

Clean air, our care



The future
needs clean air

Product Catalogue



We deliver clean air in
every indoor environment:

Schools
Universities
Hospitals
Laboratories
Hotels
Airports
Data Centers
Museums

SAVE ENERGY AND MONEY
WITH AFPRO FILTERS

FOR THE CLEANEST AIR
INSIDE

ISO 16890
STANDARD

2021



CARE

AFPRO Filters

The future needs clean air

2020 has made the world aware of the importance of Clean Air. At AFPRO Filters we work hard to make clean air available for all of us, now and in the future. At the beginning of 2020 we equipped the emergency hospitals in Wuhan with high performance filters. A few months later, we started the production of FFP2 face masks in the Netherlands. AFPRO Filters are proud to have been able to contribute to the protection of health workers in the frontline of the global pandemic. Being focused on the future, we are thrilled to announce many great product improvements in this 2021 catalog.

The importance of clean indoor air

The importance of clean indoor air remains top of mind. At home, at work, at school; we spend about 20 hours a day indoors. To ensure, the air we breathe, is of the best quality, AFPRO Filters has been conducting research into air filtration for more than 40 years. Clean air makes us more energetic, more productive, and able to concentrate better. If you breathe healthy air, you sleep better and get less sick. That is why we do it.

Together we make the world a healthier place

At AFPRO Filters we believe that everyone has the right to clean air. We are continuously developing innovative products in order to offer even better protection against infectious diseases and fine dust and to achieve even greater savings in energy consumption. Together we make the world a little healthier every day!

Karel Bosschieter

CEO

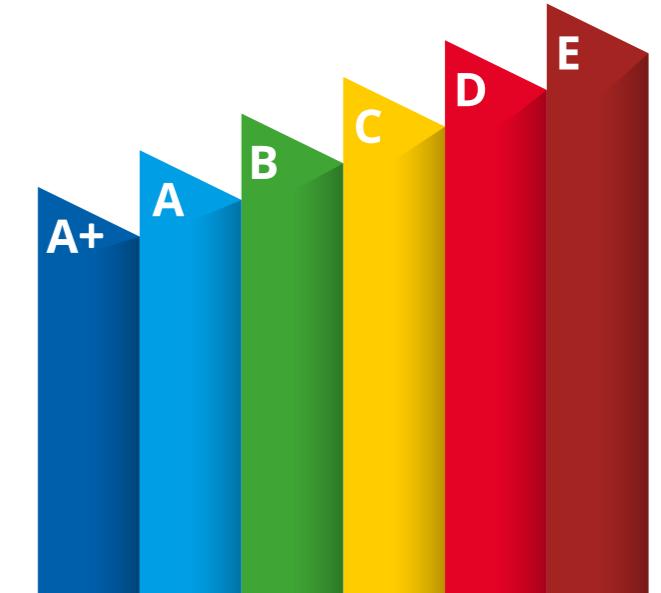




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Why choose AFPRO Filters?

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 breath 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 40 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 in the Netherlands. 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.

Gaseous particles

Absorption 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 109.

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.

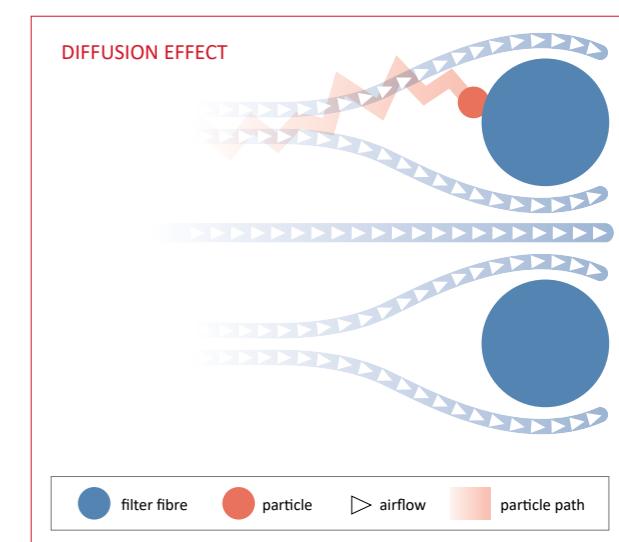
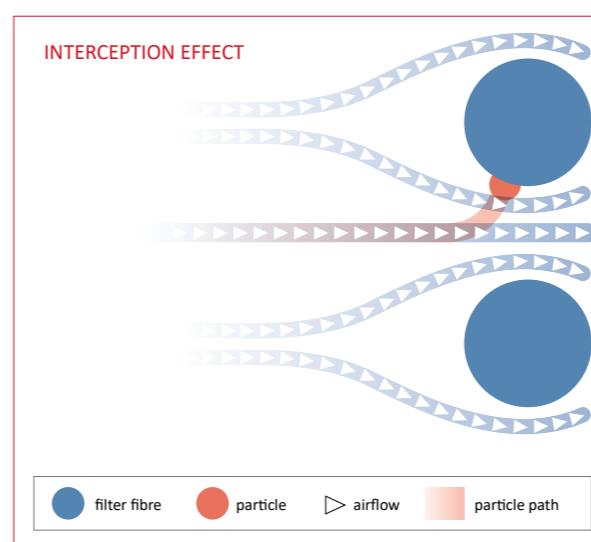
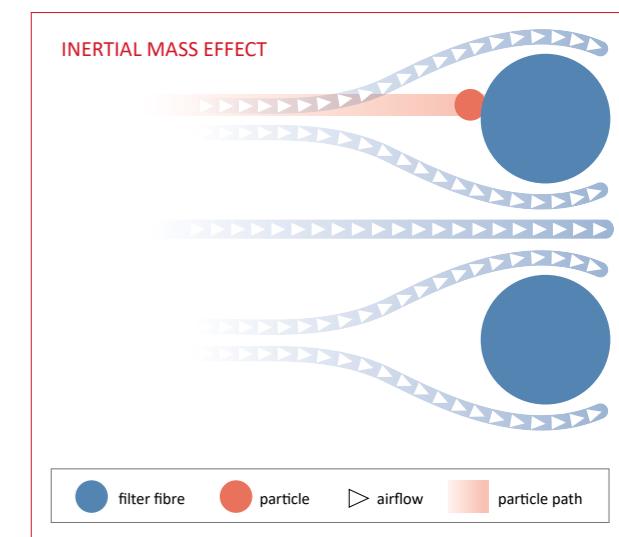
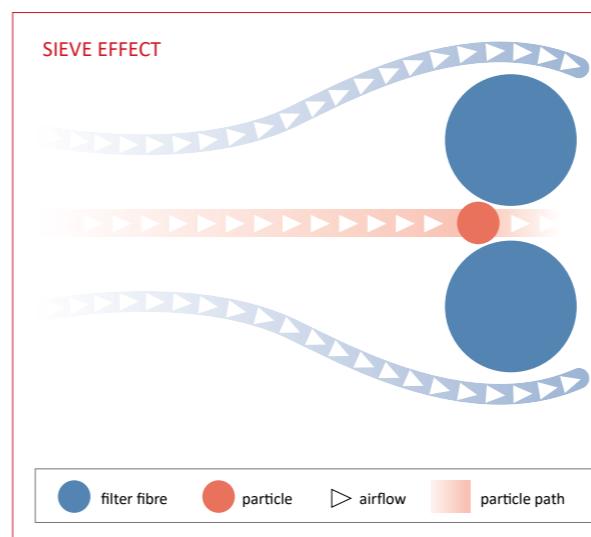
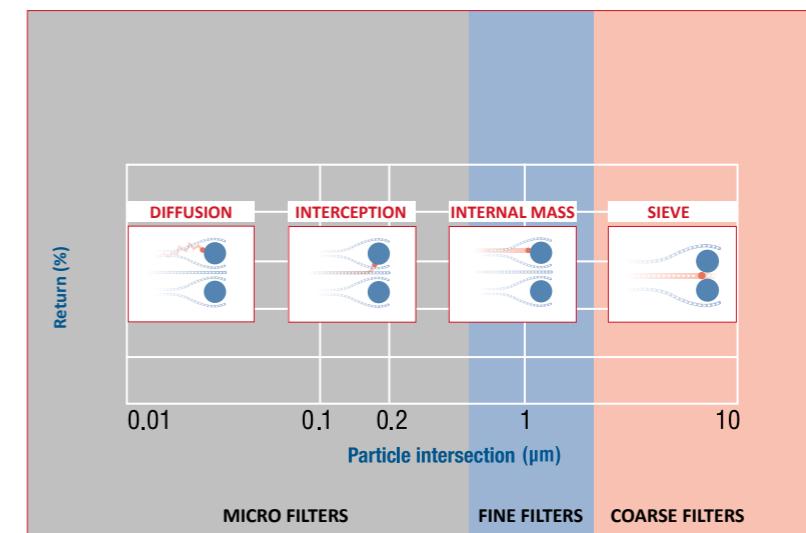
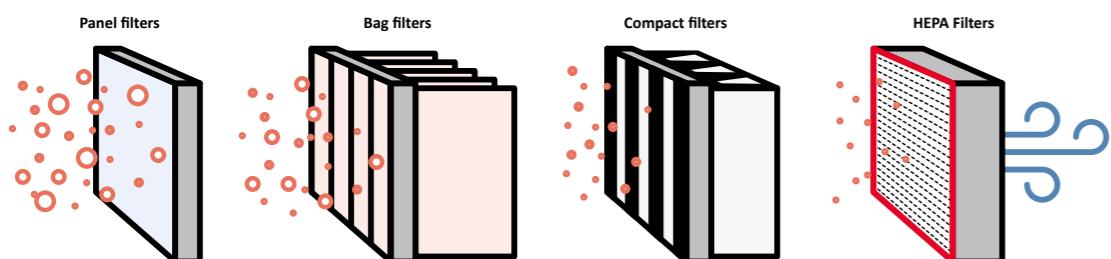
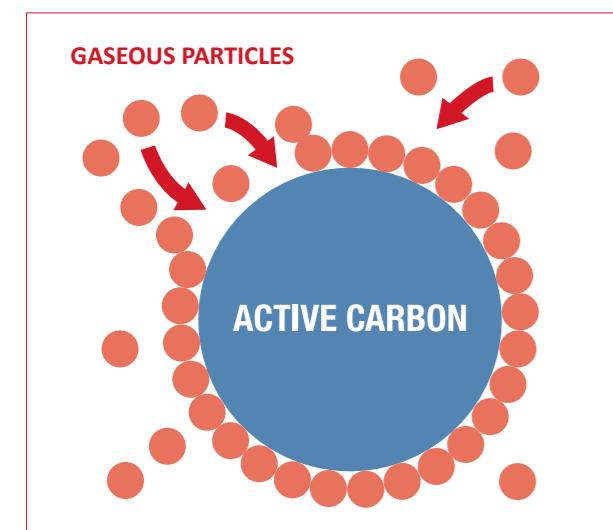
The interception effect

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.
- EN1822:2019 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 11.

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 EN1822:2019 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.

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.

Comparison Summary filter test classification

Fine Filters				
Norms	ISO 16890			
Filter Class	ISO coarse	ePM10	ePM2.5	ePM1
Efficiency	< 50%	ISO ePM10 \geq 50%	ISO ePM2.5 \geq 50%	ISO ePM1 \geq 50%
Test method: Efficiency measurements carried out with particles from 0.3 to 10 μm The classifications relate to the result for PM1, PM2.5, PM10 Unload method: Unload the entire filter using IPA value				

HEPA Filters								
Norms	EN1822							
Filter Class	E10	E11	E12	E13	H14	H15	U16	U17
Efficiency*	85	95	99.5	99.95	99.995	99.9995	99.99995	99.999995
The test includes: determining the MPPS value on the flat media the local filter efficiency at this MPPS (Leak measurement) the overall efficiency of the MPPS filter These checks must be carried out on 100% of the filters from H13 and an individual report must accompany the filters.								

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.

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 \geq 50%

ISO ePM2.5 ePM2.5, min \geq 50%

ISO ePM10 ePM10 \geq 50%

ISO Coarse ePM10 \leq 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 4/23-2020. 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 ($\mu\text{g}/\text{m}^3$)

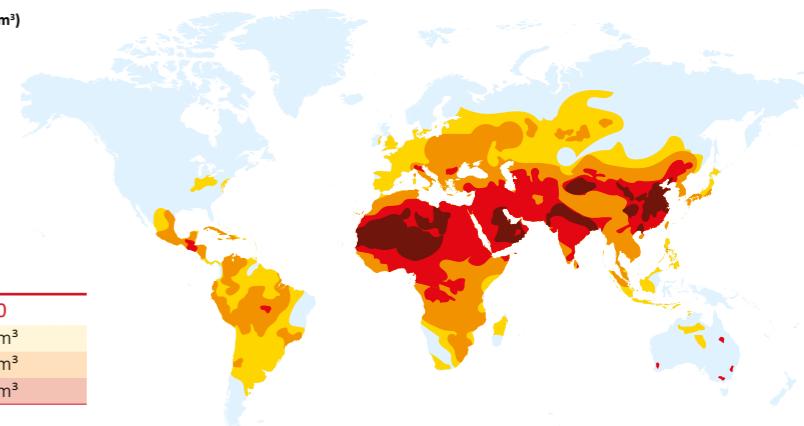
Less than 10

10-12 ODA1

12-14 ODA2

14-16 ODA3

More than 16



About ISO 16890 continued

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
 - Pharmaceutics
 - Electronics
 - Supply air to clean rooms
 - Offices
 - Hotels
 - Residential
 - Meeting rooms
 - Exhibition halls
 - Conference halls
 - Theatres
 - Cinemas
 - Concert halls

- Rooms for permanent occupation e.g. like:
 - Nursery

- Nursey
 - Offices
 - Hotels
 - Residential
 - Meeting rooms
 - Exhibition halls
 - Conference halls
 - Theatres
 - Cinemas
 - Shopping centres
 - Washing rooms
 - Server rooms
 - Copier rooms

Rooms with occupancy • Best room

- Rest rooms
 - Storage rooms
 - Stair ways

Rooms w/ occupatio • Garba

- Garbage
 - Data centres
 - Underground car parks

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

Supply air

ODA1

- PM_{2.5} ≤ 10µg/m³ and PM₁₀ ≤ 20µg/m³
 - 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} ≤ 15 µg/m³ and PM₁₀ ≤ 30 µg/m³
 - 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

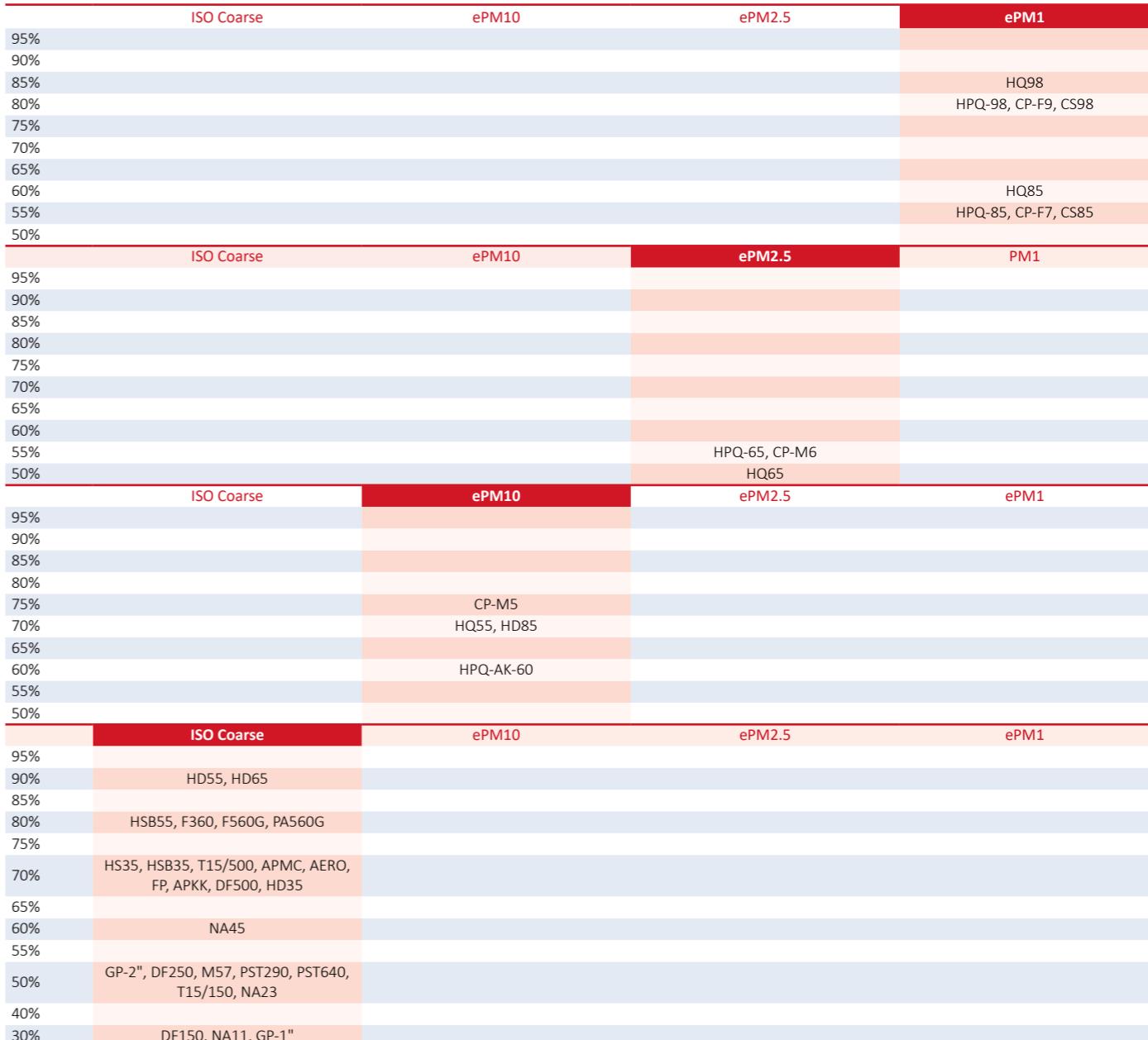
- PM_{2.5}> 15µg/m³ and PM₁₀> 30µg/m³
 - Outdoor air with very high concentrations of particulate matter
 - Applies in situations where the WHO guideline is exceeded by a factor > 1.5

SUP4

- $\text{PM2.5} \leq 10\mu\text{g}/\text{m}^3$ and $\text{PM10} \leq 20\mu\text{g}/\text{m}^3$
 - Rooms with occasional occupation such as storage rooms, toilet rooms, stairwells, etc.

SUP5

- PM_{2.5} ≤ 15 µg/m³ and PM₁₀ ≤ 30 µg/m³
 - Spaces without occupation such as garages, data centers, underground parking garages, etc.



Absolute filters according to EN1822: 2019

EPA, HEPA, and ULPA filters are classified in Europe according to EN1822. This was the first standard to establish a filter classification system for absolute filters based on the filtration process theory.

The EN1822 defines 3 classes:

- Group E: EPA filters (Efficient Particulate Air Filters | efficient air filters)
- Group H: HEPA filters (High Efficiency Particulate Air Filters | high efficiency air filters)
- Group U: ULPA filters (Ultra Low Penetration Air Filters | air filters with very low penetration)

Classification

Absolute filters are air filters that block at least 85% of the most penetrating particle size (MPPS). In practice, these are particles of between 0.1- 0.3 µm in diameter.

The classification indicates what percentage of the MPPS particles are stopped. This varies from > 85% (class E10) to > 99.99995% (class U17).

Application

Absolute filters are used in rooms with very high air quality requirements. Examples include cleanrooms, aerospace, the pharmaceutical industry, operating theaters and quarantine departments and in hospitals. The use of HEPA filters is also mandatory for the removal of asbestos.

	General value		Local value	
Filter Class	Efficiency	Penetration	Efficiency	Penetration
E10	≥ 85%	≤ 15%	-	-
E11	≥ 95%	≤ 5 %	-	-
E12	≥ 99.5%	≤ 0.5%	-	-
H13	≥ 99.95%	≤ 0.05%	≥ 99.75%	≤ 0.25%
H14	≥ 99.995%	≤ 0.005%	≥ 99.975%	≤ 0.025%
U15	≥ 99.9995%	≤ 0.0005%	≥ 99.9975%	≤ 0.0025%
U16	≥ 99.99995%	≤ 0.00005%	≥ 99.99975%	≤ 0.00025%
U17	≥ 99.99995%	≤ 0.000005%	≥ 99.9999%	≤ 0.0001%



Eurovent energy labels

On 1 January 2019, Eurovent launched the new energy efficiency classification based on the ISO 16890 standard. Based on this new standard it is possible to better compare the energy consumption of air filters. The following formula is used to calculate energy consumption on an annual basis:

$$W = (Qv) \Delta p \cdot t / (\eta \cdot 1000)$$

W = annual energy consumption (kWh/y)
Qv = air flow (m³/s)
 Δp = average pressure drop (Pa)
Tt = annualized operating time (hours)
 η = fan efficiency (%)



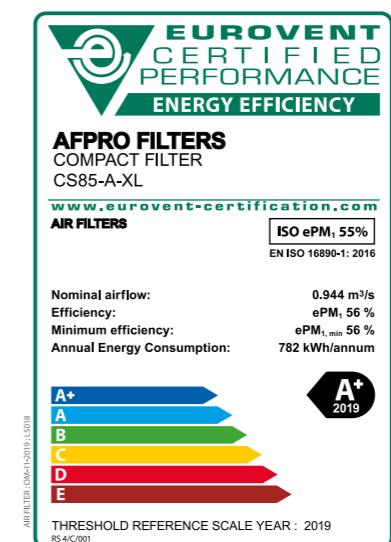
Eurovent uses several constants within this formula. The air flow is 0.944 m³/s, the number of operating hours is 6000 and the fan efficiency is set at 50%. The only variable is the average pressure drop.

The outcome of the formula then determines how energy efficient a filter is. The lower the number of kWh, the lower the energy consumption. The lower the energy consumption, the better the energy label.

Energy efficiency class limits for each filter class according to EN ISO 16890:2016 measured at 0.944 m³/s.

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



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. APRO 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 20 kilograms of air daily. 20 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.

APRO 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.

