

Clean air, our care



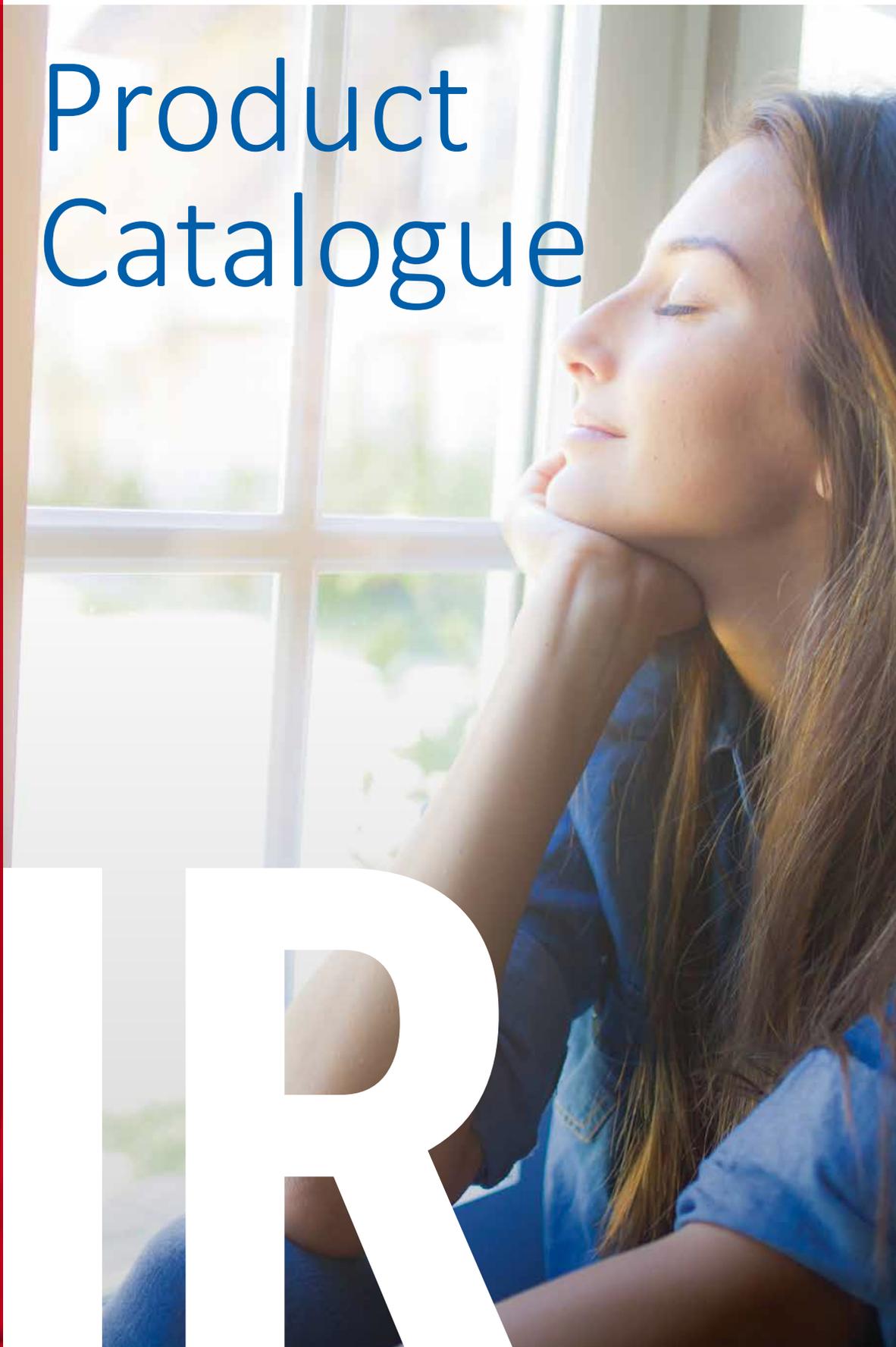
**Energy savings**  
With AFPRO Filters

**Particulate matter**  
Is dangerous,  
protect yourself

**NEW ISO 16890**  
Standard

**A+ Filter is here**  
Our most effective  
and efficient filter  
is out now

# Product Catalogue



# AIR

2020

**We supply clean air to commercial buildings,** hospitals, data centers, museums,  
the food industry, the pharmaceutical industry and more



**CARE**

# AFPRO Filters

## The future of clean air

Last year we celebrated our fortieth anniversary. A milestone we are very proud of but also a good time to look to the future. The fact that we have been creating great filters for four decades is no guarantee for future success. You have to stay on your toes, you have to stay ambitious, you need to find new ways to be innovative. This is a challenge we are eager and ready to take on.

### Commitment to quality

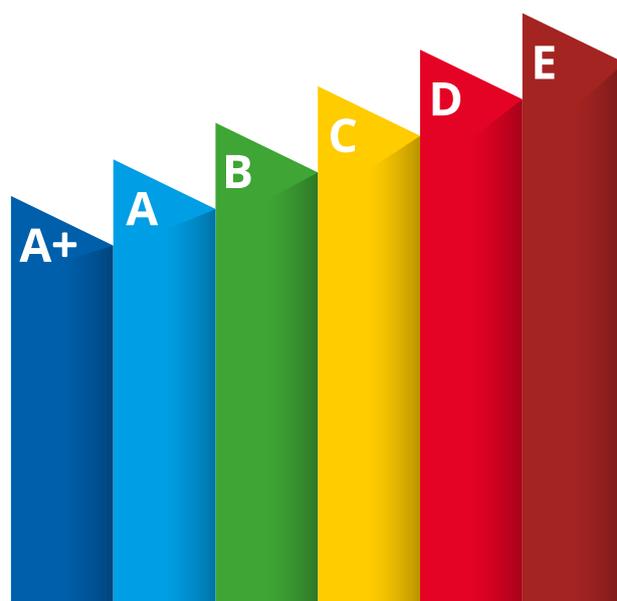
Recently we have been working very hard to make AFPRO Filters ready for the next decade. Firstly we have redesigned our corporate identity with a fresh new look. We hope you like it as much as we do. Secondly we've been designing the best air filter we could think of. The innovative AFPRO A+ filter is effective on even the smallest fine dust particles (PM1). Still the air resistance of the filter is minimal so you need less power; saving energy and money. It's the most energy efficient filter on the market. The renowned pre-layer makes the AFPRO A+ filter very safe and easy to install into any air filtering system. We believe this filter provides you with the very best clean air solution worldwide. That is why we are proud of the fact that our latest design has been allowed to carry the Eurovent energy A+ label. It's a guarantee of our commitment to the quality of our product.

### Everyone is entitled to clean air

At AFPRO Filters, we are at the forefront of research and development of filters that protect people from the dangers of particulate matter! Every day we continue to develop our innovative products. We strive to offer even better protection against particulate matter and achieve greater savings on energy consumption. Of course we can only do this by listening closely to our customers, because you make the difference!

### Karel Bosschieter

CEO



# AIR



# Table of content

## Introduction

AFPRO Filters - The future of clean air	3
Why choose AFPRO Filters?	6
The principles of air filtration	8
Filter classifications and guarantees	10
About ISO 16890	12
The new Eurovent energy labels	15
Filters that fit your business	16
Table of content filters	19

## Products

Panel filters	21
Bag filters	35
Compact filters	57
HEPA filters	69
Active carbon filters	97
Filter media	103
Holding frames	106
Possibilities	111
General terms and conditions	112

# Why choose AFPRO Filters?

By opening this catalog you have probably decided to look for a device that will provide you with clean air at your place of work, your home or the place where you spend your time of leisure.

A very good decision! We would like to tell you a little more about air, air pollution, the effects on human health and how AFPRO Filters is the best choice to solve the problem.

## **Breathing easy**

An average person breathes in 20 kilos of air per day. Since the beginning of time the air we breathe has been polluted with small particles. Luckily the human body is very capable of dealing with most of them. Our nose and windpipe are designed to filter and dispose most of the dust and pollen we inhale every day. However the industrialization over the last century has filled the air on earth with fine dust particles (particulate matter).

With every breath we take only 1% of the air is filled with toxic matter. Not a problem? Think again. Remember we said the average person breathes in 20 kilos of air daily? That means you unknowingly take in 200 grams of polluted particles every day which adds up to 73 kilos per year. That's the weight of an entire adult of pollution! Our body is hardly equipped for processing all of it.

## **Effects on your health**

Before we talk about solutions, let's get into the details of the effect all these invisible particles have on people's general health.

In the Western world, people spend an average of 70% of the time indoors. Unfortunately this doesn't mean the air around you is clean. An unhealthy indoor climate can have many causes. In houses, schools and office buildings, the main culprit is usually a lack of ventilation or a polluted ventilation system. Other causes are chemical substances that are released from building materials, floor coverings and paint. Printers, copiers and computers can deteriorate the air quality.

Also a humid indoor climate can promote the growth of bacteria, viruses and fungi. All these factors can be the cause of Sick Building Syndrome (SBS).

When employees or residents regularly complain about irritation of the mucous membranes of eyes, respiratory tract and nose; redness and itching of the skin; headache, fatigue, listlessness and loss of concentration, the SBS is probably the cause. On the long run these complaints can be the first signs of chronic diseases like allergy, bronchitis, asthma, pneumonia and even cancer.

Good air filtration is a relatively simple way to reduce SBS and to protect people against the consequences. So now you probably understand why air filtering systems are a vital part of a healthy life and definitely worth investing in.

## **AFPRO Filters offers the best protection**

Why would you choose AFPRO Filters instead of any other filter manufacturer? Let's give you a few good reasons:

### **1 We have a lot of experience**

AFPRO Filters has over forty years of experience in creating air filters. We are a key player in the international market for air filtration. By collaborating with our customers we find the best air filter solutions. In our advanced laboratories we are busy investigating new possibilities and developing even more efficient filters every day. Because we are in control of development, production and delivery, we can guarantee the constant quality of our

products. Raw materials, semi-finished products and end products are checked without exception for the criteria prescribed by the ISO 9001 quality system. This way you know for sure that AFPRO Filters always have the best protection offer.

### **2 We know your business**

AFPRO Filters has a specific solution for every industry-specific demand. Our professionals are aware of the challenges to your industry in regard to laws, regulations and relevant standards. We know the terms and jargon of your industry and are able to advise on the specific needs and requirements that apply in your line of business.

### **3 We offer filters with the lowest energy consumption**

Energy consumption is responsible for 70% of the total air filtration costs. When you pay attention to the energy efficiency of the air filters that you install, you can significantly reduce your energy costs. Quality poorer filters may be cheaper to purchase, but very quickly lead to higher energy consumption and a higher replacement frequency.

### **4 We care about the environment by creating sustainable products**

AFPRO Filters feels that the production of low-resistance air filters is one of our most important goals. By using high-quality glass fibers that are progressively constructed using a multilayering technique, we reduce the filters' air resistance substantially, which in turn reduces energy consumption. The reduction of energy use is a vital part of a sustainable business plan.

## 5 We calculate the potential savings

When purchasing an air filter, you need to compare the purchase price to the money you spend on energy costs. Less resistance means less the energy consumption and lower energy bills. This way you find that a very energy efficient air filter can actually save you a lot of money. Our professionals are happy to tell you all about this and provide you with a personal calculation.

## 6 We share relevant and up-to-date knowledge

AFPRO Filters stands for quality, sustainability and innovation. That is why we conduct daily research into our own products and keep up with the developments in air filtering technologies worldwide. When we see a possibility to improve the efficiency and sustainability, we immediately incorporate this into our products. We think it is important to share the knowledge we gain with our customers. That is why we have opened a service and knowledge center for our customers in Alkmaar. Learn everything there is to know about air filtration, filter media, test standards and measurement techniques.

## 7 We provide the 'total package'

Our customers appreciate our service. Customer satisfaction surveys show that we score very high on logistics and delivery reliability. We are happy with that, because the following applies to us: a deal is a deal. We are constantly investing in our extensive logistics network and offering our services with full track and trace options. This way we can inform you at any time about the status of your order. AFPRO Filters only works with reliable carriers: You can be sure that your shipment will arrive on time and in good condition.

## 8 We evaluate your air filter system

Of course we do more for our customers than just ensuring that their orders arrive on time and in good condition. You'd probably also like to know about the quality of your air filtration system. That is why we are more than happy to come over and evaluate your filter system according to the applicable standards. We use officially recognized test methods for this:

- Eurovent 4/10 - 2005 Determination of the onsite fractional efficiency of general ventilation filters.
- ISO/CD 29462 Practice tests on particle size and air resistance of general ventilation filtration equipment and systems for onsite filtration efficiency.
- ISO 16890 Filters are tested in our laboratory for filter performance (pressure drop and efficiency), dust analysis and dust collection capacity.

As a result of the analysis you will receive sound advice about the functioning of the filters.

Once you know how effective your filtering system is, you also want to know if it's efficient. So we calculate the actual costs! The Filter Durability Model (FDM) developed at AFPRO Filters provides insight into the actual costs per filter per month. Based on the latest filter test standards and the Eurovent Energy Label Guidelines, we can tell you exactly what the best filter choice is and what the most energy efficient solution for your total air filtration system.

## 9 We are Eurovent certified

AFPRO Filters meets the strict requirements of the Eurovent certification. This certification program, which Eurovent jointly developed with various air filter manufacturers, ensures that air filters can be compared with each other on the basis of a equivalent set of assessment criteria. The Eurovent certification is your guarantee:

- That your air filters have been tested by independent laboratories;
- That the filters match the design specifications and;
- That the filters you purchase meet the promised energy consumption.

Moreover, the Eurovent certification guarantees that all documentation that we provide with your filters, such as the product information in this catalog, on our website and in the manuals, meets the European standard. In short: with the Eurovent quality mark you are assured of safe air filters that perform excellently.

# The principles of air filtration

There are two basic types of air filter: Filters for solids and filters for gaseous particles. Both types have the same objective; to reduce the concentration of airborne particles. Gaseous particles can be filtered out by means of adsorption. To explain this we need to look at the laws of physics.

Adsorption is brought about by so called 'London dispersion forces', or 'Van der Waal's forces', which act between the molecules. These electromagnetic forces have similar properties to the forces of gravity acting between planets in the solar system.

Our filters contain activated carbon which is capable to remove particles from the air by simply absorbing them. Different filters may use different types of carbon, depending on the particular field of application. Read more about the active carbon filter on page 97.

## The art of capture

There are four ways of capturing particles. Every type of particle has a unique way of traveling through air. They can also react differently to each other or the kind of filter it comes across. The magnitude of the effects is determined by the combination of the particle size, the filter class and the filter construction.

Air filters may apply:

- The sieve effect
- The inertial mass effect
- The interception effect
- The diffusion effect

## The sieve effect

The sieve effect is one most commonly applied in air filters. The principle of the sieve effect is very simple: the particle is larger than the gap between the media fibers and therefore gets trapped.

## The inertial mass effect

This filter principle is applied when the particles have substantial mass. The particle arrives at high velocity. Due to its mass, the particle collides with the media fiber, instead of being deflected with the airflow.

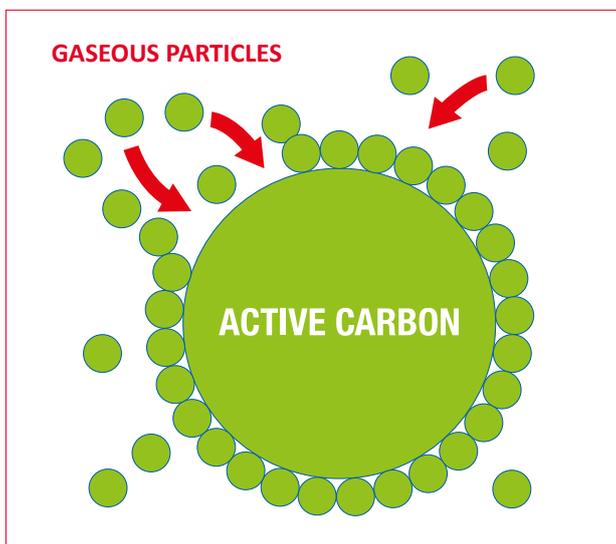
## The interception effect

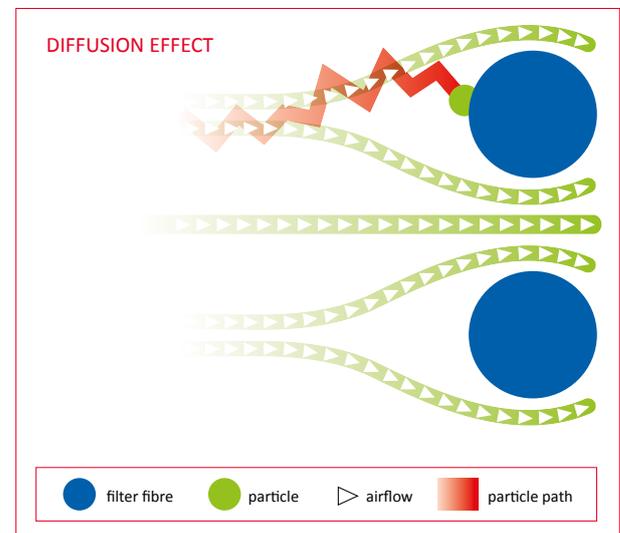
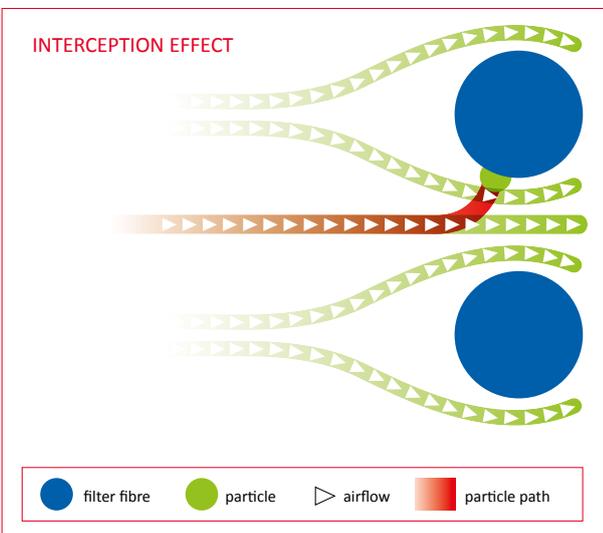
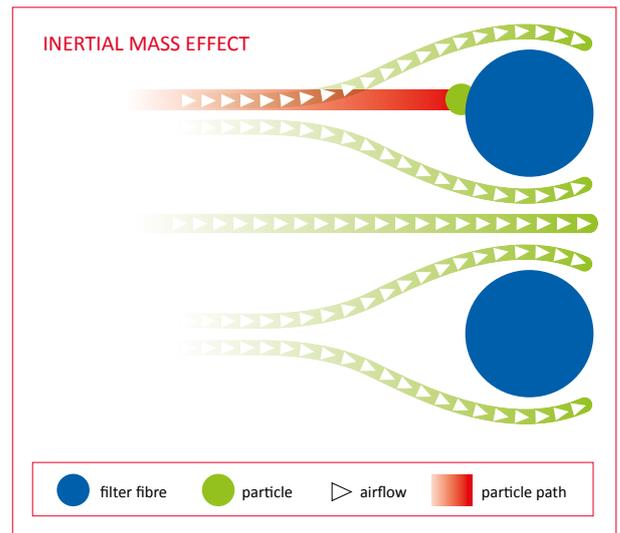
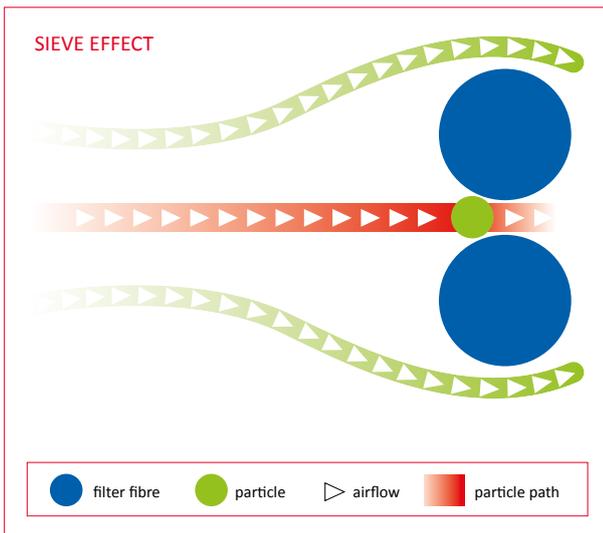
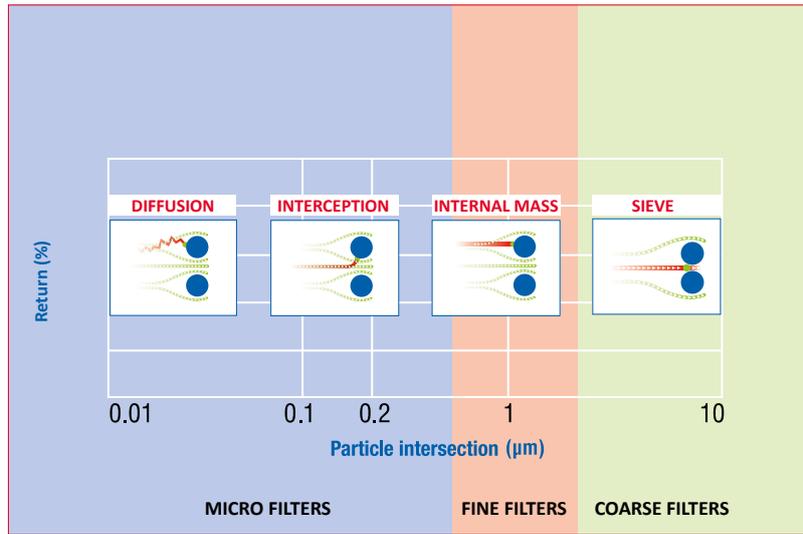
The fact that particles exert forces of attraction on one another is crucial to this filter principle. The larger media fibers attract the relatively small dust particles. Once the particles have been intercepted they remain stuck between the media fibers.

## The diffusion effect

Particularly small particles often pursue an irregular path. This phenomenon is referred to as Brownian motion. The path that the particles follow may digress from that of the airflow. Brownian motion increases the chances of the particle colliding with the media fibers.

The magnitude of the effects is determined by the combination of the particle size, the filter class and the filter construction.





# Filter classifications and guarantees

Most people, and with this we mean end users, have no idea how to rate the quality of an air filter. So how can you establish the certainty that the product you bought or wish to buy does the job?

You need a standardised guarantee whether a filter will provide the envisaged air quality. This is why air filters are classified according to several standards:

- ISO 16890\* (formally EN779:2012 for the EU and ASHRAE 52.2 for the USA) for coarse and fine filters.
- EN1822:2018 for HEPA and ULPA filters.

\* The new ISO 16890 standard has been introduced at the end 2016. More information about the ISO 16890 standard can be found on page 12.

## Put it to the test

The filters are tested in both our own and independent laboratories. During the compliance tests, the filters are exposed to circumstances which indicate precisely how they will perform in practice. For our customers, it is comforting to know that all the products AFPRO Filters supplies are compliant with the ISO 16890 and EN1822:2018 classifications. Furthermore, AFPRO Filters complies with the stringent requirements of the Eurovent certification program. This guarantees that the actual filter performance is in line with the specifications presented.

Read more about the Eurovent certification on page 15.

## MPPS

The MPPS efficiency is leading in these tests. MPPS stands for most penetrating particle size. This refers to the dimensions of those particles that are the most difficult to trap. It generally lies in the region of 0.1 to 0.2 microns (µm). The MPPS has to be established before subjecting a filter to tests.

The table contains detailed information on the European filter classifications.

## Comparison Summary filter test classification

Filter Test Standard	Prefilters				Fine filters				
ISO 16890	ISO Coarse				ISO Coarse/ ePM10	ISO Coarse/ ePM2.5	ePM2.5/ ePM1	ePM1	ePM1
Initial Efficiency vs. particle size					Efficiency (%)				
0.1 µm	-	-	-	-	0 - 10	5 - 15	25 - 35	35 - 45	45 - 60
0.3 µm	-	-	-	0 - 5	5 - 15	10 - 25	45 - 60	65 - 75	75 - 85
0.5 µm	-	-	0 - 5	5 - 15	15 - 30	20 - 40	60 - 75	80 - 90	90 - 95
1.0 µm	-	0 - 5	5 - 15	15 - 35	30 - 50	50 - 65	85 - 95	95 - 98	> 99
3.0 µm	0 - 5	5 - 15	15 - 35	30 - 55	70 - 90	85 - 95	> 98	> 99	> 99
5.0 µm	5 - 15	15 - 35	35 - 70	60 - 90	90 - 99	95 - 99	> 99	> 99	> 99
10.0 µm	40 - 50	50 - 70	70 - 85	85 - 98	> 98	> 99	> 99	> 99	> 99
AS1324.1-2001	G1	G2	G3	G4	F5	F6	F7	F8	F9
ASHRAE 52.1									
Test Aerosol - Multiple airflow	Average gravimetric dust trapping efficiency (%) to 250Pa				Average efficiency particulate (0.4 µm) to 450Pa (%)				
Classification based on average Am / Em	< 65%	65-80%	80-90%	>90%	40-60%	60-80%	80-90%	90-95%	>95%
ASHRAE 52.2	The particle size varies with E1: 0.3-1.0 µm -				E2: 1.0-3.0µm - E3: 3.0-10µm				
Test Aerosol - KCl									
Classification based on MERV (Minimum Efficiency Reporting Value)	MERV 1-3	MERV 4-5	MERV 6-7	MERV 8-9	MERV 9-10	MERV 11-12	MERV 13-14	MERV 15	MERV 16
EN1822									
Initial Efficiency based on MPPS (Most Penetrating Particle Size)	-	-	-	-	-	-	-	-	-
US. Federal Standard 209									
0.3µm DOP	-	-	-	0 - 5	5 - 15	10 - 25	45 - 60	65 - 75	75 - 85

AFPRO Filters supplies test certificates with all HEPA and ULPA filters. You can rest assured that the filter supplied is of suitable quality. However, we do recommend subsequent validation of the filters following installation, to ensure that they were not damaged during transport or fitting.

HEPA Filters					ULPA Filters		
Efficiency (%)							
> 85	> 95	> 99.5	> 99.95	> 99.995	> 99.9999	> 99.99999	> 99.999999
E10	E11	E12	H13	H14	U15	U16	U17

# About ISO 16890

To ensure the quality of a service or product ISO standards were incorporated into most businesses.

An ISO standard means that a service or product complies with the general expectations concerning safety, durability and effectiveness.

The classification of air filters based on the minimum efficiency of a filter is currently measured by the ISO 16890 standard. It means our products are tested on particles that vary in size between 0.3 and 10 microns. The new standard replaces the old EN779 which only tested on particles up to 0.4 µm. Thanks to the ISO 16890 standard, we can provide insight to which certain filters offer protection against particulate matter.

## How are the filters tested?

To determine what a filter does and does not catch, we place the filter in a test bench. In this test bench we determine the efficiency (E<sub>i</sub>) of the filter with the standardized test substance. We measure efficiency with:

- ePM1 0.3 - 1 micron
- ePM2.5 0.3 - 2.5 microns
- ePM10 0.3 - 10 microns

The filter then goes for 24 hours in a special cabinet where IPA (Isopropyl alcohol) is sprayed. In this way we eliminate the effect of any electrostatic charge. We put the filter back into the test bench and again measure the efficiency (E<sub>D,i</sub>).

The average efficiency then becomes:

$$E_{A,i} = 0.5 \cdot (E_i + E_{D,i})$$

## Classification according to ISO 16890

ISO 16890 classifies air filters into 4 groups. To fall into a certain group, a filter must capture at least 50% of the respective particle size. If a filter catches more than 50% of the PM1 particles, it is an ISO ePM1 filter. If a filter catches less than 50% of the PM10 particles, it falls under the ISO Coarse filters.

ISO ePM1	ePM1, min ≥ 50%
ISO ePM2.5	ePM2.5, min ≥ 50%
ISO ePM10	ePM10 ≥ 50%
ISO Coarse	ePM10 ≤ 50%, classification based on initial Arrestance

A distinction is made within the various groups based on percentage efficiency. We round this percentage down to 5%. If you are looking for a filter that captures 60% of all particles smaller than 1 microns, then choose an ePM1 60% filter. If 80% of those particles have to be stopped, then an ePM1 80% filter is the right option.

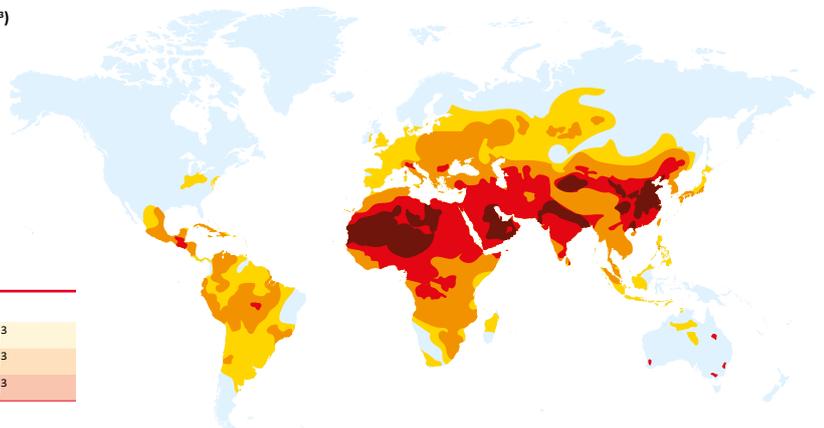
## How do I choose the right filter?

Eurovent has drawn up a guideline for selecting air filters based on ISO 16890; Directive 4/23-2018. The table below shows how the different filter classes relate to the quality of the outside air and the desired classification of the supply air.

ISO ePM1	ISO ePM2.5	ISO ePM10
ISO ePM1 50%	ISO ePM2.5 50%	ISO ePM10 50%
ISO ePM1 55%	ISO ePM2.5 55%	ISO ePM10 55%
ISO ePM1 60%	ISO ePM2.5 60%	ISO ePM10 60%
ISO ePM1 65%	ISO ePM2.5 65%	ISO ePM10 65%
ISO ePM1 70%	ISO ePM2.5 70%	ISO ePM10 70%
ISO ePM1 75%	ISO ePM2.5 75%	ISO ePM10 75%
ISO ePM1 80%	ISO ePM2.5 80%	ISO ePM10 80%
ISO ePM1 85%	ISO ePM2.5 85%	ISO ePM10 85%
ISO ePM1 90%	ISO ePM2.5 90%	ISO ePM10 90%
ISO ePM1 95%	ISO ePM2.5 95%	ISO ePM10 95%

## Annual average (µg/m³)

- Less than 10
- 10-12 ODA1
- 12-14 ODA2
- 14-16 ODA3
- More than 16



Outdoor air quality	ePM2.5	ePM10
ODA1	≤ 10µg/m³	≤ 20µg/m³
ODA2	≤ 15µg/m³	≤ 30µg/m³
ODA3	> 15µg/m³	> 30µg/m³

Outdoor air quality	ePM1	ePM1	ePM2.5	ePM10	ePM10
	SUP1*	SUP2*	SUP3**	SUP4	SUP5
ODA1	70%	50%	50%	50%	50%
ODA2	80%	70%	70%	80%	50%
ODA3	90%	80%	80%	90%	80%

**Industrial applications with high hygienic demands e.g. like:**

- Hospitals
- Pharmaceuticals
- Electronics
- Supply air to clean rooms

**Rooms for permanent occupation e.g. like:**

- Nursery
- Offices
- Hotels
- Residential
- Meeting rooms
- Exhibition halls
- Conference halls
- Theatres
- Cinemas
- Concert halls

**Rooms with temporary occupation e.g. like:**

- Shopping centres
- Washing rooms
- Server rooms
- Copier rooms

**Rooms with short term occupation e.g. like:**

- Rest rooms
- Storage rooms
- Stair ways

**Rooms without occupation e.g. like:**

- Garbage
- Data centres
- Underground car parks

**Industrial applications with medium hygienic demands e.g. like:**

- Food & beverages production

**Industrial applications with low hygienic demand e.g. like:**

- Food & beverages production with low hygienic demand

**Industrial applications without hygienic demands e.g. like:**

- General production areas in automotive industry

**Production areas of the heavy industry e.g. like:**

- Steel mill
- Smelters
- Welding plants

Supply air, (SUP) = Airflow entering the treated room, or air entering the system after any treatment

\* MIN filtration requirements ISO ePM1 50%

\*\* MIN filtration requirements ISO ePM2.5 50%

**Outdoors**

**ODA1**

- $PM_{2.5} \leq 10 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 20 \mu\text{g}/\text{m}^3$
- Outdoor air that is only temporarily contaminated
- Applies in situations where the particulate matter directive of the WHO is not exceeded

**ODA2**

- $PM_{2.5} \leq 15 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 30 \mu\text{g}/\text{m}^3$
- Outdoor air with high concentrations of particulate matter
- Applies in situations where the particulate matter directive of the WHO is exceeded by a factor of 1.5

**ODA3**

- $PM_{2.5} > 15 \mu\text{g}/\text{m}^3$  and  $PM_{10} > 30 \mu\text{g}/\text{m}^3$
- Outdoor air with very high concentrations of particulate matter
- Applies in situations where the WHO guideline is exceeded by a factor  $> 1.5$

**Supply air**

**SUP1**

- $PM_{2.5} \leq 10 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 5 \mu\text{g}/\text{m}^3$
- Rooms where the demands on hygiene are high such as hospitals, pharmaceutical companies, the electronic and optical industry, clean rooms, etc.

**SUP2**

- $PM_{2.5} \leq 5 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 10 \mu\text{g}/\text{m}^3$
- Rooms that are regularly or permanently occupied such as (nursery) schools, offices, hotels, residential buildings, meeting rooms, exhibition rooms, conference rooms, theaters, cinemas, concert halls, etc.

**SUP3**

- $PM_{2.5} \leq 7.5 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 15 \mu\text{g}/\text{m}^3$
- Spaces with a temporary occupation such as warehouses, shopping centers, laundry rooms, server rooms, copy rooms, etc.

**SUP4**

- $PM_{2.5} \leq 10 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 20 \mu\text{g}/\text{m}^3$
- Rooms with a occasional occupation such as storage rooms, toilet rooms, stairwells, etc.

**SUP5**

- $PM_{2.5} \leq 15 \mu\text{g}/\text{m}^3$  and  $PM_{10} \leq 30 \mu\text{g}/\text{m}^3$
- Spaces without occupation such as garages, data centers, underground parking garages, etc.

# About ISO 16890 continued

	ISO Coarse	ePM10	ePM2.5	ePM1
95%				
90%				
85%				HQ98
80%				HPQ-98, CP-F9, CS98
75%				
70%				
65%				
60%				HQ85
55%				HPQ-85, CP-F7, CS85
50%				HQ80
	ISO Coarse	ePM10	ePM2.5	PM1
95%				
90%				
85%				
80%				
75%				
70%			LSB80	
65%				
60%				
55%			HPQ-65, CP-M6	
50%			HQ65	
	ISO Coarse	ePM10	ePM2.5	ePM1
95%				
90%				
85%				
80%				
75%		CP-M5		
70%		HQ55, LSB60, HD85		
65%				
60%		HPQ-AK-60		
55%				
50%				
	ISO Coarse	ePM10	ePM2.5	ePM1
95%				
90%	HD55, HD65			
85%				
80%	HSB55, F360, F560G, PA560G			
75%				
70%	HS35, HSB35, T15/500, APMC, AERO, FP, APKK, DF500, HD35			
65%				
60%	NA45			
55%				
50%	GP-2", DF250, M57, PST290, PST640, T15/150, NA23			
40%				
30%	DF150, NA11, GP-1"			

# The new Eurovent energy labels

On November 9, 2018, Eurovent launched the new energy classification based on the ISO 16890 standard. The new energy classification assigns its own label to each ISO efficiency value based on the annual energy consumption.



AEC in kWh/y ePM1	A+	A	B	C	D	E
50 & 55%	800	900	1050	1400	2000	> 2000
60 & 65%	850	950	1100	1450	2050	> 2050
70 & 75%	950	1100	1250	1550	2150	> 2150
80 & 85%	1050	1250	1450	1800	2400	> 2400
>90%	1200	1400	1550	1900	2500	> 2500
AEC in kWh/y ePM2.5	A+	A	B	C	D	E
50 & 55%	700	800	950	1300	1900	> 1900
60 & 65%	750	850	1000	1350	1950	> 1950
70 & 75%	800	900	1050	1400	2000	> 2000
80 & 85%	900	1000	1200	1500	2100	> 2100
>90%	1000	1100	1300	1600	2200	> 2200
AEC in kWh/y ePM10	A+	A	B	C	D	E
50 & 55%	450	550	650	750	1100	> 1100
60 & 65%	500	600	700	850	1200	> 1200
70 & 75%	600	700	800	900	1300	> 1300
80 & 85%	700	800	900	1000	1400	> 1400
>90%	800	900	1050	1400	1500	> 1500

AEC = Annual Energy Consumption

**EUROVENT CERTIFIED PERFORMANCE**  
ENERGY EFFICIENCY

**AFPRO FILTERS**  
COMPACT FILTER  
CS85-A-XL

[www.eurovent-certification.com](http://www.eurovent-certification.com)

**AIR FILTERS** ISO ePM<sub>1</sub> 55%  
EN ISO 16890-1: 2016

Nominal airflow: 0.944 m<sup>3</sup>/s  
Efficiency: ePM<sub>1</sub> 56 %  
Minimum efficiency: ePM<sub>1, min</sub> 56 %  
Annual Energy Consumption: 782 kWh/annum

**A+**  
**A**  
**B**  
**C**  
**D**  
**E**

**A+**  
2019

THRESHOLD REFERENCE SCALE YEAR : 2019  
RS 4/C/001

AIR FILTERS, OM-FI-2019-1, ISO18

Approved 7/11/2018

# Filters that fit your business

On the previous pages you've been reading about the effects of particulate matter on the human body and the health hazards it causes. But these small particles can also contaminate your professional operation. This can lead to the deterioration of the quality of your service or product and it will certainly have an effect on your expenses. So a good air filtering system not only protects your staff, it will also protect your internal operating processes. Naturally, the filter requirements vary, depending on the type of operating process in question. AFPRO Filters provides a suitable filter, fitted to whatever the process needs. Many of our products are especially designed for the nuclear industry, gas turbines, semiconductor manufacturing and the pharmaceuticals sector.

Although the operation of a filter may appear very simple in theory, filters are in fact highly complex products. The filter fibres have to allow sufficient air to pass through - without offering too much resistance - while also trapping harmful particles. This is the strength of good filters.

## Filters protect people

A human being inhales and exhales some twenty kilograms of air daily. Twenty kilos! This is quite an impressive figure, particularly when one considers that a human being also consumes around one and a half kilos of food and two and a half kilos of water. People are inclined to pay close attention to what they eat and drink, while government bodies also issue dietary recommendations. It therefore appears only logical that we should devote greater attention to the quality of the air we breathe. How might airborne substances affect our performance and health? And what can we do to ensure the optimum quality of the air that we breathe?

## Fine particles are hazardous to human health

During the past few years, increasing attention has been drawn to the hazards of fine particles; air pollution in the form of particles which are smaller than 10 microns. Busy roads, industry, combustion engines and the bio industry are major sources of fine particles. The human body is poorly

equipped to deal with fine particles. The nose and windpipe act as natural filters for relatively large particles – larger than 5 microns. However, smaller particles can penetrate deep into our lungs, where they may cause substantial damage to health. Children, the aged and people with respiratory complaints are particularly susceptible. The concentration of fine particles in the air can vary greatly from region to region and from one country to another.

## Sick building syndrome - source of problems

People in the western world spend around 70% of their time indoors. Countless health problems can consequently be attributed to 'indoor conditions'. Air quality in the workplace is sometimes also far from perfect. This can cause sick building syndrome (SBS). Almost three quarters of cases of SBS can be attributed to the dust particles present within the premises. Common symptoms of SBS include listlessness, concentration and respiratory problems, headaches, drowsiness, skin and eye irritation and fatigue. Adequate air filtration is a relatively simple means of combating SBS and protecting people from its harmful effects.

AFPRO Filters' range of appropriate products enables us to vouch for the air quality. Our sales staff are equipped to provide a

suitable solution for a healthy indoor or outdoor climate in any circumstances. These applications are widely used in business premises, hotels and conference centres.

## Filters protect your operating processes

Apart from protecting people, filters can also be used to guarantee the progress of operating processes. The applicable filter requirements naturally vary, depending on the type of operating process in question. AFPRO Filters can nevertheless provide a suitable filter, whatever the process. Many of our products are ultimately destined for the nuclear industry, in gas turbines, in the field of semiconductor manufacturing and the pharmaceuticals sector.

## Nuclear industry

The nuclear filter industry plays an essential role in the global supply of energy and the military sector. Air filtration systems perform crucial roles in nuclear plants, such as power stations, fuel processing plants, research facilities and waste management. These nuclear air filters comply with the most stringent environmental standards, in terms of the requirements applicable for the minimisation of radioactive air pollution.

