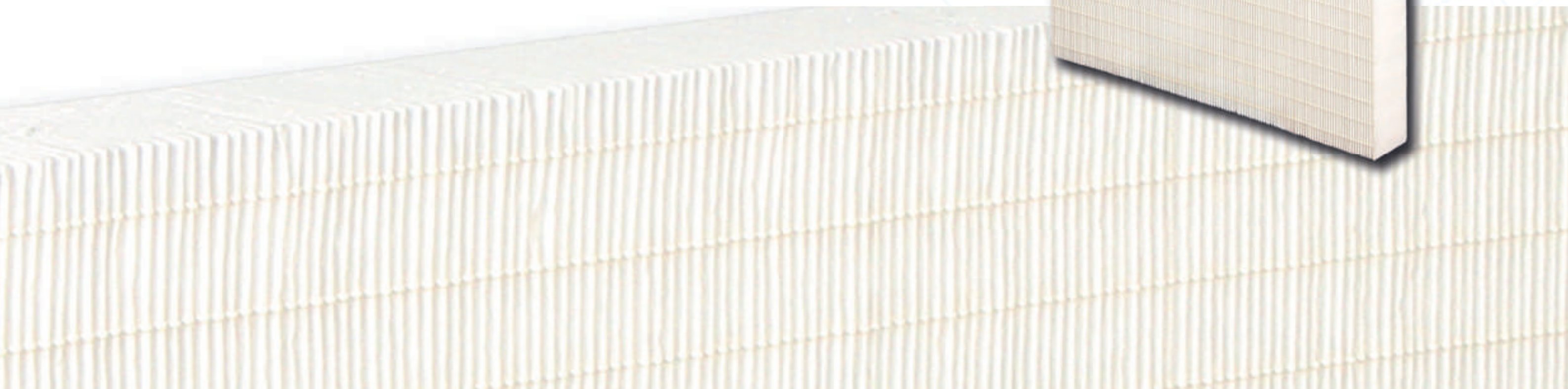
GLASS FIBER BAG FILTER CODE CONFIGURATION

Filter Type	Filter Class	Pocket Number	Flange	Dimensions (mm)
FBG : Glass Fiber Bag Filter	M5 M6 F7 F8 F9	P3 P4 P5 P6 P7 P8 P9 P10 P11 P12	20, 25	592x592x360

NOTES

NOTES

MINI-PLEAT MEDIA



Applications:
Residential HVAC filters
Commercial / Industrial HVAC filters

Highlights:
- Only mini-pleat media, no frame

Filter Standard:	ISO 16890	**Rec. Final Pressure Drop EN13053:**	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Max. Operating Tempature:**	80°C
Media:	Glass fiber	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
MP-M6-584-590-42	M6	ePM10 65%	584x590x42	6,2	2000	60
MP-M6-584-1200-42	M6	ePM10 65%	584x1200x42	12,4	4000	60
MP-F7-584-590-42	F7	ePM1 55%	584x590x42	6,2	2000	80
MP-F7-584-1200-42	F7	ePM1 55%	584x1200x42	12,4	4000	80
MP-F8-584-590-42	F8	ePM1 70%	584x590x42	6,2	2000	100
MP-F8-584-1200-42	F8	ePM1 70%	584x1200x42	12,4	4000	100
MP-F9-584-590-42	F9	ePM1 85%	584x590x42	6,2	2000	145
MP-F9-584-1200-42	F9	ePM1 85%	584x1200x42	12,4	4000	145
MP-M6-584-590-75	M6	ePM10 65%	584x590x75	12,4	3000	70
MP-M6-584-1200-75	M6	ePM10 65%	584x1200x75	24,7	6000	70
MP-F7-584-590-75	F7	ePM1 55%	584x590x75	12,4	3000	90
MP-F7-584-1200-75	F7	ePM1 55%	584x1200x75	24,7	6000	90
MP-F8-584-590-75	F8	ePM1 70%	584x590x75	12,4	3000	110
MP-F8-584-1200-75	F8	ePM1 70%	584x1200x75	24,7	6000	110
MP-F9-584-590-75	F9	ePM1 85%	584x590x75	12,4	3000	145
MP-F9-584-1200-75	F9	ePM1 85%	584x1200x75	24,7	6000	145

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

MINI-PLEAT MEDIA CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)
MP : Mini-Pleat Media	M6 F7 F8 F9	584x1200x42

VERSATILE PANEL FILTER

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Low frame depth only 32 mm
- Simple and light weight

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Faceguard:**	Aluminium sheet (powder coated)
Media:	Glass fiber	**Gasket:**	EPDM flat, EPDM flat continous and PU Foam
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

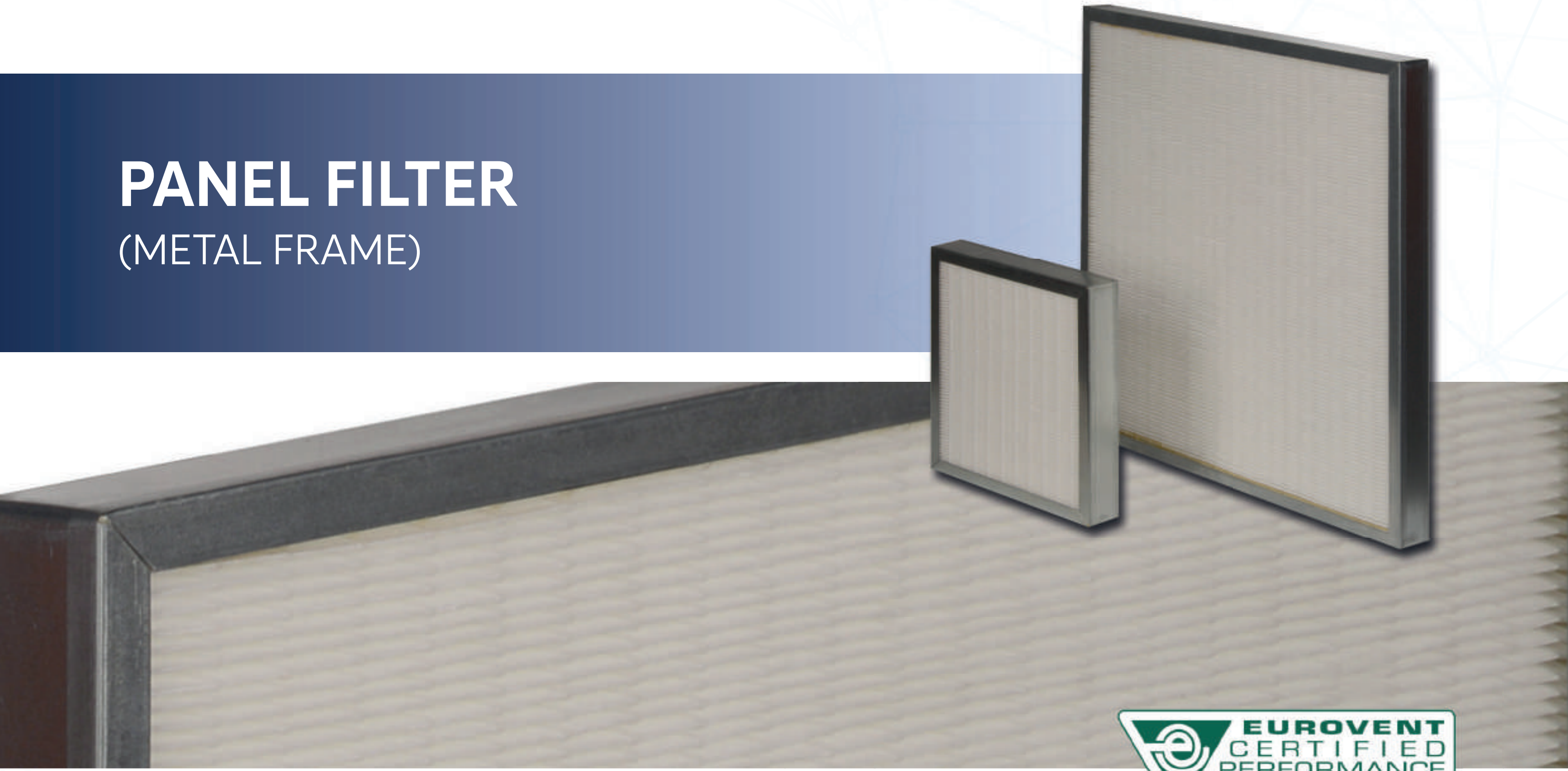
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FVP-M6-A-305-610-32-FC-P	M6	ePM10 70%	305x610x32	1,8	32	600	60
FVP-M6-A-610-610-32-FC-P	M6	ePM10 70%	610x610x32	3,7	32	1200	60
FVP-F7-A-305-610-32-FC-P	F7	ePM1 55%	305x610x32	1,8	32	600	80
FVP-F7-A-610-610-32-FC-P	F7	ePM1 55%	610x610x32	3,7	32	1200	80
FVP-F8-A-305-610-32-FC-P	F8	ePM1 70%	305x610x32	1,8	32	600	100
FVP-F8-A-610-610-32-FC-P	F8	ePM1 70%	610x610x32	3,7	32	1200	100
FVP-F9-A-305-610-32-FC-P	F9	ePM1 80%	305x610x32	1,8	32	600	145
FVP-F9-A-610-610-32-FC-P	F9	ePM1 80%	610x610x32	3,7	32	1200	145

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

VERSATILE PANEL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Faceguard	Gasket
FVP : Versatile Panel Filter	M6 F7 F8 F9	A : Aluminium	610x610x32	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

PANEL FILTER
(METAL FRAME)



Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Eurovent certified
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890
Filter Class:	ISO ePM1 - ISO ePM2,5- ISO ePM10
Media:	Glass Fiber
Frame:	Galvanized
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C

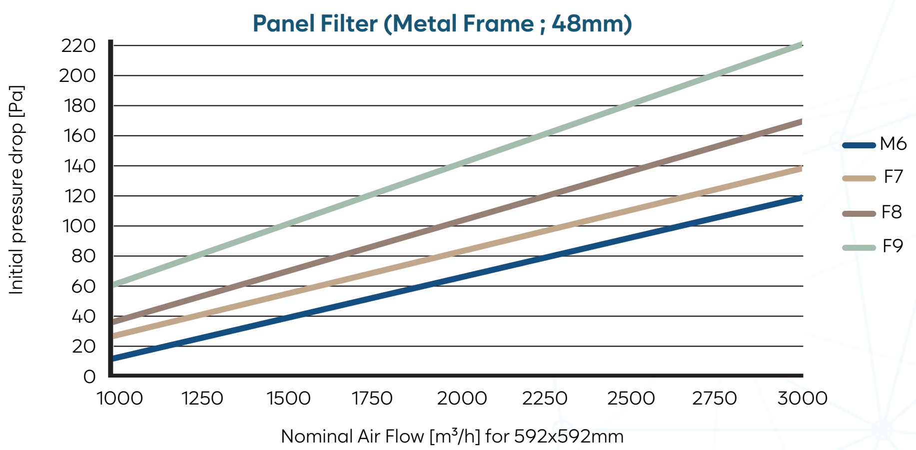
Standard depth:	48 - 96 mm
Faceguard:	Available on request
Gasket:	Available on request
Sealing Compound:	Two component polyurethane
Seperators:	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FP-M6-G-287-287-48-FW-W	M6	ePM10 75%	287x287x48	1,5	500	60
FP-M6-G-287-592-48-FW-W	M6	ePM10 75%	287x592x48	3	1000	60
FP-M6-G-490-592-48-FW-W	M6	ePM10 75%	490x592x48	5	1660	60
FP-M6-G-592-592-48-FW-W	M6	ePM10 75%	592x592x48	6	2000	60
FP-F7-G-287-287-48-FW-W	F7	ePM1 55%	287x287x48	1,5	500	80
FP-F7-G-287-592-48-FW-W	F7	ePM1 55%	287x592x48	3	1000	80
FP-F7-G-490-592-48-FW-W	F7	ePM1 55%	490x592x48	5	1660	80
FP-F7-G-592-592-48-FW-W	F7	ePM1 55%	592x592x48	6	2000	80
FP-F8-G-287-287-48-FW-W	F8	ePM1 75%	287x287x48	1,5	500	100
FP-F8-G-287-592-48-FW-W	F8	ePM1 75%	287x592x48	3	1000	100
FP-F8-G-490-592-48-FW-W	F8	ePM1 75%	490x592x48	5	1660	100
FP-F8-G-592-592-48-FW-W	F8	ePM1 75%	592x592x48	6	2000	100
FP-F9-G-287-287-48-FW-W	F9	ePM1 85%	287x287x48	1,5	500	145
FP-F9-G-287-592-48-FW-W	F9	ePM1 85%	287x592x48	3	1000	145
FP-F9-G-490-592-48-FW-W	F9	ePM1 85%	490x592x48	5	1660	145
FP-F9-G-592-592-48-FW-W	F9	ePM1 85%	592x592x48	6	2000	145

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

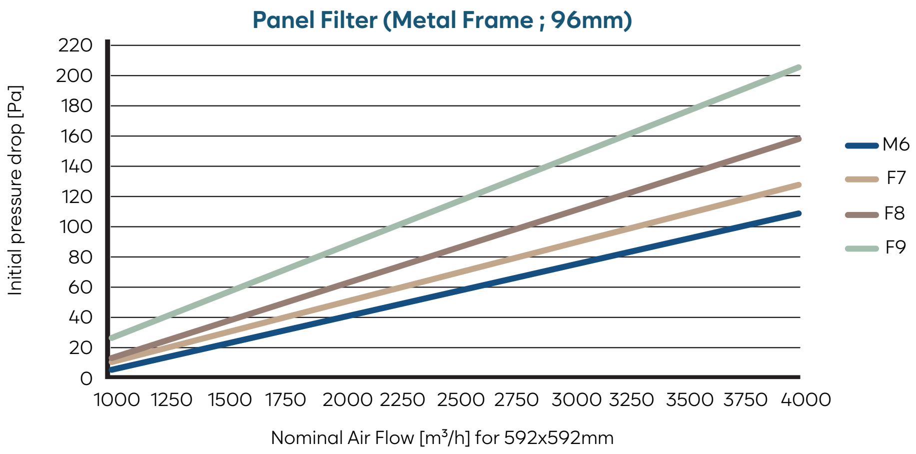
PANEL FILTER (METAL FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Faceguard	Gasket
FP : Panel Filter (Metal Frame)	M6 F7 F8 F9	G : Galvanized	592x592x48	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides



Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FP-M6-G-287-287-96-FW-W	M6	ePM10 75%	287x287x96	3	750	70
FP-M6-G-287-592-96-FW-W	M6	ePM10 75%	287x592x96	6	1500	70
FP-M6-G-490-592-96-FW-W	M6	ePM10 75%	490x592x96	10	2500	70
FP-M6-G-592-592-96-FW-W	M6	ePM10 75%	592x592x96	12	3000	70
FP-F7-G-287-287-96-FW-W	F7	ePM1 55%	287x287x96	3	750	90
FP-F7-G-287-592-96-FW-W	F7	ePM1 55%	287x592x96	6	1500	90
FP-F7-G-490-592-96-FW-W	F7	ePM1 55%	490x592x96	10	2500	90
FP-F7-G-592-592-96-FW-W	F7	ePM1 55%	592x592x96	12	3000	90
FP-F8-G-287-287-96-FW-W	F8	ePM1 70%	287x287x96	3	750	110
FP-F8-G-287-592-96-FW-W	F8	ePM1 70%	287x592x96	6	1500	110
FP-F8-G-490-592-96-FW-W	F8	ePM1 70%	490x592x96	10	2500	110
FP-F8-G-592-592-96-FW-W	F8	ePM1 70%	592x592x96	12	3000	110
FP-F9-G-287-287-96-FW-W	F9	ePM1 85%	287x287x96	3	750	150
FP-F9-G-287-592-96-FW-W	F9	ePM1 85%	287x592x96	6	1500	150
FP-F9-G-490-592-96-FW-W	F9	ePM1 85%	490x592x96	10	2500	150
FP-F9-G-592-592-96-FW-W	F9	ePM1 85%	592x592x96	12	3000	150

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"



NOTES

PANEL FILTER
(PLASTIC FRAME)

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Eurovent certified
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO16890
Filter Class:	ISO ePM1 - ISO ePM10
Media:	Glass Fiber
Frame:	Plastic
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower
Max. Operating Temperature:	80°C

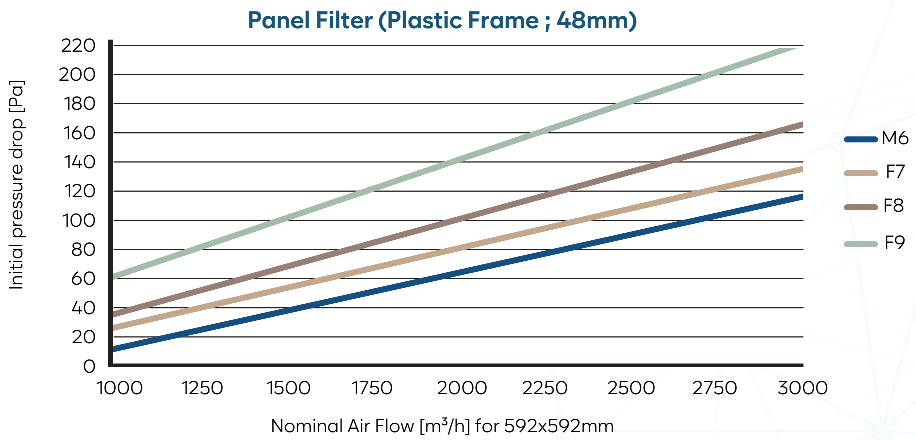
Standard depth:	48 - 96 mm
Faceguard:	Available on request
Gasket:	Available on request
Sealing Compound:	Two component polyurethane
Seperators:	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FP-M6-P-287-287-48-FW-W	M6	ePM10 75%	287x287x48	1,5	500	60
FP-M6-P-287-592-48-FW-W	M6	ePM10 75%	287x592x48	3	1000	60
FP-M6-P-490-592-48-FW-W	M6	ePM10 75%	490x592x48	5	1660	60
FP-M6-P-592-592-48-FW-W	M6	ePM10 75%	592x592x48	6	2000	60
FP-F7-P-287-287-48-FW-W	F7	ePM1 55%	287x287x48	1,5	500	80
FP-F7-P-287-592-48-FW-W	F7	ePM1 55%	287x592x48	3	1000	80
FP-F7-P-490-592-48-FW-W	F7	ePM1 55%	490x592x48	5	1660	80
FP-F7-P-592-592-48-FW-W	F7	ePM1 55%	592x592x48	6	2000	80
FP-F8-P-287-287-48-FW-W	F8	ePM1 75%	287x287x48	1,5	500	100
FP-F8-P-287-592-48-FW-W	F8	ePM1 75%	287x592x48	3	1000	100
FP-F8-P-490-592-48-FW-W	F8	ePM1 75%	490x592x48	5	1660	100
FP-F8-P-592-592-48-FW-W	F8	ePM1 75%	592x592x48	6	2000	100
FP-F9-P-287-287-48-FW-W	F9	ePM1 85%	287x287x48	1,5	500	145
FP-F9-P-287-592-48-FW-W	F9	ePM1 85%	287x592x48	3	1000	145
FP-F9-P-490-592-48-FW-W	F9	ePM1 85%	490x592x48	5	1660	145
FP-F9-P-592-592-48-FW-W	F9	ePM1 85%	592x592x48	6	2000	145

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

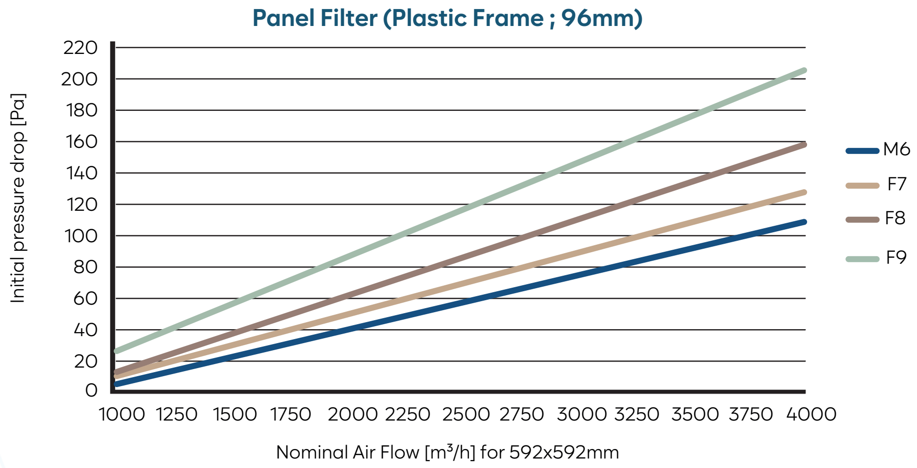
PANEL FILTER (PLASTIC FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Faceguard	Gasket
FP : Panel Filter (Plastic Frame)	M6 F7 F8 F9	P : Plastic	592x592x48	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides



Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FP-M6-P-287-287-96-FW-W	M6	ePM10 75%	287x287x96	3	750	70
FP-M6-P-287-592-96-FW-W	M6	ePM10 75%	287x592x96	6	1500	70
FP-M6-P-490-592-96-FW-W	M6	ePM10 75%	490x592x96	10	2500	70
FP-M6-P-592-592-96-FW-W	M6	ePM10 75%	592x592x96	12	3000	70
FP-F7-P-287-287-96-FW-W	F7	ePM1 55%	287x287x96	3	750	90
FP-F7-P-287-592-96-FW-W	F7	ePM1 55%	287x592x96	6	1500	90
FP-F7-P-490-592-96-FW-W	F7	ePM1 55%	490x592x96	10	2500	90
FP-F7-P-592-592-96-FW-W	F7	ePM1 55%	592x592x96	12	3000	90
FP-F8-P-287-287-96-FW-W	F8	ePM1 75%	287x287x96	3	750	110
FP-F8-P-287-592-96-FW-W	F8	ePM1 75%	287x592x96	6	1500	110
FP-F8-P-490-592-96-FW-W	F8	ePM1 75%	490x592x96	10	2500	110
FP-F8-P-592-592-96-FW-W	F8	ePM1 75%	592x592x96	12	3000	110
FP-F9-P-287-287-96-FW-W	F9	ePM1 85%	287x287x96	3	750	150
FP-F9-P-287-592-96-FW-W	F9	ePM1 85%	287x592x96	6	1500	150
FP-F9-P-490-592-96-FW-W	F9	ePM1 85%	490x592x96	10	2500	150
FP-F9-P-592-592-96-FW-W	F9	ePM1 85%	592x592x96	12	3000	150

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"



NOTES

CEILING TYPE FILTER

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:

- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Sealing Compound:**	Two component polyurethane
Media:	Glass Fibre	**Seperators:**	Hotmelt
Frame:	Anodized extruded aluminium, MDF	**Faceguard:**	Aluminium sheet (powder coated)
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Gasket:**	EPDM flat, EPDM flat continous and PU foam

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FC-M6-A-1-305-305-78-FC-P	M6	ePM10 70%	305x305x78	2,3	50	750	80
FC-M6-A-1-305-610-78-FC-P	M6	ePM10 70%	305x610x78	4,5	50	1500	80
FC-M6-A-1-610-610-78-FC-P	M6	ePM10 70%	610x610x78	9	50	3000	80
FC-F7-A-1-305-305-78-FC-P	F7	ePM1 55%	305x305x78	2,3	50	750	115
FC-F7-A-1-305-610-78-FC-P	F7	ePM1 55%	305x610x78	4,5	50	1500	115
FC-F7-A-1-610-610-78-FC-P	F7	ePM1 55%	610x610x78	9	50	3000	115
FC-F8-A-1-305-305-78-FC-P	F8	ePM1 70%	305x305x78	2,3	50	750	120
FC-F8-A-1-305-610-78-FC-P	F8	ePM1 70%	305x610x78	4,5	50	1500	120
FC-F8-A-1-610-610-78-FC-P	F8	ePM1 70%	610x610x78	9	50	3000	120
FC-F9-A-1-305-305-78-FC-P	F9	ePM1 80%	305x305x78	2,3	50	750	145
FC-F9-A-1-305-610-78-FC-P	F9	ePM1 80%	305x610x78	4,5	50	1500	145
FC-F9-A-1-610-610-78-FC-P	F9	ePM1 80%	610x610x78	9	50	3000	145

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

CEILING TYPE FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Dimensions (mm)	Faceguard	Gasket
FC : Ceiling Type Filter	M6 F7 F8 F9	A: Aluminium M: MDF	1: 50 mm 2: 65 mm 3: 75 mm 4: 85 mm 5: 90 mm 6: 100 mm 7: 125 mm	610x610x78	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

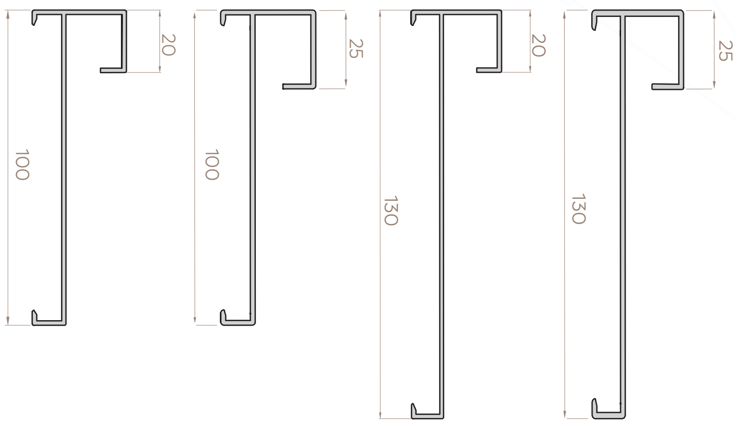
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FC-M6-A-7-305-305-150-FC-P	M6	ePM10 70%	305x305x150	4,5	125	750	60
FC-M6-A-7-305-610-150-FC-P	M6	ePM10 70%	305x610x150	9	125	1500	60
FC-M6-A-7-610-610-150-FC-P	M6	ePM10 70%	610x610x150	18	125	3000	60
FC-F7-A-7-305-305-150-FC-P	F7	ePM10 55%	305x305x150	4,5	125	750	80
FC-F7-A-7-305-610-150-FC-P	F7	ePM10 55%	305x610x150	9	125	1500	80
FC-F7-A-7-610-610-150-FC-P	F7	ePM1 55%	610x610x150	18	125	3000	80
FC-F8-A-7-305-305-150-FC-P	F8	ePM1 70%	305x305x150	4,5	125	750	100
FC-F8-A-7-305-610-150-FC-P	F8	ePM1 70%	305x610x150	9	125	1500	100
FC-F8-A-7-610-610-150-FC-P	F8	ePM1 70%	610x610x150	18	125	3000	100
FC-F9-A-7-305-305-150-FC-P	F9	ePM1 80%	305x305x150	4,5	125	750	130
FC-F9-A-7-305-610-150-FC-P	F9	ePM1 80%	305x610x150	9	125	1500	130
FC-F9-A-7-610-610-150-FC-P	F9	ePM1 80%	610x610x150	18	125	3000	130

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

NOTES

RIGID FILTER
(ALUMINIUM FRAME)

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters



Highlights:

- Eurovent certified
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Depth:**	100 and 130 mm
Media:	Glass Fiber	**Faceguard:**	Available on request
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FR-M6-A-M-25-287-287-100-FW-W	M6	ePM10 70%	287x287x100	2,5	750	100
FR-M6-A-M-25-287-592-100-FW-W	M6	ePM10 70%	287x592x100	5	1500	100
FR-M6-A-M-25-490-592-100-FW-W	M6	ePM10 70%	490x592x100	8,3	2500	100
FR-M6-A-M-25-592-592-100-FW-W	M6	ePM10 70%	592x592x100	10	3000	100
FR-F7-A-M-25-287-287-100-FW-W	F7	ePM1 55%	287x287x100	2,5	750	125
FR-F7-A-M-25-287-592-100-FW-W	F7	ePM1 55%	287x592x100	5	1500	125
FR-F7-A-M-25-490-592-100-FW-W	F7	ePM1 55%	490x592x100	8,3	2500	125
FR-F7-A-M-25-592-592-100-FW-W	F7	ePM1 55%	592x592x100	10	3000	125
FR-F8-A-M-25-287-287-100-FW-W	F8	ePM1 75%	287x287x100	2,5	750	150
FR-F8-A-M-25-287-592-100-FW-W	F8	ePM1 75%	287x592x100	5	1500	150
FR-F8-A-M-25-490-592-100-FW-W	F8	ePM1 75%	490x592x100	8,3	2500	150
FR-F8-A-M-25-592-592-100-FW-W	F8	ePM1 75%	592x592x100	10	3000	150
FR-F9-A-M-25-287-287-100-FW-W	F9	ePM1 85%	287x287x100	2,5	750	170
FR-F9-A-M-25-287-592-100-FW-W	F9	ePM1 85%	287x592x100	5	1500	170
FR-F9-A-M-25-490-592-100-FW-W	F9	ePM1 85%	490x592x100	8,3	2500	170
FR-F9-A-M-25-592-592-100-FW-W	F9	ePM1 85%	592x592x100	10	3000	170

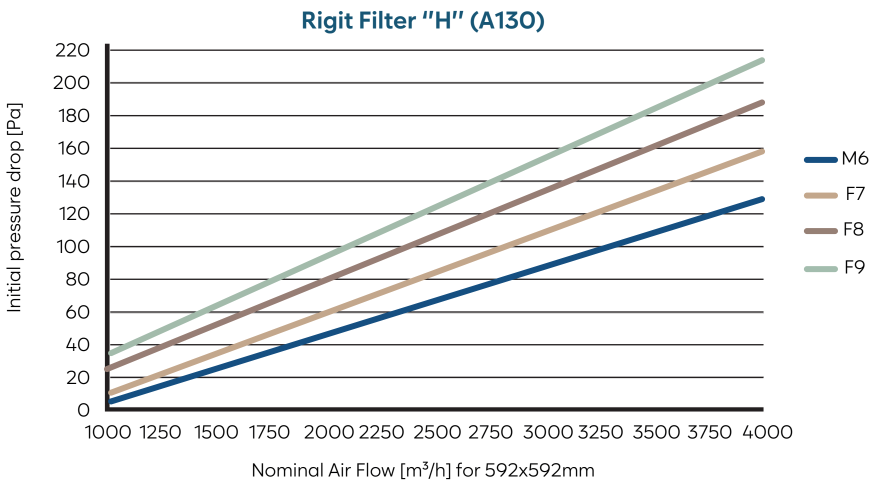
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

RIGID FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Flange	Dimensions (mm)	Faceguard	Gasket
FR :Rigid Filter	M6 F7 F8 F9	A : Aluminium	M : Standard H : High	20 25	592x592x130	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without E: EPDM EE: EPDM Flat On Both Sides

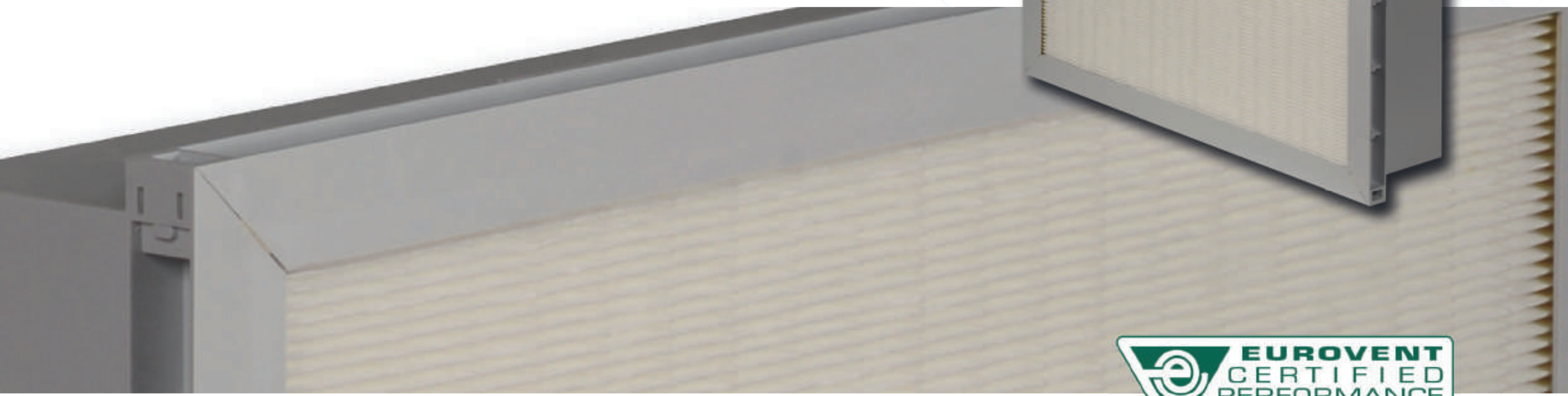
Filter Model	Filter Class: EN 779 (cancelled)	Filter Class: ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FR-M6-A-H-25-287-287-130-FW-W	M6	ePM10 75%	287x287x130	3,2	750	90
FR-M6-A-H-25-287-592-130-FW-W	M6	ePM10 75%	287x592x130	6,5	1500	90
FR-M6-A-H-25-490-592-130-FW-W	M6	ePM10 75%	490x592x130	10,7	2500	90
FR-M6-A-H-25-592-592-130-FW-W	M6	ePM10 75%	592x592x130	13	3000	90
FR-F7-A-H-25-287-287-130-FW-W	F7	ePM1 55%	287x287x130	3,2	750	110
FR-F7-A-H-25-287-592-130-FW-W	F7	ePM1 55%	287x592x130	6,5	1500	110
FR-F7-A-H-25-490-592-130-FW-W	F7	ePM1 55%	490x592x130	10,7	2500	110
FR-F7-A-H-25-592-592-130-FW-W	F7	ePM1 55%	592x592x130	13	3000	110
FR-F8-A-H-25-287-287-130-FW-W	F8	ePM1 75%	287x287x130	3,2	750	140
FR-F8-A-H-25-287-592-130-FW-W	F8	ePM1 75%	287x592x130	6,5	1500	140
FR-F8-A-H-25-490-592-130-FW-W	F8	ePM1 75%	490x592x130	10,7	2500	140
FR-F8-A-H-25-592-592-130-FW-W	F8	ePM1 75%	592x592x130	13	3000	140
FR-F9-A-H-25-287-287-130-FW-W	F9	ePM1 85%	287x287x130	3,2	750	160
FR-F9-A-H-25-287-592-130-FW-W	F9	ePM1 85%	287x592x130	6,5	1500	160
FR-F9-A-H-25-490-592-130-FW-W	F9	ePM1 85%	490x592x130	10,7	2500	160
FR-F9-A-H-25-592-592-130-FW-W	F9	ePM1 85%	592x592x130	13	3000	160

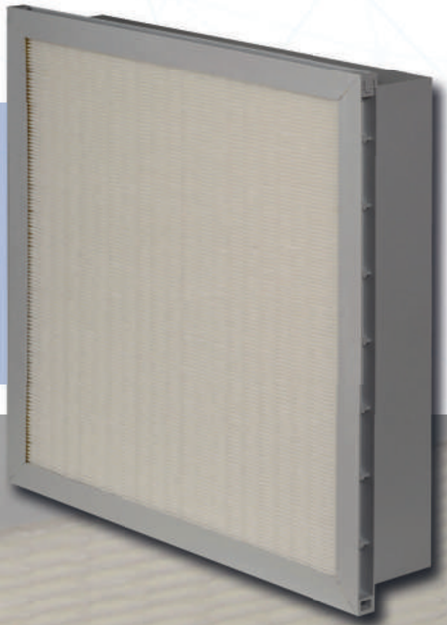
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

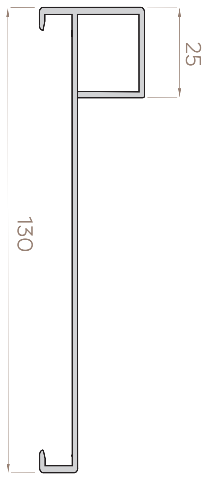


NOTES

RIGID FILTER
(PLASTIC FRAME)







Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Eurovent certified
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

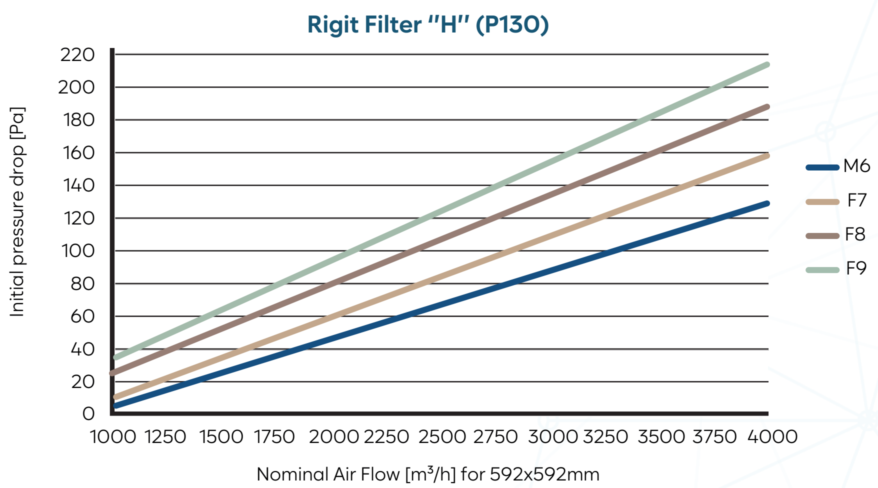
Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Depth:**	130 mm
Media:	Glass Fiber	**Faceguard:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FR-M6-P-H-25-287-287-130-FW-W	M6	ePM10 75%	287x287x130	3,2	750	90
FR-M6-P-H-25-287-592-130-FW-W	M6	ePM10 75%	287x592x130	6,5	1500	90
FR-M6-P-H-25-490-592-130-FW-W	M6	ePM10 75%	490x592x130	10,7	2500	90
FR-M6-P-H-25-592-592-130-FW-W	M6	ePM10 75%	592x592x130	13	3000	90
FR-F7-P-H-25-287-287-130-FW-W	F7	ePM1 55%	287x287x130	3,2	750	110
FR-F7-P-H-25-287-592-130-FW-W	F7	ePM1 55%	287x592x130	6,5	1500	110
FR-F7-P-H-25-490-592-130-FW-W	F7	ePM1 55%	490x592x130	10,7	2500	110
FR-F7-P-H-25-592-592-130-FW-W	F7	ePM1 55%	592x592x130	13	3000	110
FR-F8-P-H-25-287-287-130-FW-W	F8	ePM1 75%	287x287x130	3,2	750	140
FR-F8-P-H-25-287-592-130-FW-W	F8	ePM1 75%	287x592x130	6,5	1500	140
FR-F8-P-H-25-490-592-130-FW-W	F8	ePM1 75%	490x592x130	10,7	2500	140
FR-F8-P-H-25-592-592-130-FW-W	F8	ePM1 75%	592x592x130	13	3000	140
FR-F9-P-H-25-287-287-130-FW-W	F9	ePM1 85%	287x287x130	3,2	750	160
FR-F9-P-H-25-287-592-130-FW-W	F9	ePM1 85%	287x592x130	6,5	1500	160
FR-F9-P-H-25-490-592-130-FW-W	F9	ePM1 85%	490x592x130	10,7	2500	160
FR-F9-P-H-25-592-592-130-FW-W	F9	ePM1 85%	592x592x130	13	3000	160

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

RIGID FILTER (PLASTIC FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Flange	Dimensions (mm)	Faceguard	Gasket
FR :Rigid Filter (Plastic Frame)	M6 F7 F8 F9	P : Plastic	M : Standard H : High	25	592x592x130	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides



HVAC MODEL
V-COMPACT FILTER

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Eurovent certified
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

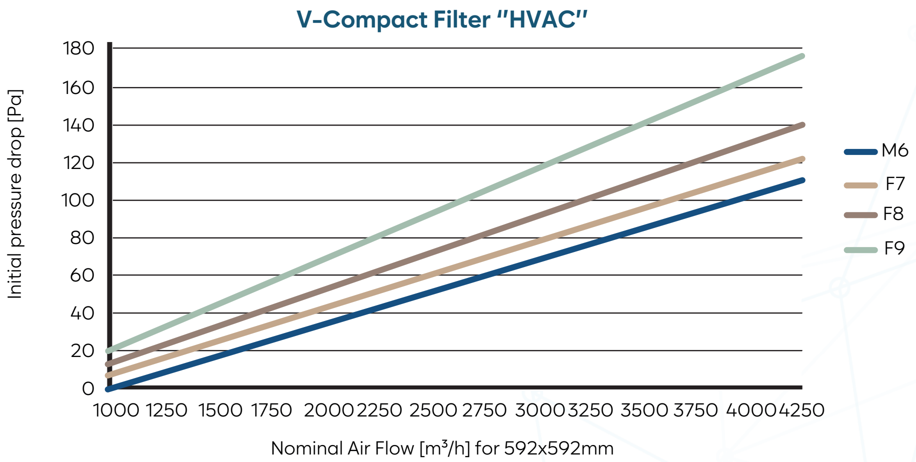
Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1- ISO ePM2,5 - ISO ePM10	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Filtration Area (m²)	Nominal Airflow (m³/h)	N. Initial Pressure Drop (Pa)	Rated Airflow (m³/h)	R. Initial Pressure Drop (Pa)	Energy Class
FV-M6-287-592-292-FW-W	M6	ePM10 75%	7	2125	108	1700	80	E
FV-M6-490-592-292-FW-W	M6	ePM10 75%	11,5	3500	108	2700	80	E
FV-M6-592-592-292-FW-W	M6	ePM10 75%	14	4250	108	3400	80	E
FV-F7-287-592-292-FW-W	F7	ePM1 55%	7	2125	130	1700	90	D
FV-F7-490-592-292-FW-W	F7	ePM1 55%	11,5	3500	130	2700	90	D
FV-F7-592-592-292-FW-W	F7	ePM1 55%	14	4250	130	3400	90	D
FV-F8-287-592-292-FW-W	F8	ePM1 75%	7	2125	150	1700	100	C
FV-F8-490-592-292-FW-W	F8	ePM1 75%	11,5	3500	150	2700	100	C
FV-F8-592-592-292-FW-W	F8	ePM1 75%	14	4250	150	3400	100	C
FV-F9-287-592-292-FW-W	F9	ePM1 80%	7	2125	185	1700	120	D
FV-F9-490-592-292-FW-W	F9	ePM1 80%	11,5	3500	185	2700	120	D
FV-F9-592-592-292-FW-W	F9	ePM1 80%	14	4250	185	3400	120	D

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

HVAC MODEL V-COMPACT FILTER CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
FV : HVAC Model V-Compact Filter	M6 F7 F8 F9	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides



ENERGY MODEL
V-COMPACT FILTER

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Eurovent certified
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

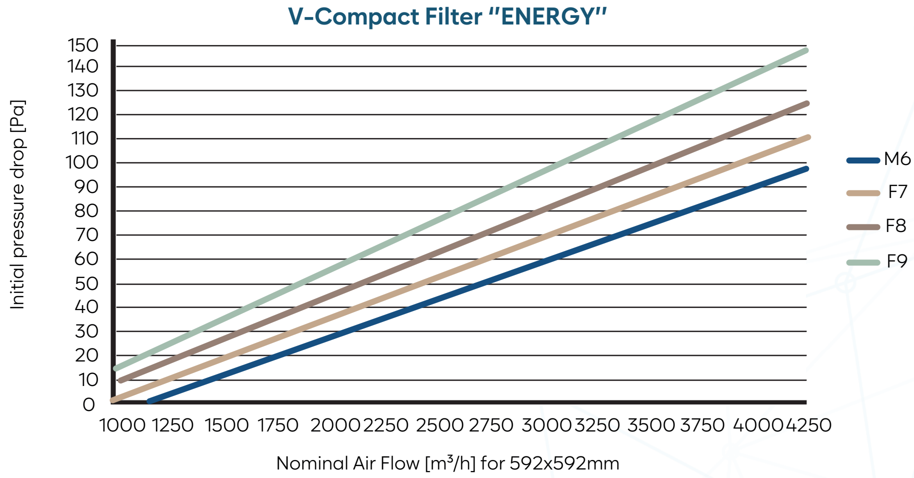
Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80°C
Filter Class:	ISO ePM1- ISO ePM2,5 - ISO ePM10	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Filtration Area (m²)	Nominal Airflow (m³/h)	N. Initial Pressure Drop (Pa)	Rated Airflow (m³/h)	R. Initial Pressure Drop (Pa)	Energy Class
FVE-M6-287-592-292-FW-W	M6	ePM10 75%	9	2125	100	1700	70	E
FVE-M6-490-592-292-FW-W	M6	ePM10 75%	14,5	3500	100	2700	70	E
FVE-M6-592-592-292-FW-W	M6	ePM10 75%	18	4250	100	3400	70	E
FVE-F7-287-592-292-FW-W	F7	ePM1 55%	9	2125	110	1700	80	D
FVE-F7-490-592-292-FW-W	F7	ePM1 55%	14,5	3500	110	2700	80	D
FVE-F7-592-592-292-FW-W	F7	ePM1 55%	18	4250	110	3400	80	D
FVE-F8-287-592-292-FW-W	F8	ePM1 75%	9	2125	130	1700	90	D
FVE-F8-490-592-292-FW-W	F8	ePM1 75%	14,5	3500	130	2700	90	D
FVE-F8-592-592-292-FW-W	F8	ePM1 75%	18	4250	130	3400	90	D
FVE-F9-287-592-292-FW-W	F9	ePM1 85%	9	2125	150	1700	100	B
FVE-F9-490-592-292-FW-W	F9	ePM1 85%	14,5	3500	150	2700	100	B
FVE-F9-592-592-292-FW-W	F9	ePM1 85%	18	4250	150	3400	100	B

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

ENERGY MODEL V-COMPACT FILTER CODE CONFIGURATION

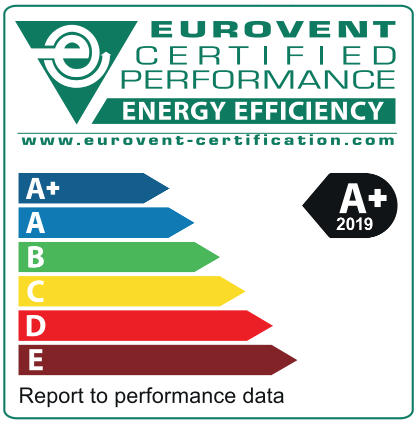
Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
FVE : Energy Model, V-Compact Filter	M6 F7 F8 F9	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides



SUPERIOR MODEL
V-COMPACT FILTER

Applications:
Capturing fine particles
Final stage filter for comfort ventilation
Pre-filter for HEPA filters

Highlights:
- Energy class A+
- Extremely large filtration area
- Very low initial pressure drop
- Simple and light weight
- Very high dust holding capacity



Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	F7, F9	**Faceguard:**	Available on request
Media:	Synthetic Nano	**Gasket:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Media Material	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)	Energy Class
FVS-F7-287-592-292-FW-W	F7	ePM1 65%	287x592x292	Synthetic Nano	10	1700	67	A+
FVS-F7-592-592-292-FW-W	F7	ePM1 65%	592x592x292	Synthetic Nano	20	3400	67	A+
FVS-F9-287-592-292-FW-W	F9	ePM1 80%	287x592x292	Synthetic Nano	10	1700	75	A+
FVS-F9-592-592-292-FW-W	F9	ePM1 80%	592x592x292	Synthetic Nano	20	3400	75	A+

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

SUPERIOR MODEL V-COMPACT FILTER CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
FVS : Superior Model V-Compact Filter	F7 F9	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides

HIGH TEMPERATURE V-COMPACT FILTER

Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:
- Eurovent certified
- High temperature resistant
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

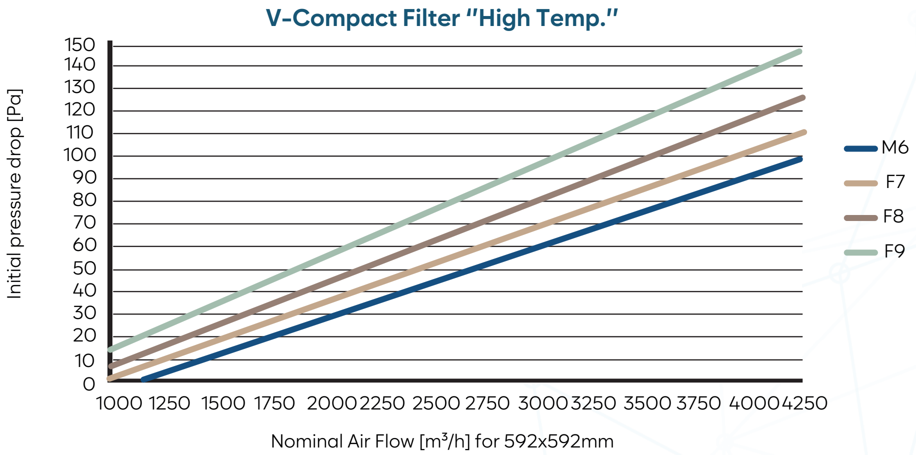
Filter Standard:	ISO 16890	**Max. Operating Tempature:**	120°C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Polycarbonate	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Filtration Area (m²)	Nominal Airflow (m³/h)	N. Initial Pressure Drop (Pa)	Rated Airflow (m³/h)	R. Initial Pressure Drop (Pa)	Energy Class
FVT-M6-287-592-292-FW-W	M6	ePM10 75%	9	2125	100	1700	70	E
FVT-M6-490-592-292-FW-W	M6	ePM10 75%	14,5	3500	100	2700	70	E
FVT-M6-592-592-292-FW-W	M6	ePM10 75%	18	4250	100	3400	70	E
FVT-F7-287-592-292-FW-W	F7	ePM1 55%	9	2125	110	1700	80	D
FVT-F7-490-592-292-FW-W	F7	ePM1 55%	14,5	3500	110	2700	80	D
FVT-F7-592-592-292-FW-W	F7	ePM1 55%	18	4250	110	3400	80	D
FVT-F8-287-592-292-FW-W	F8	ePM1 60%	9	2125	130	1700	90	D
FVT-F8-490-592-292-FW-W	F8	ePM1 60%	14,5	3500	130	2700	90	D
FVT-F8-592-592-292-FW-W	F8	ePM1 60%	18	4250	130	3400	90	D
FVT-F9-287-592-292-FW-W	F9	ePM1 85%	9	2125	150	1700	100	D
FVT-F9-490-592-292-FW-W	F9	ePM1 85%	14,5	3500	150	2700	100	D
FVT-F9-592-592-292-FW-W	F9	ePM1 85%	18	4250	150	3400	100	D