APRO 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

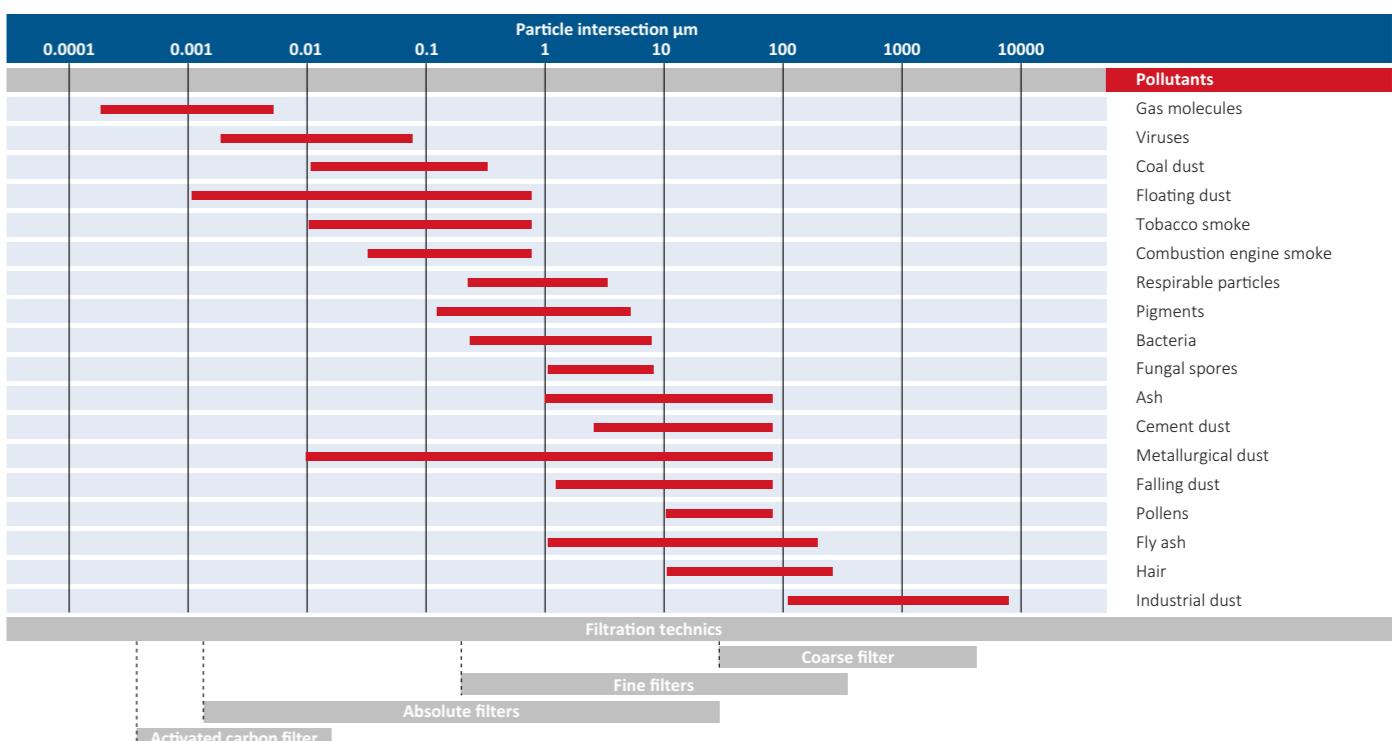
The nuclear filter industry plays an essential role in the global supply of energy and the military sector. Air filtration systems perform crucial roles in nuclear plants, such as power stations, fuel processing plants, research facilities and waste management. These nuclear air filters comply with the 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 ($> 5 \mu\text{m}$) 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.

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.



The benefits of glass fibre

A healthy indoor climate helps you feel more energetic and productive, it improves concentration and reduces the risk of viral infections. At AFPRO Filters, we have been committed to increasing indoor air quality for more than 40 years. In our opinion, everyone needs clean air, that is why we are the only filter manufacturer to develop and produce our Next Generation Micro Glass Fibre Filters (HQ bag filter series).

Fibre is a logical choice

To design filters with which to tackle fine dust, the switch to glass fibre was obvious. glass fibre has many advantages over synthetic material:

- High dust holding capacity
 - Excellent thermal tolerance
 - Sustained high efficiency
 - Superior effectiveness to fine dust
- AFPRO Filters is the only air filter manufacturer in the world to make its own glass fibre filter medium.

Unique pre-layer

Our glass fibre filters are equipped with an extra protective pre-layer.

This layer increases the filter efficiency, protects the user during installation by ensuring that there is no contact with the glass fibre and makes it impossible for any of the fibres to come loose. The media has independently tested and certified by the VDI (Verein Deutscher Ingenieure).

New standard

With this new generation of glass fibre bag filters, we have combined the benefits of synthetic filters with the advantages of glass fibre filters. AFPRO filters has defined the new standard.

Wide range of products

AFPRO Filters has a wide range of glass fibre media available. Media can be tailor-made to customer specifications. The medium is made up of a filtration layer and a supporting layer which, depending on the application, can be made of plastic or glass fibre. AFPRO Filters has a standard color range. We can also produce custom color filters upon request.

Energy saving

When comparing the same design, in terms of dimensions, number of pockets, ISO classification etc, then in general the glass fiber media will have a better energy performance than synthetic media.





INSPIRATION

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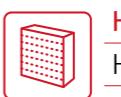
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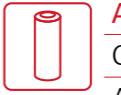
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QUALITY

Panel filters

AFPRO panel filters are pleated or flat 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 and hence, 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 or flat 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)

ISO Coarse



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

Panel filters

NA Panel

ISO Coarse



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

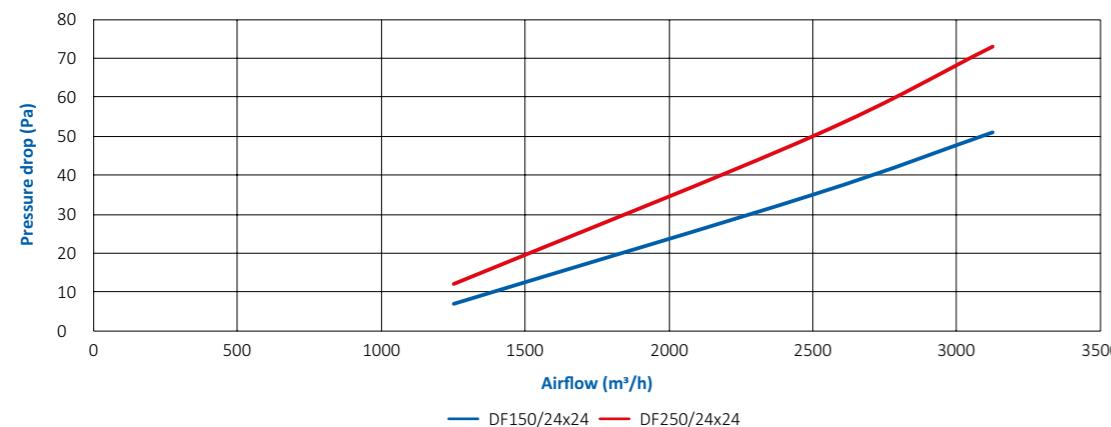
Maximum relative humidity: 90%

Advantages

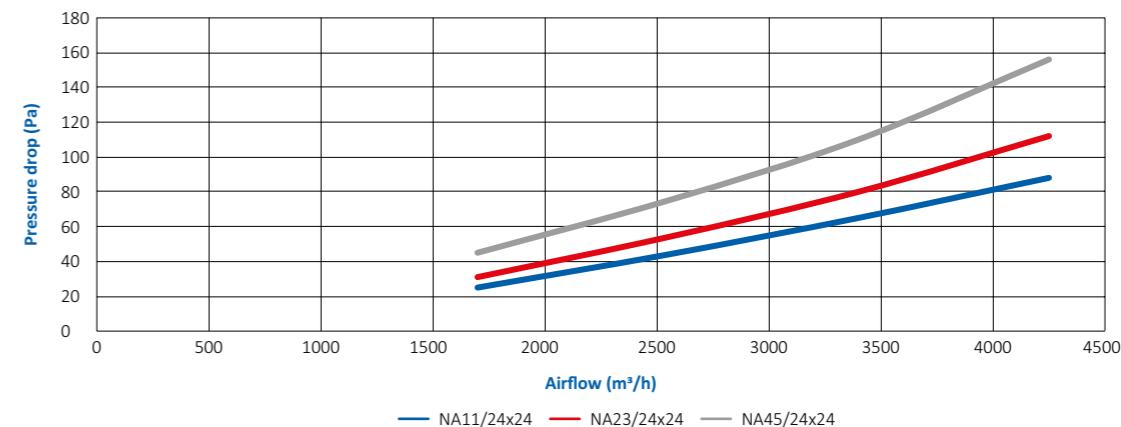
- Straightforward assembly

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/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



NA series



* According to Eurovent ECP-11-FIL-2020

* According to Eurovent ECP-11-FIL-2020

Panel filters

GP Panel

ISO Coarse



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

Panel filters

APMC Panel

ISO Coarse ePM10



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

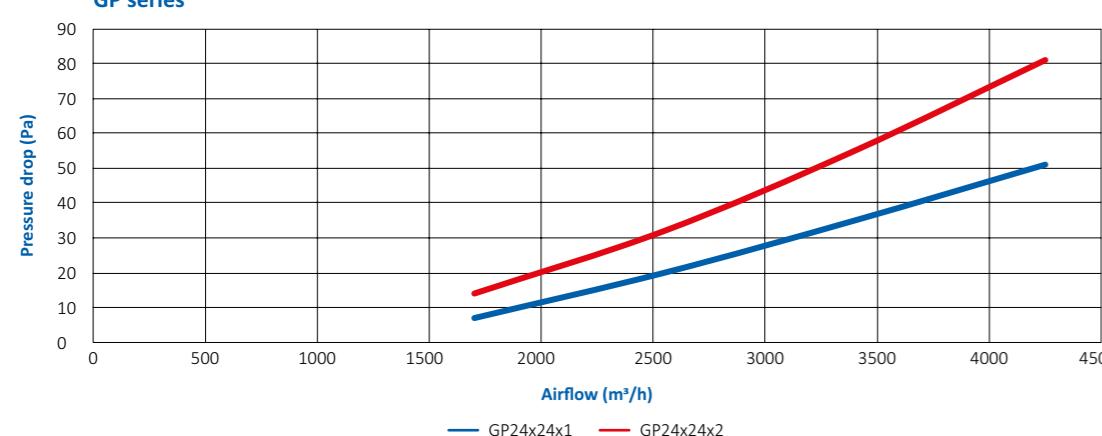
Options

- ATEX, Flange, Grid
- APMC ePM10

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/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	-

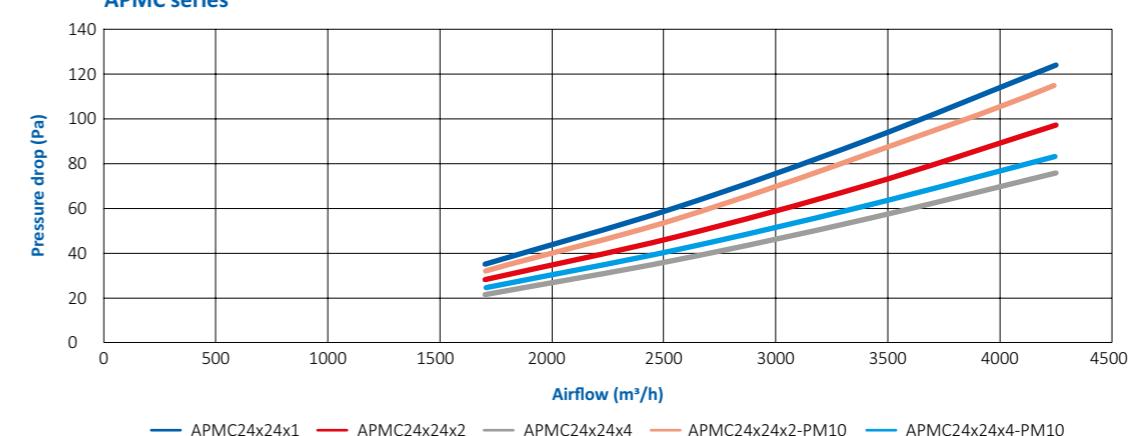
Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
APMC12x24x1	287x592x23	ISO Coarse 70%	0.4	1700	90	36	600x600x480	-
APMC16x20x1	394x490x23	ISO Coarse 70%	0.5	1880	90	20	500x400x500	-
APMC16x24x1	394x592x23	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

GP series



* According to Eurovent ECP-11-FIL-2020

APMC series



* According to Eurovent ECP-11-FIL-2020

Panel filters

AERO Panel

ISO Coarse



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

Panel filters

FP Panel

ISO Coarse



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%

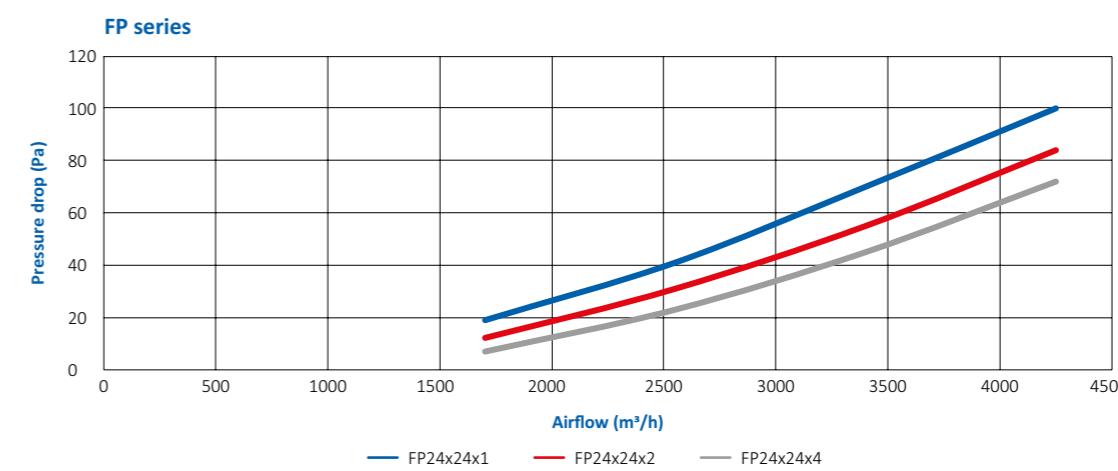
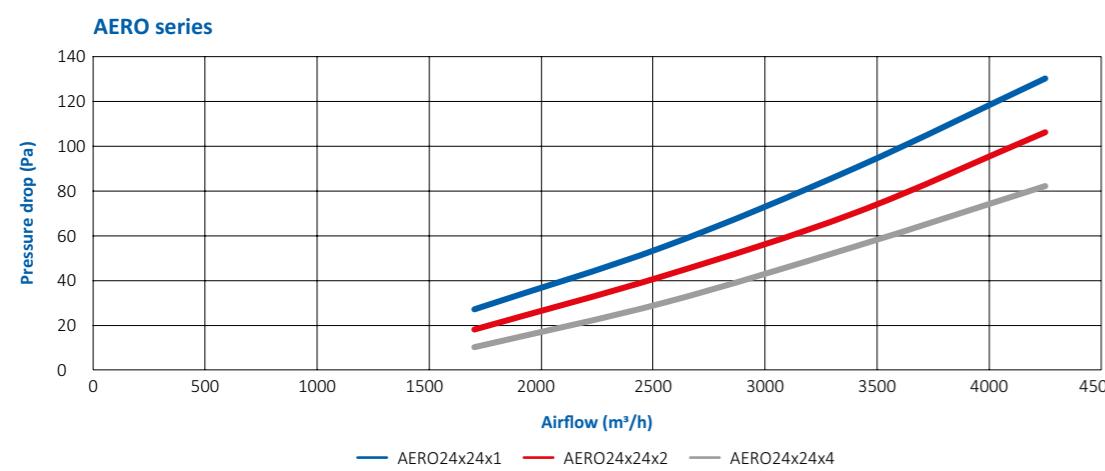


Advantages

- 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 (m²)	Airflow (m³/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	-

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/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

* According to Eurovent ECP-11-FIL-2020

Panel filters

APKK Panel

ISO Coarse
ePM10



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

Panel filters

AQUA Panel

ISO Coarse



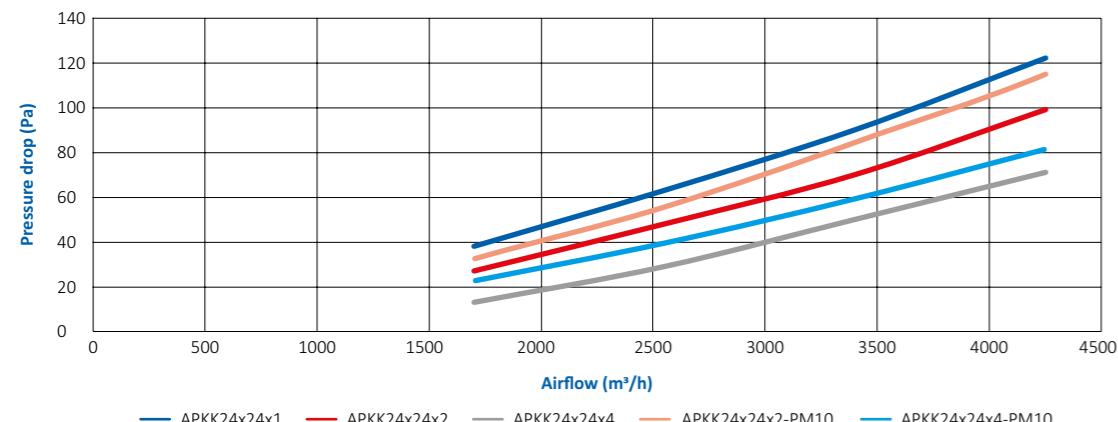
Specifications

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



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/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

AQUA series



* According to Eurovent ECP-11-FIL-2020

Panel filters

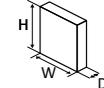
RB Panel

ISO Coarse



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

Panel filters

CP Panel

ePM10 ePM2.5 ePM1



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%

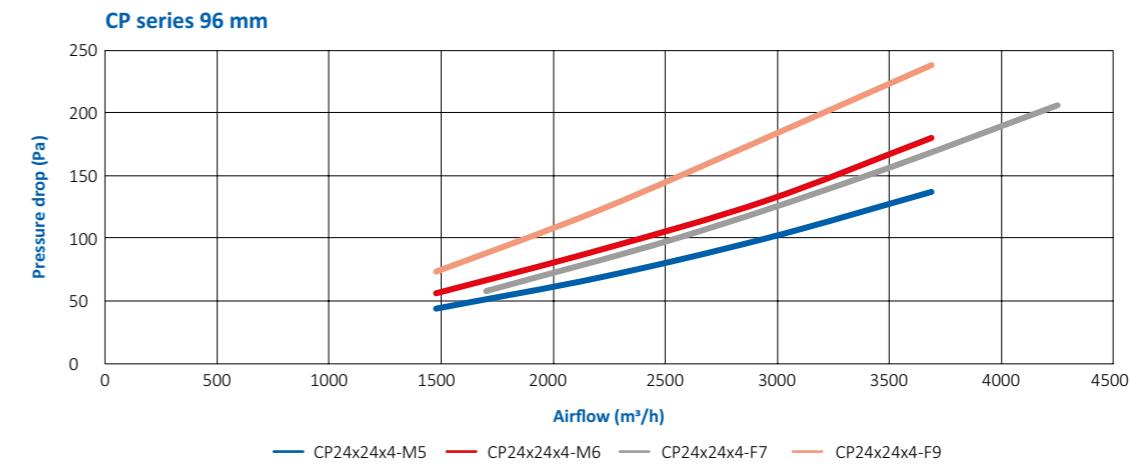
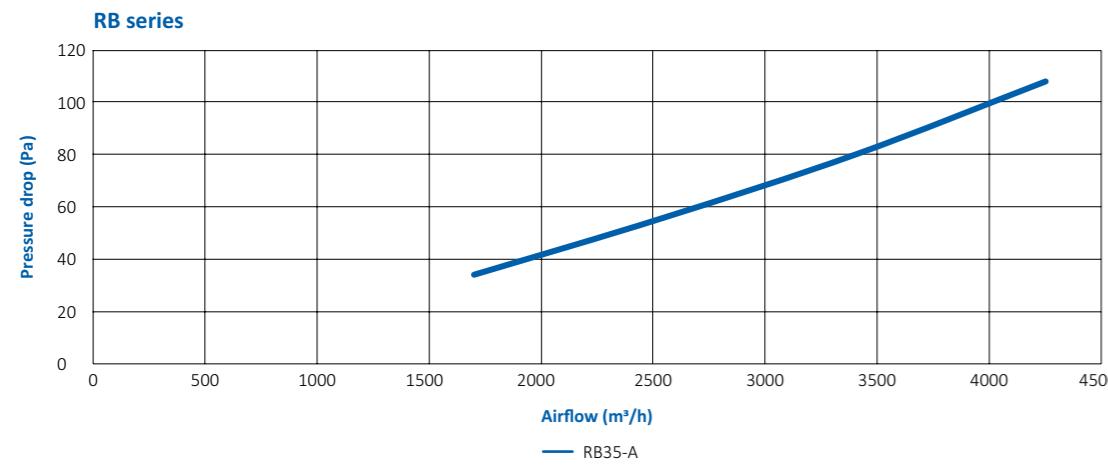
Comments: Possibility to deliver T-profile for mounting two frames together

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*
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	-

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

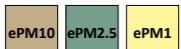


* According to Eurovent ECP-11-FIL-2020

* 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

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 galvanized or Inox mesh.

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

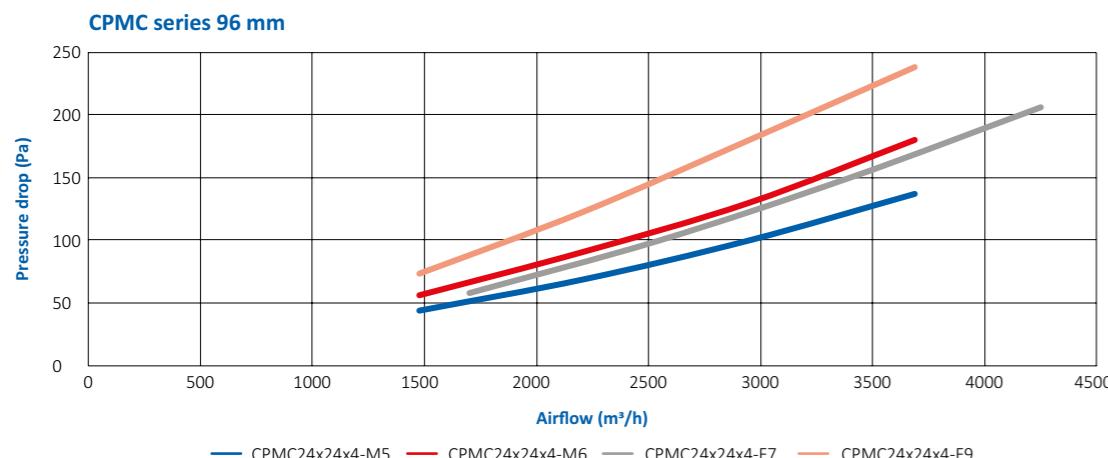
GPMC



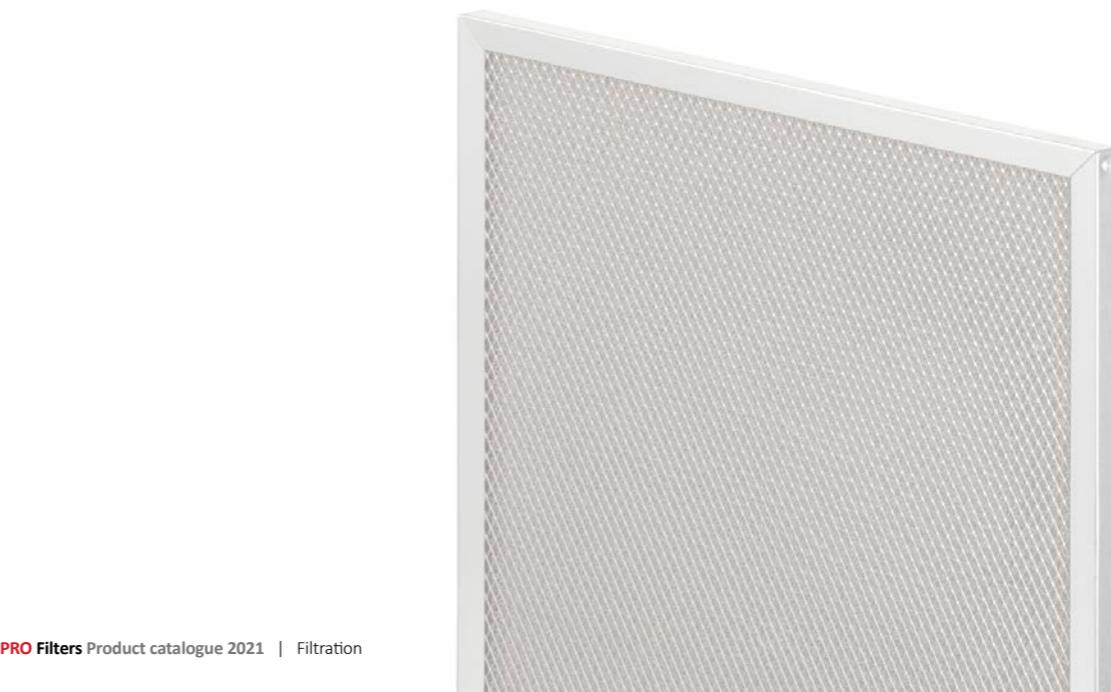
GPMC panel filter is constructed with a paint stop glass fiber media and assembled in a galvanized steel frame and a metal grid. It used as a prefilter for HVAC, industry and spray booth. This filter is available as ISO Coarse 50%.

