



# 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

A young boy with short blonde hair, wearing a light blue t-shirt, is seen from behind, raising his right hand in a classroom. In the background, other children's hands are also raised, and a green chalkboard is visible. Colorful triangular bunting hangs from the top of the frame. The word 'CARE' is overlaid in large, bold, red and blue letters on the left side of the image.

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

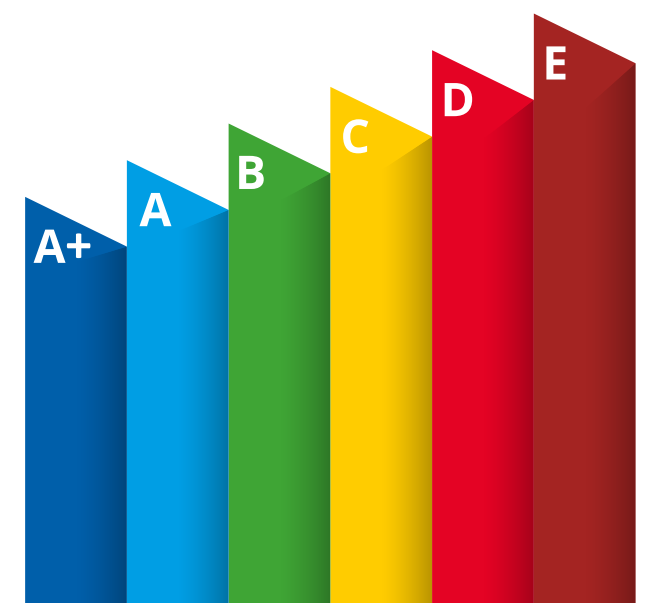
The importance of clean indoor air remains top of mind. At home, at work, at school; we spend about 20 hours a day indoors. To ensure, the air we breathe, is of the best quality, AFPRO Filters has been conducting research into air filtration for more than 40 years. Clean air makes us more energetic, 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 industrie 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.

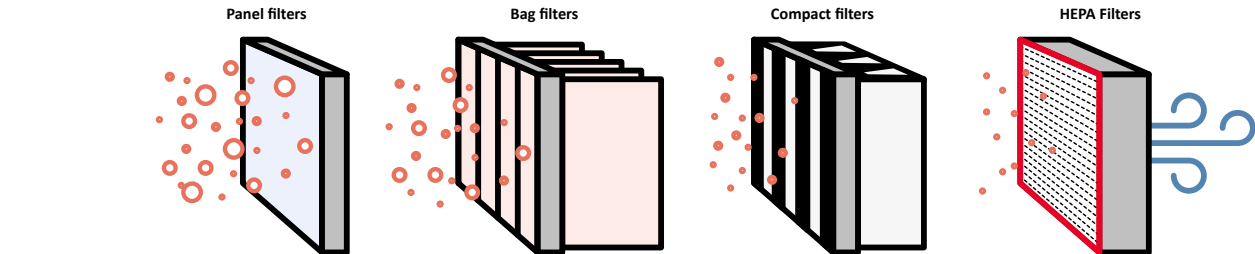
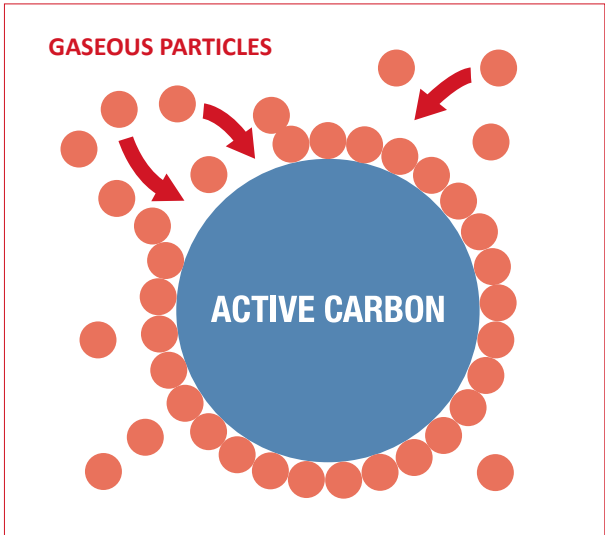


# The principles of air filtration

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

Our filters contain activated carbon which is capable to remove particles from the air by simply absorbing them. Different filters may use different types of carbon, depending on the particular field of application. Read more about the active carbon filter on page 107.



**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

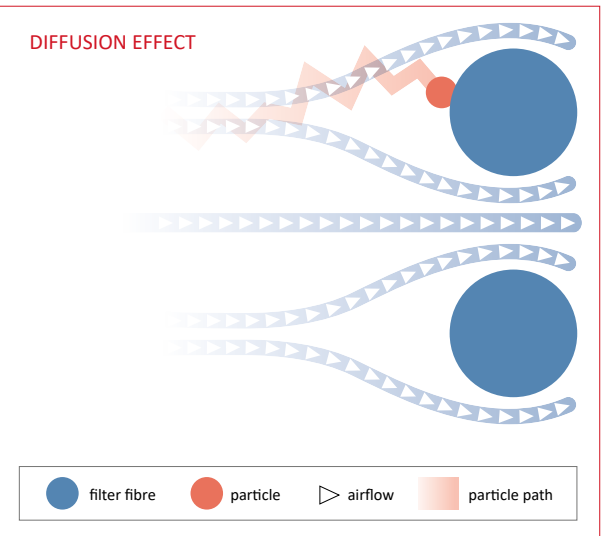
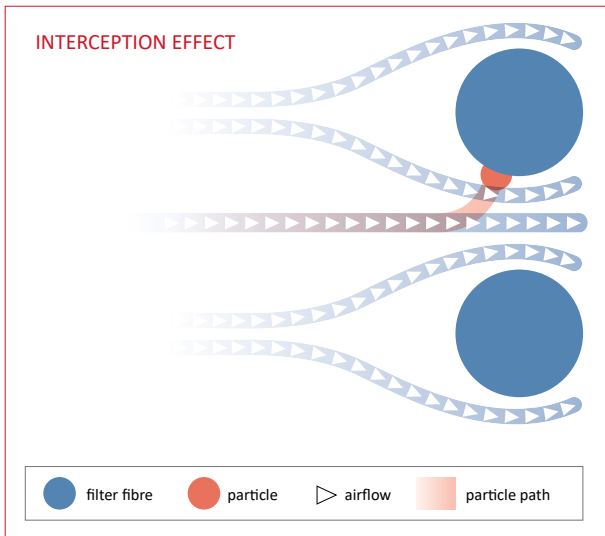
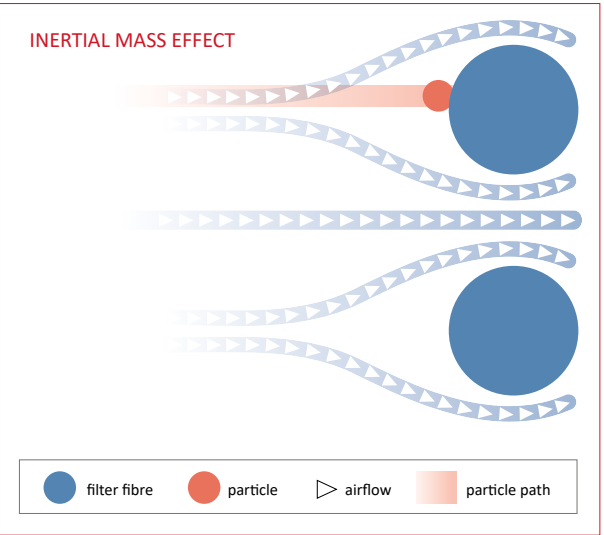
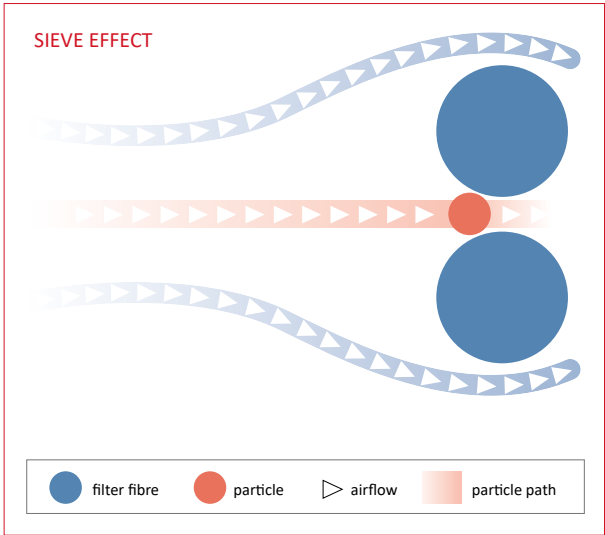
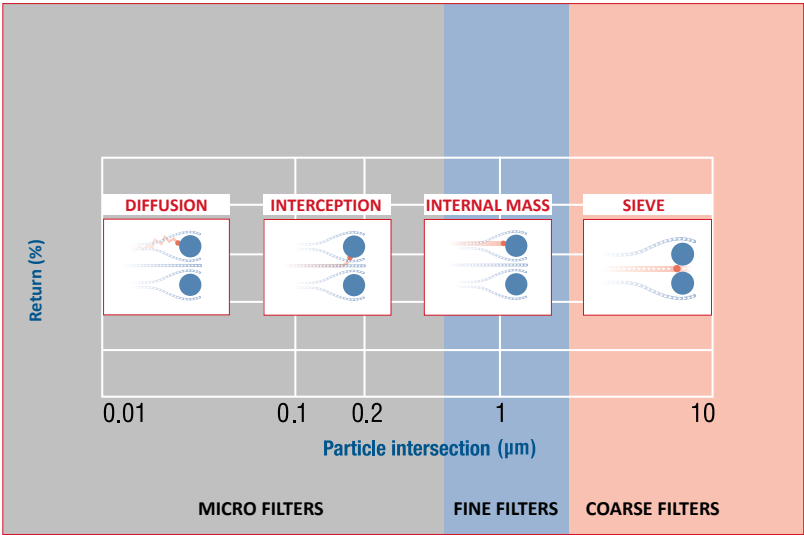
**The sieve effect**  
The sieve effect is one most commonly applied in air filters. The principle of the sieve effect is very simple: the particle is larger than the gap between the media fibers and therefore gets trapped.

**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 ≥ 50% | ISO ePM2.5 ≥ 50% | ISO ePM1 ≥ 50% |
| Filter test  | Test method:<br>Efficiency measurements carried out with particles from 0.3 to 10 µm<br>The classifications relate to the result for PM1, PM2.5, PM10<br>Unload method: Unload the entire filter using IPA value |                 |                  |                |

| Absolute filters                |                                                                                                                                                                                                                                                                                                   |     |      |       |        |         |          |           |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|-------|--------|---------|----------|-----------|
| Norms                           | EN1822                                                                                                                                                                                                                                                                                            |     |      |       |        |         |          |           |
| Filter Class                    | E10                                                                                                                                                                                                                                                                                               | E11 | E12  | H13   | H14    | U15     | U16      | U17       |
| Efficiency*<br>Global value (%) | 85                                                                                                                                                                                                                                                                                                | 95  | 99.5 | 99.95 | 99.995 | 99.9995 | 99.99995 | 99.999995 |
| Filter test                     | The test includes:<br>determining the MPPS value on the flat media the local filter efficiency at this MPPS (Leak measurement) the overall efficiency of the MPPS filter<br>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.

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

**How are the filters tested?**  
To determine what a filter does and does not catch, we place the filter in a test bench. In this test bench we determine the efficiency (Ei) of the filter with the standardized test substance. We measure efficiency with:  
ePM1 0.3- 1 micron  
ePM2.5 0.3- 2.5 microns  
ePM10 0.3- 10 microns

The filter then goes for 24 hours in a special cabinet where IPA (Isopropyl alcohol) is sprayed. In this way we eliminate the effect of any electrostatic charge. We put the filter back into the test bench and again measure the efficiency ( $E_{d,i}$ ).