**Gas turbines**

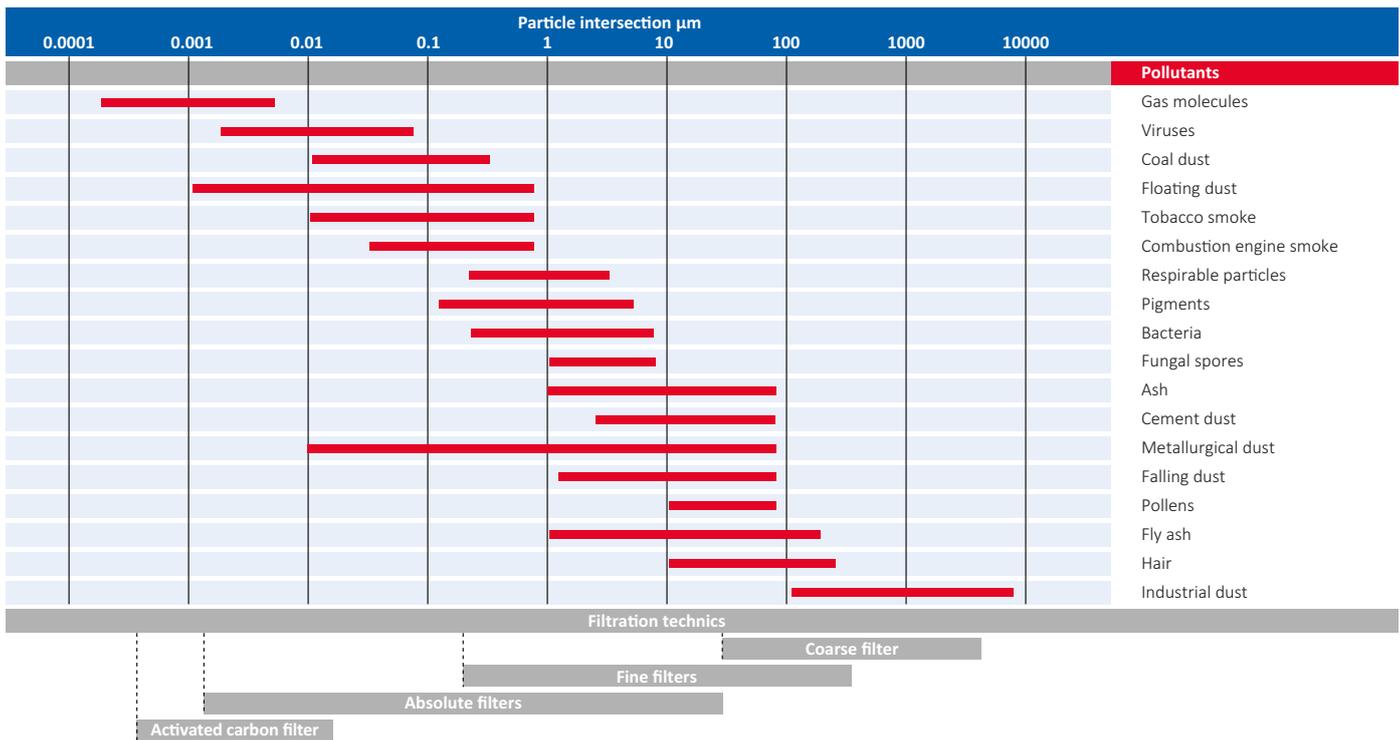
The primary function of an air filter inlet system is to protect the gas turbine and other rotating machinery from pollution present in the ambient air. Dust particles (> 5 µm) can cause erosion. Fine particles (submicron) contaminate the vanes, which has a detrimental effect on the performance of the gas turbine. Therefore a well-balanced filter system is crucial to optimum output.

**Semiconductor manufacturing**

Highly stringent standards apply in this industry. The products, which are often manufactured in clean rooms, are highly susceptible to disruption. The slightest level of pollution in the air - comprising even the most minute particles - can significantly raise the percentage of rejects from the production process. Prefilters, fine filters and HEPA filters ensure that the air present in the clean room is of the highest quality.

**Pharmaceuticals sector**

Poor air quality during the execution of production processes in the pharmaceuticals sector can have far - reaching consequences. The contamination of drugs can affect their efficacy or render them altogether ineffective, which could naturally prove hazardous to health. The use of superior quality filters is therefore crucial if the production of medicines in a manufacturing plant is to proceed without complications.





# INSPIRATION

# Table of content filters



## Panel filters

Fancoil (DF)	22
NA Panel	23
GP Panel	24
APMC Panel	25
AERO Panel	26
FP Panel	27
APKK Panel	28
AQUA Panel	29
RB Panel	30
CP Panel	31
CPMC Panel	32
Panel Filters additional product	33

ISO Coarse

ePM10

ePM2.5

ePM1



## Bag filters

HQ55 - series	36
HQ65 - series	38
HQ85 - series	40
HQ98 - series	43
HQ80 - series	45
HD - series	46
HSB35 - series	47
HS35 - series	48
HSB55 - series	49
LSB60 - series	50
HSB65 - series	52
LSB80 - series	53
HSB85 - series	54
HW - series	55

ISO Coarse

ePM10

ePM2.5

ePM1



## Compact filters

HPQ - series	58
HPQ-XL - series	59
HPQ-ECO - series	60
PT - series	61
PT-XL - series	62
CS - series	63
CS-XL - series	64
HPQ-135G - series	65

ISO Coarse

ePM10

ePM2.5

ePM1

E10

E11

E12



## Hepa filters / turbulent HEPA filters

HEPA HPM - series	71
HEPA HVG/HCG - series	73
HEPA HCS/HVS - series	75
HEPA HPG - series	77
<b>Hepa filters / Laminar HEPA filters</b>	
HEPA HLA - E - series	80
HEPA HLA - G - series	82
HEPA HLA - I - series	84
HEPA HLA - Q - series	86
HEPA HLA - L - series	88
HEPA HLA - J - series	90
HEPA HLA - H - series	92
Hepa hood filter	94
Hepa hood filter	95

E10

E11

H13

H14



## Active carbon filters

Carbon Cylinder	98
AC12	99
Activated carbon panel	100
Active carbon filters additional product	101



## Filter media

Synthetic medium	104
Glasmedium	105

ISO Coarse



## Holding frames

HF Bag filters	108
HF HEPA	109
HF Activated Carbon	110

## Possibilities

V-belt	111
Gasket	111



**QUALITY**

# Panel filters

AFPRO panel filters are pleated filters which are characterized by their superior filtration properties. The synthetic filter medium is progressively constructed, which makes for a high particle interception level. This technology guarantees lower air resistance, which also entails reduced energy consumption.

## Advantages of panel filters

- Large filter surface
- High particle interception capacity
- Lengthy service life
- Low energy consumption
- Dimensions compliant with EN15805
- Moisture-resistant cardboard frame
- Completely safe for incineration

## Construction

Panel filters are pleated filters which are assembled within a moisture-resistant cardboard frame, plastic frame or metal frame.

## Application

Panel filters are used as a pre-filter for air treatment cabinets, air conditioning systems and industrial systems.

## Installation

- Ensure that the filter is fitted correctly:  
Suction side- clean air side
- Filter should be correctly installed:  
no leaks
- Gaskets should be completely undamaged
- Filter should be secured at four points
- Ensure that the filter medium is not folded double
- Take care to avoid damaging the filter during installation
- System should be run in for several hours to achieve the desired result
- Filter installation records; note the date, type and initial resistance.



# Panel filters

## Fancoil (DF)



### Specifications

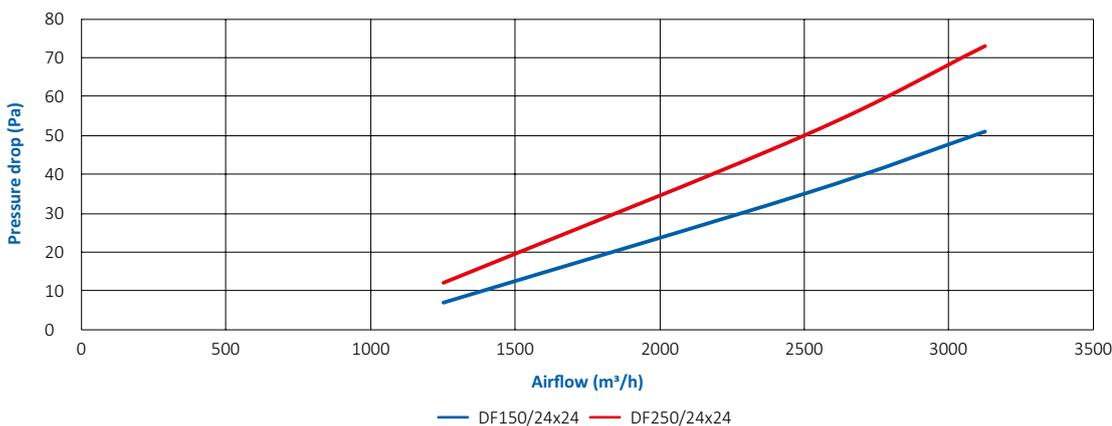
**Application:** Filter used with fan coil units  
**Frame:** Galvanized steel  
**Spacers:** -  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** -  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Straightforward assembly
- Possible usage in almost every Heat Recovery Unit. Please inquire about the possibilities

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Energy label*
DF150	150x435x4	ISO Coarse 30%	0.07	500	35	-
DF150	237x415x4	ISO Coarse 30%	0.10	720	35	-
DF150	237x495x4	ISO Coarse 30%	0.12	860	35	-
DF150	250x595x4	ISO Coarse 30%	0.15	1080	35	-
DF150	330x710x4	ISO Coarse 30%	0.23	1650	35	-
DF150	340x490x4	ISO Coarse 30%	0.17	1220	35	-
DF150	365x445x4	ISO Coarse 30%	0.16	1150	35	-
DF150	430x710x4	ISO Coarse 30%	0.31	2220	35	-
DF150	440x490x4	ISO Coarse 30%	0.22	1580	35	-
DF150	465x465x4	ISO Coarse 30%	0.22	1580	35	-
DF150	465x565x4	ISO Coarse 30%	0.26	1870	35	-
DF150	490x640x4	ISO Coarse 30%	0.31	2230	35	-
DF150	530x710x4	ISO Coarse 30%	0.38	2730	35	-
DF150	540x600x4	ISO Coarse 30%	0.32	2300	35	-
DF150	540x700x4	ISO Coarse 30%	0.38	2730	35	-
DF250	237x415x4	ISO Coarse 50%	0.10	720	50	-
DF250	237x495x4	ISO Coarse 50%	0.12	860	50	-
DF250	250x595x4	ISO Coarse 50%	0.15	1080	50	-
DF250	330x710x4	ISO Coarse 50%	0.23	1650	50	-
DF250	340x490x4	ISO Coarse 50%	0.17	1220	50	-
DF250	365x445x4	ISO Coarse 50%	0.16	1150	50	-
DF250	430x710x4	ISO Coarse 50%	0.31	2230	50	-
DF250	440x490x4	ISO Coarse 50%	0.22	1580	50	-
DF250	465x465x4	ISO Coarse 50%	0.22	1580	50	-
DF250	465x565x4	ISO Coarse 50%	0.26	1870	50	-
DF250	490x640x4	ISO Coarse 50%	0.31	2230	50	-
DF250	530x710x4	ISO Coarse 50%	0.38	2730	50	-
DF250	540x600x4	ISO Coarse 50%	0.32	2300	50	-
DF250	540x700x4	ISO Coarse 50%	0.38	2730	50	-

DF series



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## NA Panel



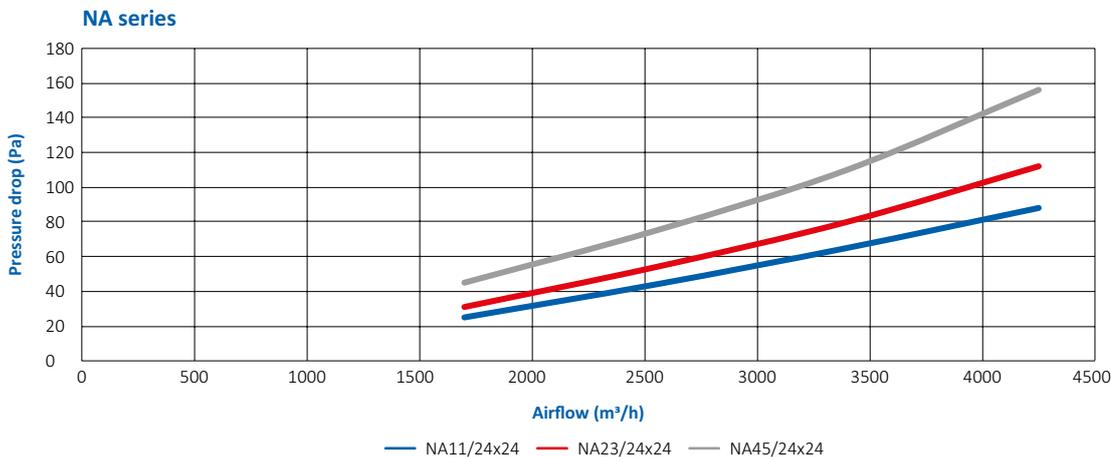
### Specifications

- Application:** Prefilter HVAC, industry
- Frame:** Galvanized steel
- Spacers:** -
- Bonding:** -
- Medium:** Synthetic
- Gasket:** Optional neoprene
- Filter class according to ISO 16890:** ISO Coarse
- Maximum final pressure drop:** 250Pa
- Maximum temperature:** 70°C
- Maximum relative humidity:** 90%

### Advantages

- Straightforward assembly

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
NA11/12x24	287x592x11	ISO Coarse 30%	0.17	1700	65	40	600x600x500	-
NA11/16x20	394x490x11	ISO Coarse 30%	0.19	1880	65	28	640x510x530	-
NA11/16x25	394x620x11	ISO Coarse 30%	0.24	2350	65	24	640x510x530	-
NA11/20x20	490x490x11	ISO Coarse 30%	0.24	2350	65	24	640x510x530	-
NA11/20x25	490x620x11	ISO Coarse 30%	0.30	2900	65	20	640x510x530	-
NA11/24x24	592x592x11	ISO Coarse 30%	0.35	3400	65	20	640x510x530	-
NA23/12x24	287x592x23	ISO Coarse 50%	0.17	1700	80	42	600x600x500	-
NA23/16x20	394x490x23	ISO Coarse 50%	0.19	1880	80	28	640x510x530	-
NA23/16x25	394x620x23	ISO Coarse 50%	0.24	2350	80	24	640x510x530	-
NA23/20x20	490x490x23	ISO Coarse 50%	0.24	2350	80	24	640x510x530	-
NA23/20x25	490x620x23	ISO Coarse 50%	0.30	2900	80	20	640x510x530	-
NA23/24x24	592x592x23	ISO Coarse 50%	0.35	3400	80	21	600x600x500	-
NA45/12x24	287x592x45	ISO Coarse 60%	0.17	1700	110	20	600x600x500	-
NA45/16x20	394x490x45	ISO Coarse 60%	0.19	1880	110	14	640x510x530	-
NA45/16x25	394x620x45	ISO Coarse 60%	0.24	2350	110	12	640x510x530	-
NA45/20x20	490x490x45	ISO Coarse 60%	0.24	2350	110	12	640x510x530	-
NA45/20x25	490x620x45	ISO Coarse 60%	0.30	2900	110	10	640x510x530	-
NA45/24x24	592x592x45	ISO Coarse 60%	0.35	3400	110	10	600x600x500	-



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## GP Panel



### Specifications

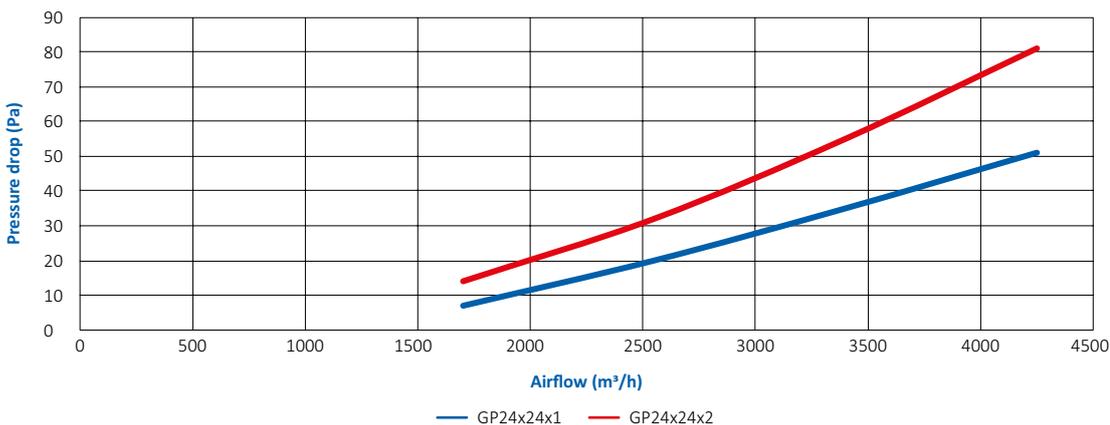
**Application:** Prefilter HVAC, industry, spray booth  
**Frame:** Firm cardboard frame  
**Spacers:** -  
**Bonding:** -  
**Medium:** Glass fibre  
**Gasket:** Optional neoprene  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Straightforward assembly

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
GP12x24x1	289x594x23	ISO Coarse 30%	0.2	1700	35	40	600x600x480	-
GP16x20x1	394x495x23	ISO Coarse 30%	0.2	1880	35	32	640x510x530	-
GP16x24x1	394x594x23	ISO Coarse 30%	0.2	2200	35	20	600x600x500	-
GP16x25x1	394x622x23	ISO Coarse 30%	0.3	2350	35	27	640x510x530	-
GP20x20x1	495x495x23	ISO Coarse 30%	0.3	2350	35	29	640x510x530	-
GP20x24x1	495x594x23	ISO Coarse 30%	0.3	2800	35	24	640x510x530	-
GP20x25x1	495x622x23	ISO Coarse 30%	0.3	2900	35	22	640x510x530	-
GP24x24x1	594x594x23	ISO Coarse 30%	0.4	3400	35	20	600x600x480	-
GP12x24x2	288x594x45	ISO Coarse 50%	0.2	1700	55	20	600x600x460	-
GP16x20x2	394x495x45	ISO Coarse 50%	0.2	1880	55	16	640x510x530	-
GP16x24x2	394x594x45	ISO Coarse 50%	0.2	2200	55	14	600x600x500	-
GP16x25x2	394x622x45	ISO Coarse 50%	0.3	2350	55	13	640x510x530	-
GP20x20x2	495x495x45	ISO Coarse 50%	0.3	2350	55	10	500x500x500	-
GP20x24x2	495x594x45	ISO Coarse 50%	0.3	2800	55	12	600x600x500	-
GP20x25x2	495x622x45	ISO Coarse 50%	0.3	2900	55	12	640x510x530	-
GP24x24x2	594x594x45	ISO Coarse 50%	0.4	3400	55	10	600x600x460	-

GP series



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## APMC Panel



### Specifications

- Application:** Prefilter HVAC, industry, spray booth
- Frame:** Galvanized steel
- Spacers:** -
- Bonding:** -
- Medium:** Synthetic
- Gasket:** Optional neoprene
- Filter class according to ISO 16890:** ISO Coarse, ePM10
- Maximum final pressure drop:** 250Pa
- Maximum temperature:** 70°C
- Maximum relative humidity:** 90%

### Advantages

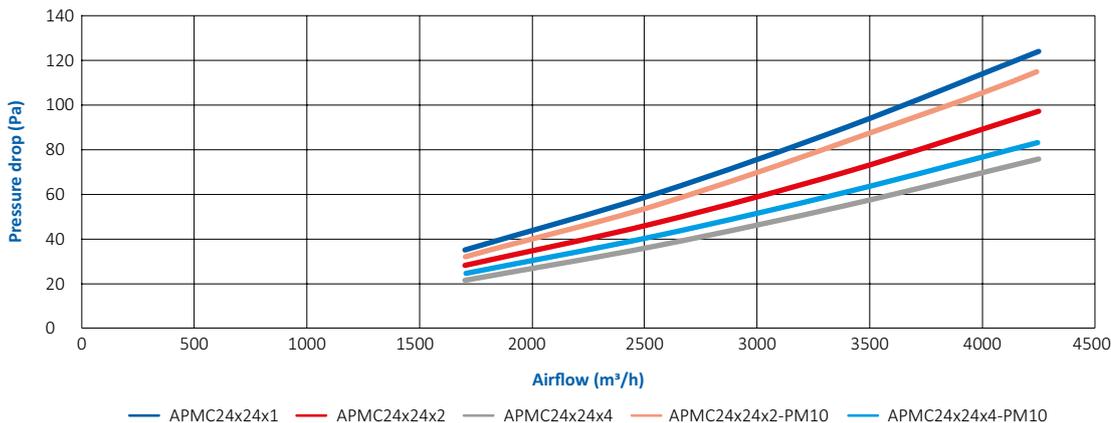
- Straightforward assembly
- Firm construction

### Options

- ATEX, Flange, Grid
- APMC ePM10

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
APMC12x24x1	287x592x23	ISO Coarse 70%	0.4	1700	90	36	600x600x480	-
APMC16x20x1	394x490x23	ISO Coarse 70%	0.5	1880	90	20	500x400x500	-
APMC16x24x1	394x592x23	ISO Coarse 70%	0.6	2250	90	26	600x600x500	-
APMC16x25x1	394x620x23	ISO Coarse 70%	0.6	2350	90	26	640x510x530	-
APMC20x20x1	490x490x23	ISO Coarse 70%	0.6	2350	90	19	500x500x500	-
APMC20x24x1	490x592x23	ISO Coarse 70%	0.7	2800	90	24	640x510x530	-
APMC20x25x1	490x620x23	ISO Coarse 70%	0.7	2900	90	22	640x510x530	-
APMC24x24x1	592x592x23	ISO Coarse 70%	0.8	3400	90	19	600x600x500	-
APMC12x24x2	287x592x45	ISO Coarse 70%	0.4	1700	70	20	600x600x480	-
APMC16x20x2	394x490x45	ISO Coarse 70%	0.5	1880	70	10	500x400x500	-
APMC16x24x2	394x592x45	ISO Coarse 70%	0.6	2250	70	14	600x600x500	-
APMC16x25x2	394x620x45	ISO Coarse 70%	0.6	2350	70	13	640x510x530	-
APMC20x20x2	490x490x45	ISO Coarse 70%	0.6	2350	70	10	500x500x500	-
APMC20x24x2	490x592x45	ISO Coarse 70%	0.7	2800	70	12	600x600x500	-
APMC20x25x2	490x620x45	ISO Coarse 70%	0.8	2900	70	11	640x510x530	-
APMC24x24x2	592x592x45	ISO Coarse 70%	0.9	3400	70	10	600x600x480	-
APMC12x24x4	287x592x96	ISO Coarse 70%	0.6	1700	55	10	600x600x500	-
APMC16x20x4	394x490x96	ISO Coarse 70%	0.7	1880	55	8	640x510x530	-
APMC16x24x4	394x592x96	ISO Coarse 70%	0.9	2250	55	7	600x600x500	-
APMC16x25x4	394x620x96	ISO Coarse 70%	0.9	2350	55	7	640x510x530	-
APMC20x20x4	490x490x96	ISO Coarse 70%	0.9	2350	55	5	500x500x500	-
APMC20x24x4	490x592x96	ISO Coarse 70%	1.1	2800	55	5	640x510x530	-
APMC20x25x4	490x620x96	ISO Coarse 70%	1.1	2900	55	5	500x630x500	-
APMC24x24x4	592x592x96	ISO Coarse 70%	1.3	3400	55	5	600x600x500	-
APMC12x24x2-PM10	287x592x45	ePM10 50%	0.8	1700	85	20	600x600x480	E
APMC20x20x2-PM10	490x490x45	ePM10 50%	1.2	2350	85	10	500x500x500	E
APMC20x24x2-PM10	490x592x45	ePM10 50%	1.4	2800	85	12	600x600x500	E
APMC24x24x2-PM10	592x592x45	ePM10 50%	1.7	3400	85	10	600x600x480	E
APMC12x24x4-PM10	287x592x96	ePM10 50%	1.1	1700	60	20	600x600x480	E
APMC20x20x4-PM10	490x490x96	ePM10 50%	1.6	2350	60	10	500x500x500	E
APMC20x24x4-PM10	490x592x96	ePM10 50%	1.9	2800	60	12	600x600x500	E
APMC24x24x4-PM10	592x592x96	ePM10 50%	2.3	3400	60	10	600x600x480	E

APMC series



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## AERO Panel



### Specifications

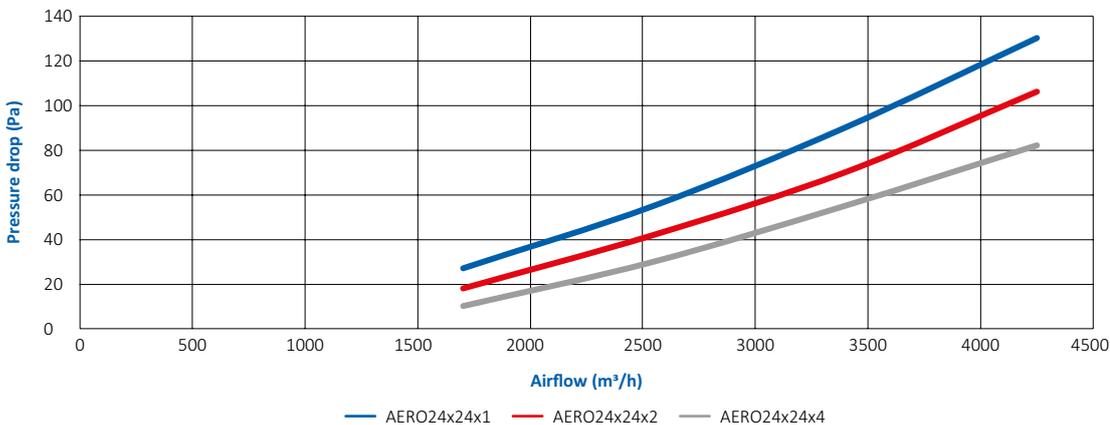
**Application:** Prefilter HVAC, industry, spray booth  
**Frame:** Firm cardboard frame  
**Spacers:** -  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional neoprene  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Straightforward assembly
- Totally combustible

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
AERO12x24x1	289x594x23	ISO Coarse 70%	0.3	1700	90	40	600x600x480	-
AERO16x20x1	394x495x23	ISO Coarse 70%	0.4	1880	90	32	640x510x530	-
AERO16x25x1	394x622x23	ISO Coarse 70%	0.4	2350	90	27	640x510x530	-
AERO20x20x1	495x495x23	ISO Coarse 70%	0.5	2350	90	29	640x510x530	-
AERO20x24x1	495x594x23	ISO Coarse 70%	0.6	2800	90	24	640x510x530	-
AERO20x25x1	495x622x23	ISO Coarse 70%	0.6	2900	90	22	640x510x530	-
AERO24x24x1	594x594x23	ISO Coarse 70%	0.7	3400	90	20	600x600x480	-
AERO12x24x2	289x594x45	ISO Coarse 70%	0.5	1700	70	20	600x600x460	-
AERO16x20x2	394x495x45	ISO Coarse 70%	0.6	1880	70	16	640x510x530	-
AERO16x25x2	394x622x45	ISO Coarse 70%	0.8	2350	70	13	640x510x530	-
AERO20x20x2	495x495x45	ISO Coarse 70%	0.7	2350	70	10	500x500x500	-
AERO20x24x2	495x594x45	ISO Coarse 70%	0.9	2800	70	12	600x600x500	-
AERO20x25x2	495x622x45	ISO Coarse 70%	0.9	2900	70	12	640x510x530	-
AERO24x24x2	594x594x45	ISO Coarse 70%	1.1	3400	70	10	600x600x460	-
AERO12x24x4	289x594x94	ISO Coarse 70%	1.1	1700	55	10	600x600x480	-
AERO16x20x4	394x495x94	ISO Coarse 70%	1.3	1880	55	8	640x510x530	-
AERO16x25x4	394x622x94	ISO Coarse 70%	1.6	2350	55	7	640x510x530	-
AERO20x20x4	495x495x94	ISO Coarse 70%	1.6	2350	55	5	500x500x500	-
AERO20x24x4	495x594x94	ISO Coarse 70%	1.9	2800	55	6	600x600x500	-
AERO20x25x4	495x622x94	ISO Coarse 70%	2.0	2900	55	5	640x510x530	-
AERO24x24x4	594x594x94	ISO Coarse 70%	2.3	3400	55	5	600x600x480	-

AERO series



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## FP Panel



### Specifications

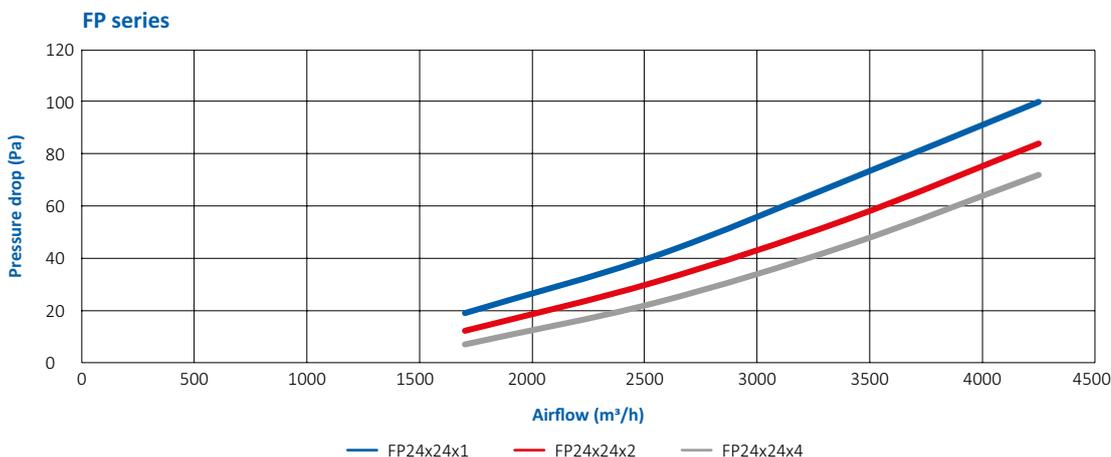
**Application:** Prefilter HVAC, industry, spray booth  
**Frame:** Firm cardboard frame  
**Spacers:** -  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional neoprene  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Straightforward assembly
- Totally combustible
- Lower pressure drop
- Larger dust holding capacity compared to AERO type



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
FP12x24x1	289x594x23	ISO Coarse 70%	0.4	1700	70	40	600x600x480	-
FP16x20x1	394x495x23	ISO Coarse 70%	0.5	1880	70	32	640x510x530	-
FP16x25x1	394x622x23	ISO Coarse 70%	0.6	2350	70	27	640x510x530	-
FP20x20x1	495x495x23	ISO Coarse 70%	0.6	2350	70	29	640x510x530	-
FP20x24x1	495x594x23	ISO Coarse 70%	0.7	2800	70	24	640x510x530	-
FP20x25x1	495x622x23	ISO Coarse 70%	0.7	2900	70	22	640x510x530	-
FP24x24x1	594x594x23	ISO Coarse 70%	0.9	3400	70	20	600x600x480	-
FP12x24x2	289x594x45	ISO Coarse 70%	0.6	1700	55	20	600x600x460	-
FP16x20x2	394x495x45	ISO Coarse 70%	0.7	1880	55	16	640x510x530	-
FP16x25x2	394x622x45	ISO Coarse 70%	0.8	2350	55	13	640x510x530	-
FP20x20x2	495x495x45	ISO Coarse 70%	0.9	2350	55	10	500x500x500	-
FP20x24x2	495x594x45	ISO Coarse 70%	1.1	2800	55	12	600x600x500	-
FP20x25x2	495x622x45	ISO Coarse 70%	1.2	2900	55	12	640x510x530	-
FP24x24x2	594x594x45	ISO Coarse 70%	1.4	3400	55	10	600x600x460	-
FP12x24x4	289x594x94	ISO Coarse 70%	1.3	1700	45	10	600x600x480	-
FP16x20x4	394x495x94	ISO Coarse 70%	1.6	1880	45	8	640x510x530	-
FP16x25x4	394x622x94	ISO Coarse 70%	2.0	2350	45	7	640x510x530	-
FP20x20x4	495x495x94	ISO Coarse 70%	1.9	2350	45	5	500x500x500	-
FP20x24x4	495x594x94	ISO Coarse 70%	2.3	2800	45	6	600x600x500	-
FP20x25x4	495x622x94	ISO Coarse 70%	2.4	2900	45	5	640x510x530	-
FP24x24x4	594x594x94	ISO Coarse 70%	2.9	3400	45	5	600x600x480	-



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## APKK Panel



### Specifications

**Application:** HVAC, industry  
**Frame:** Plastic  
**Spacers:** -  
**Bonding:** 2 component polyurethane  
**Medium:** Synthetic - PET  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ISO Coarse, ePM10  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%  
**Comments:** Very good alternative to APMC filter

### Advantages

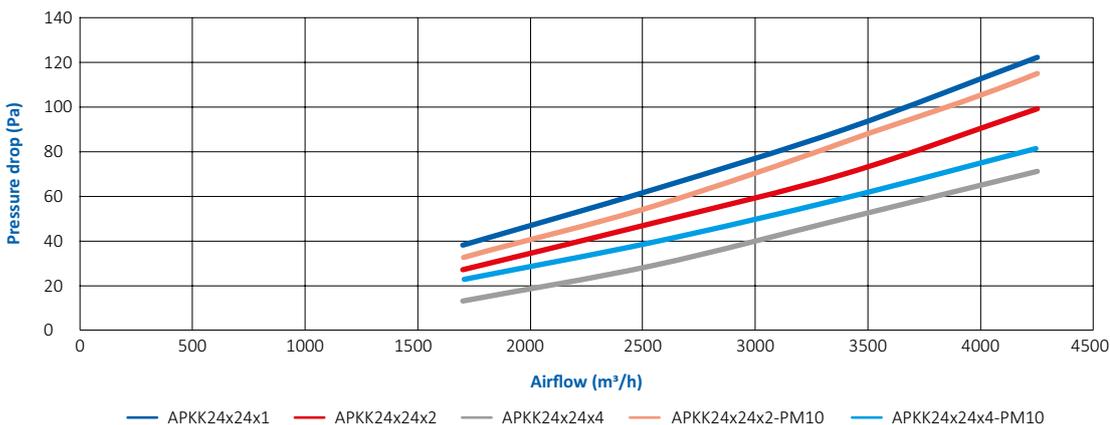
- Very low pressure drop
- Robust construction
- Totally combustible
- No corrosion

### Options

- ePM10

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
APKK12x24x1	287x592x25	ISO Coarse 70%	0.4	1700	90	24	600x600x300	-
APKK16x20x1	394x490x25	ISO Coarse 70%	0.4	1880	90	28	640x510x530	-
APKK16x24x1	394x592x25	ISO Coarse 70%	0.5	2250	90	24	640x510x530	-
APKK16x25x1	394x620x25	ISO Coarse 70%	0.6	2350	90	28	640x510x530	-
APKK20x20x1	490x490x25	ISO Coarse 70%	0.6	2350	90	27	640x510x530	-
APKK20x24x1	490x592x25	ISO Coarse 70%	0.7	2800	90	24	640x510x530	-
APKK20x25x1	490x620x25	ISO Coarse 70%	0.7	2900	90	22	640x510x530	-
APKK24x24x1	592x592x25	ISO Coarse 70%	0.8	3400	90	20	600x600x500	-
APKK12x24x2	287x592x48	ISO Coarse 70%	0.5	1700	70	12	600x600x300	-
APKK16x20x2	394x490x48	ISO Coarse 70%	0.6	1880	70	10	500x400x500	-
APKK16x24x2	394x592x48	ISO Coarse 70%	0.7	2250	70	15	640x510x530	-
APKK16x25x2	394x620x48	ISO Coarse 70%	0.8	2350	70	13	640x510x530	-
APKK20x20x2	490x490x48	ISO Coarse 70%	0.8	2350	70	14	640x510x530	-
APKK20x24x2	490x592x48	ISO Coarse 70%	0.9	2800	70	6	600x500x300	-
APKK20x25x2	490x620x48	ISO Coarse 70%	1.0	2900	70	11	640x510x530	-
APKK24x24x2	592x592x48	ISO Coarse 70%	1.1	3400	70	6	600x600x300	-
APKK12x24x4	287x592x96	ISO Coarse 70%	1.1	1700	50	6	600x600x300	-
APKK16x20x4	394x490x96	ISO Coarse 70%	1.2	1880	50	8	640x510x530	-
APKK16x24x4	394x592x96	ISO Coarse 70%	1.5	2250	50	6	640x510x530	-
APKK16x25x4	394x620x96	ISO Coarse 70%	1.5	2350	50	5	640x400x500	-
APKK20x20x4	490x490x96	ISO Coarse 70%	1.5	2350	50	5	500x500x500	-
APKK20x24x4	490x592x96	ISO Coarse 70%	1.8	2800	50	3	600x500x300	-
APKK20x25x4	490x620x96	ISO Coarse 70%	1.9	2900	50	5	640x510x530	-
APKK24x24x4	592x592x96	ISO Coarse 70%	2.2	3400	50	3	600x600x300	-
APKK12x24x2-PM10	287x592x48	ePM10 50%	0.8	1700	85	20	600x600x480	E
APKK20x20x2-PM10	490x490x48	ePM10 50%	1.2	2350	85	10	500x500x500	E
APKK20x24x2-PM10	490x592x48	ePM10 50%	1.4	2800	85	12	600x600x500	E
APKK24x24x2-PM10	592x592x48	ePM10 50%	1.7	3400	85	10	600x600x480	E
APKK12x24x4-PM10	287x592x96	ePM10 50%	1.1	1700	60	20	600x600x480	E
APKK20x20x4-PM10	490x490x96	ePM10 50%	1.6	2350	60	10	500x500x500	E
APKK20x24x4-PM10	490x592x96	ePM10 50%	1.9	2800	60	12	600x600x500	E
APKK24x24x4-PM10	592x592x96	ePM10 50%	2.3	3400	60	10	600x600x480	E

APKK series



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## AQUA Panel

ISO  
Coarse



### Specifications

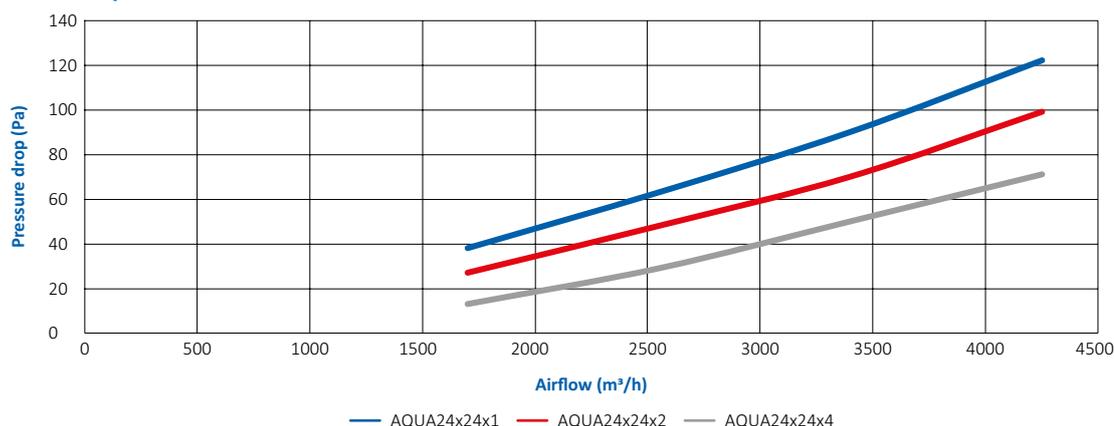
**Application:** HVAC, industry  
**Frame:** Plastic  
**Spacers:** -  
**Bonding:** 2 component polyurethane  
**Medium:** Synthetic - PET, hydrophobe  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 100%  
**Comments:** Very good alternative to APMC filter

### Advantages

- Water-repellent filter media
- Very low pressure drop
- Robust construction
- Totally combustible
- No corrosion

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
AQUA12x24x1	287x592x25	ISO Coarse 70%	0.4	1700	90	24	600x600x300	-
AQUA16x20x1	394x490x25	ISO Coarse 70%	0.4	1880	90	28	640x510x530	-
AQUA16x24x1	394x592x25	ISO Coarse 70%	0.5	2250	90	24	640x510x530	-
AQUA16x25x1	394x620x25	ISO Coarse 70%	0.6	2350	90	28	640x510x530	-
AQUA20x20x1	490x490x25	ISO Coarse 70%	0.6	2350	90	27	640x510x530	-
AQUA20x24x1	490x592x25	ISO Coarse 70%	0.7	2800	90	24	640x510x530	-
AQUA20x25x1	490x620x25	ISO Coarse 70%	0.7	2900	90	22	640x510x530	-
AQUA24x24x1	592x592x25	ISO Coarse 70%	0.8	3400	90	20	600x600x500	-
AQUA12x24x2	287x592x48	ISO Coarse 70%	0.5	1700	70	12	600x600x300	-
AQUA16x20x2	394x490x48	ISO Coarse 70%	0.6	1880	70	10	500x400x500	-
AQUA16x24x2	394x592x48	ISO Coarse 70%	0.7	2250	70	15	640x510x530	-
AQUA16x25x2	394x620x48	ISO Coarse 70%	0.8	2350	70	13	640x510x530	-
AQUA20x20x2	490x490x48	ISO Coarse 70%	0.8	2350	70	14	640x510x530	-
AQUA20x24x2	490x592x48	ISO Coarse 70%	0.9	2800	70	6	600x500x300	-
AQUA20x25x2	490x620x48	ISO Coarse 70%	1.0	2900	70	11	640x510x530	-
AQUA24x24x2	592x592x48	ISO Coarse 70%	1.1	3400	70	6	600x600x300	-
AQUA12x24x4	287x592x96	ISO Coarse 70%	1.1	1700	50	6	600x600x300	-
AQUA16x20x4	394x490x96	ISO Coarse 70%	1.2	1880	50	8	640x510x530	-
AQUA16x24x4	394x592x96	ISO Coarse 70%	1.5	2250	50	6	640x510x530	-
AQUA16x25x4	394x620x96	ISO Coarse 70%	1.5	2350	50	5	640x400x500	-
AQUA20x20x4	490x490x96	ISO Coarse 70%	1.5	2350	50	5	500x500x500	-
AQUA20x24x4	490x592x96	ISO Coarse 70%	1.8	2800	50	3	600x500x300	-
AQUA20x25x4	490x620x96	ISO Coarse 70%	1.9	2900	50	5	640x510x530	-
AQUA24x24x4	592x592x96	ISO Coarse 70%	2.2	3400	50	3	600x600x300	-