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

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/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



* According to Eurovent ECP-11-FIL-2020





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, ePM1, ePM2.5 and ePM10 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

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.

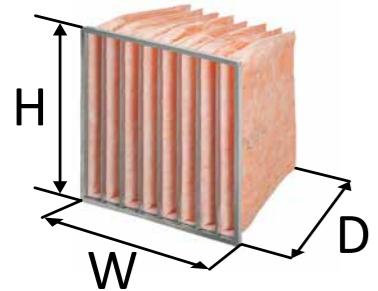


Pocket filter index

Explanation product numbers

HQ85 A 6 -3

1 **2** **3** **4**



Pocket filter index

Numbers correspond with numbers in the product number.

1 Type of filter

Example of Reference: HQ85

2 Frame dimension WxH

A = 592x592 mm

B = 490x592 mm

C = 287x592 mm

HA = 592x890 mm

HB = 490x890 mm

HC = 287x890 mm

CC = 287x287 mm

3 Number of pockets

Example HQ85A**6**-3

4 = 4 pockets

5 = 5 pockets

6 = 6 pockets

8 = 8 pockets

10 = 10 pockets

12 = 12 pockets

4 Pocket depth

Example HQ85A**6**-3

3 = 360 mm

5 = 535 mm

6 = 635 mm

150 = 150 mm (special)

/90 = cross pockets (90°)

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

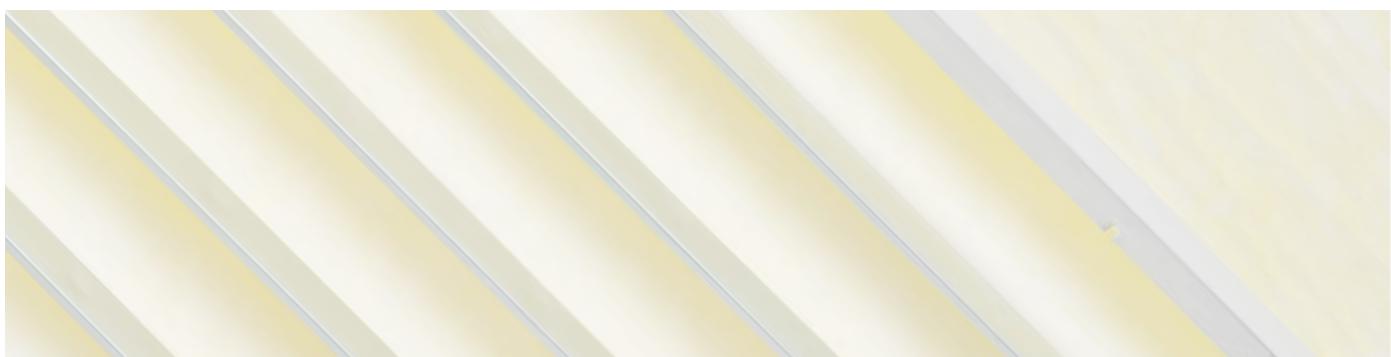
Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m ²)	Airflow (m ³ /h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HQ55A6-3	592x592x360	ePM10 70%	6	2.6	3400	135	2	609x144x607	E
HQ55C6-3/90	592x287x360	ePM10 70%	6	1.3	1700	135	4	609x144x607	E
HQ55A6-5	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	8	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

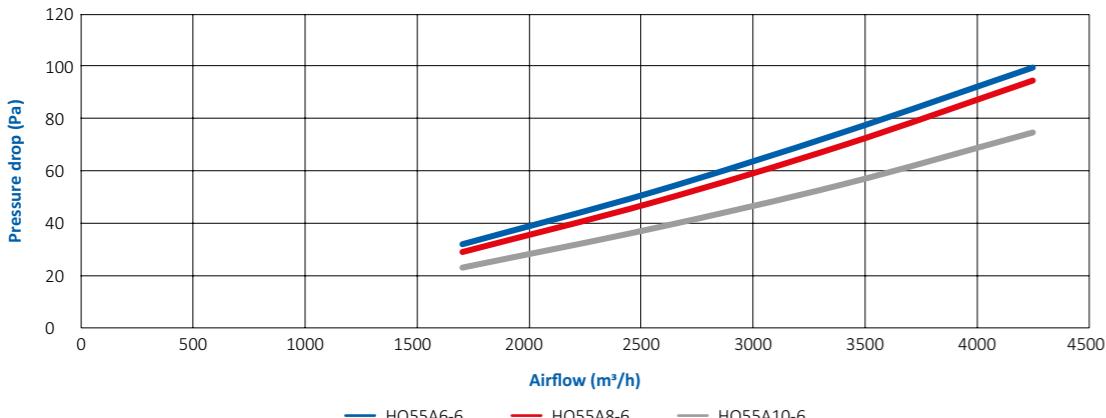
HQ55-series continued

ePM10



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/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

HQ55 series



* 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 (m²)	Airflow (m³/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

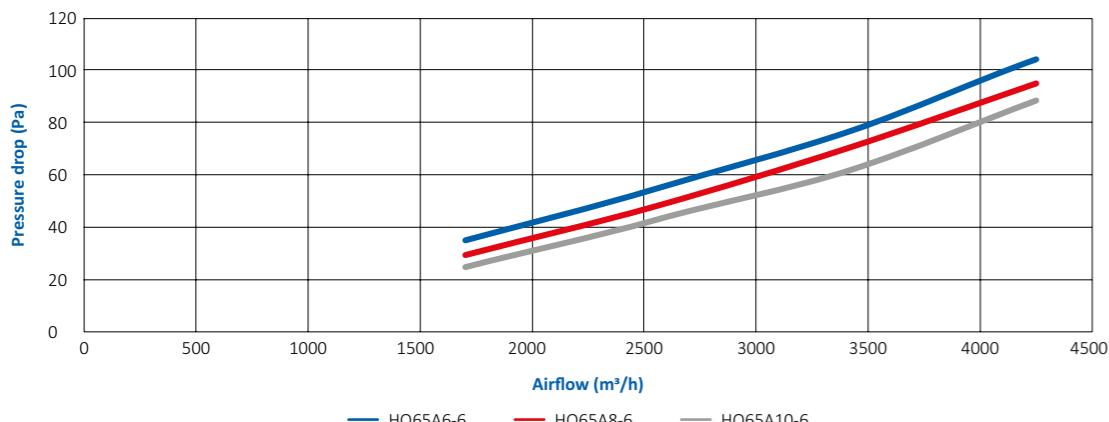
HQ65-series continued

ePM2.5



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/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

HQ65 series



* 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 (m²)	Airflow (m³/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
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

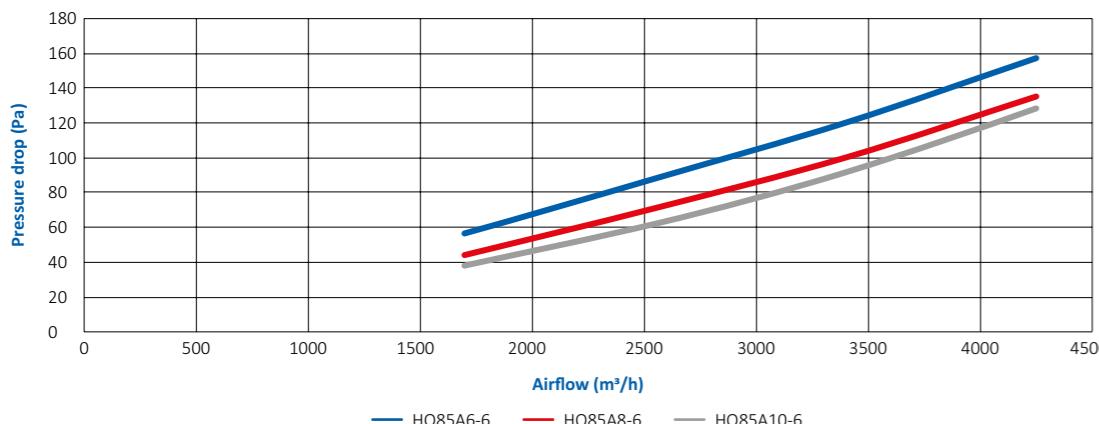
HQ85-series continued

ePM1



Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/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

HQ85 series



* 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

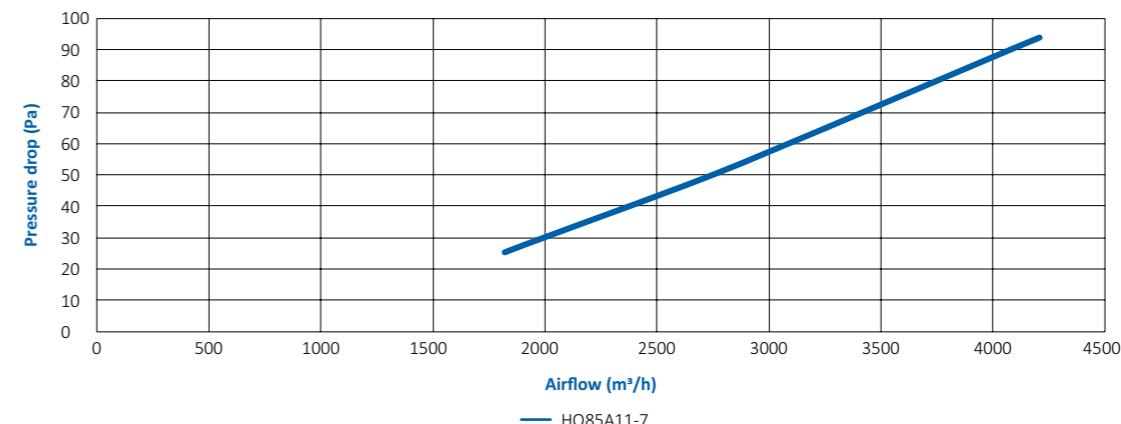
Maximum relative humidity: 90%

Advantages

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

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/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+

HQ85A11-7



* 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

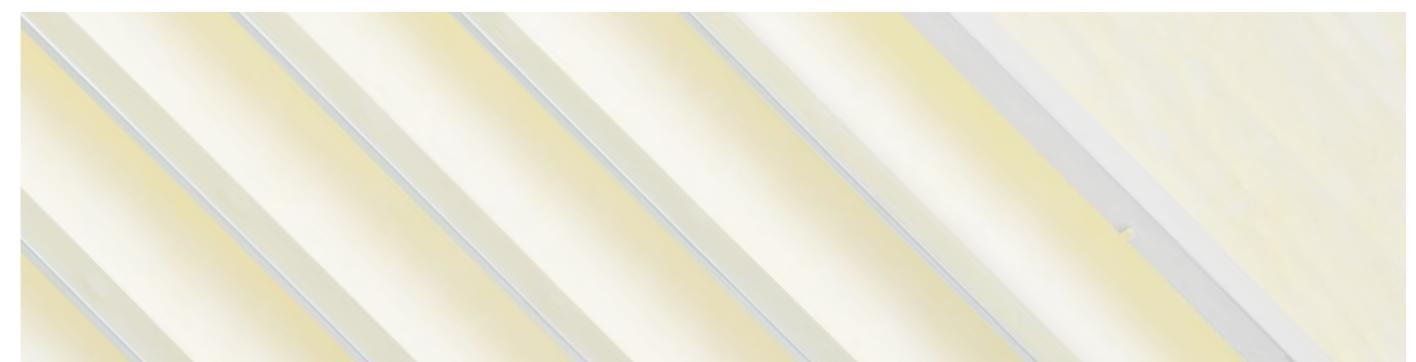
Options

- ATEX

Bag filters

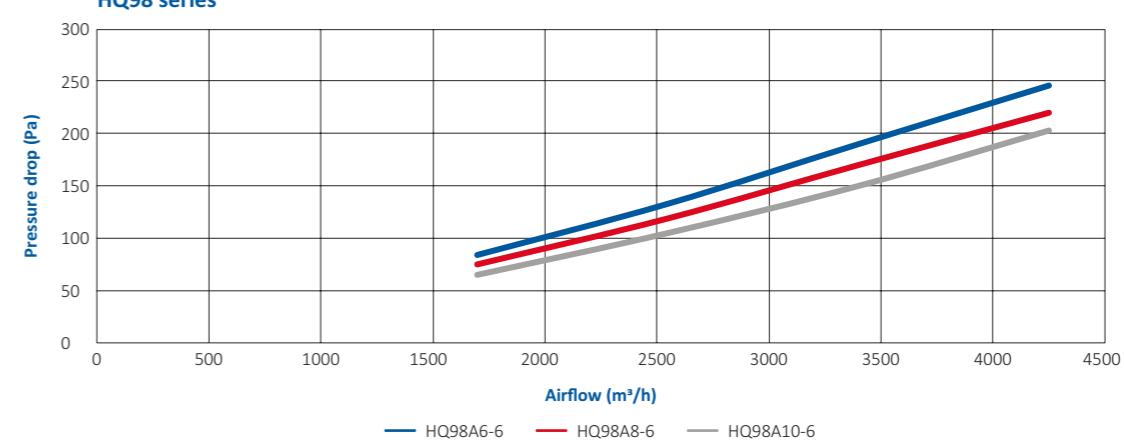
HQ98-series continued

ePM1



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*
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
HQ98H4-6	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	609x144x607	E

HQ98 series



* According to Eurovent ECP-11-FIL-2020

* According to Eurovent ECP-11-FIL-2020

Bag filters

HD-series

ISO Coarse
ePM10



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

Bag filters

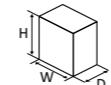
HSB35-series

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%

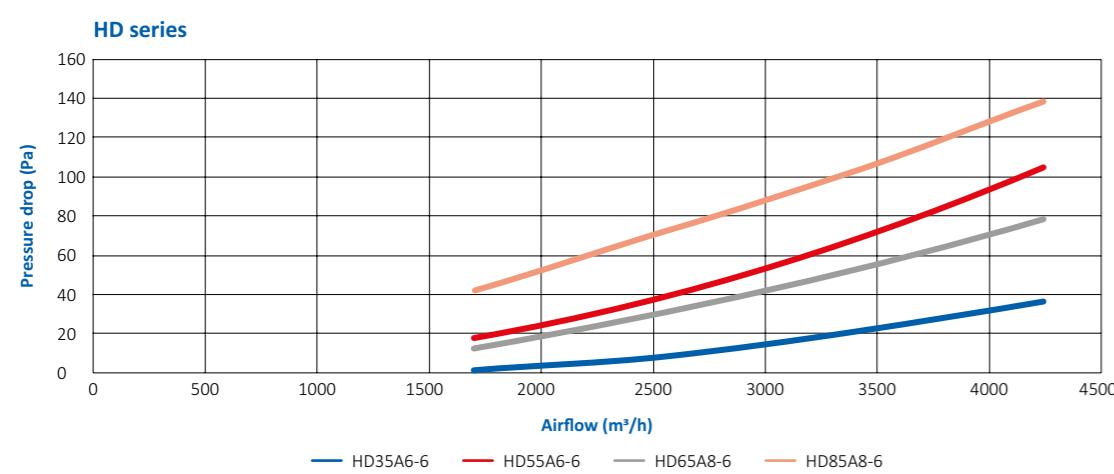


Advantages

- Lightweight frame

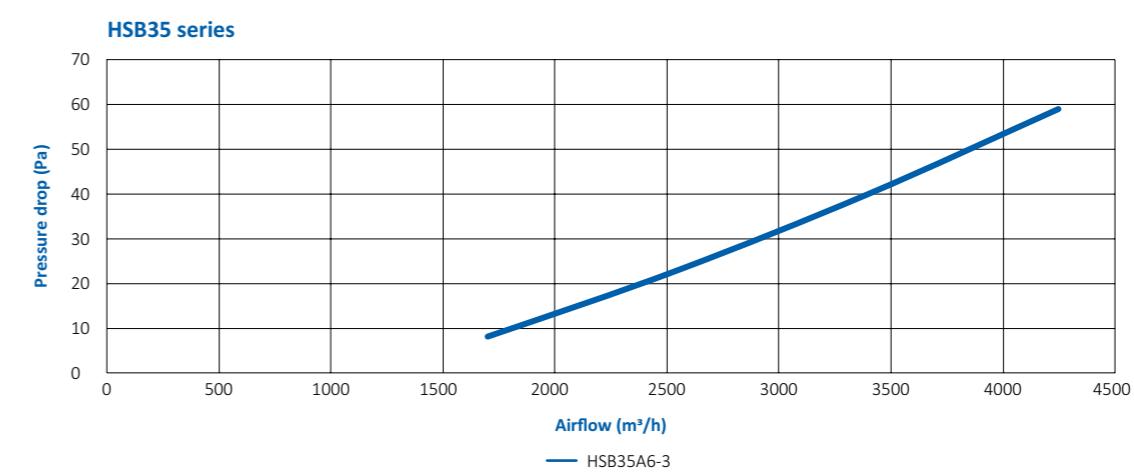
Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
HD35A6-6**	595x595x600	ISO Coarse 70%	6	4.7	3400	20	3	730x630x690	-
HD35C3-6**	288x595x600	ISO Coarse 70%	3	2.3	1700	20	6	730x630x690	-
HD55A6-6**	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

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*
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	-
HSB35A6-5	592x592x535	ISO Coarse 70%	6	4.1	3400	55	4	605x605x240	-
HSB35B5-5	490x592x535	ISO Coarse 70%	5	3.4	2800	55	4	605x605x240	-
HSB35B6-5/90	592x490x535	ISO Coarse 70%	6	3.5	2800	55	4	605x605x240	-
HSB35C3-5	287x592x535	ISO Coarse 70%	3	2.0	1700	55	8	605x605x240	-
HSB35C6-5/90	592x287x535	ISO Coarse 70%	6	2.2	1700	55	8	605x605x240	-
HSB35CC3-5	287x287x535	ISO Coarse 70%	3	1.1	800	55	16	605x605x240	-
HSB35HA6-5	592x890x535	ISO Coarse 70%	6	6.0	5100	55	4	905x605x240	-
HSB35HB5-5	490x890x535	ISO Coarse 70%	5	5.0	4200	55	4	905x605x241	-
HSB35HC3-5	287x890x535	ISO Coarse 70%	3	3.0	2500	55	8	905x605x242	-
HSB35A6-6	592x596x635	ISO Coarse 70%	6	4.9	3400	45	4	605x605x240	-
HSB35B5-6	490x592x635	ISO Coarse 70%	5	4.1	2800	45	4	605x605x241	-
HSB35B6-6/90	592x490x635	ISO Coarse 70%	6	3.8	2800	45	4	605x605x242	-
HSB35C3-6	287x592x635	ISO Coarse 70%	3	2.4	1700	45	8	605x605x243	-
HSB35C6-6/90	592x287x635	ISO Coarse 70%	6	2.6	1700	45	8	605x605x244	-
HSB35CC3-6	287x287x635	ISO Coarse 70%	3	1.3	800	45	16	605x605x245	-
HSB35HA6-6	592x890x635	ISO Coarse 70%	6	7.2	5100	45	4	905x605x241	-
HSB35HB5-6	490x890x635	ISO Coarse 70%	5	6.0	4200	45	4	905x605x242	-
HSB35HC3-6	287x890x635	ISO Coarse 70%	3	3.6	2500	45	8	905x605x243	-