The average efficiency then becomes:  
 $E_{A,i} = 0.5 \cdot (E_i + E_{d,i})$

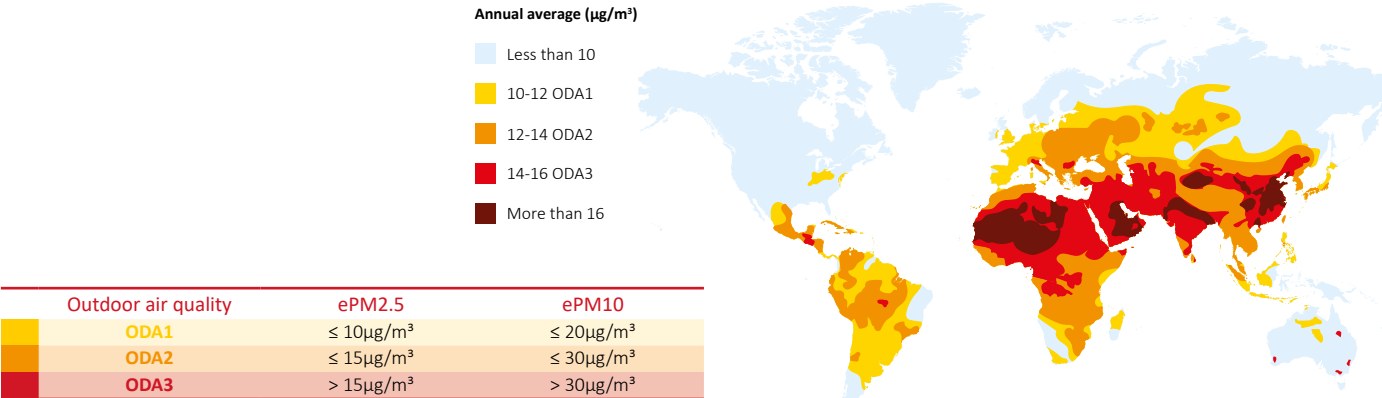
**Classification according to ISO 16890**  
ISO 16890 classifies air filters into 4 groups. To fall into a certain group, a filter must capture at least 50% of the respective particle size. If a filter catches more than 50% of the PM1 particles, it is an ISO ePM1 filter. If a filter catches less than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

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

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

**How do I choose the right filter?**  
Eurovent has drawn up a guideline for selecting air filters based on ISO 16890; Directive 4/23-2020. 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% |



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

Rooms for permanent occupation e.g. like:

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

Rooms with temporary occupation e.g. like:

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

Rooms with short term occupation e.g. like:

- Rest rooms
- Storage rooms
- Stair ways

Rooms without occupation e.g. like:

- Garbage
- Data centres
- Underground car parks

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

- Food & beverages production

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

- Food & beverages production with low hygienic demand

Industrial applications without hygienic demands e.g. like:

- General production areas in automotive industry

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

- Steel mill
- Smelters
- Welding plants

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

\* MIN filtration requirements ISO ePM1 50%

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

Outdoors

ODA1

- PM2.5 ≤ 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

- PM2.5 ≤ 15µg/m³ and PM10 ≤ 30µg/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

- PM2.5> 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

Supply air

SUP1

- PM2.5 ≤ 10µg/m³ and PM10 ≤ 5µg/m³
- Rooms where the demands on hygiene are high such as hospitals, pharmaceutical companies, the electronic and optical industry, clean rooms, etc.

SUP2

- PM2.5 ≤ 5µg/m³ and PM10 ≤ 10µg/m³
- Rooms that are regularly or permanently occupied such as (nursery) schools, offices, hotels, residential buildings, meeting rooms, exhibition rooms, conference rooms, theaters, cinemas, concert halls, etc.

SUP3

- PM2.5 ≤ 7.5µg/m³ and PM10 ≤ 15µg/m³
- Spaces with a temporary occupation such as warehouses, shopping centers, laundry rooms, server rooms, copy rooms, etc.

SUP4

- PM2.5 ≤ 10µg/m³ and PM10 ≤ 20µg/m³
- Rooms with a occasional occupation such as storage rooms, toilet rooms, stairwells, etc.

SUP5

- PM2.5 ≤ 15µg/m³ and PM10 ≤ 30µg/m³
- Spaces without occupation such as garages, data centers, underground parking garages, etc.

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



# 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           | ≥ 99.999995% | ≤ 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:

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

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



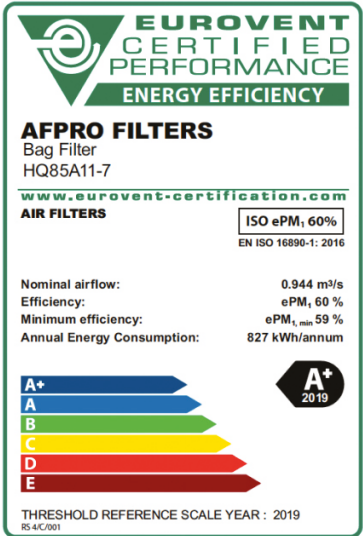
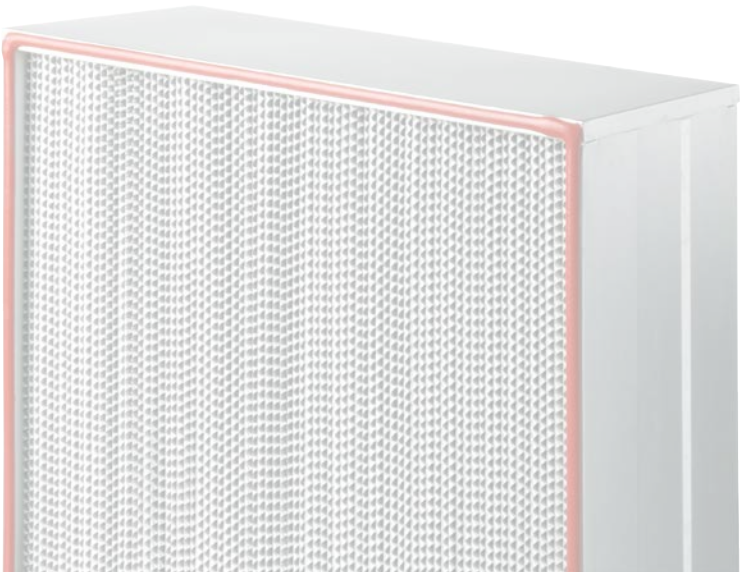
Eurovent uses several constants within this formula. The air flow is 0.944 m³/s, the number of operating hours is 6000 and the fan efficiency is set at 50%. The only variable is the average pressure drop.

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. AFPRO Filters provides a suitable filter, fitted to whatever the process needs. Many of our products are especially designed for the nuclear industry, gas turbines, semiconductor manufacturing and the pharmaceuticals sector.

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

**Filters protect people**

A human being inhales and exhales some 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.

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

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

**Filters protect your operating processes**

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

**Nuclear industry**

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

**Gas turbines**

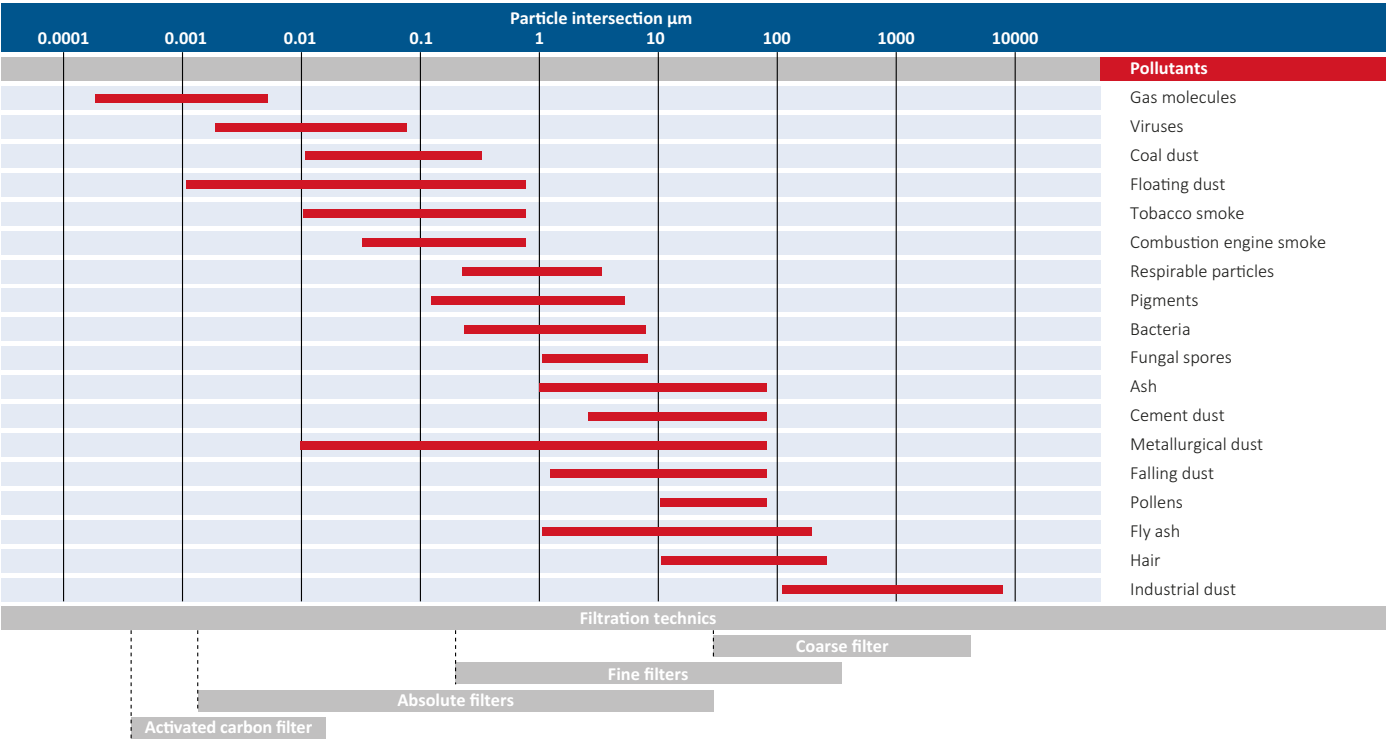
The primary function of an air filter inlet system is to protect the gas turbine and other rotating machinery from pollution present in the ambient air. Dust particles (> 5 µm) can cause erosion. Fine particles (submicron) contaminate the vanes, which has a detrimental effect on the performance of the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

**Semiconductor manufacturing**

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

**Pharmaceuticals sector**

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





# 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.







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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



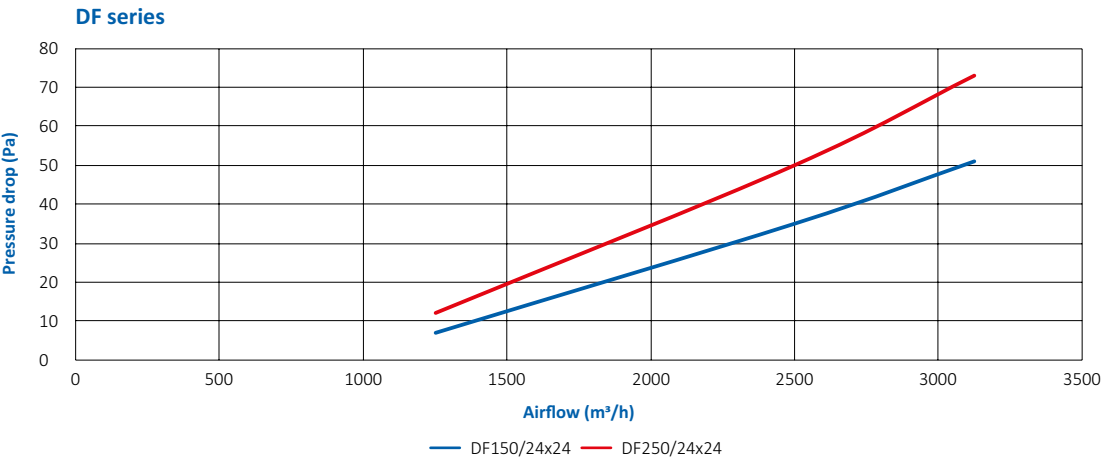
Specifications

**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

| Type  | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(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                    | -             |