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

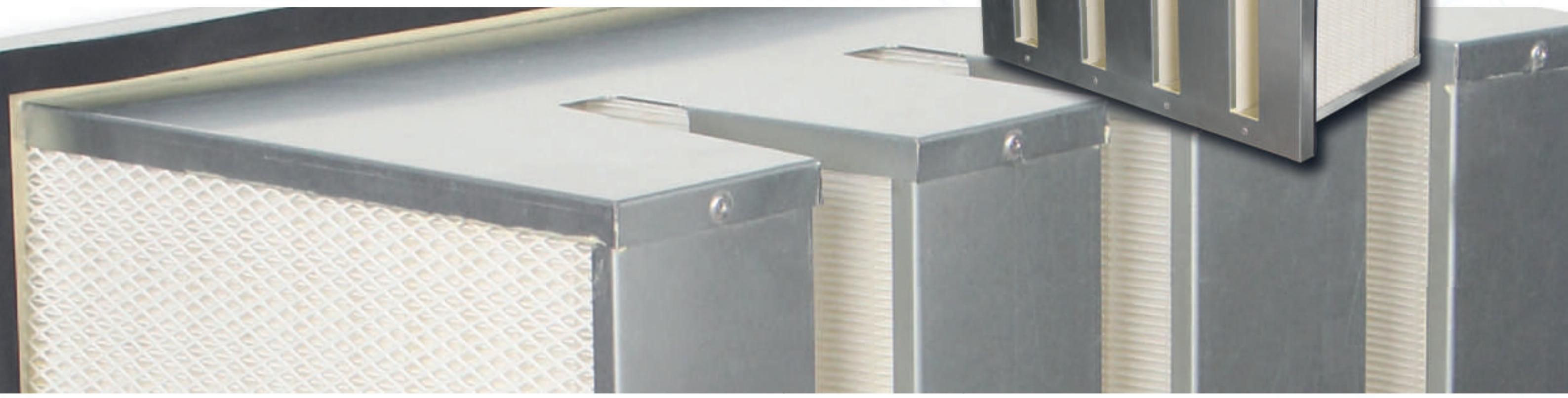
HIGH TEMPERATURE V-COMPACT FILTER CODE CONFIGURATION

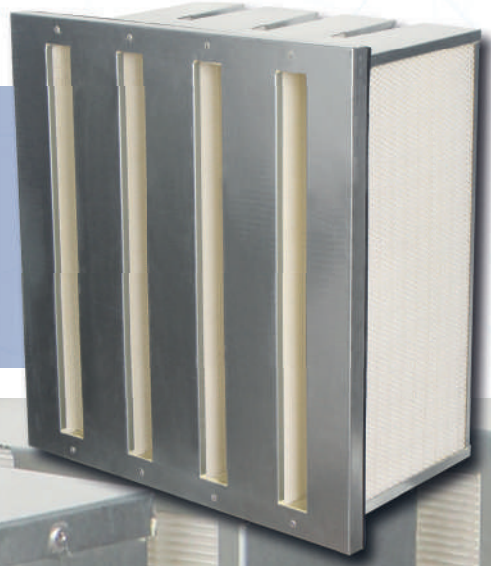
Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
FVT : High Temperature, V-Compact Filter	M6 F7 F8 F9	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides



V-COMPACT FILTER

(METAL FRAME)





Applications:
Capturing fine particles
Second or final stage filter in HVAC
Pre-filter for HEPA filters

Highlights:

- Robust construction with metal frame
- Large filtration area
- High dust holding capacity
- Low initial pressure drop

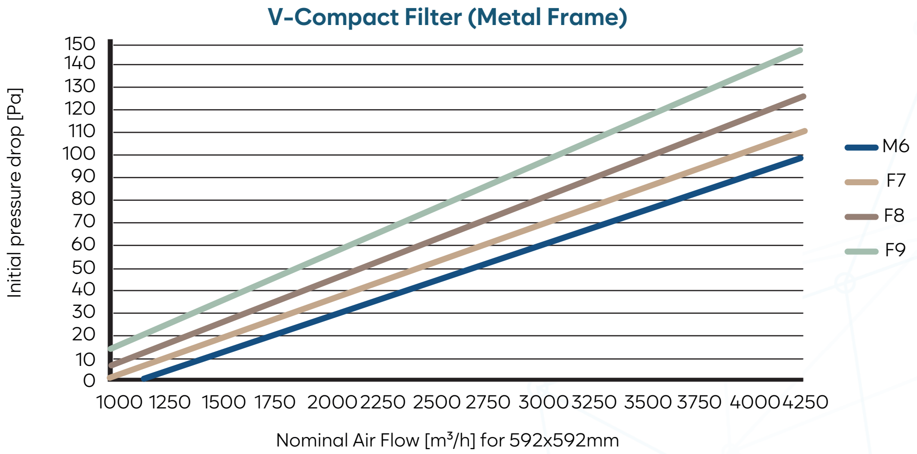
Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1- ISO ePM2,5 - ISO ePM10	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Galvanized, Stainless Steel	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Filtration Area (m^2)	Nominal Airflow (m^3/h)	N. Initial Pressure Drop (Pa)	Rated Airflow (m^3/h)	R. Initial Pressure Drop (Pa)	Energy Class
FVG-M6-287-592-292-FW-W	M6	ePM10 75%	9	2125	100	1700	70	E
FVG-M6-490-592-292-FW-W	M6	ePM10 75%	14,5	3500	100	2700	70	E
FVG-M6-592-592-292-FW-W	M6	ePM10 75%	18	4250	100	3400	70	E
FVG-F7-287-592-292-FW-W	F7	ePM1 55%	9	2125	110	1700	80	D
FVG-F7-490-592-292-FW-W	F7	ePM1 55%	14,5	3500	110	2700	80	D
FVG-F7-592-592-292-FW-W	F7	ePM1 55%	18	4250	110	3400	80	D
FVG-F8-287-592-292-FW-W	F8	ePM1 70%	9	2125	130	1700	90	D
FVG-F8-490-592-292-FW-W	F8	ePM1 70%	14,5	3500	130	2700	90	D
FVG-F8-592-592-292-FW-W	F8	ePM1 70%	18	4250	130	3400	90	D
FVG-F9-287-592-292-FW-W	F9	ePM1 80%	9	2125	150	1700	110	D
FVG-F9-490-592-292-FW-W	F9	ePM1 80%	14,5	3500	150	2700	110	D
FVG-F9-592-592-292-FW-W	F9	ePM1 80%	18	4250	150	3400	110	D

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

V-COMPACT FILTER (METAL FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
FVG : V-Compact Filter (Metal Frame)	M6 F7 F8 F9	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides



X LARGE V-COMPACT FILTER

Applications:
Gas turbine air intake systems

Highlights:
- Large filtration area
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1- ISO ePM2,5 - ISO ePM10	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

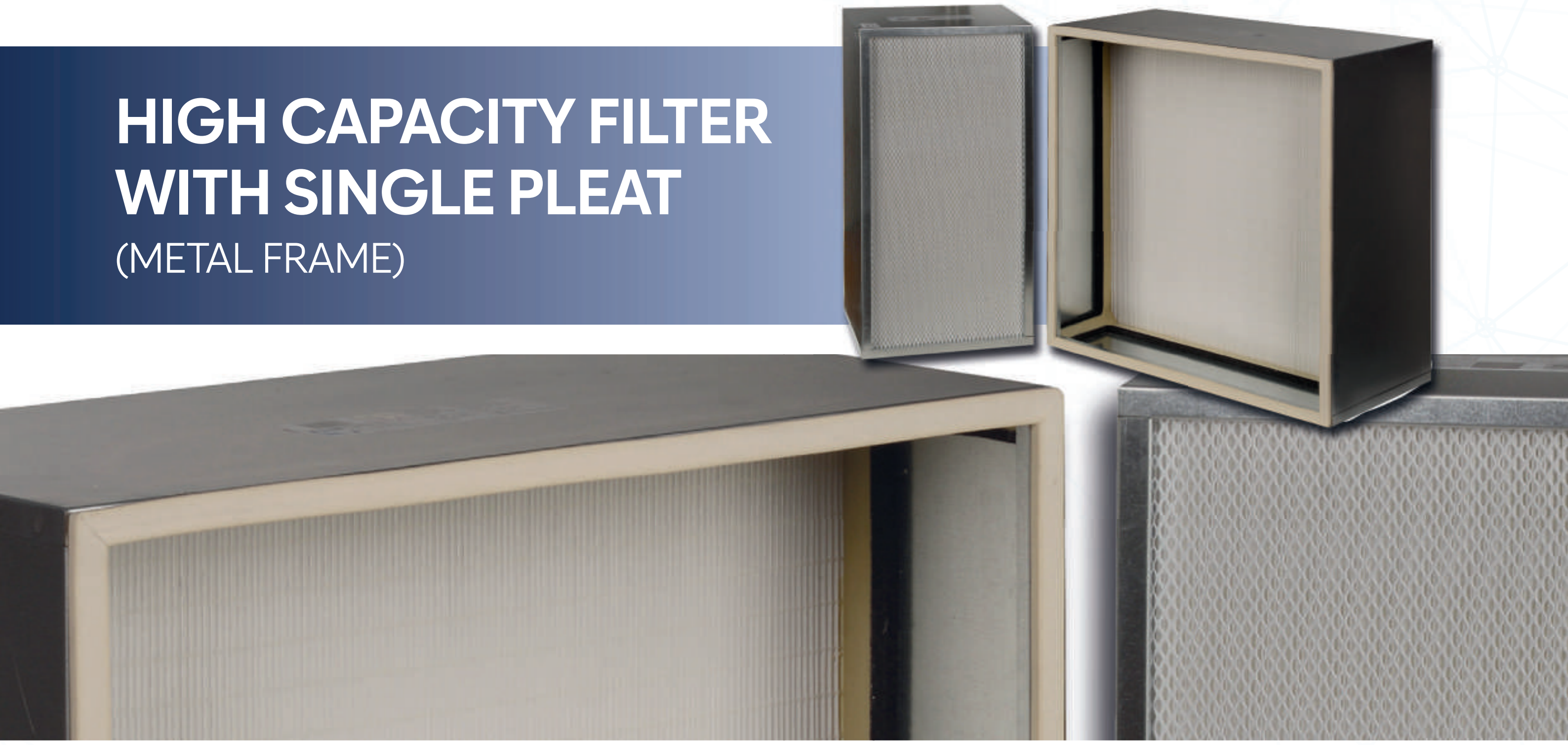
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Filtration Area (m^2)	Nominal Airflow (m^3/h)	N. Initial Pressure Drop (Pa)	Rated Airflow (m^3/h)	R. Initial Pressure Drop (Pa)	Energy Class
FVL-M6-287-592-430-FW-W	M6	ePM10 65%	14	2125	80	1700	70	C
FVL-M6-490-592-430-FW-W	M6	ePM10 65%	23	3500	80	2700	70	C
FVL-M6-592-592-430-FW-W	M6	ePM10 65%	28	4250	80	3400	70	C
FVL-F7-287-592-430-FW-W	F7	ePM1 55%	14	2125	90	1700	80	A
FVL-F7-490-592-430-FW-W	F7	ePM1 55%	23	3500	90	2700	80	A
FVL-F7-592-592-430-FW-W	F7	ePM1 55%	28	4250	90	3400	80	A
FVL-F8-287-592-430-FW-W	F8	ePM1 75%	14	2125	100	1700	90	A
FVL-F8-490-592-430-FW-W	F8	ePM1 75%	23	3500	100	2700	90	A
FVL-F8-592-592-430-FW-W	F8	ePM1 75%	28	4250	100	3400	90	A
FVL-F9-287-592-430-FW-W	F9	ePM1 85%	14	2125	115	1700	100	A
FVL-F9-490-592-430-FW-W	F9	ePM1 85%	23	3500	115	2700	100	A
FVL-F9-592-592-430-FW-W	F9	ePM1 85%	28	4250	115	3400	100	A

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

X LARGE V-COMPACT FILTER CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
FVL : X Large V-Compact Filter	M6 F7 F8 F9	592x592x430	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides

HIGH CAPACITY FILTER WITH SINGLE PLEAT
(METAL FRAME)



Applications:
Supply and exhaust air HVAC with high airflow rates

Highlights:
- Airflow up to 4000m³/h for 610x610x292mm
- Large filtration area
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10
Media:	Glass fiber
Frame:	Galvanized, Stainless Steel, Aluminium
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower

Max. Operating Tempature:	80˚C
Gasket:	EPDM EPDM Flat continuous and PU Foam
Sealing Compound:	Polyurethane
Seperators:	Hotmelt

HIGH CAPACITY FILTER WITH SINGLE PLEAT (METAL FRAME/G34)

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FHS-M6-G-34-305-305-292-FW-W	M6	ePM10 75%	305x305x292	4	850	60
FHS-M6-G-34-305-610-292-FW-W	M6	ePM10 75%	305x610x292	8	1700	60
FHS-M6-G-34-610-610-292-FW-W	M6	ePM10 75%	610x610x292	16	3400	60
FHS-F7-G-34-305-305-292-FW-W	F7	ePM1 55%	305x305x292	4	850	80
FHS-F7-G-34-305-610-292-FW-W	F7	ePM1 55%	305x610x292	8	1700	80
FHS-F7-G-34-610-610-292-FW-W	F7	ePM1 55%	610x610x292	16	3400	80
FHS-F8-G-34-305-305-292-FW-W	F8	ePM1 70%	305x305x292	4	850	100
FHS-F8-G-34-305-610-292-FW-W	F8	ePM1 70%	305x610x292	8	1700	100
FHS-F8-G-34-610-610-292-FW-W	F8	ePM1 70%	610x610x292	16	3400	100
FHS-F9-G-34-305-305-292-FW-W	F9	ePM1 80%	305x305x292	4	850	130
FHS-F9-G-34-305-610-292-FW-W	F9	ePM1 80%	305x610x292	8	1700	130
FHS-F9-G-34-610-610-292-FW-W	F9	ePM1 80%	610x610x292	16	3400	130

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

HIGH CAPACITY FILTER WITH SINGLE PLEAT (METAL) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Faceguard	Gasket
FHS : High Capacity Filter with Single Pleat (Metal)	M6 F7 F8 F9	G: Galvanized A: Aluminium SS: Stainless Steel	34: 3400 m^3/h 40: 4000 m^3/h	610x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

HIGH CAPACITY FILTER WITH SINGLE PLEAT (METAL FRAME/G40)

Filter Model	Filter Class EN 779 (cancelled)	ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FHS-M6-G-40-305-305-292-FW-W	M6	ePM10 75%	305x305x292	6	1000	60
FHS-M6-G-40-305-610-292-FW-W	M6	ePM10 75%	305x610x292	12	2000	60
FHS-M6-G-40-610-610-292-FW-W	M6	ePM10 75%	610x610x292	24	4000	60
FHS-F7-G-40-305-305-292-FW-W	F7	ePM1 55%	305x305x292	6	1000	80
FHS-F7-G-40-305-610-292-FW-W	F7	ePM1 55%	305x610x292	12	2000	80
FHS-F7-G-40-610-610-292-FW-W	F7	ePM1 55%	610x610x292	24	4000	80
FHS-F8-G-40-305-305-292-FW-W	F8	ePM1 70%	305x305x292	6	1000	100
FHS-F8-G-40-305-610-292-FW-W	F8	ePM1 70%	305x610x292	12	2000	100
FHS-F8-G-40-610-610-292-FW-W	F8	ePM1 70%	610x610x292	24	4000	100
FHS-F9-G-40-305-305-292-FW-W	F9	ePM1 80%	305x305x292	6	1000	130
FHS-F9-G-40-305-610-292-FW-W	F9	ePM1 80%	305x610x292	12	2000	130
FHS-F9-G-40-610-610-292-FW-W	F9	ePM1 80%	610x610x292	24	4000	130

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

NOTES

HIGH CAPACITY FILTER WITH SINGLE PLEAT

(MDF FRAME)

Applications:
Supply and exhaust air HVAC with high airflow rates

Highlights:

- Airflow up to 4000m³/h for 610x610x292mm
- Large filtration area
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80°C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Gasket:**	EPDM, EPDM Flat continuous and PU Foam
Media:	Glass fiber	**Sealing Compound:**	Polyurethane
Frame:	MDF	**Seperators:**	Hotmelt
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower		

Filter Model	Filter Class EN 779 (cancelled)	ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FHS-M6-M-34-305-305-292-FW-W	M6	ePM10 75%	305x305x292	4	850	60
FHS-M6-M-34-305-610-292-FW-W	M6	ePM10 75%	305x610x292	8	1700	60
FHS-M6-M-34-610-610-292-FW-W	M6	ePM10 75%	610x610x292	16	3400	60
FHS-F7-M-34-305-305-292-FW-W	F7	ePM1 55%	305x305x292	4	850	80
FHS-F7-M-34-305-610-292-FW-W	F7	ePM1 55%	305x610x292	8	1700	80
FHS-F7-M-34-610-610-292-FW-W	F7	ePM1 55%	610x610x292	16	3400	80
FHS-F8-M-34-305-305-292-FW-W	F8	ePM1 70%	305x305x292	4	850	100
FHS-F8-M-34-305-610-292-FW-W	F8	ePM1 70%	305x610x292	8	1700	100
FHS-F8-M-34-610-610-292-FW-W	F8	ePM1 70%	610x610x292	16	3400	100
FHS-F9-M-34-305-305-292-FW-W	F9	ePM1 80%	305x305x292	4	850	130
FHS-F9-M-34-305-610-292-FW-W	F9	ePM1 80%	305x610x292	8	1700	130
FHS-F9-M-34-610-610-292-FW-W	F9	ePM1 80%	610x610x292	16	3400	130

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

HIGH CAPACITY FILTER WITH SINGLE PLEAT (MDF) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Faceguard	Gasket
FHS : High Capacity Filter with Single Pleat (MDF)	M6 F7 F8 F9	M: MDF	34: 3400 m³/h 40: 4000 m³/h	610x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side

HIGH CAPACITY FILTER WITH SINGLE PLEAT (MDF FRAME/M40)

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FHS-M6-M-40-305-305-292-FW-W	M6	ePM10 75%	305x305x292	6	1000	60
FHS-M6-M-40-305-610-292-FW-W	M6	ePM10 75%	305x610x292	12	2000	60
FHS-M6-M-40-610-610-292-FW-W	M6	ePM10 75%	610x610x292	24	4000	60
FHS-F7-M-40-305-305-292-FW-W	F7	ePM1 55%	305x305x292	6	1000	80
FHS-F7-M-40-305-610-292-FW-W	F7	ePM1 55%	305x610x292	12	2000	80
FHS-F7-M-40-610-610-292-FW-W	F7	ePM1 55%	610x610x292	24	4000	80
FHS-F8-M-40-305-305-292-FW-W	F8	ePM1 70%	305x305x292	6	1000	100
FHS-F8-M-40-305-610-292-FW-W	F8	ePM1 70%	305x610x292	12	2000	100
FHS-F8-M-40-610-610-292-FW-W	F8	ePM1 70%	610x610x292	24	4000	100
FHS-F9-M-40-305-305-292-FW-W	F9	ePM1 80%	305x305x292	6	1000	130
FHS-F9-M-40-305-610-292-FW-W	F9	ePM1 80%	305x610x292	12	2000	130
FHS-F9-M-40-610-610-292-FW-W	F9	ePM1 80%	610x610x292	24	4000	130

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

NOTES

HIGH CAPACITY FINE FILTER WITH V MODULE DESIGN
(METAL FRAME)

Applications:
Supply and exhaust air HVAC with high airflow rates

Highlights:
- Airflow up to 5000m³/h for 610x610x292mm
- Large filtration area
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Gasket:**	EPDM, EPDM Flat continuous and PU Foam
Media:	Glass fiber	**Design:**	V-Modul
Frame:	Galvanized, Stainless Steel, Aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Hotmelt

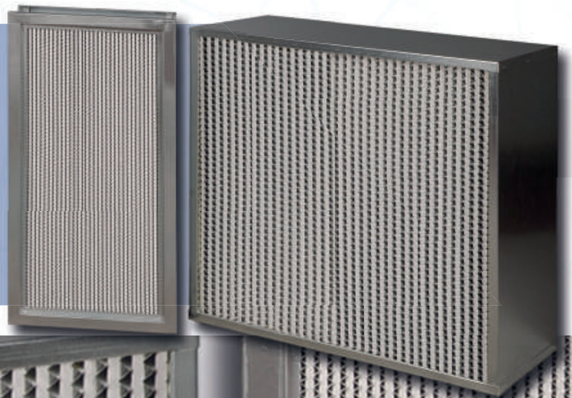
Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Design	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FHV-M6-G-50-287-592-292-W	M6	ePM10 65%	287x592x292	15	V-Modul	2350	70
FHV-M6-G-50-592-592-292-W	M6	ePM10 65%	592x592x292	30	V-Modul	4700	70
FHV-M6-G-50-305-305-292-W	M6	ePM10 65%	305x305x292	8	V-Modul	1250	70
FHV-M6-G-50-305-610-292-W	M6	ePM10 65%	305x610x292	16	V-Modul	2500	70
FHV-M6-G-50-610-610-292-W	M6	ePM10 65%	610x610x292	32	V-Modul	5000	70
FHV-F7-G-50-287-592-292-W	F7	ePM1 55%	287x592x292	15	V-Modul	2350	80
FHV-F7-G-50-592-592-292-W	F7	ePM1 55%	592x592x292	30	V-Modul	4700	80
FHV-F7-G-50-305-305-292-W	F7	ePM1 55%	305x305x292	8	V-Modul	1250	80
FHV-F7-G-50-305-610-292-W	F7	ePM1 55%	305x610x292	16	V-Modul	2500	80
FHV-F7-G-50-610-610-292-W	F7	ePM1 55%	610x610x292	32	V-Modul	5000	80
FHV-F8-G-50-287-592-292-W	F8	ePM1 70%	287x592x292	15	V-Modul	2350	90
FHV-F8-G-50-592-592-292-W	F8	ePM1 70%	592x592x292	30	V-Modul	4700	90
FHV-F8-G-50-305-305-292-W	F8	ePM1 70%	305x305x292	8	V-Modul	1250	90
FHV-F8-G-50-305-610-292-W	F8	ePM1 70%	305x610x292	16	V-Modul	2500	90
FHV-F8-G-50-610-610-292-W	F8	ePM1 70%	610x610x292	32	V-Modul	5000	90
FHV-F9-G-50-287-592-292-W	F9	ePM1 80%	287x592x292	15	V-Modul	2350	110
FHV-F9-G-50-592-592-292-W	F9	ePM1 80%	592x592x292	30	V-Modul	4700	110
FHV-F9-G-50-305-305-292-W	F9	ePM1 80%	305x305x292	8	V-Modul	1250	110
FHV-F9-G-50-305-610-292-W	F9	ePM1 80%	305x610x292	16	V-Modul	2500	110
FHV-F9-G-50-610-610-292-W	F9	ePM1 80%	610x610x292	32	V-Modul	5000	110

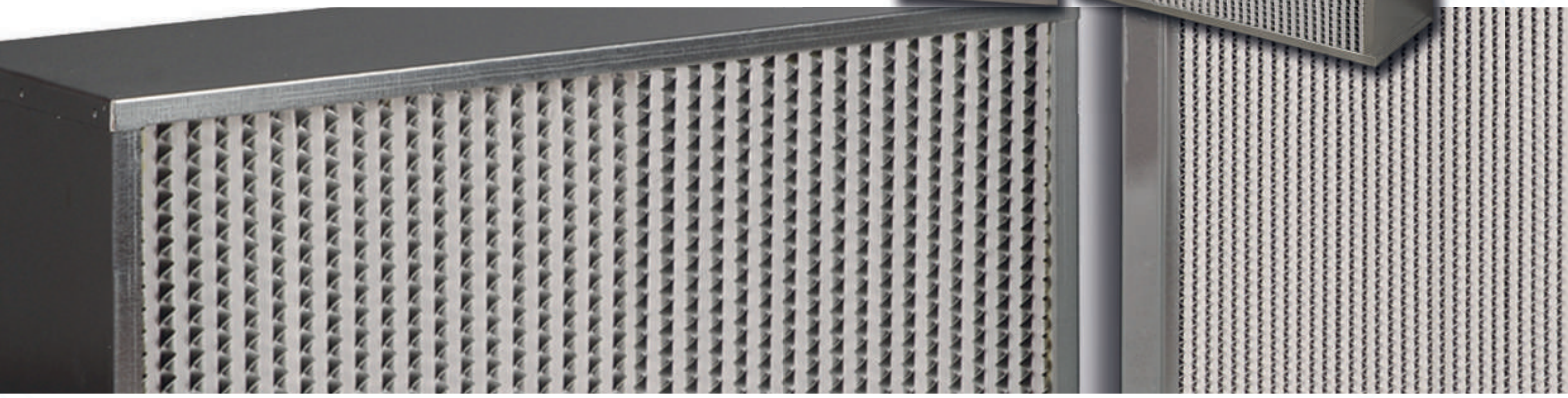
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

HIGH CAPACITY FINE FILTER WITH V MODULE DESIGN (METAL) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Gasket
FHV : High Capacity Fine Filter with V-Module Design (Metal)	M6 F7 F8 F9	A: Aluminium G: Galvanized Metal S: Stainless Steel 304	50: 5000 m^3/h	610x610x292	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side S: Silicon SS: Silicon on Both Sides

FINE DUST FILTER WITH ALUMINIUM SEPERATOR
(METAL FRAME)





Applications:
Capturing fine particles
Suitable for ATEX environment
High temperature conditions

Highlights:
- Static electricity grounding (optional)
- Corrugated aluminium seperator
- Robust construction with metal frame

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	up to 120˚C, 260˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Gasket:**	Silicon, EPDM and PU Foam
Media:	Glass fiber	**Flange:**	Without, single, double
Frame:	Galvanized, Stainless Steel	**Sealing Compound:**	Two component polyurethane, glass fiber
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower	**Seperators:**	Corrugated Aluminium

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Max. Continous Temperature (˚C)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FCA-M6-G-W-T-W-305-610-292-FW-W	M6	ePM10 70%	305x610x292	8,5	120	1700	90
FCA-M6-G-W-T-W-610-610-292-FW-W	M6	ePM10 70%	610x610x292	17	120	3400	90
FCA-F7-G-W-T-W-305-610-292-FW-W	F7	ePM1 55%	305x610x292	8,5	120	1700	110
FCA-F7-G-W-T-W-610-610-292-FW-W	F7	ePM1 55%	610x610x292	17	120	3400	110
FCA-F8-G-W-T-W-305-610-292-FW-W	F8	ePM1 70%	305x610x292	8,5	120	1700	125
FCA-F8-G-W-T-W-610-610-292-FW-W	F8	ePM1 70%	610x610x292	17	120	3400	125
FCA-F9-G-W-T-W-305-610-292-FW-W	F9	ePM1 80%	305x610x292	8,5	120	1700	150
FCA-F9-G-W-T-W-610-610-292-FW-W	F9	ePM1 80%	610x610x292	17	120	3400	150
FCA-M6-G-W-HT-W-305-610-292-FW-W	M6	ePM10 70%	305x610x292	8,5	120	1700	90
FCA-M6-G-W-HT-W-610-610-292-FW-W	M6	ePM10 70%	610x610x292	17	120	3400	90
FCA-F7-G-W-HT-W-305-610-292-FW-W	F7	ePM1 55%	305x610x292	8,5	120	1700	110
FCA-F7-G-W-HT-W-610-610-292-FW-W	F7	ePM1 55%	610x610x292	17	120	3400	110
FCA-F8-G-W-HT-W-305-610-292-FW-W	F8	ePM1 70%	305x610x292	8,5	120	1700	125
FCA-F8-G-W-HT-W-610-610-292-FW-W	F8	ePM1 70%	610x610x292	17	120	3400	125
FCA-F9-G-W-HT-W-305-610-292-FW-W	F9	ePM1 80%	305x610x292	8,5	120	1700	150
FCA-F9-G-W-HT-W-610-610-292-FW-W	F9	ePM1 80%	610x610x292	17	120	3400	150

"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

FINE DUST FILTER WITH ALUMINIUM SEPERATOR (METAL FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Flange	Max. Temp.	Static Electricity Grounding Cable	Dimensions (mm)	Faceguard	Gasket
FCA : Fine Dust Filter with Aluminium Seperator (Metal Frame)	M6 F7 F8 F9	A: Aluminium G: Galvanized Metal SS: Stainless Steel SS316: Stainless Steel 316	S: Single Side,25 mm D: Double Side,25 mm W: Without	T: 120°C HT: 260°C	SG:Exist W: Without	610x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side S: Silicon SS: Silicon on Both Sides

FINE DUST FILTER WITH ALUMINIUM SEPERATOR
(MDF FRAME)

Applications:
Capturing fine particles

Highlights:
- Static electricity grounding (optional)
- Corrugated aluminium seperator
- Robust construction

Filter Standard:	ISO 16890	**Max. Operating Tempature:**	80˚C
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10	**Gasket:**	Silicon, EPDM and PU Foam
Media:	Glass fiber	**Sealing Compound:**	Two component polyurethane, glass fiber
Frame:	MDF	**Seperators:**	Corrugated Aluminium
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower		

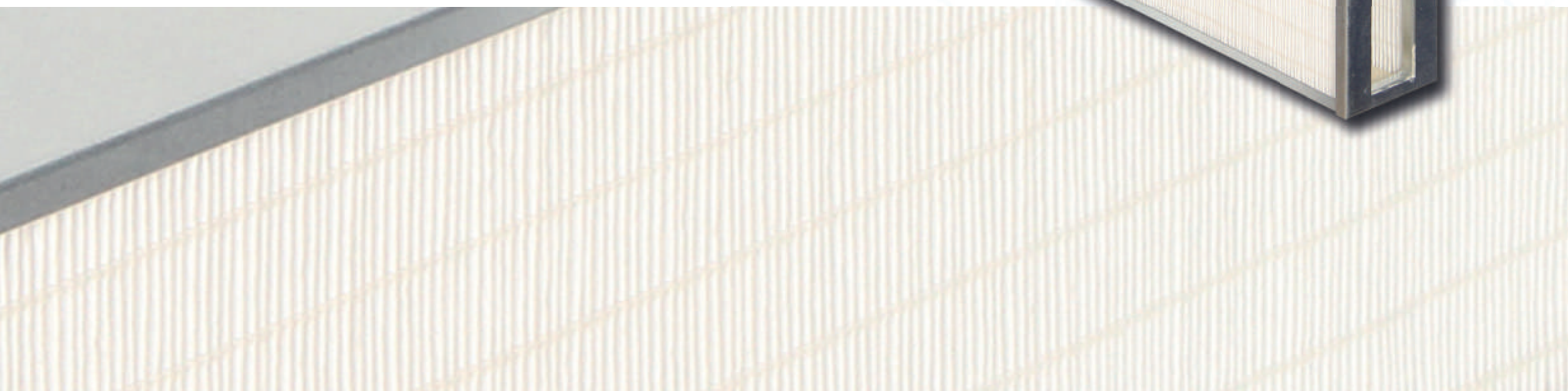
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 779 (cancelled)	ISO 16890				
FCA-M6-M-W-305-610-292-FW-W	M6	ePM10 70%	305x610x292	8,5	1700	85
FCA-M6-M-W-610-610-292-FW-W	M6	ePM10 70%	610x610x292	17	3400	85
FCA-F7-M-W-305-610-292-FW-W	F7	ePM1 55%	305x610x292	8,5	1700	110
FCA-F7-M-W-610-610-292-FW-W	F7	ePM1 55%	610x610x292	17	3400	110
FCA-F8-M-W-305-610-292-FW-W	F8	ePM1 70%	305x610x292	8,5	1700	125
FCA-F8-M-W-610-610-292-FW-W	F8	ePM1 70%	610x610x292	17	3400	125
FCA-F9-M-W-305-610-292-FW-W	F9	ePM1 80%	305x610x292	8,5	1700	150
FCA-F9-M-W-610-610-292-FW-W	F9	ePM1 80%	610x610x292	17	3400	150

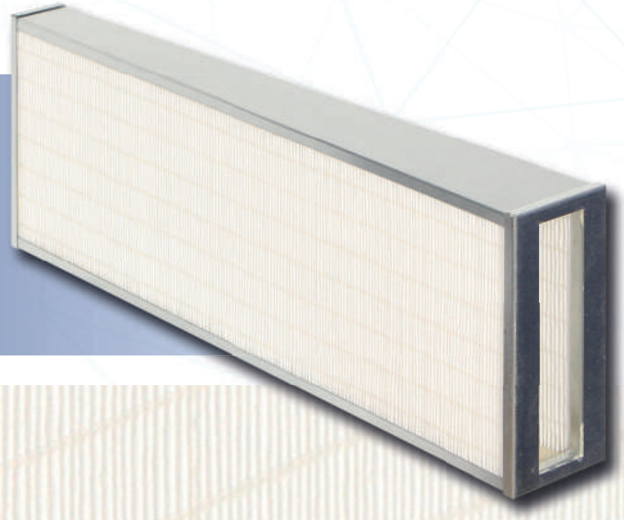
"Other dimensions are available on request."
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"

FINE DUST FILTER WITH ALUMINIUM SEPERATOR (MDF FRAME) CODE CONFIGURATION

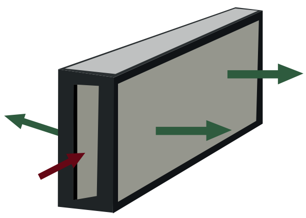
Filter Type	Filter Class	Frame	Static Electricity Grounding Cable	Dimensions (mm)	Faceguard	Gasket
FCA : Fine Dust Filter with Aluminium Seperator (MDF Frame)	M6 F7 F8 F9	M: MDF	SG: Exist W: Without	610x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side S: Silicon SS: Silicon on Both Sides

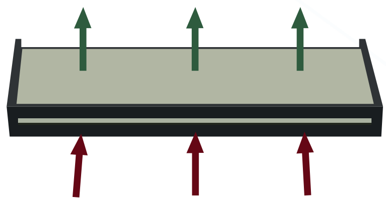
DUCT TYPE
FINE DUST FILTER





Applications:
Capturing fine particles
Pre-filter for HEPA filters





Clean Air
Contaminated Air

Clean Air
Contaminated Air

Highlights:

- V-shaped design
- Large filtration area
- Simple and light weight
- High dust holding capacity
- Low initial pressure drop

Filter Standard:	ISO 16890
Filter Class:	ISO ePM1 - ISO ePM2,5 - ISO ePM10
Media:	High quality glass fiber
Frame:	Aluminium, Galvanised & Stainless Steel
Rec. Final Pressure Drop EN13053:	Initial ΔP +100 Pa or initial ΔP x3 whichever is lower

Max. Operating Tempature:	80˚C
Model:	V (Vertical), H (Horizontal)
Sealing Compound:	Two component polyurethane
Seperators:	Hotmelt

Filter Model	Filter Class EN 779 (cancelled)	Filter Class ISO 16890	Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
FD-M6-G-V-202-600-87	M6	ePM10 70%	202x600x87	2,6	200	50
FD-M6-G-H-600-202-65	M6	ePM10 70%	600x202x65	2,6	200	30
FD-F7-G-V-202-600-87	F7	ePM1 55%	202x600x87	2,6	200	65
FD-F7-G-H-600-202-65	F7	ePM1 55%	600x202x65	2,6	200	40
FD-F8-G-V-202-600-87	F8	ePM1 70%	202x600x87	2,6	200	90
FD-F8-G-H-600-202-65	F8	ePM1 70%	600x202x65	2,6	200	60
FD-F9-G-V-202-600-87	F9	ePM1 80%	202x600x87	2,6	200	125
FD-F9-G-H-600-202-65	F9	ePM1 80%	600x202x65	2,6	200	90
"Differential Pressure Tolerance (±10% + 5 Pa) or (10 Pa + 5 Pa) whichever is greater"						

DUCT TYPE FINE DUST FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Design	Dimensions (mm)
FD : Duct Type Fine Dust Filter	M6 F7 F8 F9	A: Aluminium G: Galvanized Metal SS: Stainless Steel 304	V: Vertical H: Horizontal	202x600x87 202x600x65

CYLINDRICAL FILTER

Applications:
Dust collection systems
Gas turbine air intake systems
Power plants
Compressors
Pharmaceutical and food industries
Welding applications

Highlights:

- High filtration area
- Rubber or PU foam gasket to ensure airtight sealing
- Suitable for jet pulse cleaning (optional)
- Strong construction
- Equal spacing between each pleat enable air flow to pass through the filter media

Filter Class:	M5 - F9	**Inner Diameter:**	240 mm
Media:	Cellulose + Synthetic, Nano Coated	**Outer Diameter:**	420 mm
Frame:	Galvanized Steel	**Max. Operating Temperature:**	80 °C

Filter Model	Filter Class		Dimensions ODxIDxH (mm)	Filtration Area (m^2)	Filter Media	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 779	ISO 16890					
FCY-CB-Ø420-240x500	M5	Coarse 90%	420x240x500	15	Cellulose + Synthetic	625	100
FCY-CB-Ø420-240x660	M5	Coarse 90%	420x240x660	20	Cellulose + Synthetic	830	100
FCY-CB-Ø420-240x1000	M5	Coarse 90%	420x240x1000	30	Cellulose + Synthetic	1250	100
FCY-CN-Ø420-240x500	F9	ePM1 80%	420x240x500	15	Nano Coated	625	250
FCY-CN-Ø420-240x660	F9	ePM1 80%	420x240x660	20	Nano Coated	830	250
FCY-CN-Ø420-240x1000	F9	ePM1 80%	420x240x1000	30	Nano Coated	1250	250
"Other dimensions are available on request."							

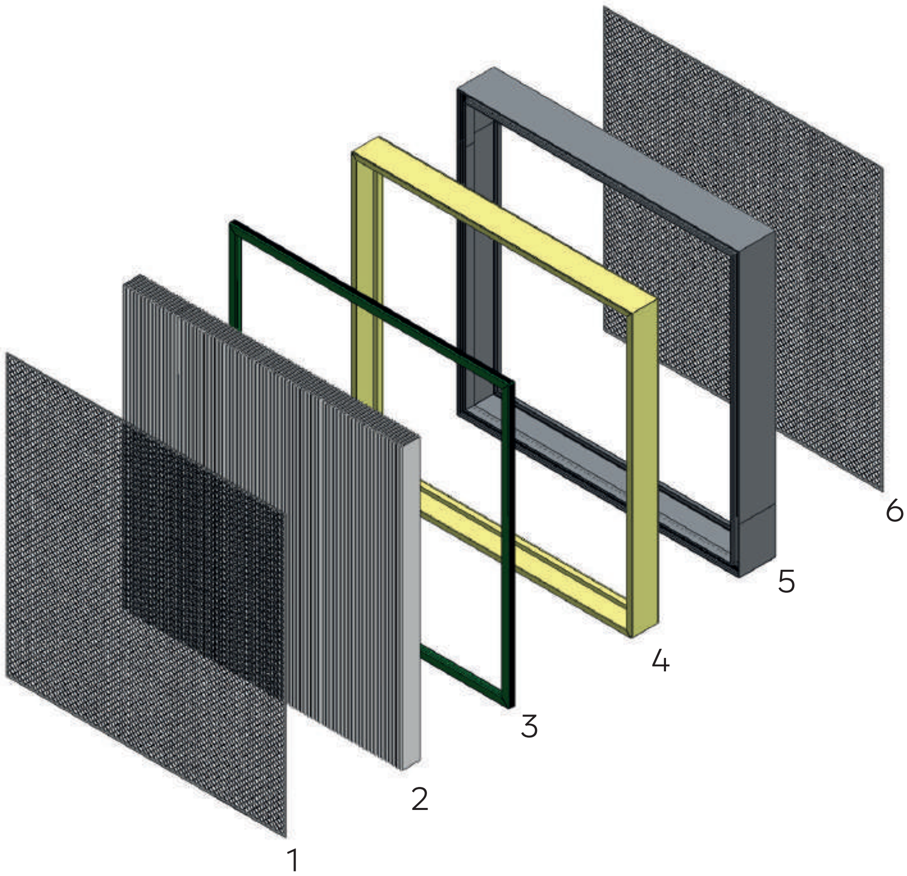
CYLINDRICAL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Inner Diameter	Outer Diameter	Lenght (mm)	Faceguard	Gasket
FCY : Cylindrical Filter	M5 F9	240 mm	420 mm	500 660 1000	FW: Without	W: Without

HIGH EFFICIENCY FILTRATION (EPA, HEPA, ULPA)

What is HEPA Filter?

A High Efficiency Particulate Air (HEPA) filter is a type of air filter designed to remove very fine airborne particles, such as virus, bacteria, and mold spores, from the air. These filters are commonly used in various applications, including pharmaceutical cleanrooms, healthcare facilities, microelectronics, and food & beverage, to improve indoor air quality and protect sensitive equipment or processes.

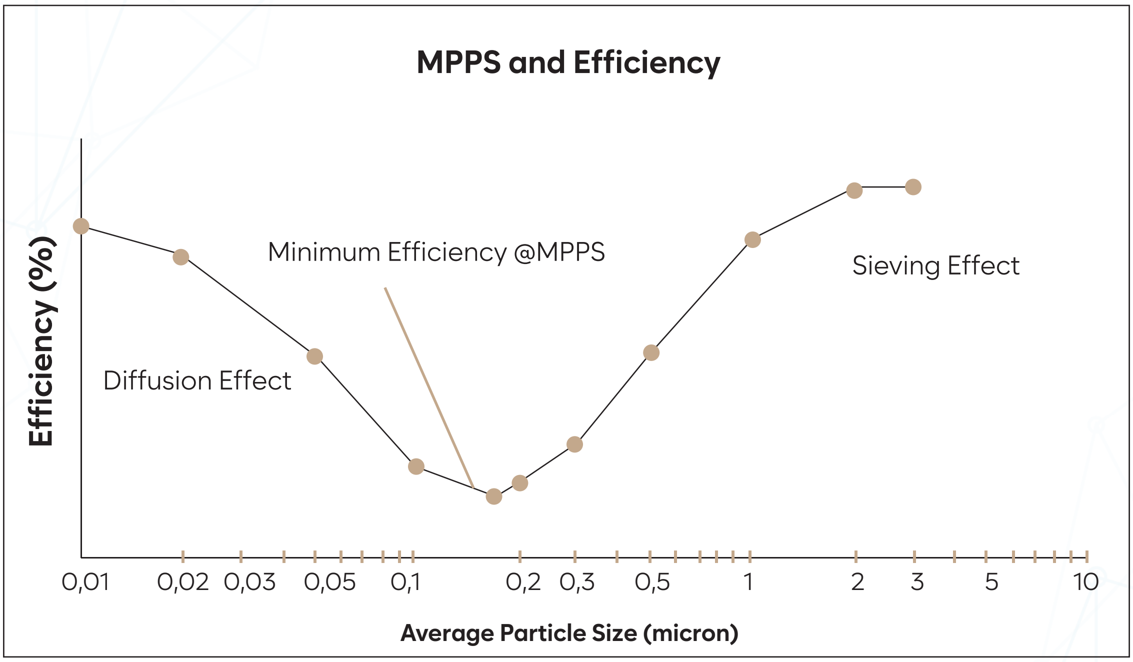


1: Faceguard
2: Glass Fiber Mini-Pleat
3: Gasket
4: Polyurethane
5: Frame
6: Faceguard

Understanding Most Penetrating Particle Size (MPPS)

Most Penetrating Particle Size (MPPS) refers to the particle size that is most difficult to capture. The MPPS is important to consider when choosing an air filter, as it is the worst-case scenario for particle removal efficiency. For HEPA filters MPPS is generally between 0.1-0.2 microns. The standard determines efficiency based on this critical value. We can say that particles smaller or larger than MPPS are captured at higher efficiency compared to MPPS efficiency.

There are several factors that can affect the MPPS of a filter, including the type of filter media, the thickness of the filter media, and the air velocity passing through the filtration media.



HEPA Filter Efficiency

The minimum efficiency of HEPA filters are 99.95% for class H13 and 99.995% for class H14 at most penetrating particle size (MPPS) according to the EN1822 standard.

We can give an example to explain what removal efficiency means;

The maximum number of particles that can pass through H14 filter is 5 from 100,000 particles of MPPS (0,005×100.000)/100 =5)
The maximum number of particles that can pass through H13 filter is 50 from 100,000 particles of MPPS (0,05×100.000)/100 =50)

EN1822 and ISO29463: HEPA Filter Tests and Standards

EN 1822, a European standard, provides a detailed classification system for HEPA and ULPA filters based on their filtration efficiency and ability to capture particles of various sizes. It outlines testing methods such as the leak test, the efficiency test, and the scanning test to ensure the filters meet their specified performance criteria.

ISO 29463, on the other hand, is an international standard that was derived from and is largely harmonized with EN 1822. It consists of a series of standards (ISO 29463-1 to ISO 29463-5) that cover the general requirements, test procedures, performance classification, and marking of HEPA and ULPA filters in a global context. The purpose of ISO 29463 is to establish a uniform international standard, making it easier for manufacturers and customers to compare and select filters that meet their specific needs.

ISO 29463														EN1822-1: 2009
Class	Group	Overall Value		Local Value		Overall Efficiency Test		Local Efficiency Test (As agreed between supplier and customer)						
ISO 15	E	≥95	≤5	–	–	●	●	Group E filters not tested for classification.						E11
ISO 20	E	≥99	≤1	–	–	●	●							–
ISO 25	E	≥99,5	≤0,5	–	–	●	●							E12
ISO 30	E	≥99,9	≤0,1	–	–	●	●							–
ISO 35	H	≥99,95	≤0,05	≥99,75	≥0,25	●	●	●	●	●	●	●	●	H13
ISO 40	H	≥99,99	≤0,01	≥99,95	≥0,05	●	●	●	●	●	●	–	–	–
ISO 45	H	≥99,995	≤0,005	≥99,975	≥0,025	●	●	●	●	●	●	–	–	H14
ISO 50	U	≥99,999	≤0,001	≥99,995	≥0,005	●	●	●	–	–	●	–	–	–
ISO 55	U	≥99,9995	≤0,0005	≥99,9975	≥0,0025	●	●	●	–	–	●	–	–	U15
ISO 60	U	≥99,9999	≤0,0001	≥99,9995	≥0,0005	●	●	●	–	–	●	–	–	–
ISO 65	U	≥99,99995	≤0,00005	≥99,99975	≥0,00025	●	●	●	–	–	●	–	–	U16
ISO 70	U	≥99,99999	≤0,00001	≥99,9999	≥0,0001	●	●	●	–	–	●	–	–	–
ISO 75	U	≥99,999995	≤0,000005	≥99,9999	≥0,0001	●	●	●	–	–	●	–	–	U17
Test Methods: Efficiency/Leak Tests:At Rated Airflow Efficiency Tests:At MPPS (Most Penetrating Particle Size)				● Statistical efficiency test may be performed. ● Each filter tested.		ISO29463-4	ISO29463-5	ISO29463-4						
								Annex C	Annex A	Annex B	Annex E	Annex F	Annex G	
						Test with Movable Probe	Test with Static Probe	Scan Test at MPPS	Oil Thread Leak Test	Photo-meter Leak Test	PSL Leak Test	0.3-0.5 µm Leak Test	Photo-meter Overall Test	Scan Tests per EN1822

BS EN 1822-1: 2019 – High efficiency air filters (EPA, HEPA and ULPA) – Part 1: Classification, performance testing, marking

This part of standard applies to high efficiency particulate and ultra-low penetration air filters (EPA, HEPA and ULPA) used in the field of ventilation and air conditioning and for technical processes, e.g. for applications in clean room technology or pharmaceutical industry. It establishes a procedure for the determination of the efficiency on the basis of a particle counting method using a liquid (or alternatively a solid) test aerosol and allows a standardized classification of these filters in terms of their efficiency, both local and integral efficiency.

ISO 29463: New test standard for HEPA Filters

Originating from EN 1822, ISO 29463 introduces a novel standard that outlines 13 distinct filter categories, spanning from ISO 15 E to ISO 75 U. At the European level, the modified version of EN 1822-1 "Classification, performance testing, marking" will still be applicable. This revised standard will refer to sections 2-5 of ISO 29463. In simpler terms, EN 1822 will employ its unique classification system (Part 1) for air filters, while testing them according to ISO 29463 Parts 2-5. Nonetheless, there will be a slight variation in the leakage test methods specified by the two standards. While ISO 29463:2017 Part 1 details five methods, EN 1822 Part 1 only includes three.

EN 1822 Part 1 sets more stringent criteria for leak testing air particulate filters compared to ISO 29463. The former specifically prohibits the use of aerosol photometers. Concerning the allowance of PSL leak testing, the standard's clarity is lacking. Part 1, Paragraph 7.3 mentions: "Possible aerosol substances include but are not limited to DEHS, PAO, and PSL". Although this reference seemingly permits PSL testing, its practical significance is limited. PSL test procedures are highly expensive, resulting in their infrequent application.

As mentioned earlier, ISO 29463 retains the EPA, HEPA, and ULPA filter classifications outlined in EN 1822. The evaluation process in the new ISO standard also relies on particle arrestance at MPPS (Most Penetrating Particle Size), which represents the particle size at which an air filter exhibits minimal arrestance.

ISO 29463 begins with the filter group ISO 15 E, equivalent to filter class E11 as per EN 1822. This means there is no direct counterpart for the EPA filter class E10. In contrast, the test standard ISO 16890 features the filter group ISO ePM1 >95%, which serves as an equivalent to filter class E10.

EN ISO 14644-1

ISO 14644-1 defines the classification of air cleanliness in cleanrooms and associated controlled environments exclusively in terms of concentration of airborne particles. Only particle populations having cumulative distributions based on threshold (lower limit) particle sizes ranging from 0,1 µm to 5 µm are considered for classification purposes.

Cleanroom Classification

ISO Class Number	Maximum allowable concentrations (particles/m³) for particles equal to and greater than the considered sizes (a)						Fed Std.209 (Class)
	0,1 µm	0,2 µm	0,3 µm	0,5 µm	1,0 µm	5,0 µm	particles/ft³
ISO 1	10	(d)	(d)	(d)	(d)	(e)	-
ISO 2	100	24(b)	10(b)	(d)	(d)	(e)	-
ISO 3	1.000	237	102	35(b)	(d)	(e)	1
ISO 4	10.000	2.370	1.020	352	83(b)	(e)	10
ISO 5	100.000	23.700	10.200	3.520	832	(d), (e), (f)	100
ISO 6	1.000.000	237.000	102.000	35.200	8.320	293	1.000
ISO 7	(c)	(c)	(c)	352.000	83.200	2.930	10.000
ISO 8	(c)	(c)	(c)	3.520.000	832.000	29.300	100.000
ISO 9	(c)	(c)	(c)	35.200.000	8.320.000	293.000	-

Top Questions On Your Mind

1.) Can HEPA filters be cleaned?

HEPA filters are designed for single use. However, there are some specially laminated HEPA filters that can be cleaned with pressurized air systems like Jet-Pulse. Aside from these, conventional HEPA filters commonly in use cannot be cleaned.