AQUA series



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## RB Panel



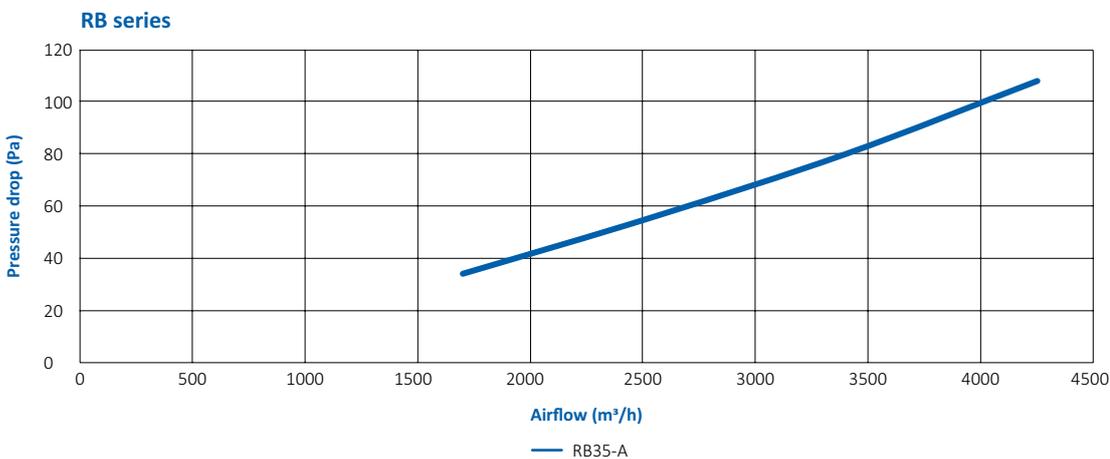
### Specifications

**Application:** HVAC, industry  
**Frame:** Plastic flange  
**Spacers:** -  
**Bonding:** 2 component polyurethane  
**Medium:** Synthetic - PET, hydrophobe  
**Gasket:** -  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 600Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 100%

### Advantages

- Extra pre filter to add to existing filter configuration
- Water-repellent filter media

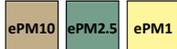
Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
RB35-A	592x592x96	ISO Coarse 70%	1.6	3400	80	3	600x600x300	-
RB35-B	490x592x96	ISO Coarse 70%	1.3	2800	80	3	600x500x300	-
RB35-C	288x592x96	ISO Coarse 70%	0.8	1700	80	6	600x600x300	-



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## CP Panel



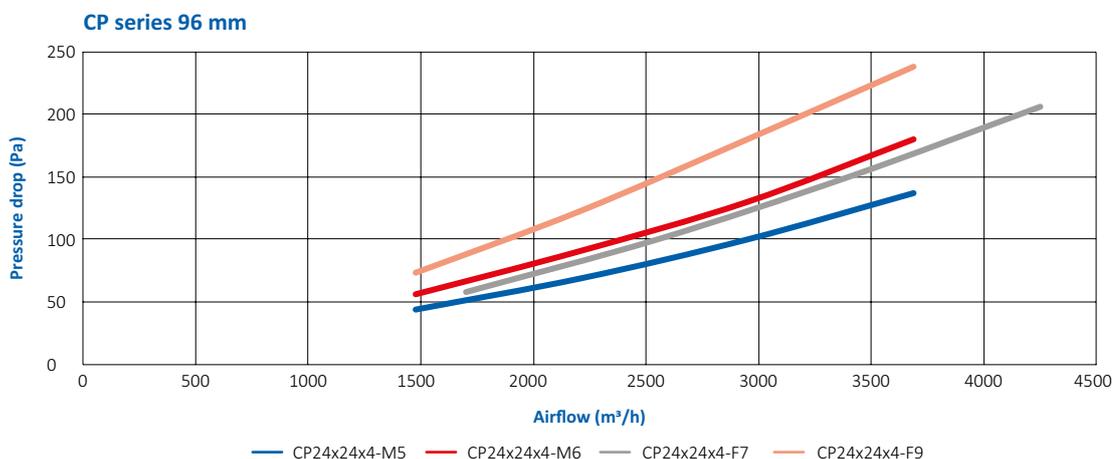
### Specifications

- Application:** HVAC
- Frame:** Plastic
- Spacers:** Hotmelt
- Bonding:** 2 component polyurethane
- Medium:** Glass fibre paper
- Gasket:** Optional, Continuous poured gasket
- Filter class according to ISO 16890:** ePM10, ePM2.5, ePM1
- Maximum final pressure drop:** 450 Pa
- Maximum temperature:** 65°C
- Maximum relative humidity:** 90%
- Comments:** Possibility to deliver T-profile for mounting two frames together

### Advantages

- Compact construction
- Robust construction
- Totally combustible
- Also available with flange for easy panel sealed mounting in holding frame

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
CP24x24x2-M5	592x592x48	ePM10 75%	5.8	2950	95	6	600x600x300	E
CP20x24x2-M5	490x592x48	ePM10 75%	4.7	2450	95	6	600x500x300	E
CP12x24x2-M5	287x592x48	ePM10 75%	2.7	1450	95	12	600x600x300	E
CP24x24x4-M5	592x592x96	ePM10 75%	10.7	2950	100	3	600x600x300	E
CP20x24x4-M5	490x592x96	ePM10 75%	8.8	2450	100	3	600x500x300	E
CP12x24x4-M5	287x592x96	ePM10 75%	5.0	1450	100	6	600x600x300	E
CP24x24x2-M6	592x592x48	ePM2,5 55%	5.8	2950	110	6	600x600x300	E
CP20x24x2-M6	490x592x48	ePM2,5 55%	4.7	2450	110	6	600x500x300	E
CP12x24x2-M6	287x592x48	ePM2,5 55%	2.7	1450	110	12	600x600x300	E
CP24x24x4-M6	592x592x96	ePM2,5 55%	10.7	2950	130	3	600x600x300	E
CP20x24x4-M6	490x592x96	ePM2,5 55%	8.8	2450	130	3	600x500x300	E
CP12x24x4-M6	287x592x96	ePM2,5 55%	5.0	1450	130	6	600x600x300	E
CP24x24x2-F7	592x592x48	ePM1 55%	5.8	3400	180	6	600x600x300	E
CP20x24x2-F7	490x592x48	ePM1 55%	4.7	2800	180	6	600x500x300	E
CP12x24x2-F7	287x592x48	ePM1 55%	2.7	1700	180	12	600x600x300	E
CP24x24x4-F7	592x592x96	ePM1 55%	10.7	3400	150	3	600x600x300	E
CP20x24x4-F7	490x592x96	ePM1 55%	8.8	2800	150	3	600x500x300	E
CP12x24x4-F7	287x592x96	ePM1 55%	5.0	1700	150	6	600x600x300	E
CP24x24x2-F9	592x592x48	ePM1 80%	5.8	2950	215	6	600x600x300	E
CP20x24x2-F9	490x592x48	ePM1 80%	4.7	2450	215	6	600x500x300	E
CP12x24x2-F9	287x592x48	ePM1 80%	2.7	1450	215	12	600x600x300	E
CP24x24x4-F9	592x592x96	ePM1 80%	10.7	2950	180	3	600x600x300	E
CP20x24x4-F9	490x592x96	ePM1 80%	8.8	2450	180	3	600x500x300	E
CP12x24x4-F9	287x592x96	ePM1 80%	5.0	1450	180	6	600x600x300	E



\* According to Eurovent ECP-11-FIL-2020

# Panel filters

## CPMC Panel



### Specifications

**Application:** HVAC  
**Frame:** Galvanized steel  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM10, ePM2.5, ePM1  
**Maximum final pressure drop:** 450 Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%  
**Comments:** Possibility to deliver T-profile for mounting two frames together

### Advantages

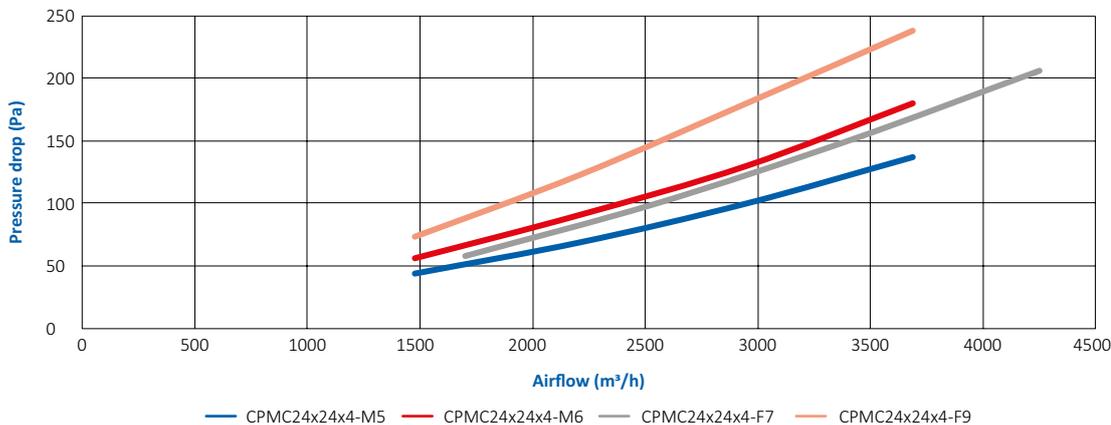
- Compact construction
- Robust construction

### Options

- ATEX, Flange, Grid

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
CPMC24x24x2-M5	592x592x45	ePM10 75%	5.8	2950	95	10	600x600x480	E
CPMC20x24x2-M5	490x592x45	ePM10 75%	4.7	2450	95	12	600x600x500	E
CPMC12x24x2-M5	287x592x45	ePM10 75%	2.7	1450	95	20	600x600x480	E
CPMC24x24x4-M5	592x592x96	ePM10 75%	10.7	2950	100	5	600x600x500	E
CPMC20x24x4-M5	490x592x96	ePM10 75%	8.8	2450	100	5	640x510x530	E
CPMC12x24x4-M5	287x592x96	ePM10 75%	5.0	1450	100	10	600x600x500	E
CPMC24x24x2-M6	592x592x45	ePM2,5 55%	5.8	2950	110	10	600x600x480	E
CPMC20x24x2-M6	490x592x45	ePM2,5 55%	4.7	2450	110	12	600x600x500	E
CPMC12x24x2-M6	287x592x45	ePM2,5 55%	2.7	1450	110	20	600x600x480	E
CPMC24x24x4-M6	592x592x96	ePM2,5 55%	10.7	2950	130	5	600x600x500	E
CPMC20x24x4-M6	490x592x96	ePM2,5 55%	8.8	2450	130	5	640x510x530	E
CPMC12x24x4-M6	287x592x96	ePM2,5 55%	5.0	1450	130	10	600x600x500	E
CPMC24x24x2-F7	592x592x45	ePM1 55%	5.8	3400	180	10	600x600x480	E
CPMC20x24x2-F7	490x592x45	ePM1 55%	4.7	2800	180	12	600x600x500	E
CPMC12x24x2-F7	287x592x45	ePM1 55%	2.7	1700	180	20	600x600x480	E
CPMC24x24x4-F7	592x592x96	ePM1 55%	10.7	3400	150	5	600x600x500	E
CPMC20x24x4-F7	490x592x96	ePM1 55%	8.8	2800	150	5	640x510x530	E
CPMC12x24x4-F7	287x592x96	ePM1 55%	5.0	1700	150	10	600x600x500	E
CPMC24x24x2-F9	592x592x45	ePM1 80%	5.8	2950	215	6	600x600x300	E
CPMC20x24x2-F9	490x592x45	ePM1 80%	4.7	2450	215	6	600x500x300	E
CPMC12x24x2-F9	287x592x45	ePM1 80%	2.7	1450	215	12	600x600x300	E
CPMC24x24x4-F9	592x592x96	ePM1 80%	10.7	2950	180	3	600x600x300	E
CPMC20x24x4-F9	490x592x96	ePM1 80%	8.8	2450	180	3	600x500x300	E
CPMC12x24x4-F9	287x592x96	ePM1 80%	5.0	1450	180	6	600x600x300	E

CPMC series 96 mm



\* According to Eurovent ECP-11-FIL-2020

# Panel filters additional product

## VVF filter



VVF grease filter is used for grease and oil mist separation for cooker hood. It is assembled within a galvanized steel or stainless steel frame and characterized by its media in expanded aluminum.

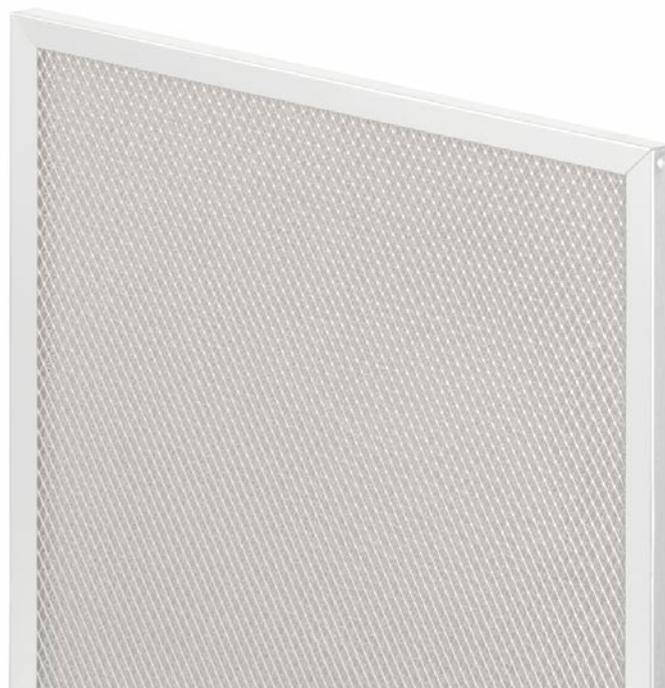
For further details about the VVF grease filter dimensions and possibilities, contact us.

## GPMC



GPMC panel filter is constructed with a paint stop glass fiber media and assembled in a galvanized steel frame and a metal grid. It used as a prefilter for HVAC, industry and spray booth. This filter comply with the ISO 16890 and is available as ISO Coarse 50%.

For further details about the GPMC panel filter, contact us.





**CLEAN**

# Bag filters

AFPRO Filters bag filters are used as a pre- or fine filter in air conditioning systems among other things. The filters are available in filter classes ISO Coarse, ePM10, ePM2.5, ePM1 in compliance to ISO 16890. Furthermore all filters are certified by EUROVENT. The filter media, made from both polymer and glass fibers, are assembled in a robust steel or aluminium frame.

The aluminium frame is the latest innovative introduction from AFPRO Filters. This material is great to work with due to its excellent resistance and the level of detail on the finished product.

The new aluminium frames in combination with the aerodynamic finishing strips, make our filters even more simple to install and they will provide a significant drop in air resistance.

## Advantages of Bag filters

- Large filter area
- Unique construction and opening of filter bags
- Very high dust retention capacity through use of high-grade filter materials
- Long filter lifetime
- Low energy consumption
- Dimensioning according to EN15805
- Corrosion free
- Simple waste processing

## Structure

The bag filters are constructed with a unique structure which provides the lowest resistance possible. The separate bags are merged into an aluminium, plastic or steel frame. The filters resist up to 70°C and 95% relative humidity.

## Application

Bag filters are used in air conditioning units and systems, industrial systems and as pre-filters for clean rooms and pharmaceuticals sector.

## Installation

- Ensure that the filter is correctly installed: suction side - clean air side
- Filter must be correctly mounted: no leaks
- Gaskets must not be damaged
- Filter must be clamped down in four places
- Avoid touching the filter medium during installation
- Avoid damaging the filter during installation
- System must run for a few hours to achieve the desired result
- Installation record for filters: note date, type, initial resistance

## NEW ISO 16890

The new ISO 16890 has ensured the further development of several bag filter products. AFPRO Filters has made sure that all its bag filters comply with the new ISO 16890 by improving the filter medium. Because AFPRO Filters manufacture their own media, this improvement was applied rapidly and the new filters were immediately implemented to EUROVENT. Through the EUROVENT “certify all” programme for air filters, the customer is assured of the quality of AFPRO Filters.

## Energy labels

Via EUROVENT, all of our bag filters have obtained an energy label, which makes it easier to make a mutual comparison of all available filters. A filter with a smaller filter area and fewer or shorter bags, will be rated with a lower energy label and will consume more energy in practice. The labels clearly show the expected energy consumption, which is very important considering that 70-80% of the life cycle costs are determined by energy. AFPRO Filters offers bag filters with variable energy labels. All products shown in this catalogue, on our website, our packaging and even the filters themselves are equipped with a noticeable EUROVENT energy label.

## The HQ-series is perfect to use in areas with high concentrations of particulate matter

- The media of the HQ bag filters consist of a new generation super fine fibers. The material is finished with a dense membrane that prevents fibre migration.
- The HQ-series is ranked the best energy ratings. (A+)

## Life Cycle Cost (LCC) analysis

The AFPRO Filters Laboratory wants to help our customers make a conscious sustainable choice by offering them a personalised Life Cycle Cost analysis (LCC). The LCC calculation is based upon the latest EU test standard and the Eurovent guidelines. We can easily calculate how much money you'll save by investing in our A+ filter. With the results of our calculations you will be able to determine the best possible choice of filter and the most energy efficient solution for your companies air filtration system.



# Bag filters

## HQ55-series

ePM10



### Specifications

**Application:** Fine filter, HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Sewing thread  
**Bonding:** -  
**Medium:** Glass fibre  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM10  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency
- High energy efficiency

### Options

- ATEX

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)	Energy label*
HQ55A6-3	592x592x360	ePM10 70%	6	2.6	3400	135	2	609x144x607	E
HQ55C6-3/90	592x287x360	ePM10 70%	6	1.3	1700	135	4	609x144x607	E
HQ55A6-5	592x592x535	ePM10 70%	6	3.8	3400	85	2	609x183x607	D
HQ55C6-5/90	592x287x535	ePM10 70%	6	1.9	1700	85	4	609x183x607	D
HQ55A6-6	592x592x635	ePM10 70%	6	4.6	3400	75	2	609x183x607	D
HQ55B5-6	490x592x635	ePM10 70%	5	3.8	2800	75	2	609x183x607	D
HQ55B6-6/90	592x490x635	ePM10 70%	6	3.8	2800	75	2	609x183x607	D
HQ55C3-6	287x592x635	ePM10 70%	3	2.3	1700	75	4	609x183x607	D
HQ55C6-6/90	592x287x635	ePM10 70%	6	2.2	1700	75	4	609x183x607	D
HQ55HA6-6	592x890x635	ePM10 70%	6	6.8	5100	75	2	909x183x607	D
HQ55HB5-6	490x890x635	ePM10 70%	5	5.7	4000	75	2	909x183x607	D
HQ55HC3-6	287x890x635	ePM10 70%	3	3.4	2500	75	4	909x183x607	D
HQ55A8-3	592x592x360	ePM10 70%	8	3.4	3400	90	2	609x144x607	E
HQ55B6-3	490x592x360	ePM10 70%	6	2.5	2800	90	2	609x144x607	E
HQ55B8-3/90	592x490x360	ePM10 70%	8	2.8	2800	90	2	609x144x607	E
HQ55C4-3	287x592x360	ePM10 70%	4	1.7	1700	90	4	609x144x607	E
HQ55C8-3/90	592x287x360	ePM10 70%	8	1.6	1700	90	4	609x144x607	E
HQ55CC4-3	287x287x360	ePM10 70%	4	0.8	800	90	8	609x144x607	E
HQ55HA8-3	592x890x360	ePM10 70%	8	5.1	5100	90	2	909x144x607	E
HQ55HB6-3	490x890x360	ePM10 70%	6	3.8	4000	90	2	909x144x607	E
HQ55HC4-3	287x890x360	ePM10 70%	4	2.5	2500	90	4	909x144x607	E
HQ55A8-5	592x592x535	ePM10 70%	8	5.0	3400	80	2	609x183x607	D
HQ55B6-5	490x592x535	ePM10 70%	6	3.8	2800	80	2	609x183x607	D
HQ55B8-5/90	592x490x535	ePM10 70%	8	4.1	2800	80	2	609x183x607	D
HQ55C4-5	287x592x535	ePM10 70%	4	2.5	1700	80	4	609x183x607	D
HQ55C8-5/90	592x287x535	ePM10 70%	8	2.4	1700	80	4	609x183x607	D
HQ55CC4-5	287x287x535	ePM10 70%	4	1.2	800	80	8	609x183x607	D
HQ55HA8-5	592x890x535	ePM10 70%	8	7.6	5100	80	2	909x183x607	D
HQ55HB6-5	490x890x535	ePM10 70%	6	5,7	4000	80	2	909x183x607	D
HQ55HC4-5	287x890x535	ePM10 70%	4	3.8	2500	80	4	909x183x607	D
HQ55A8-6	592x592x635	ePM10 70%	8	6.0	3400	70	2	609x183x607	C
HQ55B6-6	490x592x635	ePM10 70%	6	4.5	2800	70	2	609x183x607	C
HQ55B8-6/90	592x490x635	ePM10 70%	8	4.9	2800	70	2	609x183x607	C
HQ55C4-6	287x592x635	ePM10 70%	4	3.0	1700	70	4	609x183x607	C
HQ55C8-6/90	592x287x635	ePM10 70%	8	2.9	1700	70	4	609x183x607	C
HQ55CC4-6	287x287x635	ePM10 70%	4	1.4	800	70	8	609x183x607	C
HQ55HA8-6	592x890x635	ePM10 70%	8	9.0	5100	70	2	909x183x607	C
HQ55HB6-6	490x890x635	ePM10 70%	6	6.8	4000	70	2	909x183x607	C

\* According to Eurovent ECP-11-FIL-2020

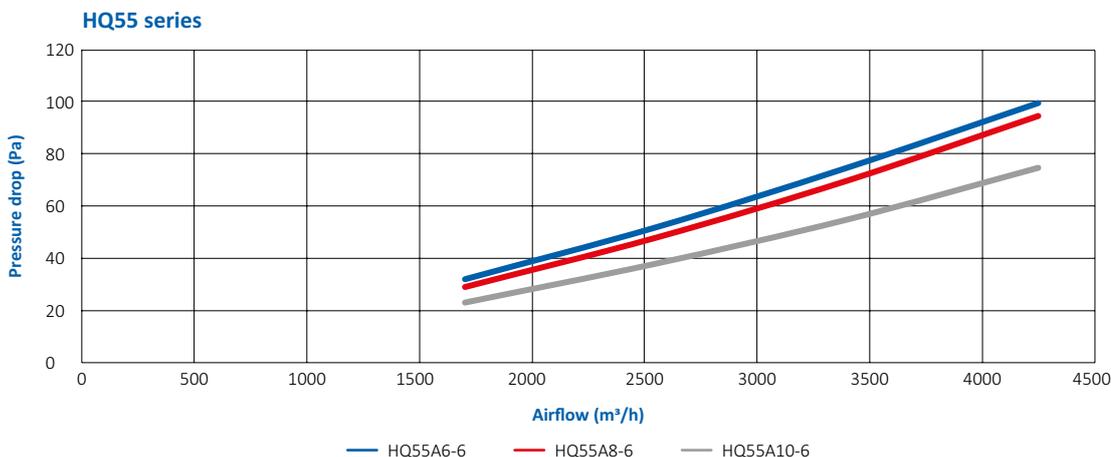
# Bag filters

HQ55-series continued

ePM10



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ55HC4-6	287x890x635	ePM10 70%	4	4.5	2500	70	4	909x183x607	C
HQ55A10-3	592x592x360	ePM10 70%	10	4.2	3400	80	2	609x144x607	E
HQ55C5-3	287x592x360	ePM10 70%	5	2.1	1700	80	4	609x144x607	E
HQ55A10-5	592x592x535	ePM10 70%	10	6.2	3400	65	2	609x183x607	D
HQ55C5-5	287x592x535	ePM10 70%	5	3.1	1700	65	4	609x183x607	D
HQ55A10-6	592x592x635	ePM10 70%	10	7.4	3400	55	2	609x240x607	D
HQ55B8-6	490x592x635	ePM10 70%	8	5.9	2800	55	2	609x183x607	D
HQ55C5-6	287x592x635	ePM10 70%	5	3.7	1700	55	4	609x183x607	D
HQ55HA10-6	592x890x635	ePM10 70%	10	11.1	5100	55	2	909x240x607	D
HQ55HB8-6	490x890x635	ePM10 70%	8	8.9	4200	55	2	909x183x607	D
HQ55HC5-6	287x890x635	ePM10 70%	5	5.6	2500	55	4	909x240x607	D



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HQ65-series

ePM2.5



### Specifications

**Application:** Fine filter, HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Sewing thread  
**Bonding:** -  
**Medium:** Glass fibre  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM2.5  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency
- High energy efficiency

### Options

- ATEX

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)	Energy label*
HQ65A6-3	592x592x360	ePM2,5 50%	6	2.6	3400	135	2	609x144x607	E
HQ65C6-3/90	592x287x360	ePM2,5 50%	6	1.3	1700	135	4	609x144x607	E
HQ65A6-5	592x592x535	ePM2,5 50%	6	3.8	3400	90	2	609x183x607	D
HQ65C6-5/90	592x287x535	ePM2,5 50%	6	1.9	1700	90	4	609x183x607	D
HQ65A6-6	592x592x635	ePM2,5 50%	6	4.6	3400	75	2	609x183x607	C
HQ65B5-6	490x592x635	ePM2,5 50%	5	3.8	2800	75	2	609x183x607	C
HQ65B6-6/90	592x490x635	ePM2,5 50%	6	3.8	2800	75	2	609x183x607	C
HQ65C3-6	287x592x635	ePM2,5 50%	3	2.3	1700	75	4	609x183x607	C
HQ65C6-6/90	592x287x635	ePM2,5 50%	6	2.2	1700	75	4	609x183x607	C
HQ65HA6-6	592x890x635	ePM2,5 50%	6	6.8	5100	75	2	909x183x607	C
HQ65HB5-6	490x890x635	ePM2,5 50%	5	5.7	4000	75	2	909x183x607	C
HQ65HC3-6	287x890x635	ePM2,5 50%	3	3.4	2500	75	4	909x183x607	C
HQ65A8-3	592x592x360	ePM2,5 50%	8	3.4	3400	95	2	609x144x607	D
HQ65B6-3	490x592x360	ePM2,5 50%	6	2.5	2800	95	2	609x144x607	D
HQ65B8-3/90	592x490x360	ePM2,5 50%	8	2.8	2800	95	2	609x144x607	D
HQ65C4-3	287x592x360	ePM2,5 50%	4	1.7	1700	95	4	609x144x607	D
HQ65C8-3/90	592x287x360	ePM2,5 50%	8	1.6	1700	95	4	609x144x607	D
HQ65CC4-3	287x287x360	ePM2,5 50%	4	0.8	800	95	8	609x144x607	D
HQ65HA8-3	592x890x360	ePM2,5 50%	8	5.1	5100	95	2	909x144x607	D
HQ65HB6-3	490x890x360	ePM2,5 50%	6	3.8	4000	95	2	909x144x607	D
HQ65HC4-3	287x890x360	ePM2,5 50%	4	2.5	2500	95	4	909x144x607	D
HQ65A8-5	592x592x535	ePM2,5 50%	8	5.0	3400	75	2	609x183x607	C
HQ65B6-5	490x592x535	ePM2,5 50%	6	3.8	2800	75	2	609x183x607	C
HQ65B8-5/90	592x490x535	ePM2,5 50%	8	4.1	2800	75	2	609x183x607	C
HQ65C4-5	287x592x535	ePM2,5 50%	4	2.5	1700	75	4	609x183x607	C
HQ65C8-5/90	592x287x535	ePM2,5 50%	8	2.4	1700	75	4	609x183x607	C
HQ65CC4-5	287x287x535	ePM2,5 50%	4	1.2	800	75	8	609x183x607	C
HQ65HA8-5	592x890x535	ePM2,5 50%	8	7.6	5100	75	2	909x183x607	C
HQ65HB6-5	490x890x535	ePM2,5 50%	6	5.7	4000	75	2	909x183x607	C
HQ65HC4-5	287x890x535	ePM2,5 50%	4	3.8	2500	75	4	909x183x607	C
HQ65A8-6	592x592x635	ePM2,5 50%	8	6.0	3400	70	2	609x183x607	B
HQ65B6-6	490x592x635	ePM2,5 50%	6	4.5	2800	70	2	609x183x607	B
HQ65B8-6/90	592x490x635	ePM2,5 50%	8	4.9	2800	70	2	609x183x607	B
HQ65C4-6	287x592x635	ePM2,5 50%	4	3.0	1700	70	4	609x183x607	B
HQ65C8-6/90	592x287x635	ePM2,5 50%	8	2.9	1700	70	4	609x183x607	B
HQ65CC4-6	287x287x635	ePM2,5 50%	4	1.4	800	70	8	609x183x607	B
HQ65HA8-6	592x890x635	ePM2,5 50%	8	9.0	5100	70	2	909x183x607	B
HQ65HB6-6	490x890x635	ePM2,5 50%	6	6.8	4000	70	2	909x183x607	B

\* According to Eurovent ECP-11-FIL-2020

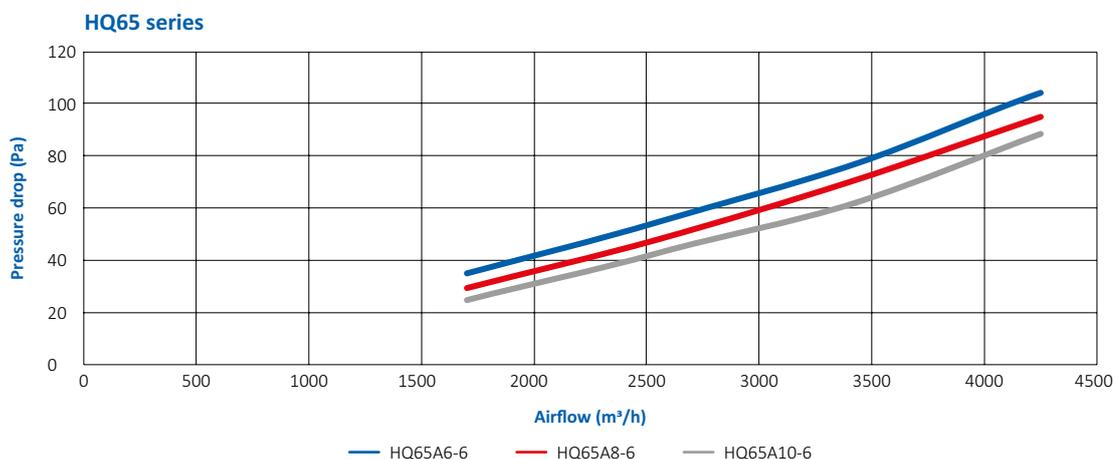
# Bag filters

HQ65-series continued

ePM2.5



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ65HC4-6	287x890x635	ePM2,5 50%	4	4.5	2500	70	4	909x183x607	B
HQ65A10-3	592x592x360	ePM2,5 50%	10	4.2	3400	100	2	609x144x607	D
HQ65C5-3	287x592x360	ePM2,5 50%	5	2.1	1700	100	4	609x144x607	D
HQ65A10-5	592x592x535	ePM2,5 50%	10	6.2	3400	70	2	609x183x607	C
HQ65C5-5	287x592x535	ePM2,5 50%	5	3.1	1700	70	4	609x183x607	C
HQ65A10-6	592x592x635	ePM2,5 50%	10	7.4	3400	60	2	609x240x607	B
HQ65B8-6	490x592x635	ePM2,5 50%	8	5.9	2800	60	2	609x183x607	B
HQ65C5-6	287x592x635	ePM2,5 50%	5	3.7	1700	60	4	609x183x607	B
HQ65HA10-6	592x890x635	ePM2,5 50%	10	11.1	5100	60	2	909x240x607	B
HQ65HB8-6	490x890x635	ePM2,5 50%	8	8.9	4200	60	2	909x183x607	B
HQ65HC5-6	287x890x635	ePM2,5 50%	5	5.6	2500	60	4	909x240x607	B



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HQ85-series

ePM1



### Specifications

**Application:** Fine filter, HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Sewing thread  
**Bonding:** -  
**Medium:** Glass fibre  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency
- High energy efficiency

### Options

- ATEX

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)	Energy label*
HQ85A6-3	592x592x360	ePM1 60%	6	2.6	3400	180	2	609x144x607	E
HQ85C6-3/90	592x287x360	ePM1 60%	6	1.3	1700	180	4	609x144x607	E
HQ85A6-5	592x592x535	ePM1 60%	6	3.8	3400	135	2	609x183x607	D
HQ85C3-5	287x592x535	ePM1 60%	3	1.9	1700	135	4	609x183x607	D
HQ85C6-5/90	592x287x535	ePM1 60%	6	1.9	1700	135	4	609x183x607	D
HQ85HA6-5	592x890x535	ePM1 60%	6	5.8	5100	135	2	909x183x607	D
HQ85HB5-5	490x890x535	ePM1 60%	5	4.8	4000	135	2	909x144x607	D
HQ85HC3-5	287x890x535	ePM1 60%	3	2.9	2500	135	4	909x183x607	D
HQ85A6-6	592x592x635	ePM1 60%	6	4.6	3400	120	2	609x183x607	C
HQ85B5-6	490x592x635	ePM1 60%	5	3.8	2800	120	2	609x183x607	C
HQ85B6-6/90	592x490x635	ePM1 60%	6	3.8	2800	120	2	609x183x607	C
HQ85C3-6	287x592x635	ePM1 60%	3	2.3	1700	120	4	609x183x607	C
HQ85C6-6/90	592x287x635	ePM1 60%	6	2.2	1700	120	4	609x183x607	C
HQ85HA6-6	592x890x635	ePM1 60%	6	6.8	5100	120	2	909x183x607	C
HQ85HB5-6	490x890x635	ePM1 60%	5	5.7	4000	120	2	909x183x607	C
HQ85HC3-6	287x890x635	ePM1 60%	3	3.4	2500	120	4	909x183x607	C
HQ85A8-3	592x592x360	ePM1 60%	8	3.4	3400	150	2	609x144x607	E
HQ85B6-3	490x592x360	ePM1 60%	6	2.5	2800	150	2	609x144x607	E
HQ85B8-3/90	592x490x360	ePM1 60%	8	2.8	2800	150	2	609x144x607	E
HQ85C4-3	287x592x360	ePM1 60%	4	1.7	1700	150	4	609x144x607	E
HQ85C8-3/90	592x287x360	ePM1 60%	8	1.6	1700	150	4	609x144x607	E
HQ85CC4-3	287x287x360	ePM1 60%	4	0.8	800	150	8	609x144x607	E
HQ85HA8-3	592x890x360	ePM1 60%	8	5.1	5100	150	2	909x144x607	E
HQ85HB6-3	490x890x360	ePM1 60%	6	3.8	4000	150	2	909x144x607	E
HQ85HC4-3	287x890x360	ePM1 60%	4	2.5	2500	150	4	909x144x607	E
HQ85A8-5	592x592x535	ePM1 60%	8	5.0	3400	105	2	609x183x607	C
HQ85B6-5	490x592x535	ePM1 60%	6	3.8	2800	105	2	609x183x607	C
HQ85B8-5/90	592x490x535	ePM1 60%	8	4.1	2800	105	2	609x183x607	C
HQ85C4-5	287x592x535	ePM1 60%	4	2.5	1700	105	4	609x183x607	C
HQ85C8-5/90	592x287x535	ePM1 60%	8	2.4	1700	105	4	609x183x607	C
HQ85CC4-5	287x287x535	ePM1 60%	4	1.2	800	105	8	609x183x607	C
HQ85HA8-5	592x890x535	ePM1 60%	8	7.6	5100	105	2	909x183x607	C
HQ85HB6-5	490x890x535	ePM1 60%	6	5.7	4000	105	2	909x183x607	C
HQ85HC4-5	287x890x535	ePM1 60%	4	3.8	2500	105	4	909x183x607	C
HQ85A8-6	592x592x635	ePM1 60%	8	6.0	3400	100	2	609x183x607	C
HQ85B6-6	490x592x635	ePM1 60%	6	4.5	2800	100	2	609x183x607	C
HQ85B8-6/90	592x490x635	ePM1 60%	8	4.9	2800	100	2	609x183x607	C
HQ85C4-6	287x592x635	ePM1 60%	4	3.0	1700	100	4	609x183x607	C

\* According to Eurovent ECP-11-FIL-2020

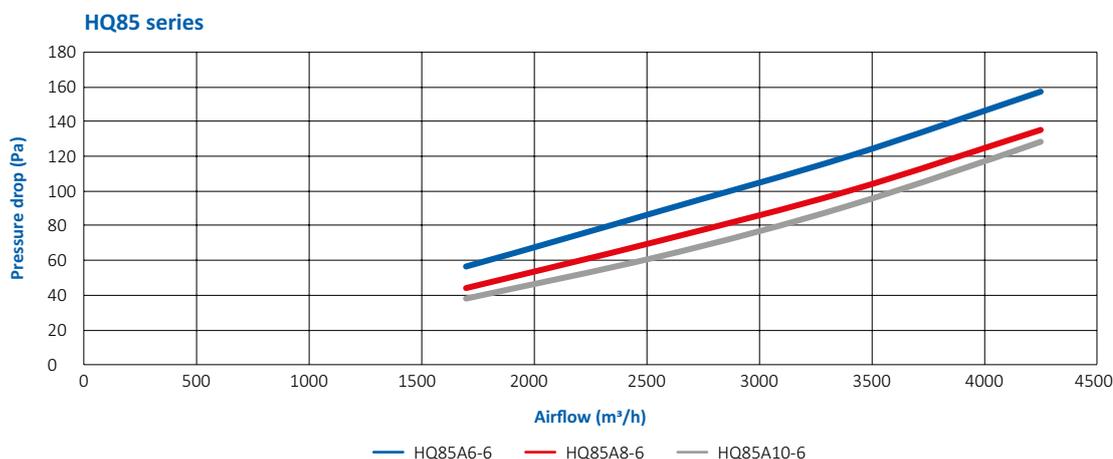
# Bag filters

HQ85-series continued

ePM1



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ85C8-6/90	592x287x635	ePM1 60%	8	2.9	1700	100	4	609x183x607	C
HQ85CC4-6	287x287x635	ePM1 60%	4	1.4	800	100	8	609x183x607	C
HQ85HA8-6	592x890x635	ePM1 60%	8	9.0	5100	100	2	909x183x607	C
HQ85HB6-6	490x890x635	ePM1 60%	6	6.8	4000	100	2	909x183x607	C
HQ85HC4-6	287x890x635	ePM1 60%	4	4.5	2500	100	4	909x183x607	C
HQ85A10-3	592x592x360	ePM1 60%	10	4.2	3400	140	2	609x144x607	E
HQ85C5-3	287x592x360	ePM1 60%	5	2.1	1700	140	4	609x144x607	E
HQ85HA10-3	592x890x360	ePM1 60%	10	6.3	5100	140	2	909x144x607	E
HQ85A10-5	592x592x535	ePM1 60%	10	6.2	3400	95	2	609x183x607	C
HQ85C5-5	287x592x535	ePM1 60%	5	3.1	1700	95	4	609x183x607	C
HQ85HA10-5	592x890x535	ePM1 60%	10	9.4	5100	95	2	909x183x607	C
HQ85HC5-5	287x890x535	ePM1 60%	5	4.7	2500	95	4	909x183x607	C
HQ85A10-6	592x592x635	ePM1 60%	10	7.4	3400	90	2	609x240x607	C
HQ85B8-6	490x592x635	ePM1 60%	8	5.9	2800	90	2	609x183x607	C
HQ85C5-6	287x592x635	ePM1 60%	5	3.7	1700	90	4	609x183x607	C
HQ85HA10-6	592x890x635	ePM1 60%	10	11.1	5100	90	2	909x240x607	C
HQ85HB8-6	490x890x635	ePM1 60%	8	8.9	4000	90	2	909x183x607	C
HQ85HC5-6	287x890x635	ePM1 60%	5	5.6	2500	90	4	909x240x607	C
HQ85A12-6	592x592x635	ePM1 60%	12	8.8	3400	85	2	609x240x607	B
HQ85C6-6	287x592x635	ePM1 60%	6	4.4	1700	85	4	609x240x607	B



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HQ85 A+ -series

ePM1



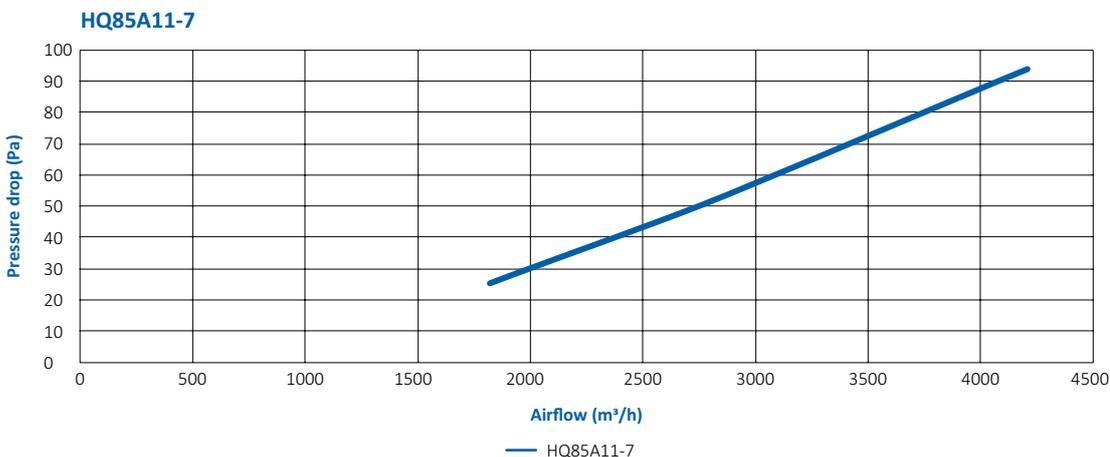
### Specifications

**Application:** Fine filter, HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Sewing thread  
**Bonding:** -  
**Medium:** Glass fibre  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency
- Energy label A+

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ85A11-7	592x592x670	ePM1 60%	11	8,7	3400	69	2	609x240x607	A+
HQ85B9-7	490x592x670	ePM1 60%	9	7.2	2800	69	2	609x183x607	A+
HQ85B11-7/90	592x490x670	ePM1 60%	11	7.2	2800	69	2	609x183x607	A+
HQ85C5-7	287x592x670	ePM1 60%	5	4.0	1700	69	4	609x183x607	A+
HQ85C11-7/90	592x287x670	ePM1 60%	11	4.4	1700	69	4	609x183x607	A+
HQ85CC5-7	287x287x670	ePM1 60%	5	2.0	800	69	8	609x183x607	A+
HQ85HA11-7	592x890x670	ePM1 60%	11	13.1	5100	69	2	909x240x607	A+
HQ85HB9-7	490x890x670	ePM1 60%	9	10.9	4000	69	2	909x183x607	A+
HQ85HC5-7	287x890x670	ePM1 60%	5	6.4	2500	69	4	909x240x607	A+