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

Panel filters

NA Panel

ISO Coarse



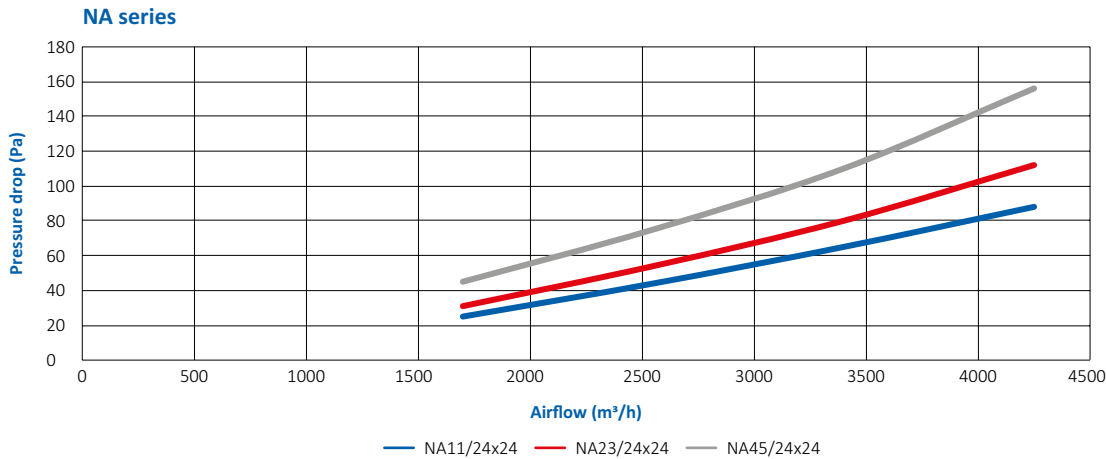
Specifications

**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<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|------------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| NA11/12x24 | 287x592x11               | ISO Coarse 30%            | 0.17                   | 1700              | 65                    | 40                | 600x600x500            | -             |
| NA11/16x20 | 394x490x11               | ISO Coarse 30%            | 0.19                   | 1880              | 65                    | 28                | 640x510x530            | -             |
| NA11/16x25 | 394x620x11               | ISO Coarse 30%            | 0.24                   | 2350              | 65                    | 24                | 640x510x530            | -             |
| NA11/20x20 | 490x490x11               | ISO Coarse 30%            | 0.24                   | 2350              | 65                    | 24                | 640x510x530            | -             |
| NA11/20x25 | 490x620x11               | ISO Coarse 30%            | 0.30                   | 2900              | 65                    | 20                | 640x510x530            | -             |
| NA11/24x24 | 592x592x11               | ISO Coarse 30%            | 0.35                   | 3400              | 65                    | 20                | 640x510x530            | -             |
| NA23/12x24 | 287x592x23               | ISO Coarse 50%            | 0.17                   | 1700              | 80                    | 42                | 600x600x500            | -             |
| NA23/16x20 | 394x490x23               | ISO Coarse 50%            | 0.19                   | 1880              | 80                    | 28                | 640x510x530            | -             |
| NA23/16x25 | 394x620x23               | ISO Coarse 50%            | 0.24                   | 2350              | 80                    | 24                | 640x510x530            | -             |
| NA23/20x20 | 490x490x23               | ISO Coarse 50%            | 0.24                   | 2350              | 80                    | 24                | 640x510x530            | -             |
| NA23/20x25 | 490x620x23               | ISO Coarse 50%            | 0.30                   | 2900              | 80                    | 20                | 640x510x530            | -             |
| NA23/24x24 | 592x592x23               | ISO Coarse 50%            | 0.35                   | 3400              | 80                    | 21                | 600x600x500            | -             |
| NA45/12x24 | 287x592x45               | ISO Coarse 60%            | 0.17                   | 1700              | 110                   | 20                | 600x600x500            | -             |
| NA45/16x20 | 394x490x45               | ISO Coarse 60%            | 0.19                   | 1880              | 110                   | 14                | 640x510x530            | -             |
| NA45/16x25 | 394x620x45               | ISO Coarse 60%            | 0.24                   | 2350              | 110                   | 12                | 640x510x530            | -             |
| NA45/20x20 | 490x490x45               | ISO Coarse 60%            | 0.24                   | 2350              | 110                   | 12                | 640x510x530            | -             |
| NA45/20x25 | 490x620x45               | ISO Coarse 60%            | 0.30                   | 2900              | 110                   | 10                | 640x510x530            | -             |
| NA45/24x24 | 592x592x45               | ISO Coarse 60%            | 0.35                   | 3400              | 110                   | 10                | 600x600x500            | -             |



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



Panel filters

GP Panel

ISO Coarse



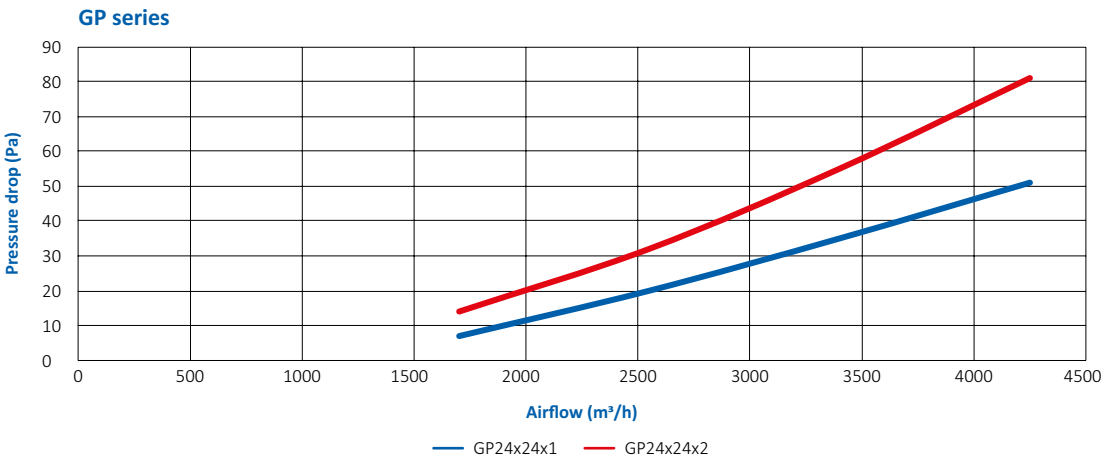
Specifications

**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

| Type      | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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            | -             |



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

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%

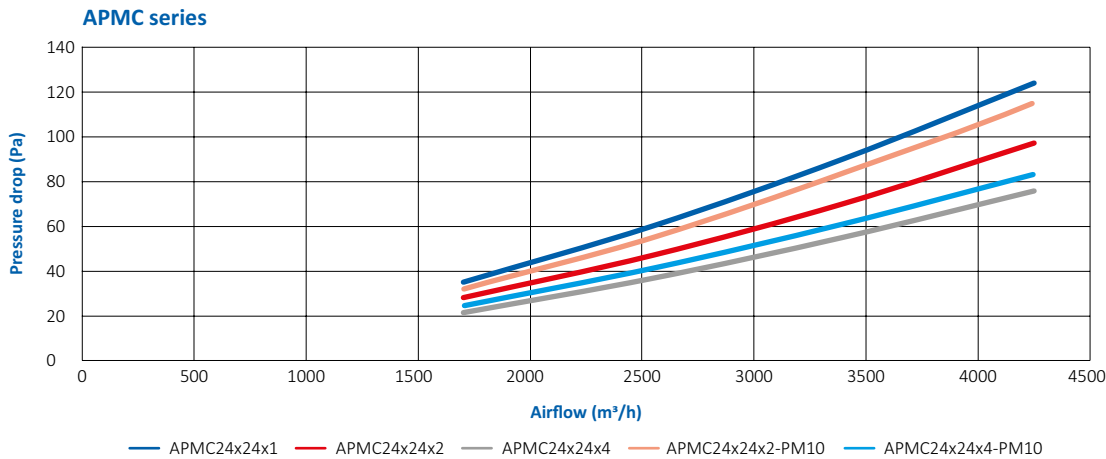
Advantages

- Straightforward assembly
- Firm construction

Options

- ATEX, Flange, Grid
- APMC ePM10

| Type             | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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             |



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

Panel filters

AERO Panel

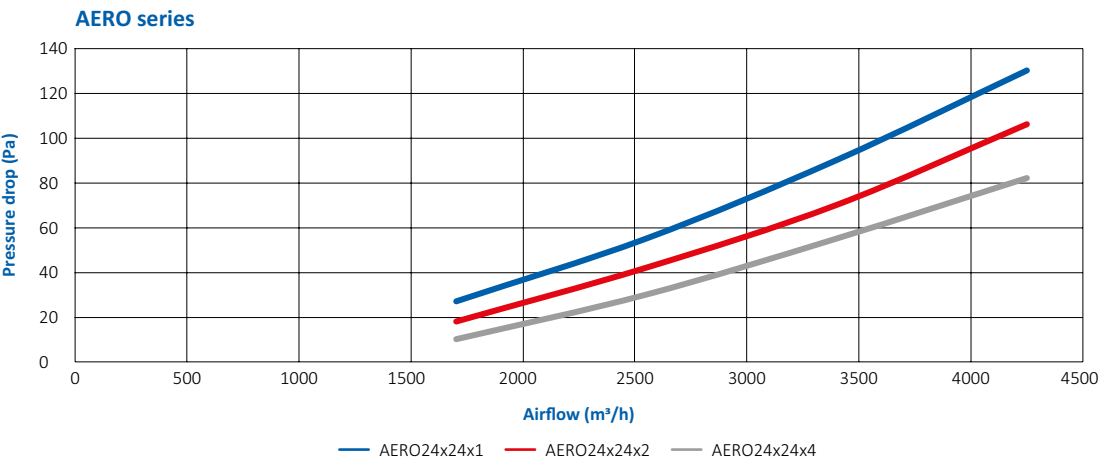


**Specifications**  
**Application:** Prefilter HVAC, industry, spray booth  
**Frame:** Firm cardboard frame  
**Spacers:** -  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional neoprene  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum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

- Advantages**
- Straightforward assembly
  - Totally combustible



| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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            | -             |



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

Panel filters

FP Panel

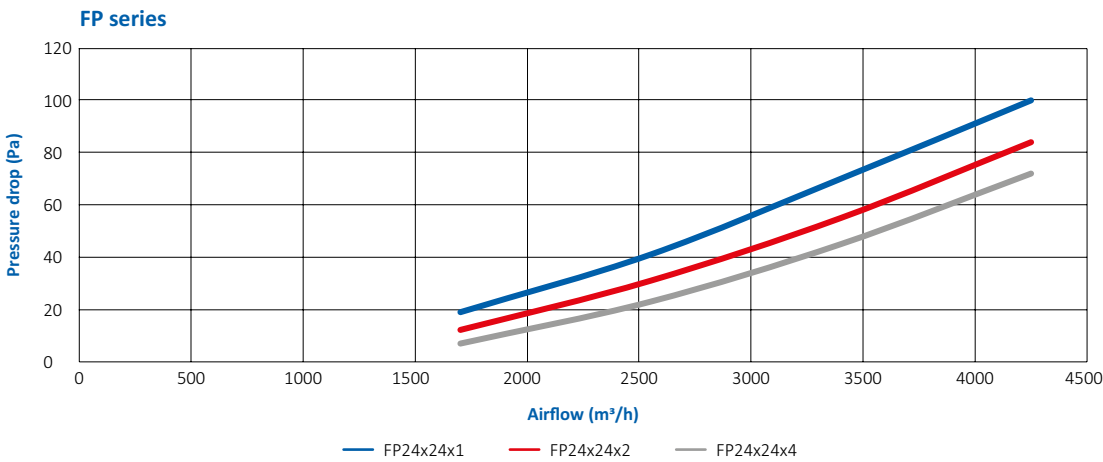


**Specifications**  
**Application:** Prefilter HVAC, industry, spray booth  
**Frame:** Firm cardboard frame  
**Spacers:** -  
**Bonding:** -  
**Medium:** Synthetic  
**Gasket:** Optional neoprene  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum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

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



| Type      | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|-----------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| FP12x24x1 | 289x594x23               | ISO Coarse 70%            | 0.4                    | 1700              | 70                    | 40                | 600x600x480            | -             |
| FP16x20x1 | 394x495x23               | ISO Coarse 70%            | 0.5                    | 1880              | 70                    | 32                | 640x510x530            | -             |
| FP16x25x1 | 394x622x23               | ISO Coarse 70%            | 0.6                    | 2350              | 70                    | 27                | 640x510x530            | -             |
| FP20x20x1 | 495x495x23               | ISO Coarse 70%            | 0.6                    | 2350              | 70                    | 29                | 640x510x530            | -             |
| FP20x24x1 | 495x594x23               | ISO Coarse 70%            | 0.7                    | 2800              | 70                    | 24                | 640x510x530            | -             |
| FP20x25x1 | 495x622x23               | ISO Coarse 70%            | 0.7                    | 2900              | 70                    | 22                | 640x510x530            | -             |
| FP24x24x1 | 594x594x23               | ISO Coarse 70%            | 0.9                    | 3400              | 70                    | 20                | 600x600x480            | -             |
| FP12x24x2 | 289x594x45               | ISO Coarse 70%            | 0.6                    | 1700              | 55                    | 20                | 600x600x460            | -             |
| FP16x20x2 | 394x495x45               | ISO Coarse 70%            | 0.7                    | 1880              | 55                    | 16                | 640x510x530            | -             |
| FP16x25x2 | 394x622x45               | ISO Coarse 70%            | 0.8                    | 2350              | 55                    | 13                | 640x510x530            | -             |
| FP20x20x2 | 495x495x45               | ISO Coarse 70%            | 0.9                    | 2350              | 55                    | 10                | 500x500x500            | -             |
| FP20x24x2 | 495x594x45               | ISO Coarse 70%            | 1.1                    | 2800              | 55                    | 12                | 600x600x500            | -             |
| FP20x25x2 | 495x622x45               | ISO Coarse 70%            | 1.2                    | 2900              | 55                    | 12                | 640x510x530            | -             |
| FP24x24x2 | 594x594x45               | ISO Coarse 70%            | 1.4                    | 3400              | 55                    | 10                | 600x600x460            | -             |
| FP12x24x4 | 289x594x94               | ISO Coarse 70%            | 1.3                    | 1700              | 45                    | 10                | 600x600x480            | -             |
| FP16x20x4 | 394x495x94               | ISO Coarse 70%            | 1.6                    | 1880              | 45                    | 8                 | 640x510x530            | -             |
| FP16x25x4 | 394x622x94               | ISO Coarse 70%            | 2.0                    | 2350              | 45                    | 7                 | 640x510x530            | -             |
| FP20x20x4 | 495x495x94               | ISO Coarse 70%            | 1.9                    | 2350              | 45                    | 5                 | 500x500x500            | -             |
| FP20x24x4 | 495x594x94               | ISO Coarse 70%            | 2.3                    | 2800              | 45                    | 6                 | 600x600x500            | -             |
| FP20x25x4 | 495x622x94               | ISO Coarse 70%            | 2.4                    | 2900              | 45                    | 5                 | 640x510x530            | -             |
| FP24x24x4 | 594x594x94               | ISO Coarse 70%            | 2.9                    | 3400              | 45                    | 5                 | 600x600x480            | -             |