2.) What is the best gasket type for HEPA filters?

The gasket type for HEPA filters shouldn't be assessed independently. The sealing surface of the housing where the HEPA filter will be installed must be fully compatible with the gasket. For instance, gel-type filters are suitable for knife-edge sealing surfaces, while PU foam or EPDM is appropriate for flat surfaces. For surfaces with a test groove, either gel or flat EPDM gasketed HEPA filters should be used. Having the filter and housing manufactured by the same producer reduces potential leakage risks.

3.) How long should HEPA filters be used? When should they be replaced?

Under conditions without high contaminant concentrations, HEPA filters can have an indefinite lifespan depending on their operating conditions. As a general guideline, a lifespan of 10 years including shelf life is recommended. We've observed some Ulpatek HEPA filters in the market still functioning without issues within this period. Factors influencing the filter's service life include: the volume of outdoor and re-circulated air filtered, frequency and duration of aerosol challenge exposure, total amount of aerosol impingement on the filter, method of aerosol introduction to the system, and the efficiency of pre-filtration. While there isn't a strict standard on this, some pharmaceutical companies recommend 5 years lifespan for critical areas and 7 years for other areas in their guidelines.

4.) What is the recommended final pressure for HEPA filters?

For energy efficiency, the advised end-of-life differential pressure value for HEPA and ULPA filters is twice the initial pressure of the filter. Depending on the end user, this value can range between 300-600Pa.

5.) What is the shelf life of an unused HEPA/ULPA filter?

Ulpatek recommends a shelf life of up to 3 years. For filters stored beyond this period, a risk analysis should be performed before use. In any case, filters should be stored in their original packaging in a cool and dry environment away from extreme temperature and humidity conditions.

6.) Can HEPA/ULPA filters be repaired?

Filters can be repaired to specific limits both at the factory and in the field. Recommendations for repair in the factory can be found in the following standards:
IEST RP-CC001.5
IEST RP-CC034.4
ISO 29463
Additionally, ISO 14644-3 allows the customer and supplier to mutually agree upon the allowable repair size.

7.) How are ULPA filters tested?

According to ISO 29463, filters with an efficiency starting from ISO 50 (U15) should be tested for efficiency using the ISO 29463 Scan Test at MPPS.

8.) Which standards should be considered for testing HEPA filters?

EN 1822, ISO 29463, IEST-RP-CC001 and IEST-RP-CC034 are international standards related to air filtration, specifically focusing on high-efficiency particulate air (HEPA) and ultra-low penetration air (ULPA) filters. These standards define the requirements and test procedures for the classification, performance, and marking of these filters at factory.
ISO14644-3:2019 which Portions of the test methods have been adapted from IEST-RP-CC034.4 specifies procedures for the leakage test of installed HEPA filters.

9.) Is there a specific direction of use for HEPA filters?

Conventional micro glass fiber has a homogeneous structure, and both of its surfaces possess identical properties, there might indeed be no specific airflow direction required for HEPA filters produce by this filtration media. However, when an additional component or surface feature, like lamination, is used the direction of airflow becomes important.

10.) Why MDF-Framed HEPA Filters Have a Recommended Usage of One Year?

HEPA filters with MDF (Medium Density Fiberboard) frames present certain concerns, especially in humid environments. The natural fibrous structure of MDF allows for the absorption of moisture, creating a conducive environment for the growth of microorganisms. Prolonged exposure to humidity can also lead to the formation of micro-cracks in the MDF structure. These cracks can directly impact filter performance, as they may hinder the proper flow of air through the filter or cause leakages. Due to these reasons, the recommended usage duration for MDF-framed HEPA filters is one year.

HEPA CEILING FILTER

(ALUMINIUM FRAME)

Applications:
Final filter for cleanrooms and LAF Units
Life science
Healthcare
Microelectronics
Food & Beverages

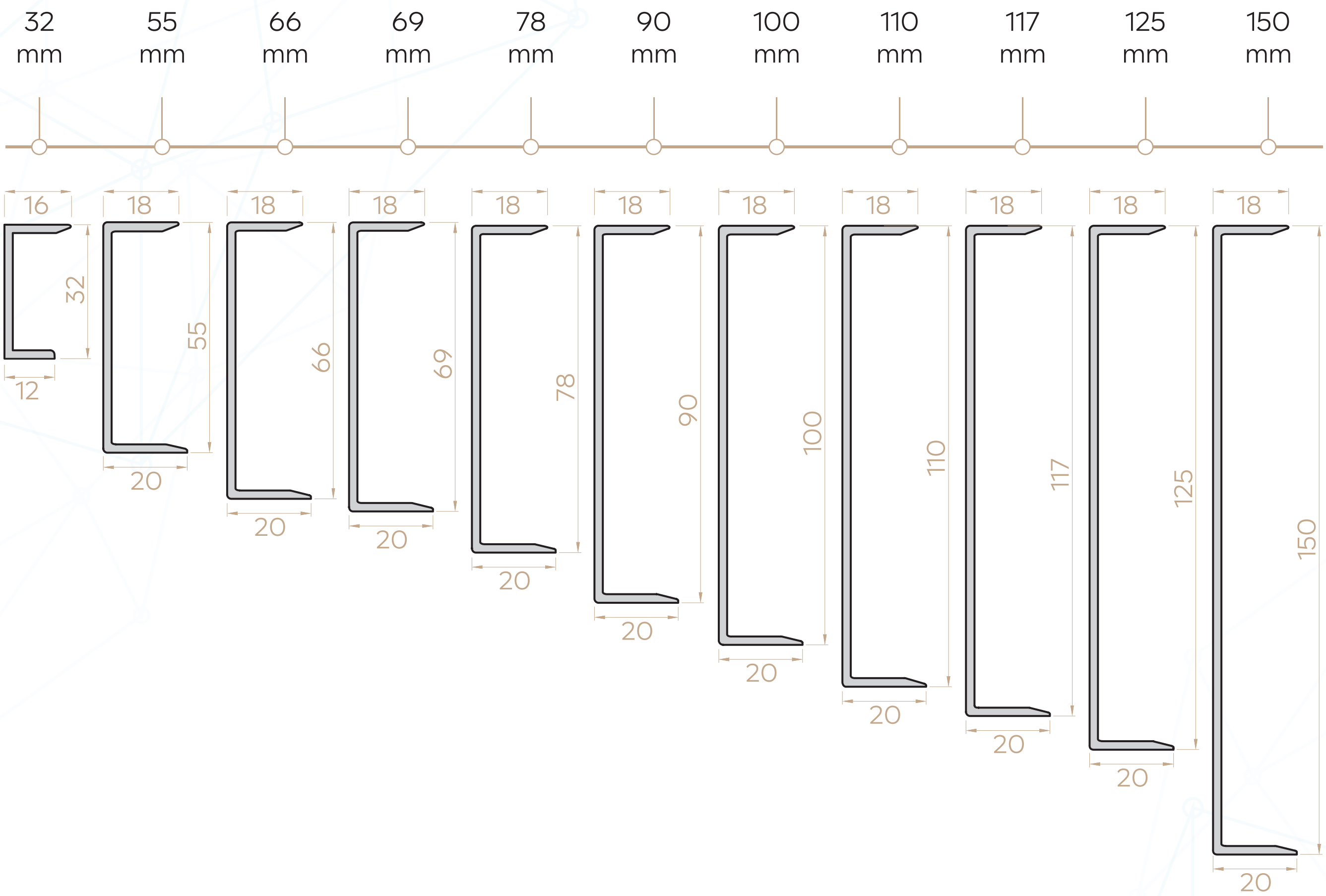
Highlights:

- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution
- Less energy consumption
- Suitable for HEPA Boxes and Cabinets

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	H13 - H14	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	EPDM flat, EPDM flat continuous and PU foam
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

Secure and Seal: HEPA Ceiling Filters in Leak-Proof Aluminum Frames

HEPA Ceiling Filters ensure a leak-proof design that offers superior performance and durability. Please review the detailed profile drawing for a comprehensive understanding of the filter frame's dimensions and design features. This will assist in choosing the perfect filter for your specific requirements.



*The technical drawings above represent standard Ulpatek aluminium profiles. Special aluminium profile designs can be manufactured based on customer requests, and aluminum profiles with varying depths can be produced. Both mold costs and production times may vary. Please discuss this matter with your sales representative.

GASKET

PU Foam Gasket

EPDM Gasket

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HC-H13-A-0-305-305-55-FB-P	H13	ISO 35 H	305x305x55	1,8	35	150	140
HC-H13-A-0-305-610-55-FB-P	H13	ISO 35 H	305x610x55	3,4	35	300	140
HC-H13-A-0-457-457-55-FB-P	H13	ISO 35 H	457x457x55	3,8	35	340	140
HC-H13-A-0-610-610-55-FB-P	H13	ISO 35 H	610x610x55	6,9	35	600	140
HC-H13-A-0-610-915-55-FB-P	H13	ISO 35 H	610x915x55	10,3	35	900	140
HC-H13-A-0-610-1220-55-FB-P	H13	ISO 35 H	610x1220x55	13,7	35	1200	140
HC-H13-A-0-610-1525-55-FB-P	H13	ISO 35 H	610x1525x55	17,1	35	1500	140
HC-H13-A-0-610-1830-55-FB-P	H13	ISO 35 H	610x1830x55	20,6	35	1800	140
HC-H14-A-0-305-305-55-FB-P	H14	ISO 45 H	305x305x55	1,8	35	150	180
HC-H14-A-0-305-610-55-FB-P	H14	ISO 45 H	305x610x55	3,4	35	300	180
HC-H14-A-0-457-457-55-FB-P	H14	ISO 45 H	457x457x55	3,8	35	340	180
HC-H14-A-0-610-610-55-FB-P	H14	ISO 45 H	610x610x55	6,9	35	600	180
HC-H14-A-0-610-915-55-FB-P	H14	ISO 45 H	610x915x55	10,3	35	900	180
HC-H14-A-0-610-1220-55-FB-P	H14	ISO 45 H	610x1220x55	13,7	35	1200	180
HC-H14-A-0-610-1525-55-FB-P	H14	ISO 45 H	610x1525x55	17,1	35	1500	180
HC-H14-A-0-610-1830-55-FB-P	H14	ISO 45 H	610x1830x55	20,6	35	1800	180

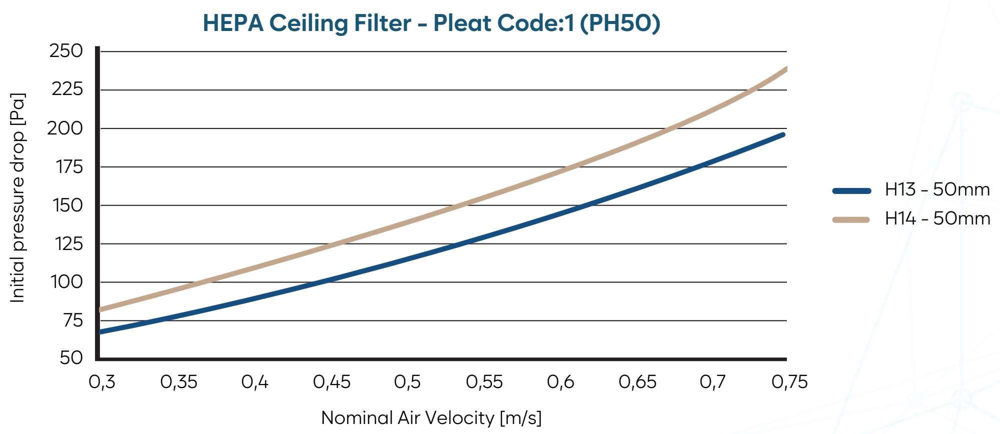
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HEPA CEILING FILTER (ALUMINIUM FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Dimensions (mm)	Faceguard	Gasket
HC : HEPA Ceiling Filter - Aluminium Frame	H13 H14	A: Aluminium	0: 35 mm 1: 50 mm 2: 65 mm 3: 75 mm 4: 85 mm 5: 90 mm 6: 100 mm 7: 125 mm	610x610x55	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side U: U Gasket

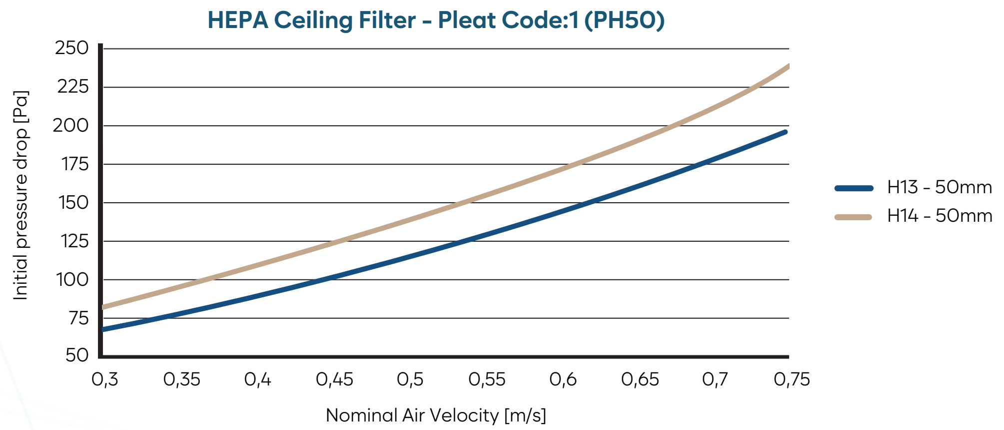
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-1-305-305-66-FB-P	H13	ISO 35 H	305x305x66	2,3	50	150	100
HC-H13-A-1-305-610-66-FB-P	H13	ISO 35 H	305x610x66	4,5	50	300	100
HC-H13-A-1-457-457-66-FB-P	H13	ISO 35 H	457x457x66	5	50	340	100
HC-H13-A-1-610-610-66-FB-P	H13	ISO 35 H	610x610x66	9	50	600	100
HC-H13-A-1-610-915-66-FB-P	H13	ISO 35 H	610x915x66	13,5	50	900	100
HC-H13-A-1-610-1220-66-FB-P	H13	ISO 35 H	610x1220x66	18	50	1200	100
HC-H13-A-1-762-915-66-FB-P	H13	ISO 35 H	762x915x66	16,9	50	1130	100
HC-H13-A-1-915-915-66-FB-P	H13	ISO 35 H	915x915x66	20,3	50	1350	100
HC-H13-A-1-610-1525-66-FB-P	H13	ISO 35 H	610x1525x66	22,5	50	1500	100
HC-H13-A-1-610-1830-66-FB-P	H13	ISO 35 H	610x1830x66	27	50	1800	100
HC-H14-A-1-305-305-66-FB-P	H14	ISO 45 H	305x305x66	2,4	50	150	125
HC-H14-A-1-305-610-66-FB-P	H14	ISO 45 H	305x610x66	4,7	50	300	125
HC-H14-A-1-457-457-66-FB-P	H14	ISO 45 H	457x457x66	5,3	50	340	125
HC-H14-A-1-610-610-66-FB-P	H14	ISO 45 H	610x610x66	9,4	50	600	125
HC-H14-A-1-610-915-66-FB-P	H14	ISO 45 H	610x915x66	14	50	900	125
HC-H14-A-1-610-1220-66-FB-P	H14	ISO 45 H	610x1220x66	18,8	50	1200	125
HC-H14-A-1-762-915-66-FB-P	H14	ISO 45 H	762x915x66	17,6	50	1130	125
HC-H14-A-1-915-915-66-FB-P	H14	ISO 45 H	915x915x66	21,2	50	1350	125
HC-H14-A-1-610-1525-66-FB-P	H14	ISO 45 H	610x1525x66	23,5	50	1500	125
HC-H14-A-1-610-1830-66-FB-P	H14	ISO 45 H	610x1830x66	28,2	50	1800	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



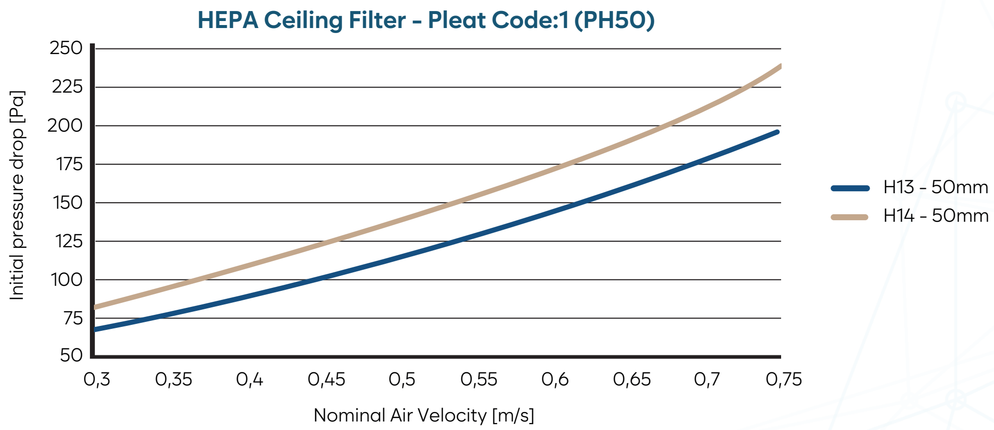
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-1-305-305-69-FB-P	H13	ISO 35 H	305x305x69	2,3	50	150	100
HC-H13-A-1-305-610-69-FB-P	H13	ISO 35 H	305x610x69	4,5	50	300	100
HC-H13-A-1-457-457-69-FB-P	H13	ISO 35 H	457x457x69	5	50	340	100
HC-H13-A-1-610-610-69-FB-P	H13	ISO 35 H	610x610x69	9	50	600	100
HC-H13-A-1-610-915-69-FB-P	H13	ISO 35 H	610x915x69	13,5	50	900	100
HC-H13-A-1-610-1220-69-FB-P	H13	ISO 35 H	610x1220x69	18	50	1200	100
HC-H13-A-1-762-915-69-FB-P	H13	ISO 35 H	762x915x69	16,9	50	1130	100
HC-H13-A-1-915-915-69-FB-P	H13	ISO 35 H	915x915x69	20,3	50	1350	100
HC-H13-A-1-610-1525-69-FB-P	H13	ISO 35 H	610x1525x69	22,5	50	1500	100
HC-H13-A-1-610-1830-69-FB-P	H13	ISO 35 H	610x1830x69	27	50	1800	100
HC-H14-A-1-305-305-69-FB-P	H14	ISO 45 H	305x305x69	2,4	50	150	125
HC-H14-A-1-305-610-69-FB-P	H14	ISO 45 H	305x610x69	4,7	50	300	125
HC-H14-A-1-457-457-69-FB-P	H14	ISO 45 H	457x457x69	5,3	50	340	125
HC-H14-A-1-610-610-69-FB-P	H14	ISO 45 H	610x610x69	9,4	50	600	125
HC-H14-A-1-610-915-69-FB-P	H14	ISO 45 H	610x915x69	14	50	900	125
HC-H14-A-1-610-1220-69-FB-P	H14	ISO 45 H	610x1220x69	18,8	50	1200	125
HC-H14-A-1-762-915-69-FB-P	H14	ISO 45 H	762x915x69	17,6	50	1130	125
HC-H14-A-1-915-915-69-FB-P	H14	ISO 45 H	915x915x69	21,2	50	1350	125
HC-H14-A-1-610-1525-69-FB-P	H14	ISO 45 H	610x1525x69	23,5	50	1500	125
HC-H14-A-1-610-1830-69-FB-P	H14	ISO 45 H	610x1830x69	28,2	50	1800	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



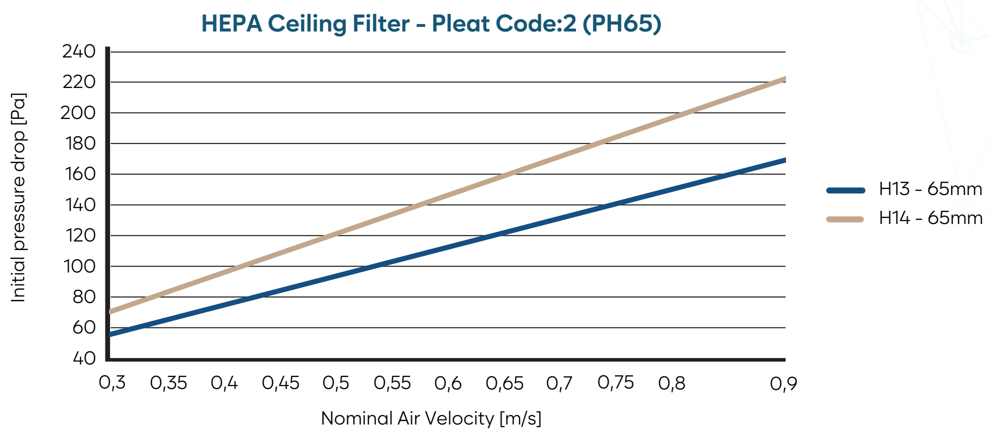
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HC-H13-A-1-305-305-78-FB-P	H13	ISO 35 H	305x305x78	2,3	50	150	100
HC-H13-A-1-305-610-78-FB-P	H13	ISO 35 H	305x610x78	4,5	50	300	100
HC-H13-A-1-457-457-78-FB-P	H13	ISO 35 H	457x457x78	5	50	340	100
HC-H13-A-1-610-610-78-FB-P	H13	ISO 35 H	610x610x78	9	50	600	100
HC-H13-A-1-610-915-78-FB-P	H13	ISO 35 H	610x915x78	13,5	50	900	100
HC-H13-A-1-610-1220-78-FB-P	H13	ISO 35 H	610x1220x78	18	50	1200	100
HC-H13-A-1-762-915-78-FB-P	H13	ISO 35 H	762x915x78	16,9	50	1130	100
HC-H13-A-1-915-915-78-FB-P	H13	ISO 35 H	915x915x78	20,3	50	1350	100
HC-H13-A-1-610-1525-78-FB-P	H13	ISO 35 H	610x1525x78	22,5	50	1500	100
HC-H13-A-1-610-1830-78-FB-P	H13	ISO 35 H	610x1830x78	27	50	1800	100
HC-H14-A-1-305-305-78-FB-P	H14	ISO 45 H	305x305x78	2,4	50	150	125
HC-H14-A-1-305-610-78-FB-P	H14	ISO 45 H	305x610x78	4,7	50	300	125
HC-H14-A-1-457-457-78-FB-P	H14	ISO 45 H	457x457x78	5,3	50	340	125
HC-H14-A-1-610-610-78-FB-P	H14	ISO 45 H	610x610x78	9,4	50	600	125
HC-H14-A-1-610-915-78-FB-P	H14	ISO 45 H	610x915x78	14	50	900	125
HC-H14-A-1-610-1220-78-FB-P	H14	ISO 45 H	610x1220x78	18,8	50	1200	125
HC-H14-A-1-762-915-78-FB-P	H14	ISO 45 H	762x915x78	17,6	50	1130	125
HC-H14-A-1-915-915-78-FB-P	H14	ISO 45 H	915x915x78	21,2	50	1350	125
HC-H14-A-1-610-1525-78-FB-P	H14	ISO 45 H	610x1525x78	23,5	50	1500	125
HC-H14-A-1-610-1830-78-FB-P	H14	ISO 45 H	610x1830x78	28,2	50	1800	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



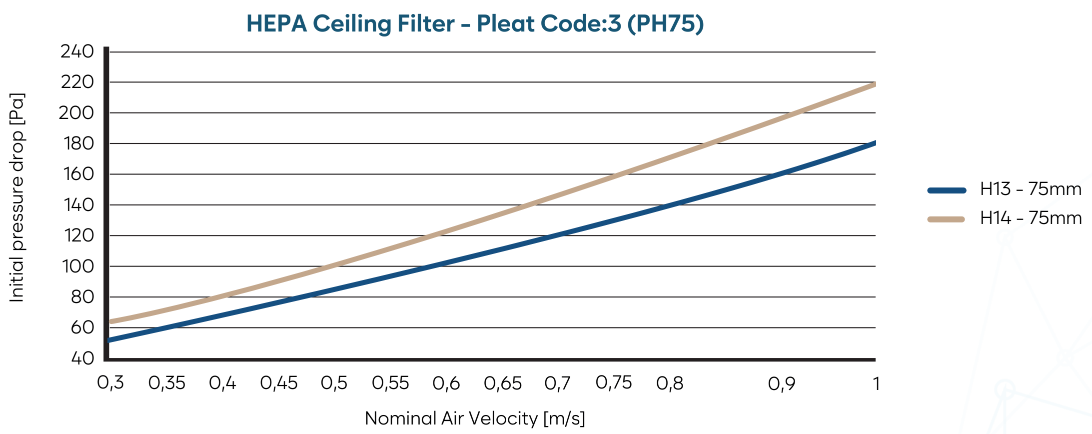
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-A-2-305-305-90-FB-P	H13	ISO 35 H	305x305x90	2,9	65	150	85
HC-H13-A-2-305-610-90-FB-P	H13	ISO 35 H	305x610x90	5,8	65	300	85
HC-H13-A-2-457-457-90-FB-P	H13	ISO 35 H	457x457x90	6,6	65	340	85
HC-H13-A-2-610-610-90-FB-P	H13	ISO 35 H	610x610x90	11,7	65	600	85
HC-H13-A-2-610-915-90-FB-P	H13	ISO 35 H	610x915x90	17,5	65	900	85
HC-H13-A-2-610-1220-90-FB-P	H13	ISO 35 H	610x1220x90	23,4	65	1200	85
HC-H14-A-2-305-305-90-FB-P	H14	ISO 45 H	305x305x90	3	65	150	110
HC-H14-A-2-305-610-90-FB-P	H14	ISO 45 H	305x610x90	6	65	300	110
HC-H14-A-2-457-457-90-FB-P	H14	ISO 45 H	457x457x90	6,9	65	340	110
HC-H14-A-2-610-610-90-FB-P	H14	ISO 45 H	610x610x90	12,2	65	600	110
HC-H14-A-2-610-915-90-FB-P	H14	ISO 45 H	610x915x90	18,3	65	900	110
HC-H14-A-2-610-1220-90-FB-P	H14	ISO 45 H	610x1220x90	23,4	65	1200	110

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-3-305-305-100-FB-P	H13	ISO 35 H	305x305x100	3,4	75	150	75
HC-H13-A-3-305-610-100-FB-P	H13	ISO 35 H	305x610x100	6,8	75	300	75
HC-H13-A-3-457-457-100-FB-P	H13	ISO 35 H	457x457x100	7,6	75	340	75
HC-H13-A-3-610-610-100-FB-P	H13	ISO 35 H	610x610x100	13,5	75	600	75
HC-H13-A-3-610-915-100-FB-P	H13	ISO 35 H	610x915x100	20,3	75	900	75
HC-H13-A-3-610-1220-100-FB-P	H13	ISO 35 H	610x1220x100	27	75	1200	75
HC-H14-A-3-305-305-100-FB-P	H14	ISO 45 H	305x305x100	3,5	75	150	90
HC-H14-A-3-305-610-100-FB-P	H14	ISO 45 H	305x610x100	7	75	300	90
HC-H14-A-3-457-457-100-FB-P	H14	ISO 45 H	457x457x100	7,9	75	340	90
HC-H14-A-3-610-610-100-FB-P	H14	ISO 45 H	610x610x100	14	75	600	90
HC-H14-A-3-610-915-100-FB-P	H14	ISO 45 H	610x915x100	21,2	75	900	90
HC-H14-A-3-610-1220-100-FB-P	H14	ISO 45 H	610x1220x100	28,2	75	1200	90

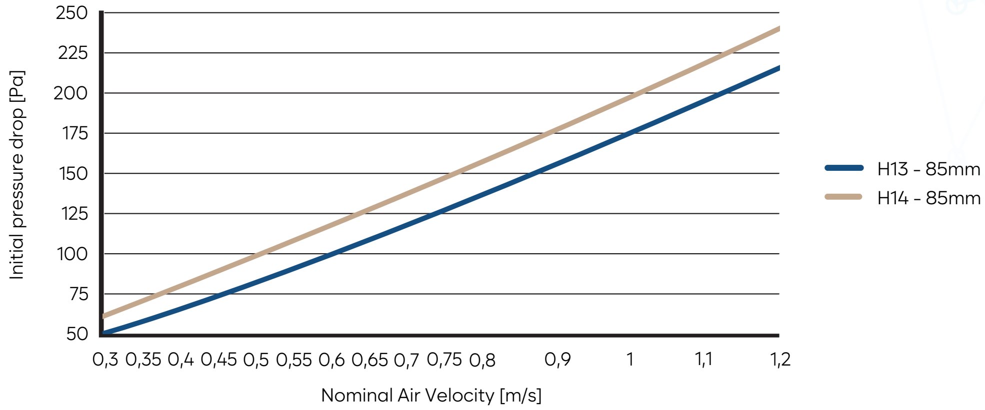
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-4-305-305-110-FB-P	H13	ISO 35 H	305x305x110	3,8	85	150	70
HC-H13-A-4-305-610-110-FB-P	H13	ISO 35 H	305x610x110	7,6	85	300	70
HC-H13-A-4-457-457-110-FB-P	H13	ISO 35 H	457x457x110	8,6	85	340	70
HC-H13-A-4-610-610-110-FB-P	H13	ISO 35 H	610x610x110	15,3	85	600	70
HC-H13-A-4-610-915-110-FB-P	H13	ISO 35 H	610x915x110	22,9	85	900	70
HC-H13-A-4-610-1220-110-FB-P	H13	ISO 35 H	610x1220x110	30,6	85	1200	70
HC-H14-A-4-305-305-110-FB-P	H14	ISO 45 H	305x305x110	4	85	150	85
HC-H14-A-4-305-610-110-FB-P	H13	ISO 45 H	305x610x110	8	85	300	85
HC-H14-A-4-457-457-110-FB-P	H14	ISO 45 H	457x457x110	9	85	340	85
HC-H14-A-4-610-610-110-FB-P	H14	ISO 45 H	610x610x110	16	85	600	85
HC-H14-A-4-610-915-110-FB-P	H14	ISO 45 H	610x915x110	24	85	900	85
HC-H14-A-4-610-1220-110-FB-P	H14	ISO 45 H	610x1220x110	32	85	1200	85

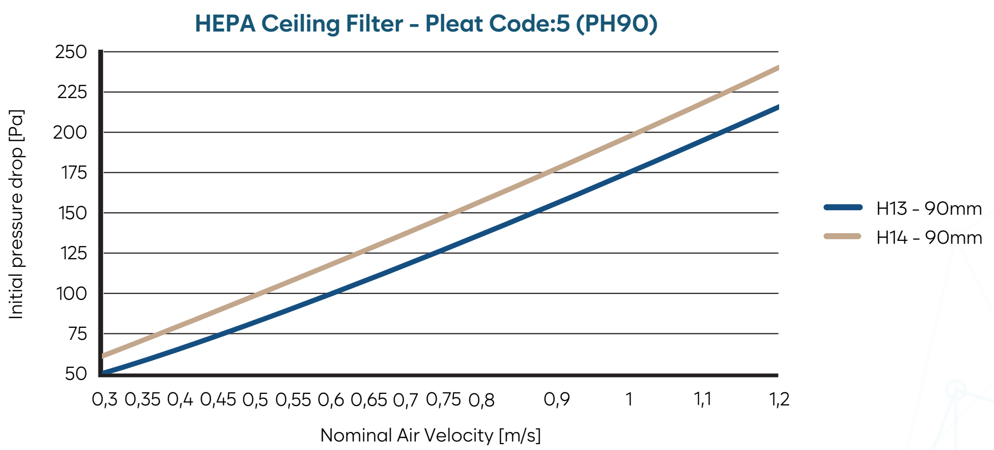
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HEPA Ceiling Filter - Pleat Code:4 (PH85)



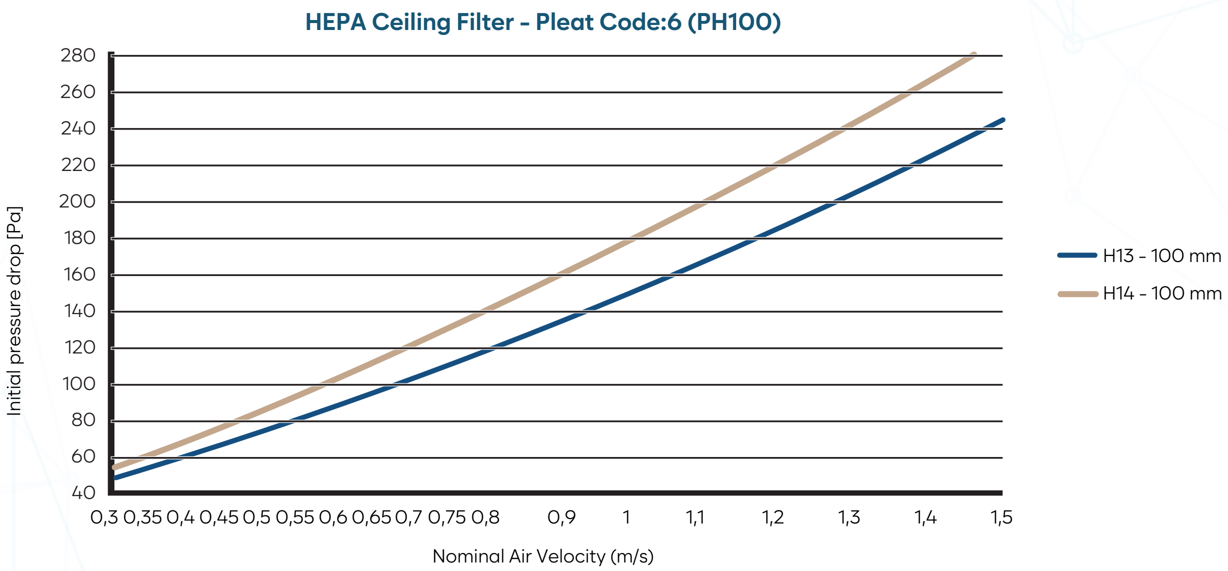
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-5-305-305-117-FB-P	H13	ISO 35 H	305x305x117	3,8	90	150	70
HC-H13-A-5-305-610-117-FB-P	H13	ISO 35 H	305x610x117	7,6	90	300	70
HC-H13-A-5-457-457-117-FB-P	H13	ISO 35 H	457x457x117	8,6	90	340	70
HC-H13-A-5-610-610-117-FB-P	H13	ISO 35 H	610x610x117	15,3	90	600	70
HC-H13-A-5-610-915-117-FB-P	H13	ISO 35 H	610x915x117	22,9	90	900	70
HC-H13-A-5-610-1220-117-FB-P	H13	ISO 35 H	610x1220x117	30,6	90	1200	70
HC-H14-A-5-305-305-117-FB-P	H14	ISO 45 H	305x305x117	4	90	150	85
HC-H14-A-5-305-610-117-FB-P	H14	ISO 45 H	305x610x117	8	90	300	85
HC-H14-A-5-457-457-117-FB-P	H14	ISO 45 H	457x457x117	9	90	340	85
HC-H14-A-5-610-610-117-FB-P	H14	ISO 45 H	610x610x117	16	90	600	85
HC-H14-A-5-610-915-117-FB-P	H14	ISO 45 H	610x915x117	24	90	900	85
HC-H14-A-5-610-1220-117-FB-P	H14	ISO 45 H	610x1220x117	32	90	1200	85

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



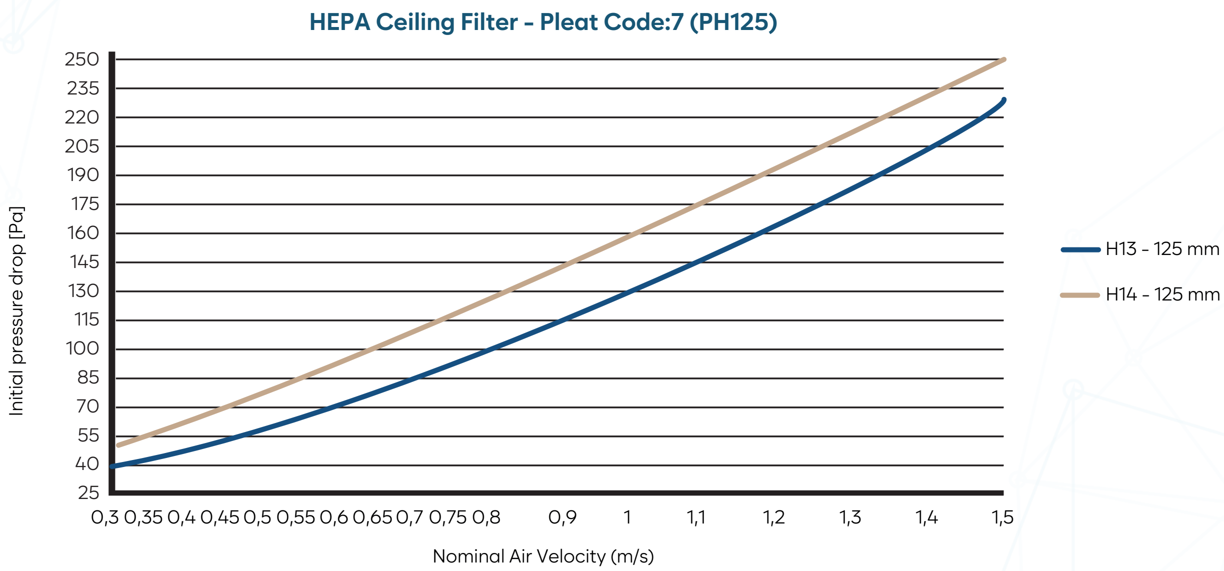
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-A-6-305-305-125-FB-P	H13	ISO 35 H	305x305x125	4,5	100	150	65
HC-H13-A-6-305-610-125-FB-P	H13	ISO 35 H	305x610x125	9	100	300	65
HC-H13-A-6-457-457-125-FB-P	H13	ISO 35 H	457x457x125	10	100	340	65
HC-H13-A-6-610-610-125-FB-P	H13	ISO 35 H	610x610x125	18	100	600	65
HC-H13-A-6-610-915-125-FB-P	H13	ISO 35 H	610x915x125	27	100	900	65
HC-H13-A-6-610-1220-125-FB-P	H13	ISO 35 H	610x1220x125	36	100	1200	65
HC-H14-A-6-305-305-125-FB-P	H14	ISO 45 H	305x305x125	4,7	100	150	80
HC-H14-A-6-305-610-125-FB-P	H14	ISO 45 H	305x610x125	9,4	100	300	80
HC-H14-A-6-457-457-125-FB-P	H14	ISO 45 H	457x457x125	10,5	100	340	80
HC-H14-A-6-610-610-125-FB-P	H14	ISO 45 H	610x610x125	18,8	100	600	80
HC-H14-A-6-610-915-125-FB-P	H14	ISO 45 H	610x915x125	28,2	100	900	80
HC-H14-A-6-610-1220-125-FB-P	H14	ISO 45 H	610x1220x125	37,6	100	1200	80

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-A-7-305-305-150-FB-P	H13	ISO 35 H	305x305x150	5,6	125	150	55
HC-H13-A-7-305-610-150-FB-P	H13	ISO 35 H	305x610x150	11,3	125	300	55
HC-H13-A-7-457-457-150-FB-P	H13	ISO 35 H	457x457x150	12,6	125	340	55
HC-H13-A-7-610-610-150-FB-P	H13	ISO 35 H	610x610x150	22,5	125	600	55
HC-H13-A-7-610-915-150-FB-P	H13	ISO 35 H	610x915x150	33,8	125	900	55
HC-H13-A-7-610-1220-150-FB-P	H13	ISO 35 H	610x1220x150	45	125	1200	55
HC-H14-A-7-305-305-150-FB-P	H14	ISO 45 H	305x305x150	5,9	125	150	70
HC-H14-A-7-305-610-150-FB-P	H14	ISO 45 H	305x610x150	11,8	125	300	70
HC-H14-A-7-457-457-150-FB-P	H14	ISO 45 H	457x457x150	13,2	125	340	70
HC-H14-A-7-610-610-150-FB-P	H14	ISO 45 H	610x610x150	23,5	125	600	70
HC-H14-A-7-610-915-150-FB-P	H14	ISO 45 H	610x915x150	35,3	125	900	70
HC-H14-A-7-610-1220-150-FB-P	H14	ISO 45 H	610x1220x150	47	125	1200	70

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



ULPA CEILING FILTER

(ALUMINIUM FRAME)

Applications:
Final filter for cleanrooms
Microelectronics

Highlights:

- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution
- Suitable for HEPA Boxes and Cabinets

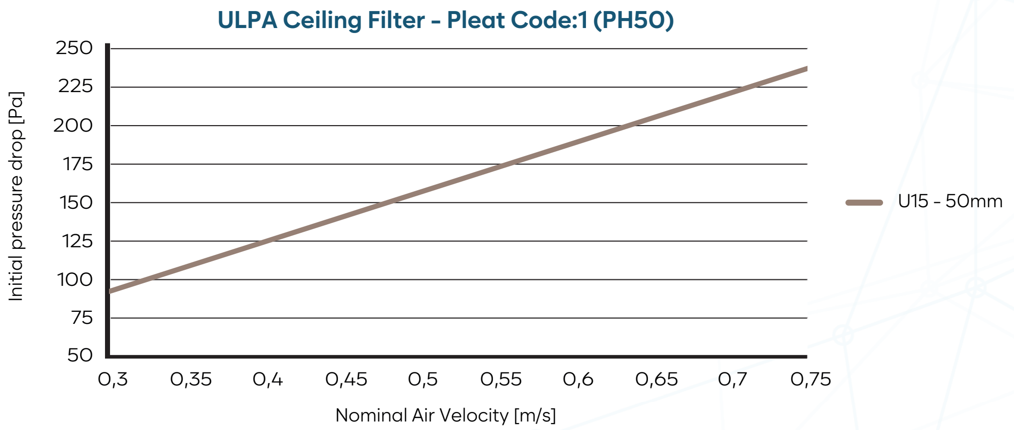
Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	U15 - U16 - U17	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	EPDM flat, EPDM flat continous and PU foam
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
UC-U15-A-1-305-305-69-FB-P	U15	ISO 55 U	305x305x69	2,5	50	150	140
UC-U15-A-1-305-610-69-FB-P	U15	ISO 55 U	305x610x69	5	50	300	140
UC-U15-A-1-457-457-69-FB-P	U15	ISO 55 U	457x457x69	5,6	50	340	140
UC-U15-A-1-610-610-69-FB-P	U15	ISO 55 U	610x610x69	10	50	600	140
UC-U15-A-1-610-915-69-FB-P	U15	ISO 55 U	610x915x69	15	50	900	140
UC-U15-A-1-610-1220-69-FB-P	U15	ISO 55 U	610x1220x69	20	50	1200	140
UC-U15-A-1-762-915-69-FB-P	U15	ISO 55 U	762x915x69	18,8	50	1130	140
UC-U15-A-1-915-915-69-FB-P	U15	ISO 55 U	915x915x69	22,5	50	1350	140
UC-U15-A-1-610-1525-69-FB-P	U15	ISO 55 U	610x1525x69	25	50	1500	140
UC-U15-A-1-610-1830-69-FB-P	U15	ISO 55 U	610x1830x69	30	50	1800	140

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

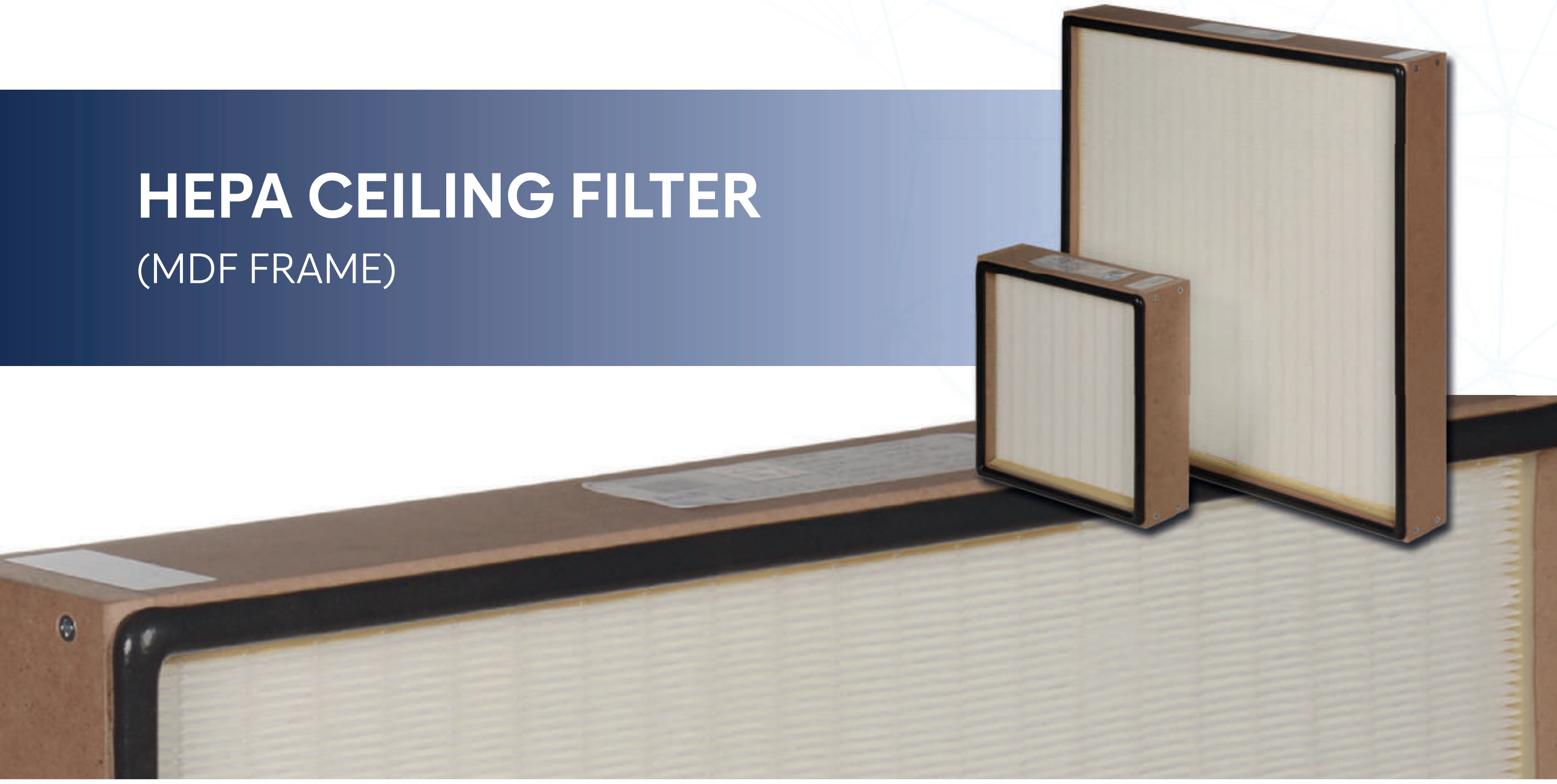
ULPA CEILING FILTER (ALUMINIUM FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Dimensions (mm)	Faceguard	Gasket
UC : ULPA Ceiling Filter Aluminium Frame	U15	A: Aluminium	1: 50 mm 2: 65 mm 3: 75 mm 4: 85 mm 5: 90 mm 6: 100 mm 7: 125 mm	610x610x69	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side U: U Gasket



HEPA CEILING FILTER

(MDF FRAME)



Applications:
Final filter for cleanrooms
Healthcare

Highlights:
- High quality glass fiber media
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Disposable
- Optimized velocity distribution
- Suitable for HEPA Boxes and Cabinets

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	H13 - H14	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	EPDM flat, EPDM flat continous and PU foam
Frame:	MDF	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

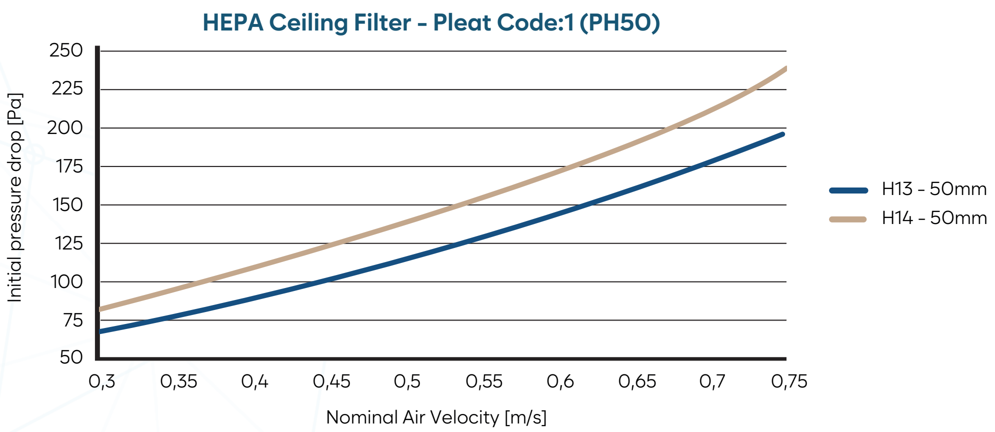
HEPA CEILING FILTER (MDF FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Dimensions (mm)	Faceguard	Gasket
HC : HEPA Ceiling Filter - MDF Frame	H13 H14	M: MDF	1: 50 mm 2: 65 mm 3: 75 mm 4: 85 mm 5: 90 mm 6: 100 mm 7: 125 mm	610x610x78	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side U: U Gasket