* According to Eurovent ECP-11-FIL-2020

** Not Eurovent certified



* 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

Bag filters

HSB55-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%

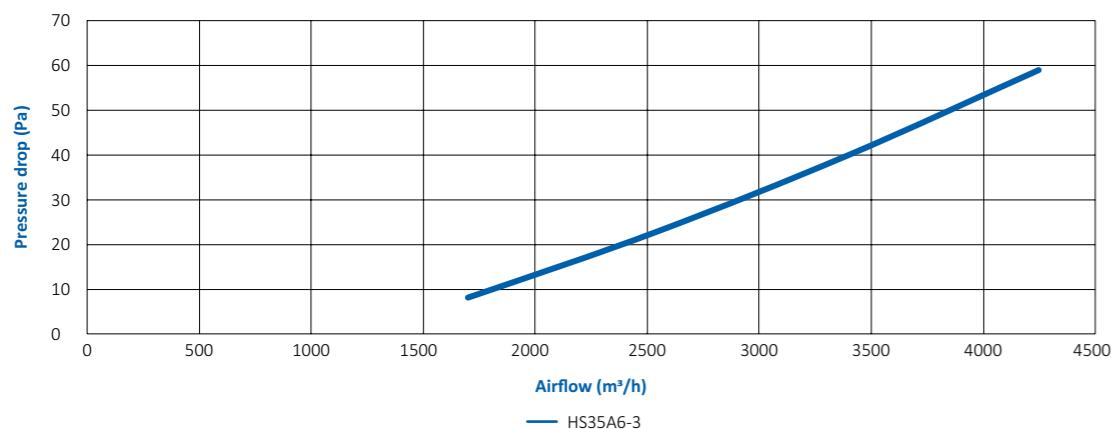


Advantages

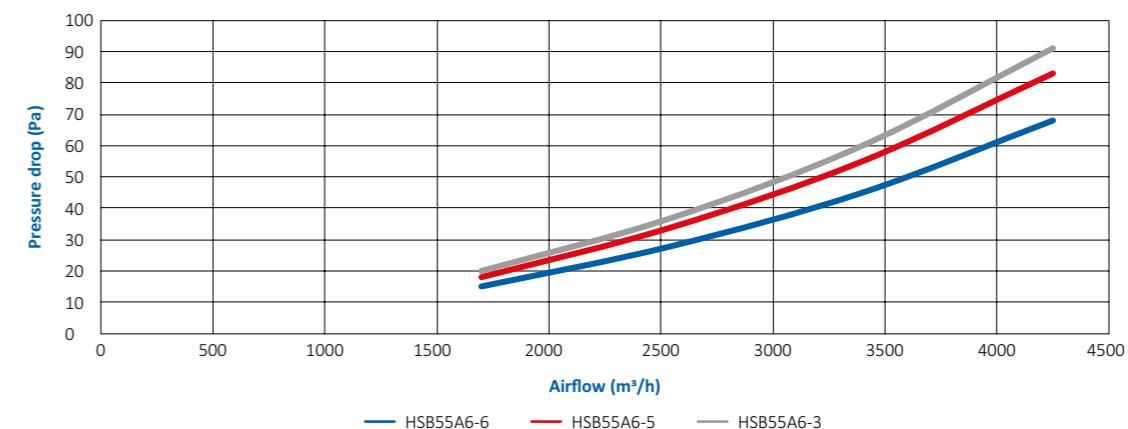
- Lightweight frame

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (m²)	Airflow (m³/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	-
HS35A6-5	592x592x535	ISO Coarse 70%	6	4.1	3400	55	4	605x605x240	-
HS35B5-5	490x592x535	ISO Coarse 70%	5	3.4	2800	55	4	605x605x240	-
HS35B6-5/90	592x490x535	ISO Coarse 70%	6	3.5	2800	55	4	605x605x240	-
HS35C3-5	287x592x535	ISO Coarse 70%	3	2.0	1700	55	8	605x605x240	-
HS35C6-5/90	592x287x535	ISO Coarse 70%	6	2.2	1700	55	8	605x605x240	-
HS35CC3-5	287x287x535	ISO Coarse 70%	3	1.1	800	55	16	605x605x240	-
HS35HA6-5	592x890x535	ISO Coarse 70%	6	6.0	5100	55	4	905x605x240	-
HS35HB5-5	490x890x535	ISO Coarse 70%	5	5.0	4200	55	4	905x605x241	-
HS35HC3-5	287x890x535	ISO Coarse 70%	3	3.0	2500	55	8	905x605x242	-
HS35A6-6	592x596x635	ISO Coarse 70%	6	4.9	3400	45	4	605x605x240	-
HS35B5-6	490x592x635	ISO Coarse 70%	5	4.1	2800	45	4	605x605x241	-
HS35B6-6/90	592x490x635	ISO Coarse 70%	6	3.8	2800	45	4	605x605x242	-
HS35C3-6	287x592x635	ISO Coarse 70%	3	2.4	1700	45	8	605x605x243	-
HS35C6-6/90	592x287x635	ISO Coarse 70%	6	2.6	1700	45	8	605x605x244	-
HS35CC3-6	287x287x635	ISO Coarse 70%	3	1.3	800	45	16	605x605x245	-
HS35HA6-6	592x890x635	ISO Coarse 70%	6	7.2	5100	45	4	905x605x241	-
HS35HB5-6	490x890x635	ISO Coarse 70%	5	6.0	4200	45	4	905x605x242	-
HS35HC3-6	287x890x635	ISO Coarse 70%	3	3.6	2500	45	8	905x605x243	-

HS35 series



HSB55 series



* According to Eurovent ECP-11-FIL-2020

* 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

Bag filters

HW-series

ePM1



Specifications

Application: Prefilter HVAC, industry
Frame: Galvanized steel/aluminium
Spacers: Synthetic nanowave
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%

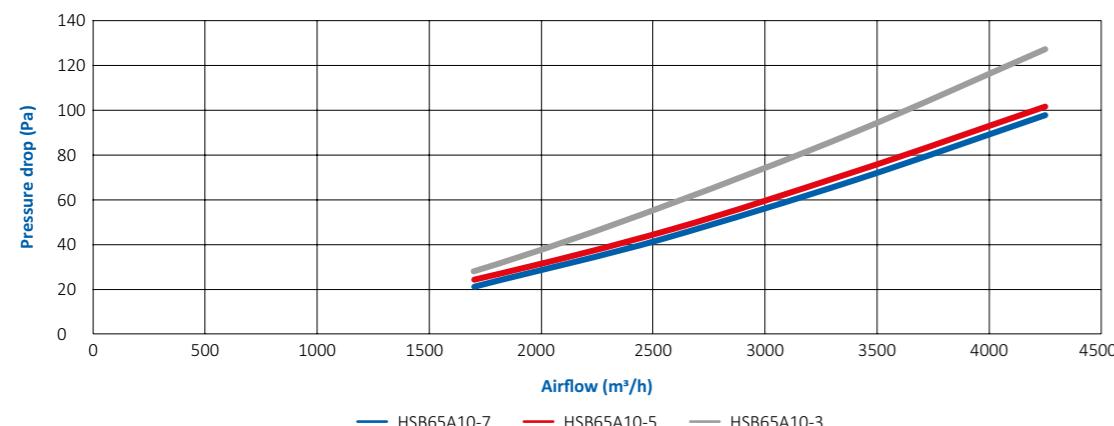


Advantages

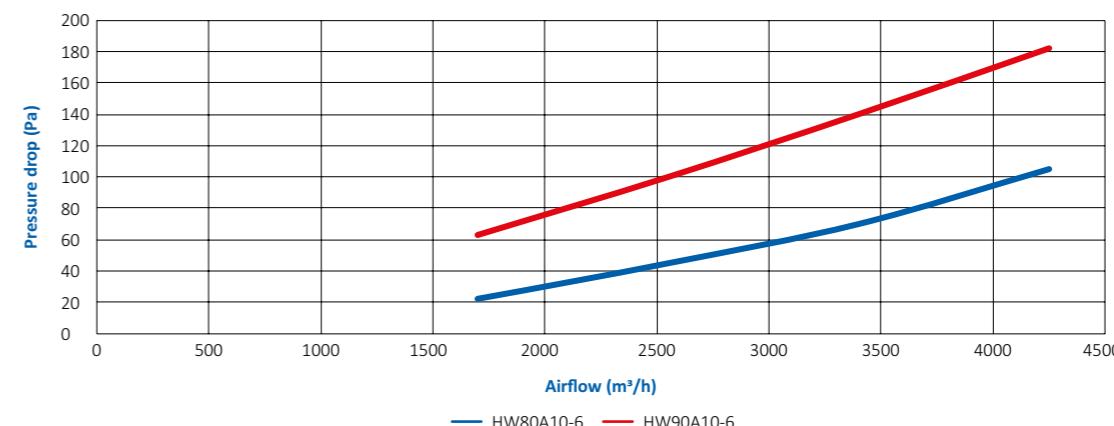
- High dust holding capacity
- Large filter area

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	# Pockets	Filter surface (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



HW series



* According to Eurovent ECP-11-FIL-2020

* 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

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

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.



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

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

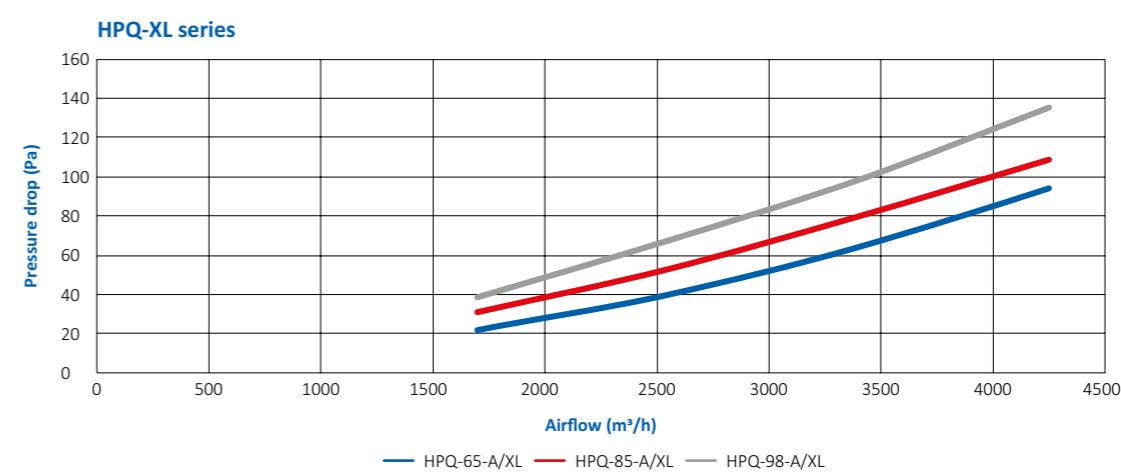
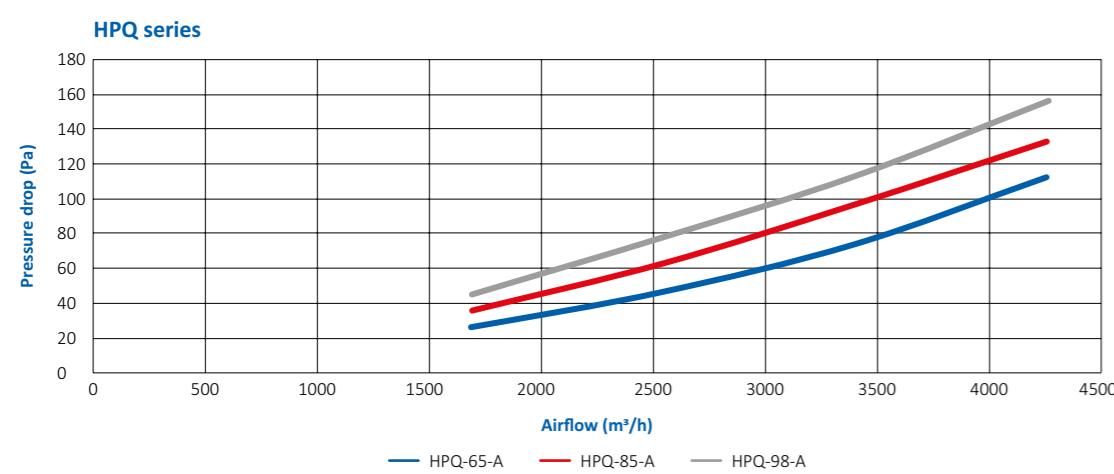


Advantages

- Lower pressure drop relative to HPQ-series
- 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 (m²)	Airflow (m³/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	-

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*
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

* According to Eurovent ECP-11-FIL-2020

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Compact filters

HPQ-ECO-series



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



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



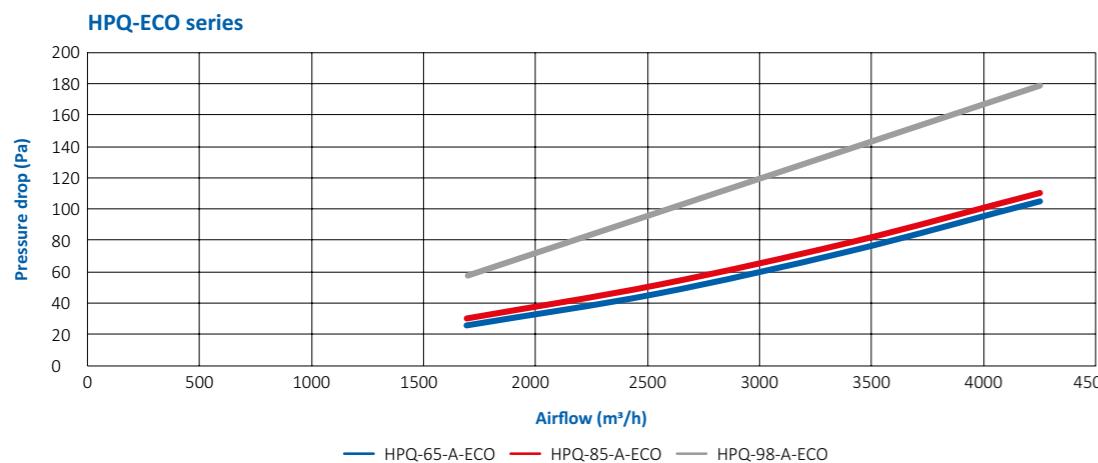
- Small construction space
- Low pressure drop
- Maximum airflow 45% above nominal value
- Strong construction

Maximum final pressure drop: 450Pa
Maximum temperature: 65°C
Maximum relative humidity: 90%
Burst pressure drop: 6000 Pa

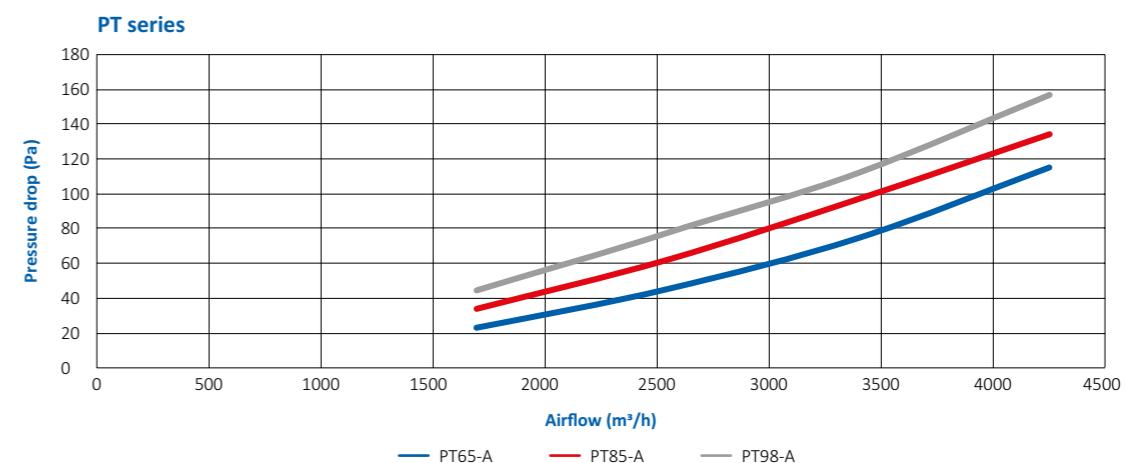
Comments: It is preferred to use a prefilter with these products

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-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

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	ePM2.5 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



* According to Eurovent ECP-11-FIL-2020

** Not Eurovent certified

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

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

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

Compact filters

CS-series



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

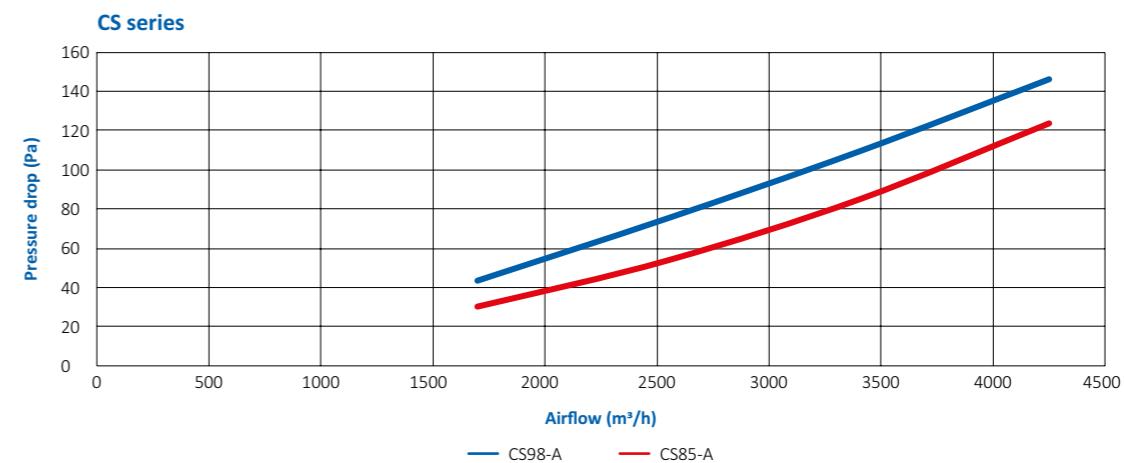
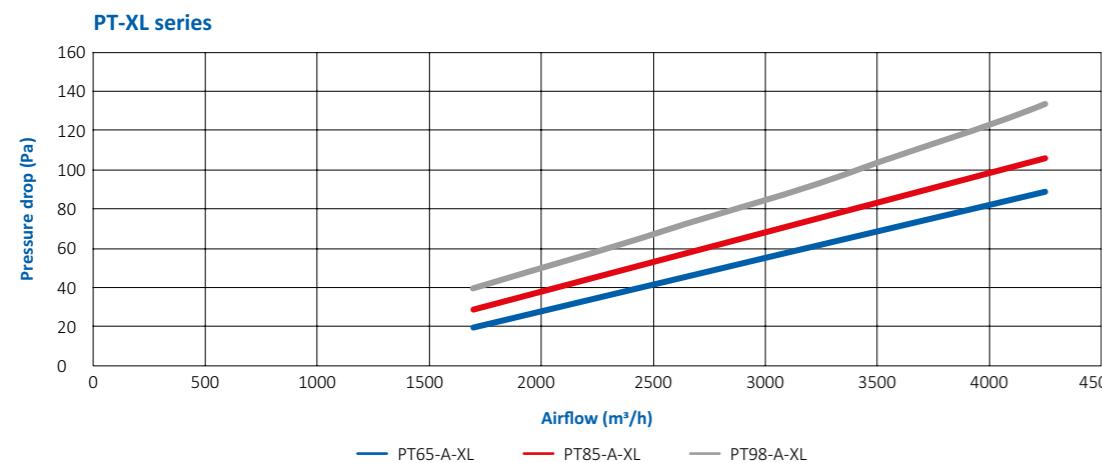


Advantages

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

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-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	-

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	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



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Compact filters

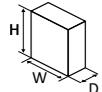
CS-H13-series

H13



Specifications

Application: HVAC, industry
Frame: Plastic
Spacers: Hotmelt
Bonding: 2 component polyurethane
Medium: 100% high efficiency Polytetrafluoroethylene (PTFE) media
Gasket: Optional, Continuous poured gasket
Filter class according to EN1822: H13
Maximum final pressure drop: 500Pa
Maximum temperature: 65°C
Maximum relative humidity: 90%



Advantages

- Lower pressure drop

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%

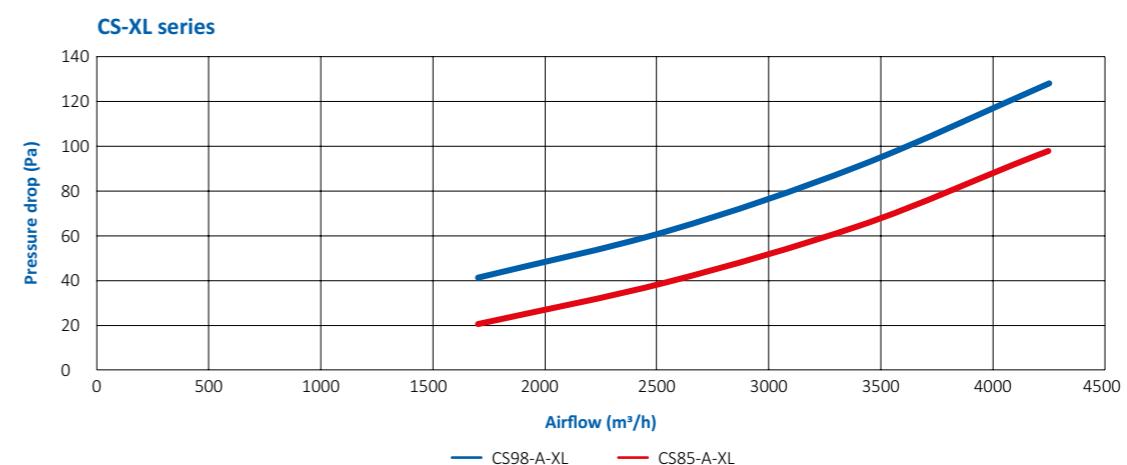
Comments: It is preferred to use a prefilter with these products

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 EN1822	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)	Energy label*
CS-H13-A	592x592x292	H13	16.1	3400	250	1	605x305x605	-
CS-H13-B	490x592x292	H13	13.3	2800	250	1	605x305x605	-
CS-H13-C	288x592x292	H13	7.8	1650	250	2	605x305x605	-

Type	Dimensions WxHxD (mm)	Filter class ISO 16890	Filter surface (m²)	Airflow (m³/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

ePM2.5 ePM1



Specifications

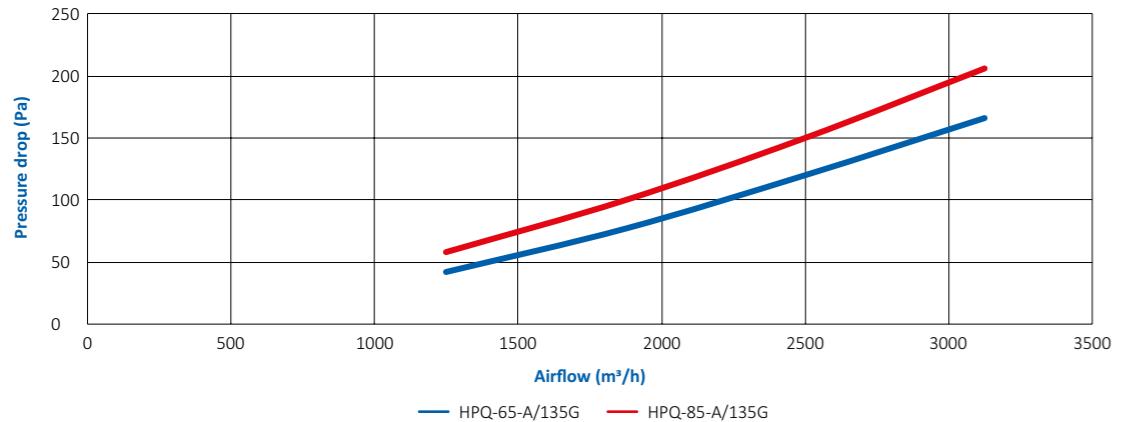
Application: HVAC, industry
Frame: Galvanized steel
Spacers: Hotmelt
Bonding: 2 component polyurethane
Medium: Glass fibre paper
Gasket: Optional, Continuous poured gasket
Filter class according to ISO 16890: ePM2,5, ePM1
Maximum final pressure drop: 450Pa
Maximum temperature: 65°C
Maximum relative humidity: 90%
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 ²)	Airflow (m ³ /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





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 or 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 or 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:

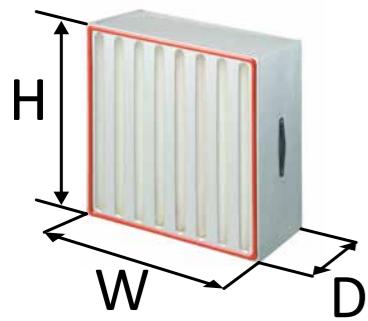
- Avoid touching the pleat package, as this may cause damage
- Ensure that every HEPA filter is validated following installation, to ensure that it is correctly fitted and devoid of damage
- Keep copies or test reports on the filters, and maintain suitable records or the test reports, stickers, resistances 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 (m²)	Airflow (m³/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 (m²)	Airflow (m³/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 (m²)	Airflow (m³/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	2800	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	2800	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	2800	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.