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



Panel filters

APKK Panel

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

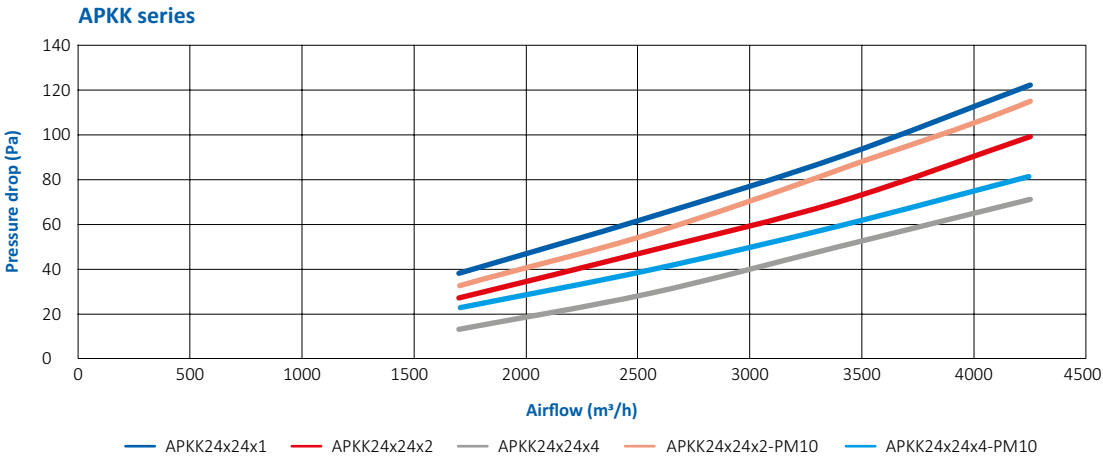
Advantages

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

Options

- ePM10

| Type             | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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             |



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

Panel filters

AQUA Panel

ISO Coarse



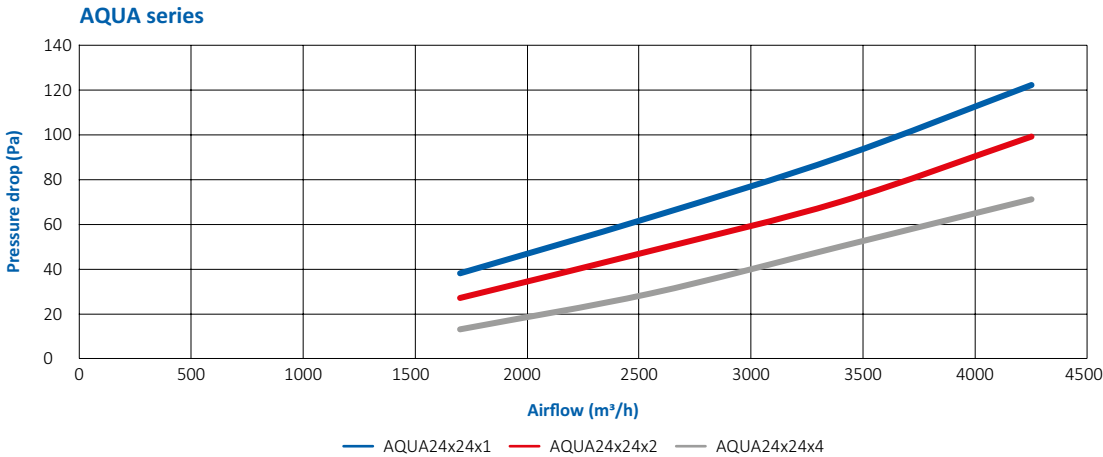
Specifications

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

Advantages

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

| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|-------------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| AQUA12x24x1 | 287x592x25               | ISO Coarse 70%            | 0.4                    | 1700              | 90                    | 24                | 600x600x300            | -             |
| AQUA16x20x1 | 394x490x25               | ISO Coarse 70%            | 0.4                    | 1880              | 90                    | 28                | 640x510x530            | -             |
| AQUA16x24x1 | 394x592x25               | ISO Coarse 70%            | 0.5                    | 2250              | 90                    | 24                | 640x510x530            | -             |
| AQUA16x25x1 | 394x620x25               | ISO Coarse 70%            | 0.6                    | 2350              | 90                    | 28                | 640x510x530            | -             |
| AQUA20x20x1 | 490x490x25               | ISO Coarse 70%            | 0.6                    | 2350              | 90                    | 27                | 640x510x530            | -             |
| AQUA20x24x1 | 490x592x25               | ISO Coarse 70%            | 0.7                    | 2800              | 90                    | 24                | 640x510x530            | -             |
| AQUA20x25x1 | 490x620x25               | ISO Coarse 70%            | 0.7                    | 2900              | 90                    | 22                | 640x510x530            | -             |
| AQUA24x24x1 | 592x592x25               | ISO Coarse 70%            | 0.8                    | 3400              | 90                    | 20                | 600x600x500            | -             |
| AQUA12x24x2 | 287x592x48               | ISO Coarse 70%            | 0.5                    | 1700              | 70                    | 12                | 600x600x300            | -             |
| AQUA16x20x2 | 394x490x48               | ISO Coarse 70%            | 0.6                    | 1880              | 70                    | 10                | 500x400x500            | -             |
| AQUA16x24x2 | 394x592x48               | ISO Coarse 70%            | 0.7                    | 2250              | 70                    | 15                | 640x510x530            | -             |
| AQUA16x25x2 | 394x620x48               | ISO Coarse 70%            | 0.8                    | 2350              | 70                    | 13                | 640x510x530            | -             |
| AQUA20x20x2 | 490x490x48               | ISO Coarse 70%            | 0.8                    | 2350              | 70                    | 14                | 640x510x530            | -             |
| AQUA20x24x2 | 490x592x48               | ISO Coarse 70%            | 0.9                    | 2800              | 70                    | 6                 | 600x500x300            | -             |
| AQUA20x25x2 | 490x620x48               | ISO Coarse 70%            | 1.0                    | 2900              | 70                    | 11                | 640x510x530            | -             |
| AQUA24x24x2 | 592x592x48               | ISO Coarse 70%            | 1.1                    | 3400              | 70                    | 6                 | 600x600x300            | -             |
| AQUA12x24x4 | 287x592x96               | ISO Coarse 70%            | 1.1                    | 1700              | 50                    | 6                 | 600x600x300            | -             |
| AQUA16x20x4 | 394x490x96               | ISO Coarse 70%            | 1.2                    | 1880              | 50                    | 8                 | 640x510x530            | -             |
| AQUA16x24x4 | 394x592x96               | ISO Coarse 70%            | 1.5                    | 2250              | 50                    | 6                 | 640x510x530            | -             |
| AQUA16x25x4 | 394x620x96               | ISO Coarse 70%            | 1.5                    | 2350              | 50                    | 5                 | 640x400x500            | -             |
| AQUA20x20x4 | 490x490x96               | ISO Coarse 70%            | 1.5                    | 2350              | 50                    | 5                 | 500x500x500            | -             |
| AQUA20x24x4 | 490x592x96               | ISO Coarse 70%            | 1.8                    | 2800              | 50                    | 3                 | 600x500x300            | -             |
| AQUA20x25x4 | 490x620x96               | ISO Coarse 70%            | 1.9                    | 2900              | 50                    | 5                 | 640x510x530            | -             |
| AQUA24x24x4 | 592x592x96               | ISO Coarse 70%            | 2.2                    | 3400              | 50                    | 3                 | 600x600x300            | -             |



\* 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

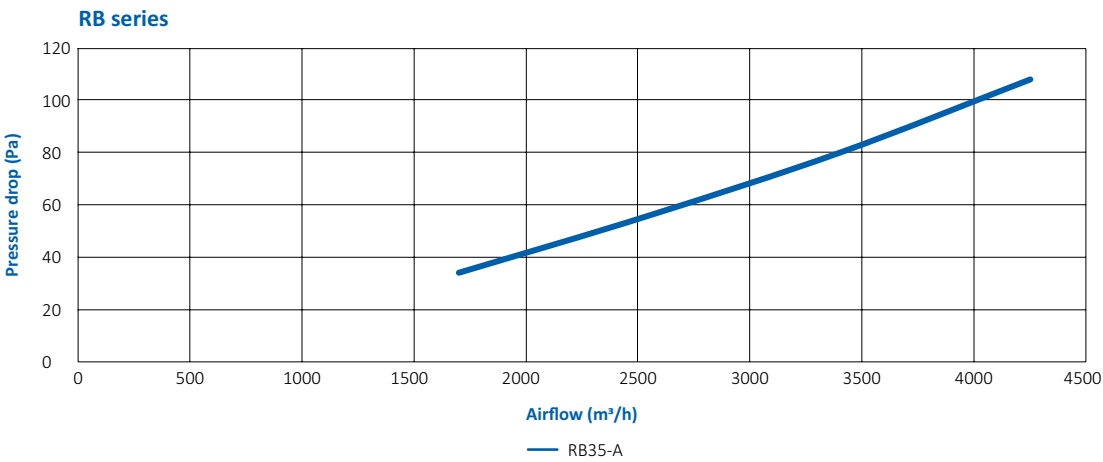
**Maximum temperature:** 65°C

**Maximum relative humidity:** 100%

**Advantages**

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

| Type   | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|--------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| RB35-A | 592x592x96               | ISO Coarse 70%            | 1.6                    | 3400              | 80                    | 3                 | 600x600x300            | -             |
| RB35-B | 490x592x96               | ISO Coarse 70%            | 1.3                    | 2800              | 80                    | 3                 | 600x500x300            | -             |
| RB35-C | 288x592x96               | ISO Coarse 70%            | 0.8                    | 1700              | 80                    | 6                 | 600x600x300            | -             |