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HQ98-series

ePM1



### Specifications

**Application:** Fine filter, HVAC, industry

**Frame:** Galvanized steel/aluminium

**Spacers:** Sewing thread

**Bonding:** -

**Medium:** Glass fibre

**Gasket:** Optional, Continuous poured gasket

**Filter class according to ISO 16890:** ePM1

**Maximum final pressure drop:** 450Pa

**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency

### Options

- ATEX

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ98A6-6	592x592x635	ePM1 85%	6	4.6	3400	190	2	609x183x607	E
HQ98B5-6	490x592x635	ePM1 85%	5	3.8	2800	190	2	609x183x607	E
HQ98B6-6/90	592x490x635	ePM1 85%	6	3.8	2800	190	2	609x183x607	E
HQ98C3-6	287x592x635	ePM1 85%	3	2.3	1700	190	4	609x183x607	E
HQ98C6-6/90	592x287x635	ePM1 85%	6	2.2	1700	190	4	609x183x607	E
HQ98HA6-6	592x890x635	ePM1 85%	6	6.8	5100	190	2	909x183x607	E
HQ98HB5-6	490x890x635	ePM1 85%	5	5.7	4000	190	2	909x183x607	E
HQ98HC3-6	287x890x635	ePM1 85%	3	3.4	2500	190	4	909x183x607	E
HQ98A8-3	592x592x360	ePM1 85%	8	3.4	3400	235	2	609x144x607	E
HQ98B6-3	490x592x360	ePM1 85%	6	2.5	2800	235	2	609x144x607	E
HQ98B8-3/90	592x490x360	ePM1 85%	8	2.8	2800	235	2	609x144x607	E
HQ98C4-3	287x592x360	ePM1 85%	4	1.7	1700	235	4	609x144x607	E
HQ98C8-3/90	592x287x360	ePM1 85%	8	1.6	1700	235	4	609x144x607	E
HQ98CC4-3	287x287x360	ePM1 85%	4	0.8	800	235	8	609x144x607	E
HQ98HA8-3	592x890x360	ePM1 85%	8	5.1	5100	235	2	909x144x607	E
HQ98HB6-3	490x890x360	ePM1 85%	6	3.8	4000	235	2	909x144x607	E
HQ98HC4-3	287x890x360	ePM1 85%	4	2.5	2500	235	4	909x144x607	E
HQ98A8-5	592x592x535	ePM1 85%	8	5.0	3400	210	2	609x183x607	E
HQ98B6-5	490x592x535	ePM1 85%	6	3.8	2800	210	2	609x183x607	E
HQ98B8-5/90	592x490x535	ePM1 85%	8	4.1	2800	210	2	609x183x607	E
HQ98C4-5	287x592x535	ePM1 85%	4	2.5	1700	210	4	609x183x607	E
HQ98C8-5/90	592x287x535	ePM1 85%	8	2.4	1700	210	4	609x183x607	E
HQ98CC4-5	287x287x535	ePM1 85%	4	1.2	800	210	8	609x183x607	E
HQ98HA8-5	592x890x535	ePM1 85%	8	7.6	5100	210	2	909x183x607	E
HQ98HB6-5	490x890x535	ePM1 85%	6	5.7	4000	210	2	909x183x607	E
HQ98HC4-5	287x890x535	ePM1 85%	4	3.8	2500	210	4	909x183x607	E
HQ98A8-6	592x592x635	ePM1 85%	8	6.0	3400	170	2	609x183x607	D
HQ98B6-6	490x592x635	ePM1 85%	6	4.5	2800	170	2	609x183x607	D
HQ98B8-6/90	592x490x635	ePM1 85%	8	4.9	2800	170	2	609x183x607	D
HQ98C4-6	287x592x635	ePM1 85%	4	3.0	1700	170	4	609x183x607	D
HQ98C8-6/90	592x287x635	ePM1 85%	8	2.9	1700	170	4	609x183x607	D
HQ98CC4-6	287x287x635	ePM1 85%	4	1.4	800	170	8	609x183x607	D
HQ98HA8-6	592x890x635	ePM1 85%	8	9.0	5100	170	2	909x183x607	D
HQ98HB6-6	490x890x635	ePM1 85%	6	6.8	4000	170	2	909x183x607	D
HQ98HC4-6	287x890x635	ePM1 85%	4	4.5	3400	170	4	909x183x607	D
HQ98A10-3	592x592x360	ePM1 85%	10	4.2	3400	210	2	609x144x607	E
HQ98C5-3	287x592x360	ePM1 85%	5	2.1	1700	210	4	609x144x607	E
HQ98HA10-3	592x890x360	ePM1 85%	10	6.3	5100	210	2	909x144x607	E

\* According to Eurovent ECP-11-FIL-2020

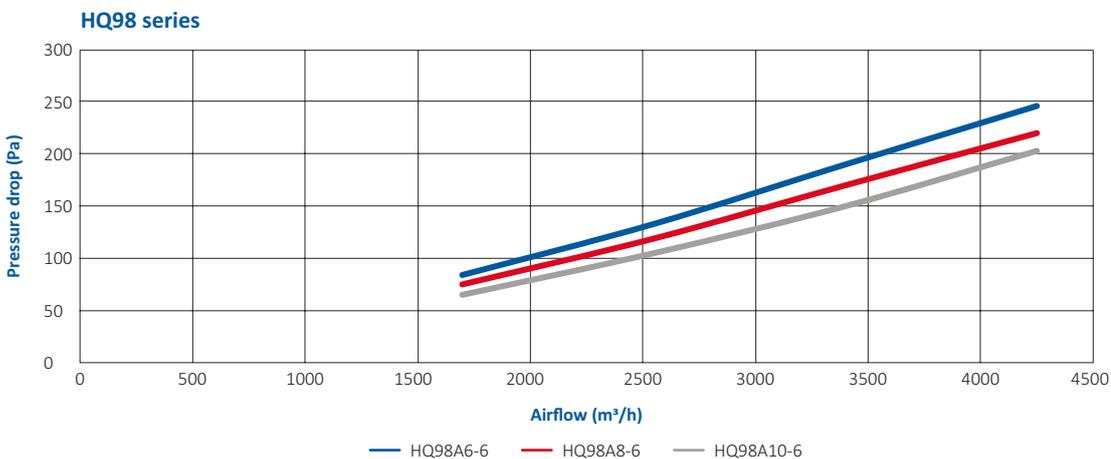
# Bag filters

HQ98-series continued

ePM1



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ98A10-5	592x592x535	ePM1 85%	10	6.2	3400	170	2	609x183x607	D
HQ98C5-5	287x592x535	ePM1 85%	5	3.1	1700	170	4	609x183x607	D
HQ98HA10-5	592x890x535	ePM1 85%	10	9.4	5100	170	2	909x183x607	D
HQ98HC5-5	287x890x535	ePM1 85%	5	4.7	2500	170	4	909x183x607	D
HQ98A10-6	592x592x635	ePM1 85%	10	7.4	3400	150	2	609x240x607	D
HQ98B8-6	490x592x635	ePM1 85%	8	5.9	2800	150	2	609x183x607	D
HQ98C5-6	287x592x635	ePM1 85%	5	3.7	1700	150	4	609x183x607	D
HQ98HA10-6	592x890x635	ePM1 85%	10	11.1	5100	150	2	909x240x607	D
HQ98HB8-6	490x890x635	ePM1 85%	8	8.9	4000	150	2	909x183x607	D
HQ98HC5-6	287x890x635	ePM1 85%	5	5.6	2500	150	4	909x240x607	D
HQ98A12-6	592x592x635	ePM1 85%	12	8.8	3400	140	2	609x240x607	C
HQ98C6-6	287x592x635	ePM1 85%	6	4.4	1700	140	4	609x240x607	C



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HQ80-series

ePM1



### Specifications

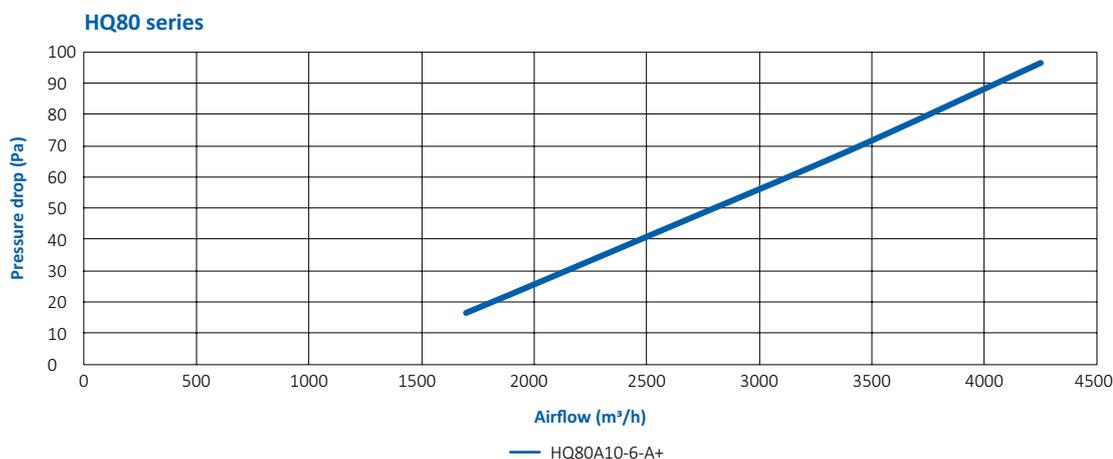
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Sewing thread  
**Bonding:** -  
**Medium:** Glass fibre  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency
- High energy efficiency



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ80A10-6-A+	592x592x635	ePM1 50%	10	7.4	3400	64	2	609x240x607	B
HQ80B8-6-A+	490x592x635	ePM1 50%	8	5.9	2800	64	2	609x183x607	B
HQ80C5-6-A+	287x592x635	ePM1 50%	5	3.7	1700	64	4	609x183x607	B
HQ80B10-6/90-A+	592x490x635	ePM1 50%	10	5.9	2800	64	2	609x183x607	B
HQ80C10-6/90-A+	592x287x635	ePM1 50%	10	3.7	1700	64	4	609x183x607	B



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HD-series



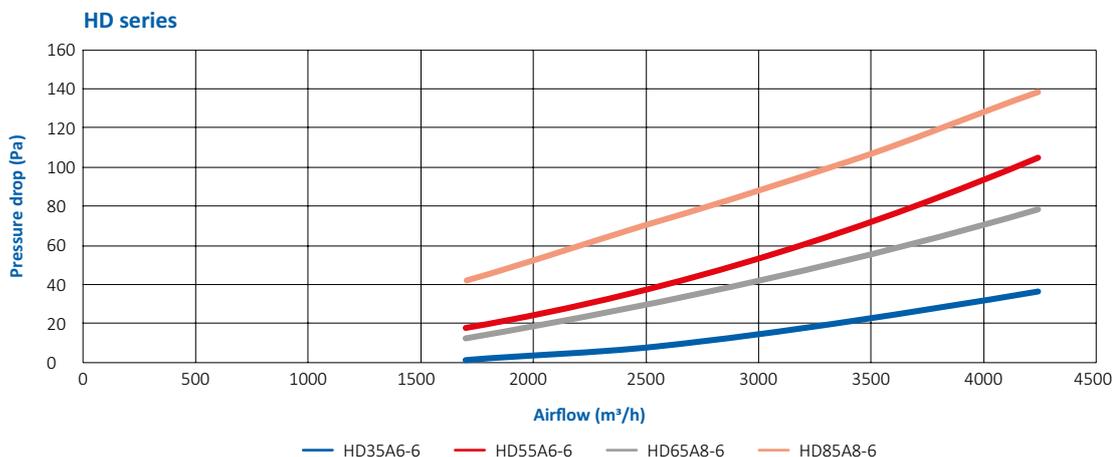
### Specifications

**Application:** Fine filter HVAC, industry, gas turbines  
**Frame:** 2 component polyurethane  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ISO Coarse, ePM10  
**Maximum final pressure drop:** 450 Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%  
**Burst pressure drop:** 3000 pa

### Advantages

- Withstands extreme pressure
- Totally combustible
- Lightweight frame
- Unique selfsupporting filter medium

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HD35A6-6**	595x595x600	ISO Coarse 70%	6	4.7	3400	20	3	730x630x690	-
HD35C3-6**	288x595x600	ISO Coarse 70%	3	2.3	1700	20	6	730x630x690	-
HD55A6-6**	595x595x600	ISO Coarse 90%	6	4.7	3400	70	3	730x630x690	-
HD55C3-6**	288x595x600	ISO Coarse 90%	3	2.3	1700	70	6	730x630x690	-
HD65A8-6**	595x595x600	ISO Coarse 90%	8	6.0	3400	50	3	730x630x690	-
HD65B6-6**	493x595x600	ISO Coarse 90%	6	4.5	2800	50	3	730x530x690	-
HD65C4-6**	288x595x600	ISO Coarse 90%	4	3.0	1700	50	6	730x630x690	-
HD65CC4-6**	288x288x600	ISO Coarse 90%	4	1.5	800	50	4	730x630x305	-
HD85A8-6	592x592x600	ePM10 70%	8	6.0	3400	95	3	730x630x690	E
HD85B6-6	493x595x600	ePM10 70%	6	4.5	2800	95	3	730x530x690	E
HD85C4-6	288x595x600	ePM10 70%	4	3.0	1700	95	6	730x630x690	E
HD85CC4-6	288x288x600	ePM10 70%	4	1.5	800	95	4	730x630x305	E



\* According to Eurovent ECP-11-FIL-2020

\*\* Not Eurovent certified

# Bag filters

## HSB35-series

ISO  
Coarse



### Specifications

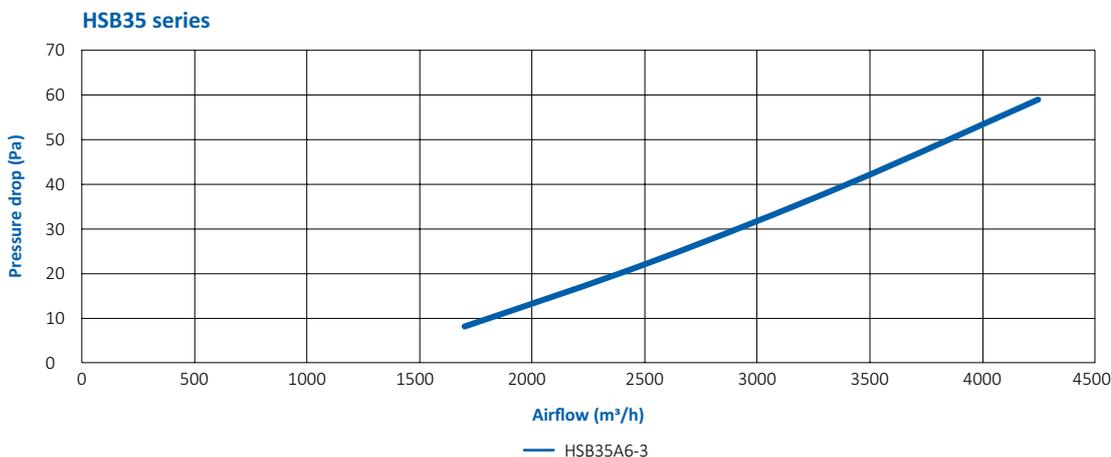
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HSB35A6-3	592x592x360	ISO Coarse 70%	6	2.8	3400	40	4	605x605x240	-
HSB35B5-3	490x592x360	ISO Coarse 70%	5	2.3	2800	40	4	605x605x183	-
HSB35B6-3/90	592x490x360	ISO Coarse 70%	6	2.3	2800	40	4	605x605x183	-
HSB35C3-3	287x592x360	ISO Coarse 70%	3	1.4	1700	40	8	605x605x240	-
HSB35C6-3/90	592x287x360	ISO Coarse 70%	6	1.5	1700	40	8	605x605x240	-
HSB35CC3-3	287x287x360	ISO Coarse 70%	3	0.7	800	40	16	605x605x240	-
HSB35HA6-3	592x890x360	ISO Coarse 70%	6	4.1	5100	40	4	905x605x240	-
HSB35HB5-3	490x890x360	ISO Coarse 70%	5	3.4	4200	40	4	905x605x183	-
HSB35HC3-3	287x890x360	ISO Coarse 70%	3	2.0	2500	40	8	905x605x240	-



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HS35-series

ISO Coarse



### Specifications

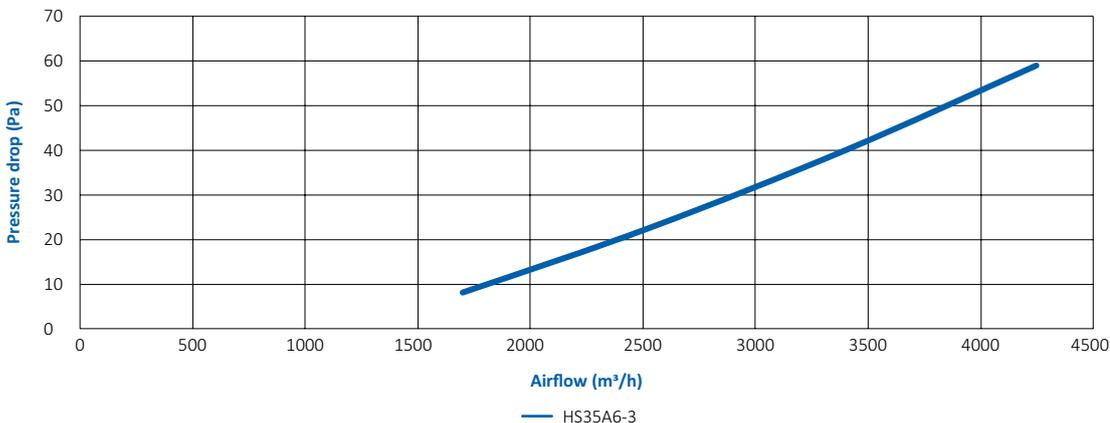
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- High dust holding capacity

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HS35A6-3	592x592x360	ISO Coarse 70%	6	2.8	3400	40	4	605x605x240	-
HS35B5-3	490x592x360	ISO Coarse 70%	5	2.3	2800	40	4	605x605x183	-
HS35B6-3/90	592x490x360	ISO Coarse 70%	6	2.3	2800	40	4	605x605x183	-
HS35C3-3	287x592x360	ISO Coarse 70%	3	1.4	1700	40	8	605x605x240	-
HS35C6-3/90	592x287x360	ISO Coarse 70%	6	1.5	1700	40	8	605x605x240	-
HS35CC3-3	287x287x360	ISO Coarse 70%	3	0.7	800	40	16	605x605x240	-
HS35HA6-3	592x890x360	ISO Coarse 70%	6	4.1	5100	40	4	905x605x240	-
HS35HB5-3	490x890x360	ISO Coarse 70%	5	3.4	4200	40	4	905x605x183	-
HS35HC3-3	287x890x360	ISO Coarse 70%	3	2.0	2500	40	8	905x605x240	-

HS35 series



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HSB55-series



### Specifications

- Application:** Prefilter HVAC, industry
- Frame:** Galvanized steel/aluminium
- Spacers:** Synthetic
- Bonding:** -
- Medium:** Synthetic
- Gasket:** Optional, Continuous poured gasket
- Filter class according to ISO 16890:** ISO Coarse
- Maximum final pressure drop:** 250Pa
- Maximum temperature:** 70°C
- Maximum relative humidity:** 90%

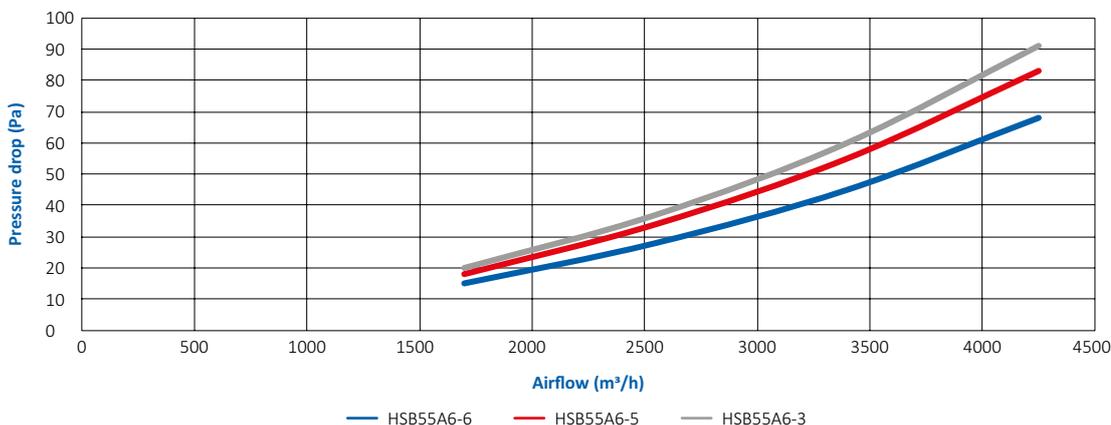
### Advantages

- Lightweight frame



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HSB55A6-3	592x592x360	ISO Coarse 80%	6	2.8	3400	60	4	605x605x240	-
HSB55B5-3	490x592x360	ISO Coarse 80%	5	2.3	2800	60	4	605x605x183	-
HSB55B6-3/90	592x490x360	ISO Coarse 80%	6	2.3	2800	60	4	605x605x183	-
HSB55C3-3	287x592x360	ISO Coarse 80%	3	1.4	1700	60	8	605x605x240	-
HSB55C6-3/90	592x287x360	ISO Coarse 80%	6	1.5	1700	60	8	605x605x240	-
HSB55CC3-3	287x287x360	ISO Coarse 80%	3	0.7	800	60	16	605x605x240	-
HSB55HA6-3	592x890x360	ISO Coarse 80%	6	4.1	5100	60	4	905x605x240	-
HSB55HB5-3	490x890x360	ISO Coarse 80%	5	3.4	4200	60	4	905x605x183	-
HSB55HC3-3	287x890x360	ISO Coarse 80%	3	2.0	2500	60	8	905x605x240	-
HSB55A6-5	592x592x535	ISO Coarse 80%	6	4.1	3400	55	4	605x605x240	-
HSB55B5-5	490x592x535	ISO Coarse 80%	5	3.4	2800	55	4	605x605x240	-
HSB55B6-5/90	592x490x535	ISO Coarse 80%	6	3.5	2800	55	4	605x605x240	-
HSB55C3-5	287x592x535	ISO Coarse 80%	3	2.0	1700	55	8	605x605x240	-
HSB55C6-5/90	592x287x535	ISO Coarse 80%	6	2.2	1700	55	8	605x605x240	-
HSB55CC3-5	287x287x535	ISO Coarse 80%	3	1.1	800	55	16	605x605x240	-
HSB55HA6-5	592x890x535	ISO Coarse 80%	6	6.0	5100	55	4	905x605x240	-
HSB55HB5-5	490x890x535	ISO Coarse 80%	5	5.0	4200	55	4	905x605x240	-
HSB55HC3-5	287x890x535	ISO Coarse 80%	3	3.0	2500	55	8	905x605x240	-
HSB55A6-6	592x592x635	ISO Coarse 80%	6	4.9	3400	45	4	605x605x240	-
HSB55B5-6	490x592x635	ISO Coarse 80%	5	4.1	2800	45	4	605x605x240	-
HSB55B6-6/90	592x490x635	ISO Coarse 80%	6	3.8	2800	45	4	605x605x240	-
HSB55C3-6	287x592x635	ISO Coarse 80%	3	2.4	1700	45	8	605x605x240	-
HSB55C6-6/90	592x287x635	ISO Coarse 80%	6	2.6	1700	45	8	605x605x240	-
HSB55CC3-6	287x287x635	ISO Coarse 80%	3	1.3	800	45	16	605x605x240	-
HSB55HA6-6	592x890x635	ISO Coarse 80%	6	7.2	5100	45	4	905x605x240	-
HSB55HB5-6	490x890x635	ISO Coarse 80%	5	6.0	4200	45	4	905x605x240	-
HSB55HC3-6	287x890x635	ISO Coarse 80%	3	3.6	2500	45	8	905x605x240	-

HSB55 series



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## LSB60-series

ePM10



### Specifications

**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM10  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)	Energy label*
LSB60A6-3	592x592x360	ePM10 70%	6	2.8	3400	85	4	605x605x183	E
LSB60B5-3	490x592x360	ePM10 70%	5	2.3	2800	85	4	605x605x183	E
LSB60B6-3/90	592x490x360	ePM10 70%	6	2.3	2800	85	4	605x605x183	E
LSB60C3-3	287x592x360	ePM10 70%	3	1.4	1700	85	8	605x605x183	E
LSB60C6-3/90	592x287x360	ePM10 70%	6	1.5	1700	85	8	605x605x183	E
LSB60CC3-3	287x287x360	ePM10 70%	3	0.7	850	85	16	605x605x183	E
LSB60A6-5	592x592x535	ePM10 70%	6	4.1	3400	70	4	605x605x240	E
LSB60B5-5	490x592x535	ePM10 70%	5	3.4	2800	70	4	605x605x240	E
LSB60B6-5/90	592x490x535	ePM10 70%	6	3.5	2800	70	4	605x605x240	E
LSB60C3-5	287x592x535	ePM10 70%	3	2.0	1700	70	8	605x605x240	E
LSB60C6-5/90	592x287x535	ePM10 70%	6	2.2	1700	70	4	605x605x240	E
LSB60CC3-5	287x287x535	ePM10 70%	3	1.1	850	70	16	605x605x183	E
LSB60A6-6	592x592x635	ePM10 70%	6	4.9	3400	65	4	605x605x240	E
LSB60B5-6	490x592x635	ePM10 70%	5	4.1	2800	65	4	605x605x240	E
LSB60B6-6/90	592x490x635	ePM10 70%	6	3.8	2800	65	4	605x605x240	E
LSB60C3-6	287x592x635	ePM10 70%	3	2.4	1700	65	8	605x605x240	E
LSB60C6-6/90	592x287x635	ePM10 70%	6	2.6	1700	65	8	605x605x240	E
LSB60CC3-6	287x287x635	ePM10 70%	3	1.3	850	65	16	605x605x183	E
LSB60A8-3	592x592x360	ePM10 70%	8	3.6	3400	90	4	605x605x183	E
LSB60B6-3	490x592x360	ePM10 70%	6	2.7	2800	90	4	605x605x240	E
LSB60B8-3/90	592x490x360	ePM10 70%	8	3.0	2800	90	4	605x605x183	E
LSB60C4-3	287x592x360	ePM10 70%	4	1.8	1700	90	8	605x605x183	E
LSB60C8-3/90	592x287x360	ePM10 70%	8	1.8	1700	90	8	605x605x183	E
LSB60CC4-3	287x287x360	ePM10 70%	4	0.9	850	90	16	605x605x183	E
LSB60HA8-3	592x890x360	ePM10 70%	8	5.3	5000	90	4	905x605x183	E
LSB60HB6-3	490x890x360	ePM10 70%	6	4.0	4000	90	4	905x605x240	E
LSB60HC4-3	287x890x360	ePM10 70%	4	2.6	2500	90	8	905x605x183	E
LSB60A8-5	592x592x535	ePM10 70%	8	5.3	3400	75	4	605x605x240	E
LSB60B6-5	490x592x535	ePM10 70%	6	4.0	2800	75	4	605x605x240	E
LSB60B8-5/90	592x490x535	ePM10 70%	8	4.4	2800	75	4	605x605x240	E
LSB60C4-5	287x592x535	ePM10 70%	4	2.6	1700	75	8	605x605x240	E
LSB60C8-5/90	592x287x535	ePM10 70%	8	2.7	1700	75	8	605x605x240	E
LSB60CC4-5	287x287x535	ePM10 70%	4	1.3	850	75	16	605x605x240	E
LSB60HA8-5	592x890x535	ePM10 70%	8	7.9	5000	75	4	905x605x240	E
LSB60HB6-5	490x890x535	ePM10 70%	6	5.9	4000	75	4	905x605x240	E
LSB60HC4-5	287x890x535	ePM10 70%	4	3.9	2500	75	8	905x605x240	E
LSB60A8-6	592x592x635	ePM10 70%	8	6.3	3400	70	4	605x605x240	D
LSB60B6-6	490x592x635	ePM10 70%	6	4.8	2800	70	4	605x605x240	D

\* According to Eurovent ECP-11-FIL-2020

# Bag filters

LSB60-series continued

ePM10



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
LSB60B8-6/90	592x490x635	ePM10 70%	8	5.3	2800	70	4	605x605x240	D
LSB60C4-6	287x592x635	ePM10 70%	4	3.1	1700	70	8	605x605x240	D
LSB60C8-6/90	592x287x635	ePM10 70%	8	3.2	1700	70	8	605x605x240	D
LSB60CC4-6	287x287x635	ePM10 70%	4	1.6	850	70	16	605x605x240	D
LSB60HA8-6	592x890x635	ePM10 70%	8	9.3	5000	70	4	905x605x240	D
LSB60HB6-6	490x890x635	ePM10 70%	6	7.0	4000	70	4	905x605x240	D
LSB60HC4-6	287x890x635	ePM10 70%	4	4.6	2500	70	8	905x605x240	D

PANEL FILTERS

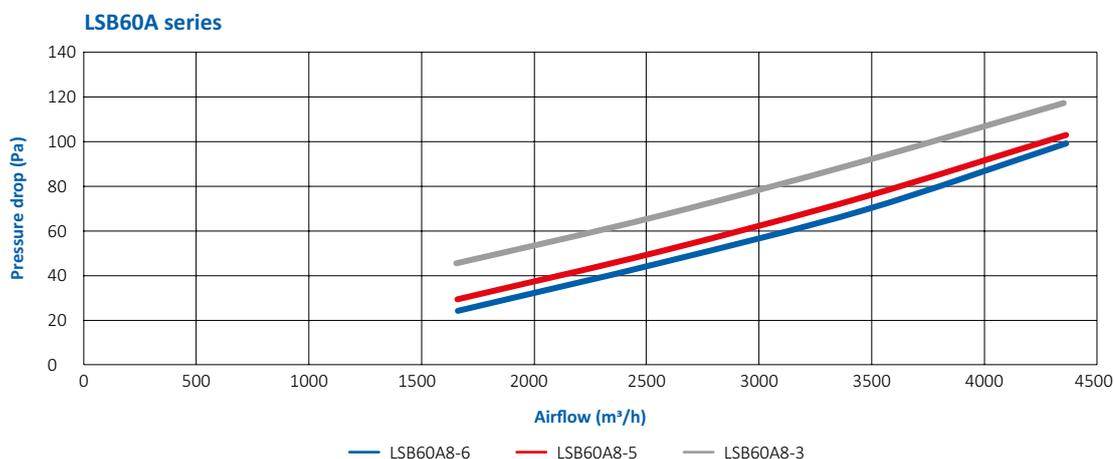
BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HSB65-series

ePM10



### Specifications

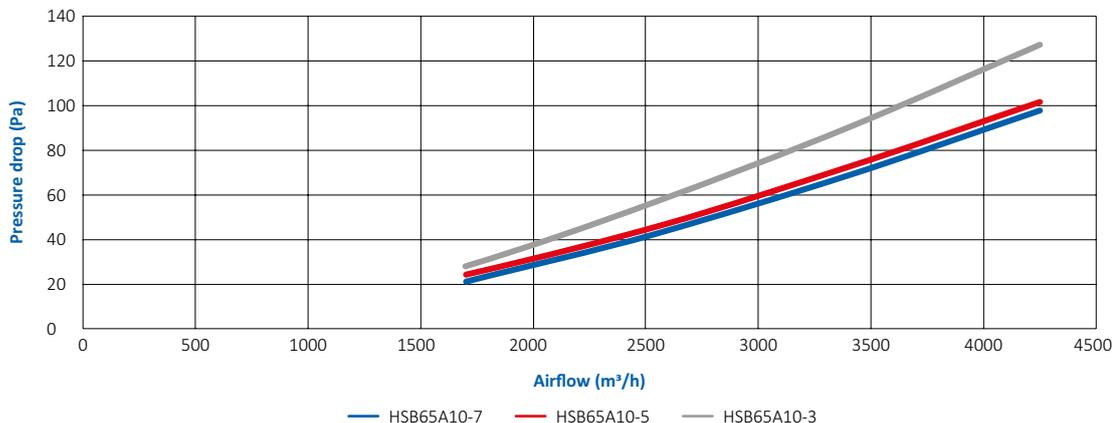
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM10  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HSB65A10-3	592x592x360	ePM10 70%	10	4.4	3400	90	4	605x605x183	E
HSB65B8-3	490x592x360	ePM10 70%	8	3.5	2800	90	4	605x605x183	E
HSB65B10-3/90	592x490x360	ePM10 70%	10	3.6	2800	90	2	605x605x183	E
HSB65C5-3	287x592x360	ePM10 70%	5	2.2	1700	90	8	605x605x183	E
HSB65C10-3/90	592x287x360	ePM10 70%	10	2.2	1700	90	8	605x605x183	E
HSB65CC5-3	287x287x360	ePM10 70%	5	1.1	850	90	16	605x605x183	E
HSB65HA10-3	592x890x360	ePM10 70%	10	6.5	5000	90	4	905x605x183	E
HSB65HB8-3	490x890x360	ePM10 70%	8	5.2	4200	90	4	905x605x183	E
HSB65HC5-3	287x890x360	ePM10 70%	5	3.2	2500	90	8	905x605x183	E
HSB65A10-5	592x592x535	ePM10 70%	10	6.5	3400	70	4	605x605x240	D
HSB65B8-5	490x592x535	ePM10 70%	8	5.2	2800	70	4	605x605x240	D
HSB65B10-5/90	592x490x535	ePM10 70%	10	5.4	2800	70	2	605x605x183	D
HSB65C5-5	287x592x535	ePM10 70%	5	3.2	1700	70	8	605x605x240	D
HSB65C10-5/90	592x287x535	ePM10 70%	10	3.2	1700	70	8	605x605x240	D
HSB65CC5-5	287x287x535	ePM10 70%	5	1.6	850	70	16	605x605x240	D
HSB65HA10-5	592x890x535	ePM10 70%	10	9.7	5000	70	4	905x605x240	D
HSB65HB8-5	490x890x535	ePM10 70%	8	7.8	4200	70	4	905x605x240	D
HSB65HC5-5	287x890x535	ePM10 70%	5	4.8	2500	70	8	905x605x240	D
HSB65A10-7	592x592x635	ePM10 70%	10	7.7	3400	65	4	605x605x240	D
HSB65B8-7	490x592x635	ePM10 70%	8	6.2	2800	65	4	605x605x240	D
HSB65B10-7/90	592x490x635	ePM10 70%	10	6.4	2800	65	2	605x605x183	D
HSB65C5-7	287x592x635	ePM10 70%	5	3.8	1700	65	8	605x605x240	D
HSB65C10-7/90	592x287x635	ePM10 70%	10	3.8	1700	65	8	605x605x240	D
HSB65CC5-7	287x287x635	ePM10 70%	5	1.9	850	65	16	605x605x240	D
HSB65HA10-7	592x890x635	ePM10 70%	10	11.5	5000	65	4	905x605x240	D
HSB65HB8-7	490x890x635	ePM10 70%	8	9.2	4200	65	4	905x605x240	D
HSB65HC5-7	287x890x635	ePM10 70%	5	5.7	2500	65	8	905x605x240	D

HSB65A series



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## LSB80-series

ePM2.5



### Specifications

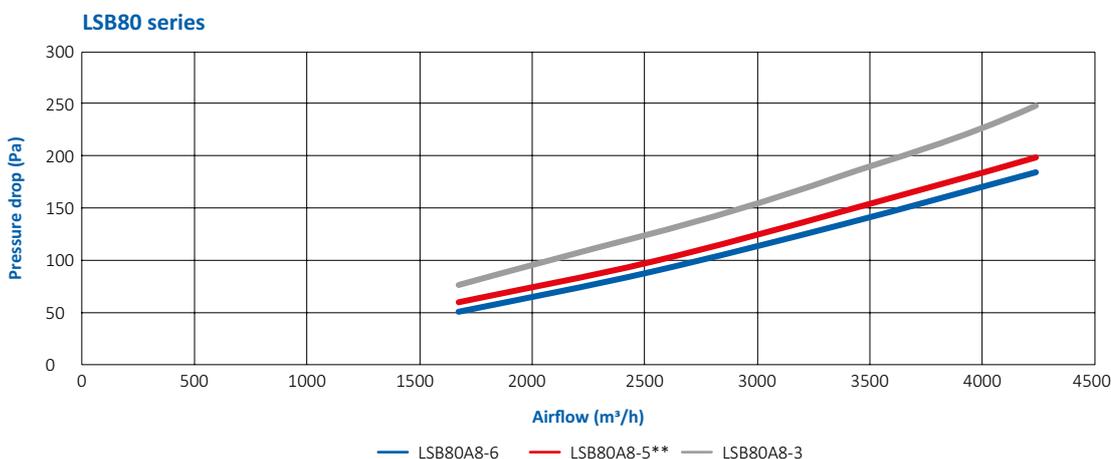
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM2,5  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame
- Constante efficiency



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
LSB80A8-3	592x592x360	ePM2.5 70%	8	3.6	3400	180	4	605x605x183	E
LSB80B6-3	490x592x360	ePM2.5 70%	6	2.7	2800	180	4	605x605x183	E
LSB80B8-3/90	592x490x360	ePM2.5 70%	8	3.0	2800	180	4	605x605x183	E
LSB80C4-3	287x592x360	ePM2.5 70%	4	1.8	1700	180	8	605x605x183	E
LSB80C8-3/90	592x287x360	ePM2.5 70%	8	1.8	1700	180	8	605x605x183	E
LSB80CC4-3	287x287x360	ePM2.5 70%	4	0.9	850	180	16	605x605x183	E
LSB80HA8-3	592x890x360	ePM2.5 70%	8	5.3	5000	180	4	905x605x183	E
LSB80HB6-3	490x890x360	ePM2.5 70%	6	4.0	4000	180	4	905x605x183	E
LSB80HC4-3	287x890x360	ePM2.5 70%	4	2.6	2500	180	8	905x605x183	E
LSB80A8-5**	592x592x535	ePM2.5 70%	8	5.3	3400	140	4	605x605x240	E
LSB80B6-5**	490x592x535	ePM2.5 70%	6	4.0	2800	140	4	605x605x240	E
LSB80B8-5/90**	592x490x535	ePM2.5 70%	8	4.4	2800	140	4	605x605x240	E
LSB80C4-5**	287x592x535	ePM2.5 70%	4	2.6	1700	140	4	605x605x240	E
LSB80C8-5/90**	592x287x535	ePM2.5 70%	8	2.7	1700	140	4	605x605x240	E
LSB80CC4-5**	287x287x535	ePM2.5 70%	4	1.3	850	140	16	605x605x240	E
LSB80HA8-5**	592x890x535	ePM2.5 70%	8	7.9	5000	140	4	905x605x240	E
LSB80HB6-5**	490x890x535	ePM2.5 70%	6	5.9	4000	140	4	905x605x240	E
LSB80HC4-5**	287x890x535	ePM2.5 70%	4	3.9	2500	140	8	905x605x240	E
LSB80A8-6	592x592x635	ePM2.5 70%	8	6.3	3400	130	4	605x605x240	D
LSB80B6-6	490x592x635	ePM2.5 70%	6	4.8	2800	130	4	605x605x240	D
LSB80B8-6/90	592x490x635	ePM2.5 70%	8	5.3	2800	130	4	605x605x240	D
LSB80C4-6	287x592x635	ePM2.5 70%	4	3.1	1700	130	8	605x605x240	D
LSB80C8-6/90	592x287x635	ePM2.5 70%	8	3.2	1700	130	8	605x605x240	D
LSB80CC4-6	287x287x635	ePM2.5 70%	4	1.6	850	130	16	605x605x240	D
LSB80HA8-6	592x890x635	ePM2.5 70%	8	9.3	5000	130	4	905x605x240	D
LSB80HB6-6	490x890x635	ePM2.5 70%	6	7.0	4000	130	4	905x605x240	D
LSB80HC4-6	287x890x635	ePM2.5 70%	4	4.6	2500	130	8	905x605x240	D



\* According to Eurovent ECP-11-FIL-2020

\*\* Version 2019

# Bag filters

## HSB85-series

ePM2.5



### Specifications

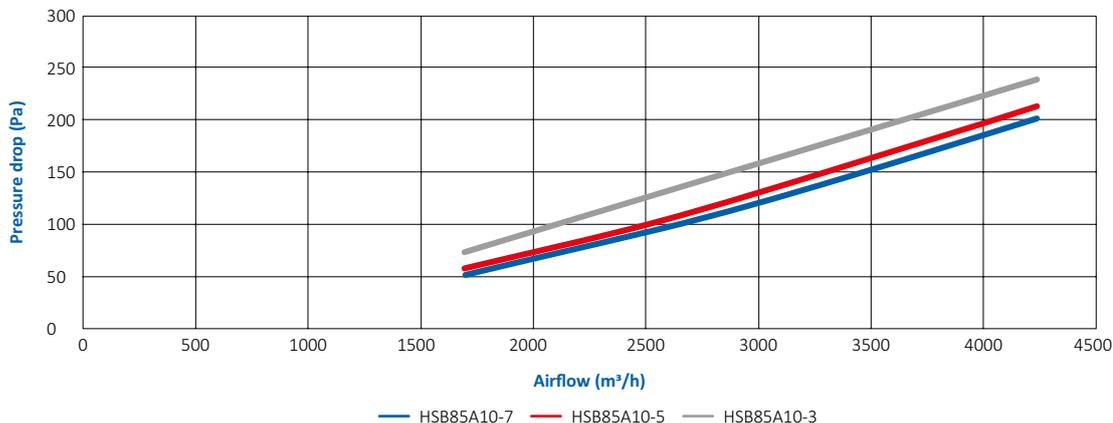
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM2.5  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight frame