PANEL FILTERS
BAG FILTERS
COMPACT FILTERS

HEPA FILTERS
ACTIVE CARBON FILTERS

OTHER PRODUCTS

HEPA filters

HEPA HVG/HCG-series continued

E10 E11 H13 H14



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/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	2800	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 filters

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

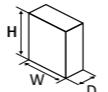
Gasket: Continuous poured gasket

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 (m²)	Airflow (m³/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	2800	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	2800	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	2800	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.

PANEL FILTERS
BAG FILTERS

COMPACT FILTERS
HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

HEPA filters

HEPA HCS/HVS-series continued

E10 E11 H13 H14



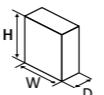
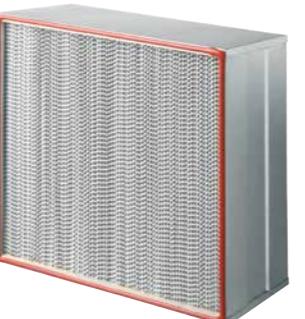
Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HVS1113NDDM	592x592x292	H13	36.0	3200	250	606x308x606
HVS1114NBBM	305x305x292	H14	9.3	900	280	311x313x311
HVS1114NBEM	305x610x292	H14	18.5	1750	280	620x310x315
HVS1114NCEM	457x610x292	H14	27.8	2800	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 (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HPG2110DBBM	305x305x292	E10	6.1	500	125	311x313x311
HPG2110DBEM	305x610x292	E10	12.0	1000	125	620x310x315
HPG2110DCEM	457x610x292	E10	18.1	1500	125	473x310x626
HPG2110DEEM	610x610x292	E10	24.2	2000	125	620x310x620
HPG2110DEFM	610x762x292	E10	30.2	2500	125	778x325x626
HPG2110DADM	288x592x292	E10	11.0	900	125	620x310x315
HPG2110DDDM	592x592x292	E10	22.8	1850	125	606x308x606
HPG2111DBBM	305x305x292	E11	6.1	500	140	311x313x311
HPG2111DBEM	305x610x292	E11	12.0	1000	140	620x310x315
HPG2111DCEM	457x610x292	E11	18.1	1500	140	473x310x626
HPG2111DEEM	610x610x292	E11	24.2	2000	140	620x310x620
HPG2111DEFM	610x762x292	E11	30.2	2500	140	778x325x626
HPG2111DADM	288x592x292	E11	11.0	900	140	620x310x315
HPG2111DDDM	592x592x292	E11	22.8	1850	140	606x308x606
HPG2113DBBM	305x305x292	H13	6.1	500	250	311x313x311
HPG2113DBEM	305x610x292	H13	12.0	1000	250	620x310x315
HPG2113DCEM	457x610x292	H13	18.1	1500	250	473x310x626
HPG2113DEEM	610x610x292	H13	24.2	2000	250	620x310x620
HPG2113DEFM	610x762x292	H13	30.2	2500	250	778x325x626
HPG2113DADM	288x592x292	H13	11.0	900	250	620x310x315
HPG2113DDDM	592x592x292	H13	22.8	1850	250	606x308x606
HPG2114DBBM	305x305x292	H14	6.1	500	280	311x313x311
HPG2114DBEM	305x610x292	H14	12.0	1000	280	620x310x315
HPG2114DCEM	457x610x292	H14	18.1	1500	280	473x310x626
HPG2114DEEM	610x610x292	H14	24.2	2000	280	620x310x620
HPG2114DEFM	610x762x292	H14	30.2	2500	280	778x325x626
HPG2114DADM	288x592x292	H14	11.0	900	280	620x310x315
HPG2114DDDM	592x592x292	H14	22.8	1850	280	606x308x606
HPG2114DBBL	305x305x150	E10	3.0	225	125	320x165x320
HPG2110DCCL	457x457x150	E10	6.7	500	125	475x165x475
HPG2110DBEL	305x610x150	E10	6.0	450	125	313x618x166
HPG2110DCEL	457x610x150	E10	9.0	675	125	465x618x166
HPG2110DEEL	610x610x150	E10	12.0	900	125	625x165x625
HPG2110DEFL	610x762x150	E10	15.0	1125	125	628x780x181
HPG2111DBBL	305x305x150	E11	3.0	225	140	320x165x320
HPG2111DCCL	457x457x150	E11	6.7	500	140	475x165x475
HPG2111DBEL	305x610x150	E11	6.0	450	140	313x618x166
HPG2111DCEL	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

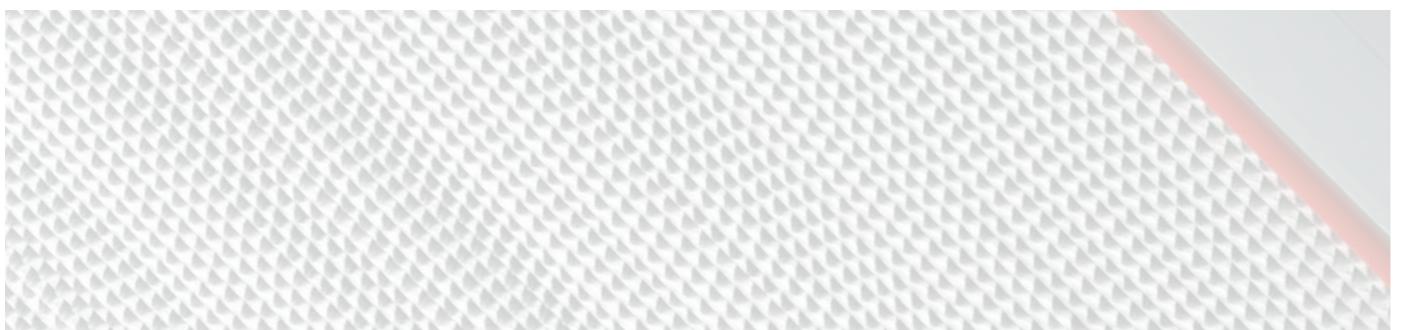
COMPACT FILTERS
HEPA FILTERS

ACTIVE CARBON FILTERS
OTHER PRODUCTS

HEPA filters

HEPA HPG-series continued

E10 E11 H13 H14



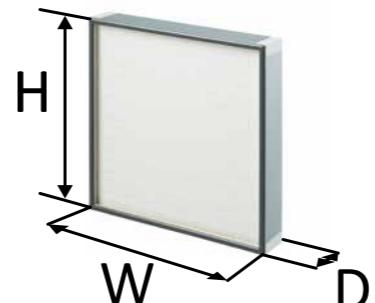
Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HPG2111DEEL	610x610x150	E11	12.0	900	140	625x165x625
HPG2111DEFL	610x762x150	E11	15.0	1125	140	628x780x181
HPG2113DBBL	305x305x150	H13	3.0	225	250	320x165x320
HPG2113DCCL	457x457x150	H13	6.7	500	250	475x165x475
HPG2113DBEL	305x610x150	H13	6.0	450	250	313x618x166
HPG2113DCEL	457x610x150	H13	9.0	675	250	465x618x166
HPG2113DEEL	610X610X150	H13	12.0	900	250	625x165x625
HPG2113DEFL	610x762x150	H13	15.0	1125	250	628x780x181
HPG2114DBBL	305x305x150	H14	3.0	225	280	320x165x320
HPG2114DCCL	457x457x150	H14	6.7	500	280	475x165x475
HPG2114DBEL	305x610x150	H14	6.0	450	280	313x618x166
HPG2114DCEL	457x610x150	H14	9.0	675	280	465x618x166
HPG2114DEEL	610x610x150	H14	12.0	900	280	625x165x625
HPG2114DEFL	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 8



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
- 15 U15

5 Grid

- N No grid
- S Single aluminum grid
- D Double aluminum grid

6 Height (mm)

- | | |
|--------|-----------------------|
| A 288 | A 288 |
| B 305 | B 305 |
| C 457 | C 457 |
| D 592 | D 592 |
| E 610 | E 610 |
| F 762 | 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 | K 380 |
| L 210 | L 210 |
| M 490 | M 490 |
| N 402 | N 402 |

Other sizes on request

7 Width (mm)

- | | |
|--------|-----------------------|
| A 288 | A 288 |
| B 305 | B 305 |
| C 457 | C 457 |
| D 592 | D 592 |
| E 610 | E 610 |
| F 762 | 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 | K 380 |
| L 210 | L 210 |
| M 490 | M 490 |
| N 402 | 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 U15



Specifications

Application: Cleanrooms, operating rooms

Frame: Extruded aluminium

Spacers: Hotmelt

Bonding: 2 component polyurethane

Medium: Glass fibre paper

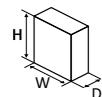
Gasket: Continuous poured gasket

Filter class according to EN1822: E10, E11, H13, H14, U15

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 & U15 are delivered with a test certificate

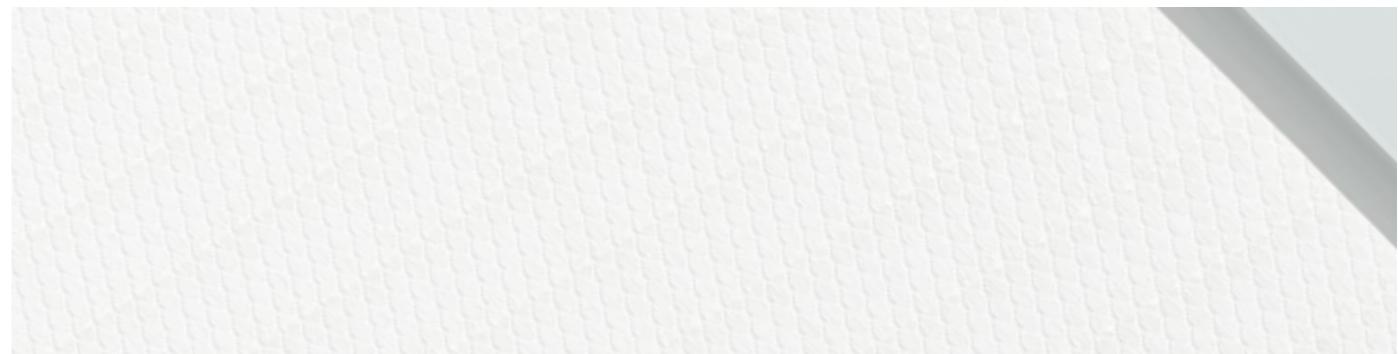
Options

- High Temperature

HEPA filters

HEPA HLA-E-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/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
HLA1110DBCE	305x457x68	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
HLA1110DBFE	305x762x68	E10	7.0	375	65	778x321x99
HLA1110DEFE	610x762x68	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	1836x89x768
HLA1110DFJE	762x1830x68	E10	41.4	2250	65	1836x89x921
HLA1110DBGE	305x915x68	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
HLA1111DBCE	305x457x68	E11	4.2	225	80	473x321x99
HLA1111DEEE	610x610x68	E11	11.1	600	80	616x89x616
HLA1111DEGE	610x915x68	E11	16.6	900	80	616x89x921
HLA1111DEHE	610x1220x68	E11	22.1	1200	80	1226x89x616
HLA1111DEIE	610x1524x68	E11	27.6	1500	80	626x1540x99
HLA1111DEJE	610x1830x68	E11	33.1	1800	80	1836x89x616
HLA1111DBFE	305x762x68	E11	7.0	375	80	778x321x99
HLA1111DEFE	610x762x68	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	1836x89x768
HLA1111DFJE	762x1830x68	E11	41.4	2250	80	1836x89x921
HLA1111DBGE	305x915x68	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
HLA1113DCCE	457x457x68	H13	6.2	335	120	463x89x463
HLA1113DBEE	305x610x68	H13	5.5	300	120	616x89x311
HLA1113DCEE	457x610x68	H13	8.3	450	120	473x626x99
HLA1113DBCE	305x457x68	H13	4.2	225	120	473x321x99

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCEE	457x610x68	H13	8.3	450	120	473x626x99
HLA1113DBCE	305x457x68	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	626x1540x99
HLA1113DBFE	305x762x68	H13	7.0	375	120	778x321x99
HLA1113DEFE	610x762x68	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	1836x89x616
HLA1113DFJE	762x1830x68	H13	41.4	2250	120	1836x89x921
HLA1113DBGE	305x915x68	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
HLA1115DBBE	305x610x68	U15	5.5	300	195	463x89x463
HLA1115DCEE	457x610x68	U15	11.1	600	195	616x89x616
HLA1115DBCE	305x457x68	U15	22.1	1200	195	1226x89x616
HLA1115DEEE	610x610x68	U15	6.2	335	195	463x89x463
HLA1115DEGE	610x915x68	U15	17.3	950	195	778x778x99
HLA1115DFGE	762x915x68	U15	20.7	1125	195	921x89x768

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

HEPA filters

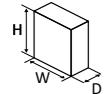
HEPA HLA-G-series

E10 E11 H13 H14 U15



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, U15
Maximum final pressure drop: 500Pa
Maximum temperature: 70°C
Maximum relative humidity: 90%



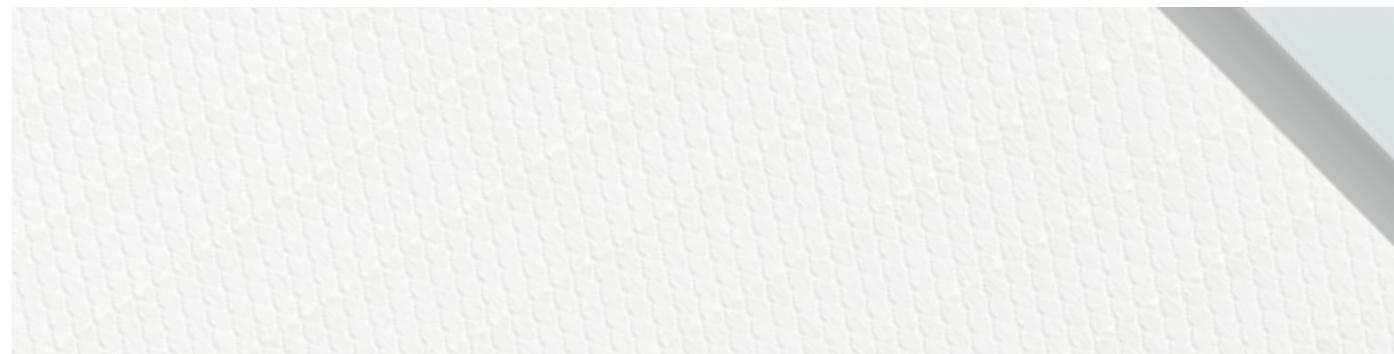
Advantages

- Lightweight construction
- Lower pressure drop than 68 mm implementation
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13, H14 & U15 are delivered with a test certificate

HEPA filters

HEPA HLA-G-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/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
HLA1110DBC	305x457x80	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
HLA1110DBFG	305x762x80	E10	8.4	375	55	778x321x111
HLA1110DEFG	610x762x80	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
HLA1110DBG	305x915x80	E10	10.0	450	55	931x321x111
HLA1110DG	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
HLA1111DBC	305x457x80	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
HLA1111DBFG	305x762x80	E11	8.4	375	60	778x321x111
HLA1111DEF	610x762x80	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
HLA1111DFJG	762x1524x80	E11	41.2	1875	60	778x1540x111
HLA1111DFIG	762x1830x80	E11	49.4	2250	60	778x1846x111
HLA1111DBG	305x915x80	E11	10.0	450	60	931x321x111
HLA1111DG	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
HLA1113DCCG	457x457x80	H13	7.4	335	90	473x103x473
HLA1113DBEG	305x610x80	H13	6.6	300	90	473x626x111

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCEG	457x610x80	H13	9.9	450	90	473x626x111
HLA1113DBC	305x457x80	H13	5.0	225	90	473x321x111
HLA1113DEEG	610x610x80	H13	13.2	600	90	626x103x626
HLA1113DEGG	610x915x80	H13	19.8	900	90	626x120x80
HLA1113DEHG	610x1220x80	H13	26.4	1200	90	620x91x1230
HLA1113DEIG	610x1524x80	H13	32.9	1500	90	626x1540x111
HLA1113DEJG	610x1830x80	H13	39.5	1800	90	626x1846x111
HLA1113DBF	305x762x80	H13	8.4	375	90	778x321x111
HLA1113DEFG	610x762x80	H13	16.6	750	90	778x626x111
HLA1113DFGG	762x762x80	H13	20.7	950	90	778x778x111
HLA1113DBG	305x915x80	H13	10.0	450	90	931x321x111
HLA1113DG	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
HLA1114DBB	305x305x80	H14	3.3	150	100	321x103x321
HLA1114DCG	457x457x80	H14	7.4	335	100	473x103x473
HLA1114DBE	305x610x80	H14	6.6	300	100	321x103x626
HLA1114DCE	457x610x80	H14	9.9	450	100	473x626x111
HLA1114DBC	305x457x80	H14	5.0	225	100	473x321x111
HLA1114DEE	610x610x80	H14	13.2	600	100	626x103x626
HLA1114DEG	610x915x80	H14	19.8	900	100	626x120x80
HLA1114DEH	610x1220x80	H14	26.4	1200	100	620x91x1230
HLA1114DEI	610x1524x80	H14	32.9	1500	100	626x1540x111
HLA1114DEJ	610x1830x80	H14	39.5	1800	100	626x1846x111
HLA1114DFB	305x762x80	H14	8.4	375	100	778x321x111
HLA1114DFG	610x762x80	H14	16.6	750	100	778x626x111
HLA1114DFH	762x762x80	H14	20.7	950	100	778x778x111
HLA1114DFG	762x915x80	H14	24.8	1125	100	778x931x111
HLA1114DFH	762x1220x80	H14	33.0	1500	100	778x1236x111
HLA1114DFI	762x1524x80	H14	41.2	1875	100	778x1540x111
HLA1114DFJ	762x1830x80	H14	49.4	2250	100	77

HEPA filters

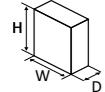
HEPA HLA-I-series

E10 E11 H13 H14 U15



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, U15
Maximum final pressure drop: 500Pa
Maximum temperature: 70°C
Maximum relative humidity: 90%



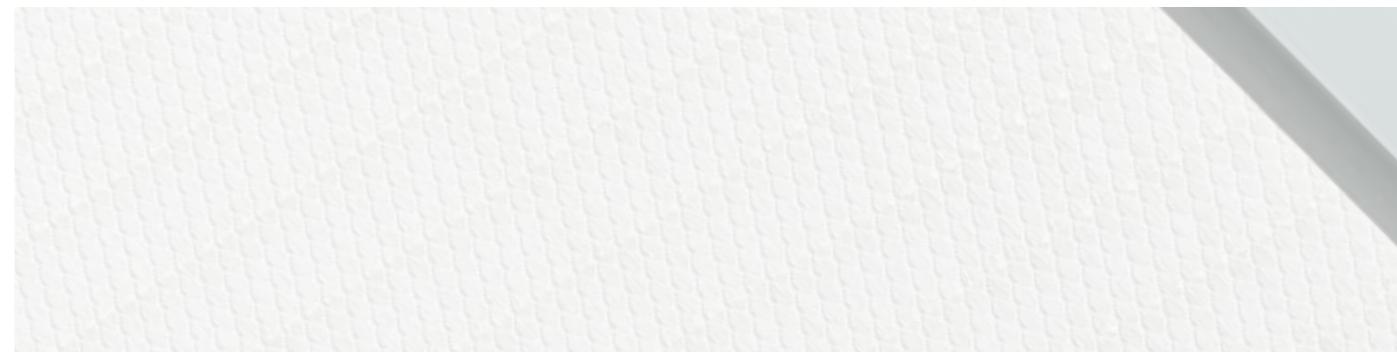
Advantages

- 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 & U15 are delivered with a test certificate

HEPA filters

HEPA HLA-I-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/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
HLA1110DBCI	305x457x90	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
HLA1110DBFI	305x762x90	E10	8.7	375	50	778x321x121
HLA1110DEFI	610x762x90	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
HLA1110DFJII	762x1830x90	E10	51.5	2250	50	778x1846x121
HLA1110DBGI	305x915x90	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
HLA1111DBCGI	305x457x90	E11	5.2	225	55	473x321x121
HLA1111DEEI	610x610x90	E11	13.8	600	55	626x103x626
HLA1111DEGGI	610x915x90	E11	20.7	900	55	626x103x931
HLA1111DEHGI	610x1220x90	E11	27.5	1200	55	626x1236x121
HLA1111DEIGI	610x1524x90	E11	34.3	1500	55	626x1540x121
HLA1111DEJGI	610x1830x90	E11	41.2	1800	55	626x1846x121
HLA1111DBFI	305x762x90	E11	8.7	375	55	778x321x121
HLA1111DEFGI	610x762x90	E11	17.3	750	55	778x626x121
HLA1111DFFI	762x762x90	E11	21.5	950	55	778x778x121
HLA1111DFGI	762x915x90	E11	25.8	1125	55	778x931x121
HLA1111DFHGI	762x1220x90	E11	34.4	1500	55	1236x108x778
HLA1111DFFGI	762x1524x90	E11	42.9	1875	55	778x1846x121
HLA1111DFJII	762x1830x90	E11	51.5	2250	55	778x1846x121
HLA1111DBGI	305x915x90	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
HLA1113DCCI	457x457x90	H13	7.8	335	80	473x473x121
HLA1113DBEI	305x610x90	H13	6.9	300	80	473x626x121

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCEI	457x610x90	H13	10.3	450	80	473x626x121
HLA1113DBCI	305x457x90	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
HLA1113DBFI	305x762x90	H13	8.7	375	80	778x321x121
HLA1113DEFI	610x762x90	H13	17.3	750	80	778x626x121
HLA1113DFII	762x762x90	H13	21.5	950	80	778x778x121
HLA1113DFGI	762x915x90	H13	25.8	1125	80	778x931x121
HLA1113DFHII	762x1220x90	H13	34.4	1500	80	1236x108x778
HLA1113DFII	762x1524x90	H13	42.9	1875	80	778x1540x121
HLA1113DFJII	762x1830x90	H13	51.5	2250	80	931x108x931
HLA1113DBGI	305x915x90	H13	10.5	450	90	931x321x121
HLA1113DGJI	915x915x90	H13	62.0	2700	90	931x108x931
HLA1113DGHI	915x1220x90	H13	69.0	300	90	1236x108x931
HLA1113DGII	915x1524x90	H13	76.0	2250	90	1540x108x931
HLA1113DGJII	915x1830x90	H13	83.0	2700	90	931x1846x121
HLA1113DBEI	305x610x90	U15	6.9	300	135	321x103x626
HLA1113DEEI	610x610x90	U15	13.8	600	135	626x103x626
HLA1113DEII	610x1220x90	U15	27.5	1200	135	626x1236x121
HLA1113DCCI	457x457x90	U15	7.8	335	135	473x473x121
HLA1113DFFI	762x762x90	U15	21.5	950	135	778x778x121
HLA1113DFGI	762x915x90	U15	25.8	1125	135	778x931x121