NOTES

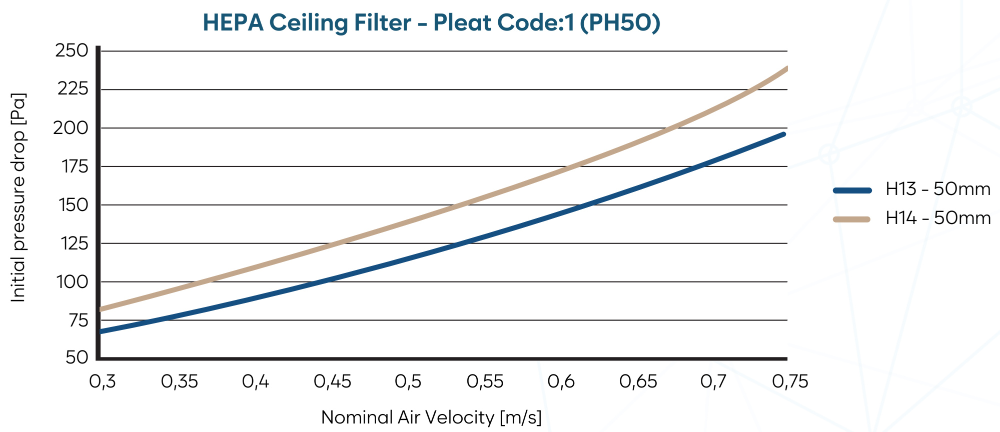
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-M-1-203-203-66-FW-P	H13	ISO 35 H	203x203x66	1	50	70	100
HC-H13-M-1-305-305-66-FW-P	H13	ISO 35 H	305x305x66	2,3	50	150	100
HC-H13-M-1-305-610-66-FW-P	H13	ISO 35 H	305x610x66	4,5	50	300	100
HC-H13-M-1-457-457-66-FW-P	H13	ISO 35 H	457x457x66	5	50	340	100
HC-H13-M-1-457-610-66-FW-P	H13	ISO 35 H	457x610x66	6,7	50	450	100
HC-H13-M-1-535-535-66-FW-P	H13	ISO 35 H	535x535x66	6,9	50	470	100
HC-H13-M-1-575-575-66-FW-P	H13	ISO 35 H	575x575x66	8	50	540	100
HC-H13-M-1-610-610-66-FW-P	H13	ISO 35 H	610x610x66	9	50	600	100
HC-H13-M-1-610-762-66-FW-P	H13	ISO 35 H	610x762x66	11,2	50	750	100
HC-H13-M-1-610-915-66-FW-P	H13	ISO 35 H	610x915x66	13,5	50	900	100
HC-H13-M-1-762-762-66-FW-P	H13	ISO 35 H	762x762x66	14	50	940	100
HC-H13-M-1-762-915-66-FW-P	H13	ISO 35 H	762x915x66	16,9	50	1130	100
HC-H13-M-1-610-1220-66-FW-P	H13	ISO 35 H	610x1220x66	18	50	1200	100
HC-H13-M-1-915-915-66-FW-P	H13	ISO 35 H	915x915x66	20,3	50	1350	100
HC-H14-M-1-203-203-66-FW-P	H14	ISO 45 H	203x203x66	1	50	70	125
HC-H14-M-1-305-305-66-FW-P	H14	ISO 45 H	305x305x66	2,4	50	150	125
HC-H14-M-1-305-610-66-FW-P	H14	ISO 45 H	305x610x66	4,7	50	300	125
HC-H14-M-1-457-457-66-FW-P	H14	ISO 45 H	457x457x66	5,3	50	340	125
HC-H14-M-1-457-610-66-FW-P	H14	ISO 45 H	457x610x66	7	50	450	125
HC-H14-M-1-535-535-66-FW-P	H14	ISO 45 H	535x535x66	7,2	50	470	125
HC-H14-M-1-575-575-66-FW-P	H14	ISO 45 H	575x575x66	8,4	50	540	125
HC-H14-M-1-610-610-66-FW-P	H14	ISO 45 H	610x610x66	9,4	50	600	125
HC-H14-M-1-610-762-66-FW-P	H14	ISO 45 H	610x762x66	11,8	50	750	125
HC-H14-M-1-610-915-66-FW-P	H14	ISO 45 H	610x915x66	14	50	900	125
HC-H14-M-1-762-762-66-FW-P	H14	ISO 45 H	762x762x66	14,7	50	940	125
HC-H14-M-1-762-915-66-FW-P	H14	ISO 45 H	762x915x66	17,6	50	1130	125
HC-H14-M-1-610-1220-66-FW-P	H14	ISO 45 H	610x1220x66	18,8	50	1200	125
HC-H14-M-1-915-915-66-FW-P	H14	ISO 45 H	915x915x66	21,2	50	1350	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



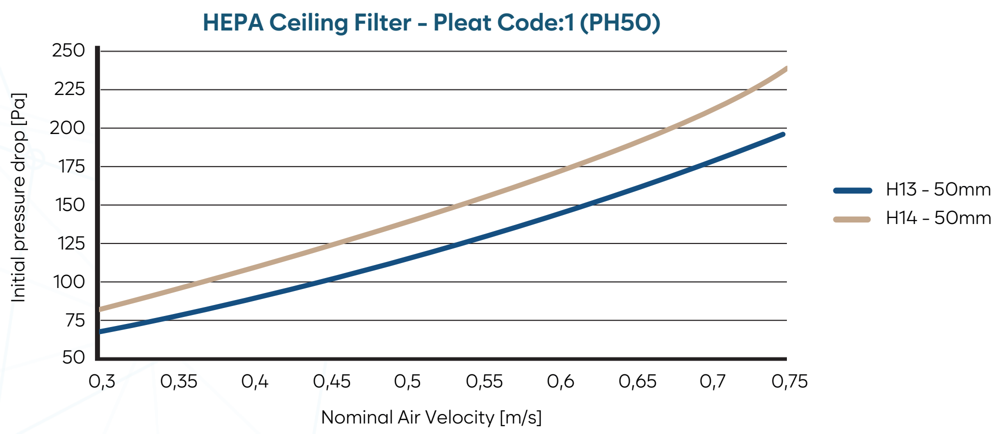
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-M-1-203-203-69-FW-P	H13	ISO 35 H	203x203x69	1	50	70	100
HC-H13-M-1-305-305-69-FW-P	H13	ISO 35 H	305x305x69	2,3	50	150	100
HC-H13-M-1-305-610-69-FW-P	H13	ISO 35 H	305x610x69	4,5	50	300	100
HC-H13-M-1-457-457-69-FW-P	H13	ISO 35 H	457x457x69	5	50	340	100
HC-H13-M-1-457-610-69-FW-P	H13	ISO 35 H	457x610x69	6,7	50	450	100
HC-H13-M-1-535-535-69-FW-P	H13	ISO 35 H	535x535x69	6,9	50	470	100
HC-H13-M-1-575-575-69-FW-P	H13	ISO 35 H	575x575x69	8	50	540	100
HC-H13-M-1-610-610-69-FW-P	H13	ISO 35 H	610x610x69	9	50	600	100
HC-H13-M-1-610-762-69-FW-P	H13	ISO 35 H	610x762x69	11,2	50	750	100
HC-H13-M-1-610-915-69-FW-P	H13	ISO 35 H	610x915x69	13,5	50	900	100
HC-H13-M-1-762-762-69-FW-P	H13	ISO 35 H	762x762x69	14	50	940	100
HC-H13-M-1-762-915-69-FW-P	H13	ISO 35 H	762x915x69	16,9	50	1130	100
HC-H13-M-1-610-1220-69-FW-P	H13	ISO 35 H	610x1220x69	18	50	1200	100
HC-H13-M-1-915-915-69-FW-P	H13	ISO 35 H	915x915x69	20,3	50	1350	100
HC-H14-M-1-203-203-69-FW-P	H14	ISO 45 H	203x203x69	1	50	70	125
HC-H14-M-1-305-305-69-FW-P	H14	ISO 45 H	305x305x69	2,4	50	150	125
HC-H14-M-1-305-610-69-FW-P	H14	ISO 45 H	305x610x69	4,7	50	300	125
HC-H14-M-1-457-457-69-FW-P	H14	ISO 45 H	457x457x69	5,3	50	340	125
HC-H14-M-1-457-610-69-FW-P	H14	ISO 45 H	457x610x69	7	50	450	125
HC-H14-M-1-535-535-69-FW-P	H14	ISO 45 H	535x535x69	7,2	50	470	125
HC-H14-M-1-575-575-69-FW-P	H14	ISO 45 H	575x575x69	8,4	50	540	125
HC-H14-M-1-610-610-69-FW-P	H14	ISO 45 H	610x610x69	9,4	50	600	125
HC-H14-M-1-610-762-69-FW-P	H14	ISO 45 H	610x762x69	11,8	50	750	125
HC-H14-M-1-610-915-69-FW-P	H14	ISO 45 H	610x915x69	14	50	900	125
HC-H14-M-1-762-762-69-FW-P	H14	ISO 45 H	762x762x69	14,7	50	940	125
HC-H14-M-1-762-915-69-FW-P	H14	ISO 45 H	762x915x69	17,6	50	1130	125
HC-H14-M-1-610-1220-69-FW-P	H14	ISO 45 H	610x1220x69	18,8	50	1200	125
HC-H14-M-1-915-915-69-FW-P	H14	ISO 45 H	915x915x69	21,2	50	1350	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



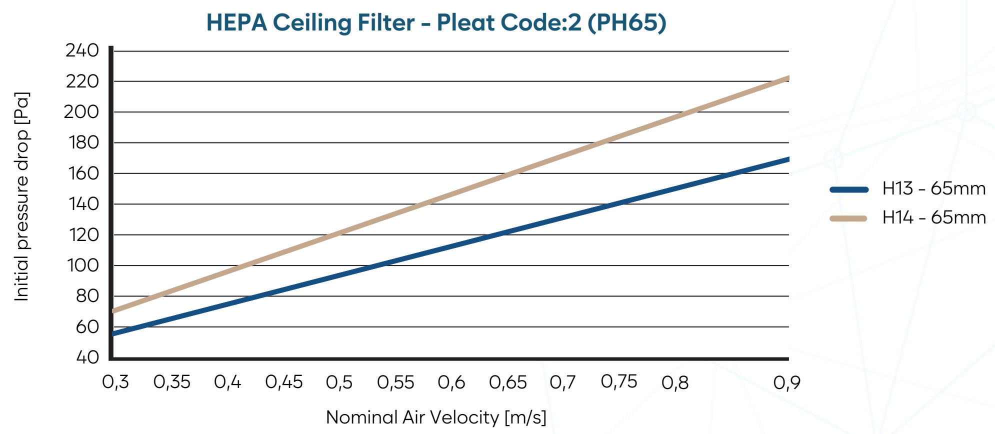
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-M-1-203-203-78-FW-P	H13	ISO 35 H	203x203x78	1	50	70	100
HC-H13-M-1-305-305-78-FW-P	H13	ISO 35 H	305x305x78	2,3	50	150	100
HC-H13-M-1-305-610-78-FW-P	H13	ISO 35 H	305x610x78	4,5	50	300	100
HC-H13-M-1-457-457-78-FW-P	H13	ISO 35 H	457x457x78	5	50	340	100
HC-H13-M-1-457-610-78-FW-P	H13	ISO 35 H	457x610x78	6,7	50	450	100
HC-H13-M-1-535-535-78-FW-P	H13	ISO 35 H	535x535x78	6,9	50	470	100
HC-H13-M-1-575-575-78-FW-P	H13	ISO 35 H	575x575x78	8	50	540	100
HC-H13-M-1-610-610-78-FW-P	H13	ISO 35 H	610x610x78	9	50	600	100
HC-H13-M-1-610-762-78-FW-P	H13	ISO 35 H	610x762x78	11,2	50	750	100
HC-H13-M-1-610-915-78-FW-P	H13	ISO 35 H	610x915x78	13,5	50	900	100
HC-H13-M-1-762-762-78-FW-P	H13	ISO 35 H	762x762x78	14	50	940	100
HC-H13-M-1-762-915-78-FW-P	H13	ISO 35 H	762x915x78	16,9	50	1130	100
HC-H13-M-1-610-1220-78-FW-P	H13	ISO 35 H	610x1220x78	18	50	1200	100
HC-H13-M-1-915-915-78-FW-P	H13	ISO 35 H	915x915x78	20,3	50	1350	100
HC-H14-M-1-203-203-78-FW-P	H14	ISO 45 H	203x203x78	1	50	70	125
HC-H14-M-1-305-305-78-FW-P	H14	ISO 45 H	305x305x78	2,4	50	150	125
HC-H14-M-1-305-610-78-FW-P	H14	ISO 45 H	305x610x78	4,7	50	300	125
HC-H14-M-1-457-457-78-FW-P	H14	ISO 45 H	457x457x78	5,3	50	340	125
HC-H14-M-1-457-610-78-FW-P	H14	ISO 45 H	457x610x78	7	50	450	125
HC-H14-M-1-535-535-78-FW-P	H14	ISO 45 H	535x535x78	7,2	50	470	125
HC-H14-M-1-575-575-78-FW-P	H14	ISO 45 H	575x575x78	8,4	50	540	125
HC-H14-M-1-610-610-78-FW-P	H14	ISO 45 H	610x610x78	9,4	50	600	125
HC-H14-M-1-610-762-78-FW-P	H14	ISO 45 H	610x762x78	11,8	50	750	125
HC-H14-M-1-610-915-78-FW-P	H14	ISO 45 H	610x915x78	14	50	900	125
HC-H14-M-1-762-762-78-FW-P	H14	ISO 45 H	762x762x78	14,7	50	940	125
HC-H14-M-1-762-915-78-FW-P	H14	ISO 45 H	762x915x78	17,6	50	1130	125
HC-H14-M-1-610-1220-78-FW-P	H14	ISO 45 H	610x1220x78	18,8	50	1200	125
HC-H14-M-1-915-915-78-FW-P	H14	ISO 45 H	915x915x78	21,2	50	1350	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



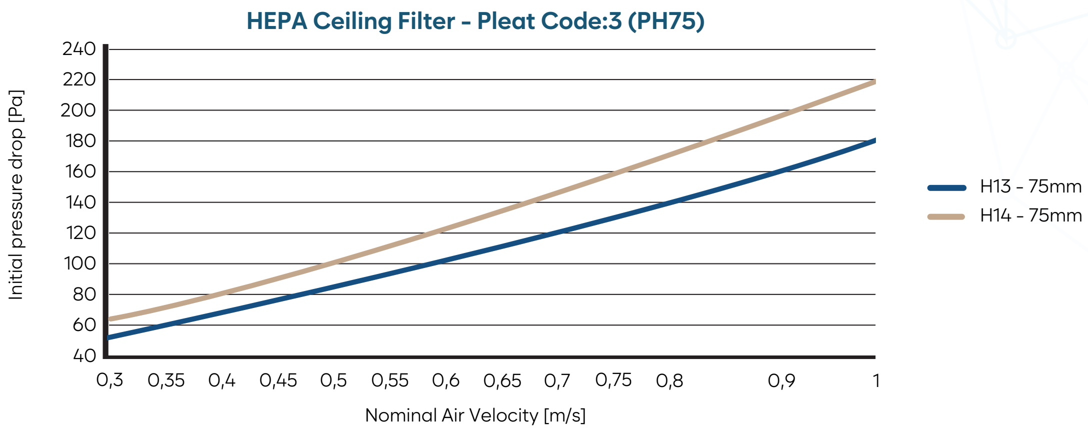
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-M-2-203-203-90-FW-P	H13	ISO 35 H	203x203x90	1,3	65	70	85
HC-H13-M-2-305-305-90-FW-P	H13	ISO 35 H	305x305x90	2,9	65	150	85
HC-H13-M-2-305-610-90-FW-P	H13	ISO 35 H	305x610x90	5,8	65	300	85
HC-H13-M-2-457-457-90-FW-P	H13	ISO 35 H	457x457x90	6,6	65	340	85
HC-H13-M-2-457-610-90-FW-P	H13	ISO 35 H	457x610x90	8,8	65	450	85
HC-H13-M-2-535-535-90-FW-P	H13	ISO 35 H	535x535x90	9	65	470	85
HC-H13-M-2-575-575-90-FW-P	H13	ISO 35 H	575x575x90	10,4	65	540	85
HC-H13-M-2-610-610-90-FW-P	H13	ISO 35 H	610x610x90	11,7	65	600	85
HC-H13-M-2-610-762-90-FW-P	H13	ISO 35 H	610x762x90	14,6	65	750	85
HC-H13-M-2-610-915-90-FW-P	H13	ISO 35 H	610x915x90	17,5	65	900	85
HC-H13-M-2-762-762-90-FW-P	H13	ISO 35 H	762x762x90	18,2	65	940	85
HC-H13-M-2-762-915-90-FW-P	H13	ISO 35 H	762x915x90	21,9	65	1130	85
HC-H13-M-2-610-1220-90-FW-P	H13	ISO 35 H	610x1220x90	23,4	65	1200	85
HC-H13-M-2-915-915-90-FW-P	H13	ISO 35 H	915x915x90	26,3	65	1350	85
HC-H14-M-2-203-203-90-FW-P	H14	ISO 45 H	203x203x90	1,4	65	70	110
HC-H14-M-2-305-305-90-FW-P	H14	ISO 45 H	305x305x90	3	65	150	110
HC-H14-M-2-305-610-90-FW-P	H14	ISO 45 H	305x610x90	6	65	300	110
HC-H14-M-2-457-457-90-FW-P	H14	ISO 45 H	457x457x90	6,9	65	340	110
HC-H14-M-2-457-610-90-FW-P	H14	ISO 45 H	457x610x90	9	65	450	110
HC-H14-M-2-535-535-90-FW-P	H14	ISO 45 H	535x535x90	9,4	65	470	110
HC-H14-M-2-575-575-90-FW-P	H14	ISO 45 H	575x575x90	10,8	65	540	110
HC-H14-M-2-610-610-90-FW-P	H14	ISO 45 H	610x610x90	12,2	65	600	110
HC-H14-M-2-610-762-90-FW-P	H14	ISO 45 H	610x762x90	15,2	65	750	110
HC-H14-M-2-610-915-90-FW-P	H14	ISO 45 H	610x915x90	18,3	65	900	110
HC-H14-M-2-762-762-90-FW-P	H14	ISO 45 H	762x762x90	19	65	940	110
HC-H14-M-2-762-915-90-FW-P	H14	ISO 45 H	762x915x90	22,9	65	1130	110
HC-H14-M-2-610-1220-90-FW-P	H14	ISO 45 H	610x1220x90	24,4	65	1200	110
HC-H14-M-2-915-915-90-FW-P	H14	ISO 45 H	915x915x90	27,5	65	1350	110

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



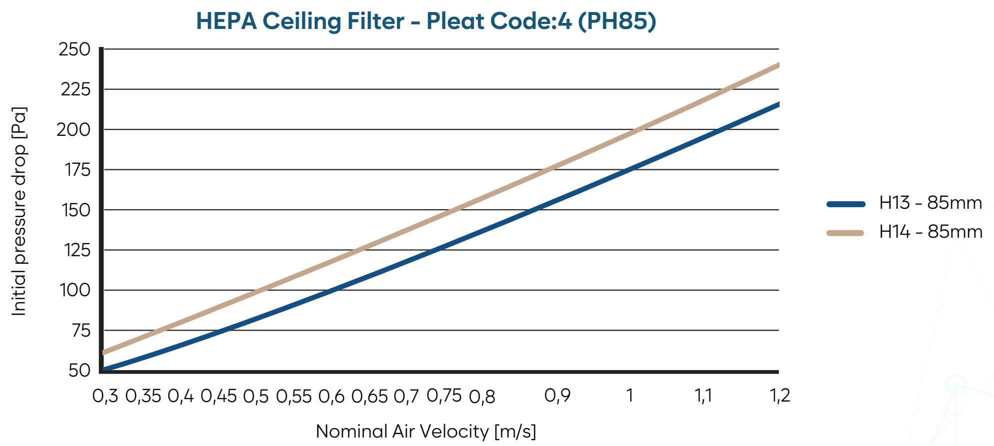
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-M-3-305-305-100-FW-P	H13	ISO 35 H	305x305x100	3,4	75	150	75
HC-H13-M-3-305-610-100-FW-P	H13	ISO 35 H	305x610x100	6,8	75	300	75
HC-H13-M-3-457-457-100-FW-P	H13	ISO 35 H	457x457x100	7,6	75	340	75
HC-H13-M-3-610-610-100-FW-P	H13	ISO 35 H	610x610x100	13,5	75	600	75
HC-H13-M-3-610-915-100-FW-P	H13	ISO 35 H	610x915x100	20,3	75	900	75
HC-H13-M-3-610-1220-100-FW-P	H13	ISO 35 H	610x1220x100	27	75	1200	75
HC-H14-M-3-305-305-100-FW-P	H14	ISO 45 H	305x305x100	3,5	75	150	90
HC-H14-M-3-305-610-100-FW-P	H14	ISO 45 H	305x610x100	7	75	300	90
HC-H14-M-3-457-457-100-FW-P	H14	ISO 45 H	457x457x100	7,9	75	340	90
HC-H14-M-3-610-610-100-FW-P	H14	ISO 45 H	610x610x100	14	75	600	90
HC-H14-M-3-610-915-100-FW-P	H14	ISO 45 H	610x915x100	21,2	75	900	90
HC-H14-M-3-610-1220-100-FW-P	H14	ISO 45 H	610x1220x100	28,2	75	1200	90

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



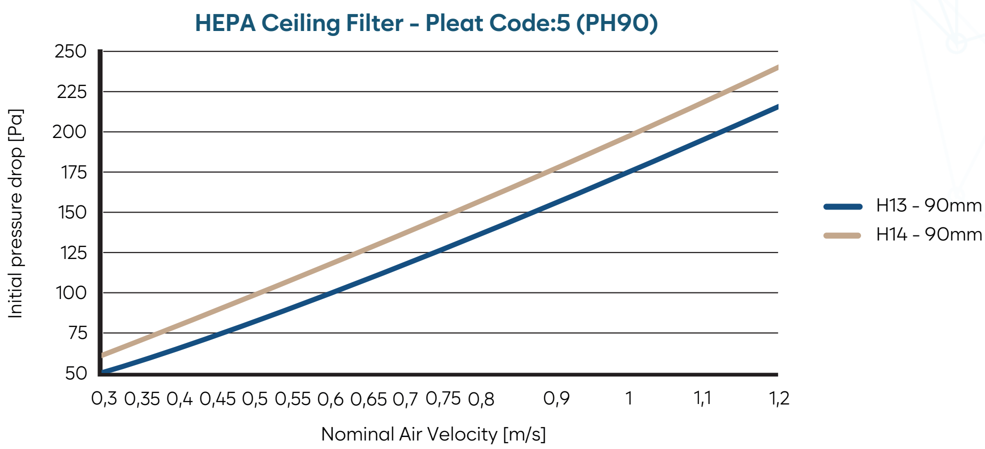
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HC-H13-M-4-305-305-110-FW-P	H13	ISO 35 H	305x305x110	3,8	85	150	70
HC-H13-M-4-305-610-110-FW-P	H13	ISO 35 H	305x610x110	7,6	85	300	70
HC-H13-M-4-457-457-110-FW-P	H13	ISO 35 H	457x457x110	8,6	85	340	70
HC-H13-M-4-610-610-110-FW-P	H13	ISO 35 H	610x610x110	15,3	85	600	70
HC-H13-M-4-610-915-110-FW-P	H13	ISO 35 H	610x915x110	22,9	85	900	70
HC-H13-M-4-610-1220-110-FW-P	H13	ISO 35 H	610x1220x110	30,6	85	1200	70
HC-H14-M-4-305-305-110-FW-P	H14	ISO 45 H	305x305x110	4	85	150	85
HC-H14-M-4-305-610-110-FW-P	H14	ISO 45 H	305x610x110	8	85	300	85
HC-H14-M-4-457-457-110-FW-P	H14	ISO 45 H	457x457x110	9	85	340	85
HC-H14-M-4-610-610-110-FW-P	H14	ISO 45 H	610x610x110	16	85	600	85
HC-H14-M-4-610-915-110-FW-P	H14	ISO 45 H	610x915x110	24	85	900	85
HC-H14-M-4-610-1220-110-FW-P	H14	ISO 45 H	610x1220x110	32	85	1200	85

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-M-5-305-305-117-FW-P	H13	ISO 35 H	305x305x117	3,8	90	150	70
HC-H13-M-5-305-610-117-FW-P	H13	ISO 35 H	305x610x117	7,6	90	300	70
HC-H13-M-5-457-457-117-FW-P	H13	ISO 35 H	457x457x117	8,6	90	340	70
HC-H13-M-5-610-610-117-FW-P	H13	ISO 35 H	610x610x117	15,3	90	600	70
HC-H13-M-5-610-915-117-FW-P	H13	ISO 35 H	610x915x117	22,9	90	900	70
HC-H13-M-5-610-1220-117-FW-P	H13	ISO 35 H	610x1220x117	30,6	90	1200	70
HC-H14-M-5-305-305-117-FW-P	H14	ISO 45 H	305x305x117	4	90	150	85
HC-H14-M-5-305-610-117-FW-P	H14	ISO 45 H	305x610x117	8	90	300	85
HC-H14-M-5-457-457-117-FW-P	H14	ISO 45 H	457x457x117	9	90	340	85
HC-H14-M-5-610-610-117-FW-P	H14	ISO 45 H	610x610x117	16	90	600	85
HC-H14-M-5-610-915-117-FW-P	H14	ISO 45 H	610x915x117	24	90	900	85
HC-H14-M-5-610-1220-117-FW-P	H14	ISO 45 H	610x1220x117	32	90	1200	85

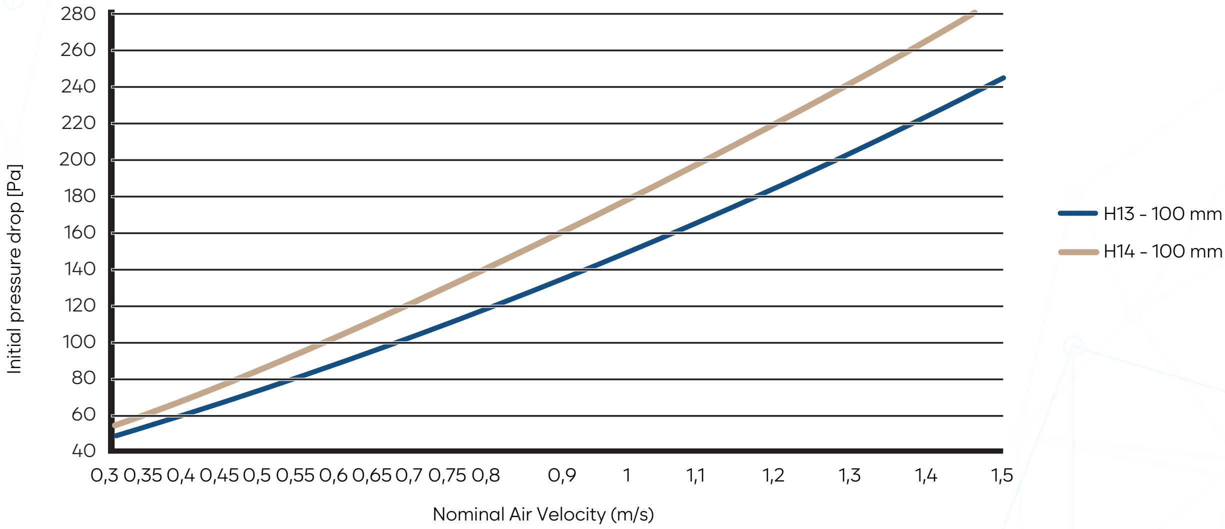
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-M-6-305-305-125-FW-P	H13	ISO 35 H	305x305x125	3,8	100	150	65
HC-H13-M-6-305-610-125-FW-P	H13	ISO 35 H	305x610x125	7,6	100	300	65
HC-H13-M-6-457-457-125-FW-P	H13	ISO 35 H	457x457x125	8,6	100	340	65
HC-H13-M-6-610-610-125-FW-P	H13	ISO 35 H	610x610x125	15,3	100	600	65
HC-H13-M-6-610-915-125-FW-P	H13	ISO 35 H	610x915x125	22,9	100	900	65
HC-H13-M-6-610-1220-125-FW-P	H13	ISO 35 H	610x1220x125	30,6	100	1200	65
HC-H14-M-6-305-305-125-FW-P	H14	ISO 45 H	305x305x125	4	100	150	80
HC-H14-M-6-305-610-125-FW-P	H14	ISO 45 H	305x610x125	8	100	300	80
HC-H14-M-6-457-457-125-FW-P	H14	ISO 45 H	457x457x125	9	100	340	80
HC-H14-M-6-610-610-125-FW-P	H14	ISO 45 H	610x610x125	16	100	600	80
HC-H14-M-6-610-915-125-FW-P	H14	ISO 45 H	610x915x125	24	100	900	80
HC-H14-M-6-610-1220-125-FW-P	H14	ISO 45 H	610x1220x125	32	100	1200	80

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HEPA Ceiling Filter - Pleat Code:6 (PH100)

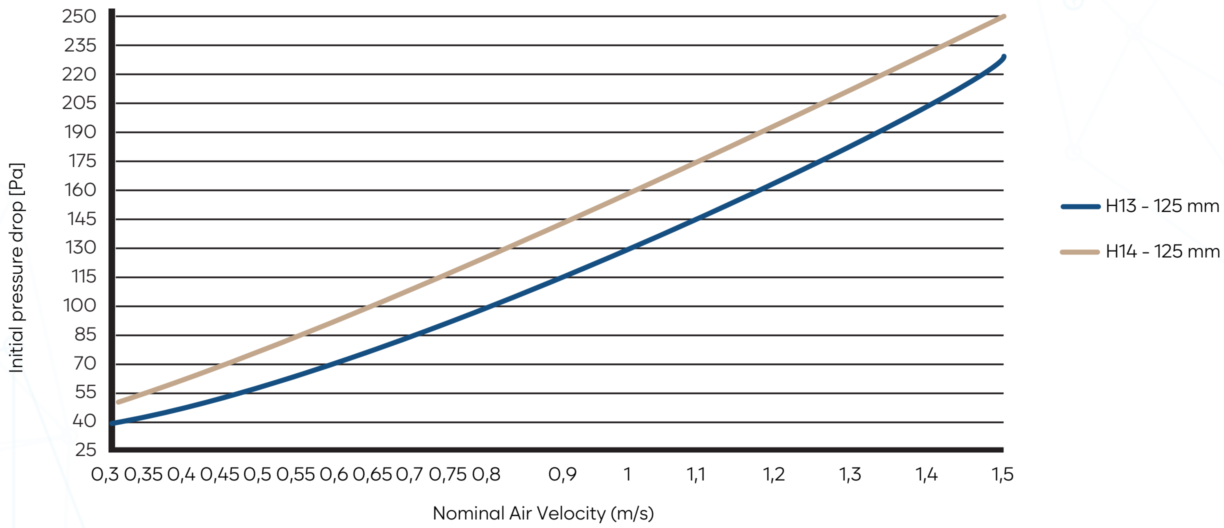


HEPA CEILING FILTER (MDF FRAME) - HC 150

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HC-H13-M-7-305-305-150-FW-P	H13	ISO 35 H	305x305x150	5,6	125	150	55
HC-H13-M-7-305-610-150-FW-P	H13	ISO 35 H	305x610x150	11,3	125	300	55
HC-H13-M-7-457-457-150-FW-P	H13	ISO 35 H	457x457x150	12,6	125	340	55
HC-H13-M-7-610-610-150-FW-P	H13	ISO 35 H	610x610x150	22,5	125	600	55
HC-H13-M-7-610-915-150-FW-P	H13	ISO 35 H	610x915x150	33,8	125	900	55
HC-H13-M-7-610-1220-150-FW-P	H13	ISO 35 H	610x1220x150	45	125	1200	55
HC-H14-M-7-305-305-150-FW-P	H14	ISO 45 H	305x305x150	5,9	125	150	70
HC-H14-M-7-305-610-150-FW-P	H14	ISO 45 H	305x610x150	11,8	125	300	70
HC-H14-M-7-457-457-150-FW-P	H14	ISO 45 H	457x457x150	13,2	125	340	70
HC-H14-M-7-610-610-150-FW-P	H14	ISO 45 H	610x610x150	23,5	125	600	70
HC-H14-M-7-610-915-150-FW-P	H14	ISO 45 H	610x915x150	35,3	125	900	70
HC-H14-M-7-610-1220-150-FW-P	H14	ISO 45 H	610x1220x150	47	125	1200	70

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HEPA Ceiling Filter - Pleat Code:7 (PH125)



NOTES

EPA CEILING FILTER

(ALUMINIUM FRAME)

Applications:
Final filter for cleanrooms
Pre-filter for HEPA filters

Highlights:

- High quality glass fiber media
- Low initial pressure drop
- Various pleat height options
- Suitable for HEPA Boxes and Cabinets

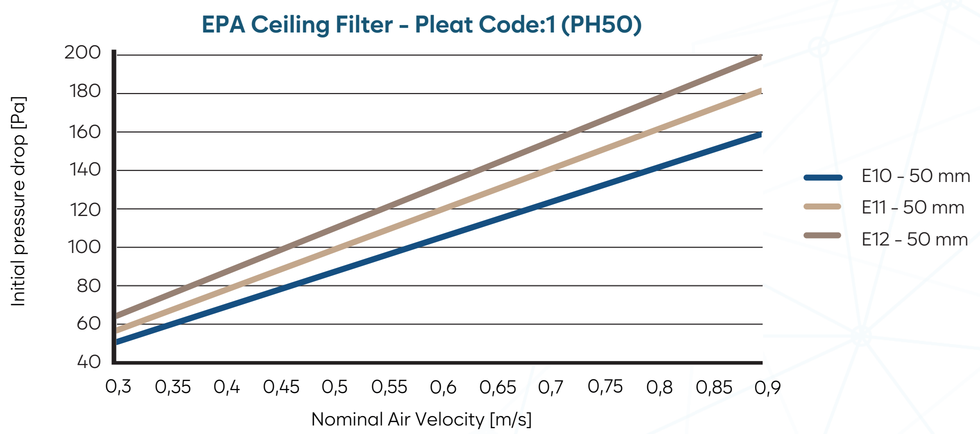
Filter Standard:	EN 1822 - ISO 29463	**Max. Operating Temperature:**	80˚C
Filter Class:	E10 - E11 - E12	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	EPDM flat, EPDM flat continuous and PU foam
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

EPA CEILING FILTER (ALUMINIUM FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Dimensions(mm)	Faceguard	Gasket
EC: EPA Ceiling Filter (Aluminium Filter)	E10 E11 E12	A: Aluminium	1: 50 mm 2: 65 mm 3: 75 mm 4: 85 mm 5: 90 mm 6: 100 mm 7: 125 mm	610x610x78	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side U: U Gasket

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
EC-E10-A-1-305-305-78-FC-P	E10	-	305x305x78	2,3	50	150	80
EC-E10-A-1-305-610-78-FC-P	E10	-	305x610x78	4,5	50	300	80
EC-E10-A-1-457-457-78-FC-P	E10	-	457x457x78	5	50	340	80
EC-E10-A-1-610-610-78-FC-P	E10	-	610x610x78	9	50	600	80
EC-E10-A-1-610-915-78-FC-P	E10	-	610x915x78	13,5	50	900	80
EC-E10-A-1-610-1220-78-FC-P	E10	-	610x1220x78	18	50	1200	80
EC-E11-A-1-305-305-78-FC-P	E11	ISO 15 E	305x305x78	2,3	50	150	90
EC-E11-A-1-305-610-78-FC-P	E11	ISO 15 E	305x610x78	4,5	50	300	90
EC-E11-A-1-457-457-78-FC-P	E11	ISO 15 E	457x457x78	5	50	340	90
EC-E11-A-1-610-610-78-FC-P	E11	ISO 15 E	610x610x78	9	50	600	90
EC-E11-A-1-610-915-78-FC-P	E11	ISO 15 E	610x915x78	13,5	50	900	90
EC-E11-A-1-610-1220-78-FC-P	E11	ISO 15 E	610x1220x78	18	50	1200	90
EC-E12-A-1-305-305-78-FC-P	E12	ISO 25 E	305x305x78	2,3	50	150	95
EC-E12-A-1-305-610-78-FC-P	E12	ISO 25 E	305x610x78	4,5	50	300	95
EC-E12-A-1-457-457-78-FC-P	E12	ISO 25 E	457x457x78	5,1	50	340	95
EC-E12-A-1-610-610-78-FC-P	E12	ISO 25 E	610x610x78	9	50	600	95
EC-E12-A-1-610-915-78-FC-P	E12	ISO 25 E	610x915x78	13,5	50	900	95
EC-E12-A-1-610-1220-78-FC-P	E12	ISO 25 E	610x1220x78	18	50	1200	95

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



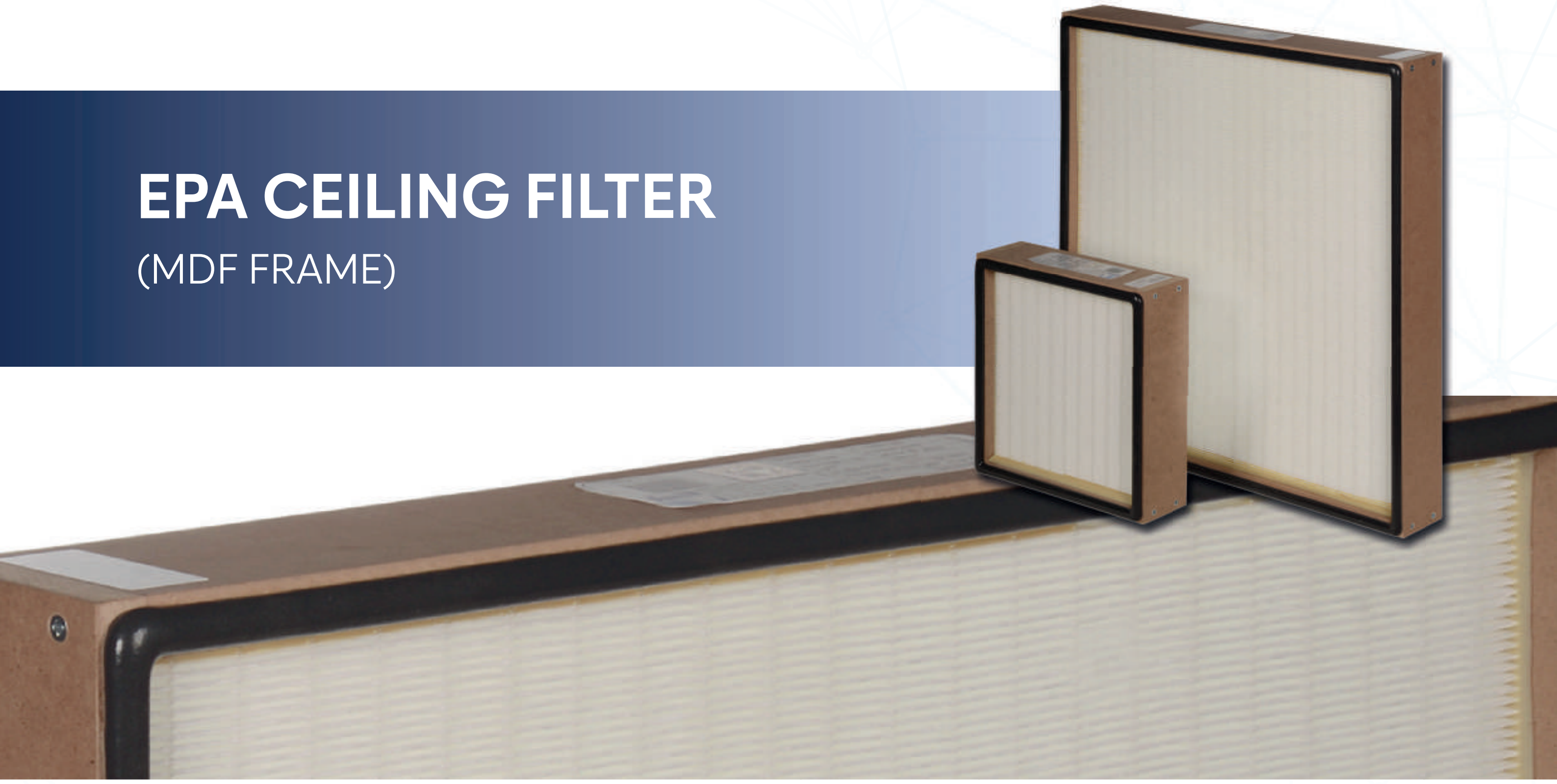
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
EC-E10-A-7-305-305-150-FC-P	E10	-	305x305x150	4,5	125	150	35
EC-E10-A-7-305-610-150-FC-P	E10	-	305x610x150	9	125	300	35
EC-E10-A-7-610-610-150-FC-P	E10	-	610x610x150	18	125	600	35
EC-E10-A-7-610-1220-150-FC-P	E10	-	610x1220x150	36	125	1200	35
EC-E11-A-7-305-305-150-FC-P	E11	ISO 15 E	305x305x150	4,5	125	150	45
EC-E11-A-7-305-610-150-FC-P	E11	ISO 15 E	305x610x150	9	125	300	45
EC-E11-A-7-610-610-150-FC-P	E11	ISO 15 E	610x610x150	18	125	600	45
EC-E11-A-7-610-1220-150-FC-P	E11	ISO 15 E	610x1220x150	36	125	1200	45
EC-E12-A-7-305-305-150-FC-P	E12	ISO 25 E	305x305x150	4,5	125	150	60
EC-E12-A-7-305-610-150-FC-P	E12	ISO 25 E	305x610x150	9	125	300	60
EC-E12-A-7-610-610-150-FC-P	E12	ISO 25 E	610x610x150	18	125	600	60
EC-E12-A-7-610-1220-150-FC-P	E12	ISO 25 E	610x1220x150	36	125	1200	60

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

NOTES

EPA CEILING FILTER

(MDF FRAME)



Applications:
Final filter for cleanrooms
Pre-filter for HEPA filters

Highlights:

- High quality filtration
- Low initial pressure drop
- Disposable
- Suitable for HEPA Boxes and Cabinets

Filter Standard:	EN 1822 and ISO 29463
Filter Class:	E10 - E11 - E12
Media:	High quality glass fiber
Frame:	MDF
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)

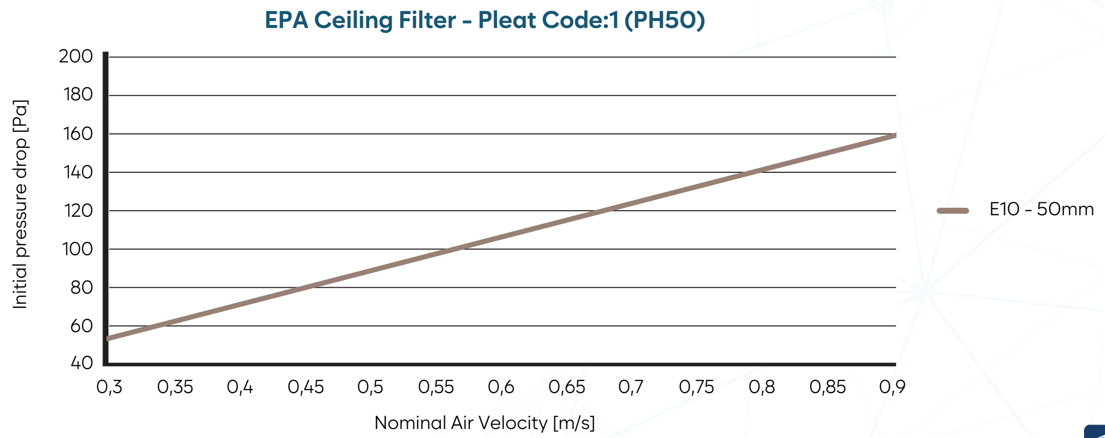
Max. Operating Tempature:	80˚C
Faceguard:	Aluminium sheet (powder coated)
Gasket:	EPDM flat, EPDM flat continous and PU foam
Sealing Compound:	Two component polyurethane
Seperator:	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
EC-E10-M-1-305-305-78-FC-P	E10	-	305x305x78	2,3	50	150	80
EC-E10-M-1-305-610-78-FC-P	E10	-	305x610x78	4,5	50	300	80
EC-E10-M-1-457-457-78-FC-P	E10	-	457x457x78	5	50	340	80
EC-E10-M-1-610-610-78-FC-P	E10	-	610x610x78	9	50	600	80
EC-E10-M-1-610-915-78-FC-P	E10	-	610x915x78	13,5	50	900	80
EC-E10-M-1-610-1220-78-FC-P	E10	-	610x1220x78	18	50	1200	80
EC-E11-M-1-305-305-78-FC-P	E11	ISO 15 E	305x305x78	2,3	50	150	90
EC-E11-M-1-305-610-78-FC-P	E11	ISO 15 E	305x610x78	4,5	50	300	90
EC-E11-M-1-457-457-78-FC-P	E11	ISO 15 E	457x457x78	5	50	340	90
EC-E11-M-1-610-610-78-FC-P	E11	ISO 15 E	610x610x78	9	50	600	90
EC-E11-M-1-610-915-78-FC-P	E11	ISO 15 E	610x915x78	13,5	50	900	90
EC-E11-M-1-610-1220-78-FC-P	E11	ISO 15 E	610x1220x78	18	50	1200	90
EC-E12-M-1-305-305-78-FC-P	E12	ISO 25 E	305x305x78	2,3	50	150	95
EC-E12-M-1-305-610-78-FC-P	E12	ISO 25 E	305x610x78	4,5	50	300	95
EC-E12-M-1-457-457-78-FC-P	E12	ISO 25 E	457x457x78	5,1	50	340	95
EC-E12-M-1-610-610-78-FC-P	E12	ISO 25 E	610x610x78	9	50	600	95
EC-E12-M-1-610-915-78-FC-P	E12	ISO 25 E	610x915x78	13,5	50	900	95
EC-E12-M-1-610-1220-78-FC-P	E12	ISO 25 E	610x1220x78	18	50	1200	95

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

EPA CEILING FILTER (MDF FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Dimensions (mm)	Faceguard	Gasket
EC : EPA Ceiling Filter MDF Frame	E10 E11 E12	M: MDF	1: 50 mm 2: 65 mm 3: 75 mm 4: 85 mm 5: 90 mm 6: 100 mm 7: 125 mm	610x610x78	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side U: U Gasket

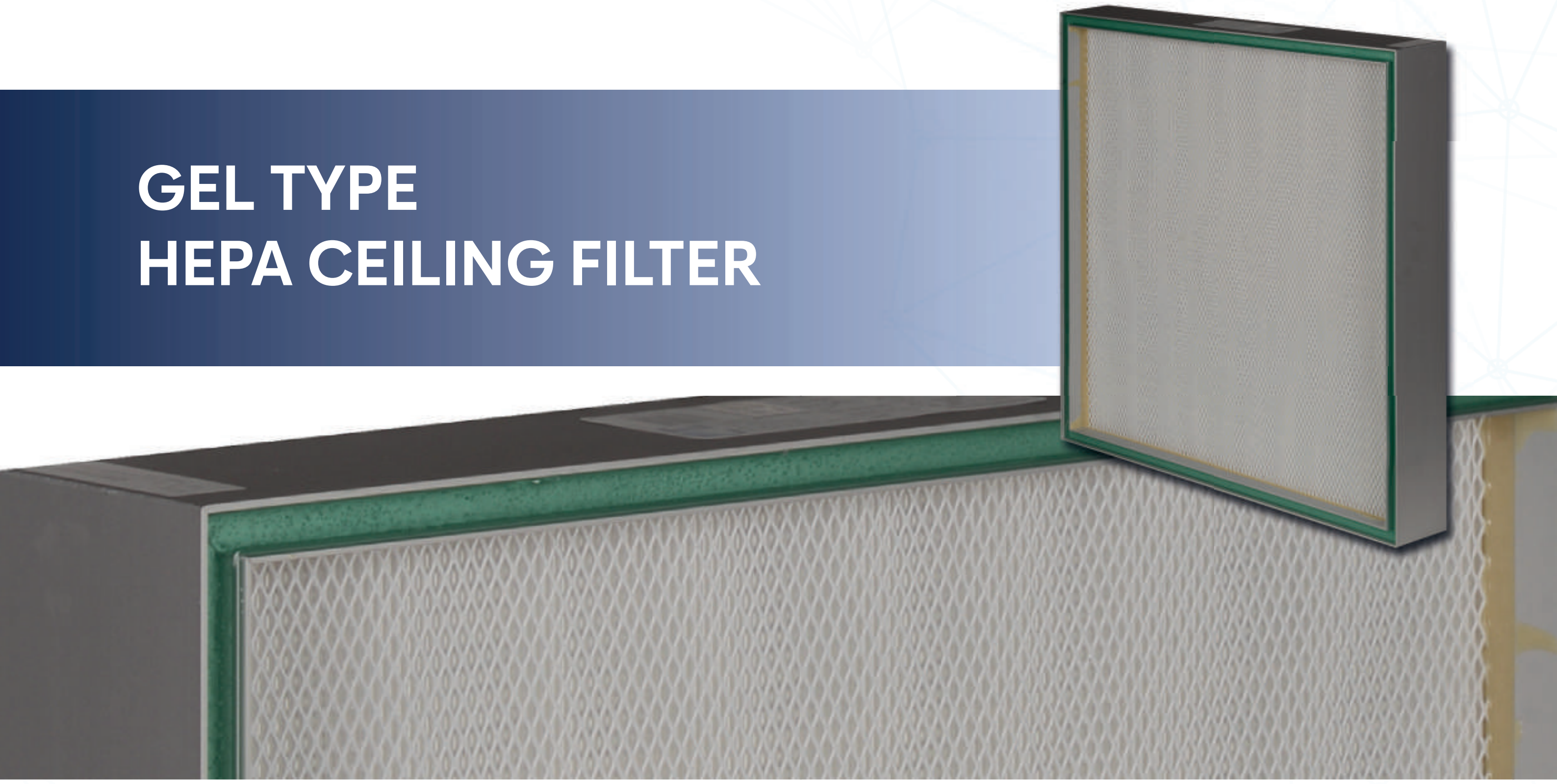


Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
EC-E10-M-7-305-305-150-FC-P	E10	-	305x305x150	4,5	125	150	35
EC-E10-M-7-305-610-150-FC-P	E10	-	305x610x150	9	125	300	35
EC-E10-M-7-610-610-150-FC-P	E10	-	610x610x150	18	125	600	35
EC-E10-M-7-610-1220-150-FC-P	E10	-	610x1220x150	36	125	1200	35
EC-E11-M-7-305-305-150-FC-P	E11	ISO 15 E	305x305x150	4,5	125	150	45
EC-E11-M-7-305-610-150-FC-P	E11	ISO 15 E	305x610x150	9	125	300	45
EC-E11-M-7-610-610-150-FC-P	E11	ISO 15 E	610x610x150	18	125	600	45
EC-E11-M-7-610-1220-150-FC-P	E11	ISO 15 E	610x1220x150	36	125	1200	45
EC-E12-M-7-305-305-150-FC-P	E12	ISO 25 E	305x305x150	4,5	125	150	60
EC-E12-M-7-305-610-150-FC-P	E12	ISO 25 E	305x610x150	9	125	300	60
EC-E12-M-7-610-610-150-FC-P	E12	ISO 25 E	610x610x150	18	125	600	60
EC-E12-M-7-610-1220-150-FC-P	E12	ISO 25 E	610x1220x150	36	125	1200	60

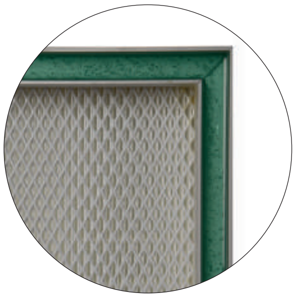
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

NOTES

GEL TYPE
HEPA CEILING FILTER



Applications:
Final filter for cleanrooms and LAF Units
Life science
Healthcare
Microelectronics
Food & Beverages



Highlights:

- High quality fluid gel gasket (self healing)
- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