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HSB85A10-3	592x592x360	ePM2.5 70%	10	4.4	3400	180	4	605x605x183	E
HSB85B8-3	490x592x360	ePM2.5 70%	8	3.5	2800	180	4	605x605x183	E
HSB85B10-3/90	592x490x360	ePM2.5 70%	10	3.6	2800	180	4	605x605x183	E
HSB85C5-3	287x592x360	ePM2.5 70%	5	2.2	1700	180	8	605x605x183	E
HSB85C10-3/90	592x287x360	ePM2.5 70%	10	2.2	1700	180	8	605x605x183	E
HSB85CC5-3	287x287x360	ePM2.5 70%	5	1.1	850	180	16	605x605x183	E
HSB85HA10-3	592x890x360	ePM2.5 70%	10	6.5	5000	180	4	905x605x240	E
HSB85HB8-3	490x890x360	ePM2.5 70%	8	5.2	4200	180	4	905x605x240	E
HSB85HC5-3	287x890x360	ePM2.5 70%	5	3.2	2500	180	8	905x605x183	E
HSB85A10-5	592x592x535	ePM2.5 70%	10	6.5	3400	140	4	605x605x240	E
HSB85B8-5	490x592x535	ePM2.5 70%	8	5.2	2800	140	4	605x605x240	E
HSB85B10-5/90	592x490x535	ePM2.5 70%	10	5.4	2800	140	4	605x605x240	E
HSB85C5-5	287x592x535	ePM2.5 70%	5	3.2	1700	140	8	605x605x240	E
HSB85C10-5/90	592x287x535	ePM2.5 70%	10	3.2	1700	140	8	605x605x240	E
HSB85CC5-5	287x287x535	ePM2.5 70%	5	1.6	850	140	16	605x605x240	E
HSB85HA10-5	592x890x535	ePM2.5 70%	10	9.7	5000	140	4	905x605x240	E
HSB85HB8-5	490x890x535	ePM2.5 70%	8	7.8	4200	140	4	905x605x240	E
HSB85HC5-5	287x890x535	ePM2.5 70%	5	4.8	2500	140	8	905x605x240	E
HSB85A10-7	592x592x635	ePM2.5 70%	10	7.7	3400	130	4	605x605x240	E
HSB85B8-7	490x592x635	ePM2.5 70%	8	6.2	2800	130	4	605x605x240	E
HSB85B10-7/90	592x490x635	ePM2.5 70%	10	6.4	2800	130	4	605x605x240	E
HSB85C5-7	287x592x635	ePM2.5 70%	5	3.8	1700	130	8	605x605x240	E
HSB85C10-7/90	592x287x635	ePM2.5 70%	10	3.8	1700	130	8	605x605x240	E
HSB85CC5-7	287x287x635	ePM2.5 70%	5	1.9	850	130	16	605x605x240	E
HSB85HA10-7	592x890x635	ePM2.5 70%	10	11.5	5000	130	4	905x605x240	E
HSB85HB8-7	490x890x635	ePM2.5 70%	8	9.2	4200	130	4	905x605x240	E
HSB85HC5-7	287x890x635	ePM2.5 70%	5	5.7	2500	130	8	905x605x240	E

### HSB85A series



\* According to Eurovent ECP-11-FIL-2020

# Bag filters

## HW-series

ePM1



### Specifications

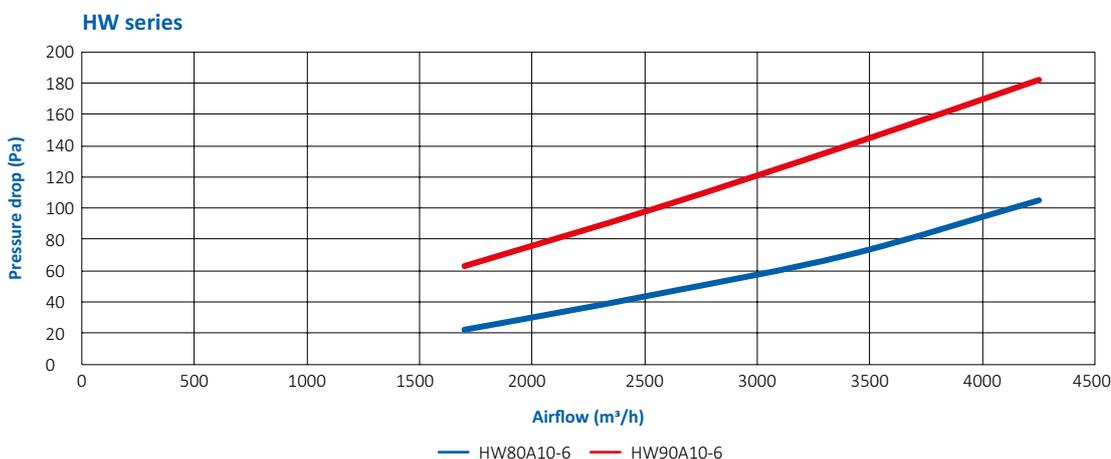
**Application:** Prefilter HVAC, industry  
**Frame:** Galvanized steel/aluminium  
**Spacers:** Synthetic  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

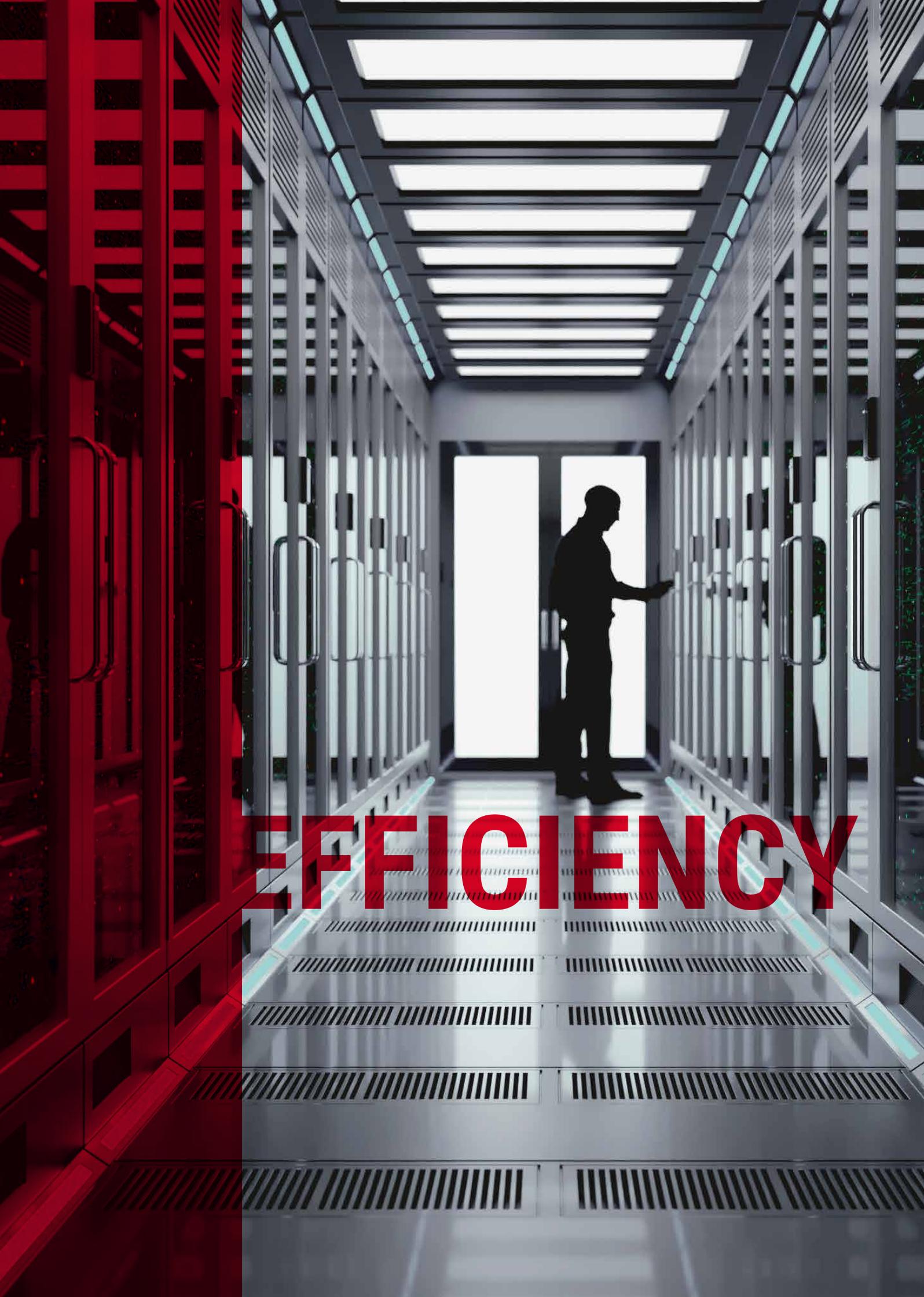
- High dust holding capacity
- Large filter area



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HW80A10-6	592x592x635	ePM1 50%	10	7.7	3400	70	2	609x240x607	B
HW80B8-6	490x592x635	ePM1 50%	8	6.2	2800	70	2	609x183x607	B
HW80B10-6/90	592x490x635	ePM1 50%	10	6.4	2800	70	2	609x183x607	B
HW80C5-6	287x592x635	ePM1 50%	5	3.8	1700	70	4	609x183x607	B
HW80C10-6/90	592x287x635	ePM1 50%	10	3.8	1700	70	4	609x183x607	B
HW80CC5-6	287x287x635	ePM1 50%	5	1.9	850	70	8	609x183x607	B
HW80HA10-6	592x890x635	ePM1 50%	10	11.5	5000	70	2	909x240x607	B
HW80HB8-6	490x890x635	ePM1 50%	8	9.2	4200	70	2	909x183x607	B
HW80HC5-6	287x890x635	ePM1 50%	5	5.7	2500	70	4	909x240x607	B
HW90A10-6	592x592x635	ePM1 85%	10	7.7	3400	140	2	609x240x607	C
HW90B8-6	490x592x635	ePM1 85%	8	6.2	2800	140	2	609x183x607	C
HW90B10-6/90	592x490x635	ePM1 85%	10	6.4	2800	140	2	609x183x607	C
HW90C5-6	287x592x635	ePM1 85%	5	3.8	1700	140	4	609x183x607	C
HW90C10-6/90	592x287x635	ePM1 85%	10	3.8	1700	140	4	609x183x607	C
HW90CC5-6	287x287x635	ePM1 85%	5	1.9	850	140	8	609x183x607	C
HW90HA10-6	592x890x635	ePM1 85%	10	11.5	5000	140	2	909x240x607	C
HW90HB8-6	490x890x635	ePM1 85%	8	9.2	4200	140	2	909x183x607	C
HW90HC5-6	287x890x635	ePM1 85%	5	5.7	2500	140	4	909x240x607	C



\* According to Eurovent ECP-11-FIL-2020



**EFFICIENCY**

# Compact filters

AFPRO Filters compact filters are mini-pleated filters, characterized by their high filtration features. The filter media is made with a “wet-laid paper technique” that guarantees high dust retention effectiveness and constant filter efficiency. The reduced air resistance and low energy consumption makes this technology extremely sustainable. These compact filters have obtained an A energy label time and again for this very reason!

## Advantages of compact filters

- Large filter area
- Spacers - hotmelt
- 100% leak free
- Great dust retention capacity
- Long lifespan
- Low energy consumption
- Dimensioning according to EN15805
- Moisture resistant
- Corrosion free
- Fully combustible

## Structure

Compact filters are mini-pleated filters that are assembled in a Polyurethane frame. This type of air filter can withstand temperatures up to 65°C. The largely robot-automated production of these filters ensures compliance with the highest quality standards.

## Application

Compact filters are used in air conditioning units and systems, industrial systems and as pre-filters for clean rooms.

## Installation

- Ensure that the filter is correctly installed: suction side - clean air side
- Filter must be correctly mounted: no leaks
- Gaskets must not be damaged
- Filter must be clamped down in four places
- Avoid touching the filter medium during installation
- Avoid damaging the filter during installation
- System must run for a few hours to achieve the desired result
- Installation record for filters: note date, time, initial resistance



# Compact filters

## HPQ-series



### Specifications

**Application:** HVAC, Industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class ISO 16890 / EN1822:** ePM2.5, ePM1, E10, E11, E12  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%

**Comments:** It is preferred to use a prefilter with these products

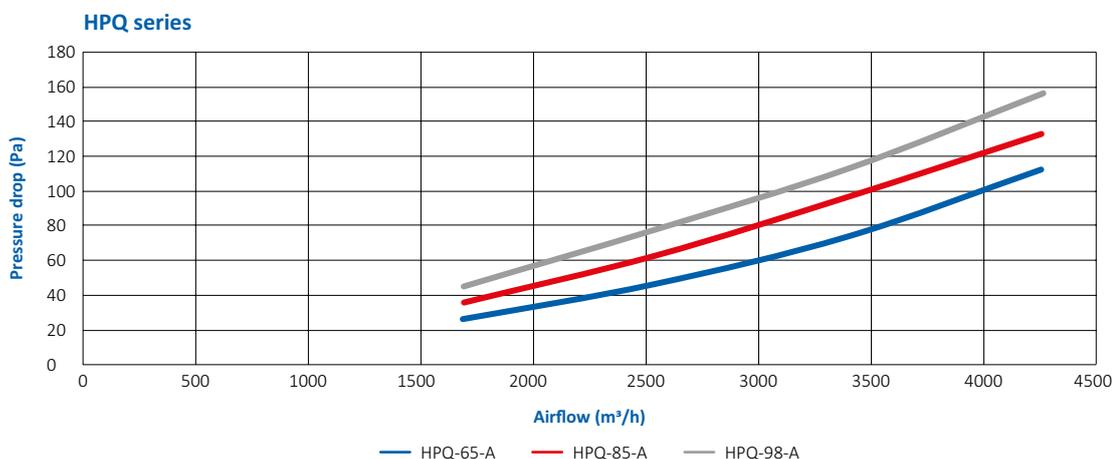
### Advantages

- Small construction space
- Low pressure drop
- Maximum airflow 45% above nominal value

### Options

- High Temperature

Type	Dimensions WxHxD (mm)	Filter class ISO 16890/EN1822	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HPQ-65-A	592x592x292	ePM2.5 55%	18.8	3400	75	1	605x305x605	B
HPQ-65-B	490x592x292	ePM2.5 55%	15.3	2800	75	1	605x305x505	B
HPQ-65-C	288x592x292	ePM2.5 55%	8.4	1700	75	2	605x305x305	B
HPQ-85-A	592x592x292	ePM1 55%	18.8	3400	95	1	605x305x605	B
HPQ-85-B	490x592x292	ePM1 55%	15.3	2800	95	1	605x305x505	B
HPQ-85-C	288x592x292	ePM1 55%	8.4	1700	95	2	605x305x305	B
HPQ-98-A	592x592x292	ePM1 80%	18.8	3400	110	1	605x305x605	B
HPQ-98-B	490x592x292	ePM1 80%	15.3	2800	110	1	605x305x505	B
HPQ-98-C	288x592x292	ePM1 80%	8.4	1700	110	2	605x305x305	B
HPQ-E10-A**	592x592x292	E10	18.8	3400	170	1	605x305x605	-
HPQ-E10-B**	490x592x292	E10	15.3	2800	170	1	605x305x505	-
HPQ-E10-C**	288x592x292	E10	8.4	1700	170	2	605x305x305	-
HPQ-E11-A**	592x592x292	E11	18.8	2000	130	1	605x305x605	-
HPQ-E11-B**	490x592x292	E11	15.3	1500	130	1	605x305x505	-
HPQ-E11-C**	288x592x292	E11	8.4	1000	130	2	605x305x305	-
HPQ-E12-A**	592x592x292	E12	18.8	2000	180	1	605x305x605	-
HPQ-E12-B**	490x592x292	E12	15.3	1500	180	1	605x305x505	-
HPQ-E12-C**	288x592x292	E12	8.4	1000	180	2	605x305x305	-



\* According to Eurovent ECP-11-FIL-2020

\*\* Not Eurovent certified

# Compact filters

## HPQ-XL-series



### Specifications

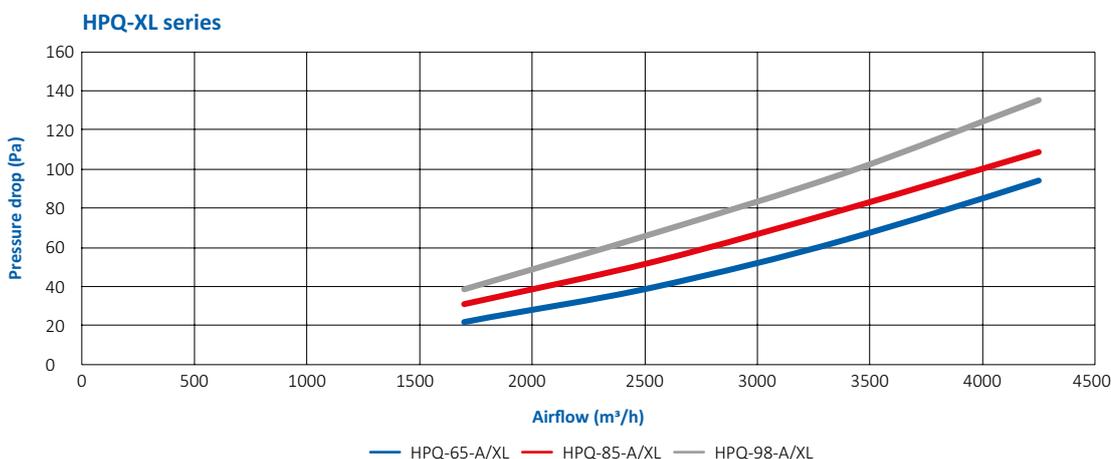
- Application:** HVAC, Industry
- Frame:** Plastic
- Spacers:** Hotmelt
- Bonding:** 2 component polyurethane
- Medium:** Glass fibre paper
- Gasket:** Optional, Continuous poured gasket
- Filter class ISO 16890 / EN1822:** ePM2.5, ePM1, E10, E11, E12
- Maximum final pressure drop:** 450Pa
- Maximum temperature:** 65°C
- Maximum relative humidity:** 90%
- Comments:** It is preferred to use a prefilter with these products

### Advantages

- Lower pressure drop relative to HPQ-serie
- Possible usage in almost every Heat Recovery Unit.
- Please inquire about the possibilities
- Maximum airflow 45% above nominal value



Type	Dimensions WxHxD (mm)	Filter class ISO 16890/EN1822	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HPQ-65-A/XL	592x592x420	ePM2.5 55%	25.0	3400	60	1	605x435x605	A
HPQ-65-B/XL	490x592x420	ePM2.5 55%	20.4	2800	60	1	605x435x505	A
HPQ-65-C/XL	288x592x420	ePM2.5 55%	11.2	1700	60	2	605x435x305	A
HPQ-85-A/XL	592x592x420	ePM1 55%	25.0	3400	80	1	605x435x605	A
HPQ-85-B/XL	490x592x420	ePM1 55%	20.4	2800	80	1	605x435x505	A
HPQ-85-C/XL	288x592x420	ePM1 55%	11.2	1700	80	2	605x435x305	A
HPQ-98-A/XL	592x592x420	ePM1 80%	25.0	3400	100	1	605x435x605	A
HPQ-98-B/XL	490x592x420	ePM1 80%	20.4	2800	100	1	605x435x505	A
HPQ-98-C/XL	288x592x420	ePM1 80%	11.2	1700	100	2	605x435x305	A
HPQ-E10-A/XL**	592x592x420	E10	25.0	3400	155	1	605x435x605	-
HPQ-E10-B/XL**	490x592x420	E10	20.4	2800	155	1	605x435x505	-
HPQ-E10-C/XL**	288x592x420	E10	11.2	1700	155	2	605x435x305	-
HPQ-E11-A/XL**	592x592x420	E11	25.0	2000	120	1	605x435x605	-
HPQ-E11-B/XL**	490x592x420	E11	20.4	1500	120	1	605x435x505	-
HPQ-E11-C/XL**	288x592x420	E11	11.2	1000	120	2	605x435x305	-
HPQ-E12-A/XL**	592x592x420	E12	25.0	2000	165	1	605x435x605	-
HPQ-E12-B/XL**	490x592x420	E12	20.4	1500	165	1	605x435x505	-
HPQ-E12-C/XL**	288x592x420	E12	11.2	1000	165	2	605x435x305	-



\* According to Eurovent ECP-11-FIL-2020

\*\* Not Eurovent certified

# Compact filters

## HPQ-ECO-series

ePM2.5

ePM1



### Specifications

**Application:** HVAC, Industry

**Frame:** Plastic

**Spacers:** Hotmelt

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Optional, Continuous poured gasket

**Filter class according to ISO 16890:** ePM2.5, ePM1

**Maximum final pressure drop:** 450Pa

**Maximum temperature:** 65°C

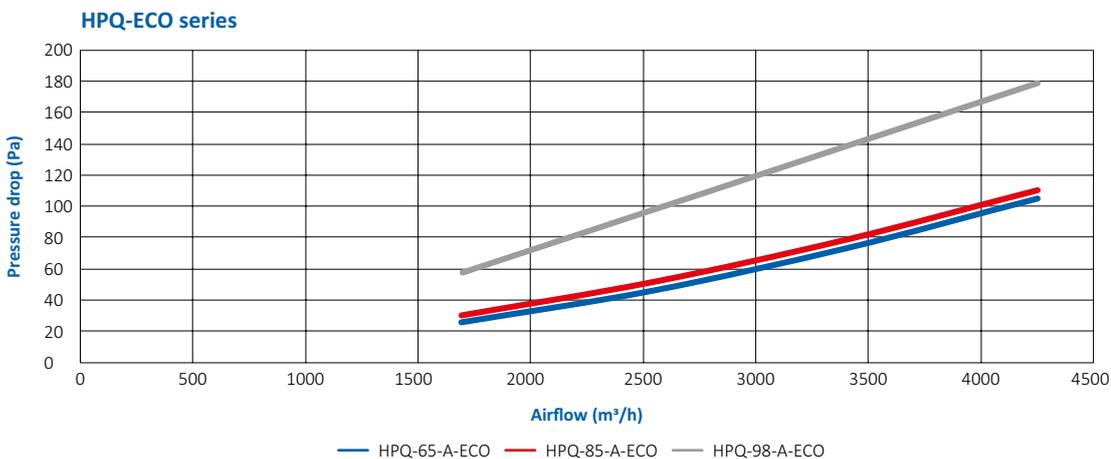
**Maximum relative humidity:** 90%

**Comments:** It is preferred to use a prefilter with these products

### Advantages

- Small construction space
- Low pressure drop

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HPQ-65-A-ECO	592x592x292	ePM2.5 55%	14.0	3400	75	1	605x305x605	C
HPQ-85-A-ECO	592x592x292	ePM1 55%	14.0	3400	80	1	605x305x605	C
HPQ-98-A-ECO	592x592x292	ePM1 80%	14.0	3400	130	1	605x305x605	C



\* According to Eurovent ECP-11-FIL-2020

# Compact filters

## PT-series



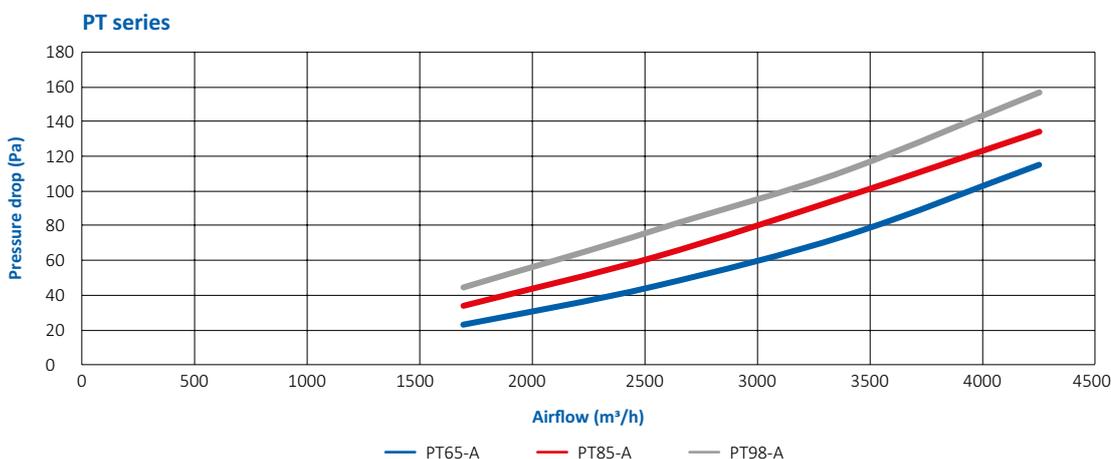
### Specifications

**Application:** Gasturbine filter, Industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890 / EN1822:** ePM2.5, ePM1, E10, E11, E12  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%  
**Burst pressure drop:** 6000 Pa  
**Comments:** It is preferred to use a prefilter with these products

### Advantages

- Small construction space
- Low pressure drop
- Maximum airflow 45% above nominal value
- Strong construction

Type	Dimensions WxHxD (mm)	Filter class ISO 16890/EN1822	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
PT65-A	592x592x292	ePM.,5 55%	18.8	3400	75	1	605x305x605	B
PT85-A	592x592x292	ePM1 55%	18.8	3400	95	1	605x305x605	B
PT98-A	592x592x292	ePM1 80%	18.8	3400	110	1	605x305x605	B
PT-E10-A**	592x592x292	E10	18.8	3400	170	1	605x305x605	-
PT-E11-A**	592x592x292	E11	18.8	2000	130	1	605x305x605	-
PT-E12-A**	592x592x292	E12	18.8	2000	180	1	605x305x605	-



\* According to Eurovent ECP-11-FIL-2020

\*\* Not Eurovent certified

# Compact filters

## PT-XL-series



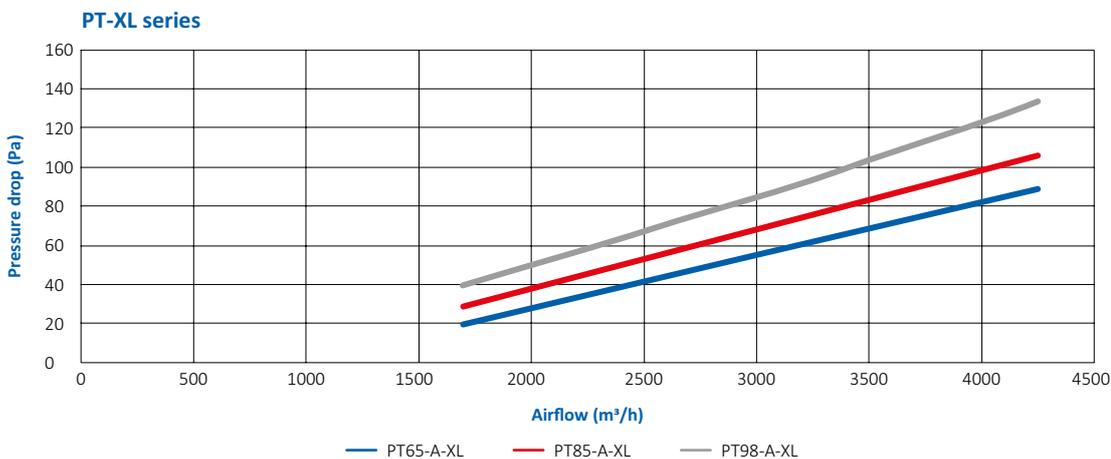
### Specifications

**Application:** Gasturbine filter, Industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890 / EN1822:** ePM2.5, ePM1, E10, E11, E12  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%  
**Burst pressure drop:** 6000 Pa  
**Comments:** It is preferred to use a prefilter with these products

### Advantages

- Small construction space
- Low pressure drop
- Maximum airflow 45% above nominal value
- Strong construction

Type	Dimensions WxHxD (mm)	Filter class ISO 16890/EN1822	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
PT65-A-XL	592x592x400	ePM2.5 55%	25.0	3400	60	1	605x435x605	A
PT85-A-XL	592x592x400	ePM1 55%	25.0	3400	80	1	605x435x605	A
PT98-A-XL	592x592x400	ePM1 80%	25.0	3400	100	1	605x435x605	A
PT-E10-A-XL**	592x592x400	E10	25.0	3400	155	1	605x435x605	-
PT-E11-A-XL**	592x592x400	E11	25.0	2000	120	1	605x435x605	-
PT-E12-A-XL**	592x592x400	E12	25.0	2000	165	1	605x435x605	-



\* According to Eurovent ECP-11-FIL-2020

\*\* Not Eurovent certified

# Compact filters

## CS-series

ePM1



### Specifications

**Application:** HVAC, Industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%

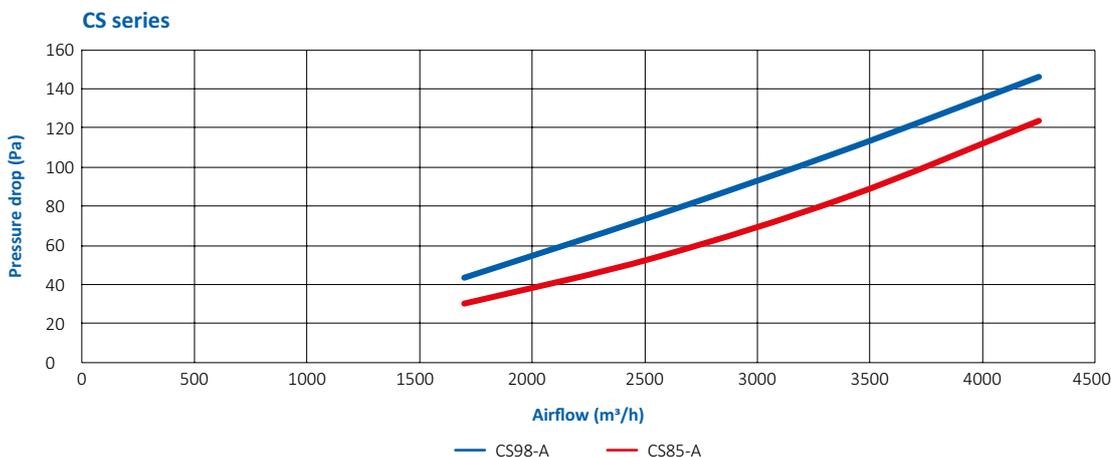
### Advantages

- Small construction space
- Low pressure drop
- Maximum airflow 45% above nominal value

**Comments:** It is preferred to use a prefilter with these products



Type	Dimensions WxHxD (mm)	Filter class ISO 16890/EN1822	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
CS85-A	592x592x292	ePM1 55%	18.8	3400	85	1	605x305x605	B
CS85-B	490x592x292	ePM1 55%	15.3	2800	85	1	605x305x505	B
CS85-C	288x592x292	ePM1 55%	8.4	1700	85	2	605x305x305	B
CS98-A	592x592x292	ePM1 80%	18.8	3400	105	1	605x305x605	B
CS98-B	490x592x292	ePM1 80%	15.3	2800	105	1	605x305x505	B
CS98-C	288x592x292	ePM1 80%	8.4	1700	105	2	605x305x305	B



\* According to Eurovent ECP-11-FIL-2020

# Compact filters

## CS-XL-series

ePM1



### Specifications

**Application:** HVAC, Industry

**Frame:** Plastic

**Spacers:** Hotmelt

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Optional, Continuous poured gasket

**Filter class according to ISO 16890:** ePM1

**Maximum final pressure drop:** 450Pa

**Maximum temperature:** 65°C

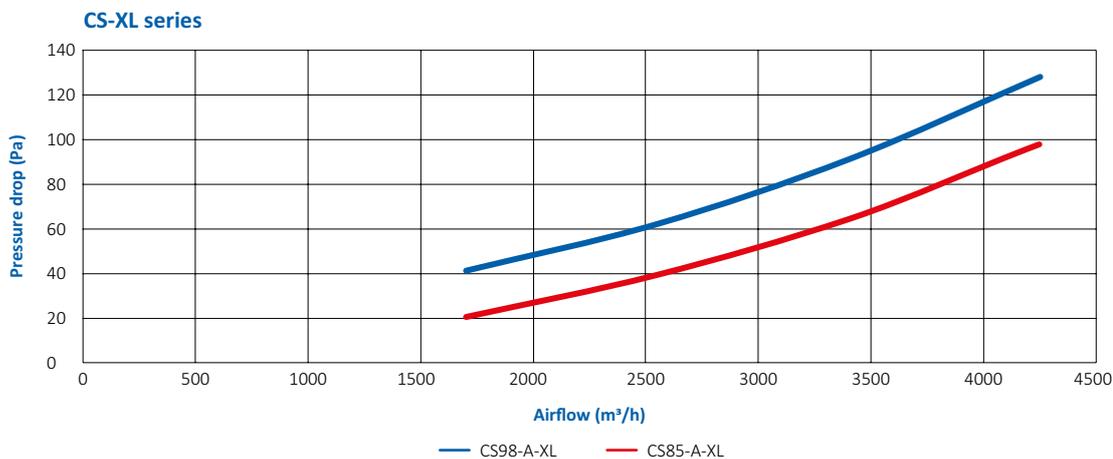
**Maximum relative humidity:** 90%

**Comments:** It is preferred to use a prefilter with these products

### Advantages

- Lower pressure drop relative to CS-serie
- Well suited for variable airflow volumes
- Maximum airflow 45% above nominal value

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
CS85-A-XL	592x592x420	ePM1 55%	25.0	3400	62	1	605x435x605	A+
CS85-B-XL	490x592x420	ePM1 55%	20.4	2800	62	1	605x435x505	A+
CS85-C-XL	288x592x420	ePM1 55%	11.2	1700	62	2	605x435x305	A+
CS98-A-XL	592x592x420	ePM1 80%	25.0	3400	90	1	605x435x605	A
CS98-B-XL	490x592x420	ePM1 80%	20.4	2800	90	1	605x435x505	A
CS98-C-XL	288x592x420	ePM1 80%	11.2	1700	90	2	605x435x305	A



\* According to Eurovent ECP-11-FIL-2020

# Compact filters

## HPQ-135G-series



### Specifications

- Application:** HVAC, Industry
- Frame:** Galvanized steel
- Spacers:** Hotmelt
- Bonding:** 2 component polyurethane
- Medium:** Glass fibre paper
- Gasket:** Optional, Continuous poured gasket
- Filter class according to ISO 16890:** ePM2,5, ePM1
- Maximum final pressure drop:** 450Pa
- Maximum temperature:** 65°C
- Maximum relative humidity:** 90%

### Advantages

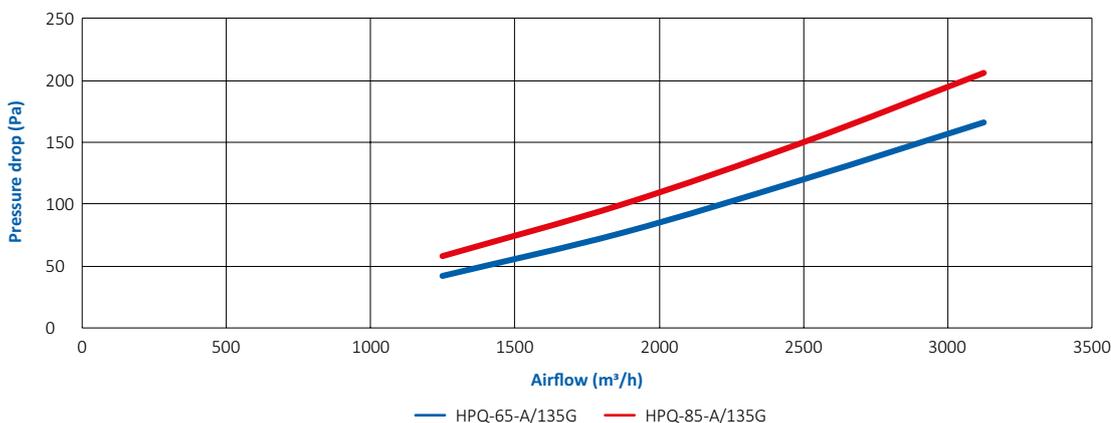
- Small construction space
- Low pressure drop



**Comments:** It is preferred to use a prefilter with these products

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HPQ-65-A/135G	592x592x85	ePM2.5 55%	8.6	2500	120	2	605x605x183	E
HPQ-65-B/135G	490x592x85	ePM2.5 55%	7.0	2050	120	2	605x505x183	E
HPQ-65-C/135G	288x592x85	ePM2.5 55%	3.8	1200	120	4	605x605x183	E
HPQ-65-BC/135G	288x490x85	ePM2.5 55%	3.1	1030	120	4	605x605x183	E
HPQ-65-CC/135G	288x288x85	ePM2.5 55%	1.7	600	120	8	605x605x183	E
HPQ-85-A/135G	592x592x85	ePM1 55%	8.6	2500	150	2	605x605x183	E
HPQ-85-B/135G	490x592x85	ePM1 55%	7.0	2050	150	2	605x605x183	E
HPQ-85-C/135G	288x592x85	ePM1 55%	3.8	1200	150	4	605x605x183	E
HPQ-85-BC/135G	288x500x85	ePM1 55%	3.1	1030	150	4	605x605x183	E
HPQ-85-CC/135G	288x288x85	ePM1 55%	1.7	600	150	8	605x605x183	E

HPQ-135G series



\* According to Eurovent ECP-11-FIL-2020





**HEALTH**

# HEPA filters

HEPA filters are characterized by their combination of innovative design and proven technology. HEPA stands for High Efficiency Particle Air filter. The use of high quality materials enables these filters to provide an extremely high air quality. On completion of the assembly process, each individual filter is tested in accordance to the EN1822 standard.

The HEPA filters' construction and the materials used are subject to continuous further development, which yields increasingly lower resistance and therefore reduced energy consumption. The filter media are made of a glass microfiber sheet. This vouches for consistent performance and enabling the use of these filters in highly critical environments, such as in hospitals and the nuclear industry.

## Advantages of HEPA filters

- Consistent performance
- Large filter surface
- Every single product is tested in compliance with EN1822
- Robust construction helps prevent damage during transportation and fitting
- Low energy consumption, thanks to smart pleating methods
- Proven quality, even in critical environments

## Construction

HEPA filters are constructed in various ways, depending on their application. AFPRO Filters endeavors to achieve the lowest possible resistance for each model, thus helping to reduce your energy costs. We supply the following types of HEPA filters:

### Turbulent flow filters

This type of HEPA filter is mostly used in circumstances with few requirements relating to the airflow's laminarity, but high air quality standards apply. These filters have a high flow rate, thanks to the application of efficient deep-pleating methods. The construction methods applied vary for the following model types:

### A: Standard model

These filters have nominal capacities, which serve as a base for the system design. Application of the deep-pleating method makes for low resistance at relatively low cost. The filter surface may be up to fifty times larger than its front area.

### B: High capacity model

These HEPA filters have an even lower air resistance and a higher flow rate. They operate on V-shaped filter packages which are inserted in the filter. This method creates a filter area that is twice as large and a doubled flow rate in comparison to those of the standard model.

### Laminar flow filters

HEPA filters with a laminar flow are widely applied in cleanrooms, where high air quality standards are essential. These have a lower flow rate than the turbulent flow filters. Laminar flow filters guarantee greater cleanliness in the cleanroom, thanks to aspects including the use of high quality filter paper and innovative pleating techniques.

HEPA filters are available in standard sizes varying from 68 to 110 mm in thicknesses, while the pleat package has a maximum height to achieve low resistance.

## Applications

HEPA filters are used in hospitals and various other sectors, including the nuclear, food processing and semiconductor industries. HEPA filters are highly reliable, as they are subjected to strict quality checks and extensive testing.

## Installation

It is essential that the following rules be observed when installing HEPA filters:

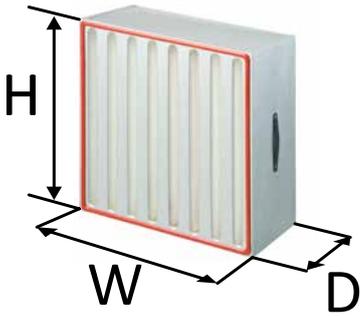
- Avoid touching the pleat package, as this may cause damage
- Ensure that every HEPA filter is validated following installation, to ensure that it is correctly fitted and devoid of damage
- Keep copies or test reports on the filters, and maintain suitable records of the test reports, stickers, resistances and validation reports
- Ensure that the flow rate of HEPA filters is never exceeded by more than 25%. Such excesses may cause performance deterioration or even damage the filter
- When fitting, ensure that the frames and filters are clean and that gaskets and any other seals are completely intact
- Use suitable protective equipment at all times, even when replacing used filters
- Maintain filter installation records; note the date, type and initial resistance



# Turbulent HEPA filters

## Explanation product numbers HVG

HVG 1 1 10 N B E M  
 1 2 3 4 5 6 7 8



## Turbulent flow HEPA filters

Numbers correspond with numbers in the product number.