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

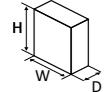
HEPA HLA-Q-series

E10 E11 H13 H14 U15



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, U15
Maximum final pressure drop: 500Pa
Maximum temperature: 70°C
Maximum relative humidity: 90%



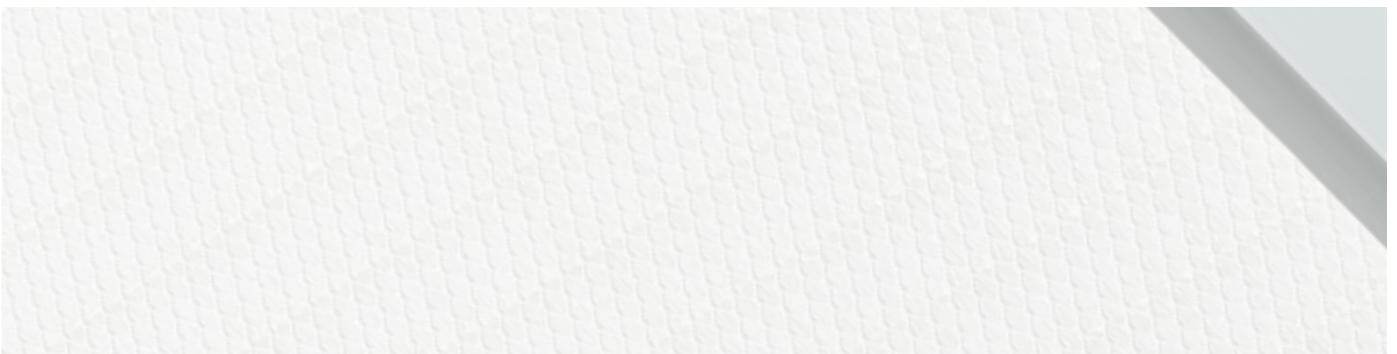
Advantages

- 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 & U15 are delivered with a test certificate

HEPA filters

HEPA HLA-Q-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/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
HLA1110DBCQ	305x457x110	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
HLA1110DBFQ	305x762x110	E10	11.2	375	35	778x321x141
HLA1110DEFQ	610x762x110	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
HLA1110DBGQ	305x915x110	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
HLA1111DBCQ	305x457x110	E11	6.7	225	40	473x321x141
HLA1111DEEGQ	610x610x110	E11	17.7	600	40	616x165x616
HLA1111DEGGQ	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
HLA1111DBFQ	305x762x110	E11	11.2	375	40	778x321x141
HLA1111DEFGQ	610x762x110	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
HLA1111DBGQ	305x915x110	E11	13.4	450	40	931x321x141
HLA1111DGGQ	915x915x110	E11	39.8	1350	40	931x931x141
HLA1111DGHQ	915x1220x110	E11	53.0	1800	40	931x1236x141
HLA1111DGIQ	915x1524x110	E11	66.1	2250	40	931x1540x141
HLA1111DGJQ	915x1830x110	E11	79.3	2700	40	931x1846x141
HLA1113DBBQ	305x305x110	H13	4.4	150	60	320x165x320
HLA1113DCCQ	457x457x110	H13	9.9	335	60	473x473x141
HLA1113DBEQ	305x610x110	H13	8.8	300	60	473x626x141

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCEQ	457x610x110	H13	13.2	450	60	473x626x141
HLA1113DBCQ	305x457x110	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
HLA1113DBFQ	305x762x110	H13	11.2	375	60	778x321x141
HLA1113DEFQ	610x762x110	H13	22.1	750	60	778x626x141
HLA1113DFGQ	762x762x110	H13	27.6	950	60	778x778x141
HLA1113DFHQ	762x915x110	H13	33.1	1125	60	778x931x141
HLA1113DFIQ	762x1220x110	H13	44.1	1500	60	778x1236x141
HLA1113DFJQ	762x1524x110	H13	55.0	1875	60	778x1846x141
HLA1113DGHQ	915x1220x110	H13	53.0	1800	60	931x1236x141
HLA1113DGHQ	915x1524x110	H13	66.1	2250	60	931x1540x141
HLA1113DGJQ	915x1830x110	H13	79.3	2700	60	931x1846x141
HLA1113DBEQ	305x610x110	U15	8.8	300	110	320x125x625
HLA1113DEEQ	610x610x110	U15	17.7	600	110	616x165x616
HLA1113DEHQ	610x1220x110	U15	35.2	1200	110	626x1236x141
HLA1113DCCQ	457x457x110	U15	9.9	335	110	473x473x141
HLA1113DFFQ	762x762x110	U15	27.6	950	110	778x778x141
HLA1113DFGQ	762x915x110	U15	33.1	1125	110	778x931x141
HLA1113DFHQ	762x1220x110	U15	44.1	1500	110	778x1236x141
HLA1113DFIQ	762x1524x110	U15	55.0	1875	110	778x1846x141
HLA1113DFJQ	762x1830x110	U15	66.0	2250	110	778x1846x141
HLA1113DBGQ	305x915x110	U15	13.4	450	110	931x321x141
HLA1113DGGQ	915x915x110	U15	39.8	1350	110	931x931x141
HLA1113DGHQ	915x1220x110	U15	53.0	1800	110	320x125x625
HLA1113DGJQ	915x1524x110	U15	66.1	2250	110	616x165x616
HLA1113DGHQ	915x1830x110	U15	79.3	2700		

HEPA filters

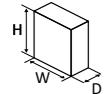
HEPA HLA-L-series

E10 E11 H13 H14 U15



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, U15
- Maximum final pressure drop:** 500Pa
- Maximum temperature:** 70°C
- Maximum relative humidity:** 90%



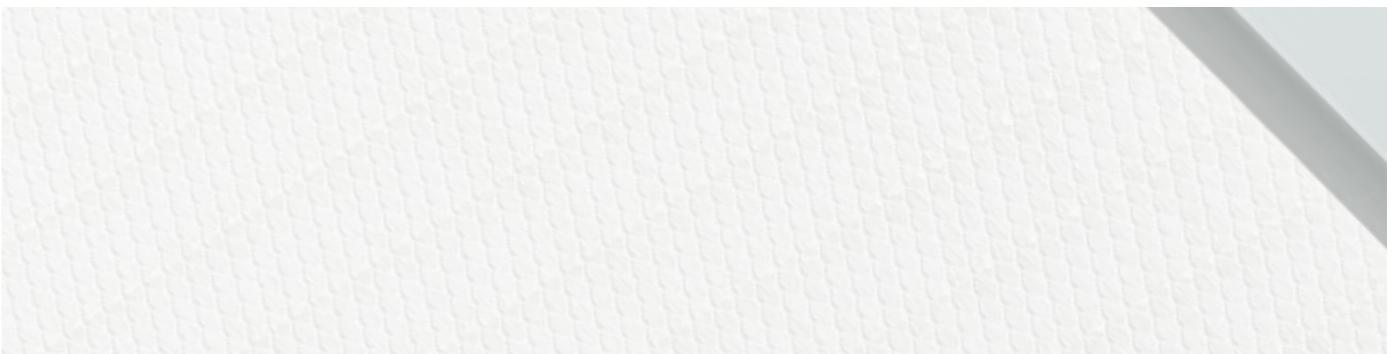
Advantages

- Lightweight construction
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13, H14 & U15 are delivered with a test certificate

HEPA filters

HEPA HLA-L-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/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
HLA1110DBCCL	305x457x150	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
HLA1110DBFL	305x762x150	E10	7.0	375	65	778x321x181
HLA1110DEFGL	610x762x150	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
HLA1110DBGGL	305x915x150	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
HLA1111DBCGL	305x457x150	E11	4.2	225	80	473x321x181
HLA1111DEEGL	610x610x150	E11	11.1	600	80	626x626x181
HLA1111DEGGL	610x915x150	E11	16.6	900	80	626x931x181
HLA1111DEHGL	610x1220x150	E11	22.1	1200	80	626x1236x181
HLA1111DEJGL	610x1524x150	E11	27.6	1500	80	626x1540x181
HLA1111DEJGL	610x1830x150	E11	33.1	1800	80	626x1846x181
HLA1111DBFL	305x762x150	E11	7.0	375	80	778x321x181
HLA1111DEFGL	610x762x150	E11	13.9	750	80	778x626x181
HLA1111DFFL	762x762x150	E11	17.3	950	80	778x778x181
HLA1111DFGL	762x915x150	E11	20.7	1125	80	778x931x181
HLA1111DFHGL	762x1220x150	E11	27.6	1500	80	778x1236x181
HLA1111DFIGL	762x1524x150	E11	34.5	1875	80	778x1540x181
HLA1111DFJL	762x1830x150	E11	41.4	2250	80	778x1846x181
HLA1111DBGGL	305x915x150	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
HLA1113DCCL	457x457x150	H13	6.2	335	120	473x473x181
HLA1113DBEL	305x610x150	H13	5.5	300	120	473x626x181

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCEL	457x610x150	H13	8.3	450	120	473x626x181
HLA1113DBCCL	305x457x150	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
HLA1113DBFL	305x762x150	H13	7.0	375	120	778x321x181
HLA1113DEFL	610x762x150	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
HLA1114DBBL	305x305x150	H14	2.8	150	140	321x321x181
HLA1114DCCIL	457x457x150	H14	6.2	335	140	473x473x181
HLA1114DBEL	305x610x150	H14	5.5	300	140	321x626x181
HLA1114DCEL	457x610x150	H14	8.3	450	140	473x626x181
HLA1114DBCL	305x457x150	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
HLA1114DBFL	305x762x150	H14	7.0	375	140	778x321x181
HLA1114DEFL	610x762x150	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
HLA1114DFJ						

HEPA filters

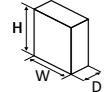
HEPA HLA-J-series

E10 E11 H13 H14 U15



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, U15
Maximum final pressure drop: 500Pa
Maximum temperature: 70°C
Maximum relative humidity: 90%



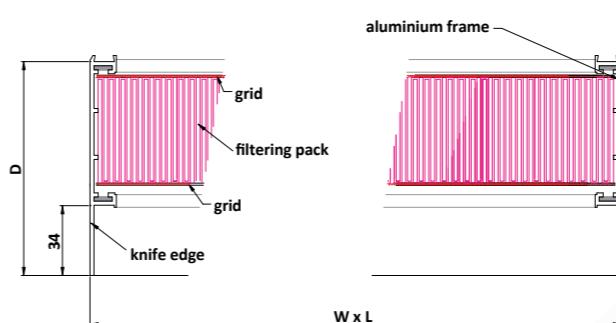
Advantages

- Lightweight construction
- Excellent seal when mounting with knife edge frame
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13, H14 & U15 are delivered with a test certificate

HEPA filters

HEPA HLA-J-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBJ	305x305x102.5	E10	2.8	150	65	321x321x134
HLA1110DCCI	457x457x102.5	E10	6.2	335	65	473x473x134
HLA1110DBEJ	305x610x102.5	E10	5.5	300	65	321x626x134
HLA1110DCEJ	457x610x102.5	E10	8.3	450	65	473x626x134
HLA1110DBCJ	305x457x102.5	E10	4.2	225	65	473x321x134
HLA1110DEEJ	610x610x102.5	E10	11.1	600	65	626x626x134
HLA1110DEGJ	610x915x102.5	E10	16.6	900	65	626x931x134
HLA1110DEHJ	610x1220x102.5	E10	22.1	1200	65	626x1236x134
HLA1110DEUJ	610x1524x102.5	E10	27.6	1500	65	626x1540x134
HLA1110DEJJ	610x1830x102.5	E10	33.1	1800	65	626x1846x134
HLA1110DBFJ	305x762x102.5	E10	7.0	375	65	778x321x134
HLA1110DEFJ	610x762x102.5	E10	13.9	750	65	778x626x134
HLA1110DFFJ	762x762x102.5	E10	17.3	950	65	778x778x134
HLA1110DFGJ	762x915x102.5	E10	20.7	1125	65	778x931x134
HLA1110DFHJ	762x1220x102.5	E10	27.6	1500	65	778x1236x134
HLA1110DFIJ	762x1524x102.5	E10	34.5	1875	65	778x1540x134
HLA1110DFJJ	762x1830x102.5	E10	41.4	2250	65	778x1846x134
HLA1110DBGJ	305x915x102.5	E10	8.4	450	65	931x321x134
HLA1110DGGJ	915x915x102.5	E10	24.9	1350	65	931x931x134
HLA1110DGHJ	915x1220x102.5	E10	33.2	1800	65	931x1236x134
HLA1110DGJJ	915x1524x102.5	E10	41.4	2250	65	931x1540x134
HLA1110DGJJ	915x1830x102.5	E10	49.7	2700	65	931x1846x134
HLA1111DBBJ	305x305x102.5	E11	2.8	150	80	321x321x134
HLA1111DCCJ	457x457x102.5	E11	6.2	335	80	473x473x134
HLA1111DBEJ	305x610x102.5	E11	5.5	300	80	321x626x134
HLA1111DCEJ	457x610x102.5	E11	8.3	450	80	473x626x134
HLA1111DBCJ	305x457x102.5	E11	4.2	225	80	473x321x134
HLA1111DEEGJ	610x610x102.5	E11	11.1	600	80	626x626x134
HLA1111DEGGJ	610x915x102.5	E11	16.6	900	80	626x931x134
HLA1111DEHGJ	610x1220x102.5	E11	22.1	1200	80	626x1236x134
HLA1111DEIJGJ	610x1524x102.5	E11	27.6	1500	80	626x1540x134
HLA1111DEIGJ	610x1830x102.5	E11	33.1	1800	80	626x1846x134
HLA1111DBFJ	305x762x102.5	E11	7.0	375	80	778x321x134
HLA1111DEFGJ	610x762x102.5	E11	13.9	750	80	778x626x134
HLA1111DFFJ	762x762x102.5	E11	17.3	950	80	778x778x134
HLA1111DFGJ	762x915x102.5	E11	20.7	1125	80	778x931x134
HLA1111DFHGJ	762x1220x102.5	E11	27.6	1500	80	778x1236x134
HLA1111DFIGJ	762x1524x102.5	E11	34.5	1875	80	778x1540x134
HLA1111DFJJ	762x1830x102.5	E11	41.4	2250	80	778x1846x134
HLA1111DBGJ	305x915x102.5	E11	8.4	450	80	931x321x134
HLA1111DGGJ	915x915x102.5	E11	24.9	1350	80	931x931x134
HLA1111DGHJ	915x1220x102.5	E11	33.2	1800	80	931x1236x134
HLA1111DGJJ	915x1524x102.5	E11	41.4	2250	80	931x1540x134
HLA1111DGJJ	915x1830x102.5	E11	49.7	2700	80	931x1846x134
HLA1113DBBJ	305x305x102.5	H13	2.8	150	120	321x321x134
HLA1113DCCJ	457x457x102.5	H13	6.2	335	120	473x473x134
HLA1113DBEJ	305x610x102.5	H13	5.5	300	120	473x626x134

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

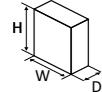
HEPA HLA-H-series

E10 E11 H13 H14 U15



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, U15
Maximum final pressure drop: 500Pa
Maximum temperature: 70°C
Maximum relative humidity: 90%



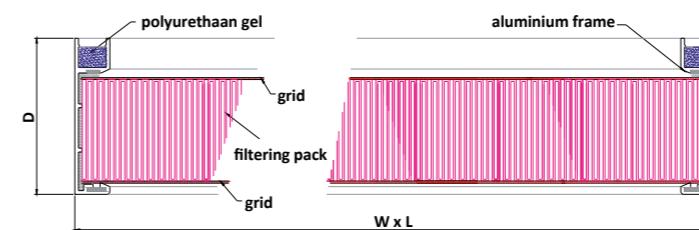
Advantages

- Lightweight construction
- Excellent seal when mounting with gelseal frame
- HLA HEPA are fitted with 2 protection grids
- Filters with the classification H13, H14 & U15 are delivered with a test certificate

HEPA filters

HEPA HLA-H-series continued

E10 E11 H13 H14 U15



Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1110DBBH	305x305x80	E10	3.3	150	55	321x103x321
HLA1110DCCH	457x457x80	E10	7.4	335	55	473x103x473
HLA1110DBEH	305x610x80	E10	6.6	300	55	321x103x626
HLA1110DCEH	457x610x80	E10	9.9	450	55	473x626x111
HLA1110DBCH	305x457x80	E10	5.0	225	55	473x321x111
HLA1110DEEH	610x610x80	E10	13.2	600	55	626x103x626
HLA1110DEGH	610x915x80	E10	19.8	900	55	626x103x931
HLA1110DEHH	610x1220x80	E10	26.4	1200	55	620x91x1230
HLA1110DEIH	610x1524x80	E10	32.9	1500	55	626x1540x111
HLA1110DEJH	610x1830x80	E10	39.5	1800	55	626x1846x111
HLA1110DBFH	305x762x80	E10	8.4	375	55	778x321x111
HLA1110DEFH	610x762x80	E10	16.6	750	55	778x626x111
HLA1110DFFF	762x762x80	E10	20.7	950	55	778x778x111
HLA1110DFGH	762x915x80	E10	24.8	1125	55	778x931x111
HLA1110DFHH	762x1220x80	E10	33.0	1500	55	778x1236x111
HLA1110DFIH	762x1524x80	E10	41.2	1875	55	778x1540x111
HLA1110DFJH	762x1830x80	E10	49.4	2250	55	778x1846x111
HLA1110DBGH	305x915x80	E10	10.0	450	55	931x321x111
HLA1110DGHH	915x915x80	E10	29.8	1350	55	931x931x111
HLA1110DGHH	915x1220x80	E10	39.7	1800	55	931x1236x111
HLA1110DGIH	915x1524x80	E10	49.5	2250	55	931x1540x111
HLA1110DGH	915x1830x80	E10	59.4	2700	55	931x1846x111
HLA1111DBBH	305x305x80	E11	3.3	150	60	321x103x321
HLA1111DCCH	457x457x80	E11	7.4	335	60	473x103x473
HLA1111DBEH	305x610x80	E11	6.6	300	60	321x103x626
HLA1111DCEH	457x610x80	E11	9.9	450	60	473x626x111
HLA1111DBCCH	305x457x80	E11	5.0	225	60	473x321x111
HLA1111DEEH	610x610x80	E11	13.2	600	60	626x103x626
HLA1111DEGH	610x915x80	E11	19.8	900	60	626x103x931
HLA1111DEHH	610x1220x80	E11	26.4	1200	60	620x91x1230
HLA1111DEIH	610x1524x80	E11	32.9	1500	60	626x1540x111
HLA1111DEJH	610x1830x80	E11	39.5	1800	60	626x1846x111
HLA1111DBFH	305x762x80	E11	8.4	375	60	778x321x111
HLA1111DEFGH	610x762x80	E11	16.6	750	60	778x626x111
HLA1111DFFH	762x762x80	E11	20.7	950	60	778x778x111
HLA1111DFGH	762x915x80	E11	24.8	1125	60	778x931x111
HLA1111DFHH	762x1220x80	E11	33.0	1500	60	778x1236x111
HLA1111DFIGH	762x1524x80	E11	41.2	1875	60	778x1540x111
HLA1111DFJH	762x1830x80	E11	49.4	2250	60	778x1846x111
HLA1111DBGH	305x915x80	E11	10.0	450	60	931x321x111
HLA1111DGHH	915x915x80	E11	29.8	1350	60	931x931x111
HLA1111DGHH	915x1220x80	E11	39.7	1800	60	931x1236x111
HLA1111DGIH	915x1524x80	E11	49.5	2250	60	931x1540x111
HLA1111DGJH	915x1830x80	E11	59.4	2700	60	931x1846x111
HLA1113DBBH	305x305x80	H13	3.3	150	90	321x103x321
HLA1113DCCH	457x457x80	H13	7.4	335	90	473x103x473
HLA1113DBEH	305x610x80	H13	6.6	300	90	321x103x626

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLA1113DCEH	457x610x80	H13	9.9	450	90	473x626x111
HLA1113DCBH	305x457x80	H13	5.0	225	90	473x321x111
HLA1113DEEH	610x610x80	H13	13.2	600	90	626x103x626
HLA1113DEGH	610x915x80	H13	19.8	900	90	626x103x931
HLA1113DEHH	610x1220x80	H13	26.4	1200	90	620x91x1230
HLA1113DEIH	610x1524x80	H13	32.9	1500	90	626x1540x111
HLA1113DEJH	610x1830x80	H13	39.5	1800	90	626x1846x111
HLA1113DBFH	305x762x80	H13	8.4	375	90	778x321x111
HLA1113DEFH	610x762x80	H13	16.6	750	90	778x626x111
HLA1113DFFF	762x762x80	H13	20.7	950	90	778x778x111
HLA1113DFGH	762x915x80	H13	24.8	1125	90	778x931x111
HLA1113DFHH	762x1220x80	H13	33.0	1500	90	778x1236x111
HLA1113DFIH	762x1524x80	H13	41.2	1875	90	778x1846x111
HLA1113DFJH	762x1830x80	H13	49.4	2250	90	778x1846x111
HLA1113DGHH	915x915x80	H13	10.0	450	100	931x321x111
HLA1113DGHH	915x1220x80	H13	19.8	700	100	931x1236x111
HLA1113DCEH	457x610x80	H14	9.9	450	100	473x626x111
HLA1113DEEH	610x610x80	H14	13.2	600	100	626x103x626
HLA1113DEGH	610x915x80	H14	19.8	900	100	626x103x931
HLA1113DEHH	610x1220x80	H14	26.4	1200	100	620x91x1230
HLA1113DEIH	610x1524x80	H14	32.9	1500	100	626x1540x111
HLA1113DEJH	610x1830x80	H14	39.5	1800	100	626x1846x111
HLA1113DBFH	305x762x80	H14	8.4	375	100	778x321x111
HLA1113DEFH	610x762x80	H14	16.6	750	100	778x626x111
HLA1113DFFF	762x762x80	H14	20.7	950	100	778x778x111
HLA1113DFGH	762x915x80	H14	24.8	1125	100	778x931x111
HLA1113DFHH	762x1220x80	H14	33.0	1500	100	778x1236x111
HLA1113DFIH	762x1524x80	H14	41.2	1875	100	778x1540x111
HLA1113DFJH	762x1830x80	H14	49.4	2250	100	778x1846x111
HLA1113DGHH	915x915x80	H14	10.0	450	100	

HEPA filters

HEPA PB-series

E10 E12 H13 H14



Specifications

Application: Cleanrooms, operating rooms

Frame: Galvanized steel

Spacers: Hotmelt

Bonding: 2 component polyurethane

Medium: Glass fibre paper

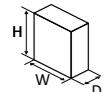
Gasket: -

Filter class according to EN1822: E10, E12 ,H13, H14

Maximum final pressure drop: 450Pa

Maximum temperature: 70°C

Maximum relative humidity: 90%



Advantages

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

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

Options

- Continuous poured gasket

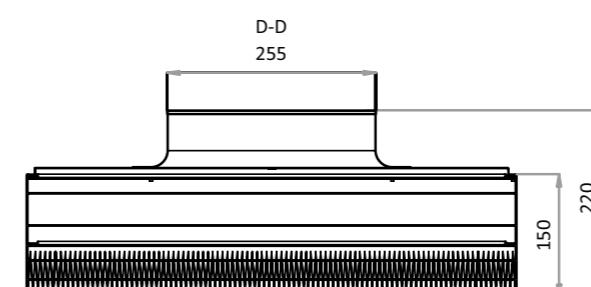
Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
PB-E10-V	202 x 600 x 86	E10	3.4	200	80	210x610x96
PB-E10-V/90	202 x 600 x 65	E10	3.4	200	80	210x610x75
PB-E12-V	202 x 600 x 86	E12	3.4	225	250	210x610x96
PB-E12-V/90	202 x 600 x 65	E12	3.4	300	250	210x610x75
PB-H13-V	202 x 600 x 86	H13	2.9	200	200	210x610x96

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.