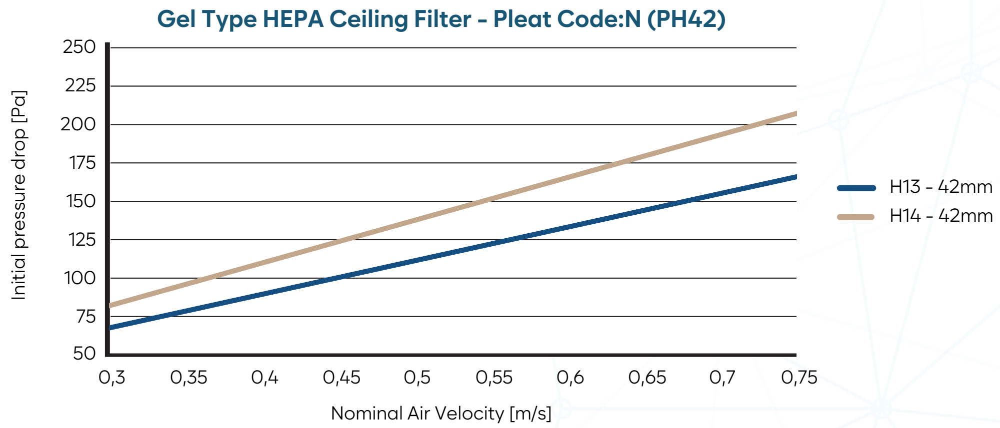
Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	H13 - H14	**Faceguard:**	Aluminium sheet, powder coated
Media:	High quality glass fiber	**Gasket:**	Gel
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-A-N-J-305-305-71-FB-G	H13	ISO 35 H	305x305x71	2,3	42	150	100
HC-H13-A-N-J-305-610-71-FB-G	H13	ISO 35 H	305x610x71	4,5	42	300	100
HC-H13-A-N-J-457-457-71-FB-G	H13	ISO 35 H	457x457x71	5	42	340	100
HC-H13-A-N-J-610-610-71-FB-G	H13	ISO 35 H	610x610x71	9	42	600	100
HC-H13-A-N-J-610-915-71-FB-G	H13	ISO 35 H	610x915x71	13,5	42	900	100
HC-H13-A-N-J-610-1220-71-FB-G	H13	ISO 35 H	610x1220x71	18	42	1200	100
HC-H13-A-N-J-762-915-71-FB-G	H13	ISO 35 H	762x915x71	16,9	42	1130	100
HC-H13-A-N-J-915-915-71-FB-G	H13	ISO 35 H	915x915x71	20,3	42	1350	100
HC-H14-A-N-J-305-305-71-FB-G	H14	ISO 45 H	305x305x71	2,4	42	150	125
HC-H14-A-N-J-305-610-71-FB-G	H14	ISO 45 H	305x610x71	4,7	42	300	125
HC-H14-A-N-J-457-457-71-FB-G	H14	ISO 45 H	457x457x71	5,3	42	340	125
HC-H14-A-N-J-610-610-71-FB-G	H14	ISO 45 H	610x610x71	9,4	42	600	125
HC-H14-A-N-J-610-915-71-FB-G	H14	ISO 45 H	610x915x71	14	42	900	125
HC-H14-A-N-J-610-1220-71-FB-G	H14	ISO 45 H	610x1220x71	18,8	42	1200	125
HC-H14-A-N-J-762-915-71-FB-G	H14	ISO 45 H	762x915x71	17,6	42	1130	125
HC-H14-A-N-J-915-915-71-FB-G	H14	ISO 45 H	915x915x71	21,2	42	1350	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

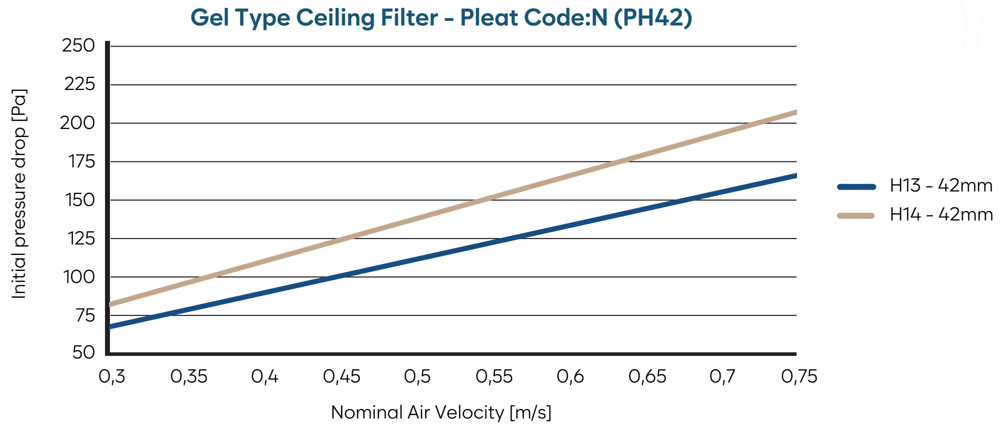
GEL TYPE HEPA CEILING FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Design	Dimensions (mm)	Faceguard	Gasket
HC : Gel Type HEPA Ceiling Filter	H13 H14	A: Aluminium	N: 42 mm J: 55 mm M: 68 mm L: 92 mm X: 115 mm	J: Gel Type	610x610x71	FB: On Both Sides	G: Gel



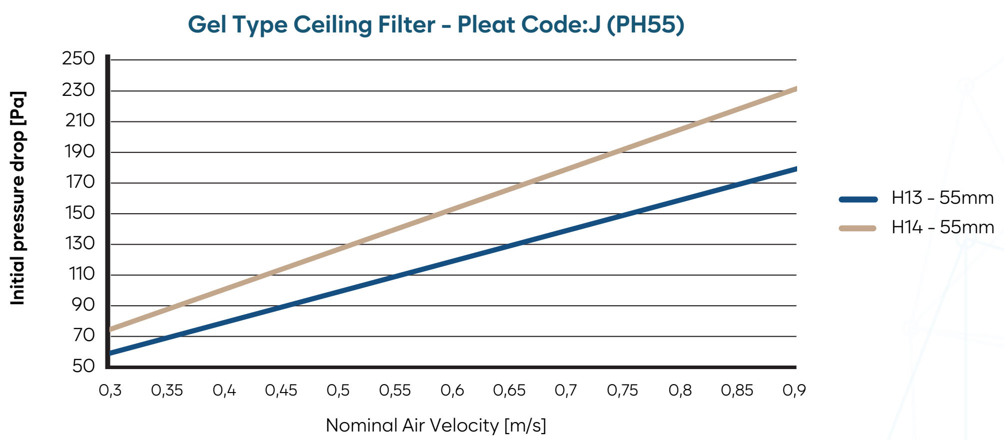
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HC-H13-A-N-J-305-305-80-FB-G	H13	ISO 35 H	305x305x80	2,3	42	150	100
HC-H13-A-N-J-305-610-80-FB-G	H13	ISO 35 H	305x610x80	4,5	42	300	100
HC-H13-A-N-J-457-457-80-FB-G	H13	ISO 35 H	457x457x80	5	42	340	100
HC-H13-A-N-J-610-610-80-FB-G	H13	ISO 35 H	610x610x80	9	42	600	100
HC-H13-A-N-J-610-915-80-FB-G	H13	ISO 35 H	610x915x80	13,5	42	900	100
HC-H13-A-N-J-610-1220-80-FB-G	H13	ISO 35 H	610x1220x80	18	42	1200	100
HC-H13-A-N-J-762-915-80-FB-G	H13	ISO 35 H	762x915x80	16,9	42	1130	100
HC-H13-A-N-J-915-915-80-FB-G	H13	ISO 35 H	915x915x80	20,3	42	1350	100
HC-H14-A-N-J-305-305-80-FB-G	H14	ISO 45 H	305x305x80	2,4	42	150	125
HC-H14-A-N-J-305-610-80-FB-G	H14	ISO 45 H	305x610x80	4,7	42	300	125
HC-H14-A-N-J-457-457-80-FB-G	H14	ISO 45 H	457x457x80	5,3	42	340	125
HC-H14-A-N-J-610-610-80-FB-G	H14	ISO 45 H	610x610x80	9,4	42	600	125
HC-H14-A-N-J-610-915-80-FB-G	H14	ISO 45 H	610x915x80	14	42	900	125
HC-H14-A-N-J-610-1220-80-FB-G	H14	ISO 45 H	610x1220x80	18,8	42	1200	125
HC-H14-A-N-J-762-915-80-FB-G	H14	ISO 45 H	762x915x80	17,6	42	1130	125
HC-H14-A-N-J-915-915-80-FB-G	H14	ISO 45 H	915x915x80	21,2	42	1350	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



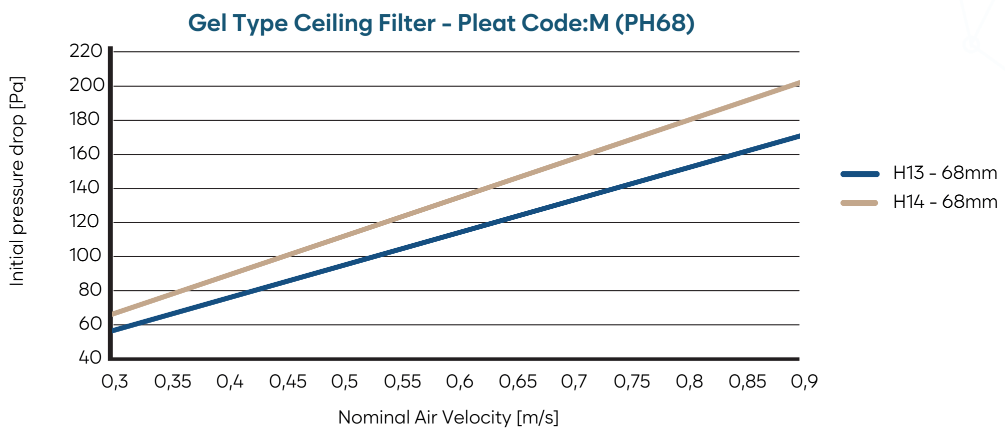
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HC-H13-A-J-J-305-305-91-FB-G	H13	ISO 35 H	305x305x91	2,7	55	150	90
HC-H13-A-J-J-305-610-91-FB-G	H13	ISO 35 H	305x610x91	5,4	55	300	90
HC-H13-A-J-J-457-457-91-FB-G	H13	ISO 35 H	457x457x91	6	55	340	90
HC-H13-A-J-J-610-610-91-FB-G	H13	ISO 35 H	610x610x91	10,7	55	600	90
HC-H13-A-J-J-610-915-91-FB-G	H13	ISO 35 H	610x915x91	16	55	900	90
HC-H13-A-J-J-610-1220-91-FB-G	H13	ISO 35 H	610x1220x91	21,4	55	1200	90
HC-H13-A-J-J-762-915-91-FB-G	H13	ISO 35 H	762x915x91	20	55	1130	90
HC-H13-A-J-J-915-915-91-FB-G	H13	ISO 35 H	915x915x91	24	55	1350	90
HC-H14-A-J-J-305-305-91-FB-G	H14	ISO 45 H	305x305x91	2,8	55	150	115
HC-H14-A-J-J-305-610-91-FB-G	H14	ISO 45 H	305x610x91	5,7	55	300	115
HC-H14-A-J-J-457-457-91-FB-G	H14	ISO 45 H	457x457x91	6,3	55	340	115
HC-H14-A-J-J-610-610-91-FB-G	H14	ISO 45 H	610x610x91	11,3	55	600	115
HC-H14-A-J-J-610-915-91-FB-G	H14	ISO 45 H	610x915x91	17	55	900	115
HC-H14-A-J-J-610-1220-91-FB-G	H14	ISO 45 H	610x1220x91	22,6	55	1200	115
HC-H14-A-J-J-762-915-91-FB-G	H14	ISO 45 H	762x915x91	21,6	55	1130	115
HC-H14-A-J-J-915-915-91-FB-G	H14	ISO 45 H	915x915x91	25,5	55	1350	115

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



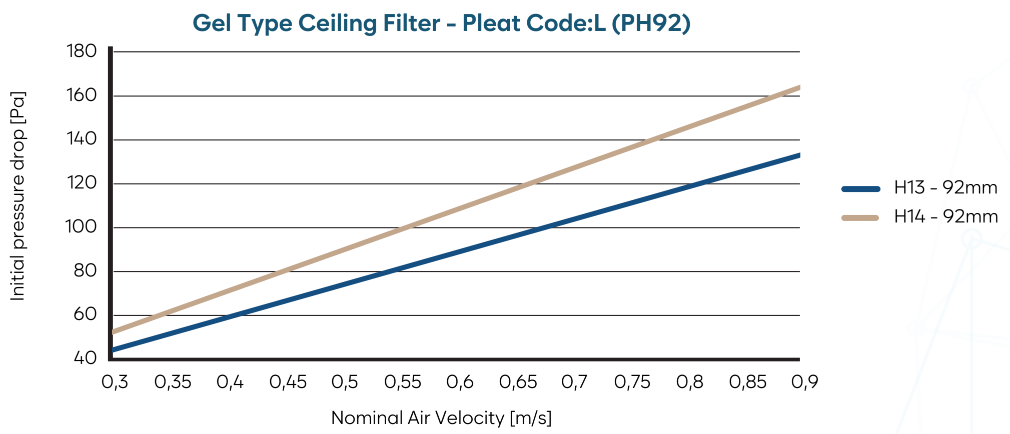
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-M-J-305-305-104-FB-G	H13	ISO 35 H	305x305x104	3	68	150	85
HC-H13-A-M-J-305-610-104-FB-G	H13	ISO 35 H	305x610x104	6,2	68	300	85
HC-H13-A-M-J-457-457-104-FB-G	H13	ISO 35 H	457x457x104	7	68	340	85
HC-H13-A-M-J-610-610-104-FB-G	H13	ISO 35 H	610x610x104	12,4	68	600	85
HC-H13-A-M-J-610-915-104-FB-G	H13	ISO 35 H	610x915x104	18,6	68	900	85
HC-H13-A-M-J-610-1220-104-FB-G	H13	ISO 35 H	610x1220x104	24,9	68	1200	85
HC-H13-A-M-J-762-915-104-FB-G	H13	ISO 35 H	762x915x104	23,3	68	1130	85
HC-H13-A-M-J-915-915-104-FB-G	H13	ISO 35 H	915x915x104	28	68	1350	85
HC-H14-A-M-J-305-305-104-FB-G	H14	ISO 45 H	305x305x104	3,3	68	150	100
HC-H14-A-M-J-305-610-104-FB-G	H14	ISO 45 H	305x610x104	6,5	68	300	100
HC-H14-A-M-J-457-457-104-FB-G	H14	ISO 45 H	457x457x104	7,4	68	340	100
HC-H14-A-M-J-610-610-104-FB-G	H14	ISO 45 H	610x610x104	13	68	600	100
HC-H14-A-M-J-610-915-104-FB-G	H14	ISO 45 H	610x915x104	19,6	68	900	100
HC-H14-A-M-J-610-1220-104-FB-G	H14	ISO 45 H	610x1220x104	26,2	68	1200	100
HC-H14-A-M-J-762-915-104-FB-G	H14	ISO 45 H	762x915x104	24,5	68	1130	100
HC-H14-A-M-J-915-915-104-FB-G	H14	ISO 45 H	915x915x104	29,5	68	1350	100

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



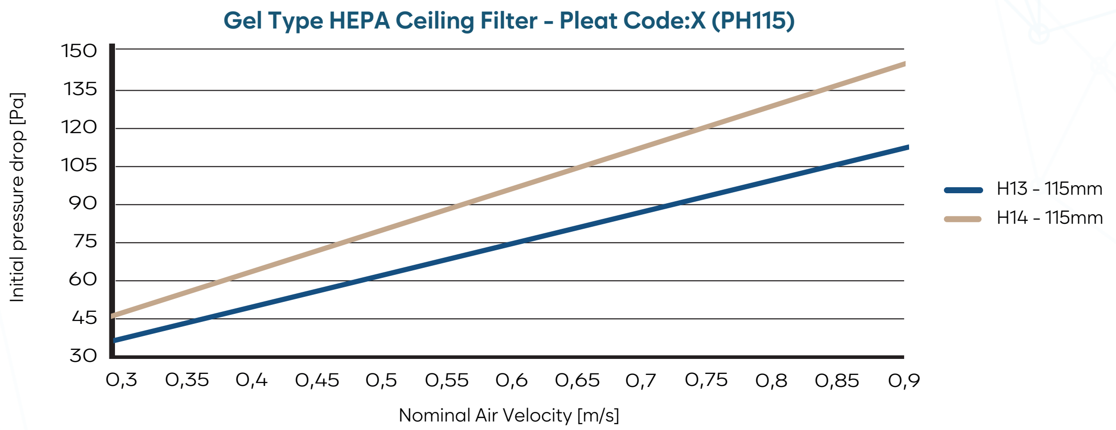
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-L-J-305-305-128-FB-G	H13	ISO 35 H	305x305x128	4,5	92	150	65
HC-H13-A-L-J-305-610-128-FB-G	H13	ISO 35 H	305x610x128	9	92	300	65
HC-H13-A-L-J-457-457-128-FB-G	H13	ISO 35 H	457x457x128	10	92	340	65
HC-H13-A-L-J-610-610-128-FB-G	H13	ISO 35 H	610x610x128	18	92	600	65
HC-H13-A-L-J-610-915-128-FB-G	H13	ISO 35 H	610x915x128	27	92	900	65
HC-H13-A-L-J-610-1220-128-FB-G	H13	ISO 35 H	610x1220x128	36	92	1200	65
HC-H13-A-L-J-762-915-128-FB-G	H13	ISO 35 H	762x915x128	33,4	92	1130	65
HC-H13-A-L-J-915-915-128-FB-G	H13	ISO 35 H	915x915x128	40,5	92	1350	65
HC-H14-A-L-J-305-305-128-FB-G	H14	ISO 45 H	305x305x128	4,7	92	150	80
HC-H14-A-L-J-305-610-128-FB-G	H14	ISO 45 H	305x610x128	9,4	92	300	80
HC-H14-A-L-J-457-457-128-FB-G	H14	ISO 45 H	457x457x128	10,5	92	340	80
HC-H14-A-L-J-610-610-128-FB-G	H14	ISO 45 H	610x610x128	18,8	92	600	80
HC-H14-A-L-J-610-915-128-FB-G	H14	ISO 45 H	610x915x128	28,2	92	900	80
HC-H14-A-L-J-610-1220-128-FB-G	H14	ISO 45 H	610x1220x128	37,6	92	1200	80
HC-H14-A-L-J-762-915-128-FB-G	H14	ISO 45 H	762x915x128	35,2	92	1130	80
HC-H14-A-L-J-915-915-128-FB-G	H14	ISO 45 H	915x915x128	42,3	92	1350	80

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



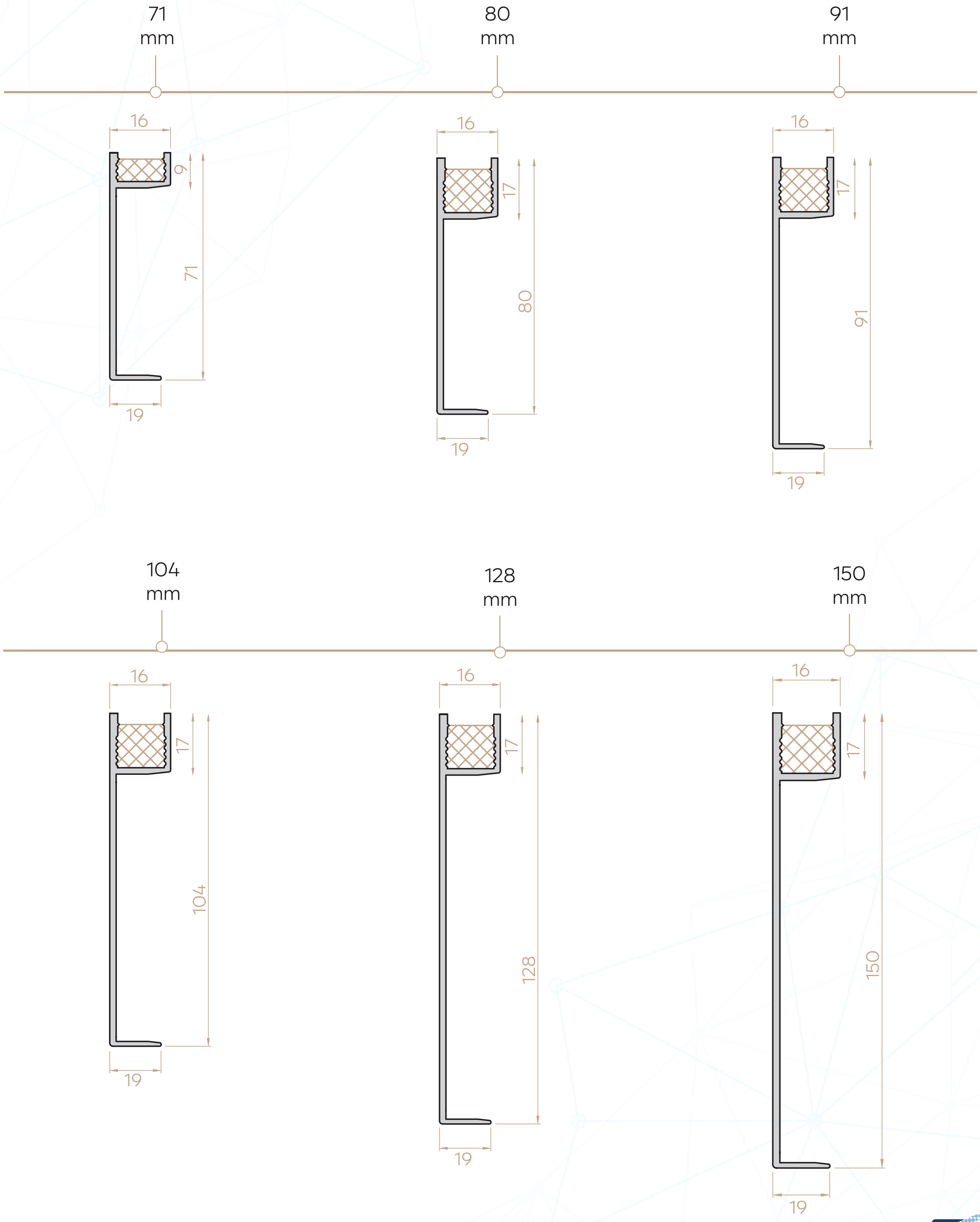
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-X-J-305-305-150-FB-G	H13	ISO 35 H	305x305x150	5,6	115	150	55
HC-H13-A-X-J-305-610-150-FB-G	H13	ISO 35 H	305x610x150	11,3	115	300	55
HC-H13-A-X-J-457-457-150-FB-G	H13	ISO 35 H	457x457x150	12,6	115	340	55
HC-H13-A-X-J-610-610-150-FB-G	H13	ISO 35 H	610x610x150	22,5	115	600	55
HC-H13-A-X-J-610-915-150-FB-G	H13	ISO 35 H	610x915x150	33,8	115	900	55
HC-H13-A-X-J-610-1220-150-FB-G	H13	ISO 35 H	610x1220x150	45	115	1200	55
HC-H14-A-X-J-305-305-150-FB-G	H14	ISO 45 H	305x305x150	5,9	115	150	70
HC-H14-A-X-J-305-610-150-FB-G	H14	ISO 45 H	305x610x150	11,8	115	300	70
HC-H14-A-X-J-457-457-150-FB-G	H14	ISO 45 H	457x457x150	13,2	115	340	70
HC-H14-A-X-J-610-610-150-FB-G	H14	ISO 45 H	610x610x150	23,5	115	600	70
HC-H14-A-X-J-610-915-150-FB-G	H14	ISO 45 H	610x915x150	35,3	115	900	70
HC-H14-A-X-J-610-1220-150-FB-G	H14	ISO 45 H	610x1220x150	47	115	1200	70

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

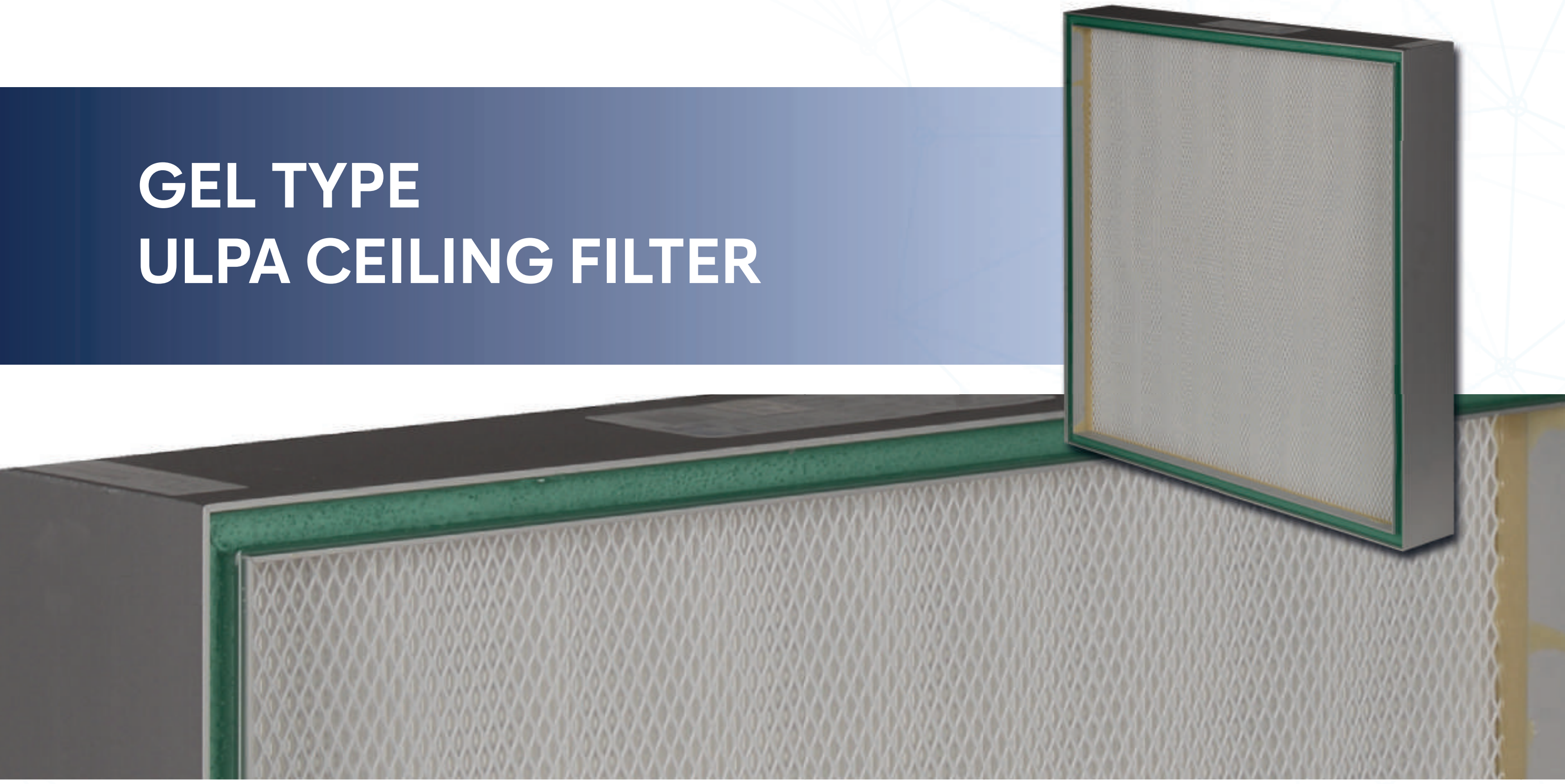


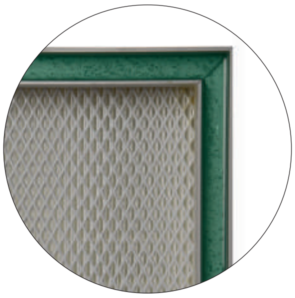
Secure and Seal: Gel Type HEPA Ceiling Filters Units in Leak-Proof Design

Gel Type HEPA Ceiling Filters are ensuring a leak-proof design that offers superior performance and durability. Please review the detailed profile drawing for a comprehensive understanding of the filter frame's dimensions and design features. This will assist in choosing the perfect filter for your specific requirements.



GEL TYPE
ULPA CEILING FILTER





Applications:
Final filter for cleanrooms and LF Units
Healthcare
Microelectronics
Food & Beverages

Highlights:
- High quality fluid gel gasket (self healing)
- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

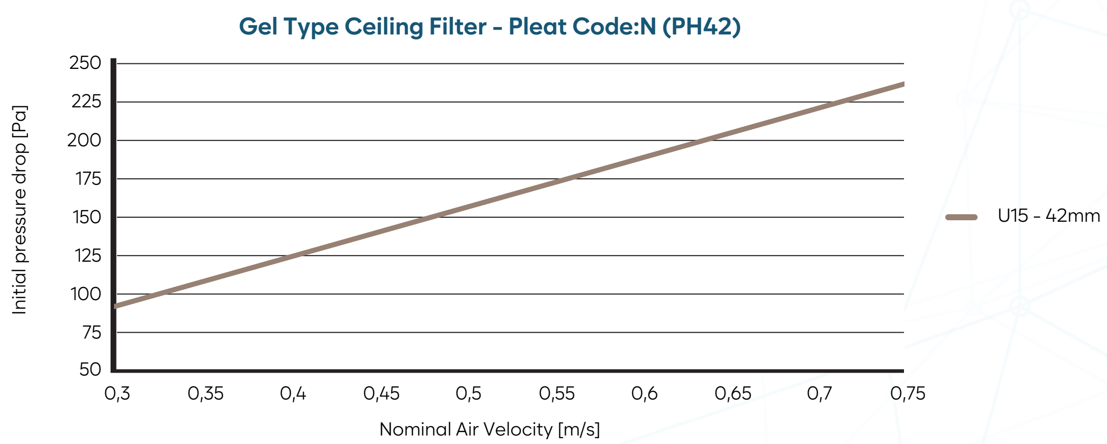
Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	U15 -U16 - U17	**Faceguard:**	Aluminium sheet, powder coated
Media:	High quality glass fiber	**Gasket:**	Gel
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
UC-U15-A-N-J-610-610-80-FB-G	U15	ISO 55 U	610x610x80	10	42	600	140
UC-U15-A-N-J-610-1220-80-FB-G	U15	ISO 55 U	610x1220x80	20	42	1200	140
UC-U15-A-J-J-610-610-91-FB-G	U15	ISO 55 U	610x610x91	12	55	600	130
UC-U15-A-J-J-610-1220-91-FB-G	U15	ISO 55 U	610x1220x91	24	55	1200	130
UC-U15-A-M-J-610-610-104-FB-G	U15	ISO 55 U	610x610x104	14	68	600	115
UC-U15-A-M-J-610-1220-104-FB-G	U15	ISO 55 U	610x1220x104	28	68	1200	115
UC-U15-A-L-J-610-610-128-FB-G	U15	ISO 55 U	610x610x128	20	92	600	100
UC-U15-A-L-J-610-1220-128-FB-G	U15	ISO 55 U	610x1220x128	40	92	1200	100
UC-U15-A-X-J-610-610-150-FB-G	U15	ISO 55 U	610x610x150	23,5	115	600	90
UC-U15-A-X-J-610-1220-150-FB-G	U15	ISO 55 U	610x1220x150	47	115	1200	90

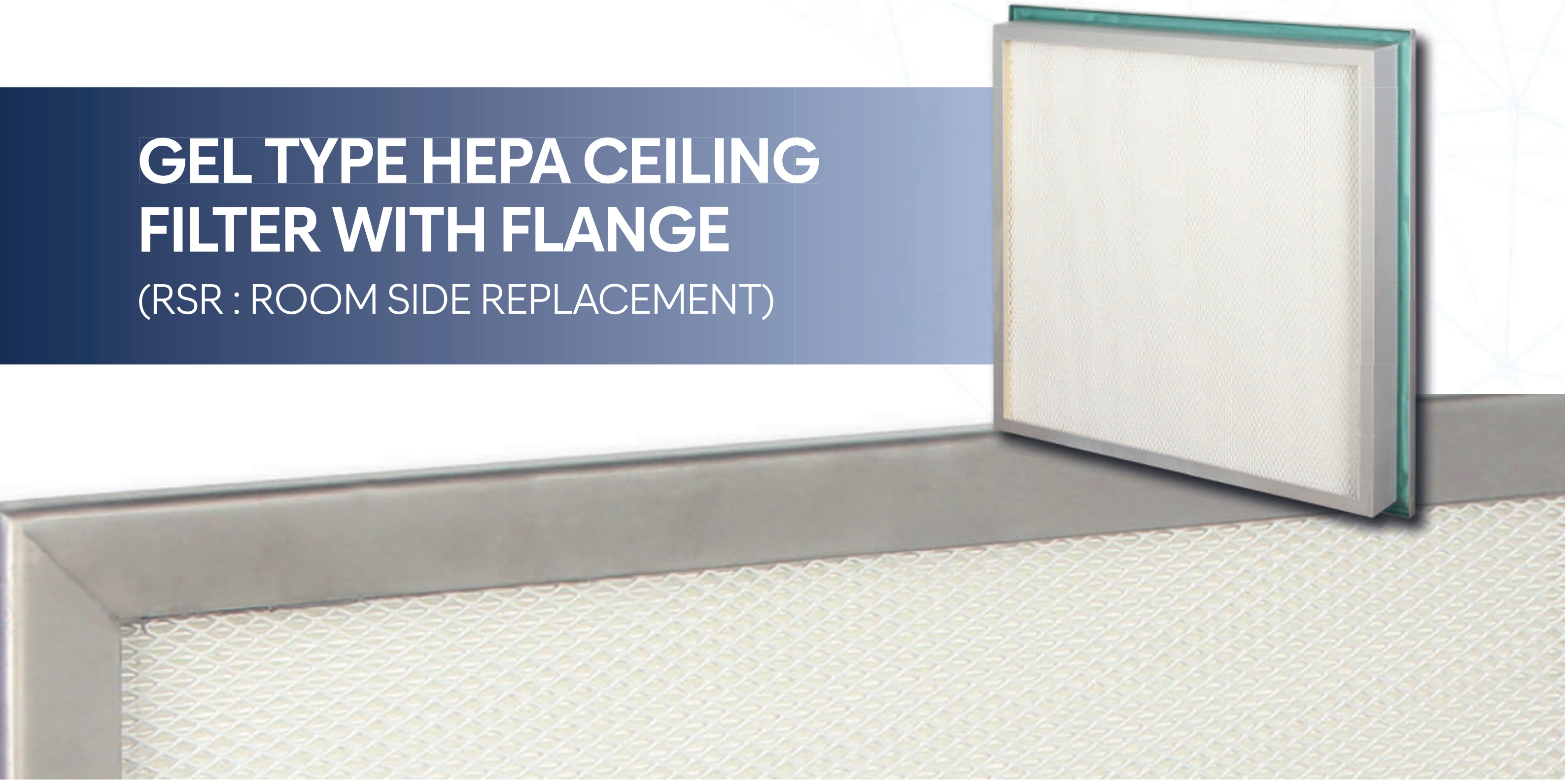
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

GEL TYPE ULPA CEILING FILTER CODE CONFIGURATION

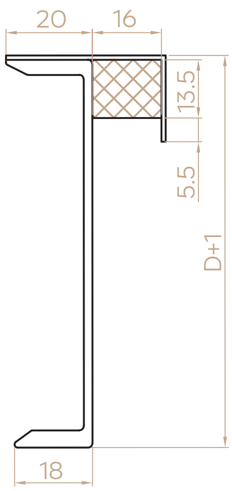
Filter Type	Filter Class	Frame	Pleat Height	Design	Dimensions (mm)	Faceguard	Gasket
UC : Gel Type ULPA Ceiling Filter	U15	A: Aluminium	N: 42 mm J: 55 mm M: 68 mm L: 92 mm X:115 mm	J: Gel Type	610x610x80	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	G: Gel



GEL TYPE HEPA CEILING FILTER WITH FLANGE
(RSR : ROOM SIDE REPLACEMENT)



Applications:
Final filter for cleanrooms and LF units
Life science
Healthcare
Microelectronics
Food & Beverages



Highlights:
- Additional stainless steel L profile on flange
- High quality fluid gel gasket (self healing)
- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	H13 - H14	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	Gel
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H14-A-2-FJ-305-610-91-FB-G	H14	ISO 45 H	339x644x91	6	65	300	110
HC-H14-A-2-FJ-457-457-91-FB-G	H14	ISO 45 H	491x491x91	6,9	65	340	110
HC-H14-A-2-FJ-610-610-91-FB-G	H14	ISO 45 H	644x644x91	12,2	65	600	110

GEL TYPE HEPA CEILING FILTER WITH FLANGE CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Design	Dimensions (mm)	Faceguard	Gasket
HC : Gel Type HEPA Ceiling Filter with Flange	H13 H14	A: Aluminium	2 : 65	Gel Type with Flange	644x644x91 (90+1)	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	G: Gel

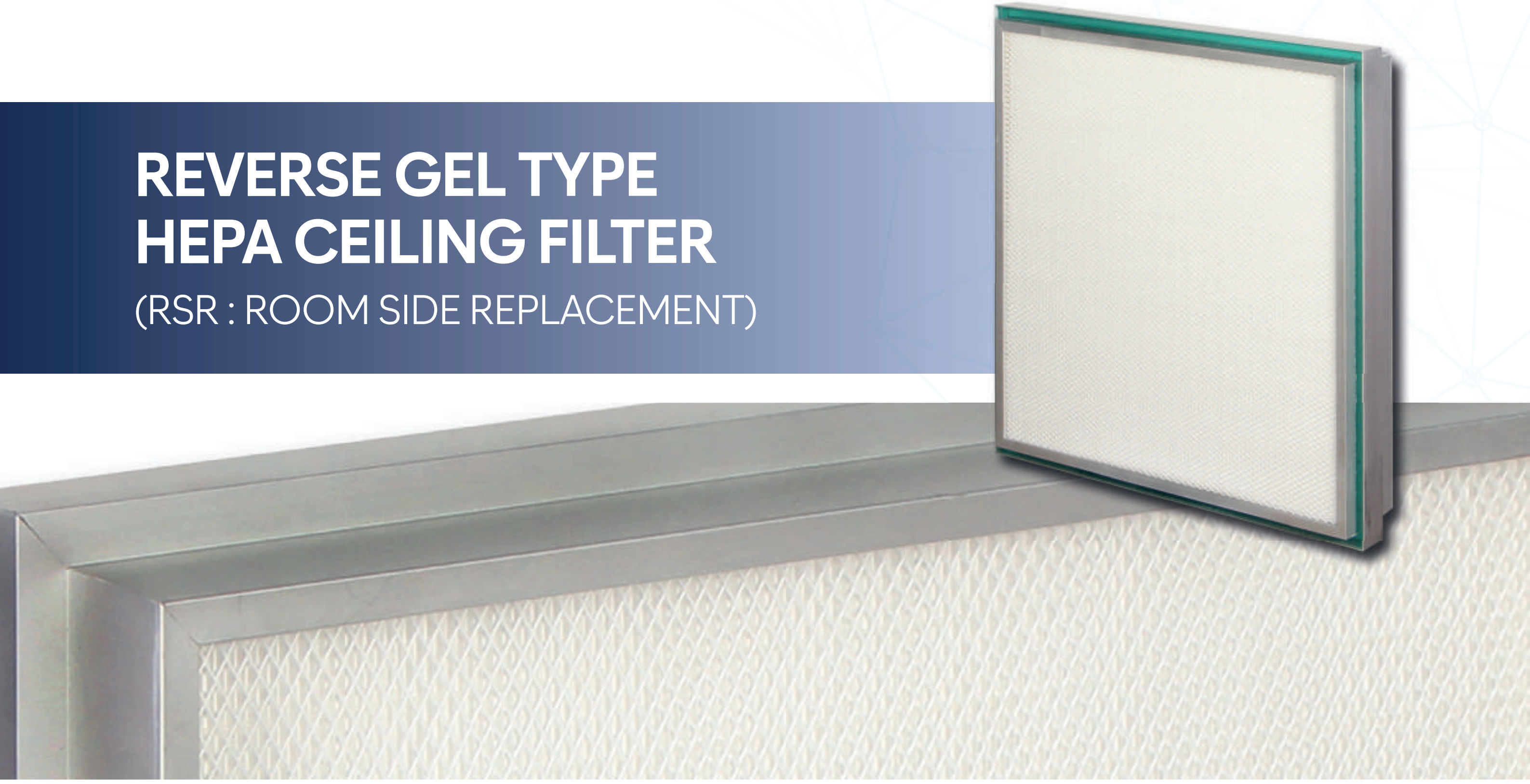
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

"Net filter dimensions without flange is less than 34 mm from width and length "

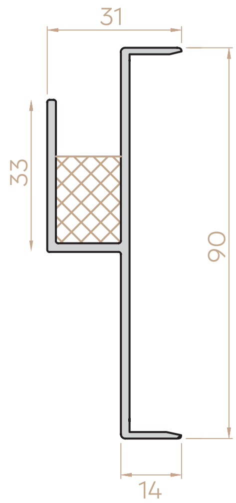
"It's possible to manufacture at various depths (56,67,70,79,101,111,118,126,151mm) using the stainless adaptive L profile applied to the HEPA Ceiling Filter aluminum profiles."

REVERSE GEL TYPE HEPA CEILING FILTER

(RSR : ROOM SIDE REPLACEMENT)



Applications:
Final filter for cleanrooms and LF units
Life science
Healthcare
Microelectronics
Food & Beverages



Highlights:
- Reverse L-type side gel gasket on the middle of frame
- High quality fluid gel gasket (self healing)
- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

Filter Standard:	EN 1822 and ISO 29463	Max. Operating Tempature:	80˚C
Filter Class:	E10 - E11 - E12 - H13 - H14	Faceguard:	Aluminium sheet (powder coated)
Media:	High quality glass fiber	Gasket:	Gel
Frame:	Anodized extruded aluminium	Sealing Compound:	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	Seperator:	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-H13-A-2-RJ-305-305-90-FB-G	H13	ISO 35 H	305x305x90	2,9	65	150	85
HC-H13-A-2-RJ-305-610-90-FB-G	H13	ISO 35 H	305x610x90	5,8	65	300	85
HC-H13-A-2-RJ-457-457-90-FB-G	H13	ISO 35 H	457x457x90	6,6	65	340	85
HC-H13-A-2-RJ-610-610-90-FB-G	H13	ISO 35 H	610x610x90	11,7	65	600	85
HC-H13-A-2-RJ-610-915-90-FB-G	H13	ISO 35 H	610x915x90	17,5	65	900	85
HC-H13-A-2-RJ-610-1220-90-FB-G	H13	ISO 35 H	610x1220x90	23,4	65	1200	85
HC-H14-A-2-RJ-305-305-90-FB-G	H14	ISO 45 H	305x305x90	3	65	150	110
HC-H14-A-2-RJ-305-610-90-FB-G	H14	ISO 45 H	305x610x90	6	65	300	110
HC-H14-A-2-RJ-457-457-90-FB-G	H14	ISO 45 H	457x457x90	6,9	65	340	110
HC-H14-A-2-RJ-610-610-90-FB-G	H14	ISO 45 H	610x610x90	12,2	65	600	110
HC-H14-A-2-RJ-610-915-90-FB-G	H14	ISO 45 H	610x915x90	18,3	65	900	110
HC-H14-A-2-RJ-610-1220-90-FB-G	H14	ISO 45 H	610x1220x90	23,4	65	1200	110

"Net filter dimensions with flange is more than 34 mm from width and length "

REVERSE GEL TYPE HEPA CEILING FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Design	Dimensions (mm)	Faceguard	Gasket
HC : Reverse Gel Type HEPA Ceiling Filter	E10 E11 E12 H13 H14	A: Aluminium	2 : 65	Reverse Gel Type	610x610x90	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	G: Gel

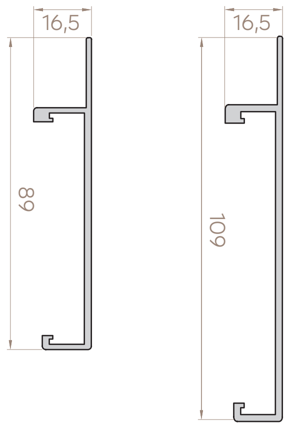
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

"Net filter dimensions with flange is more than 34 mm from width and length "

HEPA CEILING FILTER

(KNIFE EDGE PROFILE)

Applications:
Final filter for cleanrooms and LF Units
Suitable for Fan Filter Units
Life science
Healthcare
Microelectronics
Food & Beverages



Highlights:

- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	H13 - H14	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	PU foam
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

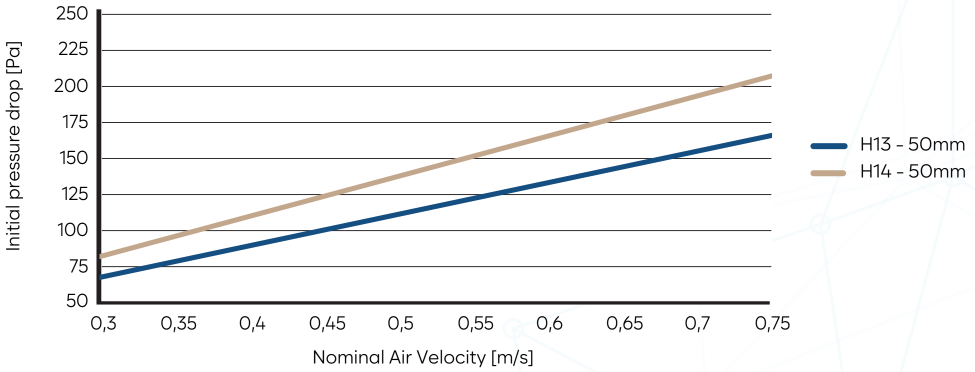
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-A-SM-1-305-305-89-FB-P	H13	ISO 35 H	305x305x89	2,3	50	150	100
HC-H13-A-SM-1-305-610-89-FB-P	H13	ISO 35 H	305x610x89	4,5	50	300	100
HC-H13-A-SM-1-457-457-89-FB-P	H13	ISO 35 H	457x457x89	5	50	340	100
HC-H13-A-SM-1-610-610-89-FB-P	H13	ISO 35 H	610x610x89	9	50	600	100
HC-H13-A-SM-1-610-915-89-FB-P	H13	ISO 35 H	610x915x89	13,5	50	900	100
HC-H13-A-SM-1-610-1220-89-FB-P	H13	ISO 35 H	610x1220x89	18	50	1200	100
HC-H14-A-SM-1-305-305-89-FB-P	H14	ISO 45 H	305x305x89	2,4	50	150	125
HC-H14-A-SM-1-305-610-89-FB-P	H14	ISO 45 H	305x610x89	4,7	50	300	125
HC-H14-A-SM-1-457-457-89-FB-P	H14	ISO 45 H	457x457x89	5,3	50	340	125
HC-H14-A-SM-1-610-610-89-FB-P	H14	ISO 45 H	610x610x89	9,4	50	600	125
HC-H14-A-SM-1-610-915-89-FB-P	H14	ISO 45 H	610x915x89	14	50	900	125
HC-H14-A-SM-1-610-1220-89-FB-P	H14	ISO 45 H	610x1220x89	18,8	50	1200	125

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HEPA CEILING FILTER (KNIFE EDGE PROFILE) CODE CONFIGURATION

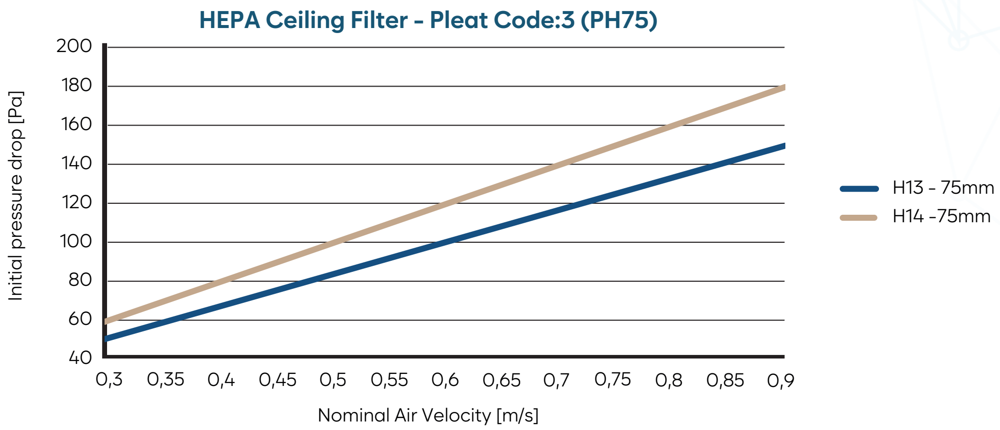
Filter Type	Filter Class	Frame	Pleat Height	Design	Dimensions (mm)	Faceguard	Gasket
HC : HEPA Ceiling Filter (Knife Edge Profile)	H13 H14	A: Aluminium	1: 50 mm 3: 75 mm	SM: Seperated	610x610x89	FB: On Both Sides	P: Continuous Pu Foam

Knife Edge Ceiling Filter - Pleat Code:1 (PH50)



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HC-H13-A-SM-3-305-305-109-P	H13	ISO 35 H	305x305x109	3,4	75	150	75
HC-H13-A-SM-3-305-610-109-P	H13	ISO 35 H	305x610x109	6,8	75	300	75
HC-H13-A-SM-3-457-457-109-P	H13	ISO 35 H	457x457x109	7,6	75	340	75
HC-H13-A-SM-3-610-610-109-P	H13	ISO 35 H	610x610x109	13,5	75	600	75
HC-H13-A-SM-3-610-915-109-P	H13	ISO 35 H	610x915x109	20,3	75	900	75
HC-H13-A-SM-3-610-1220-109-P	H13	ISO 35 H	610x1220x109	27	75	1200	75
HC-H14-A-SM-3-305-305-109-P	H14	ISO 45 H	305x305x109	3,5	75	150	90
HC-H14-A-SM-3-305-610-109-P	H14	ISO 45 H	305x610x109	7,1	75	300	90
HC-H14-A-SM-3-457-457-109-P	H14	ISO 45 H	457x457x109	7,9	75	340	90
HC-H14-A-SM-3-610-610-109-P	H14	ISO 45 H	610x610x109	14,1	75	600	90
HC-H14-A-SM-3-610-915-109-P	H14	ISO 45 H	610x915x109	21,2	75	900	90
HC-H14-A-SM-3-610-1220-109-P	H14	ISO 45 H	610x1220x109	28,2	75	1200	90