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

Panel filters

CP Panel

ePM10ePM2.5ePM1



**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

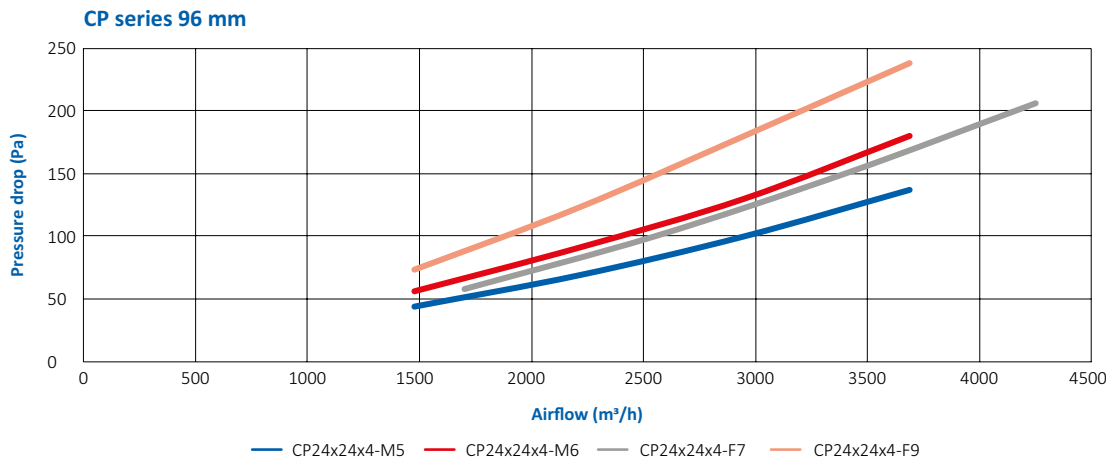
**Maximum relative humidity:** 90%

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

**Advantages**

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

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



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



Panel filters

CPMC Panel

ePM10

ePM2.5

ePM1



**Specifications**

**Application:** HVAC

**Frame:** Galvanized steel

**Spacers:** Hotmelt

**Bonding:** 2 component polyurethane

**Medium:** Glass fibre paper

**Gasket:** Optional, Continuous poured gasket

**Filter class according to ISO 16890:** ePM10, ePM2.5, ePM1

**Maximum final pressure drop:** 450 Pa

**Maximum temperature:** 65°C

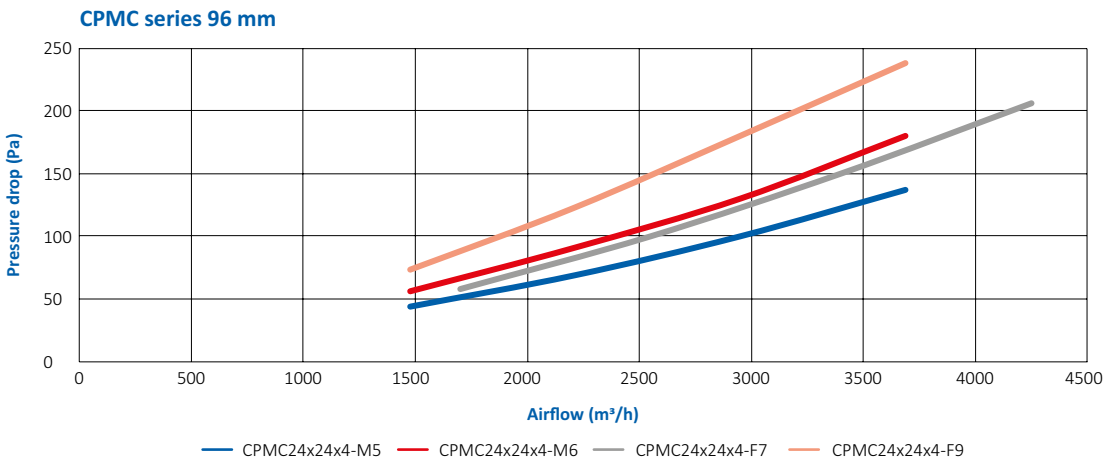
**Maximum relative humidity:** 90%

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



- Advantages**
- Compact construction
  - Robust construction
- Options**
- ATEX, Flange, Grid

| Type           | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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

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.





# CLEAN

## Bag filters

AFPRO Filters bag filters are used as a pre- or fine filter in air conditioning systems among other things. The filters are available in filter classes ISO Coarse, ePM10, ePM2.5, ePM1 in compliance to ISO 16890. Furthermore, 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.

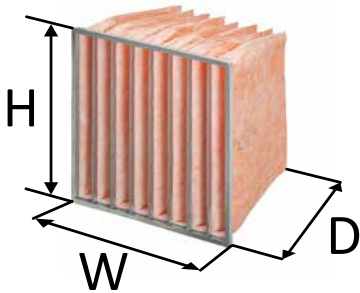




Pocket filter index

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 HQ85A6-3  
4 = 4 pockets  
5 = 5 pockets  
6 = 6 pockets  
8 = 8 pockets  
10 = 10 pockets  
12 = 12 pockets

4 Pocket depth  
Example HQ85A6-3  
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<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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             |
| HQ55B6-6    | 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             |
| HQ55C4-3    | 287x592x360              | ePM10 70%                 | 4         | 1.7                    | 1700              | 90                    | 4                 | 609x144x607            | E             |
| HQ55C8-3/90 | 592x287x360              | ePM10 70%                 | 8         | 1.6                    | 1700              | 90                    | 4                 | 609x144x607            | E             |
| HQ55CC4-3   | 287x287x360              | ePM10 70%                 | 4         | 0.8                    | 800               | 90                    | 8                 | 609x144x607            | E             |
| HQ55HA8-3   | 592x890x360              | ePM10 70%                 | 8         | 5.1                    | 5100              | 90                    | 2                 | 909x144x607            | E             |
| HQ55HB6-3   | 490x890x360              | ePM10 70%                 | 6         | 3.8                    | 4000              | 90                    | 2                 | 909x144x607            | E             |
| HQ55HC4-3   | 287x890x360              | ePM10 70%                 | 4         | 2.5                    | 2500              | 90                    | 4                 | 909x144x607            | E             |
| HQ55A8-5    | 592x592x535              | ePM10 70%                 | 8         | 5.0                    | 3400              | 80                    | 2                 | 609x183x607            | D             |
| HQ55B6-5    | 490x592x535              | ePM10 70%                 | 6         | 3.8                    | 2800              | 80                    | 2                 | 609x183x607            | D             |
| HQ55B8-5/90 | 592x490x535              | ePM10 70%                 | 8         | 4.1                    | 2800              | 80                    | 2                 | 609x183x607            | D             |
| HQ55C4-5    | 287x592x535              | ePM10 70%                 | 4         | 2.5                    | 1700              | 80                    | 4                 | 609x183x607            | D             |
| HQ55C8-5/90 | 592x287x535              | ePM10 70%                 | 8         | 2.4                    | 1700              | 80                    | 4                 | 609x183x607            | D             |
| HQ55CC4-5   | 287x287x535              | ePM10 70%                 | 4         | 1.2                    | 800               | 80                    | 8                 | 609x183x607            | D             |
| HQ55HA8-5   | 592x890x535              | ePM10 70%                 | 8         | 7.6                    | 5100              | 80                    | 2                 | 909x183x607            | D             |
| HQ55HB6-5   | 490x890x535              | ePM10 70%                 | 6         | 5.7                    | 4000              | 80                    | 2                 | 909x183x607            | D             |
| HQ55HC4-5   | 287x890x535              | ePM10 70%                 | 4         | 3.8                    | 2500              | 80                    | 4                 | 909x183x607            | D             |
| HQ55A8-6    | 592x592x635              | ePM10 70%                 | 8         | 6.0                    | 3400              | 70                    | 2                 | 609x183x607            | C             |
| HQ55B6-6    | 490x592x635              | ePM10 70%                 | 6         | 4.5                    | 2800              | 70                    | 2                 | 609x183x607            | C             |
| HQ55B8-6/90 | 592x490x635              | ePM10 70%                 | 8         | 4.9                    | 2800              | 70                    | 2                 | 609x183x607            | C             |
| HQ55C4-6    | 287x592x635              | ePM10 70%                 | 4         | 3.0                    | 1700              | 70                    | 4                 | 609x183x607            | C             |
| HQ55C8-6/90 | 592x287x635              | ePM10 70%                 | 8         | 2.9                    | 1700              | 70                    | 4                 | 609x183x607            | C             |
| HQ55CC4-6   | 287x287x635              | ePM10 70%                 | 4         | 1.4                    | 800               | 70                    | 8                 | 609x183x607            | C             |
| HQ55HA8-6   | 592x890x635              | ePM10 70%                 | 8         | 9.0                    | 5100              | 70                    | 2                 | 909x183x607            | C             |
| HQ55HB6-6   | 490x890x635              | ePM10 70%                 | 6         | 6.8                    | 4000              | 70                    | 2                 | 909x183x607            | C             |

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

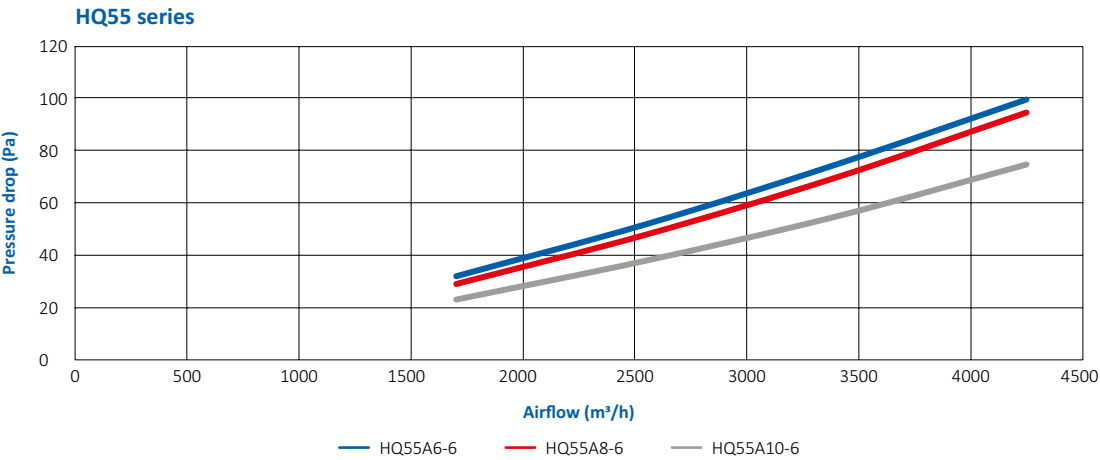
Bag filters

HQ55-series continued

ePM10



| Type       | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HQ55HC4-6  | 287x890x635              | ePM10 70%                 | 4         | 4.5                    | 2500              | 70                    | 4                 | 909x183x607            | C             |
| HQ55A10-3  | 592x592x360              | ePM10 70%                 | 10        | 4.2                    | 3400              | 80                    | 2                 | 609x144x607            | E             |
| HQ55C5-3   | 287x592x360              | ePM10 70%                 | 5         | 2.1                    | 1700              | 80                    | 4                 | 609x144x607            | E             |
| HQ55A10-5  | 592x592x535              | ePM10 70%                 | 10        | 6.2                    | 3400              | 65                    | 2                 | 609x183x607            | D             |
| HQ55C5-5   | 287x592x535              | ePM10 70%                 | 5         | 3.1                    | 1700              | 65                    | 4                 | 609x183x607            | D             |
| HQ55A10-6  | 592x592x635              | ePM10 70%                 | 10        | 7.4                    | 3400              | 55                    | 2                 | 609x240x607            | D             |
| HQ55B8-6   | 490x592x635              | ePM10 70%                 | 8         | 5.9                    | 2800              | 55                    | 2                 | 609x183x607            | D             |
| HQ55C5-6   | 287x592x635              | ePM10 70%                 | 5         | 3.7                    | 1700              | 55                    | 4                 | 609x183x607            | D             |
| HQ55HA10-6 | 592x890x635              | ePM10 70%                 | 10        | 11.1                   | 5100              | 55                    | 2                 | 909x240x607            | D             |
| HQ55HB8-6  | 490x890x635              | ePM10 70%                 | 8         | 8.9                    | 4200              | 55                    | 2                 | 909x183x607            | D             |
| HQ55HC5-6  | 287x890x635              | ePM10 70%                 | 5         | 5.6                    | 2500              | 55                    | 4                 | 909x240x607            | D             |



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

Bag filters

HQ65-series

ePM2.5



Specifications

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

Advantages

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

Options

- ATEX

| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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



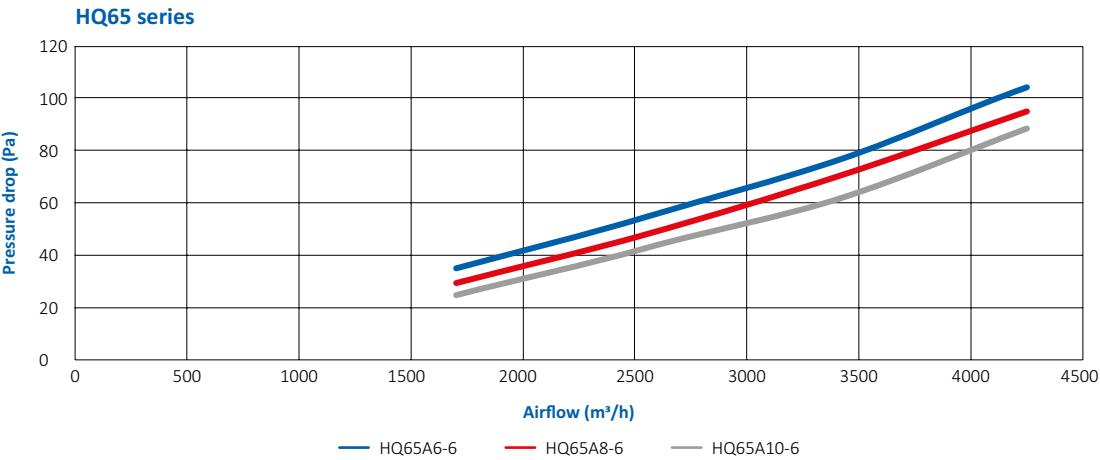
Bag filters

HQ65-series continued

ePM2.5



| Type       | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HQ65HC4-6  | 287x890x635              | ePM2.5 50%                | 4         | 4.5                    | 2500              | 70                    | 4                 | 909x183x607            | B             |
| HQ65A10-3  | 592x592x360              | ePM2.5 50%                | 10        | 4.2                    | 3400              | 100                   | 2                 | 609x144x607            | D             |
| HQ65C5-3   | 287x592x360              | ePM2.5 50%                | 5         | 2.1                    | 1700              | 100                   | 4                 | 609x144x607            | D             |
| HQ65A10-5  | 592x592x535              | ePM2.5 50%                | 10        | 6.2                    | 3400              | 70                    | 2                 | 609x183x607            | C             |
| HQ65C5-5   | 287x592x535              | ePM2.5 50%                | 5         | 3.1                    | 1700              | 70                    | 4                 | 609x183x607            | C             |
| HQ65A10-6  | 592x592x635              | ePM2.5 50%                | 10        | 7.4                    | 3400              | 60                    | 2                 | 609x240x607            | B             |
| HQ65B8-6   | 490x592x635              | ePM2.5 50%                | 8         | 5.9                    | 2800              | 60                    | 2                 | 609x183x607            | B             |
| HQ65C5-6   | 287x592x635              | ePM2.5 50%                | 5         | 3.7                    | 1700              | 60                    | 4                 | 609x183x607            | B             |
| HQ65HA10-6 | 592x890x635              | ePM2.5 50%                | 10        | 11.1                   | 5100              | 60                    | 2                 | 909x240x607            | B             |
| HQ65HB8-6  | 490x890x635              | ePM2.5 50%                | 8         | 8.9                    | 4200              | 60                    | 2                 | 909x183x607            | B             |
| HQ65HC5-6  | 287x890x635              | ePM2.5 50%                | 5         | 5.6                    | 2500              | 60                    | 4                 | 909x240x607            | B             |