### 1 Type

#### HVG V-Banked, galvanized steel frame

HCG High capacity V-Banked, galvanized steel frame

HVS V-Banked, stainless steel frame

HCS High capacity V-Banked, stainless steel frame

HPM MDF framework

HPG Galvanized steel frame

### 2 Spacer

#### 1 Hotmelt

2 Aluminum (available for HPM, HPG)

### 3 Gasket

0 No gasket

#### 1 Foamed polyurethane on one side

2 Foamed polyurethane on both sides

3 Flat neoprene gasket on one side

4 Flat neoprene gasket on both sides

9 Flat gasket on the outside of the frame

### 4 Filter class

10 E10

11 E11

13 H13

14 H14

### 5 Grid

N No grid

S Single aluminum grid

D Double aluminum grid

### 6 Height (mm)

A 288

B 305

C 457

D 592

E 610

F 762

K 380

L 210

M 490

N 402

Other sizes on request

### 7 Width (mm)

A 288

B 305

C 457

D 592

E 610

F 762

K 380

L 210

M 490

N 402

Other sizes on request

### 8 Frame Thickness (mm)

L 150 mm

M 292 mm

Other sizes on request

# HEPA filters

## HEPA HPM-series

E10 E11 H13 H14



### Specifications

**Application:** Cleanrooms, asbestos remediation, operating rooms

**Frame:** MDF

**Spacers:** Aluminium

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Continuous poured gasket

**Filter class according to EN1822:** E10, E11, H13, H14

**Maximum final pressure drop:** 500Pa

**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

### Advantages

- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HPM2110NBBM	305x305x292	E10	4.6	500	125	311x313x311
HPM2110NCCM	457x457x292	E10	11.3	1120	125	475x475x323
HPM2110NBEM	305x610x292	E10	9.7	1000	125	620x310x315
HPM2110NCEM	457x610x292	E10	15.4	1500	125	620x310x620
HPM2110NEEM	610x610x292	E10	21.1	2000	125	620x310x620
HPM2110NEFM	610x762x292	E10	26.7	2500	125	778x325x626
HPM2110NADM	288x592x292	E10	8.8	900	125	620x310x315
HPM2110NDDM	592x592x292	E10	19.8	1850	125	618x313x618
HPM2111NBBM	305x305x292	E11	4.6	500	140	311x313x311
HPM2111NCCM	457x457x292	E11	11.3	1120	140	475x475x323
HPM2111NBEM	305x610x292	E11	9.7	1000	140	620x310x315
HPM2111NCEM	457x610x292	E11	15.4	1500	140	620x310x620
HPM2111NEEM	610x610x292	E11	21.1	2000	140	620x310x620
HPM2111NEFM	610x762x292	E11	26.7	2500	140	778x325x626
HPM2111NADM	288x592x292	E11	8.8	900	140	620x310x315
HPM2111NDDM	592x592x292	E11	19.8	1850	140	618x313x618
HPM2113NBBM	305x305x292	H13	4.6	500	250	311x313x311
HPM2113NCCM	457x457x292	H13	11.3	1120	250	475x475x323
HPM2113NBEM	305x610x292	H13	9.7	1000	250	620x310x315
HPM2113NCEM	457x610x292	H13	15.4	1500	250	620x310x620
HPM2113NEEM	610x610x292	H13	21.1	2000	250	620x310x620
HPM2113NEFM	610x762x292	H13	26.7	2500	250	778x325x626
HPM2113NADM	288x592x292	H13	8.8	900	250	620x310x315
HPM2113NDDM	592x592x292	H13	19.8	1850	250	618x313x618
HPM2114NBBM	305x305x292	H14	4.6	500	280	311x313x311
HPM2114NCCM	457x457x292	H14	11.3	1120	280	475x475x323
HPM2114NBEM	305x610x292	H14	9.7	1000	280	620x310x315
HPM2114NCEM	457x610x292	H14	15.4	1500	280	620x310x620
HPM2114NEEM	610x610x292	H14	21.1	2000	280	620x310x620
HPM2114NEFM	610x762x292	H14	26.7	2500	280	778x325x626
HPM2114NADM	288x592x292	H14	8.8	900	280	620x310x315
HPM2114NDDM	592x592x292	H14	19.8	1850	280	618x313x618
HPM2110NBBL	305x305x150	E10	2.3	225	125	320x165x320
HPM2110NCCL	457x457x150	E10	8.4	500	125	475x165x475
HPM2110NBEL	305x610x150	E10	4.8	450	125	313x618x166
HPM2110NCEL	457x610x150	E10	7.6	675	125	465x618x166
HPM2110NEEL	610x610x150	E10	10.5	900	125	625x165x625
HPM2110NEFL	610x762x150	E10	13.3	1125	125	628x780x181

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HPM-series continued

E10

E11

H13

H14



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HPM2111NBBL	305x305x150	E11	2.3	225	140	320x165x320
HPM2111NCCL	457x457x150	E11	8.4	500	140	475x165x475
HPM2111NBEL	305x610x150	E11	4.8	450	140	313x618x166
HPM2111NCEL	457x610x150	E11	7.6	675	140	465x618x166
HPM2111NEEL	610x610x150	E11	10.5	900	140	625x165x625
HPM2111NEFL	610x762x150	E11	13.3	1125	140	628x780x181
HPM2113NBBL	305x305x150	H13	2.3	225	250	320x165x320
HPM2113NCCL	457x457x150	H13	8.4	500	250	475x165x475
HPM2113NBEL	305x610x150	H13	4.8	450	250	313x618x166
HPM2113NCEL	457x610x150	H13	7.6	675	250	465x618x166
HPM2113NEEL	610x610x150	H13	10.5	900	250	625x165x625
HPM2113NEFL	610x762x150	H13	13.3	1125	250	628x780x181
HPM2114NBBL	305x305x150	H14	2.3	225	280	320x165x320
HPM2114NCCL	457x457x150	H14	8.4	500	280	475x165x475
HPM2114NBEL	305x610x150	H14	4.8	450	280	313x618x166
HPM2114NCEL	457x610x150	H14	7.6	675	280	465x618x166
HPM2114NEEL	610x610x150	H14	10.5	900	280	628x165x625
HPM2114NEFL	610x762x150	H14	13.3	1125	280	628x780x181

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HVG/HCG-series **E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, asbestos remediation, operating rooms

**Frame:** Galvanized steel

**Spacers:** Hotmelt

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Continuous poured gasket

**Filter class according to EN1822:** E10, E11, H13, H14

**Maximum final pressure drop:** 500Pa

**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

### Advantages

- Low pressure drop
- High airflows
- Filters with the classification H13 & H14 are delivered with a test certificate

### Options

- ATEX and High Temperature

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HVG1110NBBM	305x305x292	E10	9.3	900	125	311x313x311
HVG1110NBEM	305x610x292	E10	18.5	1750	125	620x310x315
HVG1110NCEM	457x610x292	E10	27.8	2250	125	473x310x626
HVG1110NEEM	610x610x292	E10	37.0	3750	125	620x310x620
HVG1110NEFM	610x762x292	E10	46.3	4250	125	778x325x626
HCG1110NBBM	305x305x292	E10	10.1	1000	125	311x313x311
HCG1110NBEM	305x610x292	E10	20.2	2000	125	620x310x315
HCG1110NCEM	457x610x292	E10	30.2	3000	125	473x310x626
HCG1110NEEM	610x610x292	E10	40.3	4000	125	620x310x620
HCG1110NEFM	610x762x292	E10	50.4	5000	125	778x325x626
HVG1110NADM	288x592x292	E10	18.0	1550	125	606x308x301
HVG1110NCDM	457x592x292	E10	27.0	2650	125	496x598x318
HVG1110NDDM	592x592x292	E10	36.0	3200	125	606x308x606
HVG1111NBBM	305x305x292	E11	9.3	900	140	311x313x311
HVG1111NBEM	305x610x292	E11	18.5	1750	140	620x310x315
HVG1111NCEM	457x610x292	E11	27.8	2250	140	473x310x626
HVG1111NEEM	610x610x292	E11	37.0	3750	140	620x310x620
HVG1111NEFM	610x762x292	E11	46.3	4250	140	778x325x626
HCG1111NBBM	305x305x292	E11	10.1	1000	140	311x313x311
HCG1111NBEM	305x610x292	E11	20.2	2000	140	620x310x315
HCG1111NCEM	457x610x292	E11	30.2	3000	140	473x310x626
HCG1111NEEM	610x610x292	E11	40.3	4000	140	620x310x620
HCG1111NEFM	610x762x292	E11	50.4	5000	140	778x325x626
HVG1111NADM	288x592x292	E11	18.0	1550	140	606x308x301
HVG1111NCDM	457x592x292	E11	27.0	2650	140	496x598x318
HVG1111NDDM	592x592x292	E11	36.0	3200	140	606x308x606
HVG1113NBBM	305x305x292	H13	9.3	900	250	311x313x311
HVG1113NBEM	305x610x292	H13	18.5	1750	250	620x310x315
HVG1113NCEM	457x610x292	H13	27.8	2250	250	473x310x626
HVG1113NEEM	610x610x292	H13	37.0	3750	250	620x310x620
HVG1113NEFM	610x762x292	H13	46.3	4250	250	778x325x626
HCG1113NBBM	305x305x292	H13	10.1	1000	250	311x313x311
HCG1113NBEM	305x610x292	H13	20.2	2000	250	620x310x315
HCG1113NCEM	457x610x292	H13	30.2	3000	250	473x310x626
HCG1113NEEM	610x610x292	H13	40.3	4000	250	620x310x620
HCG1113NEFM	610x762x292	H13	50.4	5000	250	778x325x626
HVG1113NADM	288x592x292	H13	18.0	1550	250	626x308x301
HVG1113NCDM	457x592x292	H13	27.0	2650	250	496x598x318

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HVG/HCG-series continued

E10

E11

H13

H14



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HVG1113NDDM	592x592x292	H13	36.0	3200	250	606x308x606
HVG1114NBBM	305x305x292	H14	9.3	900	280	311x313x311
HVG1114NBEM	305x610x292	H14	18.5	1750	280	620x310x315
HVG1114NCEM	457x610x292	H14	27.8	2250	280	473x310x626
HVG1114NEEM	610x610x292	H14	37.0	3750	280	620x310x620
HVG1114NEFM	610x762x292	H14	46.3	4250	280	778x325x626
HCG1114NBBM	305x305x292	H14	10.1	1000	280	311x313x311
HCG1114NBEM	305x610x292	H14	20.2	2000	280	620x310x315
HCG1114NCEM	457x610x292	H14	30.2	3000	280	473x310x626
HCG1114NEEM	610x610x292	H14	40.3	4000	280	620x310x620
HCG1114NEFM	610x762x292	H14	50.4	5000	280	778x325x626
HVG1114NADM	288x592x292	H14	18.0	1550	280	606x308x301
HVG1114NCDM	457x592x292	H14	27.0	2650	280	496x598x318
HVG1114NDDM	592x592x292	H14	36.0	3200	280	606x308x606

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

## HEPA HCS/HVS-series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, asbestos remediation, operating rooms

**Frame:** Stainless steel (RVS)

**Spacers:** Hotmelt

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Continuous poured gasket

**Filter class according to EN1822:** E10, E11, H13, H14

**Maximum final pressure drop:** 500Pa

**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

### Advantages

- Low pressure drop
- High airflows
- Filters with the classification H13 & H14 are delivered with a test certificate

### Options

- High Temperature



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HVS1110NBBM	305x305x292	E10	9.3	900	125	311x313x311
HVS1110NBEM	305x610x292	E10	18.5	1750	125	620x310x315
HVS1110NCEM	457x610x292	E10	27.8	2250	125	463x616x318
HVS1110NEEM	610x610x292	E10	37.0	3750	125	620x310x620
HVS1110NEFM	610x762x292	E10	46.3	4250	125	778x325x626
HCS1110NBBM	305x305x292	E10	10.1	1000	125	311x313x311
HCS1110NBEM	305x610x292	E10	20.2	2000	125	620x310x315
HCS1110NCEM	457x610x292	E10	30.2	3000	125	463x616x318
HCS1110NEEM	610x610x292	E10	40.3	4000	125	620x310x620
HCS1110NEFM	610x762x292	E10	50.4	5000	125	778x325x626
HVS1110NADM	288x592x292	E10	18.0	1550	125	606x308x301
HVS1110NCDM	457x592x292	E10	27.0	2650	125	496x598x318
HVS1110NDDM	592x592x292	E10	36.0	3200	125	606x308x606
HVS1111NBBM	305x305x292	E11	9.3	900	140	311x313x311
HVS1111NBEM	305x610x292	E11	18.5	1750	140	620x310x315
HVS1111NCEM	457x610x292	E11	27.8	2250	140	463x616x318
HVS1111NEEM	610x610x292	E11	37.0	3750	140	620x310x620
HVS1111NEFM	610x762x292	E11	46.3	4250	140	778x325x626
HCS1111NBBM	305x305x292	E11	10.1	1000	140	311x313x311
HCS1111NBEM	305x610x292	E11	20.2	2000	140	620x310x315
HCS1111NCEM	457x610x292	E11	30.2	3000	140	463x616x318
HCS1111NEEM	610x610x292	E11	40.3	4000	140	620x310x620
HCS1111NEFM	610x762x292	E11	50.4	5000	140	778x325x626
HVS1111NADM	288x592x292	E11	18.0	1550	140	606x308x301
HVS1111NCDM	457x592x292	E11	27.0	2650	140	496x598x318
HVS1111NDDM	592x592x292	E11	36.0	3200	140	606x308x606
HVS1113NBBM	305x305x292	H13	9.3	900	250	311x313x311
HVS1113NBEM	305x610x292	H13	18.5	1750	250	620x310x315
HVS1113NCEM	457x610x292	H13	27.8	2250	250	463x616x318
HVS1113NEEM	610x610x292	H13	37.0	3750	250	620x310x620
HVS1113NEFM	610x762x292	H13	46.3	4250	250	778x325x626
HCS1113NBBM	305x305x292	H13	10.1	1000	250	311x313x311
HCS1113NBEM	305x610x292	H13	20.2	2000	250	620x310x315
HCS1113NCEM	457x610x292	H13	30.2	3000	250	463x616x318
HCS1113NEEM	610x610x292	H13	40.3	4000	250	620x310x620
HCS1113NEFM	610x762x292	H13	50.4	5000	250	778x325x626
HVS1113NADM	288x592x292	H13	18.0	1550	250	606x308x301
HVS1113NCDM	457x592x292	H13	27.0	2650	250	496x598x318

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HCS/HVS-series continued

E10 E11 H13 H14



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HVS1113NDDM	592x592x292	H13	36.0	3200	250	606x308x606
HVS1114NBBM	305x305x292	H14	9.3	900	280	311x313x311
HVS1114NBEM	305x610x292	H14	18.5	1750	280	620x310x315
HVS1114NCEM	457x610x292	H14	27.8	2250	280	463x616x318
HVS1114NEEM	610x610x292	H14	37.0	3750	280	620x310x620
HVS1114NEFM	610x762x292	H14	46.3	4250	280	778x325x626
HCS1114NBBM	305x305x292	H14	10.1	1000	280	311x313x311
HCS1114NBEM	305x610x292	H14	20.2	2000	280	620x310x315
HCS1114NCEM	457x610x292	H14	30.2	3000	280	463x616x318
HCS1114NEEM	610x610x292	H14	40.3	4000	280	620x310x620
HCS1114NEFM	610x762x292	H14	50.4	5000	280	778x325x626
HVS1114NADM	288x592x292	H14	18.0	1550	280	606x308x301
HVS1114NCDM	457x592x292	H14	27.0	2650	280	496x598x318
HVS1114NDDM	592x592x292	H14	36.0	3200	280	606x308x606

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HPG-series

E10 E11 H13 H14



### Specifications

**Application:** Cleanrooms, asbestos remediation, operating rooms

**Frame:** Galvanized steel

**Spacers:** Aluminium

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Continuous poured gasket

**Filter class according to EN1822:** E10, E11, H13, H14

**Maximum final pressure drop:** 500Pa

**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

### Advantages

- Robust frame
- Filters with the classification H13 & H14 are delivered with a test certificate



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HPG2110NBEM	305x305x292	E10	6.1	500	125	311x313x311
HPG2110NBEM	305x610x292	E10	12.0	1000	125	620x310x315
HPG2110NCEM	457x610x292	E10	18.1	1500	125	473x310x626
HPG2110NEEM	610x610x292	E10	24.2	2000	125	620x310x620
HPG2110NEFM	610x762x292	E10	30.2	2500	125	778x325x626
HPG2110NADM	288x592x292	E10	11.0	900	125	620x310x315
HPG2110NDDM	592x592x292	E10	22.8	1850	125	606x308x606
HPG2111NBEM	305x305x292	E11	6.1	500	140	311x313x311
HPG2111NBEM	305x610x292	E11	12.0	1000	140	620x310x315
HPG2111NCEM	457x610x292	E11	18.1	1500	140	473x310x626
HPG2111NEEM	610x610x292	E11	24.2	2000	140	620x310x620
HPG2111NEFM	610x762x292	E11	30.2	2500	140	778x325x626
HPG2111NADM	288x592x292	E11	11.0	900	140	620x310x315
HPG2111NDDM	592x592x292	E11	22.8	1850	140	606x308x606
HPG2113NBEM	305x305x292	H13	6.1	500	250	311x313x311
HPG2113NBEM	305x610x292	H13	12.0	1000	250	620x310x315
HPG2113NCEM	457x610x292	H13	18.1	1500	250	473x310x626
HPG2113NEEM	610x610x292	H13	24.2	2000	250	620x310x620
HPG2113NEFM	610x762x292	H13	30.2	2500	250	778x325x626
HPG2113NADM	288x592x292	H13	11.0	900	250	620x310x315
HPG2113NDDM	592x592x292	H13	22.8	1850	250	606x308x606
HPG2114NBEM	305x305x292	H14	6.1	500	280	311x313x311
HPG2114NBEM	305x610x292	H14	12.0	1000	280	620x310x315
HPG2114NCEM	457x610x292	H14	18.1	1500	280	473x310x626
HPG2114NEEM	610x610x292	H14	24.2	2000	280	620x310x620
HPG2114NEFM	610x762x292	H14	30.2	2500	280	778x325x626
HPG2114NADM	288x592x292	H14	11.0	900	280	620x310x315
HPG2114NDDM	592x592x292	H14	22.8	1850	280	606x308x606
HPG2110NBBL	305x305x150	E10	3.0	225	125	320x165x320
HPG2110NCCL	457x457x150	E10	6.7	500	125	475x165x475
HPG2110NBEL	305x610x150	E10	6.0	450	125	313x618x166
HPG2110NCEL	457x610x150	E10	9.0	675	125	465x618x166
HPG2110NEEL	610x610x150	E10	12.0	900	125	625x165x625
HPG2110NEFL	610x762x150	E10	15.0	1125	125	628x780x181
HPG2111NBBL	305x305x150	E11	3.0	225	140	320x165x320
HPG2111NCCL	457x457x150	E11	6.7	500	140	475x165x475
HPG2111NBEL	305x610x150	E11	6.0	450	140	313x618x166
HPG2111NCEL	457x610x150	E11	9.0	675	140	465x618x166

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

# HEPA filters

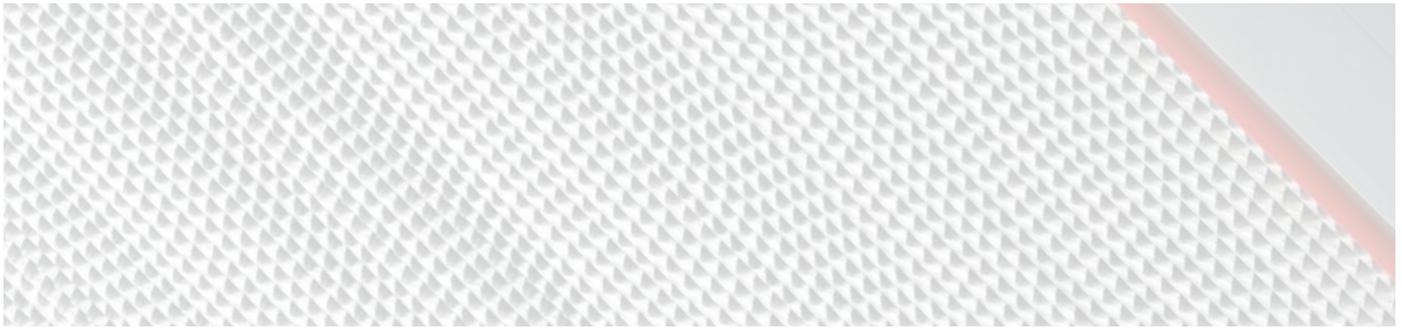
## HEPA HPG-series continued

E10

E11

H13

H14



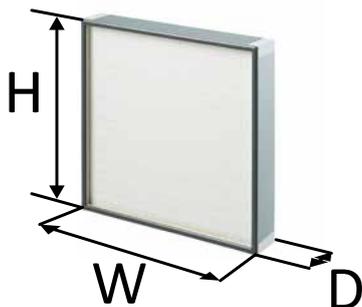
Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HPG2111NEEL	610x610x150	E11	12.0	900	140	625x165x625
HPG2111NEFL	610x762x150	E11	15.0	1125	140	628x780x181
HPG2113NBBL	305x305x150	H13	3.0	225	250	320x165x320
HPG2113NCCL	457x457x150	H13	6.7	500	250	475x165x475
HPG2113NBEL	305x610x150	H13	6.0	450	250	313x618x166
HPG2113NCEL	457x610x150	H13	9.0	675	250	465x618x166
HPG2113NEEL	610x610x150	H13	12.0	900	250	625x165x625
HPG2113NEFL	610x762x150	H13	15.0	1125	250	628x780x181
HPG2114NBBL	305x305x150	H14	3.0	225	280	320x165x320
HPG2114NCCL	457x457x150	H14	6.7	500	280	475x165x475
HPG2114NBEL	305x610x150	H14	6.0	450	280	313x618x166
HPG2114NCEL	457x610x150	H14	9.0	675	280	465x618x166
HPG2114NEEL	610x610x150	H14	12.0	900	280	625x165x625
HPG2114NEFL	610x762x150	H14	15.0	1125	280	628x780x181

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# Laminar HEPA filters

## Explanation product numbers HLA

HLA	1	1	10	D	B	B	E
	1	2	3	4	5	6	7



## Laminar flow HEPA filters

Numbers correspond with numbers in the product number.

### 1 Type

**HLA Aluminium frame**

**HLM MDF frame**

### 2 Spacer

**1 Hotmelt**

### 3 Gasket

0 No gasket

**1 Foamed polyurethane on one side**

2 Foamed polyurethane on both sides

3 Flat neoprene gasket on one side

4 Flat neoprene gasket on both sides

5 Blade assembly for mounting in gelseal (available in frame thickness J, other thicknesses on request)

6 Gelseal (available in frame thickness H, other thicknesses on request)

9 Flat gasket on the outside of the frame

### 4 Filter class

**10 E10**

11 E11

13 H13

14 H14

### 5 Grid

N No grid

S Single aluminum grid

**D Double aluminum grid**

### 6 Height (mm)

A 288

**B 305**

C 457

D 592

E 610

F 762

G 915 not available for MDF

H 1220 not available for MDF

I 1524 not available for MDF

J 1830 not available for MDF

K 380

L 210

M 490

N 402

Other sizes on request

### 7 Width (mm)

A 288

**B 305**

C 457

D 592

E 610

F 762

G 915 not available for MDF

H 1220 not available for MDF

I 1524 not available for MDF

J 1830 not available for MDF

K 380

L 210

M 490

N 402

Other sizes on request

### 8 Depth (mm)

**E 68 mm, available for aluminium and MDF**

G 80 mm, available for aluminium and MDF

H 80 mm gelseal, available for aluminium

I 90 mm, available for aluminium and MDF

J 102.5 mm blade assembly, available for aluminium

L 150 mm, available for aluminium and MDF

Q 110 mm, available for aluminium and MDF

Other sizes on request

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

# HEPA filters

## HEPA HLA-E series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Continuous poured gasket  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight construction
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

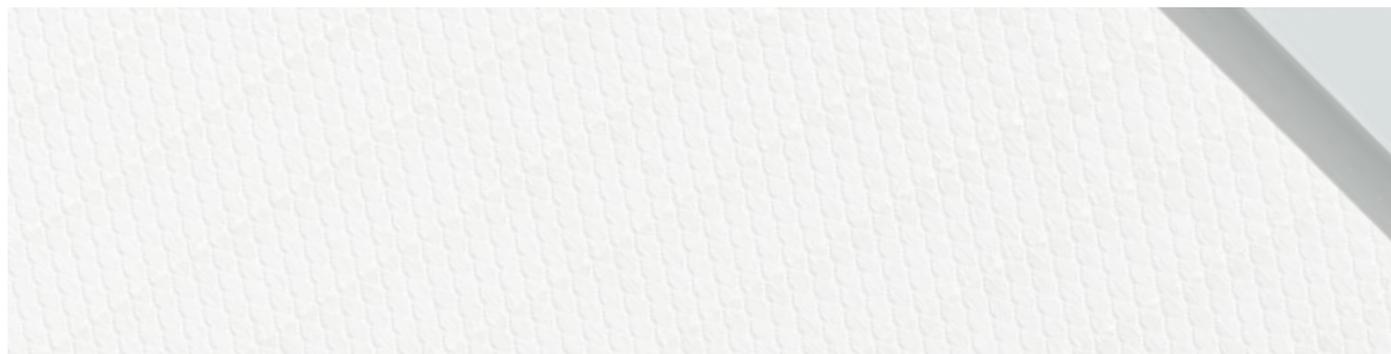
### Options

- High Temperature

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBE	305x305x68	E10	2.8	150	65	311x89x311
HLA1110DCCE	457x457x68	E10	6.2	335	65	463x89x463
HLA1110DBEE	305x610x68	E10	5.5	300	65	616x89x311
HLA1110DCEE	457x610x68	E10	8.3	450	65	473x626x99
HLA1110DCBE	457x305x68	E10	4.2	225	65	473x321x99
HLA1110DEEE	610x610x68	E10	11.1	600	65	616x89x616
HLA1110DEGE	610x915x68	E10	16.6	900	65	616x89x921
HLA1110DEHE	610x1220x68	E10	22.1	1200	65	1226x89x616
HLA1110DEIE	610x1524x68	E10	27.6	1500	65	626x1540x99
HLA1110DEJE	610x1830x68	E10	33.1	1800	65	1836x89x616
HLA1110DFBE	762x305x68	E10	7.0	375	65	778x321x99
HLA1110DFEE	762x610x68	E10	13.9	750	65	778x626x99
HLA1110DFFE	762x762x68	E10	17.3	950	65	778x778x99
HLA1110DFGE	762x915x68	E10	20.7	1125	65	921x89x768
HLA1110DFHE	762x1220x68	E10	27.6	1500	65	778x1236x99
HLA1110DFIE	762x1524x68	E10	34.5	1875	65	778x1540x99
HLA1110DFJE	762x1830x68	E10	41.4	2250	65	1836x89x616
HLA1110DGBE	915x305x68	E10	8.4	450	65	931x321x99
HLA1110DGGE	915x915x68	E10	24.9	1350	65	931x108x931
HLA1110DGHE	915x1220x68	E10	33.2	1800	65	1236x89x931
HLA1110DGIE	915x1524x68	E10	41.4	2250	65	931x1540x99
HLA1110DGJE	915x1830x68	E10	49.7	2700	65	931x1846x99
HLA1111DBBE	305x305x68	E11	2.8	150	80	311x89x311
HLA1111DCCE	457x457x68	E11	6.2	335	80	463x89x463
HLA1111DBEE	305x610x68	E11	5.5	300	80	616x89x311
HLA1111DCEE	457x610x68	E11	8.3	450	80	473x626x99
HLA1111DCBE	457x305x68	E11	4.2	225	80	473x321x99
HLA1111DEEE	610x610x68	E11	11.1	600	80	616x89x616
HLA1111DEGE	610x915x68	E11	16.6	900	80	616x89x92
HLA1111DEHE	610x1220x68	E11	22.1	1200	80	1226x89x616
HLA1111DEIE	610x1524x68	E11	27.6	1500	80	626x1540x99
HLA1111DEJE	610x1830x68	E11	33.1	1800	80	1836x89x616
HLA1111DFBE	762x305x68	E11	7.0	375	80	778x321x99
HLA1111DFEE	762x610x68	E11	13.9	750	80	778x626x99
HLA1111DFFE	762x762x68	E11	17.3	950	80	778x778x99
HLA1111DFGE	762x915x68	E11	20.7	1125	80	921x89x768
HLA1111DFHE	762x1220x68	E11	27.6	1500	80	778x1236x99
HLA1111DFIE	762x1524x68	E11	34.5	1875	80	778x1540x99
HLA1111DFJE	762x1830x68	E11	41.4	2250	80	1836x89x768
HLA1111DGBE	915x305x68	E11	8.4	450	80	931x321x99
HLA1111DGGE	915x915x68	E11	24.9	1350	80	931x108x931
HLA1111DGHE	915x1220x68	E11	33.2	1800	80	1236x89x931
HLA1111DGIE	915x1524x68	E11	41.4	2250	80	931x1540x99
HLA1111DGJE	915x1830x68	E11	49.7	2700	80	931x1846x99
HLA1113DBBE	305x305x68	H13	2.8	150	120	311x89x311

# HEPA filters

## HEPA HLA-E series continued

**E10**
**E11**
**H13**
**H14**


Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCCE	457x457x68	H13	6.2	335	120	463x89x463
HLA1113DBEE	305x610x68	H13	5.5	300	120	616x89x311
HLA1113DCEE	457x610x68	H13	8.3	450	120	473x626x99
HLA1113DCBE	457x305x68	H13	4.2	225	120	473x321x99
HLA1113DEEE	610x610x68	H13	11.1	600	120	616x89x616
HLA1113DEGE	610x915x68	H13	16.6	900	120	616x89x921
HLA1113DEHE	610x1220x68	H13	22.1	1200	120	1226x89x616
HLA1113DEIE	610x1524x68	H13	27.6	1500	120	626x1540x99
HLA1113DEJE	610x1830x68	H13	33.1	1800	120	1836x89x616
HLA1113DFBE	762x305x68	H13	7.0	375	120	778x321x99
HLA1113DFEE	762x610x68	H13	13.9	750	120	778x626x99
HLA1113DFFE	762x762x68	H13	17.3	950	120	778x778x99
HLA1113DFGE	762x915x68	H13	20.7	1125	120	921x89x768
HLA1113DFHE	762x1220x68	H13	27.6	1500	120	778x1236x99
HLA1113DFIE	762x1524x68	H13	34.5	1875	120	778x1540x99
HLA1113DFJE	762x1830x68	H13	41.4	2250	120	1836x89x768
HLA1113DGBE	915x305x68	H13	8.4	450	120	931x321x99
HLA1113DGGE	915x915x68	H13	24.9	1350	120	931x108x931
HLA1113DGHE	915x1220x68	H13	33.2	1800	120	1236x89x931
HLA1113DGIE	915x1524x68	H13	41.4	2250	120	931x1540x99
HLA1113DGJE	915x1830x68	H13	49.7	2700	120	931x1846x99
HLA1114DBBE	305x305x68	H14	2.8	150	140	311x89x311
HLA1114DCCE	457x457x68	H14	6.2	335	140	463x89x463
HLA1114DBEE	305x610x68	H14	5.5	300	140	616x89x311
HLA1114DCEE	457x610x68	H14	8.3	450	140	473x626x99
HLA1114DCBE	457x305x68	H14	4.2	225	140	473x321x99
HLA1114DEEE	610x610x68	H14	11.1	600	140	616x89x616
HLA1114DEGE	610x915x68	H14	16.6	900	140	616x89x921
HLA1114DEHE	610x1220x68	H14	22.1	1200	140	1226x89x616
HLA1114DEIE	610x1524x68	H14	27.6	1500	140	626x1540x99
HLA1114DEJE	610x1830x68	H14	33.1	1800	140	1836x89x616
HLA1114DFBE	762x305x68	H14	7.0	375	140	778x321x99
HLA1114DFEE	762x610x68	H14	13.9	750	140	778x626x99
HLA1114DFFE	762x762x68	H14	17.3	950	140	778x778x99
HLA1114DFGE	762x915x68	H14	20.7	1125	140	921x89x768
HLA1114DFHE	762x1220x68	H14	27.6	1500	140	778x1236x99
HLA1114DFIE	762x1524x68	H14	34.5	1875	140	778x1540x99
HLA1114DFJE	762x1830x68	H14	41.4	2250	140	1836x89x768
HLA1114DGBE	915x305x68	H14	8.4	450	140	931x321x99
HLA1114DGGE	915x915x68	H14	24.9	1350	140	931x108x931
HLA1114DGHE	915x1220x68	H14	33.2	1800	140	1236x89x931
HLA1114DGIE	915x1524x68	H14	41.4	2250	140	931x1540x99
HLA1114DGJE	915x1830x68	H14	49.7	2700	140	931x1846x99

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HLA-G series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Continuous poured gasket  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

- Lightweight construction
- Lower pressure drop than 68 mm implementation
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBG	305x305x80	E10	3.3	150	55	321x103x321
HLA1110DCCG	457x457x80	E10	7.4	335	55	473x103x473
HLA1110DBEG	305x610x80	E10	6.6	300	55	321x103x626
HLA1110DCEG	457x610x80	E10	9.9	450	55	473x626x111
HLA1110DCBG	457x305x80	E10	5.0	225	55	473x321x111
HLA1110DEEG	610x610x80	E10	13.2	600	55	626x103x626
HLA1110DEGG	610x915x80	E10	19.8	900	55	626x103x931
HLA1110DEHG	610x1220x80	E10	26.4	1200	55	620x91x1230
HLA1110DEIG	610x1524x80	E10	32.9	1500	55	626x1540x111
HLA1110DEJG	610x1830x80	E10	39.5	1800	55	626x1846x111
HLA1110DFBG	762x305x80	E10	8.4	375	55	778x321x111
HLA1110DFEG	762x610x80	E10	16.6	750	55	778x626x111
HLA1110DFFG	762x762x80	E10	20.7	950	55	778x778x111
HLA1110DFGG	762x915x80	E10	24.8	1125	55	778x931x111
HLA1110DFHG	762x1220x80	E10	33.0	1500	55	778x1236x111
HLA1110DFIG	762x1524x80	E10	41.2	1875	55	778x1540x111
HLA1110DFJG	762x1830x80	E10	49.4	2250	55	778x1846x111
HLA1110DGBG	915x305x80	E10	10.0	450	55	931x321x111
HLA1110DGGG	915x915x80	E10	29.8	1350	55	931x931x111
HLA1110DGHG	915x1220x80	E10	39.7	1800	55	931x1236x111
HLA1110DGIG	915x1524x80	E10	49.5	2250	55	931x1540x111
HLA1110DGJG	915x1830x80	E10	59.4	2700	55	931x1846x111
HLA1111DBBG	305x305x80	E11	3.3	150	60	321x103x321
HLA1111DCCG	457x457x80	E11	7.4	335	60	473x103x473
HLA1111DBEG	305x610x80	E11	6.6	300	60	321x103x626
HLA1111DCEG	457x610x80	E11	9.9	450	60	473x626x111
HLA1111DCBG	457x305x80	E11	5.0	225	60	473x321x111
HLA1111DEEG	610x610x80	E11	13.2	600	60	626x103x626
HLA1111DEGG	610x915x80	E11	19.8	900	60	626x103x931
HLA1111DEHG	610x1220x80	E11	26.4	1200	60	620x91x1230
HLA1111DEIG	610x1524x80	E11	32.9	1500	60	626x1540x111
HLA1111DEJG	610x1830x80	E11	39.5	1800	60	626x1846x111
HLA1111DFBG	762x305x80	E11	8.4	375	60	778x321x111
HLA1111DFEG	762x610x80	E11	16.6	750	60	778x626x111
HLA1111DFFG	762x762x80	E11	20.7	950	60	778x778x111
HLA1111DFGG	762x915x80	E11	24.8	1125	60	778x931x111
HLA1111DFHG	762x1220x80	E11	33.0	1500	60	778x1236x111
HLA1111DFIG	762x1524x80	E11	41.2	1875	60	778x1540x111
HLA1111DFJG	762x1830x80	E11	49.4	2250	60	778x1846x111
HLA1111DGBG	915x305x80	E11	10.0	450	60	931x321x111
HLA1111DGGG	915x915x80	E11	29.8	1350	60	931x931x111
HLA1111DGHG	915x1220x80	E11	39.7	1800	60	931x1236x111
HLA1111DGIG	915x1524x80	E11	49.5	2250	60	931x1540x111
HLA1111DGJG	915x1830x80	E11	59.4	2700	60	931x1846x111
HLA1113DBBG	305x305x80	H13	3.3	150	90	321x103x321

# HEPA filters

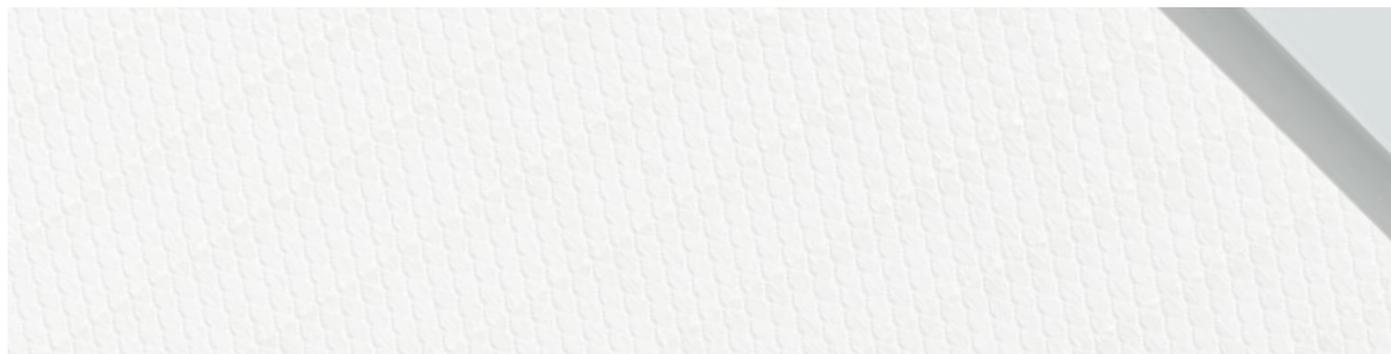
HEPA HLA-G series continued

E10

E11

H13

H14



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCCG	457x457x80	H13	7.4	335	90	473x103x473
HLA1113DBEG	305x610x80	H13	6.6	300	90	321x103x626
HLA1113DCEG	457x610x80	H13	9.9	450	90	473x626x111
HLA1113DCBG	457x305x80	H13	5.0	225	90	473x321x111
HLA1113DEEG	610x610x80	H13	13.2	600	90	626x103x626
HLA1113DEGG	610x915x80	H13	19.8	900	90	626x103x931
HLA1113DEHG	610x1220x80	H13	26.4	1200	90	620x91x1230
HLA1113DEIG	610x1524x80	H13	32.9	1500	90	626x1540x111
HLA1113DEJG	610x1830x80	H13	39.5	1800	90	626x1846x111
HLA1113DFBG	762x305x80	H13	8.4	375	90	778x321x111
HLA1113DFEG	762x610x80	H13	16.6	750	90	778x626x111
HLA1113DFFG	762x762x80	H13	20.7	950	90	778x778x111
HLA1113DFGG	762x915x80	H13	24.8	1125	90	778x931x111
HLA1113DFHG	762x1220x80	H13	33.0	1500	90	778x1236x111
HLA1113DFIG	762x1524x80	H13	41.2	1875	90	778x1540x111
HLA1113DFJG	762x1830x80	H13	49.4	2250	90	778x1846x111
HLA1113DGBG	915x305x80	H13	10.0	450	90	931x321x111
HLA1113DGGG	915x915x80	H13	29.8	1350	90	931x931x111
HLA1113DGHG	915x1220x80	H13	39.7	1800	90	931x1236x111
HLA1113DGIG	915x1524x80	H13	49.5	2250	90	931x1540x111
HLA1113DGJG	915x1830x80	H13	59.4	2700	90	931x1846x111
HLA1114DBBG	305x305x80	H14	3.3	150	100	321x103x321
HLA1114DCCG	457x457x80	H14	7.4	335	100	473x103x473
HLA1114DBEG	305x610x80	H14	6.6	300	100	321x103x626
HLA1114DCEG	457x610x80	H14	9.9	450	100	473x626x111
HLA1114DCBG	457x305x80	H14	5.0	225	100	473x321x111
HLA1114DEEG	610x610x80	H14	13.2	600	100	626x103x626
HLA1114DEGG	610x915x80	H14	19.8	900	100	626x103x931
HLA1114DEHG	610x1220x80	H14	26.4	1200	100	620x91x1230
HLA1114DEIG	610x1524x80	H14	32.9	1500	100	626x1540x111
HLA1114DEJG	610x1830x80	H14	39.5	1800	100	626x1846x111
HLA1114DFBG	762x305x80	H14	8.4	375	100	778x321x111
HLA1114DFEG	762x610x80	H14	16.6	750	100	778x626x111
HLA1114DFFG	762x762x80	H14	20.7	950	100	778x778x111
HLA1114DFGG	762x915x80	H14	24.8	1125	100	778x931x111
HLA1114DFHG	762x1220x80	H14	33.0	1500	100	778x1236x111
HLA1114DFIG	762x1524x80	H14	41.2	1875	100	778x1540x111
HLA1114DFJG	762x1830x80	H14	49.4	2250	100	778x1846x111
HLA1114DGBG	915x305x80	H14	10.0	450	100	931x321x111
HLA1114DGGG	915x915x80	H14	29.8	1350	100	931x931x111
HLA1114DGHG	915x1220x80	H14	39.7	1800	100	931x1236x111
HLA1114DGIG	915x1524x80	H14	49.5	2250	100	931x1540x111
HLA1114DGJG	915x1830x80	H14	59.4	2700	100	931x1846x111

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HLA-I series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Continuous poured gasket  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