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

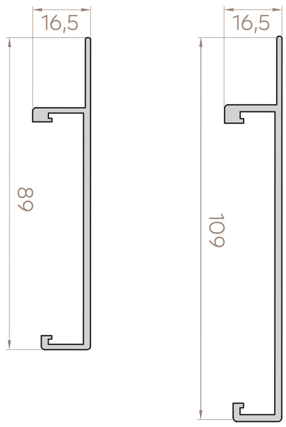


NOTES

ULPA CEILING FILTER

(KNIFE EDGE PROFILE)

Applications:
Final filter for cleanrooms and LF Units
Suitable for Fan Filter Units
Microelectronics



Highlights:
- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	U15, U16, U17	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Gasket:**	PU foam
Frame:	Anodized extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

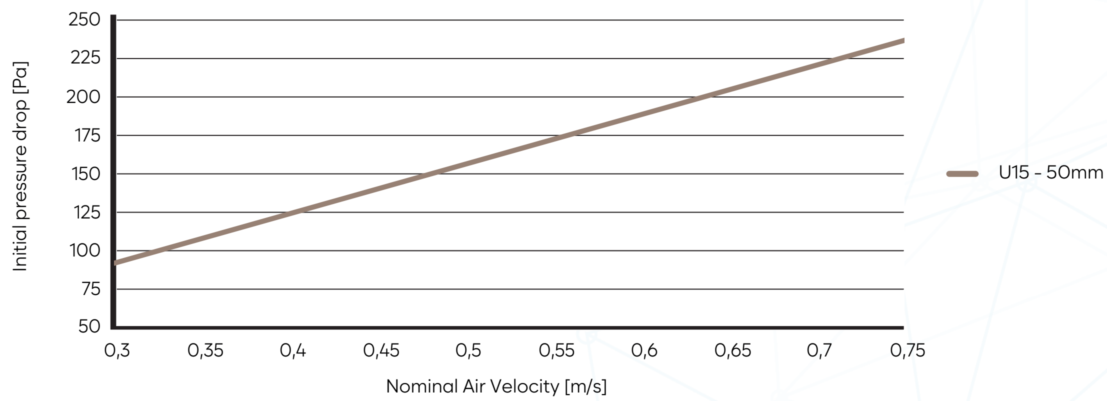
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HC-U15-A-SM-1-305-305-89-FB-P	U15	ISO 55 U	305x305x89	2,5	50	150	140
HC-U15-A-SM-1-305-610-89-FB-P	U15	ISO 55 U	305x610x89	5	50	300	140
HC-U15-A-SM-1-457-457-89-FB-P	U15	ISO 55 U	457x457x89	5,6	50	340	140
HC-U15-A-SM-1-610-610-89-FB-P	U15	ISO 55 U	610x610x89	10	50	600	140
HC-U15-A-SM-1-610-915-89-FB-P	U15	ISO 55 U	610x915x89	15	50	900	140
HC-U15-A-SM-1-610-1220-89-FB-P	U15	ISO 55 U	610x1220x89	20	50	1200	140
HC-U15-A-SM-3-305-305-109-FB-P	U15	ISO 55 U	305x305x109	3,7	75	150	110
HC-U15-A-SM-3-305-610-109-FB-P	U15	ISO 55 U	305x610x109	7,5	75	300	110
HC-U15-A-SM-3-457-457-109-FB-P	U15	ISO 55 U	457x457x109	8,4	75	340	110
HC-U15-A-SM-3-610-610-109-FB-P	U15	ISO 55 U	610x610x109	15	75	600	110
HC-U15-A-SM-3-610-915-109-FB-P	U15	ISO 55 U	610x915x109	22,5	75	900	110
HC-U15-A-SM-3-610-1220-109-FB-P	U15	ISO 55 U	610x1220x109	30	75	1200	110

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

ULPA CEILING FILTER (KNIFE EDGE PROFILE) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Pleat Height	Design	Dimensions (mm)	Faceguard	Gasket
UC : ULPA Ceiling Filter (Knife Edge Profile)	U15	A: Aluminium	1: 50 mm	SM: Seperated	610x610x89	FB: On Both Sides	P: Continuous Pu Foam

Knife Edge Ceiling Filter - Pleat Code:1 (PH50)



VERSATILE HEPA PANEL FILTER

Applications:
Final filter for HVAC or cleanrooms

Highlights:
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Low frame depth only 32 mm
- Simple and light weight

Filter Standard:	EN 1822 and ISO 29463	Max. Operating Tempature:	80˚C
Filter Class:	E10, E11, E12, H13, H14	Faceguard:	Aluminium sheet (powder coated)
Media:	Glass fiber	Gasket:	EPDM flat, EPDM flat continous and PU Foam
Frame:	Anodized extruded aluminium	Sealing Compound:	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	Seperators:	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HVP-H13-A-305-610-32-FC-P	H13	ISO 35 H	305x610x32	2,5	32	268	290
HVP-H13-A-610-610-32-FC-P	H13	ISO 35 H	610x610x32	5,0	32	535	290
HVP-H14-A-305-610-32-FC-P	H14	ISO 45 H	305x610x32	2,5	32	268	320
HVP-H14-A-610-610-32-FC-P	H14	ISO 45 H	610x610x32	5,0	32	535	320

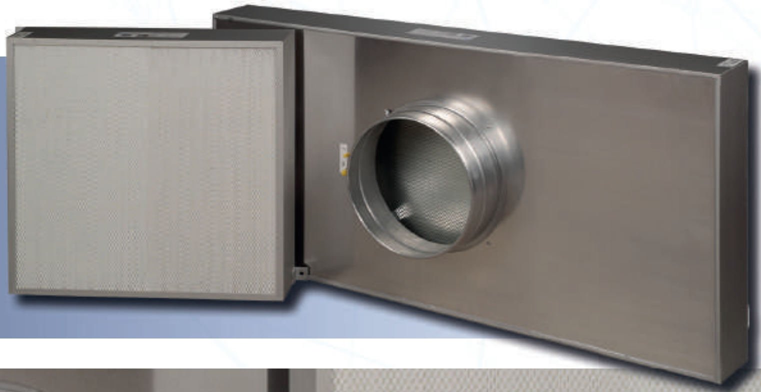
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

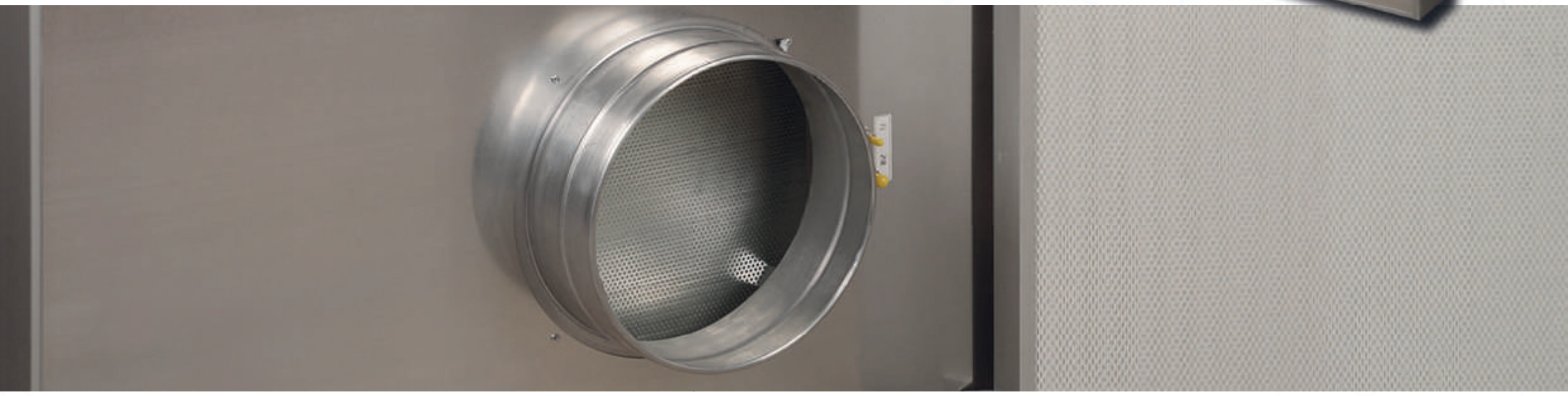
VERSATILE HEPA PANEL FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Faceguard	Gasket
HVP : Versatile HEPA Panel Filter	E10 E11 E12 H13 H14	A : Aluminium	610x610x32	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

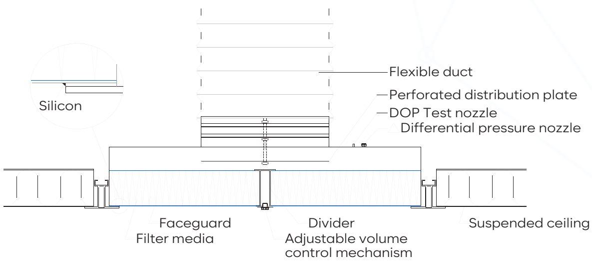
TERMINAL HEPA FILTER

(WITHOUT DIVIDER)





Applications:
Final filter for cleanrooms
Life science
Microelectronics
Food & Beverages



Highlights:

- Self-contained air inlet, no additional housing required
- ΔPa and %100 DOP nozzles exist (accessible from technical side)
- High quality glass fiber media
- Guaranteed leak free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Optimized velocity distribution

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	H13 - H14 - U15	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Sealing Compound:**	Two component polyurethane
Frame:	Anodized extruded aluminium	**Seperator:**	Hotmelt
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)		

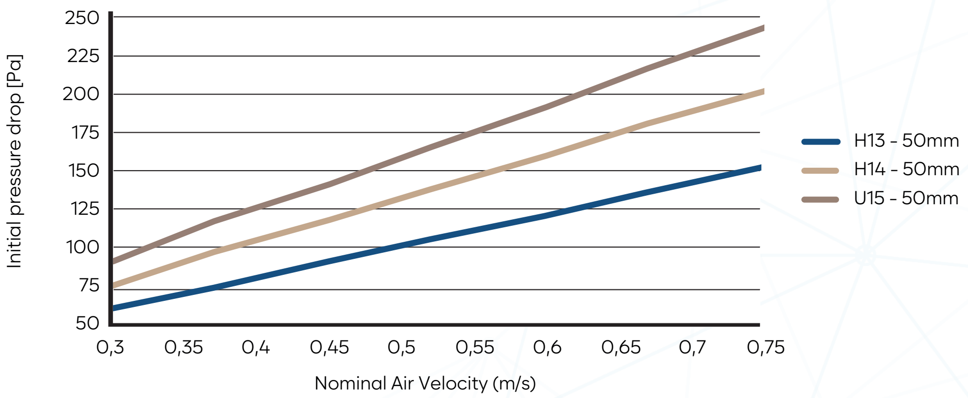
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Spigot Diameter (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HTH-H13-1-305-305-125-C-FC-W	H13	ISO 35 H	305x305x125	160	2,8	50	150	90
HTH-H13-1-305-610-125-D-FC-W	H13	ISO 35 H	305x610x125	200	5,5	50	300	90
HTH-H13-1-457-457-125-D-FC-W	H13	ISO 35 H	457x457x125	200	6,2	50	340	90
HTH-H13-1-610-610-125-D-FC-W	H13	ISO 35 H	610x610x125	200	11,0	50	600	90
HTH-H13-1-610-915-125-M-FC-W	H13	ISO 35 H	610x915x125	250	16,5	50	900	90
HTH-H13-1-610-1220-125-M-FC-W	H13	ISO 35 H	610x1220x125	250	22,0	50	1200	90
HTH-H14-1-305-305-125-C-FC-W	H14	ISO 45 H	305x305x125	160	2,8	50	150	115
HTH-H14-1-305-610-125-D-FC-W	H14	ISO 45 H	305x610x125	200	5,5	50	300	115
HTH-H14-1-457-457-125-D-FC-W	H14	ISO 45 H	457x457x125	200	6,2	50	340	115
HTH-H14-1-610-610-125-D-FC-W	H14	ISO 45 H	610x610x125	200	11,0	50	600	115
HTH-H14-1-610-915-125-M-FC-W	H14	ISO 45 H	610x915x125	250	16,5	50	900	115
HTH-H14-1-610-1220-125-M-FC-W	H14	ISO 45 H	610x1220x125	250	22,0	50	1200	115
HTH-U15-1-305-305-125-C-FC-W	U15	ISO 55 U	305x305x125	160	2,8	50	150	135
HTH-U15-1-305-610-125-D-FC-W	U15	ISO 55 U	305x610x125	200	5,5	50	300	135
HTH-U15-1-457-457-125-D-FC-W	U15	ISO 55 U	457x457x125	200	6,2	50	340	135
HTH-U15-1-610-610-125-D-FC-W	U15	ISO 55 U	610x610x125	200	11,0	50	600	135
HTH-U15-1-610-915-125-M-FC-W	U15	ISO 55 U	610x915x125	250	16,5	50	900	135
HTH-U15-1-610-1220-125-M-FC-W	U15	ISO 55 U	610x1220x125	250	22,0	50	1200	135

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

TERMINAL HEPA FILTER (WITHOUT DIVIDER) CODE CONFIGURATION

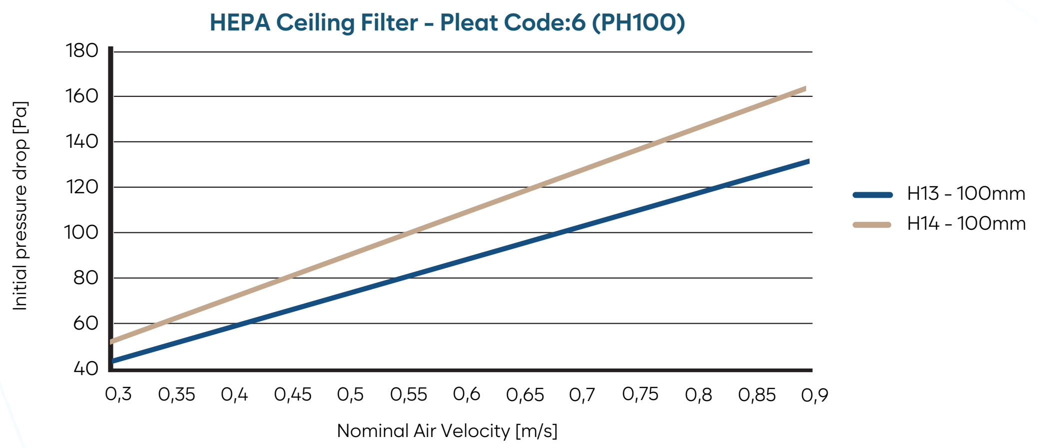
Filter Type	Filter Class	Pleat Height	Dimensions (mm)	Spigot Diameter	Faceguard	Gasket
HTH : Terminal HEPA Filter without Divider	H13 H14 U15	1: 50 mm 6: 100 mm	610x610x125	A: 125 B: 150 C: 160 D: 200 M: 250 F: 300 L: 315 X: 355 Z: Special	FC: On Clean Side	P: Continuous Pu Foam

Terminal Hood Filter (Without Divider) - Pleat Code:1 (PH50)



Filter Model	Filter Class		Dimensions WxHxD (mm)	Spigot Diameter (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463						
HTH-H13-6-305-305-175-C-FC-W	H13	ISO 35 H	305x305x175	160	4,5	100	150	65
HTH-H13-6-305-610-175-D-FC-W	H13	ISO 35 H	305x610x175	200	9,0	100	300	65
HTH-H13-6-457-457-175-D-FC-W	H13	ISO 35 H	457x457x175	200	10,1	100	340	65
HTH-H13-6-610-610-175-D-FC-W	H13	ISO 35 H	610x610x175	200	18,0	100	600	65
HTH-H13-6-610-915-175-M-FC-W	H13	ISO 35 H	610x915x175	250	27,0	100	900	65
HTH-H13-6-610-1220-175-M-FC-W	H13	ISO 35 H	610x1220x175	250	36,0	100	1200	65
HTH-H14-6-305-305-175-C-FC-W	H14	ISO 45 H	305x305x175	160	4,7	100	150	80
HTH-H14-6-305-610-175-D-FC-W	H14	ISO 45 H	305x610x175	200	9,4	100	300	80
HTH-H14-6-457-457-175-D-FC-W	H14	ISO 45 H	457x457x175	200	10,5	100	340	80
HTH-H14-6-610-610-175-D-FC-W	H14	ISO 45 H	610x610x175	200	18,8	100	600	80
HTH-H14-6-610-915-175-M-FC-W	H14	ISO 45 H	610x915x175	250	28,2	100	900	80
HTH-H14-6-610-1220-175-M-FC-W	H14	ISO 45 H	610x1220x175	250	37,6	100	1200	80
HTH-U15-6-305-305-175-C-FC-W	U15	ISO 55 U	305x305x175	160	5,0	100	150	100
HTH-U15-6-305-610-175-D-FC-W	U15	ISO 55 U	305x610x175	200	10,0	100	300	100
HTH-U15-6-457-457-175-D-FC-W	U15	ISO 55 U	457x457x175	200	11,2	100	340	100
HTH-U15-6-610-610-175-D-FC-W	U15	ISO 55 U	610x610x175	200	20,0	100	600	100
HTH-U15-6-610-915-175-M-FC-W	U15	ISO 55 U	610x915x175	250	30,0	100	900	100
HTH-U15-6-610-1220-175-M-FC-W	U15	ISO 55 U	610x1220x175	250	40,0	100	1200	100

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



NOTES

TERMINAL HEPA FILTER
(WITH DIVIDER)

Applications:
Final filter for cleanrooms
Life science
Microelectronics

Highlights:
- Self-contained air inlet, no additional housing required
- Adjustable airflow by means of a damper
- ΔPa and %100 DOP nozzles exist (accessible from technical or room side)
- High quality glass fiber media
- Guaranteed leak-free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)

Filter Standard:	EN 1822 and ISO 29463
Filter Class:	H13 - H14 - U15
Media:	High quality glass fiber
Frame:	Anodized extruded aluminium
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)

Max. Operating Tempature:	80˚C
Faceguard:	Aluminium sheet (powder coated)
Sealing Compound:	Two component polyurethane
Seperator:	Hotmelt

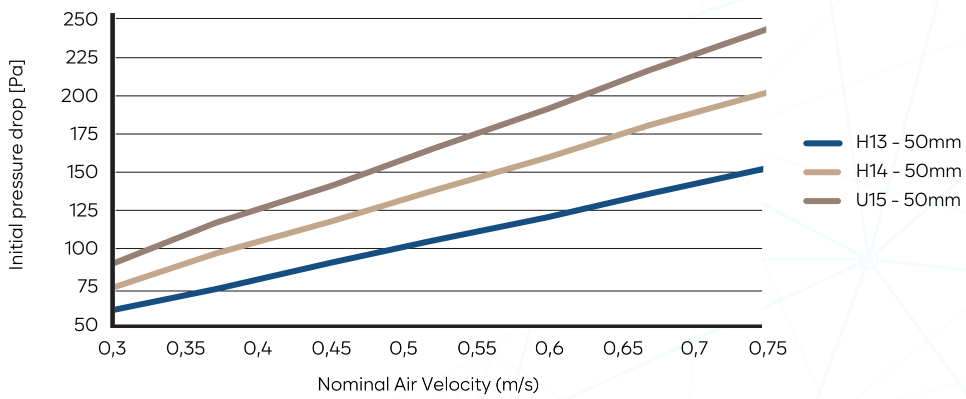
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Spigot Diameter (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HTH-H13-1-D-AFM-305-305-125-C-FW-W	H13	ISO 35 H	305x305x125	160	2,8	50	150	90
HTH-H13-1-D-AFM-305-610-125-D-FW-W	H13	ISO 35 H	305x610x125	200	5,5	50	300	90
HTH-H13-1-D-AFM-457-457-125-D-FW-W	H13	ISO 35 H	457x457x125	200	6,2	50	340	90
HTH-H13-1-D-AFM-610-610-125-D-FW-W	H13	ISO 35 H	610x610x125	200	11,0	50	600	90
HTH-H13-1-D-AFM-610-915-125-M-FW-W	H13	ISO 35 H	610x915x125	250	16,5	50	900	90
HTH-H13-1-D-AFM-610-1220-125-M-FW-W	H13	ISO 35 H	610x1220x125	250	22,0	50	1200	90
HTH-H14-1-D-AFM-305-305-125-C-FW-W	H14	ISO 45 H	305x305x125	160	2,8	50	150	115
HTH-H14-1-D-AFM-305-610-125-D-FW-W	H14	ISO 45 H	305x610x125	200	5,5	50	300	115
HTH-H14-1-D-AFM-457-457-125-D-FW-W	H14	ISO 45 H	457x457x125	200	6,2	50	340	115
HTH-H14-1-D-AFM-610-610-125-D-FW-W	H14	ISO 45 H	610x610x125	200	11,0	50	600	115
HTH-H14-1-D-AFM-610-915-125-M-FW-W	H14	ISO 45 H	610x915x125	250	16,5	50	900	115
HTH-H14-1-D-AFM-610-1220-125-M-FW-W	H14	ISO 45 H	610x1220x125	250	22,0	50	1200	115
HTH-U15-1-D-AFM-305-305-125-C-FW-W	U15	ISO 55 U	305x305x125	160	2,8	50	150	135
HTH-U15-1-D-AFM-305-610-125-D-FW-W	U15	ISO 55 U	305x610x125	200	5,5	50	300	135
HTH-U15-1-D-AFM-457-457-125-D-FW-W	U15	ISO 55 U	457x457x125	200	6,2	50	340	135
HTH-U15-1-D-AFM-610-610-125-D-FW-W	U15	ISO 55 U	610x610x125	200	11,0	50	600	135
HTH-U15-1-D-AFM-610-915-125-M-FW-W	U15	ISO 55 U	610x915x125	250	16,5	50	900	135
HTH-U15-1-D-AFM-610-1220-125-M-FW-W	U15	ISO 55 U	610x1220x125	250	22,0	50	1200	135

Differential Pressure Drop +-10%.
Add 15Pa to initial resistance for hood contruction.

TERMINAL HEPA FILTER (WITH DIVIDER) CODE CONFIGURATION

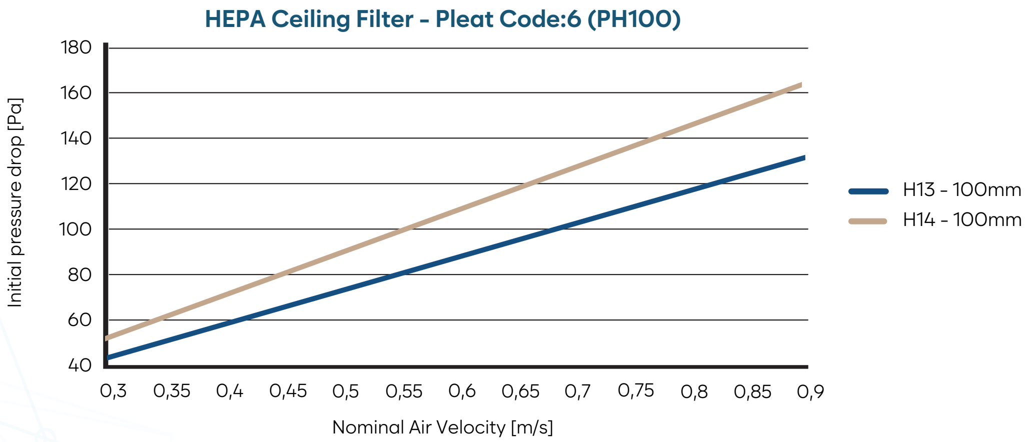
Filter Type	Filter Class	Pleat Height	Divider	Adjustabl Mechanism	Dimensions (mm)	Spigot Diameter	Faceguard	Gasket
HTH : Terminal HEPA Filter with Divider	H13 H14 U15	1: 50 mm 6: 100 mm	W: Without D: Exist	W: Without AFM: Exist	610x610x125	A: 125 B: 150 C: 160 D: 200 M: 250 F: 300 L: 315 X: 355 Z: Special	FC: On Clean Side	W: Without P: Continuous Pu Foam E: EPDM Flat

Terminal Hood Filter (Without Divider) - Pleat Code:1 (PH50)



Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Spigot Diameter (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HTH-H13-6-D-AFM-305-305-175-C-FW-W	H13	ISO 35 H	305x305x175	160	4,5	100	150	65
HTH-H13-6-D-AFM-305-610-175-D-FW-W	H13	ISO 35 H	305x610x175	200	9,0	100	300	65
HTH-H13-6-D-AFM-457-457-175-D-FW-W	H13	ISO 35 H	457x457x175	200	10,1	100	340	65
HTH-H13-6-D-AFM-610-610-175-D-FW-W	H13	ISO 35 H	610x610x175	200	18,0	100	600	65
HTH-H13-6-D-AFM-610-915-175-M-FW-W	H13	ISO 35 H	610x915x175	250	27,0	100	900	65
HTH-H13-6-D-AFM-610-1220-175-M-FW-W	H13	ISO 35 H	610x1220x175	250	36,0	100	1200	65
HTH-H14-6-D-AFM-305-305-175-C-FW-W	H14	ISO 45 H	305x305x175	160	4,7	100	150	80
HTH-H14-6-D-AFM-305-610-175-D-FW-W	H14	ISO 45 H	305x610x175	200	9,4	100	300	80
HTH-H14-6-D-AFM-457-457-175-D-FW-W	H14	ISO 45 H	457x457x175	200	10,5	100	340	80
HTH-H14-6-D-AFM-610-610-175-D-FW-W	H14	ISO 45 H	610x610x175	200	18,8	100	600	80
HTH-H14-6-D-AFM-610-915-175-M-FW-W	H14	ISO 45 H	610x915x175	250	28,2	100	900	80
HTH-H14-6-D-AFM-610-1220-175-M-FW-W	H14	ISO 45 H	610x1220x175	250	37,6	100	1200	80
HTH-U15-6-D-AFM-305-305-175-C-FW-W	U15	ISO 55 U	305x305x175	160	5,0	100	150	100
HTH-U15-6-D-AFM-305-610-175-D-FW-W	U15	ISO 55 U	305x610x175	200	10,0	100	300	100
HTH-U15-6-D-AFM-457-457-175-D-FW-W	U15	ISO 55 U	457x457x175	200	11,2	100	340	100
HTH-U15-6-D-AFM-610-610-175-D-FW-W	U15	ISO 55 U	610x610x175	200	20,0	100	600	100
HTH-U15-6-D-AFM-610-915-175-M-FW-W	U15	ISO 55 U	610x915x175	250	30,0	100	900	100
HTH-U15-6-D-AFM-610-1220-175-M-FW-W	U15	ISO 55 U	610x1220x175	250	40,0	100	1200	100

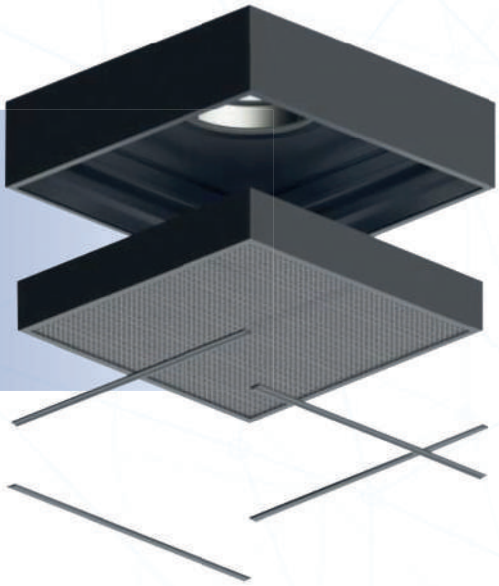
Differential Pressure Drop +-10%.
Add 15Pa to initial resistance for hood contruction.



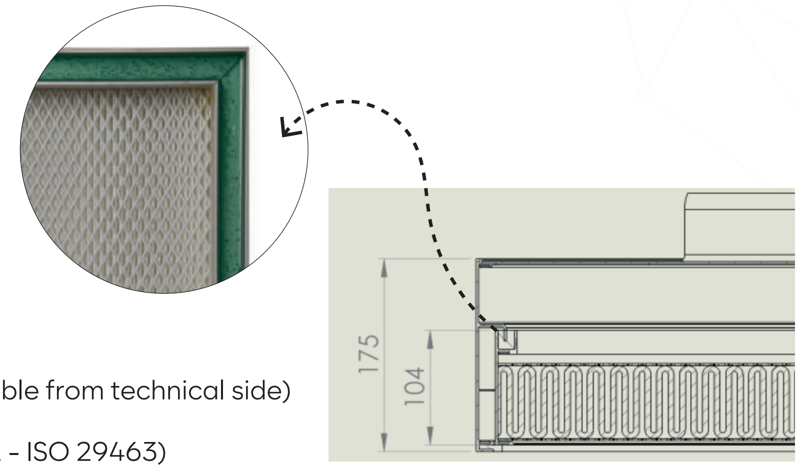
NOTES

TERMINAL HOOD WITH CHANGEABLE HEPA FILTER

(RSR : ROOM SIDE REPLACEMENT)



Applications:
Final filter for cleanrooms
Life science
Microelectronics



Highlights:

- Self-contained air inlet
- Self-boxed, need for narrower space
- ΔPa and %100 DOP nozzles exist (accessible from technical side)
- Guaranteed leak-free
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Filter change from the room side

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	H13 - H14 - U15	**Faceguard:**	Aluminium sheet (powder coated)
Media:	High quality glass fiber	**Sealing Compound:**	Two component polyurethane
Frame:	Anodized extruded aluminium	**Seperator:**	Hotmelt
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)		

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Suitable Filter Dimensions (mm)	Spigot Diameter (mm)	Filter Nominal Airflow (m^3/h)	Filter Initial Pressure Drop (Pa)
HTH-H13-J-W-305-305-175-C-FB-W	H13	ISO 35 H	305x305x175	270x270x104	160	120	85
HTH-H13-J-W-305-610-175-D-FB-W	H13	ISO 35 H	305x610x175	270x575x104	200	250	85
HTH-H13-J-W-457-457-175-D-FB-W	H13	ISO 35 H	457x457x175	422x422x104	200	290	85
HTH-H13-J-W-610-610-175-M-FB-W	H13	ISO 35 H	610x610x175	575x575x104	250	535	85
HTH-H13-J-W-610-915-175-M-FB-W	H13	ISO 35 H	610x915x175	575x880x104	250	820	85
HTH-H13-J-W-610-1220-175-L-FB-W	H13	ISO 35 H	610x1220x175	575x1185x104	315	1100	85
HTH-H14-J-W-305-305-175-C-FB-W	H14	ISO 45 H	305x305x175	270x270x104	160	120	100
HTH-H14-J-W-305-610-175-D-FB-W	H14	ISO 45 H	305x610x175	270x575x104	200	250	100
HTH-H14-J-W-457-457-175-D-FB-W	H14	ISO 45 H	457x457x175	422x422x104	200	290	100
HTH-H14-J-W-610-610-175-M-FB-W	H14	ISO 45 H	610x610x175	575x575x104	250	535	100
HTH-H14-J-W-610-915-175-M-FB-W	H14	ISO 45 H	610x915x175	575x880x104	250	820	100
HTH-H14-J-W-610-1220-175-L-FB-W	H14	ISO 45 H	610x1220x175	575x1185x104	315	1100	100
HTH-U15-J-W-305-305-175-C-FB-W	U15	ISO 55 U	305x305x175	270x270x104	160	120	115
HTH-U15-J-W-305-610-175-D-FB-W	U15	ISO 55 U	305x610x175	270x575x104	200	250	115
HTH-U15-J-W-457-457-175-D-FB-W	U15	ISO 55 U	457x457x175	422x422x104	200	290	115
HTH-U15-J-W-610-610-175-M-FB-W	U15	ISO 55 U	610x610x175	575x575x104	250	535	115
HTH-U15-J-W-610-915-175-M-FB-W	U15	ISO 55 U	610x915x175	575x880x104	250	820	115
HTH-U15-J-W-610-1220-175-L-FB-W	U15	ISO 55 U	610x1220x175	575x1185x104	315	1100	115

The filter size is 35 mm smaller than the frame size.
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

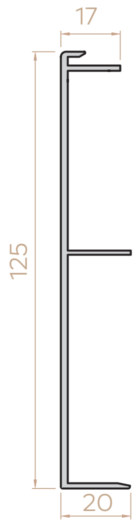
TERMINAL HOOD WITH CHANGEABLE HEPA FILTER CODE CONFIGURATION

Filter Type	Filter Class	Design	Divider	Dimensions (mm)	Spigot Diameter	Faceguard	Gasket
HTH : Terminal Hood with Changeable HEPA Filter	H13 H14 U15	J: Gel type	W: Without D: Exist	610x610x175	A: 125 B: 150 C: 160 D: 200 M: 250 F: 300 L: 315 X: 355 Z: Special	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	G: Gel

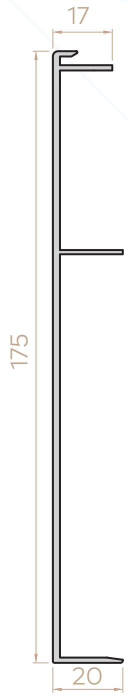
Secure and Seal: HEPA Terminal Hood Filters in Leak-Proof Design

HEPA Terminal Hood Filters are ensuring a leak-proof design that offers superior performance and durability. Please review the detailed profile drawing for a comprehensive understanding of the filter frame's dimensions and design features. This will assist in choosing the perfect filter for your specific requirements.

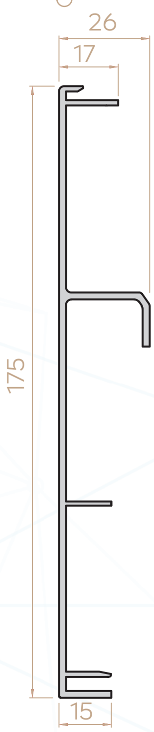
125 mm



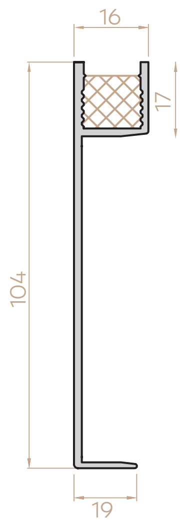
175 mm



175 mm (RSR Type)



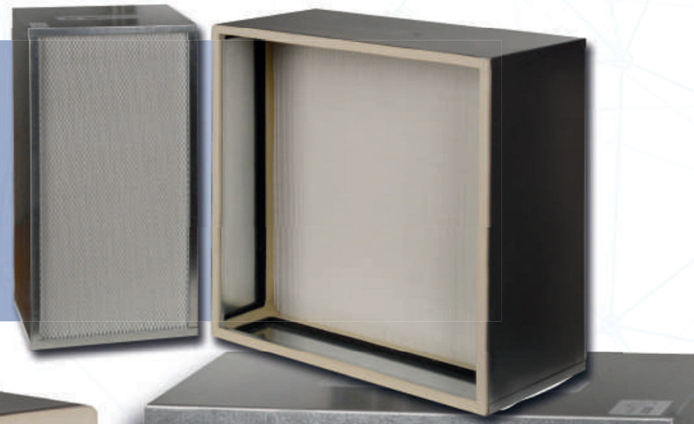
Suitable for 104 mm Gel Type HEPA Ceiling filter.

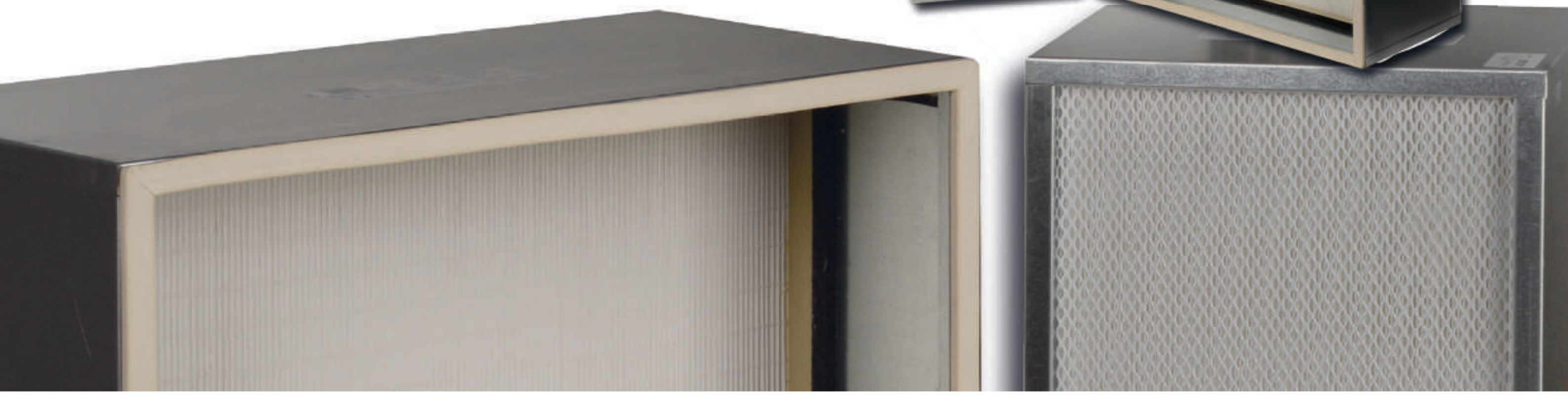


NOTES

HIGH CAPACITY HEPA FILTER WITH SINGLE PLEAT

(METAL FRAME)





Applications:
Final filter for hygenic type AHU's
Life science
Healthcare
Operating theatre LF units
Food & Beverages

Highlights:

- For high airflow rates (2000-3000 m³/h) for 610x610x292 mm
- High quality glass fiber media
- Guaranteed leak free
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Optimized velocity distribution

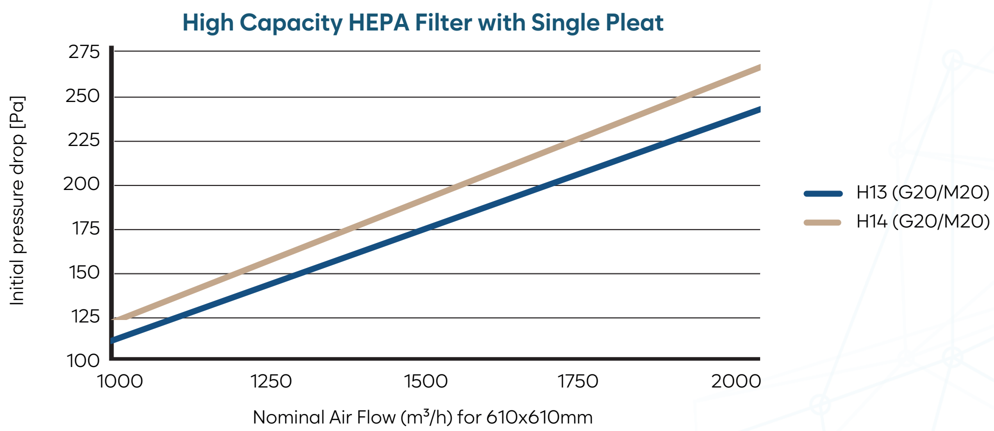
Filter Standard;	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	E10 - E11 - E12 - H13 - H14 - U15	**Sealing Compound:**	Polyurethane
Media:	High quality glass fiber	**Seperator:**	Hotmelt
Frame:	Galvanized, Alu. and Stainless Steel	**Gasket:**	EPDM, EPDM Flat continous and PU Foam
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Faceguard:**	One side standard

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HHS-H13-G-20-287-592-292-FC-E	H13	ISO 35 H	287x592x292	8,5	125	940	240
HHS-H13-G-20-305-610-292-FC-E	H13	ISO 35 H	305x610x292	9	125	1000	240
HHS-H13-G-20-592-592-292-FC-E	H13	ISO 35 H	592x592x292	17	125	1880	240
HHS-H13-G-20-610-610-292-FC-E	H13	ISO 35 H	610x610x292	18	125	2000	240
HHS-H14-G-20-287-592-292-FC-E	H14	ISO 45 H	287x592x292	9,4	125	940	270
HHS-H14-G-20-305-610-292-FC-E	H14	ISO 45 H	305x610x292	10	125	1000	270
HHS-H14-G-20-592-592-292-FC-E	H14	ISO 45 H	592x592x292	18,8	125	1880	270
HHS-H14-G-20-610-610-292-FC-E	H14	ISO 45 H	610x610x292	20	125	2000	270

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HIGH CAPACITY HEPA FILTER WITH SINGLE PLEAT (METAL FRAME) CODE CONFIGURATION

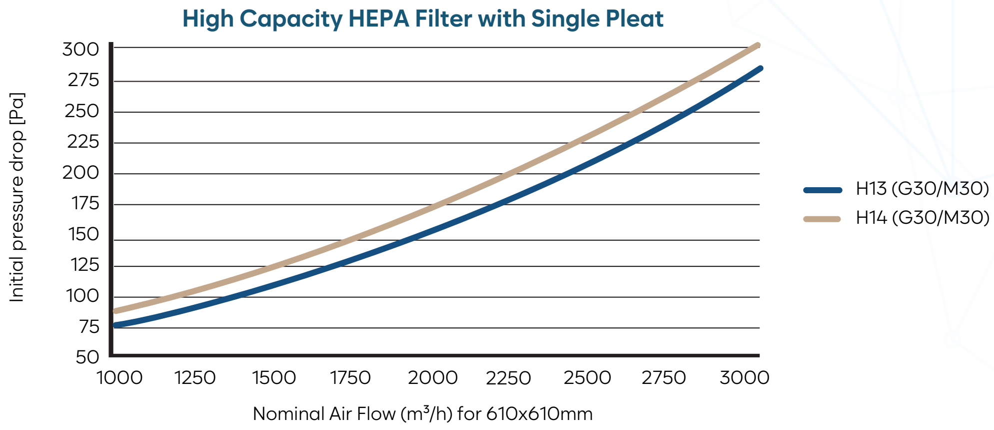
Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Faceguard	Gasket
HHS : High Capacity HEPA Filter with Single Pleat (Metal Frame)	E10 E11 E12 H13 H14 U15	A: Aluminium G: Galvanized SS: Stainless Steel	20: 2000 m^3/h 30: 3000 m^3/h	610x610x292	FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side



HIGH CAPACITY HEPA FILTER WITH SINGLE PLEAT (METAL FRAME/G30)

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HHS-H13-G-30-287-592-292-FC-E	H13	ISO 35 H	287x592x292	12,3	150	1415	270
HHS-H13-G-30-305-610-292-FC-E	H13	ISO 35 H	305x610x292	13	150	1500	270
HHS-H13-G-30-592-592-292-FC-E	H13	ISO 35 H	592x592x292	24,5	150	2830	270
HHS-H13-G-30-610-610-292-FC-E	H13	ISO 35 H	610x610x292	26,0	150	3000	270
HHS-H14-G-30-287-592-292-FC-E	H14	ISO 45 H	287x592x292	14,1	150	1415	300
HHS-H14-G-30-305-610-292-FC-E	H14	ISO 45 H	305x610x292	15,0	150	1500	300
HHS-H14-G-30-592-592-292-FC-E	H14	ISO 45 H	592x592x292	28,2	150	2830	300
HHS-H14-G-30-610-610-292-FC-E	H14	ISO 45 H	610x610x292	30,0	150	3000	300

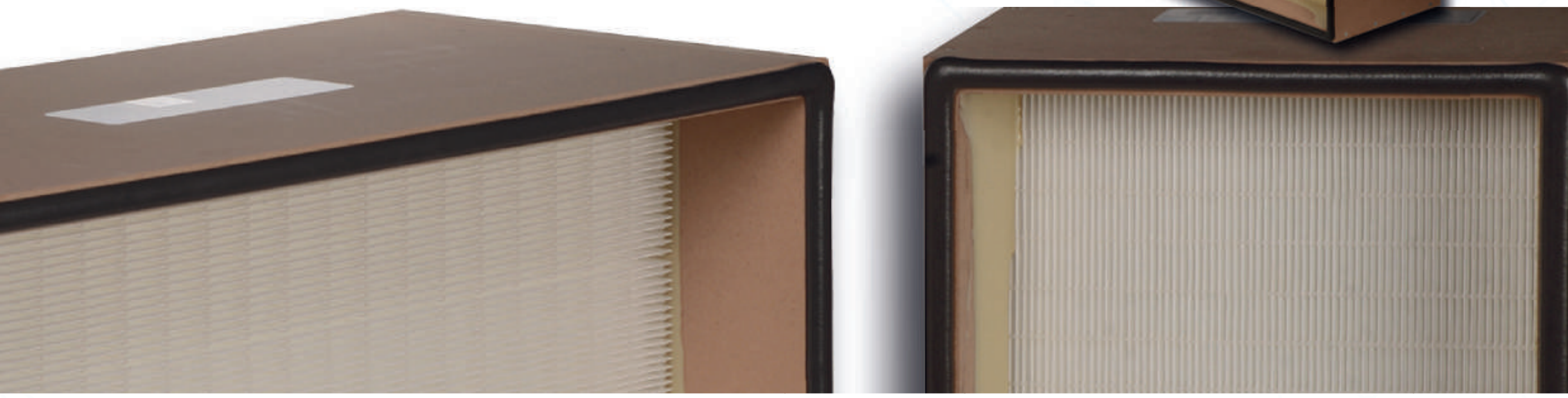
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



NOTES

HIGH CAPACITY HEPA FILTER WITH SINGLE PLEAT

(MDF FRAME)



Applications:
Final filter for hygenic type AHU's
Life science
Healthcare
Food & Beverages

Highlights:

- For high airflow rates (2000-3000 m³/h) for 610x610x292 mm
- Disposable
- High quality glass fiber media
- Guaranteed leak free
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Optimized velocity distribution

Filter Standard;	EN 1822 and ISO 29463
Filter Class:	E10 - E11 - E12 - H13 - H14 - U15
Media:	High quality glass fiber
Frame:	MDF
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)

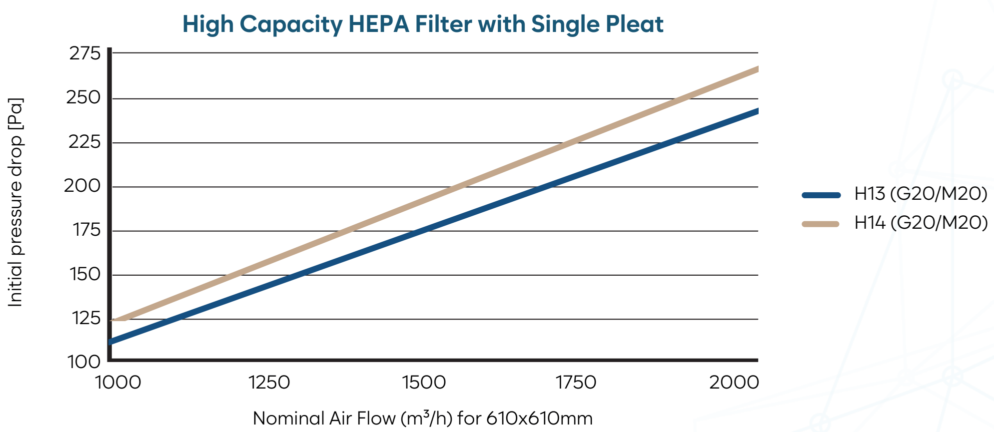
Max. Operating Tempature:	80˚C
Sealing Compound:	Polyurethane
Seperator:	Hotmelt
Gasket:	EPDM, EPDM Flat continous and PU Foam
Faceguard:	Available on request

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m^2)	Pleat Height (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HHS-H13-M-20-287-592-292-FC-E	H13	ISO 35 H	287x592x292	8,5	125	940	240
HHS-H13-M-20-305-610-292-FC-E	H13	ISO 35 H	305x610x292	9	125	1000	240
HHS-H13-M-20-592-592-292-FC-E	H13	ISO 35 H	592x592x292	17	125	1880	240
HHS-H13-M-20-610-610-292-FC-E	H13	ISO 35 H	610x610x292	18	125	2000	240
HHS-H14-M-20-287-592-292-FC-E	H14	ISO 45 H	287x592x292	9,4	125	940	270
HHS-H14-M-20-305-610-292-FC-E	H14	ISO 45 H	305x610x292	10	125	1000	270
HHS-H14-M-20-592-592-292-FC-E	H14	ISO 45 H	592x592x292	18,8	125	1880	270
HHS-H14-M-20-610-610-292-FC-E	H14	ISO 45 H	610x610x292	20	125	2000	270

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HIGH CAPACITY HEPA FILTER WITH SINGLE PLEAT (MDF FRAME) CODE CONFIGURATION

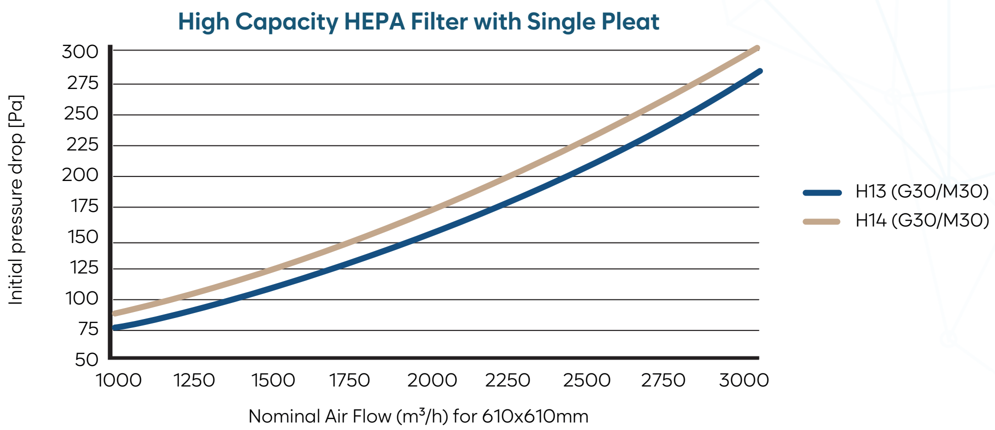
Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Faceguard	Gasket
HHS : High Capacity HEPA Filter with Single Pleat (MDF Frame)	E10 E11 E12 H13 H14 U15	M: MDF	20: 2000 m^3/h 30: 3000 m^3/h	610x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side



HIGH CAPACITY HEPA FILTER WITH SINGLE PLEAT (MDF FRAME/M30)

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Height (mm)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463					
HHS-H13-M-30-287-592-292-FC-E	H13	ISO 35 H	287x592x292	12,3	150	1415	270
HHS-H13-M-30-305-610-292-FC-E	H13	ISO 35 H	305x610x292	13	150	1500	270
HHS-H13-M-30-592-592-292-FC-E	H13	ISO 35 H	592x592x292	24,5	150	2830	270
HHS-H13-M-30-610-610-292-FC-E	H13	ISO 35 H	610x610x292	26,0	150	3000	270
HHS-H14-M-30-287-592-292-FC-E	H14	ISO 45 H	287x592x292	14,1	150	1415	300
HHS-H14-M-30-305-610-292-FC-E	H14	ISO 45 H	305x610x292	15,0	150	1500	300
HHS-H14-M-30-592-592-292-FC-E	H14	ISO 45 H	592x592x292	28,2	150	2830	300
HHS-H14-M-30-610-610-292-FC-E	H14	ISO 45 H	610x610x292	30,0	150	3000	300