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

Bag filters

HQ85-series

ePM1



Specifications

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

Advantages

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

Options

- ATEX

| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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

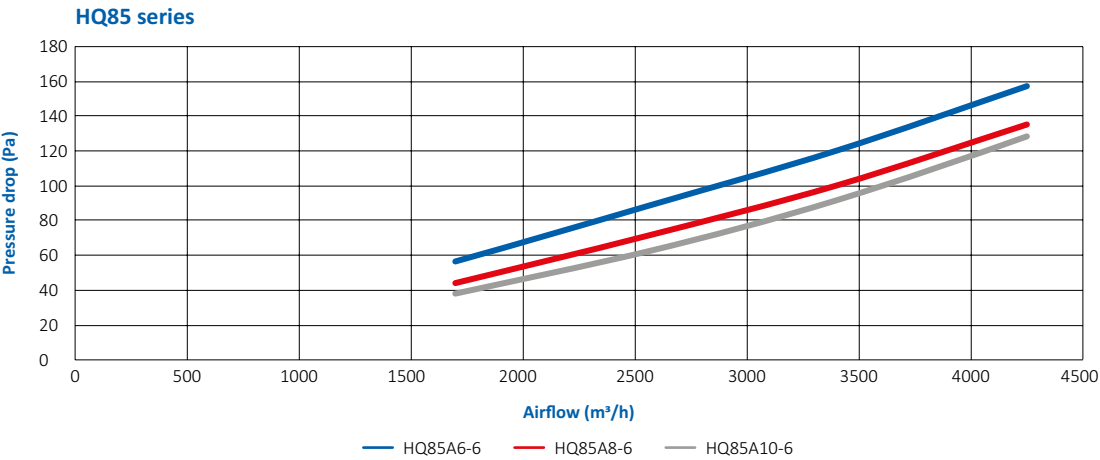
Bag filters

HQ85-series continued

ePM1



| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|-------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HQ85C8-6/90 | 592x287x635              | ePM1 60%                  | 8         | 2.9                    | 1700              | 100                   | 4                 | 609x183x607            | C             |
| HQ85CC4-6   | 287x287x635              | ePM1 60%                  | 4         | 1.4                    | 800               | 100                   | 8                 | 609x183x607            | C             |
| HQ85HA8-6   | 592x890x635              | ePM1 60%                  | 8         | 9.0                    | 5100              | 100                   | 2                 | 909x183x607            | C             |
| HQ85HB6-6   | 490x890x635              | ePM1 60%                  | 6         | 6.8                    | 4000              | 100                   | 2                 | 909x183x607            | C             |
| HQ85HC4-6   | 287x890x635              | ePM1 60%                  | 4         | 4.5                    | 2500              | 100                   | 4                 | 909x183x607            | C             |
| HQ85A10-3   | 592x592x360              | ePM1 60%                  | 10        | 4.2                    | 3400              | 140                   | 2                 | 609x144x607            | E             |
| HQ85C5-3    | 287x592x360              | ePM1 60%                  | 5         | 2.1                    | 1700              | 140                   | 4                 | 609x144x607            | E             |
| HQ85HA10-3  | 592x890x360              | ePM1 60%                  | 10        | 6.3                    | 5100              | 140                   | 2                 | 909x144x607            | E             |
| HQ85A10-5   | 592x592x535              | ePM1 60%                  | 10        | 6.2                    | 3400              | 95                    | 2                 | 609x183x607            | C             |
| HQ85C5-5    | 287x592x535              | ePM1 60%                  | 5         | 3.1                    | 1700              | 95                    | 4                 | 609x183x607            | C             |
| HQ85HA10-5  | 592x890x535              | ePM1 60%                  | 10        | 9.4                    | 5100              | 95                    | 2                 | 909x183x607            | C             |
| HQ85HC5-5   | 287x890x535              | ePM1 60%                  | 5         | 4.7                    | 2500              | 95                    | 4                 | 909x183x607            | C             |
| HQ85A10-6   | 592x592x635              | ePM1 60%                  | 10        | 7.4                    | 3400              | 90                    | 2                 | 609x240x607            | C             |
| HQ85B8-6    | 490x592x635              | ePM1 60%                  | 8         | 5.9                    | 2800              | 90                    | 2                 | 609x183x607            | C             |
| HQ85C5-6    | 287x592x635              | ePM1 60%                  | 5         | 3.7                    | 1700              | 90                    | 4                 | 609x183x607            | C             |
| HQ85HA10-6  | 592x890x635              | ePM1 60%                  | 10        | 11.1                   | 5100              | 90                    | 2                 | 909x240x607            | C             |
| HQ85HB8-6   | 490x890x635              | ePM1 60%                  | 8         | 8.9                    | 4000              | 90                    | 2                 | 909x183x607            | C             |
| HQ85HC5-6   | 287x890x635              | ePM1 60%                  | 5         | 5.6                    | 2500              | 90                    | 4                 | 909x240x607            | C             |
| HQ85A12-6   | 592x592x635              | ePM1 60%                  | 12        | 8.8                    | 3400              | 85                    | 2                 | 609x240x607            | B             |
| HQ85C6-6    | 287x592x635              | ePM1 60%                  | 6         | 4.4                    | 1700              | 85                    | 4                 | 609x240x607            | B             |

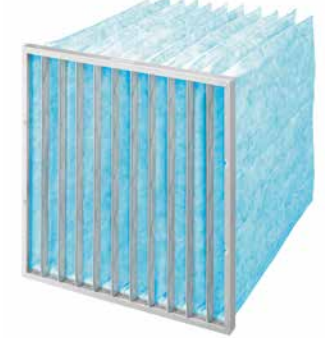


\* According to Eurovent ECP-11-FIL-2020

Bag filters

HQ85 A+ series

ePM1



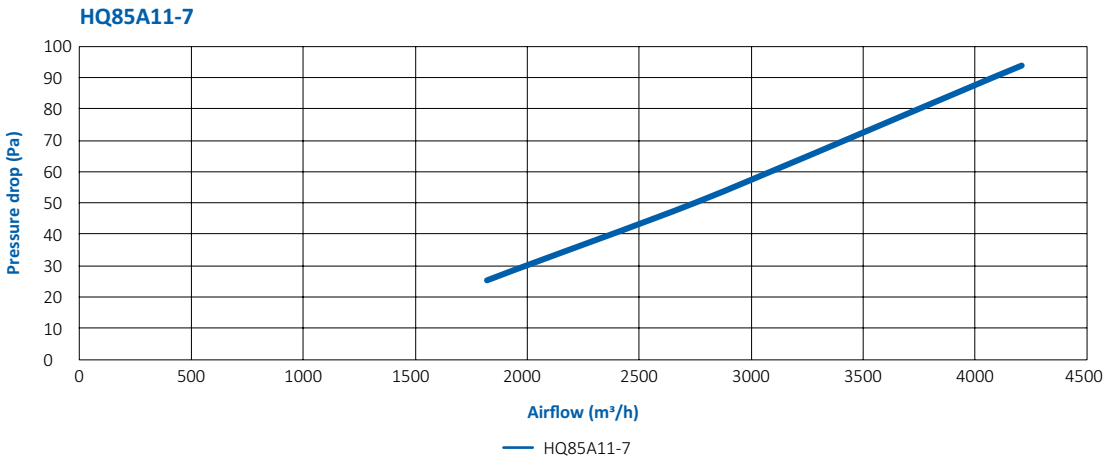
Specifications

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

Advantages

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

| Type         | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|--------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HQ85A11-7    | 592x592x670              | ePM1 60%                  | 11        | 8,7                    | 3400              | 69                    | 2                 | 609x240x607            | A+            |
| HQ85B9-7     | 490x592x670              | ePM1 60%                  | 9         | 7.2                    | 2800              | 69                    | 2                 | 609x183x607            | A+            |
| HQ85B11-7/90 | 592x490x670              | ePM1 60%                  | 11        | 7.2                    | 2800              | 69                    | 2                 | 609x183x607            | A+            |
| HQ85C5-7     | 287x592x670              | ePM1 60%                  | 5         | 4.0                    | 1700              | 69                    | 4                 | 609x183x607            | A+            |
| HQ85C11-7/90 | 592x287x670              | ePM1 60%                  | 11        | 4.4                    | 1700              | 69                    | 4                 | 609x183x607            | A+            |
| HQ85CC5-7    | 287x287x670              | ePM1 60%                  | 5         | 2.0                    | 800               | 69                    | 8                 | 609x183x607            | A+            |
| HQ85HA11-7   | 592x890x670              | ePM1 60%                  | 11        | 13.1                   | 5100              | 69                    | 2                 | 909x240x607            | A+            |
| HQ85HB9-7    | 490x890x670              | ePM1 60%                  | 9         | 10.9                   | 4000              | 69                    | 2                 | 909x183x607            | A+            |
| HQ85HC5-7    | 287x890x670              | ePM1 60%                  | 5         | 6.4                    | 2500              | 69                    | 4                 | 909x240x607            | A+            |