Type	Dimensions WxHxD (mm)	Filter class	Filter surface (m²)	Airflow (m³/h)	Pressure drop (Pa)	Dimensions box (mm)
HLH111SBEL	305x610x150	E11	5.5	300	70	321x626x183
HLH111SEEL	610x610x150	E11	11.1	600	70	626x626x183
HLH111SEGL	610x915x150	E11	16.6	900	70	626x931x183
HLH111SEHL	610x1220x150	E11	22.1	1200	70	626x1236x183
HLH111S300600L	300x600x150	E11	5.4	300	70	316x616x183
HLH111S600600L	600x600x150	E11	10.7	600	70	616x616x183
HLH111S905600L	905x600x150	E11	16.2	900	70	921x616x183
HLH111S1210600L	1210x600x150	E11	22.1	1200	70	1226x616x183
HLH111S1195595L	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



PANEL FILTERS
BAG FILTERS
COMPACT FILTERS
HEPA FILTERS

ACTIVE CARBON FILTERS
OTHER PRODUCTS

HEPA unit

HL-HD



Characteristics

- Galvanised Steel RAL 9010 epoxy paint
- Connection on the top or the side
- Plenum and filter support assembled and sealed, air-tight
- For HEPA filters 68 or 150 mm thick
- Pressure connectors mounted
- Grill: interchangeable perforated, helicoid-jet or 4-way



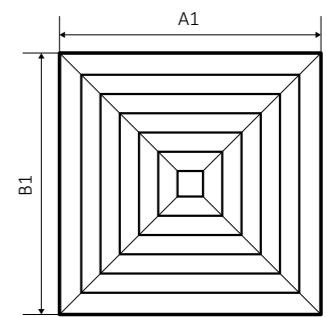
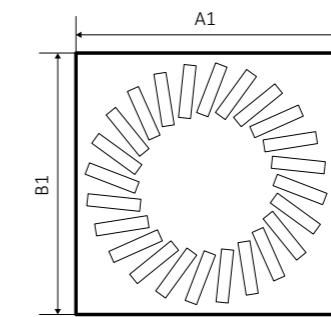
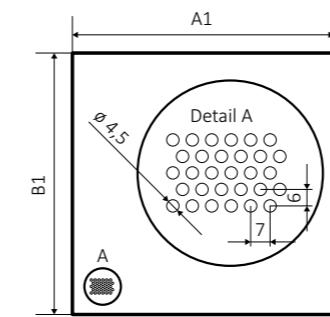
Advantages

- Can be used for many purposes: air supply/return, wall or ceiling installation
- 3 diffuser models suitable for different types of diffusion:
- Perforated Grill for vertical diffusion
- Helicoid grill for diffusion of air via mixture
- 4-way grill for multidirectional diffusion
- HL-HD-S version available with register that can be adjusted from the room

Type	Filter Dimensions (mm)	Overall Ax B (mm)	Cut out dimensions Ex F (mm)	H HL-HD-T (mm)	H HL-HD-S (mm)	ØG (mm)	I (mm)	Weight HL-HD-T (Kg)	Weight HL-HD-S (Kg)
DBBE	305x305x68	469x469	425x425	240	350	159	115	7	9
DBBL	305x305x150	469x469	425x425	325	475	199	135	8	10
DBEE	305x610x68	469x769	425x725	240	390	199	135	9	12
DCCE	457x457x68	635x635	591x591	240	390	199	135	10	14
DCCL	457x457x150	635x635	591x591	325	525	249	160	10	15
DEEE	610x610x68	769x769	725x725	240	440	249	160	11	17
DEEL	610x610x150	769x769	725x725	325	672	399	235	12	19
DEGE	610x915x68	769x1069	725x1025	240	510	314	192	17	24
DEHE	610x1220x68	769x1379	725x1335	240	510	314	192	20	31
F.P DCCE	457x457x68	595x595	565x565	240	390	199	135	10	14
F.P DCCL	457x457x150	595x595	565x565	325	525	249	160	10	15

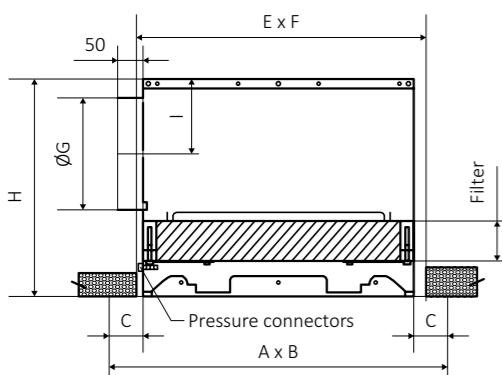
HEPA unit

HL-HD diffusers

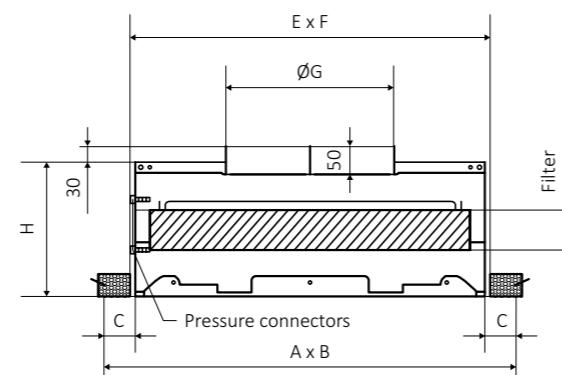


Type	Overall (Cx C)	Perforated Grill		Type: Helicoid Grill		4-way Grill	
		Filter E11	Filter H14	Filter E11	Filter H14	Filter E11	Filter H14
DBBE	370x370	240	150	240	150	240	150
DBBL	370x370	480	300	250	250	480	300
DBEE	370x670	480	300	-	-	480	300
DCCE	520x520	500	350	500	350	500	350
DCCL	520x520	800	700	600	600	800	700
DEEE	670x670	720	600	600	600	720	600
DEEL	670x670	1400	1200	800	800	1400	1200
DEGE	670x970	1120	900	-	-	1120	900
DEHE	670x1270	1300	1200	-	-	1300	1200
F.P DCCE	520x520	500	350	500	350	500	350
F.P DCCL	520x520	800	700	600	600	800	700

* Adapt based on the diffuser installation height. Perforated grills are generally used with 68 mm filters.



HL-HD-S



HL-HD-T

Mounting frames and units

SF-CH Canister Unit



Characteristics

- Application For installation in contaminated air extraction networks and secure replacement of the filter in a plastic bag
- Welded Steel 20/10e
- Epoxy paint RAL 9010, oven-baked
- Rip Resistant bag with integrated elastic
- Filter held in place with eccentric cams
- Maximum service temperature: 90°C

Advantages

- Continuously welded
- Robust and modular
- Closing hatch with foolproofing system, guaranteeing the proper insertion of the filter
- Mechanical Resistance +/-5000 Pa
- Qualified Unit: Class D (EN12237), Class C (Eurovent 2/2), L1 (EN1886)

Type	C	Unit Dimensions (mm)			Filter Dimensions (mm)			Weight (Kg)
		B	B Double Unit	A	L	W*	H	
CAN SF-CH BE	505	804	1608	376	305	610	98	20.6
CAN SF-CH EE	755	804	1608	376	610	610	98	31.8
CAN SF-CH NBEL	505	804	1608	428	305	610	150	24.2
CAN SF-CH NEEL	755	804	1608	428	610	610	150	35.4
CAN SF-CH NBEM	505	804	1608	570	305	610	292	31
CAN SF-CH NEEM	755	804	1608	570	610	610	292	42.2

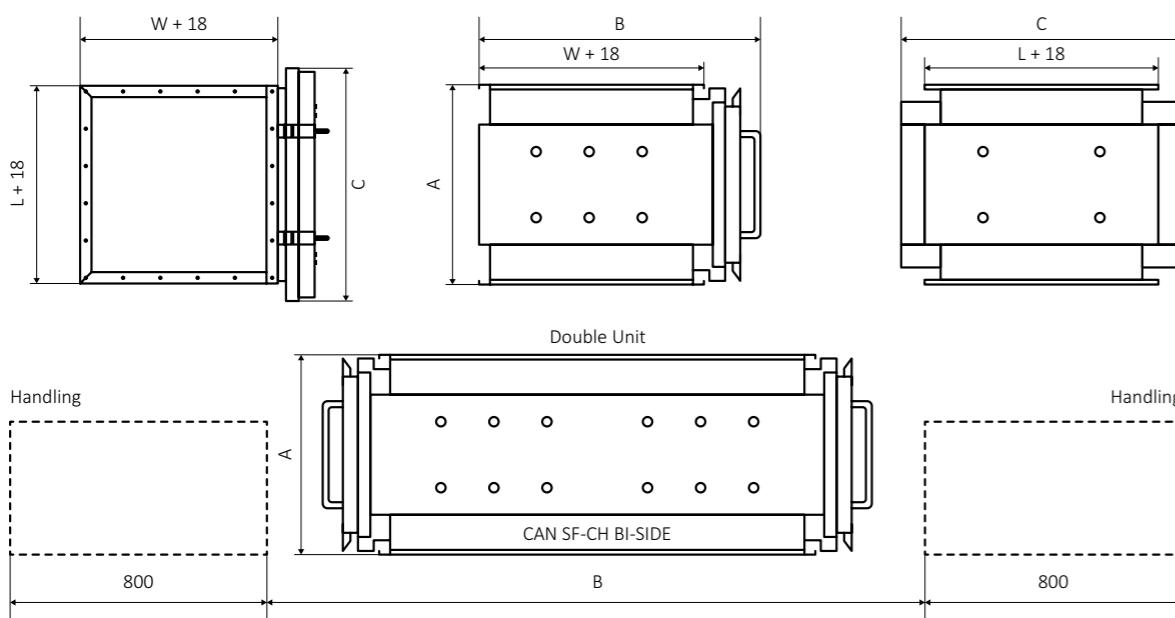
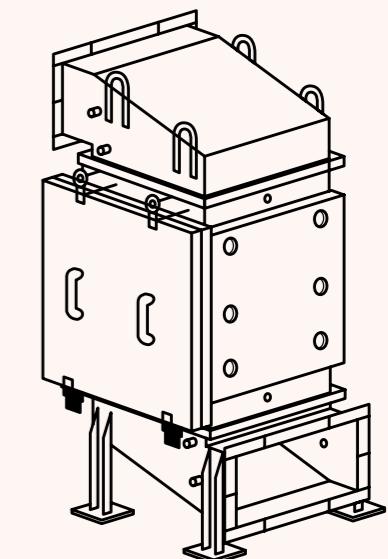
* Consider Wx2 for the double unit since this version contains 2 filters.

Mounting frames and units

SF-CH Canister Unit continued

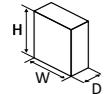
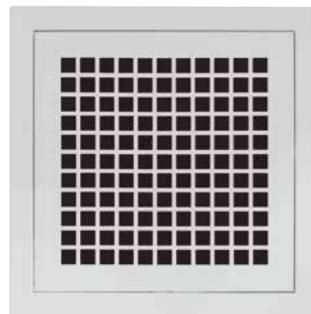
Options

- Pressure connectors with valves
- Upper/lower collector- support feet
- AISI 304 or AISI 316 Stainless steel version
- ATEX version
- Integrated manual test scan. Integrity control as per ISO 10644-3
- Double unit with a single door
- Unit with integrated prefilter
- Integrated maintenance table
- Door with inspection window
- Manometer with support
- Factory assembly or pre-assembly
- Individual factory test with report



Air return grill

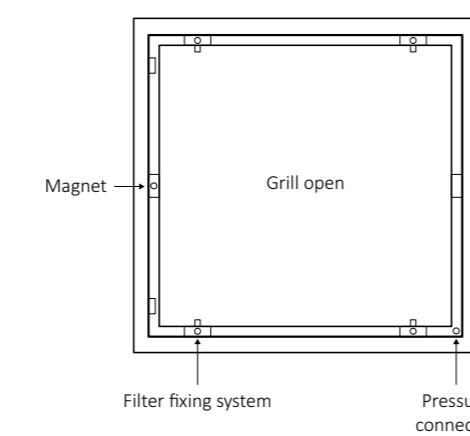
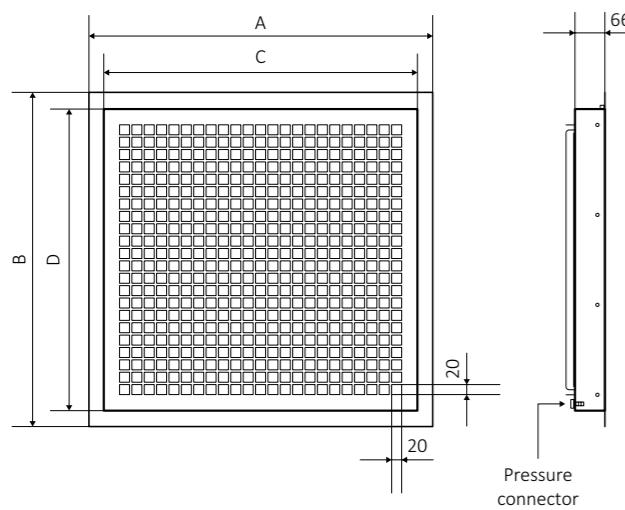
HL-RB



Characteristics

- Application Air return in clean room with turbulent air flow and mounted prefilters and fine filters
- Galvanised Steel RAL 9010 epoxy paint
- Connection on the top or the side
- Plenum and support filter assembled and sealed, airtight for filters 48 mm thick
- Pressure connector mounted
- Perforated Grill with 20x20 square mesh
- Grill can be opened/closed without tools

Size	Filter Dimensions (mm)	Grill Dimensions				Nominal Flow (m³/h)
		A	B	C	D	
3.1	305x150x48	410	255	350	195	200
4.1	395x150x48	500	225	440	195	320
3.1	305x305x48	410	410	350	350	500
3.4	305x395x48	410	500	350	440	540
3.5	305x490x48	410	595	350	535	800
5.3	490x305x48	595	410	535	350	800
4.4	395x395x48	500	500	440	440	840
3.6	305x610x48	410	715	350	655	970
6.3	610x305x48	715	410	655	350	970
4.5	490x490x48	500	595	440	535	1000
4.6	395x610x48	500	715	440	655	1220
5.5	490x490x48	595	595	535	535	1220
5.6	490x610x48	595	715	535	655	1560
6.6	610x610x48	715	715	655	655	1950
5.9	490x915x48	595	1020	535	960	2340
7.4	762x395x48	867	500	807	440	1570
7.7	762x762x48	867	867	807	807	3030

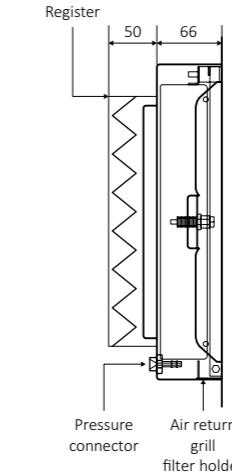


Air return grill

HL-RB continued

HL-RB + Register

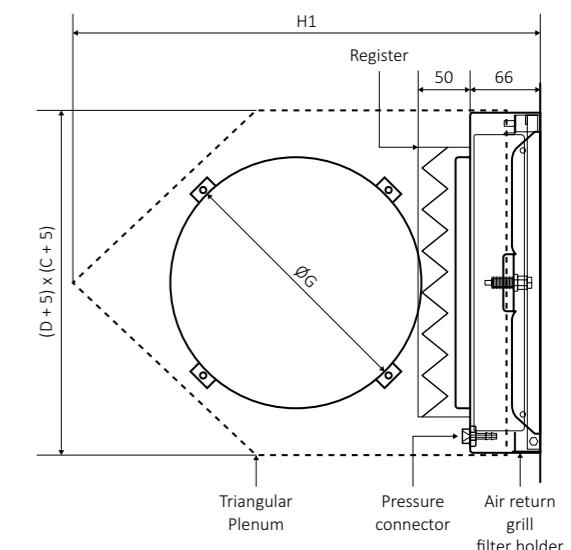
Size	Filter Dimensions (mm)
3.1	305x150
4.1	395x150
3.1	305x305
3.4	305x395
3.5	305x490
5.3	490x305
4.4	395x395
3.6	305x610
6.3	610x305
4.5	490x490
4.6	395x610
5.5	490x490
5.6	490x610
6.6	610x610
5.9	490x915
7.4	762x395
7.7	762x762



HL-RB + Triangular Plenum

Size	1 Pipe connection		2 Pipe connection	
	H1	G	H1	G
3.1	260	125	340	200
4.1	300	160	410	250
3.1	340	200	450	250
3.4	350	200	350	200
3.5	420	250	420	250
5.3	-	-	560	355
4.4	410	250	490	315
3.6	450	250	-	-
6.3	-	-	600	400
4.5	490	315	-	-
4.6	490	315	-	-
5.5	490	315	600	400
5.6	560	355	-	-
6.6	600	400	-	-
5.9	600	400	-	-
7.4	-	-	710	500
7.7	710	500	-	-

NB: The pipe connection absolutely must be located on length C.



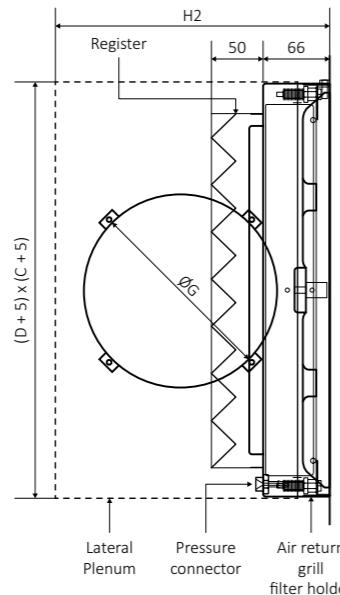
Air return grill

HL-RB continued

HL-RB + Lateral Plenum

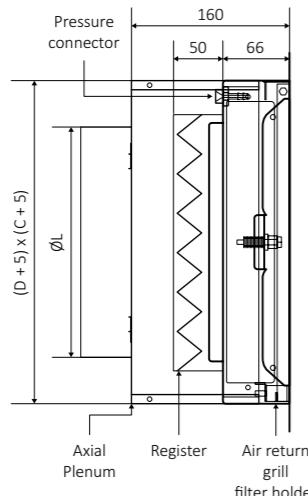
Size	H2	\emptyset
3.1	230	125
4.1	270	160
3.1	310	200
3.4	310	200
3.5	370	250
5.3	-	-
4.4	370	250
3.6	370	250
6.3	-	-
4.5	450	315
4.6	450	315
5.5	450	315
5.6	480	355
6.6	510	400
5.9	510	400
7.4	-	-
7.7	610	500

NB: The pipe connection absolutely must be located on length C.



HL-RB + Axial Plenum

Size	$\emptyset L$
3.1	125
4.1	160
3.1	200
3.4	200
3.5	250
5.3	-
4.4	250
3.6	250
6.3	-
4.5	315
4.6	315
5.5	315
5.6	355
6.6	400
5.9	400
7.4	-
7.7	500



Sleeve filtration units

HL-DA Unit



Characteristics

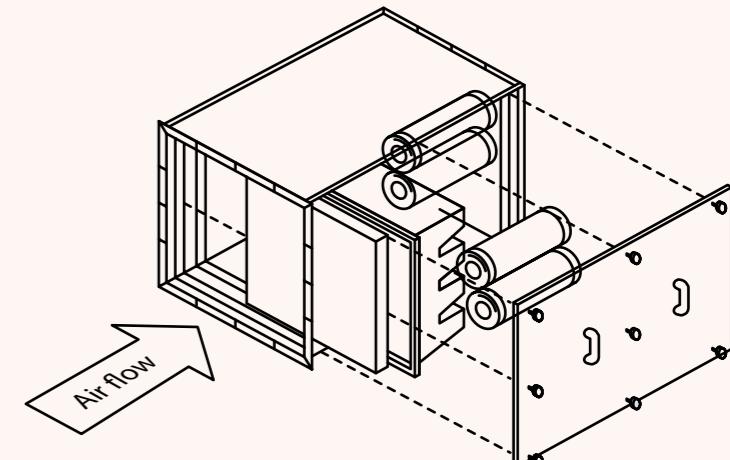
- Application Unit for the installation of one or several storeys of filtration in a duct network.
- Single-block galvanised steel
- Upstream/downstream clamps, width 30 mm
- Side door for filter access, knurled-knob closure and sealed joint
- Runner system for prefilters, tightening via cam for high-efficiency filters, welded plate for active carbon cartridges

Configuration

- Installation of 1 to 3 storeys of filtration: prefilter, high-efficiency filter and carbon active filter
- Option to mount from one to several filters per filtration storey to adapt to higher air flow rates.