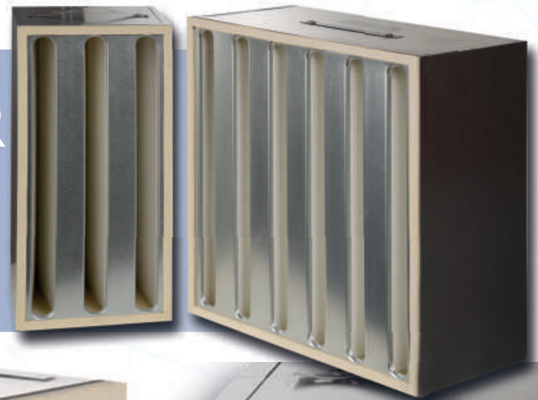
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"



NOTES

HIGH CAPACITY HEPA FILTER WITH V MODULE DESIGN

(METAL FRAME)



Applications:
Final filter for hygenic type AHU's
Life science
Healthcare
Food & Beverages
Operating theatre LF units

Highlights:
- For high airflow rates (3000-4000 m^3/h)
- High quality glass fiber media
- Guaranteed leak free
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14

Filter Standard:	EN 1822 and ISO 29463
Filter Class:	E10 - E11 - E12 - H13 - H14
Media:	High quality glass fibre
Frame:	Galvanized, Stainless Steel, Aluminium
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)

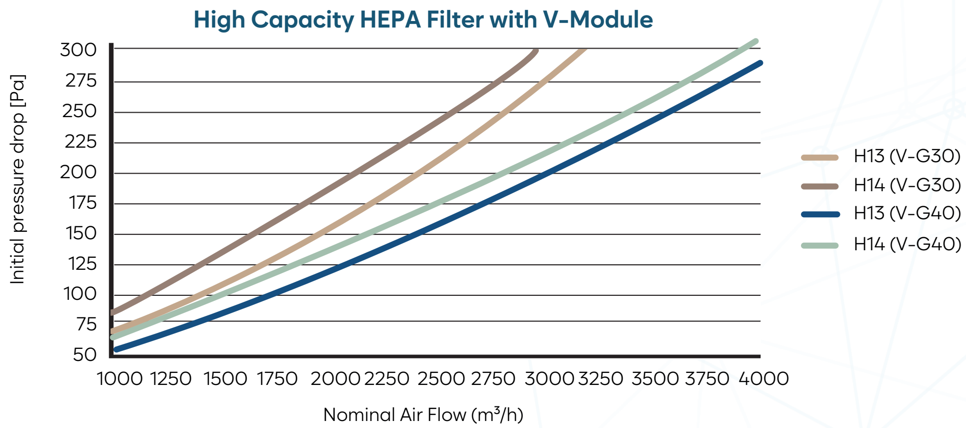
Max. Operating Tempature:	80°C -120°C
Gasket:	EPDM, EPDM Flat continuous and PU Foam
Design:	U-Module
Sealing Compound:	Two component polyurethane
Seperator:	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Design	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HHV-H13-G-30-287-592-292-E	H13	ISO 35 H	287x592x292	11,9	V-Module	1370	270
HHV-H13-G-30-305-610-292-E	H13	ISO 35 H	305x610x292	13	V-Module	1500	270
HHV-H13-G-30-592-592-292-E	H13	ISO 35 H	592x592x292	24,5	V-Module	2830	270
HHV-H13-G-30-610-610-292-E	H13	ISO 35 H	610x610x292	26	V-Module	3000	270
HHV-H13-G-40-287-592-292-E	H13	ISO 35 H	287x592x292	16,9	V-Module	1880	290
HHV-H13-G-40-305-610-292-E	H13	ISO 35 H	305x610x292	18,5	V-Module	2000	290
HHV-H13-G-40-592-592-292-E	H13	ISO 35 H	592x592x292	34,8	V-Module	3760	290
HHV-H13-G-40-610-610-292-E	H13	ISO 35 H	610x610x292	37	V-Module	4000	290
HHV-H14-G-30-287-592-292-E	H14	ISO 45 H	287x592x292	13,7	V-Module	1415	300
HHV-H14-G-30-305-610-292-E	H14	ISO 45 H	305x610x292	15	V-Module	1500	300
HHV-H14-G-30-592-592-292-E	H14	ISO 45 H	592x592x292	28,2	V-Module	2830	300
HHV-H14-G-30-610-610-292-E	H14	ISO 45 H	610x610x292	30	V-Module	3000	300
HHV-H14-G-40-287-592-292-E	H14	ISO 45 H	287x592x292	18,3	V-Module	1880	300
HHV-H14-G-40-305-610-292-E	H14	ISO 45 H	305x610x292	20	V-Module	2000	300
HHV-H14-G-40-592-592-292-E	H14	ISO 45 H	592x592x292	37,7	V-Module	3760	300
HHV-H14-G-40-610-610-292-E	H14	ISO 45 H	610x610x292	40	V-Module	4000	300

"Differential Pressure Tolerance ±10%"

HIGH CAPACITY HEPA FILTER WITH V MODULE DESIGN (METAL FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Gasket
HHV : High Capacity HEPA Filter with V-Module Design (Metal Frame)	E10 E11 E12 H13 H14	A: Aluminium G: Galvanized Metal SS: Stainless Steel 304 SS316: Stainless Steel 316	30: 3000 m³/h 40: 4000 m³/h	610x610x292	P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side



HIGH CAPACITY HEPA FILTER WITH V MODULE DESIGN
(PLASTIC FRAME)

Applications:
Final filter for hygenic type AHU's
Life science
Healthcare
Food & Beverages

Highlights:

- For high airflow rates (3000-4000 m³/h)
- High quality glass fiber media
- Guaranteed leak free
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Light weight

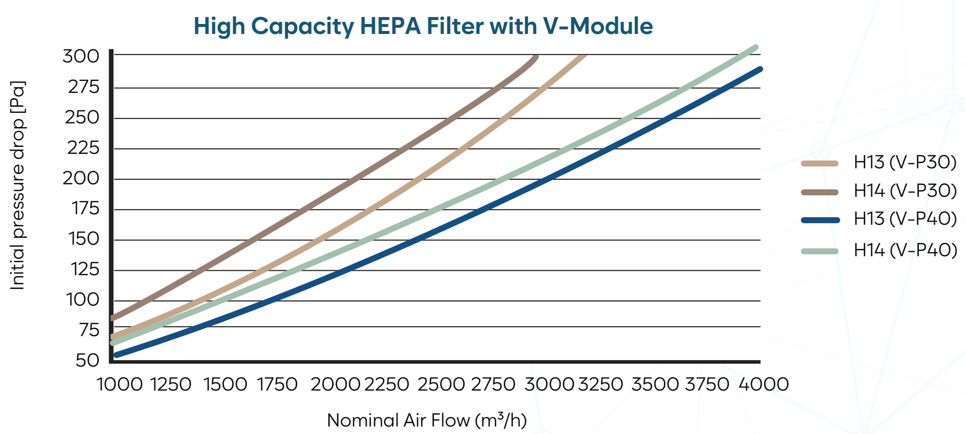
Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	E10 - E11 - E12 - H13 - H14	**Gasket:**	EPDM, EPDM Flat continuous and PU Foam
Media:	High quality glass fibre	**Design:**	V-Module
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperator:**	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Pleat Design	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HHV-H13-P-30-287-592-292-E	H13	ISO 35 H	287x592x292	11,9	V-Module	1370	270
HHV-H13-P-30-305-610-292-E	H13	ISO 35 H	305x610x292	13	V-Module	1500	270
HHV-H13-P-30-592-592-292-E	H13	ISO 35 H	592x592x292	24,5	V-Module	2830	270
HHV-H13-P-30-610-610-292-E	H13	ISO 35 H	610x610x292	26	V-Module	3000	270
HHV-H13-P-40-287-592-292-E	H13	ISO 35 H	287x592x292	16,9	V-Module	1880	290
HHV-H13-P-40-305-610-292-E	H13	ISO 35 H	305x610x292	18,5	V-Module	2000	290
HHV-H13-P-40-592-592-292-E	H13	ISO 35 H	592x592x292	34,8	V-Module	3760	290
HHV-H13-P-40-610-610-292-E	H13	ISO 35 H	610x610x292	37	V-Module	4000	290
HHV-H14-P-30-287-592-292-E	H14	ISO 45 H	287x592x292	13,7	V-Module	1415	300
HHV-H14-P-30-305-610-292-E	H14	ISO 45 H	305x610x292	15	V-Module	1500	300
HHV-H14-P-30-592-592-292-E	H14	ISO 45 H	592x592x292	28,2	V-Module	2830	300
HHV-H14-P-30-610-610-292-E	H14	ISO 45 H	610x610x292	30	V-Module	3000	300
HHV-H14-P-40-287-592-292-E	H14	ISO 45 H	287x592x292	18,3	V-Module	1880	300
HHV-H14-P-40-305-610-292-E	H14	ISO 45 H	305x610x292	20	V-Module	2000	300
HHV-H14-P-40-592-592-292-E	H14	ISO 45 H	592x592x292	37,7	V-Module	3760	300
HHV-H14-P-40-610-610-292-E	H14	ISO 45 H	610x610x292	40	V-Module	4000	300

"Differential Pressure Tolerance ±10%"

HIGH CAPACITY HEPA FILTER WITH V MODULE DESIGN (PLASTIC FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Capacity	Dimensions (mm)	Gasket
HHV : High Capacity HEPA Filter with V-Module Design (Plastic Frame)	E10 E11 E12 H13 H14	P: Plastic	30: 3000 m³/h 40: 4000 m³/h	610x610x292	P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side



HIGH CAPACITY NUCLEAR FILTER WITH V MODULE DESIGN

Applications:
Shelter ventilation

Highlights:

- For high airflow rates (3400 m^3/h)
- High quality glass fiber media
- Robust Construction
- Guaranteed leak free
- Tested and certified acc to EN 1822 - ISO 29463 for H13
- Operating temperature up to 120°C

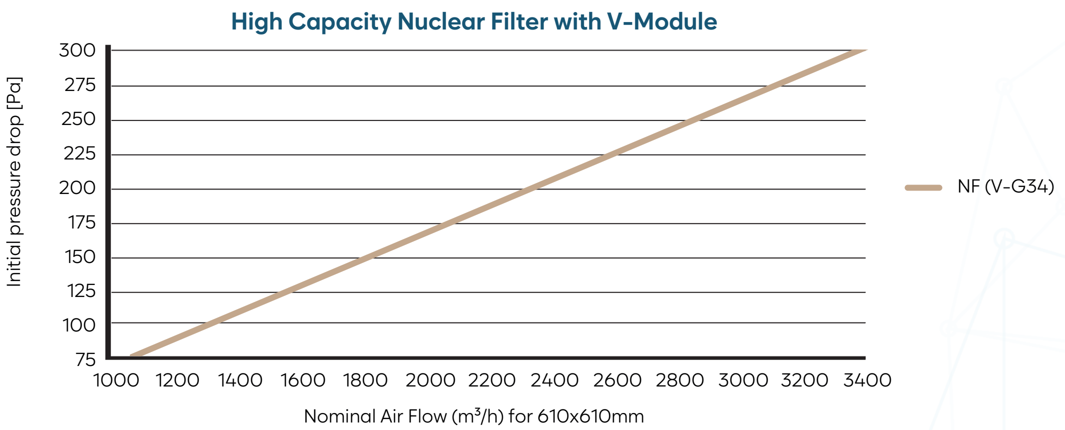
Filter Standard:	EN 1822 and ISO 29463
Filter Class:	H13
Media:	High quality glass fiber
Frame:	Galvanized, Stainless Steel
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)

Max. Operating Tempature:	120˚C
Gasket:	Silicon
Design:	V-Module
Seperator:	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
NF-G-34-287-592-292-C	H13	ISO 35 H	287x592x292	17,4	1600	300
NF-G-34-305-610-292-C	H13	ISO 35 H	305x610x292	18,5	1700	300
NF-G-34-592-592-292-C	H13	ISO 35 H	592x592x292	34,8	3200	300
NF-G-34-610-610-292-C	H13	ISO 35 H	610x610x292	37	3400	300
"Differential Pressure Tolerance ±10%"						

HIGH CAPACITY NUCLEAR FILTER WITH V-MODUL DESIGN CODE CONFIGURATION

Filter Type	Frame	Capacity	Dimensions (mm)	Gasket
NF : High Capacity Nuclear Filter with V-Module Design	G: Galvanized Metal SS: Stainless Steel	34: 3.400 m³/h	610x610x292	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side SS: Silicon on Both Sides



EFFICIENT V-COMPACT FILTER

Applications:
Final filter for HVAC or cleanrooms
Gas turbines air intake system

Highlights:
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Large filtration area
- Simple and light weight
- Low initial pressure drop

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	E10 - E11 - E12 - H13 - H14	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperators:**	Hotmelt

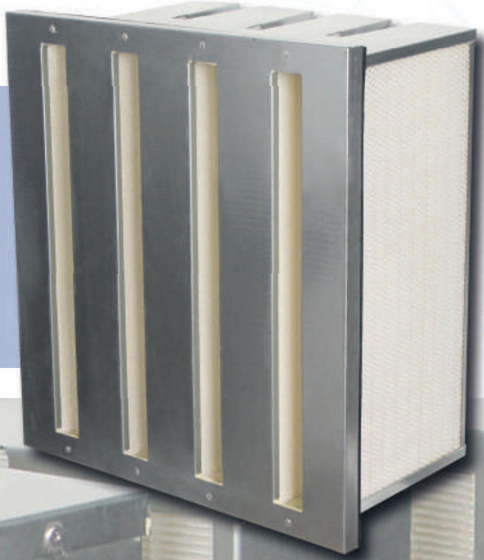
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
HV-E10-287-592-292-FW-W	E10	-	287x592x292	9	1700	170
HV-E10-490-592-292-FW-W	E10	-	490x592x292	15,5	2800	170
HV-E10-592-592-292-FW-W	E10	-	592x592x292	19	3400	170
HV-E11-287-592-292-FW-W	E11	ISO 15 E	287x592x292	9	1700	190
HV-E11-490-592-292-FW-W	E11	ISO 15 E	490x592x292	15,5	2800	190
HV-E11-592-592-292-FW-W	E11	ISO 15 E	592x592x292	19	3400	190
HV-E12-287-592-292-FW-W	E12	ISO 25 E	287x592x292	9	1250	250
HV-E12-490-592-292-FW-W	E12	ISO 25 E	490x592x292	15,5	2000	250
HV-E12-592-592-292-FW-W	E12	ISO 25 E	592x592x292	19	2500	250
HV-H13-287-592-292-FC2-P	H13	ISO 35 H	287x592x292	9	1250	270
HV-H13-490-592-292-FC2-P	H13	ISO 35 H	490x592x292	15,5	2000	270
HV-H13-592-592-292-FC2-P	H13	ISO 35 H	592x592x292	19	2500	270
HV-H14-287-592-292-FC2-P	H14	ISO 45 H	287x592x292	9	1100	300
HV-H14-490-592-292-FC2-P	H14	ISO 45 H	490x592x292	15,5	1800	300
HV-H14-592-592-292-FC2-P	H14	ISO 45 H	592x592x292	19	2200	300
"Differential Pressure Tolerance ±10%"						

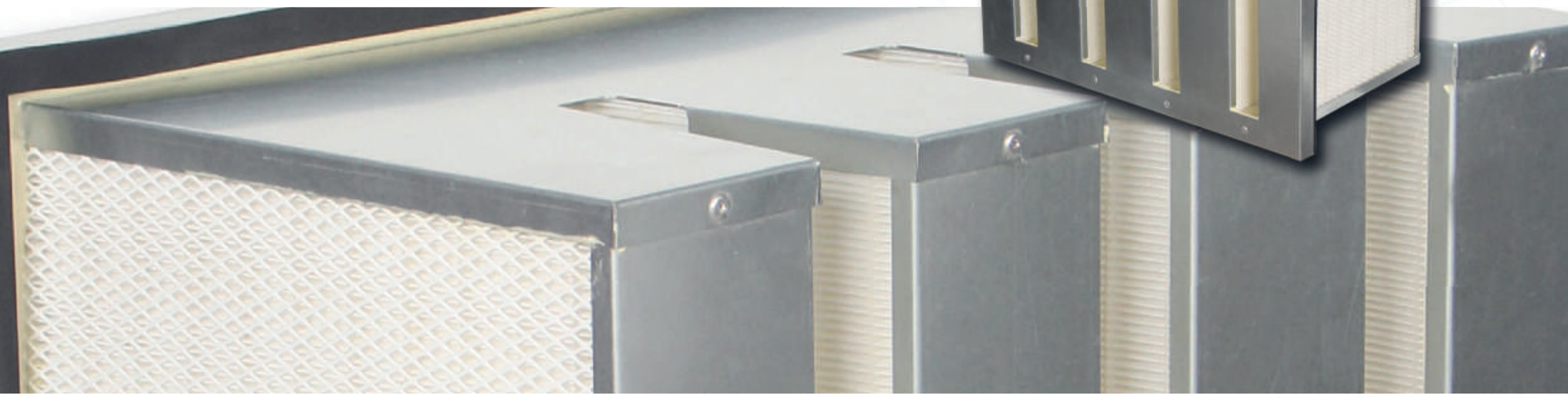
EFFICIENT V-COMPACT FILTER CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)	Faceguard	Gasket
HV : Efficient V-Compact Filter	E10 E11 E12 H13 H14	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

EFFICIENT V-COMPACT FILTER

(METAL FRAME)





Applications:
Final filter for HVAC or cleanrooms
Gas turbines air intake systems

Highlights:

- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Large filtration area
- Low initial pressure drop

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	E10 - E11 - E12 - H13 - H14	**Faceguard:**	Available on reguest
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Galvanized, Stainless Steel	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperators:**	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
HVG-E10-287-592-292-FW-W	E10	-	287x592x292	9	1700	200
HVG-E10-490-592-292-FW-W	E10	-	490x592x292	15,5	2800	200
HVG-E10-592-592-292-FW-W	E10	-	592x592x292	19	3400	200
HVG-E11-287-592-292-FW-W	E11	ISO 15 E	287x592x292	9	1700	190
HVG-E11-490-592-292-FW-W	E11	ISO 15 E	490x592x292	15,5	2800	190
HVG-E11-592-592-292-FW-W	E11	ISO 15 E	592x592x292	19	3400	190
HVG-E12-287-592-292-FW-W	E12	ISO 25 E	287x592x292	9	1250	270
HVG-E12-490-592-292-FW-W	E12	ISO 25 E	490x592x292	15,5	2000	270
HVG-E12-592-592-292-FW-W	E12	ISO 25 E	592x592x292	19	2500	270
HVG-H13-287-592-292-FC2-P	H13	ISO 35 H	287x592x292	9	1250	250
HVG-H13-490-592-292-FC2-P	H13	ISO 35 H	490x592x292	15,5	2000	250
HVG-H13-592-592-292-FC2-P	H13	ISO 35 H	592x592x292	19	2500	250
HVG-H14-287-592-292-FC2-P	H14	ISO 45 H	287x592x292	9	1100	250
HVG-H14-490-592-292-FC2-P	H14	ISO 45 H	490x592x292	15,5	1800	250
HVG-H14-592-592-292-FC2-P	H14	ISO 45 H	592x592x292	19	2200	250
"Differential Pressure Tolerance ±10%"						

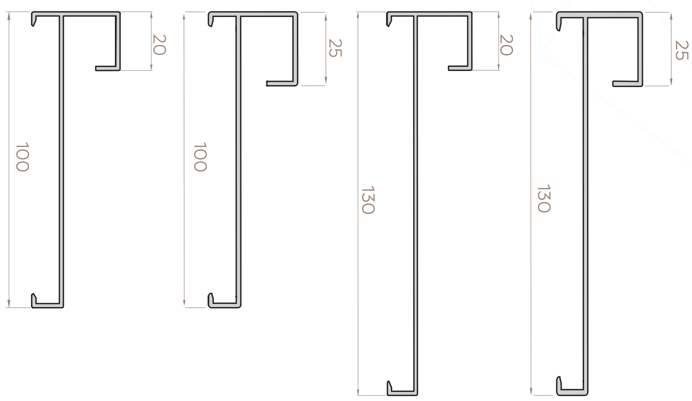
EFFICIENT V-COMPACT FILTER (METAL FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Dimensions (mm)	Faceguard	Gasket
HVG : Efficient V-Compact Filter (Metal Frame)	E10 E11 E12 H13 H14	G : Galvanized SS : Stainless Steel	592x592x292	FW : Without FC2: On 2 Edge Sides FC8: On 8 Edge Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

EFFICIENT RIGID FILTER

(ALUMINIUM FRAME)

Applications:
Final filter for HVAC or cleanrooms



Highlights:

- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Large filtration area
- Simple and light weight
- Low initial pressure drop

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	E10 - E11 - E12 - H13 - H14	**Depth:**	100 and 130 mm
Media:	Glass Fiber	**Faceguard:**	Available on request
Frame:	Anodized, extruded aluminium	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperators:**	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
HR-E10-A-25-287-287-130-FW-W	E10	-	287x287x130	3,2	625	190
HR-E10-A-25-287-592-130-FW-W	E10	-	287x592x130	6,5	1250	190
HR-E10-A-25-592-592-130-FW-W	E10	-	592x592x130	13	2500	190
HR-E11-A-25-287-287-130-FW-W	E11	ISO 15 E	287x287x130	3,2	500	210
HR-E11-A-25-287-592-130-FW-W	E11	ISO 15 E	287x592x130	6,5	1000	210
HR-E11-A-25-592-592-130-FW-W	E11	ISO 15 E	592x592x130	13	2000	210
HR-E12-A-25-287-287-130-FW-W	E12	ISO 25 E	287x287x130	3,2	375	250
HR-E12-A-25-287-592-130-FW-W	E12	ISO 25 E	287x592x130	6,5	750	250
HR-E12-A-25-592-592-130-FW-W	E12	ISO 25 E	592x592x130	13	1500	250
HR-H13-A-25-287-287-130-FC-E	H13	ISO 35 H	287x287x130	3,2	375	270
HR-H13-A-25-287-592-130-FC-E	H13	ISO 35 H	287x592x130	6,5	750	270
HR-H13-A-25-592-592-130-FC-E	H13	ISO 35 H	592x592x130	13	1500	270
HR-H14-A-25-287-287-130-FC-E	H14	ISO 45 H	287x287x130	3,2	300	270
HR-H14-A-25-287-592-130-FC-E	H14	ISO 45 H	287x592x130	6,5	600	270
HR-H14-A-25-592-592-130-FC-E	H14	ISO 45 H	592x592x130	13	1200	270

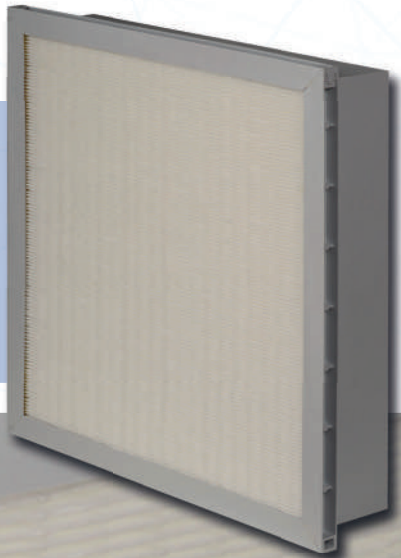
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

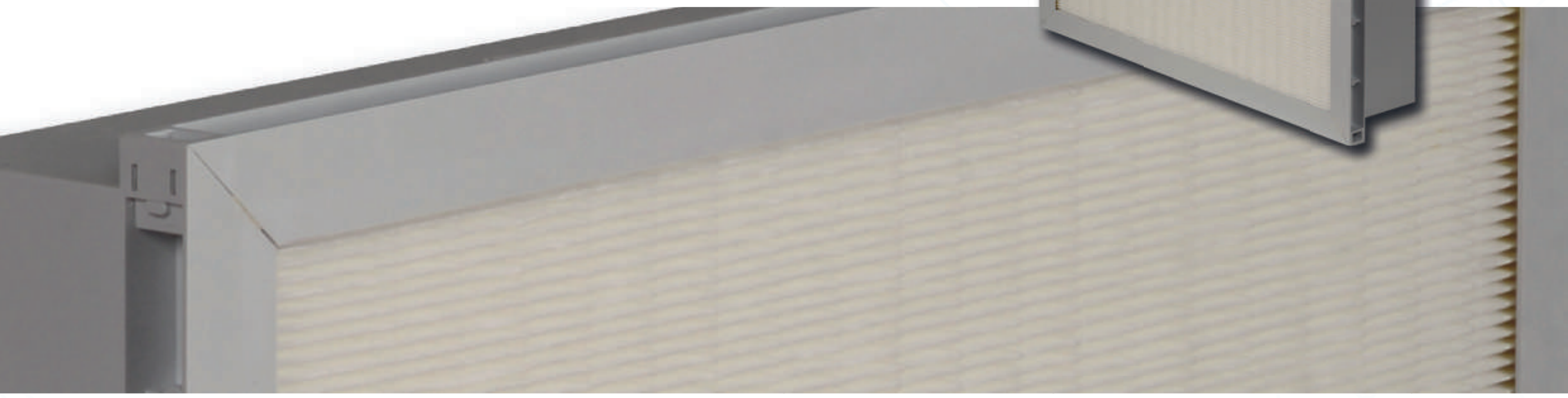
EFFICIENT RIGID FILTER (ALUMINIUM FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Flange	Dimensions (mm)	Faceguard	Gasket
HR : Efficient Rigid Filter (Aluminium Frame)	E10 E11 E12 H13 H14	A : Aluminium	20 25	592x592x130	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

EFFICIENT RIGID FILTER

(PLASTIC FRAME)

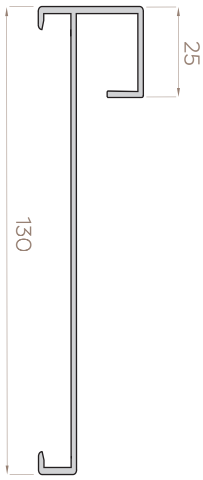




Applications:
Final filter for HVAC or cleanrooms

Highlights:

- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Large filtration area
- Simple and light weight
- Low initial pressure drop



Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80˚C
Filter Class:	E10 - E11 - E12 - H13 - H14	**Depth:**	130 mm
Media:	Glass Fiber	**Faceguard:**	Available on request
Frame:	Polystyrene (PS)	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperators:**	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
HR-E10-P-25-287-287-130-FW-W	E10	-	287x287x130	3,2	625	190
HR-E10-P-25-287-592-130-FW-W	E10	-	287x592x130	6,5	1250	190
HR-E10-P-25-592-592-130-FW-W	E10	-	592x592x130	13	2500	190
HR-E11-P-25-287-287-130-FW-W	E11	ISO 15 E	287x287x130	3,2	500	210
HR-E11-P-25-287-592-130-FW-W	E11	ISO 15 E	287x592x130	6,5	1000	210
HR-E11-P-25-592-592-130-FW-W	E11	ISO 15 E	592x592x130	13	2000	210
HR-E12-P-25-287-287-130-FW-W	E12	ISO 25 E	287x287x130	3,2	375	250
HR-E12-P-25-287-592-130-FW-W	E12	ISO 25 E	287x592x130	6,5	750	250
HR-E12-P-25-592-592-130-FW-W	E12	ISO 25 E	592x592x130	13	1500	250
HR-H13-P-25-287-287-130-FC-E	H13	ISO 35 H	287x287x130	3,2	375	270
HR-H13-P-25-287-592-130-FC-E	H13	ISO 35 H	287x592x130	6,5	750	270
HR-H13-P-25-592-592-130-FC-E	H13	ISO 35 H	592x592x130	13	1500	270
HR-H14-P-25-287-287-130-FC-E	H14	ISO 45 H	287x287x130	3,2	300	270
HR-H14-P-25-287-592-130-FC-E	H14	ISO 45 H	287x592x130	6,5	600	270
HR-H14-P-25-592-592-130-FC-E	H14	ISO 45 H	592x592x130	13	1200	270
"Differential Pressure Tolerance ±10%"						

EFFICIENT RIGID FILTER (PLASTIC FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Flange	Dimensions (mm)	Faceguard	Gasket
HR : Efficient Rigid Filter (Plastic Frame)	E10 E11 E12 H13 H14	P : Plastic	25	592x592x130	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

EFFICIENT PANEL FILTER

Applications:
Final filter for HVAC or cleanrooms

Highlights:
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Large filtration area
- Simple and light weight
- Low initial pressure drop

Filter Standard:	EN 1822 and ISO 29463	**Max. Operating Tempature:**	80°C
Filter Class:	E10 - E11 - E12 - H13 - H14	**Faceguard:**	Available on request
Media:	Glass Fiber	**Gasket:**	Available on request
Frame:	Galvanized, Stainless Steel	**Sealing Compound:**	Two component polyurethane
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)	**Seperators:**	Hotmelt

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HP-E10-G-287-287-48-FW-W	E10	-	287x287x48	1,5	300	190
HP-E10-G-287-592-48-FW-W	E10	-	287x592x48	3	600	190
HP-E10-G-592-592-48-FW-W	E10	-	592x592x48	6	1200	190
HP-E11-G-287-287-48-FW-W	E11	ISO 15 E	287x287x48	1,5	250	200
HP-E11-G-287-592-48-FW-W	E11	ISO 15 E	287x592x48	3	500	200
HP-E11-G-592-592-48-FW-W	E11	ISO 15 E	592x592x48	6	1000	200
HP-E12-G-287-287-48-FW-W	E12	ISO 25 E	287x287x48	1,5	130	170
HP-E12-G-287-592-48-FW-W	E12	ISO 25 E	287x592x48	3	275	170
HP-E12-G-592-592-48-FW-W	E12	ISO 25 E	592x592x48	6	570	170
HP-H13-G-287-287-48-FC-P	H13	ISO 35 H	287x287x48	1,5	130	180
HP-H13-G-287-592-48-FC-P	H13	ISO 35 H	287x592x48	3	275	180
HP-H13-G-592-592-48-FC-P	H13	ISO 35 H	592x592x48	6	570	180
HP-H14-G-287-287-48-FC-P	H14	ISO 45 H	287x287x48	1,5	130	200
HP-H14-G-287-592-48-FC-P	H14	ISO 45 H	287x592x48	3	275	200
HP-H14-G-592-592-48-FC-P	H14	ISO 45 H	592x592x48	6	570	200

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

EFFICIENT PANEL FILTER CODE CONFIGURATION

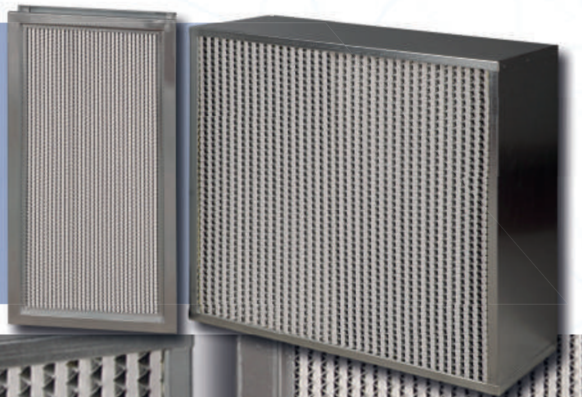
Filter Type	Filter Class	Frame	Dimensions (mm)	Faceguard	Gasket
HP : Efficient Panel Filter	E10 E11 E12 H13 H14	G : Galvanized	592x592x96	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Sides E: EPDM EE: EPDM Flat On Both Sides C: Continuous Grey EPDM CC: Grey EPDM on Both Sides

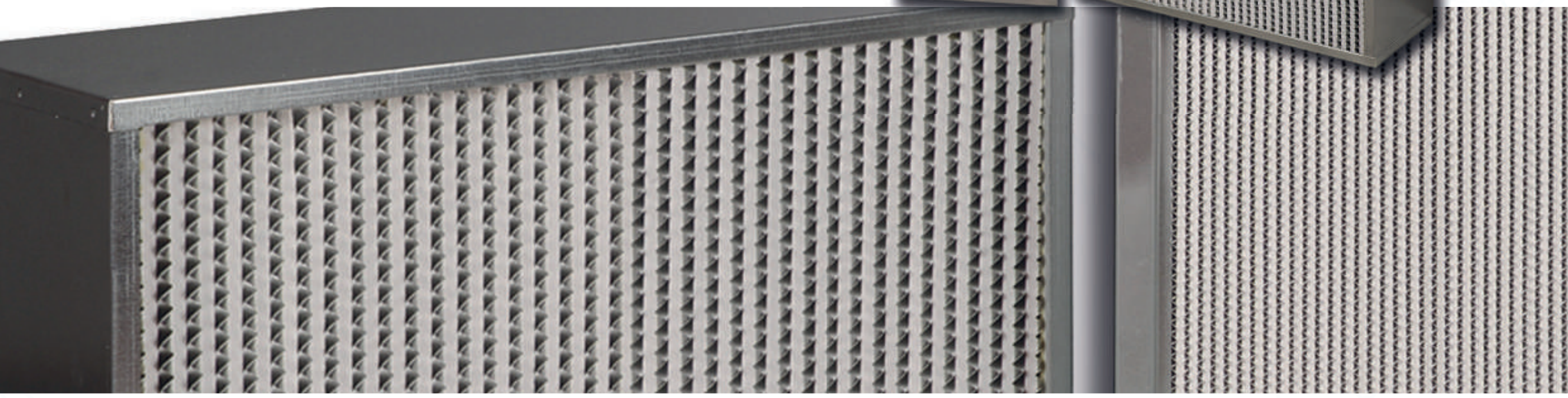
Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
HP-E10-G-287-287-96-FW-W	E10	-	287x287x96	3	600	175
HP-E10-G-287-592-96-FW-W	E10	-	287x592x96	6	1200	175
HP-E10-G-592-592-96-FW-W	E10	-	592x592x96	12	2400	175
HP-E11-G-287-287-96-FW-W	E11	ISO 15 E	287x287x96	3	500	150
HP-E11-G-287-592-96-FW-W	E11	ISO 15 E	287x592x96	6	1000	150
HP-E11-G-592-592-96-FW-W	E11	ISO 15 E	592x592x96	12	2000	150
HP-E12-G-287-287-96-FW-W	E12	ISO 25 E	287x287x96	3	260	85
HP-E12-G-287-592-96-FW-W	E12	ISO 25 E	287x592x96	6	550	85
HP-E12-G-592-592-96-FW-W	E12	ISO 25 E	592x592x96	12	1140	85
HP-H13-G-287-287-96-FC-P	H13	ISO 35 H	287x287x96	3	260	85
HP-H13-G-287-592-96-FC-P	H13	ISO 35 H	287x592x96	6	550	85
HP-H13-G-592-592-96-FC-P	H13	ISO 35 H	592x592x96	12	1140	85
HP-H14-G-287-287-96-FC-P	H14	ISO 45 H	287x287x96	3	260	110
HP-H14-G-287-592-96-FC-P	H14	ISO 45 H	287x592x96	6	550	110
HP-H14-G-592-592-96-FC-P	H14	ISO 45 H	592x592x96	12	1140	110

"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

NOTES

HEPA FILTER WITH ALUMINIUM SEPERATOR
(METAL FRAME)





Applications:
Final filter for hygenic AHU's under high temperature conditions

Highlights:
- Temperature resistant up to 120°C, 260°C
- Static electricty grounding cable available on request
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Corrugated aluminium seperator
- Guaranteed leak-free

Filter Class:	H13 - H14
Media:	High quality glass fiber
Frame:	Galvanized Steel, Stainless Steel
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)
Max. Operating Tempature:	up to 120°C, 260°C

Flange:	Without, single, double
Sealing Compound:	Two component polyurethane, silicon
Seperator:	Corrugated Aluminium
Gasket:	Silicon, EPDM

Filter Model	Filter Class EN 1822	Filter Class ISO 29463	Dimensions WxHxD (mm)	Filtration Area (m²)	Max. Continous Temperature (°C)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
HCA-E10-G-W-T-W-305-610-292-FW-S	E10	-	305x610x292	8,5	120	1700	170
HCA-E10-G-W-T-W-610-610-292-FW-S	E10	-	610x610x292	17,0	120	3400	170
HCA-E11-G-W-T-W-305-610-292-FW-S	E11	ISO 15 E	305x610x292	8,5	120	1700	190
HCA-E11-G-W-T-W-610-610-292-FW-S	E11	ISO 15 E	610x610x292	17,0	120	3400	190
HCA-E12-G-W-T-W-305-610-292-FW-S	E12	ISO 25 E	305x610x292	8,5	120	1700	250
HCA-E12-G-W-T-W-610-610-292-FW-S	E12	ISO 25 E	610x610x292	17,0	120	3400	250
HCA-H13-G-W-T-W-305-610-292-FW-S	H13	ISO 35 H	305x610x292	11,0	120	1250	250
HCA-H13-G-W-T-W-610-610-292-FW-S	H13	ISO 35 H	610x610x292	22,0	120	2500	250
HCA-H13-SS-W-HT-W-305-610-292-FB-S	H13	ISO 35 H	305x610x292	11,0	260	1250	250
HCA-H13-SS-W-HT-W-610-610-292-FB-S	H13	ISO 35 H	610x610x292	22,0	260	2500	250
HCA-H14-G-W-T-W-305-610-292-FW-S	H14	ISO 45 H	305x610x292	11,0	120	1100	250
HCA-H14-G-W-T-W-610-610-292-FW-S	H14	ISO 45 H	610x610x292	22,0	120	2200	250
HCA-H14-SS-W-HT-SG-305-610-292-FB-S	H14	ISO 45 H	305x610x292	11,0	260	1100	250
HCA-H14-SS-W-HT-SG-610-610-292-FB-S	H14	ISO 45 H	610x610x292	22,0	260	2200	250

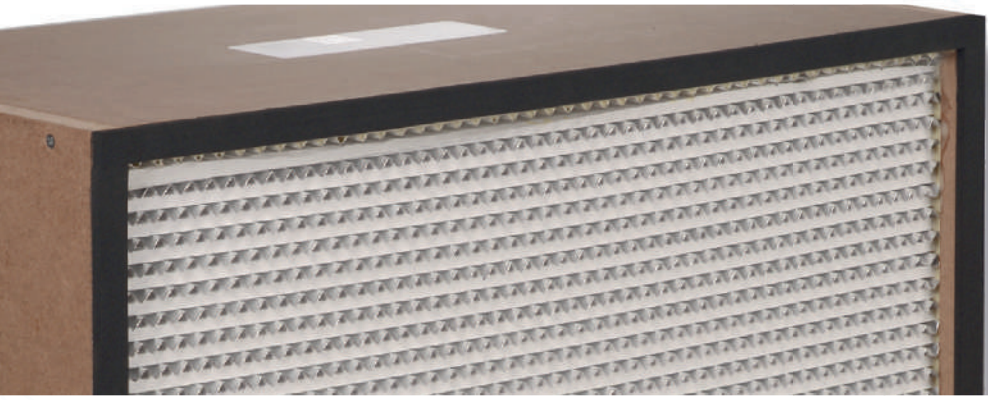
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

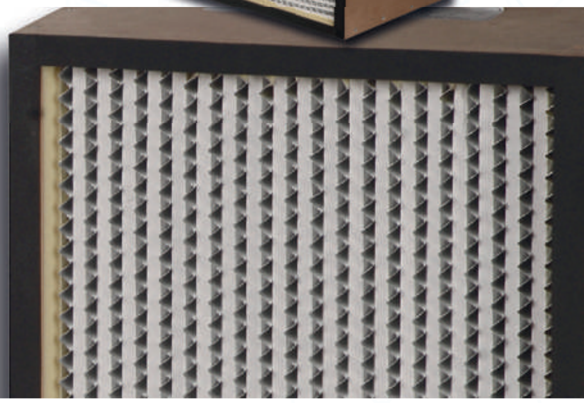
HEPA FILTER WITH ALUMINIUM SEPERATOR (METAL FRAME) CODE CONFIGURATION

Filter Type	Filter Class	Frame	Flange	Max. Temp.	Static Electricity Grounding Cable	Dimensions (mm)	Faceguard	Gasket
HCA : HEPA Filter with Aluminium Seperator (Metal Frame)	E10 E11 E12 H13 H14	A: Aluminium G: Galvanized Metal SS: Stainless Steel 304 SS316: Stainless Steel 316	S:Single Side D:Double Side W:Without	T: 120°C HT: 260°C	SG: Exist W: Without	305x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side S: Silicon SS: Silicon on Both Sides

HEPA FILTER WITH ALUMINIUM SEPERATOR

(MDF FRAME)





Applications:
Final filter for hygenic AHU's

Highlights:

- Disposable
- Static electricty granding cable available on request
- Tested and certified acc to EN 1822 - ISO 29463 for H13 - H14
- Corrugated aluminium seperator
- Guaranteed leak-free

Filter Class:	E10 - E11 - E12 - H13 - H14
Media:	High quality glass fiber
Frame:	MDF
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)
Max. Operating Tempature:	80°C

Flange:	Without
Sealing Compound:	Two component polyurethane
Seperator:	Corrugated Aluminium
Gasket:	EPDM and PU Foam

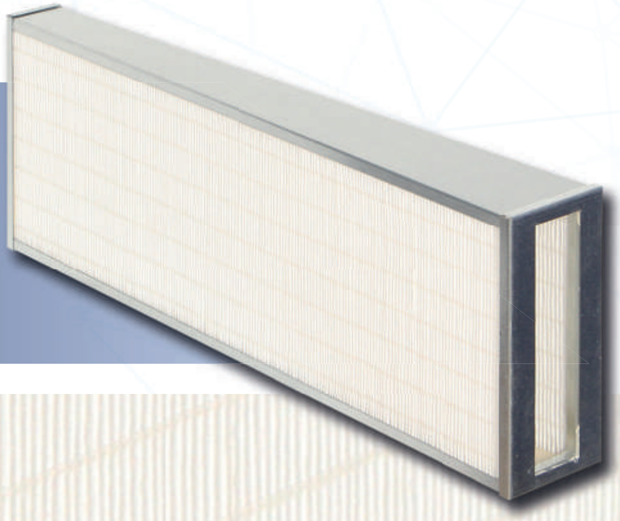
Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
HCA-E10-M-W-305-610-292-FW-E	E10	-	305x610x292	8,5	1700	170
HCA-E10-M-W-610-610-292-FW-E	E10	-	610x610x292	17	3400	170
HCA-E11-M-W-305-610-292-FW-E	E11	ISO 15 E	305x610x292	8,5	1700	190
HCA-E11-M-W-610-610-292-FW-E	E11	ISO 15 E	610x610x292	17	3400	190
HCA-E12-M-W-305-610-292-FW-E	E12	ISO 25 E	305x610x292	8,5	1500	270
HCA-E12-M-W-610-610-292-FW-E	E12	ISO 25 E	610x610x292	17	3000	270
HCA-H13-M-W-305-610-292-FW-E	H13	ISO 35 H	305x610x292	11	1250	250
HCA-H13-M-W-610-610-292-FW-E	H13	ISO 35 H	610x610x292	22	2500	250
HCA-H14-M-W-305-610-292-FW-E	H14	ISO 45 H	305x610x292	11	1100	250
HCA-H14-M-W-610-610-292-FW-E	H14	ISO 45 H	610x610x292	22	2200	250

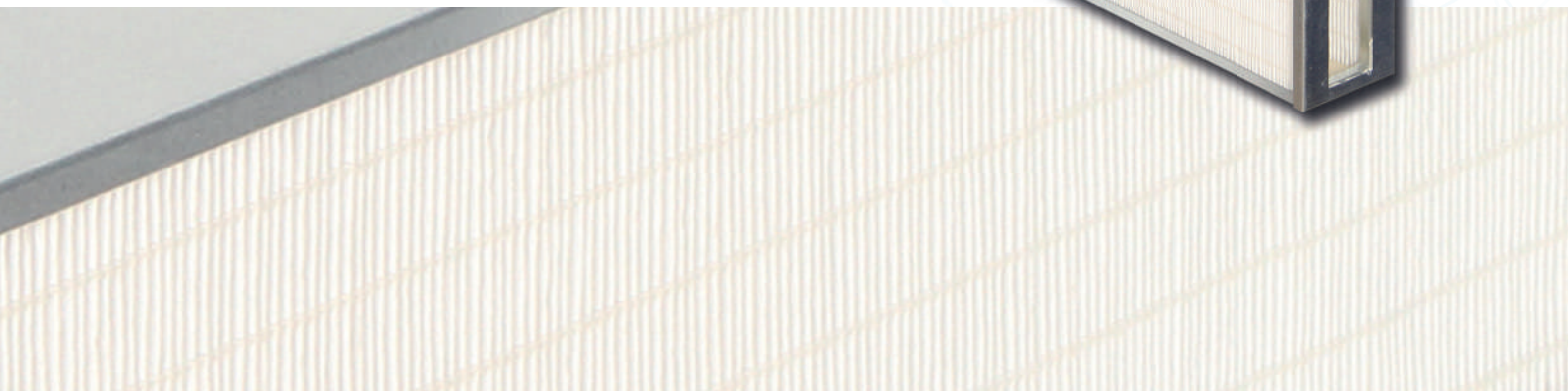
"Other dimensions are available on request."
"Differential Pressure Tolerance ±10%"

HEPA FILTER WITH ALUMINIUM SEPERATOR (MDF FRAME) CONFIGURATION

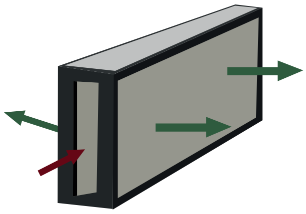
Filter Type	Filter Class	Frame	Static Electricity Grounding Cable	Dimensions (mm)	Faceguard	Gasket
HCA : HEPA Filter with Aluminium Seperator (MDF Frame)	E10 E11 E12 H13 H14	M: MDF	SG: Exist W: Without	610x610x292	FW: Without FC: On Clean Side FD: On Dirty Side FB: On Both Sides	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side

EFFICIENT DUCT TYPE FILTER

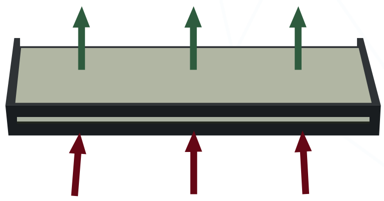




Applications:
Final filter for HVAC or cleanrooms
Suitable for duct applications



Clean Air
Contaminated Air



Clean Air
Contaminated Air

Highlights:
- V-shaped design
- Individiual test certificate (acc. to EN 1822 - ISO 29463)
- Simple and light weight

Filter Standard:	EN 1822 and ISO 29463
Filter Class:	E10 - E11 - E12 - H13 - H14
Media:	High quality glass fiber
Frame:	Aluminium, Galvanized & Stainless Steel
Rec. Final Pressure Drop:	Initial pressure drop x2, (max. 600 Pa)

Max. Operating Tempature:	80˚C
Model:	V (Vertical), H (Horizontal)
Sealing Compound:	Two component polyurethane
Seperators:	Hotmelt

Filter Model	Filter Class		Dimensions WxHxD (mm)	Filtration Area (m²)	Nominal Airflow (m³/h)	Initial Pressure Drop (Pa)
	EN 1822	ISO 29463				
HD-E10-G-V-202-600-87	E10	-	202x600x87	2,6	200	140
HD-E10-G-H-600-202-65	E10	-	600x202x65	2,6	200	140
HD-E11-G-V-202-600-87	E11	ISO 15 E	202x600x87	2,6	200	160
HD-E11-G-H-600-202-65	E11	ISO 15 E	600x202x65	2,6	200	160
HD-E12-G-V-202-600-87	E12	ISO 25 E	202x600x87	2,6	200	180
HD-E12-G-H-600-202-65	E12	ISO 25 E	600x202x65	2,6	200	180
HD-H13-G-V-202-600-87	H13	ISO 35 H	202x600x87	2,6	200	180
HD-H13-G-H-600-202-65	H13	ISO 35 H	600x202x65	2,6	200	180
HD-H14-G-V-202-600-87	H14	ISO 45 H	202x600x87	2,6	200	200
HD-H14-G-H-600-202-65	H14	ISO 45 H	600x202x65	2,6	200	200
"Differential Pressure Tolerance ±10%"						

EFFICIENT DUCT TYPE FILTER CODE CONFIGURATION

Filter Type	Filter Class	Frame	Design	Dimensions (mm)
HD : Efficient Duct Type Filter	E10 E11 E12 H13 H14	A: Aluminium G: Galvanized Metal SS: Stainless Steel 304 SS316: Stainless Steel 316	V: Vertical H: Horizontal	202x600x87 600x202x65

HEPA CYLINDRICAL FILTER

Applications:
Pharmaceutical and biotechnology industries
Life science

Highlights:
- Compact construction
- Suitability for limited space
- Customizable cover design on request
- Flexibility any dimensions

Filter Standard:	EN 1822 and ISO 29463	**Rec. Final Pressure Drop:**	Initial pressure drop x2, (max. 600 Pa)
Filter Class:	H13 - H14	**Max. Operating Temperature:**	80˚C
Media:	Glass fiber	**Inner Diameter:**	80 - 108 - 110 mm
Frame:	Galvanized Steel	**Outer Diameter:**	150 - 175 - 230 mm

HEPA CYLINDRICAL FILTER CODE CONFIGURATION

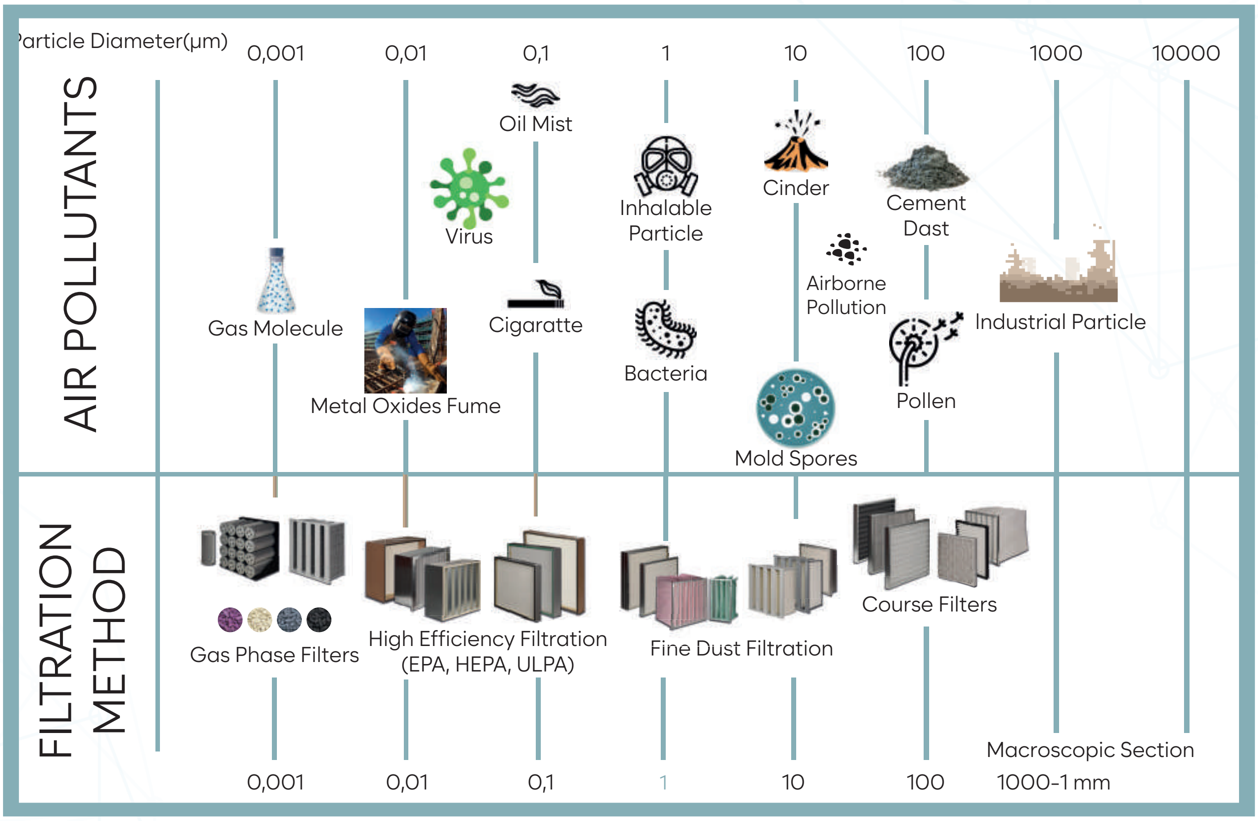
Filter Type	Filter Class	Inner Diameter	Outer Diameter	Lenght (mm)	Faceguard	Gasket
HCY : HEPA Cylindrical Filter	H13 H14	80 mm 108 mm 110 mm	150 mm 175 mm 230 mm	Available for request	FW: Without FC: Faceguard inner side FB: Facegaurd on Both side	W: Without P: Continuous Pu Foam PP: Pu Foam on Both Side E: EPDM Flat EE: EPDM Flat on Both Side

"Any inner, outer and lenght dimensions are available on request."