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



Bag filters

HQ98-series

ePM1



Specifications

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

Advantages

- Lightweight frame
- High dust holding capacity
- Constant efficiency

Options

- ATEX



| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|-------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HQ98A6-6    | 592x592x635              | ePM1 85%                  | 6         | 4.6                    | 3400              | 190                   | 2                 | 609x183x607            | E             |
| HQ98B5-6    | 490x592x635              | ePM1 85%                  | 5         | 3.8                    | 2800              | 190                   | 2                 | 609x183x607            | E             |
| HQ98B6-6/90 | 592x490x635              | ePM1 85%                  | 6         | 3.8                    | 2800              | 190                   | 2                 | 609x183x607            | E             |
| HQ98C3-6    | 287x592x635              | ePM1 85%                  | 3         | 2.3                    | 1700              | 190                   | 4                 | 609x183x607            | E             |
| HQ98C6-6/90 | 592x287x635              | ePM1 85%                  | 6         | 2.2                    | 1700              | 190                   | 4                 | 609x183x607            | E             |
| HQ98HA6-6   | 592x890x635              | ePM1 85%                  | 6         | 6.8                    | 5100              | 190                   | 2                 | 909x183x607            | E             |
| HQ98HB5-6   | 490x890x635              | ePM1 85%                  | 5         | 5.7                    | 4000              | 190                   | 2                 | 909x183x607            | E             |
| HQ98HC3-6   | 287x890x635              | ePM1 85%                  | 3         | 3.4                    | 2500              | 190                   | 4                 | 909x183x607            | E             |
| HQ98A8-3    | 592x592x360              | ePM1 85%                  | 8         | 3.4                    | 3400              | 235                   | 2                 | 609x144x607            | E             |
| HQ98B6-3    | 490x592x360              | ePM1 85%                  | 6         | 2.5                    | 2800              | 235                   | 2                 | 609x144x607            | E             |
| HQ98B8-3/90 | 592x490x360              | ePM1 85%                  | 8         | 2.8                    | 2800              | 235                   | 2                 | 609x144x607            | E             |
| HQ98C4-3    | 287x592x360              | ePM1 85%                  | 4         | 1.7                    | 1700              | 235                   | 4                 | 609x144x607            | E             |
| HQ98C8-3/90 | 592x287x360              | ePM1 85%                  | 8         | 1.6                    | 1700              | 235                   | 4                 | 609x144x607            | E             |
| HQ98CC4-3   | 287x287x360              | ePM1 85%                  | 4         | 0.8                    | 800               | 235                   | 8                 | 609x144x607            | E             |
| HQ98HA8-3   | 592x890x360              | ePM1 85%                  | 8         | 5.1                    | 5100              | 235                   | 2                 | 909x144x607            | E             |
| HQ98HB6-3   | 490x890x360              | ePM1 85%                  | 6         | 3.8                    | 4000              | 235                   | 2                 | 909x144x607            | E             |
| HQ98HC4-3   | 287x890x360              | ePM1 85%                  | 4         | 2.5                    | 2500              | 235                   | 4                 | 909x144x607            | E             |
| HQ98A8-5    | 592x592x535              | ePM1 85%                  | 8         | 5.0                    | 3400              | 210                   | 2                 | 609x183x607            | E             |
| HQ98B6-5    | 490x592x535              | ePM1 85%                  | 6         | 3.8                    | 2800              | 210                   | 2                 | 609x183x607            | E             |
| HQ98B8-5/90 | 592x490x535              | ePM1 85%                  | 8         | 4.1                    | 2800              | 210                   | 2                 | 609x183x607            | E             |
| HQ98C4-5    | 287x592x535              | ePM1 85%                  | 4         | 2.5                    | 1700              | 210                   | 4                 | 609x183x607            | E             |
| HQ98C8-5/90 | 592x287x535              | ePM1 85%                  | 8         | 2.4                    | 1700              | 210                   | 4                 | 609x183x607            | E             |
| HQ98CC4-5   | 287x287x535              | ePM1 85%                  | 4         | 1.2                    | 800               | 210                   | 8                 | 609x183x607            | E             |
| HQ98HA8-5   | 592x890x535              | ePM1 85%                  | 8         | 7.6                    | 5100              | 210                   | 2                 | 909x183x607            | E             |
| HQ98HB6-5   | 490x890x535              | ePM1 85%                  | 6         | 5.7                    | 4000              | 210                   | 2                 | 909x183x607            | E             |
| HQ98HC4-5   | 287x890x535              | ePM1 85%                  | 4         | 3.8                    | 2500              | 210                   | 4                 | 909x183x607            | E             |
| HQ98A8-6    | 592x592x635              | ePM1 85%                  | 8         | 6.0                    | 3400              | 170                   | 2                 | 609x183x607            | D             |
| HQ98B6-6    | 490x592x635              | ePM1 85%                  | 6         | 4.5                    | 2800              | 170                   | 2                 | 609x183x607            | D             |
| HQ98B8-6/90 | 592x490x635              | ePM1 85%                  | 8         | 4.9                    | 2800              | 170                   | 2                 | 609x183x607            | D             |
| HQ98C4-6    | 287x592x635              | ePM1 85%                  | 4         | 3.0                    | 1700              | 170                   | 4                 | 609x183x607            | D             |
| HQ98C8-6/90 | 592x287x635              | ePM1 85%                  | 8         | 2.9                    | 1700              | 170                   | 4                 | 609x183x607            | D             |
| HQ98CC4-6   | 287x287x635              | ePM1 85%                  | 4         | 1.4                    | 800               | 170                   | 8                 | 609x183x607            | D             |
| HQ98HA8-6   | 592x890x635              | ePM1 85%                  | 8         | 9.0                    | 5100              | 170                   | 2                 | 909x183x607            | D             |
| HQ98HB6-6   | 490x890x635              | ePM1 85%                  | 6         | 6.8                    | 4000              | 170                   | 2                 | 909x183x607            | D             |
| HQ98HC4-6   | 287x890x635              | ePM1 85%                  | 4         | 4.5                    | 3400              | 170                   | 4                 | 909x183x607            | D             |
| HQ98A10-3   | 592x592x360              | ePM1 85%                  | 10        | 4.2                    | 3400              | 210                   | 2                 | 609x144x607            | E             |
| HQ98C5-3    | 287x592x360              | ePM1 85%                  | 5         | 2.1                    | 1700              | 210                   | 4                 | 609x144x607            | E             |
| HQ98HA10-3  | 592x890x360              | ePM1 85%                  | 10        | 6.3                    | 5100              | 210                   | 2                 | 909x144x607            | E             |

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

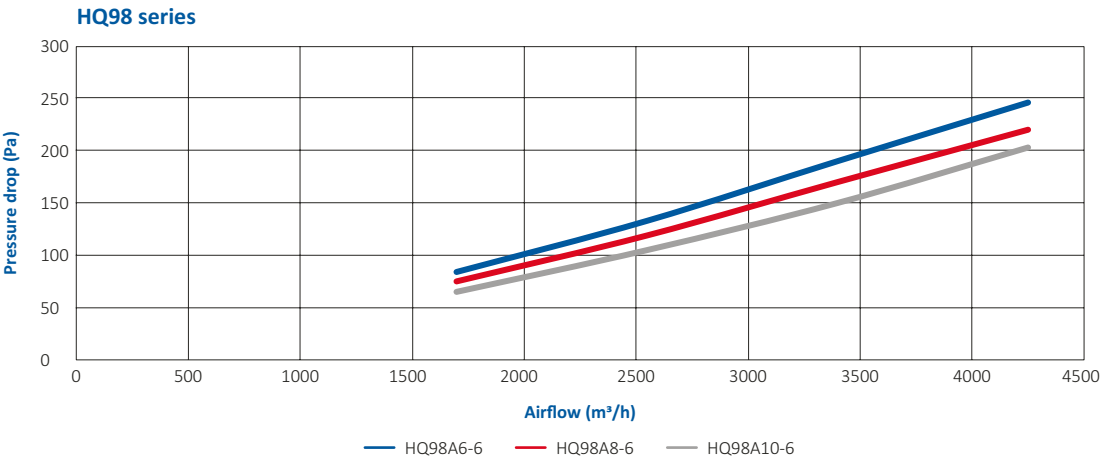
Bag filters

HQ98-series continued

ePM1



| Type       | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HQ98A10-5  | 592x592x535              | ePM1 85%                  | 10        | 6.2                    | 3400              | 170                   | 2                 | 609x183x607            | D             |
| HQ98C5-5   | 287x592x535              | ePM1 85%                  | 5         | 3.1                    | 1700              | 170                   | 4                 | 609x183x607            | D             |
| HQ98HA10-5 | 592x890x535              | ePM1 85%                  | 10        | 9.4                    | 5100              | 170                   | 2                 | 909x183x607            | D             |
| HQ98HC5-5  | 287x890x535              | ePM1 85%                  | 5         | 4.7                    | 2500              | 170                   | 4                 | 909x183x607            | D             |
| HQ98A10-6  | 592x592x635              | ePM1 85%                  | 10        | 7.4                    | 3400              | 150                   | 2                 | 609x240x607            | D             |
| HQ98B8-6   | 490x592x635              | ePM1 85%                  | 8         | 5.9                    | 2800              | 150                   | 2                 | 609x183x607            | D             |
| HQ98C5-6   | 287x592x635              | ePM1 85%                  | 5         | 3.7                    | 1700              | 150                   | 4                 | 609x183x607            | D             |
| HQ98HA10-6 | 592x890x635              | ePM1 85%                  | 10        | 11.1                   | 5100              | 150                   | 2                 | 909x240x607            | D             |
| HQ98HB8-6  | 490x890x635              | ePM1 85%                  | 8         | 8.9                    | 4000              | 150                   | 2                 | 909x183x607            | D             |
| HQ98HC5-6  | 287x890x635              | ePM1 85%                  | 5         | 5.6                    | 2500              | 150                   | 4                 | 909x240x607            | D             |
| HQ98A12-6  | 592x592x635              | ePM1 85%                  | 12        | 8.8                    | 3400              | 140                   | 2                 | 609x240x607            | C             |
| HQ98C6-6   | 287x592x635              | ePM1 85%                  | 6         | 4.4                    | 1700              | 140                   | 4                 | 609x240x607            | C             |



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

Bag filters

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

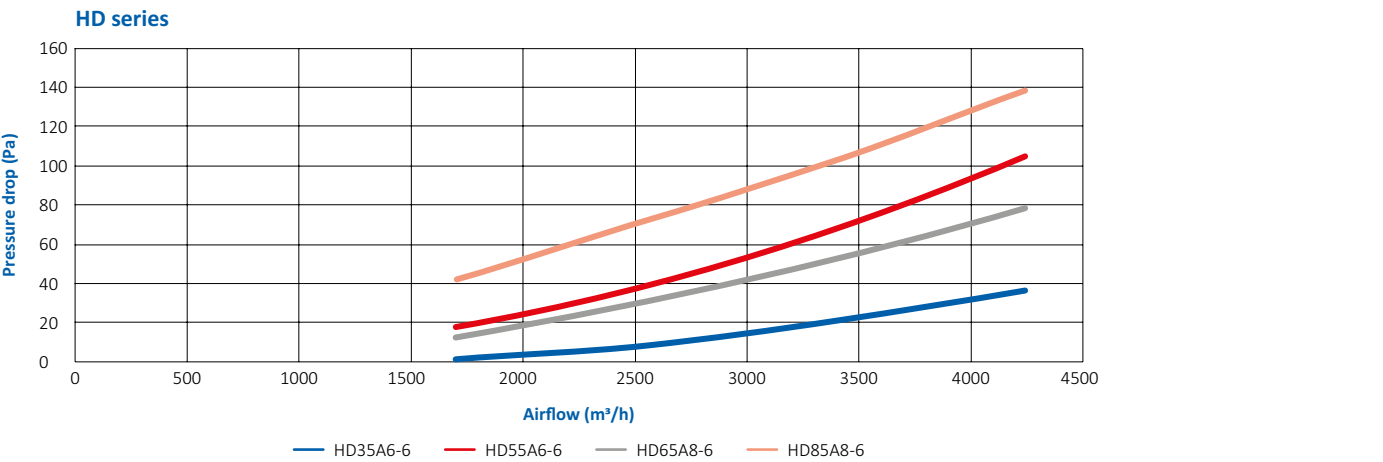
**Maximum relative humidity:** 90%

**Burst pressure drop:** 3000 pa

**Advantages**

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

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



\* According to Eurovent ECP-11-FIL-2020  
\*\* Not Eurovent certified

Bag filters

HSB35-series

ISO Coarse



**Specifications**

**Application:** Prefilter HVAC, industry

**Frame:** Galvanized steel/aluminium

**Spacers:** Synthetic

**Bonding:** -

**Medium:** Synthetic

**Gasket:** Optional, Continuous poured gasket

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

**Maximum final pressure drop:** 250Pa

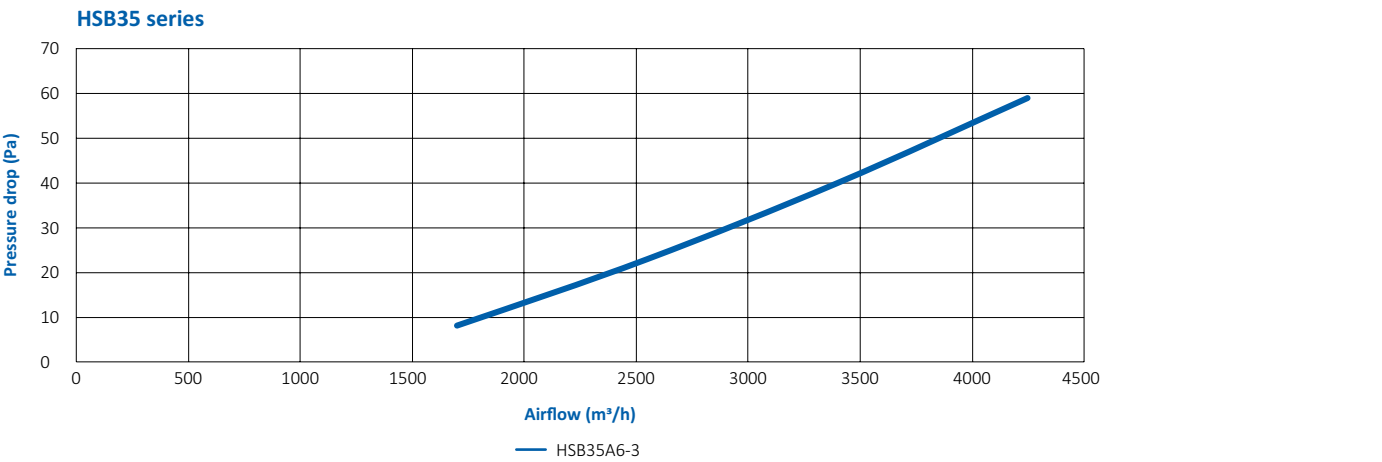
**Maximum temperature:** 70°C

**Maximum relative humidity:** 90%

**Advantages**

- Lightweight frame

| Type         | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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