Construction Variants and Options

- Made of stainless steel 304L or 316L
- Hinged door
- Epoxy paint finishing, RAL as chosen
- Clamp drilling on plane
- Pressure connectors
- Flanges with circular pipe connection up to H1L1
- Round/square conical adaptor part with pipe connection
- Register for the adjustment and/or sealed isolation (Class 3 or Class 4 as per EN1751)
- Visor or windscreens grill with anti-volatile mesh
- Roof with diamond point for outside installation
- Support Feet
- Ground connection for ATEX zone
- Special Construction for HEPA filters



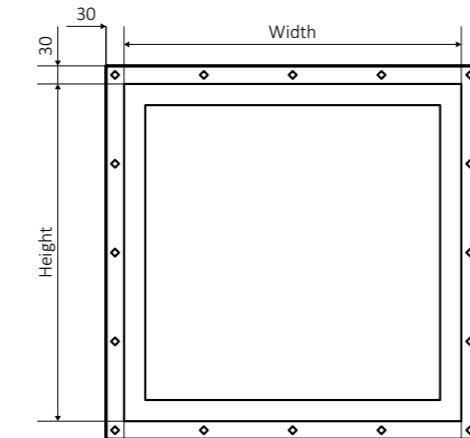
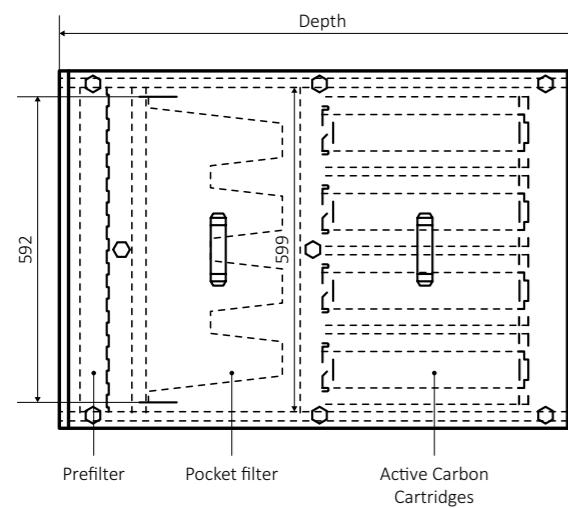
Sleeve filtration units

HL-DA Unit continued

Type	Number of filters	Dimensions Filters (mm)	Width** (mm)	Height** (mm)	Depth (mm)*					
					Prefilter	Pocket Filters	Carbon Cartridges	Prefilter + Pocket filter	Prefilter + Carbon Cartridge	Prefilter + Pocket filter + Carbon Cartridge
H1L1	1	592x592	620	620	400	700	700	700	700	1100
H1L1.5	1	592x592	930	620	400	700	700	700	700	1100
	1	287x592								
H1L2	2	592x592	1240	620	400	700	700	700	700	1100
H1.5L1	1	592x592	620	930	400	700	700	700	700	1100
	1	287x592								
H1.5L2	2	592x592	1240	930	400	700	700	700	700	1100
	2	287x592								
H2L1	2	592x592	620	1240	400	700	700	700	700	1100
H2L1.5	2	592x592	930	1240	400	700	700	700	700	1100
	2	287x592								
H2L2	4	592x592	1240	1240	400	700	700	700	700	1100
H2L3	6	592x592	1855	1240	400	700	700	700	700	1100
H3L2	6	592x592	1240	1855	400	700	700	700	700	1100
H3L3	9	592x592	1855	1855	400	700	700	700	700	1100
H0.5L0.5	1	287x287	315	315	400	700	700	700	700	1100
H0.5L1	1	287x592	620	315	400	700	700	700	700	1100
H1L0.5	1	287x592	315	620	400	700	700	700	700	1100

* Unit with hinged door = depth +100 mm

** External dimensions flanges = Width +60 x Height +60



Filtering ceiling for operating theatres

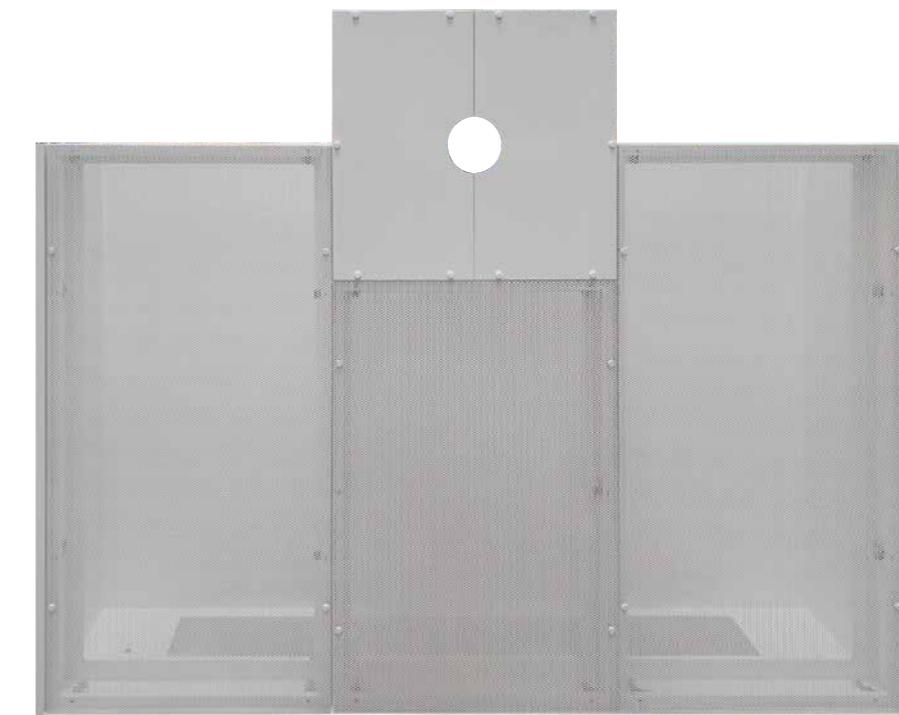
HD-CE



Characteristics

- Application: Diffusing ceiling fitted with absolute filters for the creation of Risk 3 or Risk 4 operating theatres as per NFS-90351
- Construction: Painted galvanised steel, plenum + sealed filter supports assembled in the factory, total height 450 mm
- Design: In one or several parts to be assembled on site, depending on the dimensions and access constraints for the unit
- With sealed pass-through for scialytique Lateral or top-of-plenum air return pipe connection (dimensions and position to be confirmed depending on the air flow and the constraints)
- Peripheral clamp in the lower section
- Support system in the upper section for attachment to the support
- Pressure connectors to measure dirt build-up on the filters
- 100% connector for filter integrity tests
- Joint plane extruded from a single piece in order to guarantee air-tightness
- Gripping system for filters 68 mm thick with dry joints using pivoting feet
- Perforated sheet metal for diffusion that can be removed by turning 90°, perforation covering the entire surface and preventing the creation of any dead zones

Type	Dimensions A x B x H	Number of Filters				Flow (m³/h)	
		305x610x68	610x610x68	610x915x68	610x1220x68	at 0.25 m/s	at 0.32 m/s
A	2730x1330x450	2	-	-	3	2350	3000
B	2000x2060x450	-	2	4	-	2670	3420
C	2610x2060x450	-	-	2	4	3670	4700
D	2975x2060x450	-	-	7	1	4170	5340
E	2730x2670x450	-	-	10	-	5000	6400
F	3280x2730x450	-	-	2	8	6340	8110
G	3280x3400x450	-	-	-	12	8000	10240
H	4070x3280x450	2	-	-	14	9670	12380



PANEL FILTERS
BAG FILTERS
COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

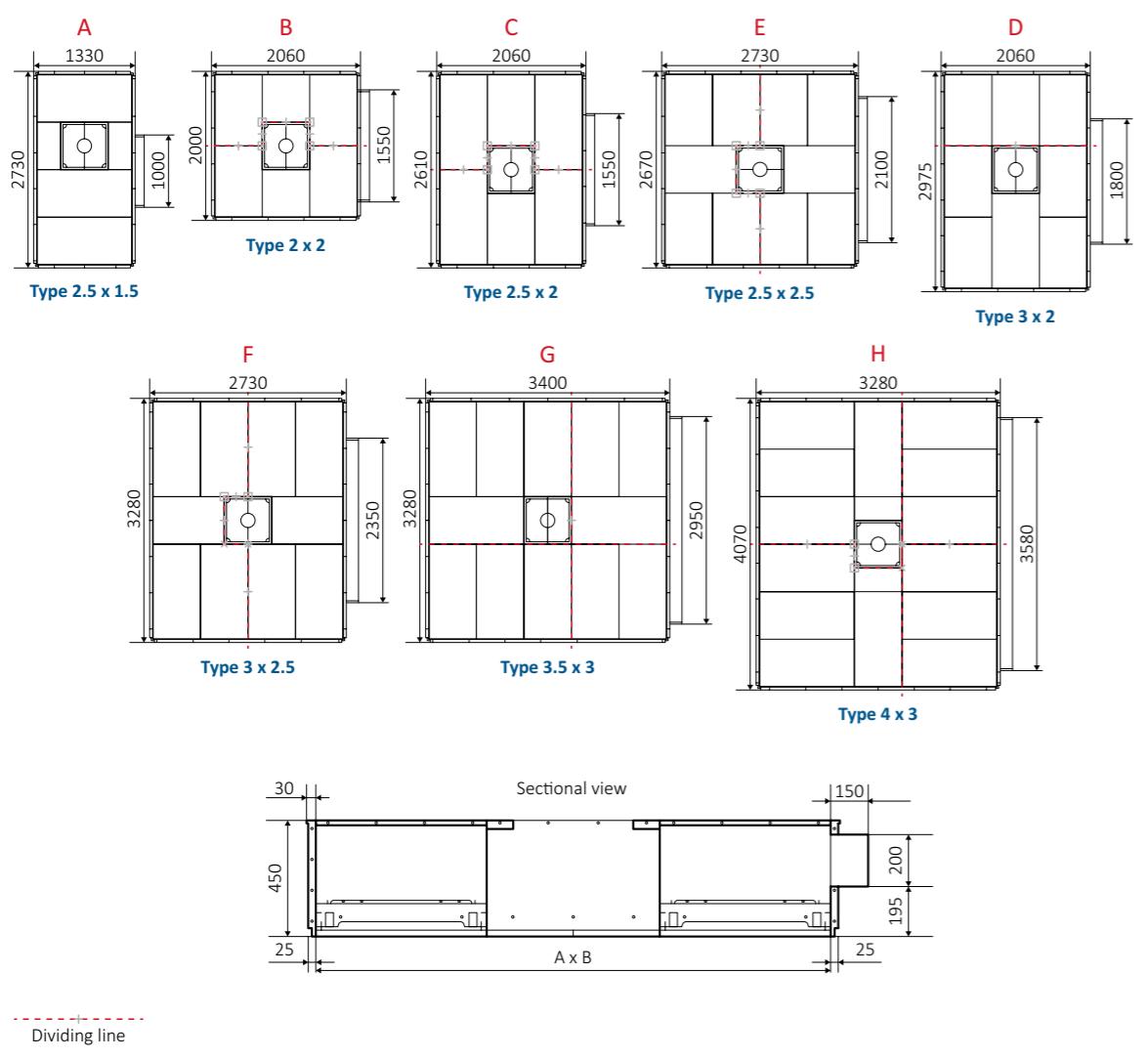
OTHER PRODUCTS

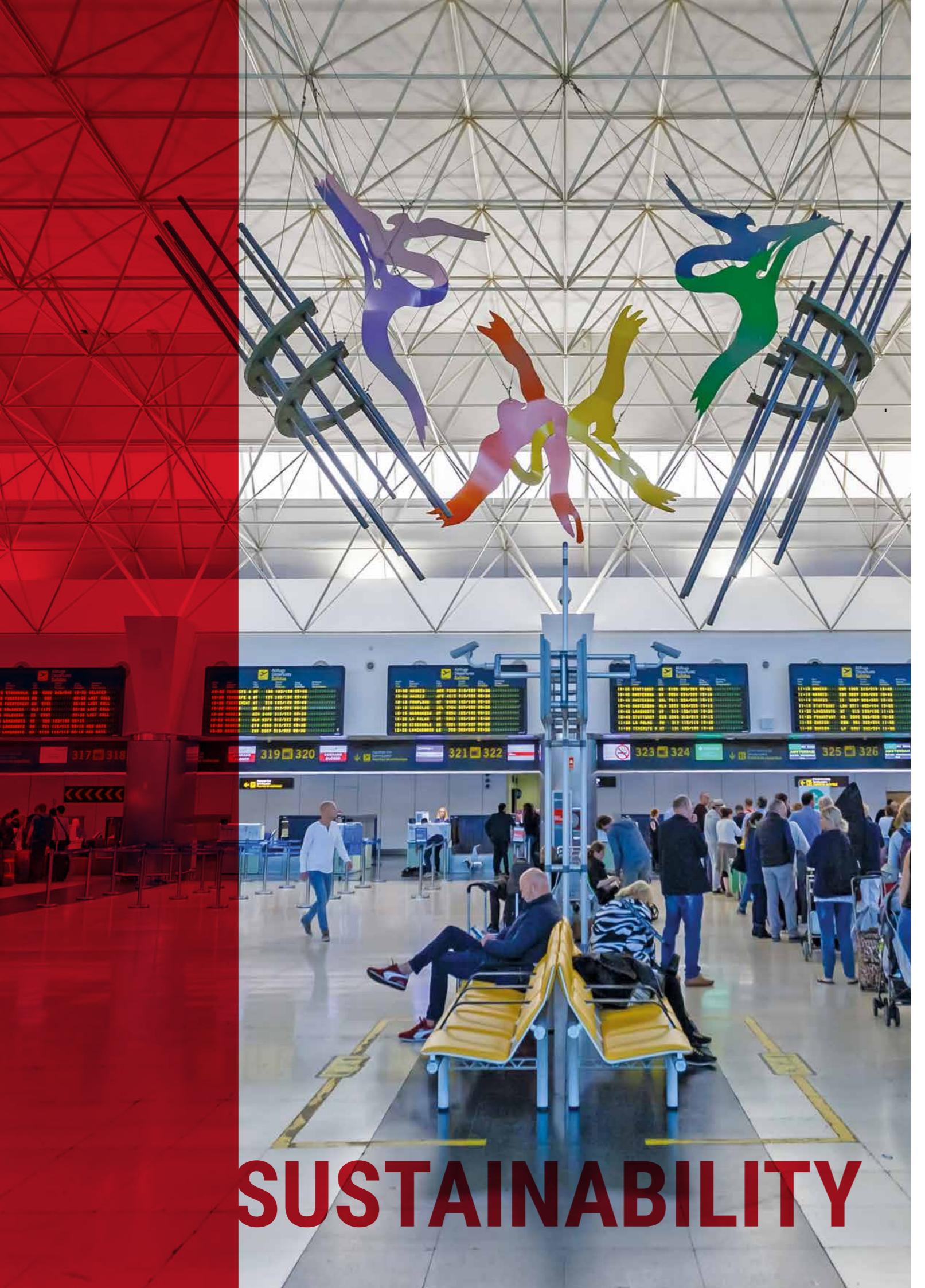
Filtering ceiling for operating theatres

HD-CE continued

Construction Variants and Options

- Made of stainless steel
- Construction without scialytique passage or with off-centre scialytique passage
- Blade structure for assembling filters with gel joints
- Structure for filters 115 mm thick in order to limit the loss of charge
- Height ≠ 450 mm





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

Type of activated carbon	Dimensions	Application
M-CARB	2, 3 and 4 mm	<ul style="list-style-type: none">• Unimpregnated (untreated to capture specific molecules)• (Captures a wide range of organic compounds, VOCs Volatile Organic Compounds)• For regular air handling units, spray booths and kitchens
S-CARB	3 mm	<ul style="list-style-type: none">• Impregnated• Adsorption of acid gases (H₂S, SO₂, HCl and Cl)• For slaughterhouses, the food industry and the protection of control rooms
R-CARB	3 and 4 mm	<ul style="list-style-type: none">• Impregnated• Adsorption of acid vapors (SO₂ / NO_x) and NH₃ and O₃• For museums, archives and libraries



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 industry

Gasket: Neoprene

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

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 (m³/h)	Pressure drop (Pa)	# Filters/box	Dimensions box (mm)
AC-2-12	Lenght: 250 mm Thickness: 25 mm Galvanized steel	M2-3	3	1.2	85	80	4	300x300x275
AC-2-26	Lenght: 450 mm Thickness: 25 mm Galvanized steel	M2-3	5	2.1	150	80	4	300x300x275
AC-2-26/SS	Lenght: 450 mm Thickness: 25 mm Stainless steel	M2-3	5	2.1	150	80	4	300x300x275
AC-2-60	Lenght: 600 mm Thickness: 25 mm Galvanized steel	M2-3	6	2.8	205	75	4	300x300x275

Type	Dimensions WxHxD (mm)	Carbon Type	Volume (L)	Bulk density (kg)	Airflow (m³/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.

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.

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

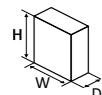
HEPA FILTERS

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: Neoprene
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 (m³/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 creation. For instructions on using these filters, refer to enclosed installation and maintenance instructions.

Active carbon filters

HPQ-AK-series

ISO Coarse ePM10



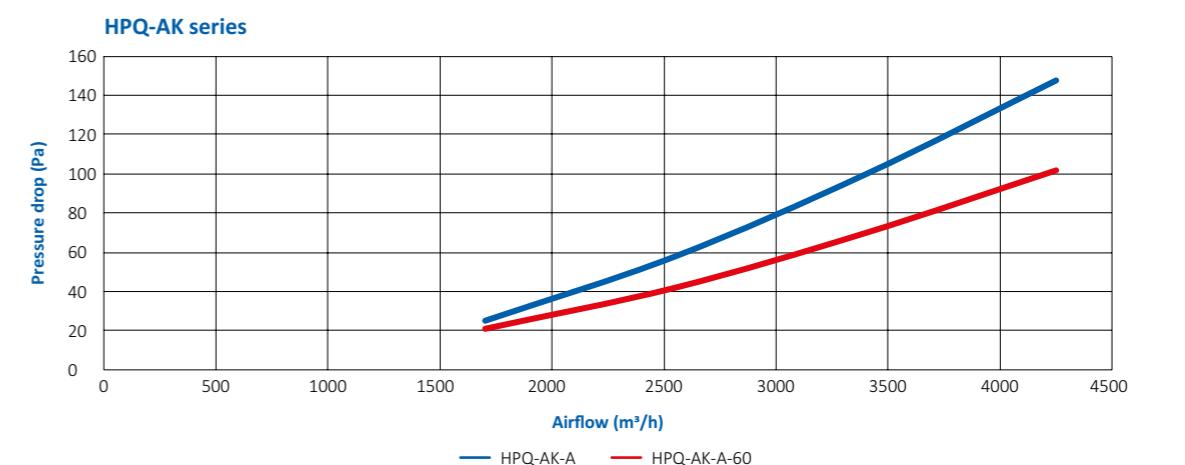
Specifications

Application: HVAC, industry
Frame: Plastic
Spacers: Hotmelt
Bonding: 2 component polyurethane
Medium: Synthetic medium combined with activated carbon
Gasket: Optional, Continuous poured gasket
Filter class according to ISO 16890: ISO Coarse, ePM10
Maximum final pressure drop: 350Pa
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
- Combination filter

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-AK-A	592x592x292	ISO Coarse 80%	8.3	3400	100	1	605x300x605	-
HPQ-AK-B	490x592x292	ISO Coarse 80%	6.9	2800	100	1	605x300x505	-
HPQ-AK-C	288x592x292	ISO Coarse 80%	4.0	1700	100	2	605x300x605	-
HPQ-AK-A-60	592x592x292	ePM10 60%	6.0	3400	70	1	605x300x605	-
HPQ-AK-B-60	490x592x292	ePM10 60%	4.9	2800	70	1	605x300x505	-
HPQ-AK-C-60	288x592x292	ePM10 60%	2.9	1700	70	2	605x300x605	-



* According to Eurovent ECP-11-FIL-2020

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.

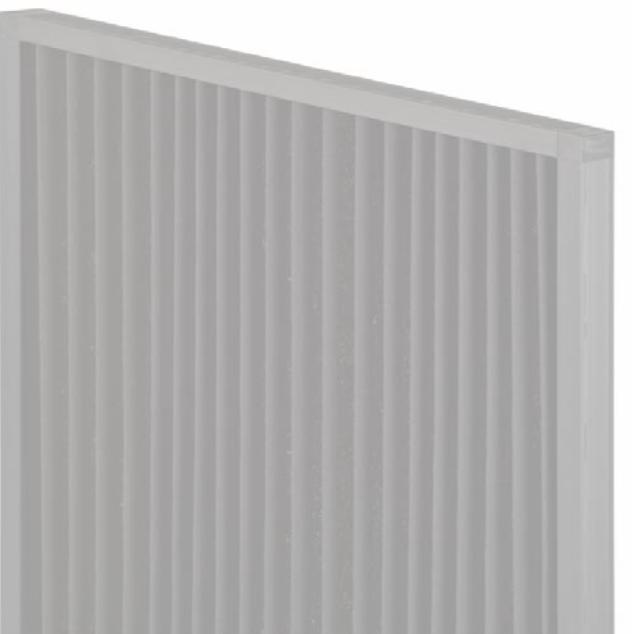
For further details about the AC-VB, contact us.

HQ-AK



The HQ-AK is an activated carbon bag filter used for molecular filtration. It is assembled with a galvanized steel or aluminum frame and a high-loft micro glass fiber filtration media with activated carbon layer.

For further details about the HQ-AK, contact us.





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 fibre 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

Materiaal: 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

Filter media

Glasmedium



Specifications

Application: Spray booth, prefilters gas turbines

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 (m³/h/m²)	Pressure drop (Pa)	Weight (g/m²)	Thickness (mm)	Activated carbon content (g/(m²))
T15/150	a m²	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 m²	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 m²	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 m²	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 m²	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 m²	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
PPI	-	-	Black	9700	20-30-40-70	-	5-10-15-25	-

*airspeed 0.25m/s

Type	Dimensions WxH (m)	Filter class ISO 16890	Color	Airflow (m³/h/m²)	Pressure drop (Pa)	Weight (g/m²)	Thickness (mm)
PS25x0.5	25x0.5	-	Green/White	2520	4-12	200	60
PS25x0.6	25x0.6	-	Green/White	2520	4-12	200	60
PS25x0.7	25x0.7	-	Green/White	2520	4-12	200	60
PS25x0.8	25x0.8	-	Green/White	2520	4-12	200	60
PS25x1.0	25x1.0	-	Green/White	2520	4-12	200	60
PS25x1.2	25x1.2	-	Green/White	2520	4-12	200	60
PS25x1.5	25x1.5	-	Green/White	2520	4-12	200	60
PS25x2.0	25x2.0	-	Green/White	2520	4-12	200	60
Andreae	0.9x11	-	-	-	-	-	-
Andreae- Eco	0.9x11	-	-	-	-	-	-

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS
OTHER PRODUCTS



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 or 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



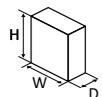
Specifications

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

Holding frames

HF HEPA



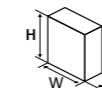
Specifications

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

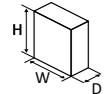
- Straightforward assembly
- Good seal between filter and frame by mounting accessories

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

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

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





Face mask

Type II



Specifications

- Product: 3-layer mask
- Filter material: Spunbond pp- Meltblown
- Bacterial Filtration Efficiency: 99%
- Production: Made in Europe

Tested by: **Hex GROUP**
Your expert in contamination control

FFP2



Specifications

- 5 layer mouth mask for a combination of optimal protection, strength and comfort
- Unique closure system around the nose for the guarantee of "airtightness"
- Head band for comfort during extended use
- EN 149:2001 + A1: 2009: practical performance fit- PASS
- Efficiency of filter material: > 94%
- Breathing resistance (0.5/1.5) at flow rate 30/95 l/min
- Made in Holland

PANEL FILTERS

BAG FILTERS

COMPACT FILTERS

HEPA FILTERS

ACTIVE CARBON FILTERS

OTHER PRODUCTS

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.

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Modifications and errors excepted.



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Clean air, our care

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