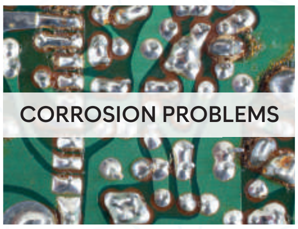
NOTES

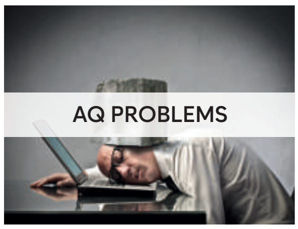
GAS-PHASE FILTRATION

Airborne pollution sources are various which can be from natural sources like volcanos, thermal sources, pollens, sand storms and from industrial life like factories, automobile emissions, jet fuels, garbage dumps ete. Pollutants are divided in to three physical conditions as solids, liquids and gases. Effective pollution control can be easily made by particulate and gas phase filtration. These filtration methods and applications are define at ISO16890, EN1822, ISO 10121-3. Airborne pollutants comparison chart shows size differences related particulate and gas phase filtration.



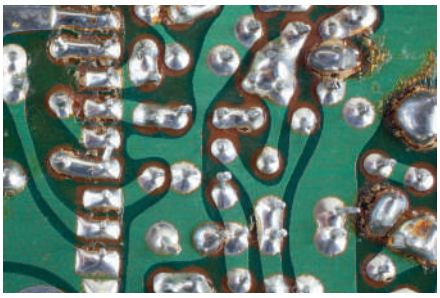
In order to apply the control methods for the gas phase pollutants, we have to know the pollutants and it's effects. Main airborne pollution effects;





Corrosion Control

Process control systems, data centers and other rooms that have instrumentation which has to be environmental controlled must supply GI classification according to ISA requirements. Achieving room ventilation design requirement must supply a minimum room pressurization of 1-3 air changes per hour and recirculationof 6-12 air changes per hour. Temperature is typically 22°C (±2°C) with humidity lower than 50% relative humidity. Tightness of the room is also another parameter while defining the design parameters. In addition to these parameters, hazardous pollutants are main parameter which must be removed from the enclosed space, According to the ANSI/ISA 71,04, contamination concentration levels are defined as follows.



Microelectronics

Petrochemical Refinery

Monitoring for gas phase air filters is made by passive monitoring or online monitoring.

Passive Monitoring: It is made with copper-silver coupons which must be used at the site with 30-90 days periods for defining remaining life and design parameters.
Online Monitoring: It has an instant measurement of gas contamination.
Particulate Filters Monitoring: Differential pressure gages are used for filter life monitoring.

Copper-Silver Coupon

Online Monitoring

Severity Level	G1 / Mild	G2 / Moderate	G3 / Harsh	GX / Severe
Copper reactivity level	< 300	< 1000	< 2000	≥ 2000
Silver reactivity level	< 200	< 1000	< 2000	≥ 2000

Severity Level		Gas	G1 / Mild	G2 / Moderate	G3 / Harsh	GX / Severe
Contaminant			Concentration (ppbv)			
Reactive Species	Group A	H_2S	< 3	< 10	< 50	≥ 50
		SO_2	< 10	< 100	< 300	≥ 300
		Cl_2	< 1	< 2	< 10	≥ 10
		NOx	< 50	< 125	< 1,250	≥ 1,250
	Group B	HF	< 1	< 2	< 10	≥ 10
		NH_3	< 500	< 10,000	< 25,000	≥ 25,000
		O_3	< 2	< 25	< 100	≥ 100

Odour & Toxic Gas Control

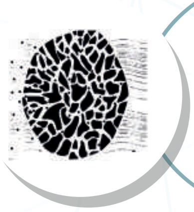
Odours are generally formed from commercial and industrial facilities like biogas, waste water treatment plants, etc.

Toxic gas scrubbing is generally needed for filtration and neutralizing of chlorine(ClJ, sulfur dioxide(SO,) or ammonia(NH_3).

Biogas Plant

Waste Water Treatment Plant

Scrubber



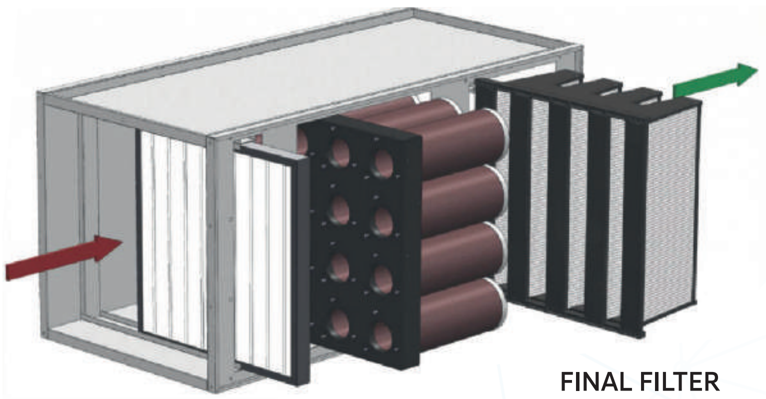
Absorbtion

Gas pollutants are filtered on media surface with weak Van der Waals forces in physical method. That works also reversible after the removal capacity saturate.

Adsorption

Gas pollutants reacted to media's surface via chemical bonds in chemical method. Chemical adsorption is irreversible.

Gas phase filtration and particulate filtration work together for acceptable indoor air quality in controlled environments. Gas pollutants are filtered with Ulpatek's gas phase air filters which are produced from one or mix filter media. Particulate pollutants are controlled with particulate filters which are mentioned in related standards as course, fine and high efficiency filters. Gas phase filter media (pellets) generally are produced using carbon, zeolite, alumina or coconut-based media. Gas phase filtration occurs with the two different methods which are physical and chemical.



ULP-Bi-On KOH	ULP-BI-On Cl	ULP-Bi-On K/4%	ULP-Bi-On +11%	ULP-Bi-On AC Active Max	ULP-Bi-On Triple Blend
• Potassium Hydroxide • Greatest purity and bigger surface area • Broad spectrum of gas removal	• Sodium Thiosulphate • Chlorine and acid gases removal	• Potassium Iodure • Formaldehyde and organic aldehydes removal	• Potassium Permanganate • Irreversable removal	• Thermally activated bituminous carbon • No impregnates • High gas removal capacity	• Contains a 50:25:25 blend, respectively of ULP-Bi-On KOH, ULP-Bi-On AC Active Max, ULP-Bi-On +6%

Ulpatek has various type of media which are selected according to the target pollutants.

Product Family	Gas Phase Pollutants												
	C_xH_y	Cl_2	Odors	VOC's	H_2S	SO_2	NO_2	HCHO	HCl	Hg	R.active Iodine	Merc	NH_3
ULP-Bi-On AC Active Max	√		√	√									
ULP-Bi-On +11%					√	√	√	√					
ULP-Bi-On +11% / AC					√	√	√	√	√				
ULP-Bi-On KOH		√			√	√			√			√	
ULP-Bi-On KI4%					√	√		√		√	√	√	
ULP-Bi-On ACPA				√									√
ULP-Bi-On Cl		√											
ULP-Bi-On S										√			
ULP-Bi-On Triple Blend		√	√	√	√	√	√						

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NOTES

ACTIVATED CARBON V-COMPACT FILTER

Applications:
Gas-phase filtration
Offices
Hospitals
Airports

Highlights:
- Remove volatile organic compounds (VOC's)
- Odors
- Compact design
- Simple installation and handling

Media:	AC between sythetic layer	**Type:**	High efficiency, activated carbon
Frame:	Polystyrene (PS)	**Media Weight:**	400gsm
Max. Operating Temperature:	50°C	**Gasket:**	Without

Filter Model	Filter Class (EN 779)	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Pressure Drop (Pa)
AFV-G4-287-592-292-W	G4	287x592x292	4,5	1700	70
AFV-G4-402-592-292-W	G4	402x592x292	6	2310	70
AFV-G4-490-592-292-W	G4	490x592x292	7,4	2820	70
AFV-G4-592-592-292-W	G4	592x592x292	9	3400	70
AFV-F7-287-592-292-W	F7	287x592x292	4,5	1700	100
AFV-F7-402-592-292-W	F7	402x592x292	6	2310	100
AFV-F7-490-592-292-W	F7	490x592x292	7,4	2820	100
AFV-F7-592-592-292-W	F7	592x592x292	9	3400	100

ACTIVATED CARBON V-COMPACT FILTER CODE CONFIGURATION

Filter Type	Filter Class	Dimensions (mm)	Gasket
AFV : Activated Carbon V-Compact Filter	4: G4 7: F7	592x592x292	W: Without P: Continuous Pu Foam E: EPDM Flat

ACTIVATED CARBON CARTRIDGE TYPE FILTER

Applications:
Smell and corrosion control in industrial and commercial applications
Kitchen ventilation
Wide range of molecular contamination issues

Highlights:

- High efficiency in gas filtration
- Pellet (granulated) activated carbon
- Easy assembly to mounting frame
- Robust and air tight
- Filled with a wide variety of activated carbon medias including impregnated medias
- Filled on vibration table to prevent any space

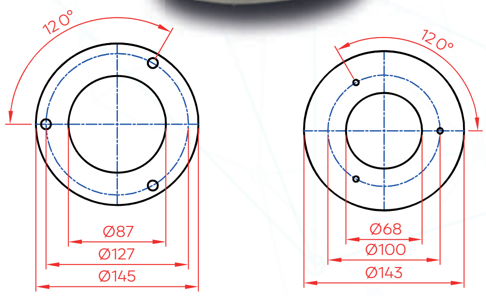
Media:	Activated Carbon Impregnated Medias	**Gasket:**	EPDM (for each cartridge)
Frame:	Galvanized and painting steel	**Outer Diameter:**	145 mm
Max. Operating Temperature:	50°C	**Recommended relative humidity:**	< 70% RH

Filter Model	Filter Media	Filter Type	Dimensions WxHxD (mm)	Nominal Airflow (m^3/h)	Pressure Drop (Pa)	Cartridge Number (pcs.)	Cartridge Volume (dm^3)
AC-G-H-4-AC-305-305-400	AC	Cartridge Filter	305x305x400	600	150	4	>4,7
AC-G-H-8-AC-305-610-400	AC	Cartridge Filter	305x610x400	1200	150	8	>4,7
AC-G-H-12-AC-508-610-400	AC	Cartridge Filter	508x610x400	2000	150	12	>4,7
AC-G-H-16-AC-610-610-400	AC	Cartridge Filter	610x610x400	2400	150	16	>4,7
AC-G-H-4-AC-305-305-450	AC	Cartridge Filter	305x305x450	640	150	4	>5,3
AC-G-H-8-AC-305-610-450	AC	Cartridge Filter	305x610x450	1280	150	8	>5,3
AC-G-H-12-AC-508-610-450	AC	Cartridge Filter	508x610x450	1920	150	12	>5,3
AC-G-H-16-AC-610-610-450	AC	Cartridge Filter	610x610x450	2560	150	16	>5,3
AC-G-H-4-AC-305-305-600	AC	Cartridge Filter	305x305x600	850	150	4	>7,0
AC-G-H-8-AC-305-610-600	AC	Cartridge Filter	305x610x600	1700	150	8	>7,0
AC-G-H-12-AC-508-610-600	AC	Cartridge Filter	508x610x600	2760	150	12	>7,0
AC-G-H-16-AC-610-610-600	AC	Cartridge Filter	610x610x600	3400	150	16	>7,0

ACTIVATED CARBON CARTRIDGE TYPE FILTER CODE CONFIGURATION

Filter Type	Frame	Capacity	Number of Cartridges	Media	Dimensions (mm)
AC : Activated Carbon Cartridge Type Filter	P: Powder Coated G: Galvanized Metal	M: Standard H: High	4 8 12 16	AC: Activated Carbon (Virgin) +11: 11% Potassium Permanganate +11/AC: 11% Potassium Permanganate +AC KOH: Potassium Hydroxide KI4%: Potassium Iodide ACPA: Phosphoric Acid S: Sulphur TB: Triple Blend (KOH + AC + 11%) Z: Special	610x610x400

ACTIVATED CARBON SINGLE CARTRIDGE



Applications:
Smell and corrosion control in industrial and commercial applications
Kitchen ventilation
Wide range of molecular contamination issues

Highlights:
- High efficiency in gas filtration
- Pellet (granulated) activated carbon
- Robust and air tight
- Filled with a wide variety of activated carbon medias including impregnated medias
- Filled on vibration table to prevent any space

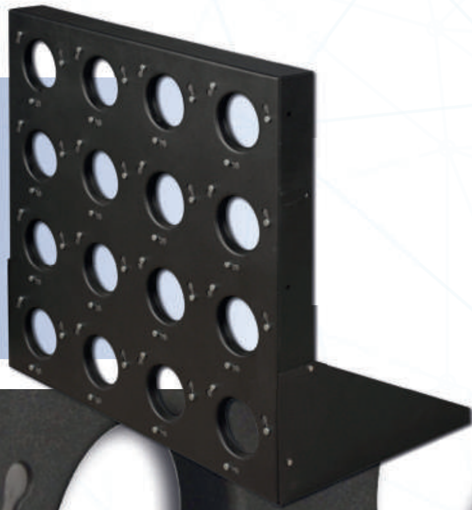
Media:	Activated Carbon Impregnated Medias	**Gasket:**	Standard for cartridge
Frame:	Galvanized and painting steel	**Outer Diameter:**	145 mm
Max. Operating Temperature:	50°C	**Recommended relative humidity:**	< 70% RH

Cartridge Model (Single)	Cartridge Type	Cartridge Volume (dm^3)	Cartridge Airflow (m^3/h)
CR-G-145-N-AC-400	N	3,9	150
CR-G-145-N-AC-450	N	4.4	160
CR-G-145-N-AC-600	N	5,9	212,5
CR-G-145-H-AC-400	H	4,7	150
CR-G-145-H-AC-450	H	5,3	160
CR-G-145-H-AC-600	H	7	212,5

ACTIVATED CARBON SINGLE CARTRIDGE CODE CONFIGURATION

Filter Type	Frame	Outer Diameter	Capacity	Media	Length
CR : Activated Carbon Single Cartridge	P: Powder Coated G: Galvanized Metal	145	N: Normal H: High	AC: Activated Carbon +11: 11% Potassium Permanganate +11/AC: 11% Potassium Permanganate +AC KOH: Potassium Hydroxide KI4%: Potassium Iodide ACPA: Phosphoric Acid S: Sulphur TB: Triple Blend (KOH + AC + 11%) Z: Special	400 450 600

ACTIVATED CARBON CARTRIDGE FRAME



Applications:
Activated carbon cartridge filters

Highlights:

- Galvanized
- Powder Coated
- Equipped with a special compression wrench for easy assembly

Frame:	Galvanized, powder coated
Number of cartridge:	4 - 8 - 12 -16
Outer Diameter:	145 mm

Cartridge Model (Single)	Dimensions WxHxD (mm)	Cartridge Quantity (pcs.)
UCF-G-H-4-305-305	305x305x70	4
UCF-G-H-8-305-610	305x610x70	8
UCF-G-H-12-508-610	508x610x70	12
UCF-G-H-16-610-610	610x610x70	16

ACTIVATED CARBON CARTRIDGE FRAME CODE CONFIGURATION

Filter Type	Frame	Capacity	Number of Cartridge	Dimensions
UCF : Activated Carbon Cartridge Frame	P: Powder Coated G: Galvanized Metal	M: Standard H: High	4 8 12 16	610x610

ACTIVATED CARBON (PELLET) PANEL FILTER

Applications:
Smell and corrosion control in industrial and commercial applications
Wide range of molecular contamination issues

Highlights:
- High efficiency in gas filtration
- Pellet (granulated) activated carbon
- Easy assembly to mounting frame
- Robust and air tight
- Filled with a wide variety of activated carbon medias including impregnated medias

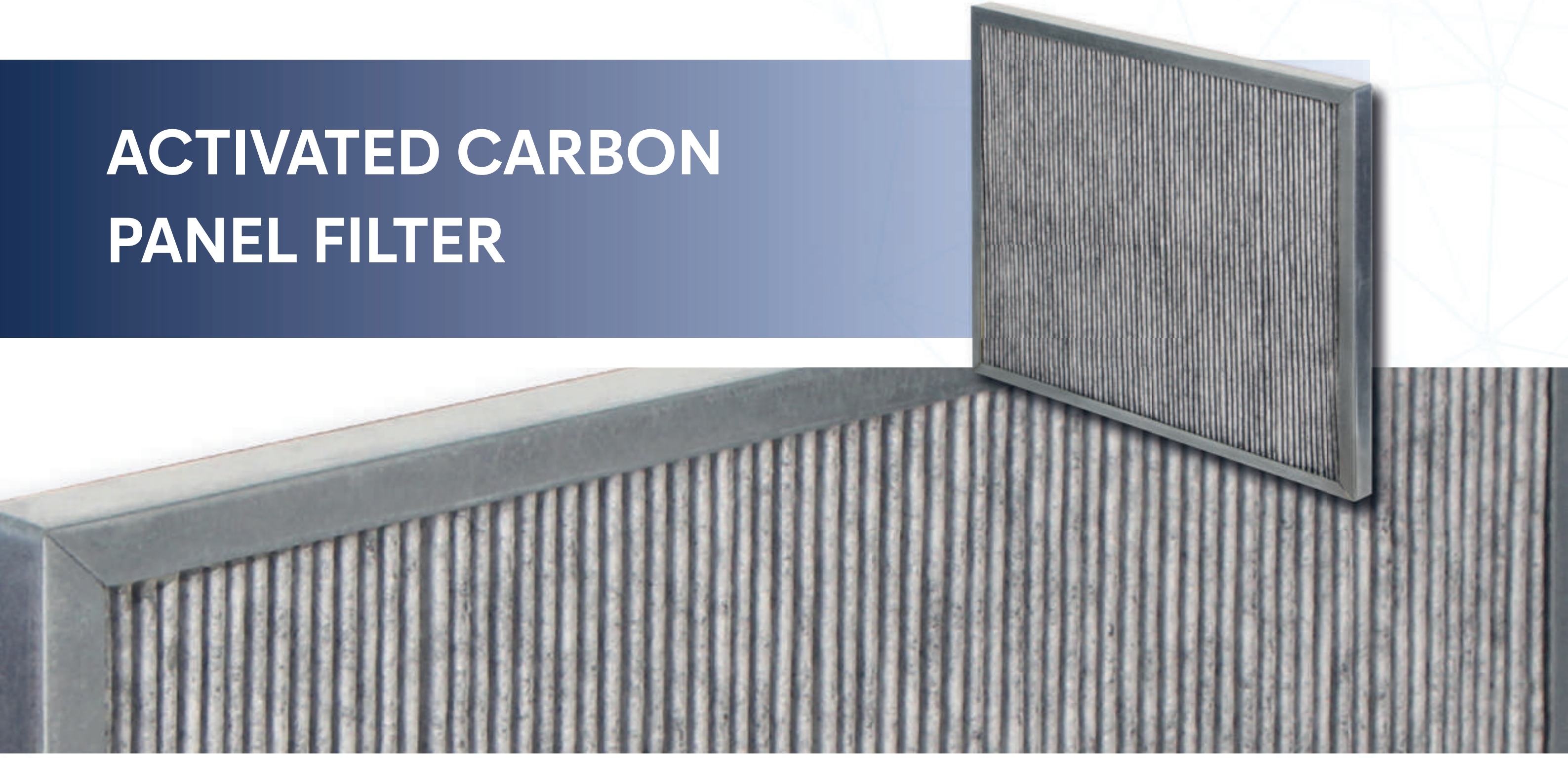
Media:	Pellet type carbon	**Gasket:**	Without, EPDM
Frame:	Galvanized	**Recommended relative humidity:**	< 70% RH
Max. Operating Temperature:	50°C		

Filter Model	Filter Class	Dimensions WxHxD (mm)	Media Type
ACP-G-AC-287-287-25-W	Activated Carbon	287x287x25	AC
ACP-G-AC-287-592-25-W	Activated Carbon	287x592x25	AC
ACP-G-AC-592-592-25-W	Activated Carbon	592x592x25	AC
ACP-G-AC-287-287-48-W	Activated Carbon	287x287x48	AC
ACP-G-AC-287-592-48-W	Activated Carbon	287x592x48	AC
ACP-G-AC-592-592-48-W	Activated Carbon	592x592x48	AC
ACP-G-AC-287-287-96-W	Activated Carbon	287x287x96	AC
ACP-G-AC-287-592-96-W	Activated Carbon	287x592x96	AC
ACP-G-AC-592-592-96-W	Activated Carbon	592x592x96	AC

ACTIVATED CARBON (PELLET) PANEL FILTER CODE CONFIGURATION

Filter Type	Frame	Media	Dimensions (mm)	Gasket
ACP : Activated Carbon (Pellet) Panel Filter	G: Galvanized Metal	AC: Activated Carbon (Virgin) +11: 11% Potassium Permanganate +11/AC: 11% Potassium Permanganate +AC KOH: Potassium Hydroxide KI4%: Potassium Iodide ACPA: Phosphoric Acid S: Sulphur TB: Triple Blend (KOH + AC + 11%) Z: Special	592x592x48	W: Without E: EPDM Flat

ACTIVATED CARBON PANEL FILTER



Applications:
Gas-phase filtration
Offices
Hospitals
Airports

Highlights:
- Remove volatile organic compounds (VOC's)
- Odors
- Compact design
- Simple installation and handling

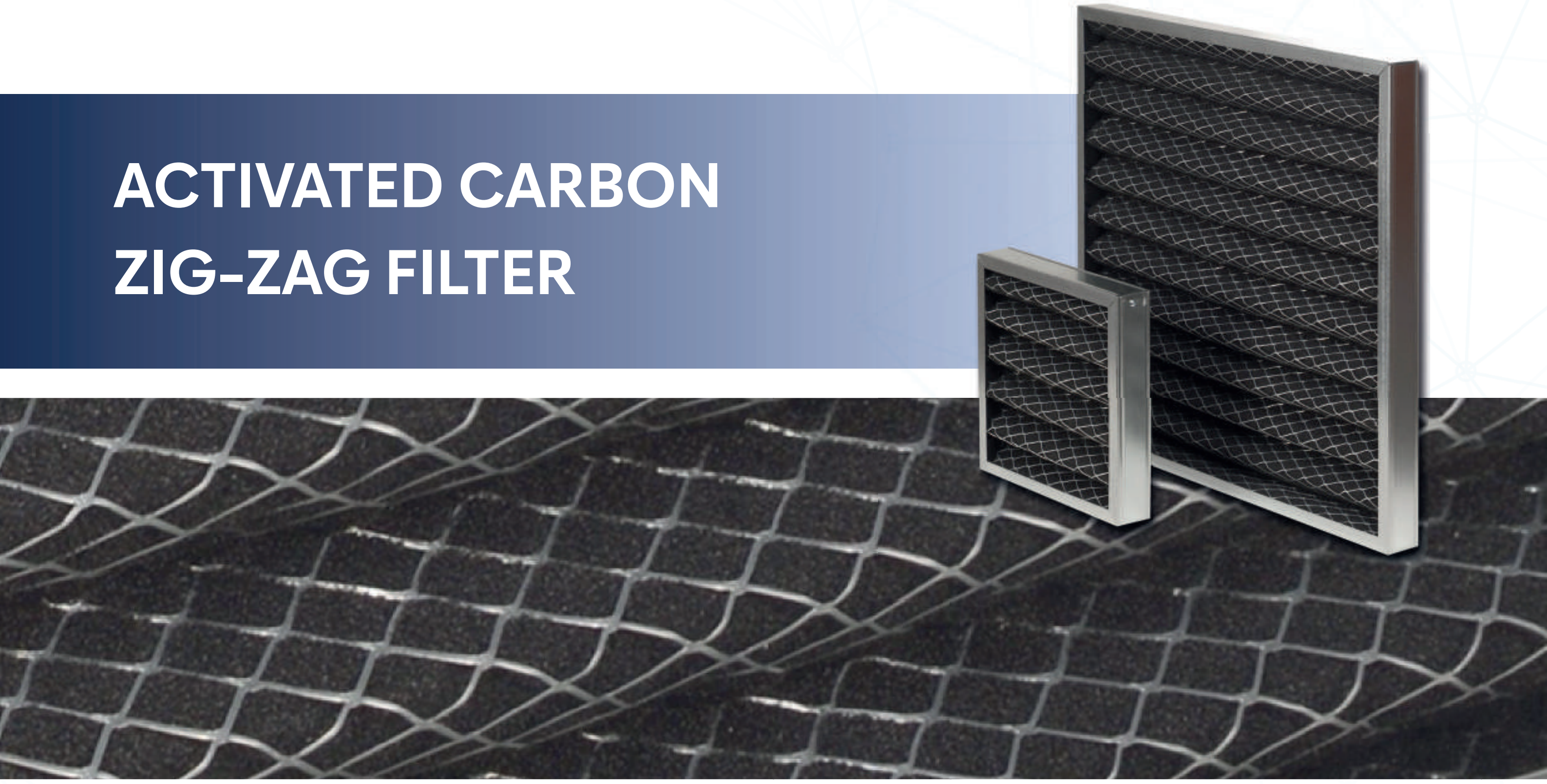
Media:	AC between sythetic layer	**Type:**	High efficiency, activated carbon
Frame:	Galvanized	**Media Weight:**	400gsm
Max. Operating Temperature:	50°C	**Gasket:**	Without, EPDM
Relative Humidity	50%		

Filter Model	Filter Class	Dimensions WxHxD (mm)	Filtration Area (m^2)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
AFP-G-287-287-48-W	Activated Carbon	287x287x48	1,0	375	80
AFP-G-287-592-48-W	Activated Carbon	287x592x48	2,0	750	80
AFP-G-592-592-48-W	Activated Carbon	592x592x48	4	1500	80

ACTIVATED CARBON PANEL FILTER CODE CONFIGURATION

Filter Type	Frame	Dimensions (mm)	Gasket
AFP : Activated Carbon Panel Filter	G: Galvanized Metal	592x592x48	W: Without E: EPDM Flat EE: EPDM Flat on Both Side C: Continuous Grey EPDM CC: Grey EPDM on Both Side

ACTIVATED CARBON ZIG-ZAG FILTER



Applications:
Pre-filter for HVAC
Offices
Hospitals
Airports

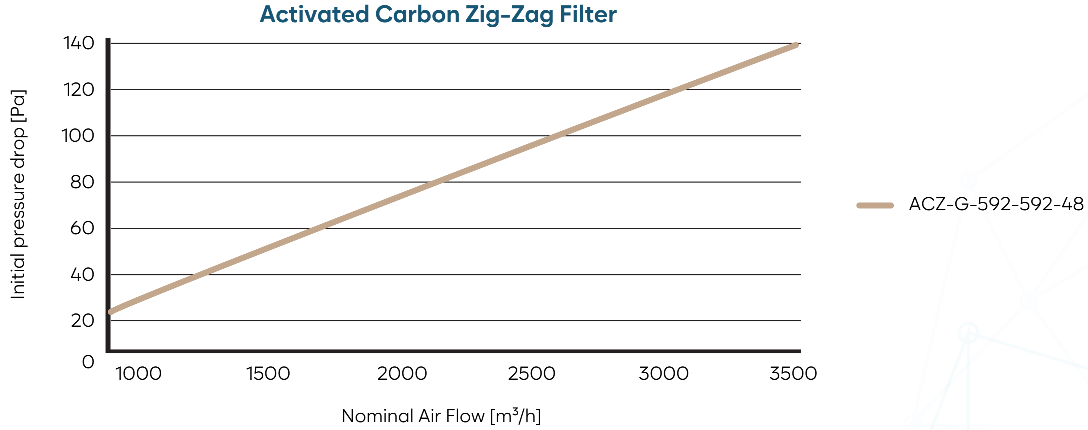
Highlights:
- Synthetic fiber impregnated with carbon
- Easy assembly
- Odors

Media:	Synthetic fiber impregnated with carbon	**Max. Operating Temperature:**	50°C
Frame:	Galvanized Steel	**Standard depth:**	48 - 96 mm

Filter Model	Media Material	Dimensions WxHxD (mm)	Nominal Airflow (m^3/h)	Pressure Drop (Pa)
ACZ-G-287-287-48	Activated carbon	287x287x48	1000	80
ACZ-G-287-592-48	Activated carbon	287x592x48	1700	80
ACZ-G-592-592-48	Activated carbon	592x592x48	2000	80
ACZ-G-287-287-96	Activated carbon	287x287x96	1000	70
ACZ-G-287-592-96	Activated carbon	287x592x96	1700	70
ACZ-G-592-592-96	Activated carbon	592x592x96	2000	70

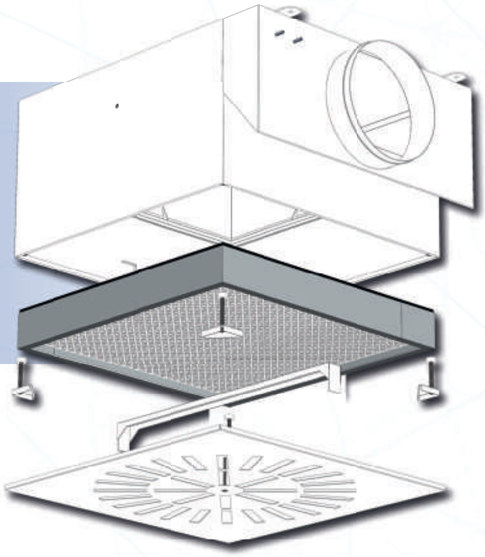
ACTIVATED CARBON ZIG-ZAG CODE CONFIGURATION

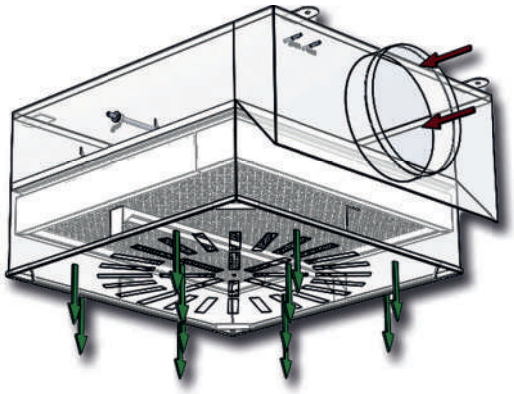
Filter Type	Frame	Dimensions
ACZ : Activated Carbon Zig-Zag Filter	G: Galvanized Metal	592x592x48



ACCESSORIES

HEPA FILTER BOX





Applications:
Microelectronics
Laboratories
Life science
Healthcare
Food and Beverage Industry

Highlights:
- Filter seal-leak test (DIN 1946-4 and ISO 14644-3)
- Test ports for pressure drop, test groove (on request) and aerosol injection
- Available air flow adjustment damper fitted to the spigot (on request)
- Available in various construction and dimensions
- Simplified maintenance and disinfection
- Easily removable air outlets
- Available powder coated or stainless steel
- Central, corner, side fixing for diffuser
- Duct connection type: Top, Side, Z (Lower ceiling heights)
- Powder coated in any RAL Code

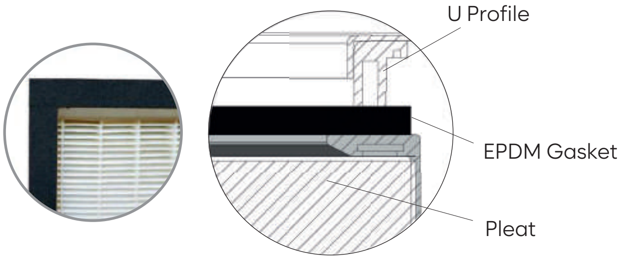
ULPATEK CODE	Box Dimension			HEPA Filter Dimension			Diffuser Dimension	
	Width mm	Length mm	Height* mm	Width mm	Length mm	Height mm	Width mm	Length mm
HFB-SS-X-F-W-C-610-610-78-M	627	627	400	610	610	78	650	650
HFB-SS-X-F-W-C-610-610-150-M	627	627	400	610	610	150	650	650
HFB-SS-Y-K-W-C-610-610-80-M	627	627	400	610	610	80	650	650
HFB-SS-Y-K-W-C-610-610-128-M	627	627	400	610	610	128	650	650
HFB-SS-Z-T-W-C-610-610-69-M	627	627	400	610	610	69	650	650
HFB-SS-X-F-D-M-610-610-150-M (tool free)	627	627	400	610	610	150	650	650

*Height will be changed according to design.

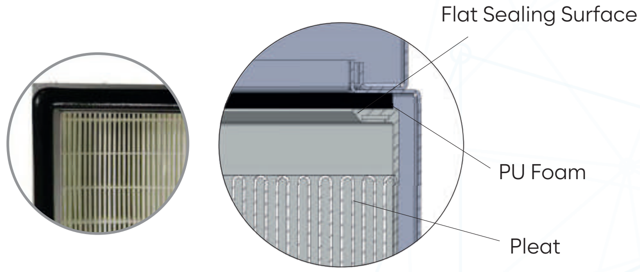
HEPA FILTER BOX CODE CONFIGURATION

Filter Type	Flange	Spigot Side	Leakproof Gasket Surface	Damper	Diffuser Connection	Dimensions (mm)	Spigot Diameter
HFB : HEPA Filter Box	P: Powder Coated SS: Stainless Steel 304 SS316: Stainless Steel 316	X: Top Inlet Y: Side Inlet Z: Z Inlet	F: Flat Surface T: Test Groove K: Knife Edge	D: Exist W: Without	C: Center S: Corner M: Magnet	610x610x78	A: 125 B: 150 C: 160 D: 200 M: 250 F: 300 L: 315 X: 355 Z: 0

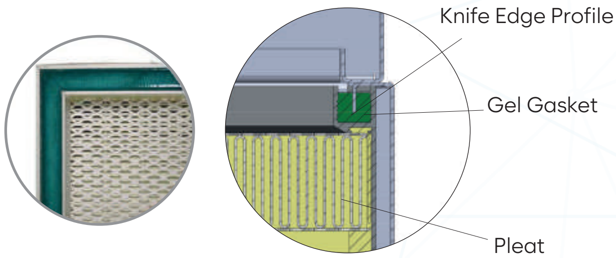
EPDM Gasket - Test Groove



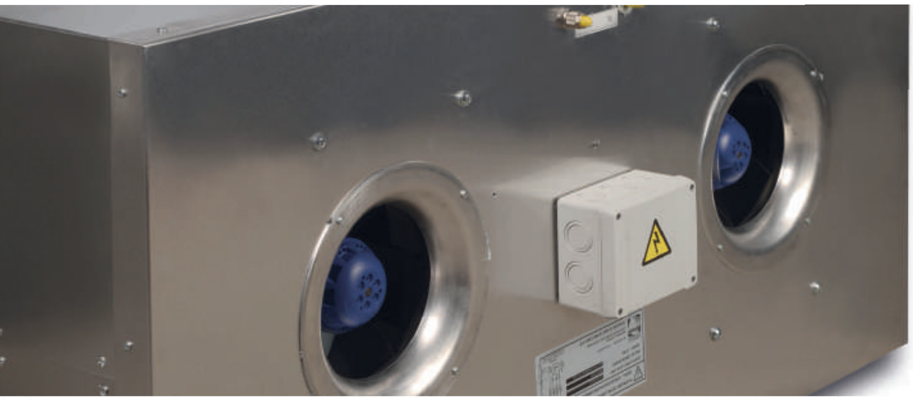
PU Foam - Flat Surface



Gel Type Gasket - Knife Edge Surface



FAN FILTER UNIT



Applications:
Microelectronics
Laboratories
Life science
Healthcare
Food and Beverage Industry

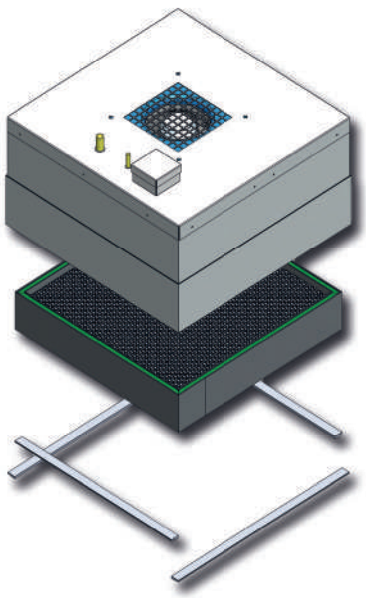
Highlights:
- Easy installation into cleanroom grids
- Snap-in, prefilter for easy replacement and maintenance
- Guaranteed leak-free
- Self-contained ceiling fan filter unit
- Low operating cost, low wattage
- AC or EC fans optionally
- Silent operation (<65 Dba)
- Uniform air velocity
- Differential pressure gauge available on request
- Test aerosol inlet nozzle (DOP/EMERY test)
- Adjustable airflow with variable speed controller on request
- Replacement HEPA filter from room side or ceiling side

Frame Model	Filter Class EN 1822	Filter Class ISO 29463	Filter Dimensions WxHxD (mm)	Nominal Airflow (m^3/h)	Initial Pressure Drop (Pa)
FFU-H14-A-SM-4-AC-610-610	H14	ISO 45 H	610x610x89	600	125
FFU-H14-A-SM-4-2AC-610-1220	H14	ISO 45 H	610x1220x89	1200	125
FFU-H14-A-SM-4-EC-610-610	H14	ISO 45 H	610x610x89	600	125
FFU-H14-A-SM-4-2EC-610-1220	H14	ISO 45 H	610x1220x89	1200	125
FFU-H14-A-SM-4-AC-610-610	H14	ISO 45 H	610x610x109	600	90
FFU-H14-A-SM-4-2AC-610-1220	H14	ISO 45 H	610x1220x109	1200	90
FFU-H14-A-SM-4-EC-610-610	H14	ISO 45 H	610x610x109	600	90
FFU-H14-A-SM-4-2EC-610-1220	H14	ISO 45 H	610x1220x109	1200	90

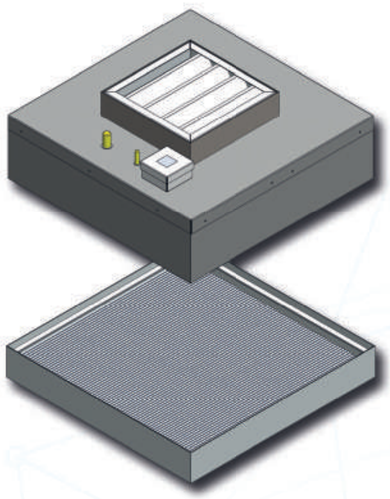
*Height will be changed according to design.
Unit depth is less than 400mm, check design drawing.

FAN FILTER UNIT CODE CONFIGURATION

Accesories Type	Filter Class	Material	Design	Prefilter	Fan	Filter Dimensions (mm)
FFU: Fan Filter Unit	E10 E11 E12 H13 H14 U15	SS: Stainless Steel A: Aluminium P: Powder Coated	SM: Seperated J: Gel Type C: Compact	4: G4 7: F7 8: F8 9: F9	EC AC	610x610x89



GEL TYPE FFU

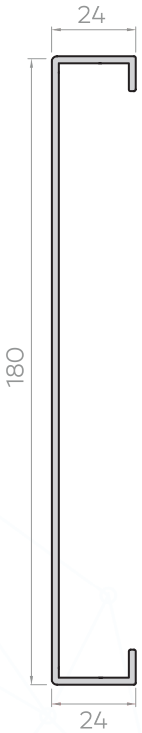


SEPERATED FFU

Secure and Seal: Fan Filter Units in Leak-Proof Design

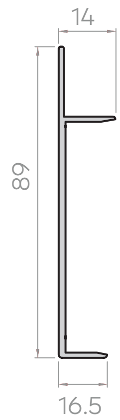
Fan Filter Units are ensuring a leak-proof design that offers superior performance and durability. Please review the detailed profile drawing for a comprehensive understanding of the filter frame's dimensions and design features. This will assist in choosing the perfect filter for your specific requirements.

G



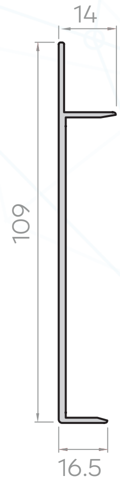
Fan Filter Unit's main body profile is used with "G" frame code .

A-SM



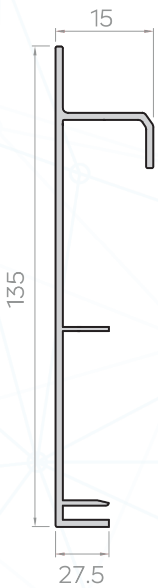
Filter frame suitable for Fan Filter Unit (FFU) G profile.

A-SL



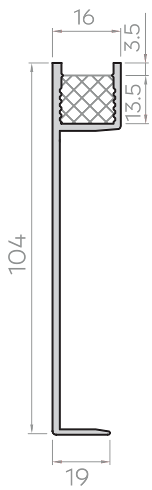
Filter frame suitable for Fan Filter Unit (FFU) G profile.

GF



Fan filter Unit(FFU) with gel filter main body profile used with "GF" frame code suitable for Gel Type HEPA Ceiling filter 104 mm depth.

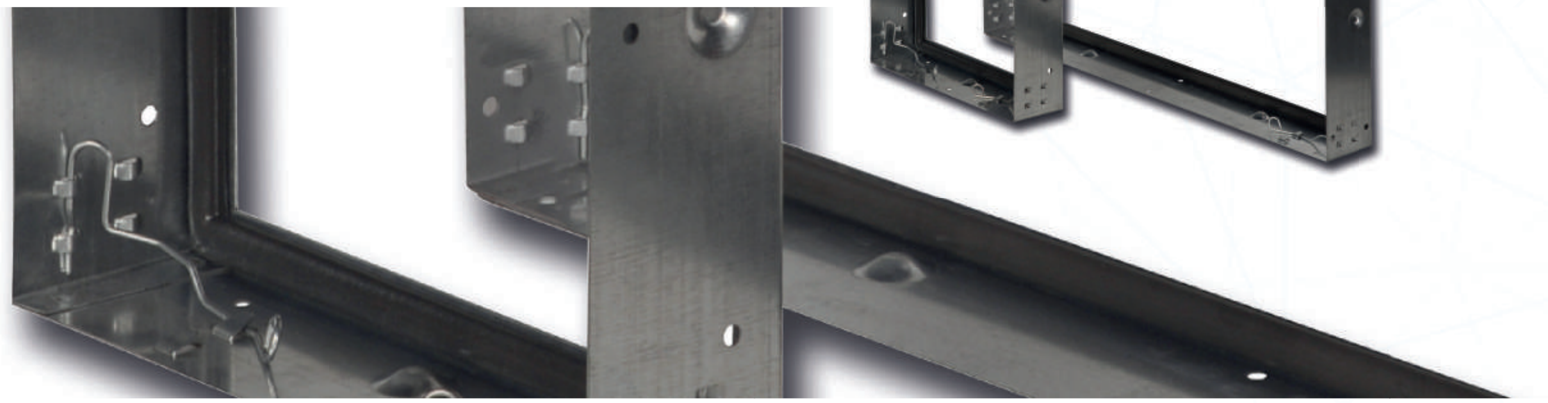
104 mm



Filter frame suitable for Fan Filter Unit's "GF" profile.

NOTES

FILTER FRAME HOLDING



Applications:
Installation frames for air filters

Highlights:
- Filter replacement is fast and straight forward
- Capable of working with diverse selection of airfilters
- Compact design with stability
- Safe-holding with clips
- Robust construction

Frame Model	Frame Dimensions WxHxD (mm)	Filter Dimensions WxH (mm)	Available Filter Depths D (mm)
UFH-G-305-305-75	305x305x75	287x287	25, 48
UFH-G-305-610-75	305x610x75	287x592	25, 48
UFH-G-508-610-75	508x610x75	490x592	25, 48
UFH-G-610-610-75	610x610x75	592x592	25, 48
UFH-G-305-305-100	305x305x100	287x287	25, 48, 75, 25+48
UFH-G-305-610-100	305x610x100	287x592	25, 48, 75, 25+48
UFH-G-508-610-100	508x610x100	490x592	25, 48, 75, 25+48
UFH-G-610-610-100	610x610x100	592x592	25, 48, 75, 25+48
UFH-G-305-305-125	305x305x125	287x287	25, 48, 75, 96, 25+48, 25+75
UFH-G-305-610-125	305x610x125	287x592	25, 48, 75, 96, 25+48, 25+75
UFH-G-508-610-125	508x610x125	490x592	25, 48, 75, 96, 25+48, 25+75
UFH-G-610-610-125	610x610x125	592x592	25, 48, 75, 96, 25+48, 25+75

FILTER FRAME HOLDING CODE CONFIGURATION

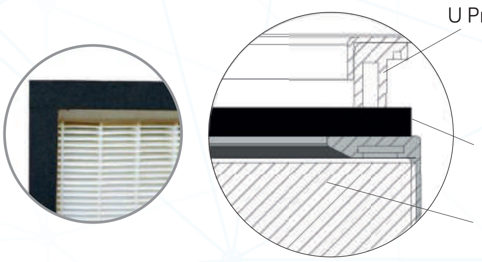
Filter Type	Material	Dimensions (mm)
UFH : Filter Frame Holding	G: Galvanized SS: Stainless Steel 304 SS316: Stainless Steel 316 P: Powder Coated	610x610x125

HEPA FILTER FRAME HOLDING

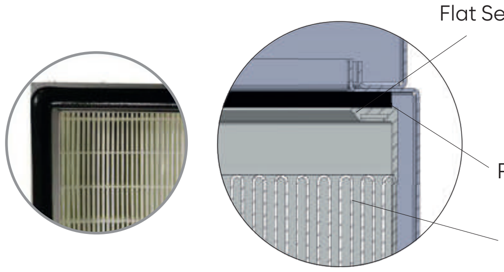
Applications:
Installation frames for HEPA filters in AHU's or ventilation systems

Highlights:
- Equipped with seal test groove acc.to DIN1946-4 (Optional)
- Sealing guaranted, high tightness
- Stainless Steel or Painted
- Compact design with stability
- Robust construction

EPDM Gasket - Test Groove



PU Foam - Flat Surface



Frame Model	Frame Dimensions WxHxD (mm)	Suitable Filter Frame Dimensions WxHxD (mm)
HFK-G-F-305-610-366	305x610x366	287x592x292
HFK-G-F-610-610-366	610x610x366	592x592x292
HFK-G-F-322-627-366	322x627x366	305x610x292
HFK-G-F-627-627-366	627x627x366	610x610x292
HFK-SS-T-305-610-366	305x610x366	287x592x292
HFK-SS-T-610-610-366	610x610x366	592x592x292
HFK-SS-T-322-627-366	322x627x366	305x610x292
HFK-SS-T-627-627-366	627x627x366	610x610x292

HEPA FILTER FRAME HOLDING CODE CONFIGURATION

Filter Type	Material	Leakproff Gasket Surface	Dimensions (mm)
HFK : HEPA Filter Frame Holding	G: Galvanized SS: Stainless Steel 304 SS316: Stainless Steel 316 P: Powder Coated	T: Test Groove F: Flat Surface	305x610x366 305x305x366 610x610x366

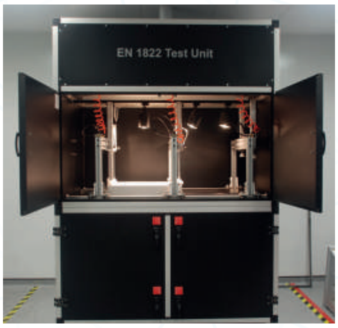
ULPALAB

ULPATEK Filter Testing Laboratory

HEPA / ULPA Filter Test System - HF-SCAN 4002/2

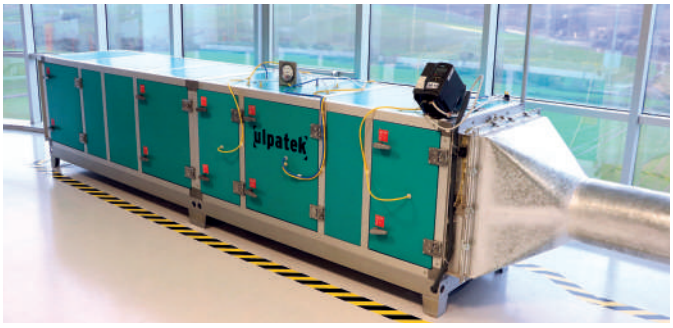
HEPA / ULPA Filter Test System - HF-SCAN 3004

ISO 16890 Test Sytem - FTS 3401



HEPA / ULPA Filter Test System
HF-OIL MIST 1200

Filter Media Test System
FMT 102



Performance Test System - PTS 5002

Advanced filtration for a better future!

AIR FILTER TECHNOLOGY

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