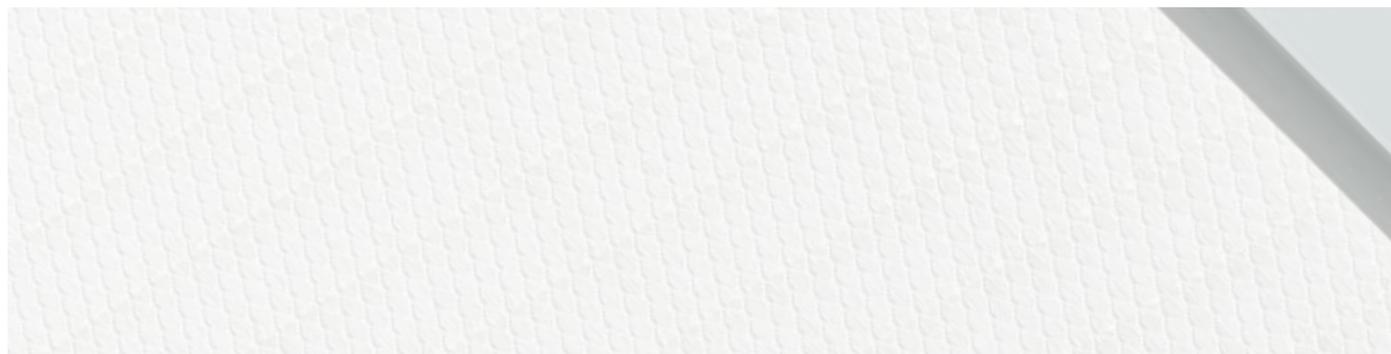
- Lightweight construction
- Lower pressure drop than 68 and 80 mm implementation
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBI	305x305x90	E10	3.5	150	50	321x103x321
HLA1110DCCI	457x457x90	E10	7.8	335	50	473x473x121
HLA1110DBEI	305x610x90	E10	6.9	300	50	321x103x626
HLA1110DCEI	457x610x90	E10	10.3	450	50	473x626x121
HLA1110DCBI	457x305x90	E10	5.2	225	50	473x321x121
HLA1110DEEI	610x610x90	E10	13.8	600	50	626x103x626
HLA1110DEGI	610x915x90	E10	20.7	900	50	626x103x931
HLA1110DEHI	610x1220x90	E10	27.5	1200	50	626x1236x121
HLA1110DEII	610x1524x90	E10	34.3	1500	50	626x1540x121
HLA1110DEJI	610x1830x90	E10	41.2	1800	50	626x1846x121
HLA1110DFBI	762x305x90	E10	8.7	375	50	778x321x121
HLA1110DFEI	762x610x90	E10	17.3	750	50	778x626x121
HLA1110DFFI	762x762x90	E10	21.5	950	50	778x778x121
HLA1110DFGI	762x915x90	E10	25.8	1125	50	778x931x121
HLA1110DFHI	762x1220x90	E10	34.4	1500	50	1236x108x778
HLA1110DFII	762x1524x90	E10	42.9	1875	50	778x1540x121
HLA1110DFJI	762x1830x90	E10	51.5	2250	50	778x1846x121
HLA1110DGBI	915x305x90	E10	10.5	450	50	931x321x121
HLA1110DGGI	915x915x90	E10	31.1	1350	50	931x108x931
HLA1110DGHI	915x1220x90	E10	41.4	1800	50	1236x108x931
HLA1110DGII	915x1524x90	E10	51.6	2250	50	1540x108x931
HLA1110DGJI	915x1830x90	E10	62.0	2700	50	931x1846x121
HLA1111DBBI	305x305x90	E11	3.5	150	55	321x103x321
HLA1111DCCI	457x457x90	E11	7.8	335	55	473x473x121
HLA1111DBEI	305x610x90	E11	6.9	300	55	321x103x626
HLA1111DCEI	457x610x90	E11	10.3	450	55	473x626x121
HLA1111DCBI	457x305x90	E11	5.2	225	55	473x321x121
HLA1111DEEI	610x610x90	E11	13.8	600	55	626x103x626
HLA1111DEGI	610x915x90	E11	20.7	900	55	626x103x931
HLA1111DEHI	610x1220x90	E11	27.5	1200	55	626x1236x121
HLA1111DEII	610x1524x90	E11	34.3	1500	55	626x1540x121
HLA1111DEJI	610x1830x90	E11	41.2	1800	55	626x1846x121
HLA1111DFBI	762x305x90	E11	8.7	375	55	778x321x121
HLA1111DFEI	762x610x90	E11	17.3	750	55	778x626x121
HLA1111DFFI	762x762x90	E11	21.5	950	55	778x778x121
HLA1111DFGI	762x915x90	E11	25.8	1125	55	778x931x121
HLA1111DFHI	762x1220x90	E11	34.4	1500	55	1236x108x778
HLA1111DFII	762x1524x90	E11	42.9	1875	55	778x1540x121
HLA1111DFJI	762x1830x90	E11	51.5	2250	55	778x1846x121
HLA1111DGBI	915x305x90	E11	10.5	450	55	931x321x121
HLA1111DGGI	915x915x90	E11	31.1	1350	55	931x108x931
HLA1111DGHI	915x1220x90	E11	41.4	1800	55	1236x108x931
HLA1111DGII	915x1524x90	E11	51.6	2250	55	1540x108x931
HLA1111DGJI	915x1830x90	E11	62.0	2700	55	931x1846x121
HLA1113DBBI	305x305x90	H13	3.5	150	80	321x103x321

# HEPA filters

## HEPA HLA-I series continued

**E10** **E11** **H13** **H14**



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCCI	457x457x90	H13	7.8	335	80	473x473x121
HLA1113DBEI	305x610x90	H13	6.9	300	80	321x103x626
HLA1113DCEI	457x610x90	H13	10.3	450	80	473x626x121
HLA1113DCBI	457x305x90	H13	5.2	225	80	473x321x121
HLA1113DEEI	610x610x90	H13	13.8	600	80	626x103x626
HLA1113DEGI	610x915x90	H13	20.7	900	80	626x103x931
HLA1113DEHI	610x1220x90	H13	27.5	1200	80	626x1236x121
HLA1113DEII	610x1524x90	H13	34.3	1500	80	626x1540x121
HLA1113DEJI	610x1830x90	H13	41.2	1800	80	626x1846x121
HLA1113DFBI	762x305x90	H13	8.7	375	80	778x321x121
HLA1113DFEI	762x610x90	H13	17.3	750	80	778x626x121
HLA1113DFFI	762x762x90	H13	21.5	950	80	778x778x121
HLA1113DFGI	762x915x90	H13	25.8	1125	80	778x931x121
HLA1113DFHI	762x1220x90	H13	34.4	1500	80	1236x108x778
HLA1113DFII	762x1524x90	H13	42.9	1875	80	778x1540x121
HLA1113DFJI	762x1830x90	H13	51.5	2250	80	778x1846x121
HLA1113DGBI	915x305x90	H13	10.5	450	80	931x321x121
HLA1113DGGI	915x915x90	H13	31.1	1350	80	931x108x931
HLA1113DGHI	915x1220x90	H13	41.4	1800	80	1236x108x931
HLA1113DGII	915x1524x90	H13	51.6	2250	80	1540x108x931
HLA1113DGJI	915x1830x90	H13	62.0	2700	80	931x1846x121
HLA1114DBBI	305x305x90	H14	3.5	150	90	321x103x321
HLA1114DCCI	457x457x90	H14	7.8	335	90	473x473x121
HLA1114DBEI	305x610x90	H14	6.9	300	90	321x103x626
HLA1114DCEI	457x610x90	H14	10.3	450	90	473x626x121
HLA1114DCBI	457x305x90	H14	5.2	225	90	473x321x121
HLA1114DEEI	610x610x90	H14	13.8	600	90	626x103x626
HLA1114DEGI	610x915x90	H14	20.7	900	90	626x103x931
HLA1114DEHI	610x1220x90	H14	27.5	1200	90	626x1236x121
HLA1114DEII	610x1524x90	H14	34.3	1500	90	626x1540x121
HLA1114DEJI	610x1830x90	H14	41.2	1800	90	626x1846x121
HLA1114DFBI	762x305x90	H14	8.7	375	90	778x321x121
HLA1114DFEI	762x610x90	H14	17.3	750	90	778x626x121
HLA1114DFFI	762x762x90	H14	21.5	950	90	778x778x121
HLA1114DFGI	762x915x90	H14	25.8	1125	90	778x931x121
HLA1114DFHI	762x1220x90	H14	34.4	1500	90	1236x108x778
HLA1114DFII	762x1524x90	H14	42.9	1875	90	778x1540x121
HLA1114DFJI	762x1830x90	H14	51.5	2250	90	778x1846x121
HLA1114DGBI	915x305x90	H14	10.5	450	90	931x321x121
HLA1114DGGI	915x915x90	H14	31.1	1350	90	931x108x931
HLA1114DGHI	915x1220x90	H14	41.4	1800	90	1236x108x931
HLA1114DGII	915x1524x90	H14	51.6	2250	90	1540x108x931
HLA1114DGJI	915x1830x90	H14	62.0	2700	90	931x1846x121

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HLA-Q series

E10 E11 H13 H14



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Continuous poured gasket  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

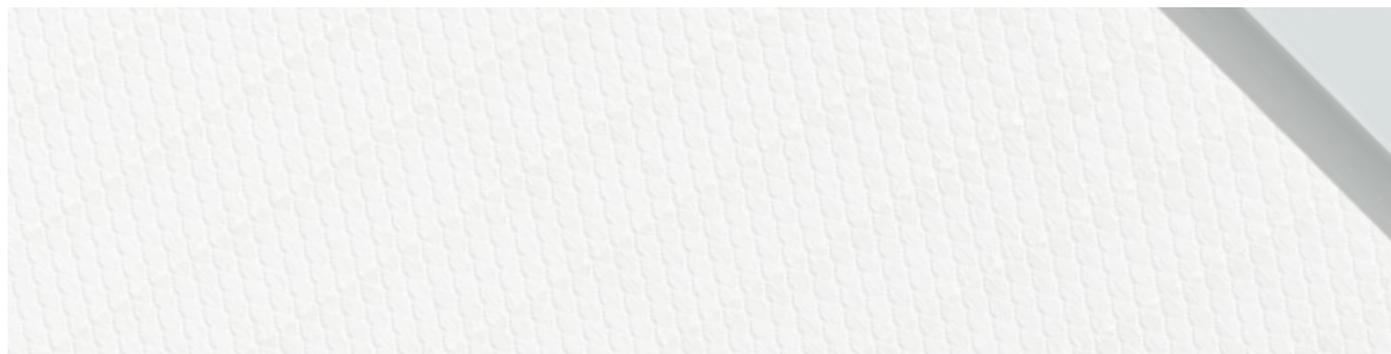
### Advantages

- Lightweight construction
- Lower pressure drop than 68, 80 and 90 mm implementation
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBQ	305x305x110	E10	4.4	150	35	320x165x320
HLA1110DCCQ	457x457x110	E10	9.9	335	35	473x473x141
HLA1110DBEQ	305x610x110	E10	8.8	300	35	320x125x625
HLA1110DCEQ	457x610x110	E10	13.2	450	35	473x626x141
HLA1110DCBQ	457x305x110	E10	6.7	225	35	473x321x141
HLA1110DEEQ	610x610x110	E10	17.7	600	35	616x165x616
HLA1110DEGQ	610x915x110	E10	26.4	900	35	626x931x141
HLA1110DEHQ	610x1220x110	E10	35.2	1200	35	626x1236x141
HLA1110DEIQ	610x1524x110	E10	43.9	1500	35	626x1540x141
HLA1110DEJQ	610x1830x110	E10	52.7	1800	35	626x1846x141
HLA1110DFBQ	762x305x110	E10	11.2	375	35	778x321x141
HLA1110DFEQ	762x610x110	E10	22.1	750	35	778x626x141
HLA1110DFFQ	762x762x110	E10	27.6	950	35	778x778x141
HLA1110DFGQ	762x915x110	E10	33.1	1125	35	778x931x141
HLA1110DFHQ	762x1220x110	E10	44.1	1500	35	778x1236x141
HLA1110DFIQ	762x1524x110	E10	55.0	1875	35	778x1540x141
HLA1110DFJQ	762x1830x110	E10	66.0	2250	35	778x1846x141
HLA1110DGBQ	915x305x110	E10	13.4	450	35	931x321x141
HLA1110DGGQ	915x915x110	E10	39.8	1350	35	931x931x141
HLA1110DGHQ	915x1220x110	E10	53.0	1800	35	931x1236x141
HLA1110DGIQ	915x1524x110	E10	66.1	2250	35	931x1540x141
HLA1110DGJQ	915x1830x110	E10	79.3	2700	35	931x1846x141
HLA1111DBBQ	305x305x110	E11	4.4	150	40	320x165x320
HLA1111DCCQ	457x457x110	E11	9.9	335	40	473x473x141
HLA1111DBEQ	305x610x110	E11	8.8	300	40	320x125x625
HLA1111DCEQ	457x610x110	E11	13.2	450	40	473x626x141
HLA1111DCBQ	457x305x110	E11	6.7	225	40	473x321x141
HLA1111DEEQ	610x610x110	E11	17.7	600	40	616x165x616
HLA1111DEGQ	610x915x110	E11	26.4	900	40	626x931x141
HLA1111DEHQ	610x1220x110	E11	35.2	1200	40	626x1236x141
HLA1111DEIQ	610x1524x110	E11	43.9	1500	40	626x1540x141
HLA1111DEJQ	610x1830x110	E11	52.7	1800	40	626x1846x141
HLA1111DFBQ	762x305x110	E11	11.2	375	40	778x321x141
HLA1111DFEQ	762x610x110	E11	22.1	750	40	778x626x141
HLA1111DFFQ	762x762x110	E11	27.6	950	40	778x778x141
HLA1111DFGQ	762x915x110	E11	33.1	1125	40	778x931x141
HLA1111DFHQ	762x1220x110	E11	44.1	1500	40	778x1236x141
HLA1111DFIQ	762x1524x110	E11	55.0	1875	40	778x1540x141
HLA1111DFJQ	762x1830x110	E11	66.0	2250	40	778x1846x141
HLA1111DGBQ	915x305x110	E11	13.4	450	40	931x321x141
HLA1111DGGQ	915x915x110	E11	39.8	1350	40	931x931x141
HLA1111DGHQ	915x1220x110	E11	53.0	1800	40	931x1236x141
HLA1111DGJQ	915x1524x110	E11	66.1	2250	40	931x1540x141
HLA1111DGJQ	915x1830x110	E11	79.3	2700	40	931x1846x141
HLA1113DBBQ	305x305x110	H13	4.4	150	60	320x165x320

# HEPA filters

## HEPA HLA-Q series continued

**E10**
**E11**
**H13**
**H14**


Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCCQ	457x457x110	H13	9.9	335	60	473x473x141
HLA1113DBEQ	305x610x110	H13	8.8	300	60	320x125x625
HLA1113DCEQ	457x610x110	H13	13.2	450	60	473x626x141
HLA1113DCBQ	457x305x110	H13	6.7	225	60	473x321x141
HLA1113DEEQ	610x610x110	H13	17.7	600	60	616x165x616
HLA1113DEGQ	610x915x110	H13	26.4	900	60	626x931x141
HLA1113DEHQ	610x1220x110	H13	35.2	1200	60	626x1236x141
HLA1113DEIQ	610x1524x110	H13	43.9	1500	60	626x1540x141
HLA1113DEJQ	610x1830x110	H13	52.7	1800	60	626x1846x141
HLA1113DFBQ	762x305x110	H13	11.2	375	60	778x321x141
HLA1113DFEQ	762x610x110	H13	22.1	750	60	778x626x141
HLA1113DFFQ	762x762x110	H13	27.6	950	60	778x778x141
HLA1113DFGQ	762x915x110	H13	33.1	1125	60	778x931x141
HLA1113DFHQ	762x1220x110	H13	44.1	1500	60	778x1236x141
HLA1113DFIQ	762x1524x110	H13	55.0	1875	60	778x1540x141
HLA1113DFJQ	762x1830x110	H13	66.0	2250	60	778x1846x141
HLA1113DGBQ	915x305x110	H13	13.4	450	60	931x321x141
HLA1113DGGQ	915x915x110	H13	39.8	1350	60	931x931x141
HLA1113DGHQ	915x1220x110	H13	53.0	1800	60	931x1236x141
HLA1113DGIQ	915x1524x110	H13	66.1	2250	60	931x1540x141
HLA1113DGJQ	915x1830x110	H13	79.3	2700	60	931x1846x141
HLA1114DBBQ	305x305x110	H14	4.4	150	70	320x165x320
HLA1114DCCQ	457x457x110	H14	9.9	335	70	473x473x141
HLA1114DBEQ	305x610x110	H14	8.8	300	70	320x125x625
HLA1114DCEQ	457x610x110	H14	13.2	450	70	473x626x141
HLA1114DCBQ	457x305x110	H14	6.7	225	70	473x321x141
HLA1114DEEQ	610x610x110	H14	17.7	600	70	616x165x616
HLA1114DEGQ	610x915x110	H14	26.4	900	70	626x931x141
HLA1114DEHQ	610x1220x110	H14	35.2	1200	70	626x1236x141
HLA1114DEIQ	610x1524x110	H14	43.9	1500	70	626x1540x141
HLA1114DEJQ	610x1830x110	H14	52.7	1800	70	626x1846x141
HLA1114DFBQ	762x305x110	H14	11.2	375	70	778x321x141
HLA1114DFEQ	762x610x110	H14	22.1	750	70	778x626x141
HLA1114DFFQ	762x762x110	H14	27.6	950	70	778x778x141
HLA1114DFGQ	762x915x110	H14	33.1	1125	70	778x931x141
HLA1114DFHQ	762x1220x110	H14	44.1	1500	70	778x1236x141
HLA1114DFIQ	762x1524x110	H14	55.0	1875	70	778x1540x141
HLA1114DFJQ	762x1830x110	H14	66.0	2250	70	778x1846x141
HLA1114DGBQ	915x305x110	H14	13.4	450	70	931x321x141
HLA1114DGGQ	915x915x110	H14	39.8	1350	70	931x931x141
HLA1114DGHQ	915x1220x110	H14	53.0	1800	70	931x1236x141
HLA1114DGIQ	915x1524x110	H14	66.1	2250	70	931x1540x141
HLA1114DGJQ	915x1830x110	H14	79.3	2700	70	931x1846x141

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HLA-L series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Continuous poured gasket  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

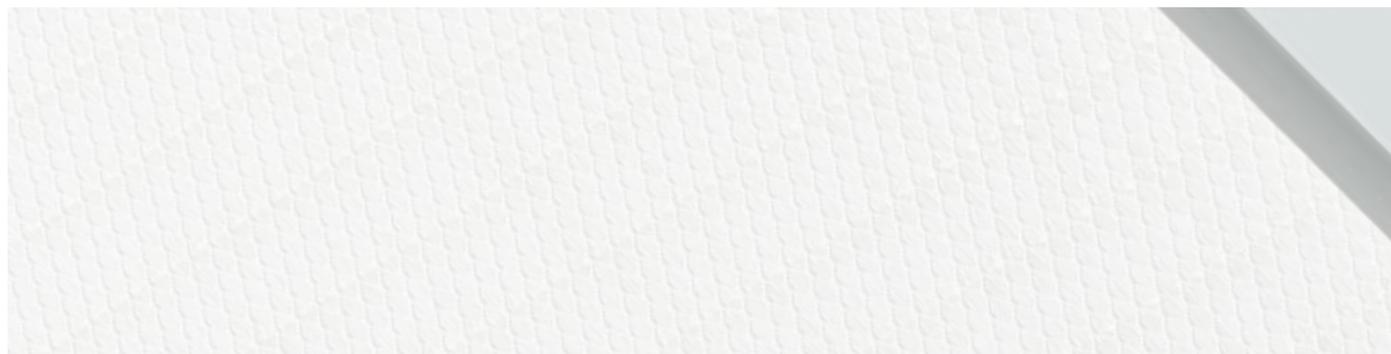
### Advantages

- Lightweight construction
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBL	305x305x150	E10	2.8	150	65	321x321x181
HLA1110DCCL	457x457x150	E10	6.2	335	65	473x473x181
HLA1110DBEL	305x610x150	E10	5.5	300	65	321x626x181
HLA1110DCEL	457x610x150	E10	8.3	450	65	473x626x181
HLA1110DCBL	457x305x150	E10	4.2	225	65	473x321x181
HLA1110DEEL	610x610x150	E10	11.1	600	65	626x626x181
HLA1110DEGL	610x915x150	E10	16.6	900	65	626x931x181
HLA1110DEHL	610x1220x150	E10	22.1	1200	65	626x1236x181
HLA1110DEIL	610x1524x150	E10	27.6	1500	65	626x1540x181
HLA1110DEJL	610x1830x150	E10	33.1	1800	65	626x1846x181
HLA1110DFBL	762x305x150	E10	7.0	375	65	778x321x181
HLA1110DFEL	762x610x150	E10	13.9	750	65	778x626x181
HLA1110DFFL	762x762x150	E10	17.3	950	65	778x778x181
HLA1110DFGL	762x915x150	E10	20.7	1125	65	778x931x181
HLA1110DFHL	762x1220x150	E10	27.6	1500	65	778x1236x181
HLA1110DFIL	762x1524x150	E10	34.5	1875	65	778x1540x181
HLA1110DFJL	762x1830x150	E10	41.4	2250	65	778x1846x181
HLA1110DGBL	915x305x150	E10	8.4	450	65	931x321x181
HLA1110DGGL	915x915x150	E10	24.9	1350	65	931x931x181
HLA1110DGHL	915x1220x150	E10	33.2	1800	65	931x1236x181
HLA1110DGIL	915x1524x150	E10	41.4	2250	65	931x1540x181
HLA1110DGJL	915x1830x150	E10	49.7	2700	65	931x1846x181
HLA1111DBBL	305x305x150	E11	2.8	150	80	321x321x181
HLA1111DCCL	457x457x150	E11	6.2	335	80	473x473x181
HLA1111DBEL	305x610x150	E11	5.5	300	80	321x626x181
HLA1111DCEL	457x610x150	E11	8.3	450	80	473x626x181
HLA1111DCBL	457x305x150	E11	4.2	225	80	473x321x181
HLA1111DEEL	610x610x150	E11	11.1	600	80	626x626x181
HLA1111DEGL	610x915x150	E11	16.6	900	80	626x931x181
HLA1111DEHL	610x1220x150	E11	22.1	1200	80	626x1236x181
HLA1111DEIL	610x1524x150	E11	27.6	1500	80	626x1540x181
HLA1111DEJL	610x1830x150	E11	33.1	1800	80	626x1846x181
HLA1111DFBL	762x305x150	E11	7.0	375	80	778x321x181
HLA1111DFEL	762x610x150	E11	13.9	750	80	778x626x181
HLA1111DFFL	762x762x150	E11	17.3	950	80	778x778x181
HLA1111DFGL	762x915x150	E11	20.7	1125	80	778x931x181
HLA1111DFHL	762x1220x150	E11	27.6	1500	80	778x1236x181
HLA1111DFIL	762x1524x150	E11	34.5	1875	80	778x1540x181
HLA1111DFJL	762x1830x150	E11	41.4	2250	80	778x1846x181
HLA1111DGBL	915x305x150	E11	8.4	450	80	931x321x181
HLA1111DGGL	915x915x150	E11	24.9	1350	80	931x931x181
HLA1111DGHL	915x1220x150	E11	33.2	1800	80	931x1236x181
HLA1111DGIL	915x1524x150	E11	41.4	2250	80	931x1540x181
HLA1111DGJL	915x1830x150	E11	49.7	2700	80	931x1846x181
HLA1113DBBL	305x305x150	H13	2.8	150	120	321x321x181

# HEPA filters

## HEPA HLA-L series continued

**E10**
**E11**
**H13**
**H14**


Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCCL	457x457x150	H13	6.2	335	120	473x473x181
HLA1113DBEL	305x610x150	H13	5.5	300	120	321x626x181
HLA1113DCEL	457x610x150	H13	8.3	450	120	473x626x181
HLA1113DCBL	457x305x150	H13	4.2	225	120	473x321x181
HLA1113DEEL	610x610x150	H13	11.1	600	120	626x626x181
HLA1113DEGL	610x915x150	H13	16.6	900	120	626x931x181
HLA1113DEHL	610x1220x150	H13	22.1	1200	120	626x1236x181
HLA1113DEIL	610x1524x150	H13	27.6	1500	120	626x1540x181
HLA1113DEJL	610x1830x150	H13	33.1	1800	120	626x1846x181
HLA1113DFBL	762x305x150	H13	7.0	375	120	778x321x181
HLA1113DFEL	762x610x150	H13	13.9	750	120	778x626x181
HLA1113DFFL	762x762x150	H13	17.3	950	120	778x778x181
HLA1113DFGL	762x915x150	H13	20.7	1125	120	778x931x181
HLA1113DFHL	762x1220x150	H13	27.6	1500	120	778x1236x181
HLA1113DFIL	762x1524x150	H13	34.5	1875	120	778x1540x181
HLA1113DFJL	762x1830x150	H13	41.4	2250	120	778x1846x181
HLA1113DGBL	915x305x150	H13	8.4	450	120	931x321x181
HLA1113DGGL	915x915x150	H13	24.9	1350	120	931x931x181
HLA1113DGHL	915x1220x150	H13	33.2	1800	120	931x1236x181
HLA1113DGIL	915x1524x150	H13	41.4	2250	120	931x1540x181
HLA1113DGJL	915x1830x150	H13	49.7	2700	120	931x1846x181
HLA1114DBBL	305x305x150	H14	2.8	150	140	321x321x181
HLA1114DCCL	457x457x150	H14	6.2	335	140	473x473x181
HLA1114DBEL	305x610x150	H14	5.5	300	140	321x626x181
HLA1114DCEL	457x610x150	H14	8.3	450	140	473x626x181
HLA1114DCBL	457x305x150	H14	4.2	225	140	473x321x181
HLA1114DEEL	610x610x150	H14	11.1	600	140	626x626x181
HLA1114DEGL	610x915x150	H14	16.6	900	140	626x931x181
HLA1114DEHL	610x1220x150	H14	22.1	1200	140	626x1236x181
HLA1114DEIL	610x1524x150	H14	27.6	1500	140	626x1540x181
HLA1114DEJL	610x1830x150	H14	33.1	1800	140	626x1846x181
HLA1114DFBL	762x305x150	H14	7.0	375	140	778x321x181
HLA1114DFEL	762x610x150	H14	13.9	750	140	778x626x181
HLA1114DFFL	762x762x150	H14	17.3	950	140	778x778x181
HLA1114DFGL	762x915x150	H14	20.7	1125	140	778x931x181
HLA1114DFHL	762x1220x150	H14	27.6	1500	140	778x1236x181
HLA1114DFIL	762x1524x150	H14	34.5	1875	140	778x1540x181
HLA1114DFJL	762x1830x150	H14	41.4	2250	140	778x1846x181
HLA1114DGBL	915x305x150	H14	8.4	450	140	931x321x181
HLA1114DGGL	915x915x150	H14	24.9	1350	140	931x931x181
HLA1114DGHL	915x1220x150	H14	33.2	1800	140	931x1236x181
HLA1114DGIL	915x1524x150	H14	41.4	2250	140	931x1540x181
HLA1114DGJL	915x1830x150	H14	49.7	2700	140	931x1846x181

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HLA-J series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Knife construction for mounting in gelseal  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

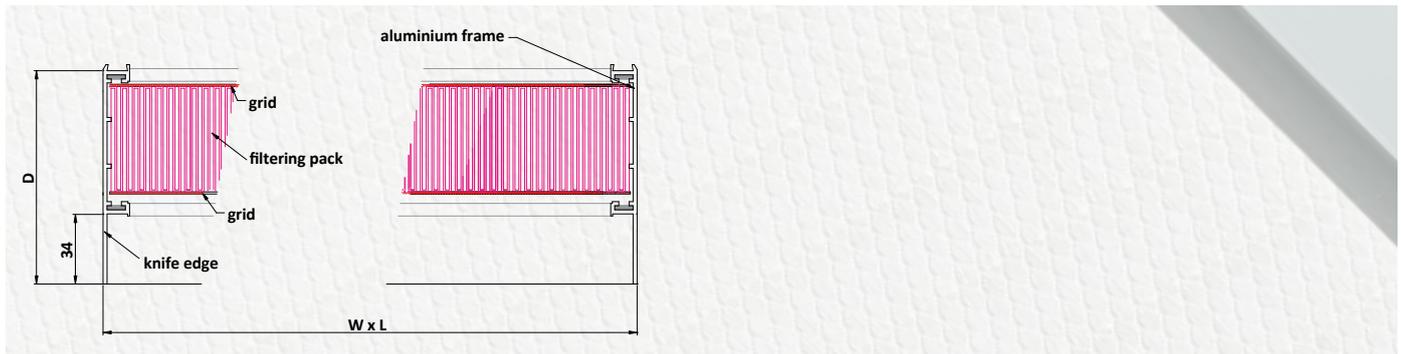
- Lightweight construction
- Excellent seal when mounting with gelseal frame
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1510DBBJ	305x305x102,5	E10	2.8	150	65	321x321x134
HLA1510DCCJ	457x457x102,5	E10	6.2	335	65	473x473x134
HLA1510DBEJ	305x610x102,5	E10	5.5	300	65	321x626x134
HLA1510DCEJ	457x610x102,5	E10	8.3	450	65	473x626x134
HLA1510DCBJ	457x305x102,5	E10	4.2	225	65	473x321x134
HLA1510DEEJ	610x610x102,5	E10	11.1	600	65	626x626x134
HLA1510DEGJ	610x915x102,5	E10	16.6	900	65	626x931x134
HLA1510DEHJ	610x1220x102,5	E10	22.1	1200	65	626x1236x134
HLA1510DEIJ	610x1524x102,5	E10	27.6	1500	65	626x1540x134
HLA1510DEJJ	610x1830x102,5	E10	33.1	1800	65	626x1846x134
HLA1510DFBJ	762x305x102,5	E10	7.0	375	65	778x321x134
HLA1510DFEJ	762x610x102,5	E10	13.9	750	65	778x626x134
HLA1510DFFJ	762x762x102,5	E10	17.3	950	65	778x778x134
HLA1510DFGJ	762x915x102,5	E10	20.7	1125	65	778x931x134
HLA1510DFHJ	762x1220x102,5	E10	27.6	1500	65	778x1236x134
HLA1510DFIJ	762x1524x102,5	E10	34.5	1875	65	778x1540x134
HLA1510DFJJ	762x1830x102,5	E10	41.4	2250	65	778x1846x134
HLA1510DGBJ	915x305x102,5	E10	8.4	450	65	931x321x134
HLA1510DGGJ	915x915x102,5	E10	24.9	1350	65	931x931x134
HLA1510DGHJ	915x1220x102,5	E10	33.2	1800	65	931x1236x134
HLA1510DGIJ	915x1524x102,5	E10	41.4	2250	65	931x1540x134
HLA1510DGJJ	915x1830x102,5	E10	49.7	2700	65	931x1846x134
HLA1511DBBJ	305x305x102,5	E11	2.8	150	80	321x321x134
HLA1511DCCJ	457x457x102,5	E11	6.2	335	80	473x473x134
HLA1511DBEJ	305x610x102,5	E11	5.5	300	80	321x626x134
HLA1511DCEJ	457x610x102,5	E11	8.3	450	80	473x626x134
HLA1511DCBJ	457x305x102,5	E11	4.2	225	80	473x321x134
HLA1511DEEJ	610x610x102,5	E11	11.1	600	80	626x626x134
HLA1511DEGJ	610x915x102,5	E11	16.6	900	80	626x931x134
HLA1511DEHJ	610x1220x102,5	E11	22.1	1200	80	626x1236x134
HLA1511DEIJ	610x1524x102,5	E11	27.6	1500	80	626x1540x134
HLA1511DEJJ	610x1830x102,5	E11	33.1	1800	80	626x1846x134
HLA1511DFBJ	762x305x102,5	E11	7.0	375	80	778x321x134
HLA1511DFEJ	762x610x102,5	E11	13.9	750	80	778x626x134
HLA1511DFFJ	762x762x102,5	E11	17.3	950	80	778x778x134
HLA1511DFGJ	762x915x102,5	E11	20.7	1125	80	778x931x134
HLA1511DFHJ	762x1220x102,5	E11	27.6	1500	80	778x1236x134
HLA1511DFIJ	762x1524x102,5	E11	34.5	1875	80	778x1540x134
HLA1511DFJJ	762x1830x102,5	E11	41.4	2250	80	778x1846x134
HLA1511DGBJ	915x305x102,5	E11	8.4	450	80	931x321x134
HLA1511DGGJ	915x915x102,5	E11	24.9	1350	80	931x931x134
HLA1511DGHJ	915x1220x102,5	E11	33.2	1800	80	931x1236x134
HLA1511DGIJ	915x1524x102,5	E11	41.4	2250	80	931x1540x134
HLA1511DGJJ	915x1830x102,5	E11	49.7	2700	80	931x1846x134
HLA1513DBBJ	305x305x102,5	H13	2.8	150	120	321x321x134

# HEPA filters

## HEPA HLA-J series continued

**E10** **E11** **H13** **H14**



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1513DCCJ	457x457x102,5	H13	6.2	335	120	473x473x134
HLA1513DBEJ	305x610x102,5	H13	5.5	300	120	321x626x134
HLA1513DCEJ	457x610x102,5	H13	8.3	450	120	473x626x134
HLA1513DCBJ	457x305x102,5	H13	4.2	225	120	473x321x134
HLA1513DEEJ	610x610x102,5	H13	11.1	600	120	626x626x134
HLA1513DEGJ	610x915x102,5	H13	16.6	900	120	626x931x134
HLA1513DEHJ	610x1220x102,5	H13	22.1	1200	120	626x1236x134
HLA1513DEIJ	610x1524x102,5	H13	27.6	1500	120	626x1540x134
HLA1513DEJJ	610x1830x102,5	H13	33.1	1800	120	626x1846x134
HLA1513DFBJ	762x305x102,5	H13	7.0	375	120	778x321x134
HLA1513DFEJ	762x610x102,5	H13	13.9	750	120	778x626x134
HLA1513DFEJ	762x762x102,5	H13	17.3	950	120	778x778x134
HLA1513DFGJ	762x915x102,5	H13	20.7	1125	120	778x931x134
HLA1513DFHJ	762x1220x102,5	H13	27.6	1500	120	778x1236x134
HLA1513DFIJ	762x1524x102,5	H13	34.5	1875	120	778x1540x134
HLA1513DFJJ	762x1830x102,5	H13	41.4	2250	120	778x1846x134
HLA1513DGBJ	915x305x102,5	H13	8.4	450	120	931x321x134
HLA1513DGGJ	915x915x102,5	H13	24.9	1350	120	931x931x134
HLA1513DGHJ	915x1220x102,5	H13	33.2	1800	120	931x1236x134
HLA1513DGIJ	915x1524x102,5	H13	41.4	2250	120	931x1540x134
HLA1513DGJJ	915x1830x102,5	H13	49.7	2700	120	931x1846x134
HLA1514DBBJ	305x305x102,5	H14	2.8	150	140	321x321x134
HLA1514DCCJ	457x457x102,5	H14	6.2	335	140	473x473x134
HLA1514DBEJ	305x610x102,5	H14	5.5	300	140	321x626x134
HLA1514DCEJ	457x610x102,5	H14	8.3	450	140	473x626x134
HLA1514DCBJ	457x305x102,5	H14	4.2	225	140	473x321x134
HLA1514DEEJ	610x610x102,5	H14	11.1	600	140	626x626x134
HLA1514DEGJ	610x915x102,5	H14	16.6	900	140	626x931x134
HLA1514DEHJ	610x1220x102,5	H14	22.1	1200	140	626x1236x134
HLA1514DEIJ	610x1524x102,5	H14	27.6	1500	140	626x1540x134
HLA1514DEJJ	610x1830x102,5	H14	33.1	1800	140	626x1846x134
HLA1514DFBJ	762x305x102,5	H14	7.0	375	140	778x321x134
HLA1514DFEJ	762x610x102,5	H14	13.9	750	140	778x626x134
HLA1514DFEJ	762x762x102,5	H14	17.3	950	140	778x778x134
HLA1514DFGJ	762x915x102,5	H14	20.7	1125	140	778x931x134
HLA1514DFHJ	762x1220x102,5	H14	27.6	1500	140	778x1236x134
HLA1514DFIJ	762x1524x102,5	H14	34.5	1875	140	778x1540x134
HLA1514DFJJ	762x1830x102,5	H14	41.4	2250	140	778x1846x134
HLA1514DGBJ	915x305x102,5	H14	8.4	450	140	931x321x134
HLA1514DGGJ	915x915x102,5	H14	24.9	1350	140	931x931x134
HLA1514DGHJ	915x1220x102,5	H14	33.2	1800	140	931x1236x134
HLA1514DGIJ	915x1524x102,5	H14	41.4	2250	140	931x1540x134
HLA1514DGJJ	915x1830x102,5	H14	49.7	2700	140	931x1846x134

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA HLA-H series

**E10** **E11** **H13** **H14**



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Gelseal  
**Filter class according to EN1822:** E10, E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

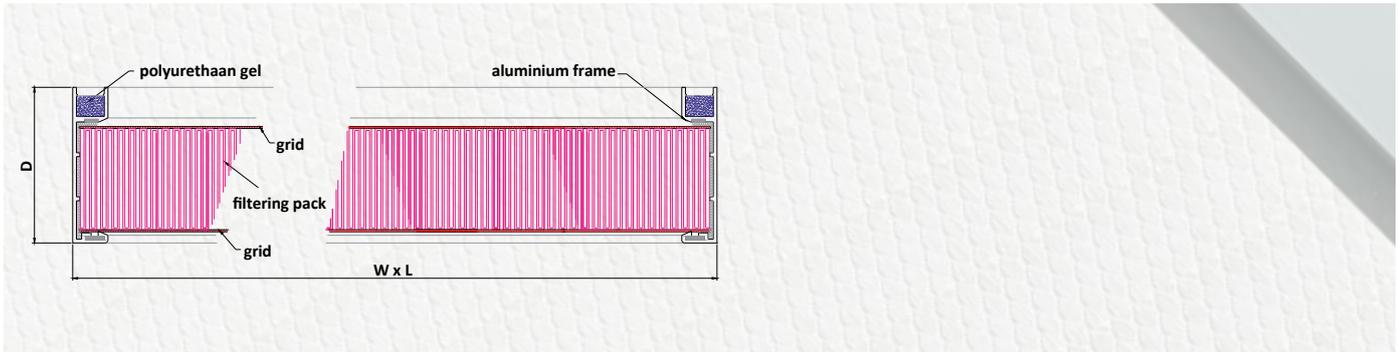
- Lightweight construction
- Excellent seal when mounting with gelseal frame
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13 & H14 are delivered with a test certificate

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1610DBBH	305x305x80	E10	3.3	150	55	321x103x321
HLA1610DCCH	457x457x80	E10	7.4	335	55	473x103x473
HLA1610DBEH	305x610x80	E10	6.6	300	55	321x103x626
HLA1610DCEH	457x610x80	E10	9.9	450	55	473x626x111
HLA1610DCBH	457x305x80	E10	5.0	225	55	473x321x111
HLA1610DEEH	610x610x80	E10	13.2	600	55	626x103x626
HLA1610DEGH	610x915x80	E10	19.8	900	55	626x103x931
HLA1610DEHH	610x1220x80	E10	26.4	1200	55	620x91x1230
HLA1610DEIH	610x1524x80	E10	32.9	1500	55	626x1540x111
HLA1610DEJH	610x1830x80	E10	39.5	1800	55	626x1846x111
HLA1610DFBH	762x305x80	E10	8.4	375	55	778x321x111
HLA1610DFEH	762x610x80	E10	16.6	750	55	778x626x111
HLA1610DFFH	762x762x80	E10	20.7	950	55	778x778x111
HLA1610DFGH	762x915x80	E10	24.8	1125	55	778x931x111
HLA1610DFHH	762x1220x80	E10	33.0	1500	55	778x1236x111
HLA1610DFIH	762x1524x80	E10	41.2	1875	55	778x1540x111
HLA1610DFJH	762x1830x80	E10	49.4	2250	55	778x1846x111
HLA1610DGBH	915x305x80	E10	10.0	450	55	931x321x111
HLA1610DGGH	915x915x80	E10	29.8	1350	55	931x931x111
HLA1610DGHH	915x1220x80	E10	39.7	1800	55	931x1236x111
HLA1610DGIH	915x1524x80	E10	49.5	2250	55	931x1540x111
HLA1610DGJH	915x1830x80	E10	59.4	2700	55	931x1846x111
HLA1611DBBH	305x305x80	E11	3.3	150	60	321x103x321
HLA1611DCCH	457x457x80	E11	7.4	335	60	473x103x473
HLA1611DBEH	305x610x80	E11	6.6	300	60	321x103x626
HLA1611DCEH	457x610x80	E11	9.9	450	60	473x626x111
HLA1611DCBH	457x305x80	E11	5.0	225	60	473x321x111
HLA1611DEEH	610x610x80	E11	13.2	600	60	626x103x626
HLA1611DEGH	610x915x80	E11	19.8	900	60	626x103x931
HLA1611DEHH	610x1220x80	E11	26.4	1200	60	620x91x1230
HLA1611DEIH	610x1524x80	E11	32.9	1500	60	626x1540x111
HLA1611DEJH	610x1830x80	E11	39.5	1800	60	626x1846x111
HLA1611DFBH	762x305x80	E11	8.4	375	60	778x321x111
HLA1611DFEH	762x610x80	E11	16.6	750	60	778x626x111
HLA1611DFFH	762x762x80	E11	20.7	950	60	778x778x111
HLA1611DFGH	762x915x80	E11	24.8	1125	60	778x931x111
HLA1611DFHH	762x1220x80	E11	33.0	1500	60	778x1236x111
HLA1611DFIH	762x1524x80	E11	41.2	1875	60	778x1540x111
HLA1611DFJH	762x1830x80	E11	49.4	2250	60	778x1846x111
HLA1611DGBH	915x305x80	E11	10.0	450	60	931x321x111
HLA1611DGGH	915x915x80	E11	29.8	1350	60	931x931x111
HLA1611DGHH	915x1220x80	E11	39.7	1800	60	931x1236x111
HLA1611DGIH	915x1524x80	E11	49.5	2250	60	931x1540x111
HLA1611DGJH	915x1830x80	E11	59.4	2700	60	931x1846x111
HLA1613DBBH	305x305x80	H13	3.3	150	90	321x103x321

# HEPA filters

## HEPA HLA-H series continued

**E10** **E11** **H13** **H14**



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1613DCCH	457x457x80	H13	7.4	335	90	473x103x473
HLA1613DBEH	305x610x80	H13	6.6	300	90	321x103x626
HLA1613DCEH	457x610x80	H13	9.9	450	90	473x626x111
HLA1613DCBH	457x305x80	H13	5.0	225	90	473x321x111
HLA1613DEEH	610x610x80	H13	13.2	600	90	626x103x626
HLA1613DEGH	610x915x80	H13	19.8	900	90	626x103x931
HLA1613DEHH	610x1220x80	H13	26.4	1200	90	620x91x1230
HLA1613DEIH	610x1524x80	H13	32.9	1500	90	626x1540x111
HLA1613DEJH	610x1830x80	H13	39.5	1800	90	626x1846x111
HLA1613DFBH	762x305x80	H13	8.4	375	90	778x321x111
HLA1613DFEH	762x610x80	H13	16.6	750	90	778x626x111
HLA1613DFFH	762x762x80	H13	20.7	950	90	778x778x111
HLA1613DFGH	762x915x80	H13	24.8	1125	90	778x931x111
HLA1613DFHH	762x1220x80	H13	33.0	1500	90	778x1236x111
HLA1613DFIH	762x1524x80	H13	41.2	1875	90	778x1540x111
HLA1613DFJH	762x1830x80	H13	49.4	2250	90	778x1846x111
HLA1613DGBH	915x305x80	H13	10.0	450	90	931x321x111
HLA1613DGGH	915x915x80	H13	29.8	1350	90	931x931x111
HLA1613DGHH	915x1220x80	H13	39.7	1800	90	931x1236x111
HLA1613DGIH	915x1524x80	H13	49.5	2250	90	931x1540x111
HLA1613DGJH	915x1830x80	H13	59.4	2700	90	931x1846x111
HLA1614DBBH	305x305x80	H14	3.3	150	100	321x103x321
HLA1614DCCH	457x457x80	H14	7.4	335	100	473x103x473
HLA1614DBEH	305x610x80	H14	6.6	300	100	321x103x626
HLA1614DCEH	457x610x80	H14	9.9	450	100	473x626x111
HLA1614DCBH	457x305x80	H14	5.0	225	100	473x321x111
HLA1614DEEH	610x610x80	H14	13.2	600	100	626x103x626
HLA1614DEGH	610x915x80	H14	19.8	900	100	626x103x931
HLA1614DEHH	610x1220x80	H14	26.4	1200	100	620x91x1230
HLA1614DEIH	610x1524x80	H14	32.9	1500	100	626x1540x111
HLA1614DEJH	610x1830x80	H14	39.5	1800	100	626x1846x111
HLA1614DFBH	762x305x80	H14	8.4	375	100	778x321x111
HLA1614DFEH	762x610x80	H14	16.6	750	100	778x626x111
HLA1614DFFH	762x762x80	H14	20.7	950	100	778x778x111
HLA1614DFGH	762x915x80	H14	24.8	1125	100	778x931x111
HLA1614DFHH	762x1220x80	H14	33.0	1500	100	778x1236x111
HLA1614DFIH	762x1524x80	H14	41.2	1875	100	778x1540x111
HLA1614DFJH	762x1830x80	H14	49.4	2250	100	778x1846x111
HLA1614DGBH	915x305x80	H14	10.0	450	100	931x321x111
HLA1614DGGH	915x915x80	H14	29.8	1350	100	931x931x111
HLA1614DGHH	915x1220x80	H14	39.7	1800	100	931x1236x111
HLA1614DGIH	915x1524x80	H14	49.5	2250	100	931x1540x111
HLA1614DGJH	915x1830x80	H14	59.4	2700	100	931x1846x111

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

# HEPA filters

## HEPA Hood Filter

E11

H13

H14



### Specifications

**Application:** Cleanrooms, operating rooms  
**Frame:** Extruded aluminium  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Continuous poured gasket  
**Filter class according to EN1822:** E11, H13, H14  
**Maximum final pressure drop:** 500Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

### Advantages

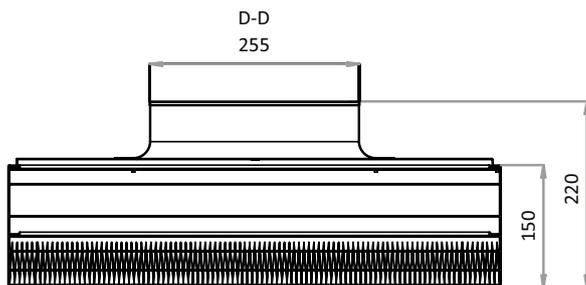
- Lightweight construction
- Filters with the classification H13 & H14 are delivered with a test certificate



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m <sup>2</sup> )	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	Dimensions box (mm)
HLH1111SBEL	305x610x150	E11	5.5	300	70	321x626x183
HLH1111SEEL	610x610x150	E11	11.1	600	70	626x626x183
HLH1111SEGL	610x915x150	E11	16.6	900	70	626x931x183
HLH1111SEHL	610x1220x150	E11	22.1	1200	70	626x1236x183
HLH1111S300600L	300x600x150	E11	5.4	300	70	316x616x183
HLH1111S600600L	600x600x150	E11	10.7	600	70	616x616x183
HLH1111S905600L	905x600x150	E11	16.2	900	70	921x616x183
HLH1111S1210600L	1210x600x150	E11	22.1	1200	70	1226x616x183
HLH1111S1195595L	1195x595x150	E11	21.3	1100	70	1211x616x183
HLH1113SBEL	305x610x150	H13	5.5	300	110	321x626x183
HLH1113SEEL	610x610x150	H13	11.1	600	110	626x626x183
HLH1113SEGL	610x915x150	H13	16.7	900	110	626x931x183
HLH1113SEHL	610x1220x150	H13	22.3	1200	110	626x1236x183
HLH1113S300600L	300x600x150	H13	5.3	300	110	316x616x183
HLH1113S600600L	600x600x150	H13	10.7	600	110	616x616x183
HLH1113S905600L	905x600x150	H13	16.2	900	110	921x616x183
HLH1113S1210600L	1210x600x150	H13	21.7	1200	110	1226x616x183
HLH1113S1195595L	1195x595x150	H13	21.3	1100	110	1211x616x183
HLH1114SBEL	305x610x150	H14	5.5	300	120	321x626x183
HLH1114SEEL	610x610x150	H14	11.1	600	120	626x626x183
HLH1114SEGL	610x915x150	H14	16.7	900	120	626x931x183
HLH1114SEHL	610x1220x150	H14	22.3	1200	120	626x1236x183
HLH1114S300600L	300x600x150	H14	5.3	300	120	316x616x183
HLH1114S600600L	600x600x150	H14	10.7	600	120	616x616x183
HLH1114S905600L	905x600x150	H14	16.2	900	120	921x616x183
HLH1114S1210600L	1210x600x150	H14	21.7	1200	120	1226x616x183
HLH1114S1195595L	1195x595x150	H14	21.3	1100	120	1211x616x183

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.

Including plenum the height is 220 mm



# HEPA filters

## HEPA Hood Filter



### Specifications

**Application:** Cleanrooms, operating rooms

**Frame:** Stainless, powder coated steel

**Gasket:** Optionally sprayed

**Connection:** Round 160, 250 and 315 (mm)

**Location connection:** Side or top

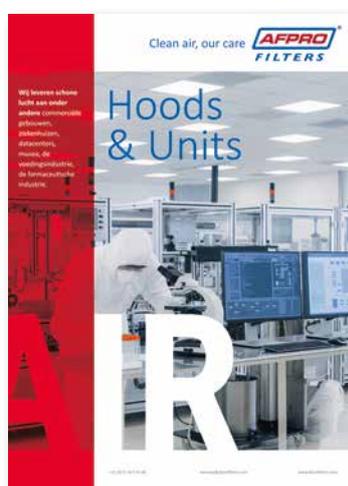
**Diffuser:** Perforated, swirl, 4 directions

### Advantages

- Sustainable construction through multiple use assembly
- Easy installation via bottom
- Possibilities for assembly
- Different filters

Type	Dimensions Hood WxHxD (mm)	Dimensions Grid including flange WxH (mm)	Dimensions Filter HLA-series WxH (mm)	Hight Filter (mm)	Airflow (m <sup>3</sup> /h)	Position of connection	Connection Ø (mm)
HL-HD/EE-S	650x650x565	722x722	610x610	68-124	600	Side	250
HL-HD/EG-S	650x955x565	722x1027	610x915	68-124	900	Side	315
HL-HD/EH-S	650x1260x565	722x1332	610x1220	68-124	1200	Side	315
HL-HD/EE-S/SS	650x650x565	722x722	610x610	68-124	600	Side	250
HL-HD/EG-S/SS	650x955x565	722x1027	610x915	68-124	900	Side	315
HL-HD/EH-S/SS	650x1260x565	722x1332	610x1220	68-124	1200	Side	315
HL-HD/EE-T	650x650x300	722x722	610x610	68-124	600	Top	250
HL-HD/EG-T	650x955x300	722x1027	610x915	68-124	900	Top	315
HL-HD/EH-T	650x1260x300	722x1332	610x1220	68-124	1200	Top	315
HL-HD/EE-T/SS	650x650x300	722x722	610x610	68-124	600	Top	250
HL-HD/EG-T/SS	650x955x300	722x1027	610x915	68-124	900	Top	315
HL-HD/EH-T/SS	650x1260x300	722x1332	610x1220	68-124	1200	Top	315
HL-HD/BE-S	345x650x565	417x722	305x610	68-124	300	Side	160
HL-HD/BB-S	345x345x565	417x417	305x305	68-124	150	Side	160
HL-HD/BE-S/SS	345x650x565	417x722	305x610	68-124	300	Side	160
HL-HD/BB-S/SS	345x345x565	417x417	305x305	68-124	150	Side	160
HL-HD/BE-T	345x650x300	417x722	305x610	68-124	300	Top	160
HL-HD/BB-T	345x345x300	417x417	305x305	68-124	150	Top	160
HL-HD/BE-T/SS	345x650x300	417x722	305x610	68-124	300	Top	160
HL-HD/BB-T/SS	345x345x300	417x417	305x305	68-124	150	Top	160

The HEPA filters are checked for leak proofness at the end of the production process. It is advised to validate the functioning of the air handling unit after installation of the new HEPA filters, because of possible damages during transport or installation.



Would you like to know more about those products? Download the HEPA Hoods and units brochure online via [www.afprofilters.com](http://www.afprofilters.com)

# SUSTAINABILITY



# Active carbon filters

AFPRO Filters carbon filters are used for the filtration of gaseous particles. The use of either loose charcoal or media impregnated with activated carbon is highly efficient for the filtering of gases. Various types of carbon filter are used, depending on the application, contamination and concentration in question.

The filters can be largely split into three fields or application:

- Organic gases
- Acidic gases
- Alkaline gases

Although various types of carbon filter are used, depending on the field of application, it should be noted that all carbon has to be impregnated to guarantee suitable efficiency for both acidic and alkaline gases. Furthermore, the preferred product variant has to be selected based upon the concentration in question. For instance in case of high concentrations of gas, a cylinder containing loose carbon pellets is used as it has a higher adsorption capacity than a pleated filter element.

Selecting the appropriate carbon filter nevertheless remains a complicated process. AFPRO Filters sales staff are pleased to assist you in doing so. Furthermore, AFPRO Filters can test existing filters to establish their remaining adsorption capacity and lifespan. We then advise you on when to replace them.

## Construction

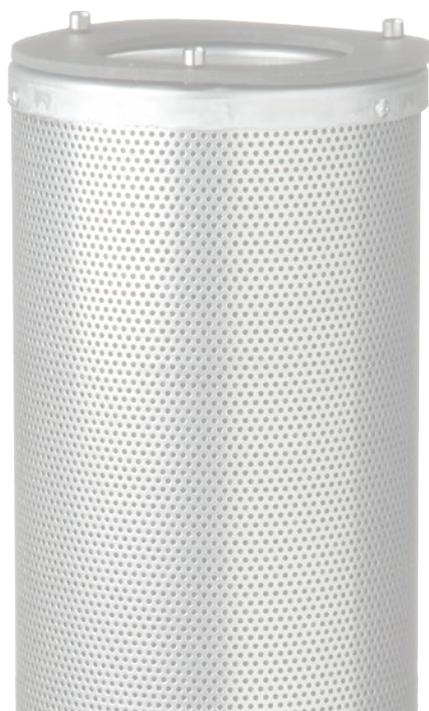
Our activated carbon filters are available in the form of elements which can be filled with loose activated carbon pellets. These filters are a reliable solution and are characterized by their combination of high adsorption capacity and low flow rate. In addition, AFPRO provides an extensive range of filters which comprise a relatively small amount of activated carbon sandwiched between two layers of filter media. The flow rate of these filters is particularly high, while their adsorption capacity is low. In the case of extremely high concentrations of gases, it is advisable to use a stainless steel frame.

## Applications

Activated carbon filters are regularly used in airports, record offices, museums and the semiconductor industry. The filters can be installed in either standard AFPRO holding frames or frames specially designed for the activated carbon cylinders. It is important that separate filters are fitted in front or behind the carbon filters. A pre-filter is required to prevent the activated carbon filter from becoming clogged with dust particles. An after-filter is also required to avoid the possibility of activated carbon particles entering the airflow.

## Installation

- Ensure that no leakage can occur (new gaskets can be supplied together with filters)
- Ensure that the frame and the cabinet in which the new filter is to be fitted are cleaned beforehand
- Activated carbon pellets may be spilled either during installation or throughout the lifespan of the filter; ensure that these are removed before the system is turned on
- Maintain records of the filters installed; note the date, type and initial resistance



# Active carbon filters

## Carbon cylinder



### Specifications

**Application:** Airports, industry, catering

**Frame:** Galvanized steel or stainless steel (RVS)

**Bonding:** -

**Activated carbon:** M-CARB generic activated carbon, specific impregnated carbon used for airports and industrie

**Gasket:** Neopreen

**Maximum final pressure drop:** -

**Maximum temperature:** 40°C

**Maximum relative humidity:** 70%

**Comments:** Possibility to apply impregnated carbon to filter specific gases

### Advantages

- Refillable
- High dust holding capacity
- Straightforward assembly

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)
AC-2-12	Lenght: 250 mm Tickness: 25 mm Galvanized steel	M2-3	3	1.2	85	80	4	300x300x275
AC-2-26	Lenght: 450 mm Tickness: 25 mm Galvanized steel	M2-3	5	2.1	150	80	4	300x300x275
AC-2-26/SS	Lenght: 450 mm Tickness: 25 mm Galvanized steel	M2-3	5	2.1	150	80	4	300x300x275
AC-2-60	Lenght: 600 mm Tickness: 25 mm Galvanized steel	M2-3	6	2.8	205	75	4	300x300x275

### Gasket

Type	Used for cylinders
AC-P-25	AC-2-12 & AC-2-26

This activated carbon filter is designed to adsorb small amounts of gaseous impurities (<100 ppm vol.) At higher concentrations, a risk of spontaneous creation. For instructions on using these filters, refer to enclosed installation and maintenance instructions.

# Active carbon filters

## AC12



### Specifications

**Application:** Museums, archives, industry

**Frame:** Galvanized steel

**Bonding:** -

**Activated carbon:** M-carb generic activated carbon.  
R-CARB/S-CARB specific impregnated carbon used for museums and archives

**Gasket:** Extruded rubber

**Maximum final pressure drop:** -

**Maximum temperature:** 40°C

**Maximum relative humidity:** 70%

### Advantages

- Compact design
- Refillable
- Low pressure drop
- High dust holding capacity

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m <sup>3</sup> /h)	Pressure drop (Pa)	# Filters/ box	Dimensions box (mm)
AC12-4/M-CARB	296x296x292	M-CARB	6	2.9	425	70	1	311x313x311
AC12-4/R-CARB	296x296x292	R-CARB	6	3.9	425	70	1	311x313x311
AC12-4/S-CARB	296x296x292	S-CARB	6	3.9	425	70	1	311x313x311

This activated carbon filter is designed to adsorb small amounts of gaseous impurities (<100 ppm vol.) At higher concentrations, a risk of spontaneous creation. For instructions on using these filters, refer to enclosed installation and maintenance instructions.

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

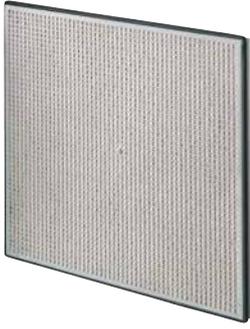
HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

# Active carbon filters

## Activated carbon panel



### Specifications

**Application:** Museums, archives, industry

**Frame:** Galvanized steel

**Bonding:** 2 component polyurethane

**Activated carbon:** M-carb generic activated carbon.

R-CARB/S-CARB specific impregnated carbon used for museums and archives

**Gasket:** Neopreen

**Maximum final pressure drop:** -

**Maximum temperature:** 40°C

**Maximum relative humidity:** 70%

### Advantages

- Robust design
- High dust holding capacity

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m <sup>3</sup> /h)	# Filters/ box	Dimensions box (mm)
AK/605x605x32-MC	605x605x32	M-CARB	12	5.3	500	2	616x616x89
AK/605x605x32-RC	605x605x32	R-CARB	12	7.1	500	2	616x616x89
AK/605x605x32-SC	605x605x32	S-CARB	12	7.8	500	2	616x616x89

This activated carbon filter is designed to adsorb small amounts of gaseous impurities (<100 ppm vol.) At higher concentrations, a risk of spontaneous combustion exists. For instructions on using these filters, refer to enclosed installation and maintenance instructions.

# Active carbon filters additional product

## APAK panel



APAK filter is an activated carbon panel filter assembled in a plastic frame, the media is coated with activated carbon powder. It is used for the filtration of gaseous particles and odors treatment. This filter comply with the ISO 16890 and is available as ISO Coarse 70%.

For further details about the APAK panel filter, contact us.

## AC-VB



AC-VB is an activated carbon assembled in a galvanized steel frame and a rubber gasket on front side. This filter is filled with coal base activated carbon 4mm pallets characterized by their high adsorption capacity. It is used for the filtration of gaseous particles in application such as museum, archives or industry.

For further details about the AC-VB, contact us.





**SAFETY**

# Filter media

AFPRO Filters filter medium is made of high quality fibers, which are progressively built up to create a medium with a high particle interception capacity. In addition to synthetic media AFPRO has an extensive range of glass fiber media for specific applications such as spray-painting booths. These filter media are available both in loose sheets or on large rolls, which can be conveniently cut to size. Depending on the particular application in question, the best suited medium can be chosen from filter classes ISO Coarse 50% to ISO Coarse 80% with various particle interception capacities.

## Advantages filter medium

- High particle interception capacities
- Easy installation
- Readily cut to size

## Construction

Our filter media are supplied either on a roll or in pre-cut sheets.

## Application

- Pre-filters for air treatment systems
- Pre-filters for spray-painting booths

## Installation

- Ensure that the filter medium is fitted correctly (clean filter side - contaminated air side)
- Ensure that the medium is installed in a flat manner
- Filter medium should be properly secured to prevent it from becoming dislodged or possibly leaking during its lifespan
- Filter installation records; note the date, type and initial resistance



# Filter media

## Synthetic medium



### Specifications

**Application:** Prefilters in HVAC and industry

**Material:** Polyester

**Filter class according to ISO 16890:** ISO Coarse

**Maximum final pressure drop:** 250Pa

**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

### Advantages

- High dust holding capacity
- Easily custom fitted

### Options

- Loose sheets, complete rolls, pre-cut media

Type	Dimensions WxH (m)	Filter class ISO 16890	Color	Airflow (m <sup>3</sup> /h/m <sup>2</sup> )	Pressure drop (Pa)	Weight (g/m <sup>2</sup> )	Thickness (mm)	Activated carbon content (g/m <sup>2</sup> )
T15/150	a m <sup>2</sup>	ISO Coarse 50%	White	5400	55	150	11	
T15/150-40x1N	40x1	ISO Coarse 50%	White	5400	55	150	11	
T15/150-40x2N	40x2	ISO Coarse 50%	White	5400	55	150	11	
T15/500	a m <sup>2</sup>	ISO Coarse 70%	White	5400	64	300	20	
T15/500-20x1N	20x1	ISO Coarse 70%	White	5400	64	300	20	
T15/500-20x2N	20x2	ISO Coarse 70%	White	5400	64	300	20	
PST290	a m <sup>2</sup>	ISO Coarse 50%	White	5400	39	200	19	
PST290-20x1N	20x1	ISO Coarse 50%	White	5400	39	200	19	
PST290-20x2N	20x2	ISO Coarse 50%	White	5400	39	200	19	
PST640	a m <sup>2</sup>	ISO Coarse 50%	White/Blue	5400	88	400	50	
PST640-10x1	10x1	ISO Coarse 50%	White/Blue	5400	88	400	50	
PST640-10x2	10x2	ISO Coarse 50%	White/Blue	5400	88	400	50	
F360*	a m <sup>2</sup>	ISO Coarse 80%	White	900	15	306	22	
F360-20x1*	20x1	ISO Coarse 80%	White	900	15	306	22	
F360-20x2*	20x2	ISO Coarse 80%	White	900	15	306	22	
F560G	a m <sup>2</sup>	ISO Coarse 80%	White	900	24	580	22	
F560G-20x1*	20x1	ISO Coarse 80%	White	900	24	580	22	
F560G-20x2*	20x2	ISO Coarse 80%	White	900	24	580	22	
CM3	2.6 mm	-	Gray	0.5 m/s	35	280	2,6	100
CM12	12 mm	-	Gray	0.5 m/s	15	1000	12	500

\*airspeed 0.25m/s

# Filter media

## Glasmedium



### Specifications

**Application:** Spray booth, Prefilters gasturbines

**Materiaal:** Glass fibre

**Filter class according to ISO 16890:** ISO Coarse

**Maximum final pressure drop:** 250Pa

**Maximum temperature:** 80°C

**Maximum relative humidity:** 90%

### Advantages

- High dust holding capacity

### Options

- Loose sheets, complete rolls, pre-cut media

Type	Dimensions WxH (m)	Filter class ISO 16890	Color	Airflow (m <sup>3</sup> /h/m <sup>2</sup> )	Pressure drop (Pa)	Weight (g/m <sup>2</sup> )	Thickness (mm)
PS25x0.5	25x0.5	-	Green/White	0.7	4-12	200	60
PS25x0.6	25x0.6	-	Green/White	0.7	4-12	200	60
PS25x0.7	25x0.7	-	Green/White	0.7	4-12	200	60
PS25x0.8	25x0.8	-	Green/White	0.7	4-12	200	60
PS25x1.0	25x1.0	-	Green/White	0.7	4-12	200	60
PS25x1.2	25x1.2	-	Green/White	0.7	4-12	200	60
PS25x1.5	25x1.5	-	Green/White	0.7	4-12	200	60
PS25x2.0	25x2.0	-	Green/White	0.7	4-12	200	60
M57-20x0.5	20x0.5	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x0.6	20x0.6	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x0.7	20x0.7	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x0.8	20x0.8	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x1.0	20x1.0	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x1.2	20x1.2	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x1.5	20x1.5	ISO Coarse 50%	Yellow/White	2.5	48	280	60
M57-20x2.0	20x2.0	ISO Coarse 50%	Yellow/White	2.5	48	280	60
Andreae -	0.9x11	-					
Andreae - Eco	0.9x11	-					

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

# PROTECTION



# Holding frames

AFPRO Filters holding frames make the correct installation of a filter a simple task. The standard clips provided facilitate the swift and leak-tight installation of filters onto their frames. All bag-filter holding frames comprise an endless spray-on gasket, which renders leakage literally impossible, provided the frame is installed correctly. The special pre-drilled holes make it easy to fit the frames. In the event that a large filter wall is to be constructed, it is advisable to fit additional reinforcing.

In addition to the standard 2" model, there is a 3" model available, which facilitates the installation of a 2" pre-filter and a 1" bag filter in a single frame. This solution is particularly useful in air treatment cabinets which are rather cramped, but nevertheless requires an upgrade to an additional filter.

AFPRO Filters has devised a number of innovative solutions for the swift and convenient installation of filters in HEPA holding frames. As leak-tightness is a crucial requirement in the case of a HEPA filter frame, star nuts can be fitted to ensure a tight fit between the filter and the gasket.

## Advantages

- Easy fitting using clips
- Endless gasket
- Option of fitting several filters in a single frame
- Robust frame
- Swift fitting of frames, thanks to pre-drilled holes

## Construction

The holding frames are made of either galvanized of stainless steel 304 or 316. On request, an epoxy coating can be applied to frames as well. High quality steel is used in the manufacturing of the frames to ensure ample rigidity. Furthermore, the construction design pays consideration to optimum frame stability and easy installation.

## Application

These holding frames are widely used in air treatment cabinets and air inlet systems for equipment such as gas turbines. The frames have standard dimensions and can be used to replace older holding frames which are removed during the renovation of air treatment cabinets.

## Installation

- In the event that several frames are to be fitted next to one another, it is advisable to also fit additional reinforcing
- Once the frames are fitted, sealant should be applied around the edges to prevent any leakage
- The frames should be correctly installed; the clips should be fitted on the contaminated air side



# Holding frames

## HF Bag filters



### Specifications

**Application:** HVAC

**Frame:** Galvanized steel or stainless steel (RVS)

**Gasket:** Continuous poured gasket

**Maximum temperature:** 70°C

**Comments:** When 3 or more frames are mounted together, the frames need to be reinforced

### Advantages

- Very quick and straightforward assembly
- Continuous poured gasket

Type	Dimensions frame WxHxD (mm)	Montage Dimensions filter (mm)			Material	# Frames/Box
Hold.Fr.A/G-2	610x610x70	592x592x25	592x592x48		Galvanized steel	4
Hold.Fr.B/G-2	508x610x70	490x592x25	492x592x48		Galvanized steel	4
Hold.Fr.C/G-2	305x610x70	288x592x25	288x592x48		Galvanized steel	8
Hold.Fr.CC/G-2	305x305x70	288x288x25	288x288x48		Galvanized steel	16
Hold.Fr.A/G-3	610x610x97	592x592x25	592x592x48	592x592x75	Galvanized steel	3
Hold.Fr.B/G-3	508x610x97	490x592x25	492x592x48	490x592x75	Galvanized steel	3
Hold.Fr.C/G-3	305x610x97	288x592x25	288x592x48	288x592x75	Galvanized steel	6
Hold.Fr.CC/G-3	305x305x97	288x288x25	288x288x48	288x288x75	Galvanized steel	12
Hold.Fr.HA/G-2	610x910x70	592x892x25	592x892x48		Galvanized steel	4
Hold.Fr.HB/G-2	508x910x70	490x892x25	490x892x48		Galvanized steel	4
Hold.Fr.HC/G-2	305x910x70	288x892x25	288x892x48		Galvanized steel	8
Hold.Fr.HA/G-3	610x910x97	592x892x25	592x892x48	592x892x75	Galvanized steel	3
Hold.Fr.HB/G-3	508x910x97	490x892x25	490x892x48	490x892x75	Galvanized steel	3
Hold.Fr.HC/G-3	305x910x97	288x892x25	288x892x48	288x892x75	Galvanized steel	6
Hold.Fr.A/RVS-2	610x610x70	592x592x25	592x592x48		Stainless steel	4
Hold.Fr.B/RVS-2	508x610x70	490x592x25	492x592x48		Stainless steel	4
Hold.Fr.C/RVS-2	305x610x70	288x592x25	288x592x48		Stainless steel	8
Hold.Fr.CC/RVS-2	305x305x70	288x288x25	288x288x48		Stainless steel	16
Hold.Fr.A/RVS-3	610x610x97	592x592x25	592x592x48	592x592x75	Stainless steel	3
Hold.Fr.B/RVS-3	508x610x97	490x592x25	492x592x48	490x592x75	Stainless steel	3
Hold.Fr.C/RVS-3	305x610x97	288x592x25	288x592x48	288x592x75	Stainless steel	6
Hold.Fr.CC/RVS-3	305x305x97	288x288x25	288x288x48	288x288x75	Stainless steel	12
Hold.Fr.HA/RVS-2	610x910x70	592x892x25	592x892x48		Stainless steel	4
Hold.Fr.HB/RVS-2	508x910x70	490x892x25	490x892x48		Stainless steel	4
Hold.Fr.HC/RVS-2	305x910x70	288x892x25	288x892x48		Stainless steel	8
Hold.Fr.HA/RVS-3	610x910x97	592x892x25	592x892x48	592x892x75	Stainless steel	3
Hold.Fr.HB/RVS-3	508x910x97	490x892x25	490x892x48	490x892x75	Stainless steel	3
Hold.Fr.HC/RVS-3	305x910x97	288x892x25	288x892x48	288x892x75	Stainless steel	6

# Holding frames

## HF HEPA



### Specifications

**Application:** Cleanrooms, hospitals

**Frame:** Galvanized steel or stainless steel (RVS)

**Gasket:** -

**Maximum temperature:** 70°C

**Comments:** Assembly tools for filters with a depth of 292 mm are included standard. Assembly tools for filters with a depth of 60-150 mm can be delivered on request

### Advantages

- Straightforward assembly
- Good seal between filter and frame by mounting accessories

Type	Dimensions frame WxHxD (mm)	Montage Dimensions filter (mm)	Material	# Frames/Box
HP.HOLD.FR.EE/G	625x625x125	610x610x292	Galvanized steel	1
HP.HOLD.FR.BE/G	320x625x125	305x610x292	Galvanized steel	2
HP.HOLD.FR.DD/G	607x607x125	592x592x292	Galvanized steel	1
HP.HOLD.FR.AD/G	303x607x125	288x592x292	Galvanized steel	2
HP.HOLD.FR.EE/SS	625x625x125	610x610x292	Stainless steel	1
HP.HOLD.FR.BE/SS	320x625x125	305x610x292	Stainless steel	2
HP.HOLD.FR.DD/SS	607x607x125	592x592x292	Stainless steel	1
HP.HOLD.FR.AD/SS	303x607x125	288x592x292	Stainless steel	2

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

# Holding frames

## HF Activated Carbon



### Specifications

**Application:** Airports, industry

**Frame:** Galvanized steel or stainless steel (RVS)

**Gasket:** -

**Maximum temperature:** 70°C

**Comments:** When 3 or more frames are mounted together, the frames need to be reinforced.

### Advantages

- Straightforward assembly



Type	Dimensions WxHxD (mm)	Material	Number of holes	# Frames/Box
AC.H.FR.A	610x610x70	Galvanized steel	16	4
AC.H.FR.B	508x610x70	Galvanized steel	12	4
AC.H.FR.C	305x610x70	Galvanized steel	8	8
AC.H.FR.CC	305x305x70	Galvanized steel	4	16
AC.H.FR.A.SS	610x610x70	Stainless steel	16	4
AC.H.FR.B.SS	508x610x70	Stainless steel	12	4
AC.H.FR.C.SS	305x610x70	Stainless steel	8	8
AC.H.FR.CC.SS	305x305x70	Stainless steel	4	16

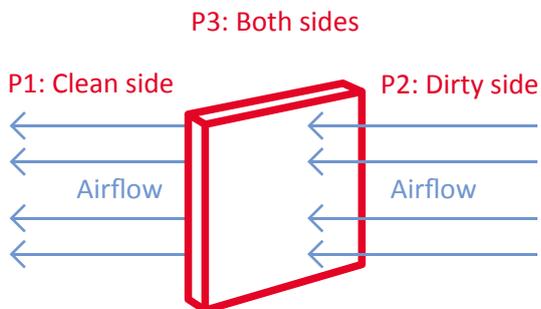
# Possibilities

## V-belt



V-belts are used together with pulleys in an air handling unit. The v-belts are constructed of rubber or polymer.

## Gasket



All filters can be assembled with gasket.

# General terms and conditions

## General Conditions of Afpro Filters B.V. Deposited with the Chamber of Commerce of Alkmaar on 26 June 2007 under number 37053830

### 1 General

- 1.1 In these Conditions "customer" means: every (legal) person who has made or wishes to make a contract with Afpro Filters B.V., and his representative(s), agent(s), legal successor(s) and heirs.
- 1.2 In these Conditions "assignment" means: every assignment for the providing of services and/or making of deliveries which the customer grants to Afpro Filters B.V.
- 1.3 All offers and contracts are exclusively governed by these Conditions. The applicability of general conditions of the customer is explicitly rejected.

### 2 Offers

- 2.1 All offers are without commitment, unless the contrary explicitly ensues therefrom.
- 2.2 All price specifications are made subject to the reservation that price changes may be made. Prices are:
  - based on delivery ex warehouse Afpro Filters B.V.
  - exclusive of VAT, import duties and other taxes, levies and charges
  - exclusive of costs of packing, loading and unloading, transport and insurance
- 2.3 The customer guarantees the accuracy of details, drawings and/or calculations presented by him or on his behalf in the framework of an offer.

### 3 Intellectual property/confidentiality

- 3.1 Afpro Filters B.V. reserves all intellectual property rights relating to details furnished, services provided by and/or goods delivered by Afpro Filters B.V.
- 3.2 The customer undertakes to only use all (technical) details which Afpro Filters B.V. has made available to it, such as schedules, drawings and designs, for his own (internal) use and not to allow third parties to inspect such in any way.
- 3.3 In the event of breach of our intellectual property or breach of Art. 3.2, the customer will forfeit an immediately due penalty of € 20,000 per breach and for each day that the breach continues, without prejudice to the right to full compensation.

### 4 Contract

- 4.1 A contract will first be made after Afpro Filters B.V. has explicitly accepted and confirmed an assignment in writing, or if Afpro Filters B.V. has started execution of the assignment. The assignment confirmation is deemed to accurately and fully represent the contract.
- 4.2 Any later additions, changes, (verbal) agreements and/or commitments are only binding on Afpro Filters B.V. if Afpro Filtertechniek has confirmed such in writing.

- 4.3 Afpro Filters B.V. is entitled to engage third parties in the execution of an assignment, and to pass on the costs to the customer in accordance with the price specification or the cost price.

### 5 Price changes

- 5.1 If within 3 months after granting the assignment the execution thereof has not yet been completed, Afpro Filters B.V. is entitled to charge the customer an increase in the cost-price determining factors accordingly. If this increase is greater than 5%, the customer has the right to dissolve the contract.

### 6 Delivery and delivery / completion term

- 6.1 Unless otherwise agreed delivery will be ex warehouse Afpro Filters B.V.
- 6.2 Delivery of goods will be effected because the goods leave the warehouse of Afpro Filters B.V. or, in the event of delivery by a third party, leave the warehouse of such third party, or if they are otherwise at the disposition of the customer, unless a different delivery time is agreed in writing.
- 6.3 Completion of work executed by or on behalf of Afpro Filters B.V. takes place at the time that the work has been completed or when the customer puts the work into use. Defects or incomplete points of a subordinate nature will not stand in the way of completion.
- 6.4 Time is never of the essence with regard to delivery/completion terms and are approximates. Terms will be reasonably extended if changes occur in the scope of the assignment and/or the circumstances under which the assignment is executed.
- 6.5 Exceeding the delivery/completion term does not give any entitlement to compensation.
- 6.6 If the term for delivery or the day when repaired goods are to be picked up expires and the customer has not accepted or picked up the goods, they will be stored at the customer's risk and expense. If the customer has not picked up the goods three weeks after storage, Afpro Filters B.V. is entitled and has the power to sell and deliver the goods to third parties and to pay itself from the proceeds, without prejudice to other rights under the heading of the assignment.

### 7 Transport and risk

- 7.1 Transport is at the customer's expense and risk. The customer must take out insurance against such risks.
- 7.2 As of the time of delivery as referred to in Art. 6.2 the goods are at the customer's expense, even when goods must be processed or installed subsequently by or on behalf of Afpro Filters B.V.

- 7.3 The customer is liable for all loss resulting from loss or theft of or damage to goods which are used in the execution of an assignment and which are located at the place where the activities are carried out. This is not the case when said goods are used in a workplace of Afpro Filters B.V. or a third party engaged by it.

### 8 Force majeure

- 8.1 Afpro Filters B.V. is not bound to perform any obligation to the customer if it is prevented from doing so as a result of a circumstance which is not due to fault, and is not at its expense either under the law, a legally binding transaction or custom.
- 8.2 In these General Conditions force majeure means, in addition to everything it is understood to mean in the law and jurisprudence, all external causes, foreseen or unforeseen, which are beyond the control of Afpro Filters B.V., but in consequence of which Afpro Filters B.V. is not able to perform its obligations. This in any event includes work strikes in the business of Afpro Filters B.V. or in the business of third parties and non-performance of their obligations by suppliers/customers of Afpro Filters B.V. Afpro Filters B.V. also has the right to claim force majeure if the circumstance which impedes (further) performance of the contract arises after Afpro Filters B.V. should have performed its obligation.
- 8.3 During the period that the force majeure continues Afpro Filters B.V. can suspend the obligations under the contract. If this period lasts longer than two months, each of the parties is entitled to dissolve the contract, without an obligation to compensate loss to the other party.
- 8.4 Insofar as Afpro Filters B.V. has already partly performed its obligations under the contract at the time the force majeure arises or will be able to do so, and the part performance has an independent value, Afpro Filters B.V. is entitled to separately invoice the part already performed or to be performed. The customer is bound to pay this invoice as if it were a separate contract.

### 9 Guarantee

- 9.1 Afpro Filters B.V. guarantees the soundness of goods delivered and work carried out for a period of 6 months after delivery/completion, without prejudice to the provisions of Art. 9 of these General Conditions. A guarantee in respect of goods taken from third parties or work executed by third parties will only be given if and insofar as the relevant third party gives a guarantee in such respect.

- 9.2 No guarantee whatsoever is given with regard to alleged shortcomings in the degree of functionality, as this functionality is greatly determined by circumstances which lie outside of Afpro Filters B.V.'s area of influence.
- 9.3 Defects must be reported to Afpro Filters B.V. in writing within 14 days after they are detected, precisely setting out the nature, scope and (suspected) cause of the defect; failure to do so will result in lapsing of the guarantee.
- 9.4 No guarantee is given in respect of normal wear and tear, when changes or repairs have been made by third parties, the goods are used for purposes other than the normal use and/or when there is (was) faulty maintenance, storage or any other form of inexpert use.
- 9.5 In the event of a guarantee claim Afpro Filters B.V. can, at its own election, replace or repair the item or credit the customer for a proportional part of the invoice.
- 9.6 The existence of a guarantee claim is without prejudice to the customer's (payment) obligations and does not constitute grounds for suspension or dissolution.

**10 Liability**

- 10.1 The liability of Afpro Filters B.V. goes no further than as worded in Art. 9 of these General Conditions. Should Afpro Filters B.V. nevertheless be subject to a further-reaching liability, then such is limited to the amount which is paid out under the insurance taken out by Afpro Filters B.V. in such case, increased by the excess under such insurance. If no (full) cover is provided and/or if no insurance was taken out for the relevant loss, any liability of Afpro Filters B.V. is limited to € 15,000.
- 10.2 Any liability of Afpro Filters B.V. for damage as a result of mistakes of agents is excluded, including cases of intent or gross negligence of such agents.
- 10.3 Afpro Filters B.V. is in no way liable, i.e. including up to the limit mentioned in Art. 9.1, for consequential damage, lost profit and other pure financial loss suffered by the customer and/or third parties.
- 10.4 The customer indemnifies Afpro Filters B.V. against all claims of third parties under the heading of product liability, and furthermore against all claims of third parties which are directly or indirectly connected with work executed/goods delivered by Afpro Filters B.V. in the framework of the execution of the assignment, or the use of goods by the customer or third parties.

**11 Retention of title**

- 11.1 Afpro Filters B.V. remains the owner of all goods it has delivered, up to the time when the customer has performed all obligations under the heading of goods which have been or are to be delivered, work which has been or is to be executed, and with regard to claims relating to default on the performance of such contracts.
- 11.2 The customer is entitled to use or supply the goods in the framework of the normal course of business. Any retention of title which the customer stipulates in respect of the supply of goods supplied by Afpro Filters B.V. will be on behalf of Afpro Filters B.V.
- 11.3 If the retention of title cannot be enforced as a result of change in form, processing or accession, the customer is bound upon first request to provide substitute real security on behalf of Afpro Filters B.V.
- 11.4 If goods which are subject to a retention of title are destroyed or damaged, as of that time Afpro Filters B.V. is entitled to the insurance payout which the customer receives as a result of the destruction or damage. At the time of destruction or damage the customer is bound to immediately inform Afpro Filters B.V. thereof. On the first request of Afpro Filters B.V. the customer is obliged to pledge any insurance payout and compensation claims to Afpro Filters B.V. and to fully cooperate with regard to all formalities required in this respect.

**12 Payment, interest, costs and dissolution**

- 12.1 Payment is to be cash on delivery/completion, or within 30 days after the invoice date by means of deposit on or transfer to a bank or giro account designated by Afpro Filters B.V. Every claim for set-off or suspension is excluded.
- 12.2 As of the time that the customer is in default he will owe interest of 1.5% per month, as well as compensation to cover extrajudicial costs, which are fixed at 15% of the principal with a minimum of € 250. Payments will first be applied to payment of interest and extrajudicial costs.
- 12.3 If the customer loses the (free) disposition of his assets or a petition for such has been presented, Afpro Filters B.V. is entitled to dissolve contracts with immediate effect. The receiver or administrator does not have the power mentioned in Art. 11.2.

**13 Applicable law and choice of forum**

- 13.1 All offers, contracts and the performance thereof are exclusively governed by Dutch law, with the exclusion of the applicability of the Vienna Sales Convention and any other international regulations, the exclusion of which is permitted.
- 13.2 With regard to the interpretation of international trade terms the "Incoterms" as compiled by the International Chamber of Commerce in Paris apply.
- 13.3 Disputes can only be brought before the District Court of Alkmaar, unless Afpro Filters B.V. chooses another court.
- 13.4 This translation has no legal force. The original Dutch text of these General Conditions will be binding and shall prevail in case of any variance between the Dutch text and the English translation.

This work is copyrighted. No part of this publication may be reproduced or published in any manner and in any format without prior permission of the copyright holders.

Modifications and errors excepted.

# RESEARCH





Clean air, our care

#### The Netherlands

##### **AFPRO Filtertechnik B.V.**

Berenkoog 67  
Postbus 482  
1800 AL ALKMAAR  
T +31 (0)72 567 55 00  
verkoop@afprofilters.com

#### Belgium

##### **AFPRO Filters B.V.**

Schaliënhoedreef 20A  
B-2800 MECHELEN  
T +32 (0)15 450 650  
verkoopBE@afprofilters.com  
ventesbe@afprofilters.com

#### Germany

##### **AFPRO Filters GmbH**

Siemensstraße 42  
D-59199 Bönen  
T +49 (0)2383 919 130  
verkauf@afprofilters.com

#### France

##### **AFPRO Filters SAS**

12 B avenue de l'horizon  
59650 Villeneuve d'Ascq  
T +33 (0)971 16 12 50  
ventes@afprofilters.com

##### **AFPRO Filters SAS**

41 rue Camille Desmoulins  
92130 Issy les Moulineaux  
T +33 (0)971 16 12 50  
ventes@afprofilters.com

##### **AFPRO Filters SAS**

330 Allée des Hêtres  
69760 limonest  
T +33 (0)971 16 12 50  
ventes@afprofilters.com

#### Poland

##### **AFPRO Filters Sp. z o.o.**

ul. Przemysłowa 10  
89-500 TUCHOLA  
T +48 (0)52 584 89 99  
sprzedaz@afprofilters.com

##### **AFPRO Filters Poland Sp. z o.o.**

ul. Grójecka 208  
02-390 Warszawa  
T +48 (0)52 584 89 99  
sprzedaz@afprofilters.com

##### **AFPRO Filters Sp. z o.o.**

ul. Fordońska 2  
85-087 Bydgoszcz  
T +48 (0)52 584 89 99  
sprzedaz@afprofilters.com

#### Finland

##### **AFPRO Filters Oy**

Tuotekatu 8  
15700 LAHTI  
T +358 (0)3 717 0005  
myynti@afprofilters.com

#### Switzerland

##### **AFPRO Filters Sarl.**

Chemin Jean Baptiste Vandelle 3A  
Lakeside Geneva Building  
2ème étage  
CH-1290 Versoix  
ventessuisse@afprofilters.com

#### Australia

##### **AFPRO Filters Australia Pty Ltd.**

48 North View Drive  
Sunshine West  
VIC 3020 MELBOURNE  
T +61 (0)3 9312 4058  
sales@afprofilters.com.au

#### China

##### **AFPRO Filters EAF**

East of University Road  
253034 DEZHOU CITY  
T +86 (0)5 345 011 995  
sales@afprofilters.com



www.afprofilters.com