Bag filters

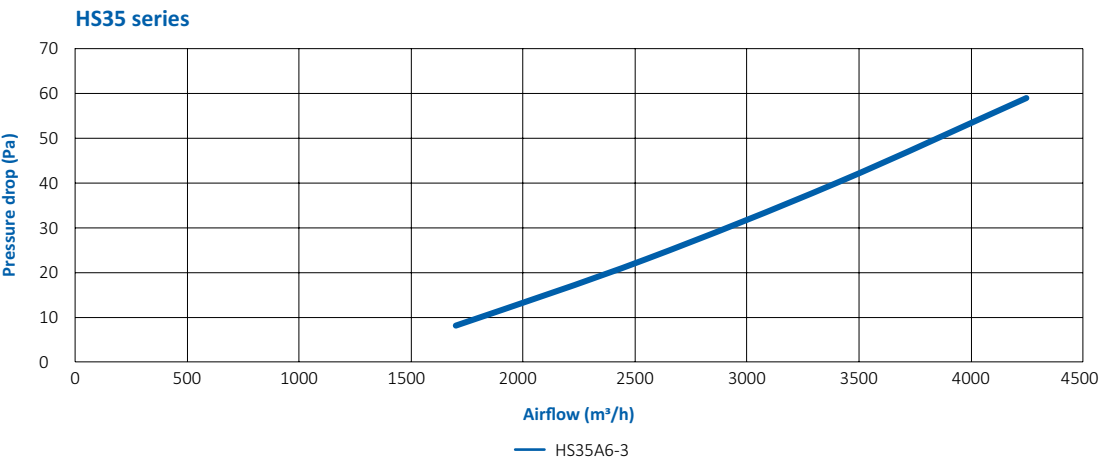
HS35-series



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

- Advantages**
- Lightweight frame
  - High dust holding capacity

| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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            | -             |



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

Bag filters

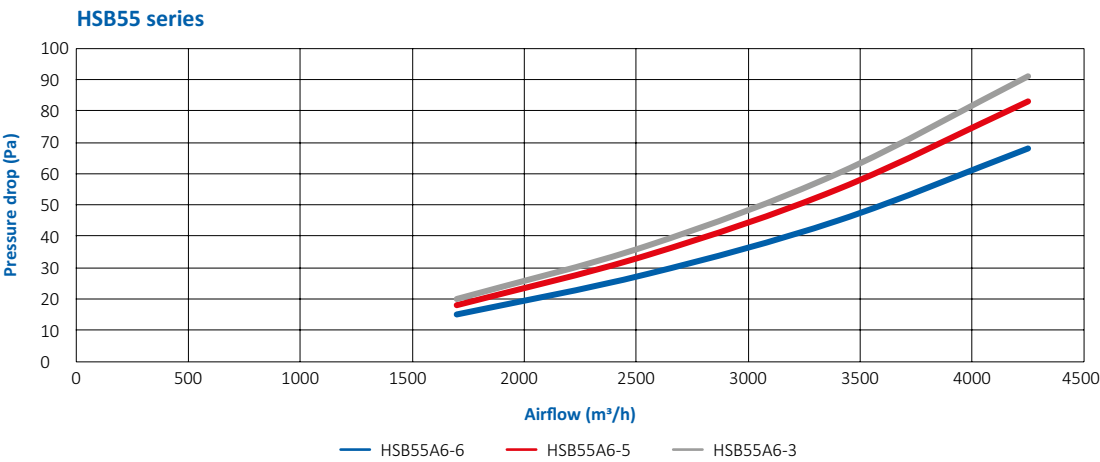
HSB55-series



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

- Advantages**
- Lightweight frame

| Type         | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|--------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HSB55A6-3    | 592x592x360              | ISO Coarse 80%            | 6         | 2.8                    | 3400              | 60                    | 4                 | 605x605x240            | -             |
| HSB55B5-3    | 490x592x360              | ISO Coarse 80%            | 5         | 2.3                    | 2800              | 60                    | 4                 | 605x605x183            | -             |
| HSB55B6-3/90 | 592x490x360              | ISO Coarse 80%            | 6         | 2.3                    | 2800              | 60                    | 4                 | 605x605x183            | -             |
| HSB55C3-3    | 287x592x360              | ISO Coarse 80%            | 3         | 1.4                    | 1700              | 60                    | 8                 | 605x605x240            | -             |
| HSB55C6-3/90 | 592x287x360              | ISO Coarse 80%            | 6         | 1.5                    | 1700              | 60                    | 8                 | 605x605x240            | -             |
| HSB55CC3-3   | 287x287x360              | ISO Coarse 80%            | 3         | 0.7                    | 800               | 60                    | 16                | 605x605x240            | -             |
| HSB55HA6-3   | 592x890x360              | ISO Coarse 80%            | 6         | 4.1                    | 5100              | 60                    | 4                 | 905x605x240            | -             |
| HSB55HB5-3   | 490x890x360              | ISO Coarse 80%            | 5         | 3.4                    | 4200              | 60                    | 4                 | 905x605x183            | -             |
| HSB55HC3-3   | 287x890x360              | ISO Coarse 80%            | 3         | 2.0                    | 2500              | 60                    | 8                 | 905x605x240            | -             |
| HSB55A6-5    | 592x592x535              | ISO Coarse 80%            | 6         | 4.1                    | 3400              | 55                    | 4                 | 605x605x240            | -             |
| HSB55B5-5    | 490x592x535              | ISO Coarse 80%            | 5         | 3.4                    | 2800              | 55                    | 4                 | 605x605x240            | -             |
| HSB55B6-5/90 | 592x490x535              | ISO Coarse 80%            | 6         | 3.5                    | 2800              | 55                    | 4                 | 605x605x240            | -             |
| HSB55C3-5    | 287x592x535              | ISO Coarse 80%            | 3         | 2.0                    | 1700              | 55                    | 8                 | 605x605x240            | -             |
| HSB55C6-5/90 | 592x287x535              | ISO Coarse 80%            | 6         | 2.2                    | 1700              | 55                    | 8                 | 605x605x240            | -             |
| HSB55CC3-5   | 287x287x535              | ISO Coarse 80%            | 3         | 1.1                    | 800               | 55                    | 16                | 605x605x240            | -             |
| HSB55HA6-5   | 592x890x535              | ISO Coarse 80%            | 6         | 6.0                    | 5100              | 55                    | 4                 | 905x605x240            | -             |
| HSB55HB5-5   | 490x890x535              | ISO Coarse 80%            | 5         | 5.0                    | 4200              | 55                    | 4                 | 905x605x240            | -             |
| HSB55HC3-5   | 287x890x535              | ISO Coarse 80%            | 3         | 3.0                    | 2500              | 55                    | 8                 | 905x605x240            | -             |
| HSB55A6-6    | 592x592x635              | ISO Coarse 80%            | 6         | 4.9                    | 3400              | 45                    | 4                 | 605x605x240            | -             |
| HSB55B5-6    | 490x592x635              | ISO Coarse 80%            | 5         | 4.1                    | 2800              | 45                    | 4                 | 605x605x240            | -             |
| HSB55B6-6/90 | 592x490x635              | ISO Coarse 80%            | 6         | 3.8                    | 2800              | 45                    | 4                 | 605x605x240            | -             |
| HSB55C3-6    | 287x592x635              | ISO Coarse 80%            | 3         | 2.4                    | 1700              | 45                    | 8                 | 605x605x240            | -             |
| HSB55C6-6/90 | 592x287x635              | ISO Coarse 80%            | 6         | 2.6                    | 1700              | 45                    | 8                 | 605x605x240            | -             |
| HSB55CC3-6   | 287x287x635              | ISO Coarse 80%            | 3         | 1.3                    | 800               | 45                    | 16                | 605x605x240            | -             |
| HSB55HA6-6   | 592x890x635              | ISO Coarse 80%            | 6         | 7.2                    | 5100              | 45                    | 4                 | 905x605x240            | -             |
| HSB55HB5-6   | 490x890x635              | ISO Coarse 80%            | 5         | 6.0                    | 4200              | 45                    | 4                 | 905x605x240            | -             |
| HSB55HC3-6   | 287x890x635              | ISO Coarse 80%            | 3         | 3.6                    | 2500              | 45                    | 8                 | 905x605x240            | -             |



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

Bag filters

HSB65-series

ePM10



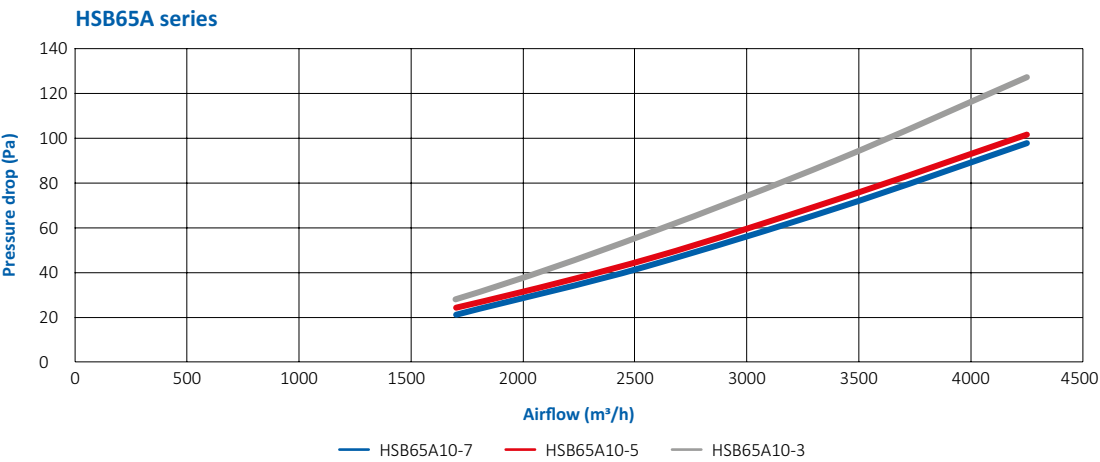
Specifications

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

Advantages

- Lightweight frame

| Type          | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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             |



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

Bag filters

HW-series

ePM1



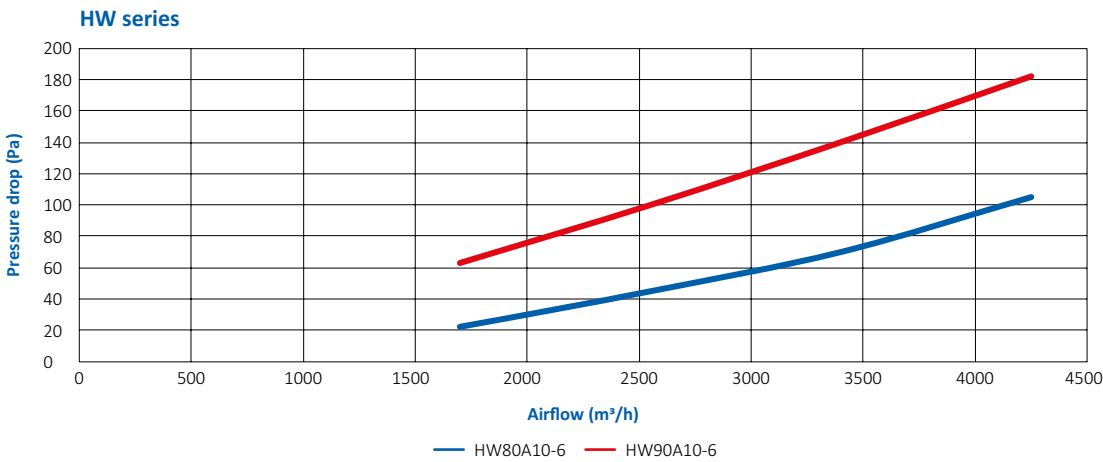
Specifications

**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<br>WxHxD (mm) | Filter class<br>ISO 16890 | # Pockets | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|--------------|--------------------------|---------------------------|-----------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HW80A10-6    | 592x592x635              | ePM1 50%                  | 10        | 7.7                    | 3400              | 70                    | 2                 | 609x240x607            | B             |
| HW80B8-6     | 490x592x635              | ePM1 50%                  | 8         | 6.2                    | 2800              | 70                    | 2                 | 609x183x607            | B             |
| HW80B10-6/90 | 592x490x635              | ePM1 50%                  | 10        | 6.4                    | 2800              | 70                    | 2                 | 609x183x607            | B             |
| HW80C5-6     | 287x592x635              | ePM1 50%                  | 5         | 3.8                    | 1700              | 70                    | 4                 | 609x183x607            | B             |
| HW80C10-6/90 | 592x287x635              | ePM1 50%                  | 10        | 3.8                    | 1700              | 70                    | 4                 | 609x183x607            | B             |
| HW80CC5-6    | 287x287x635              | ePM1 50%                  | 5         | 1.9                    | 850               | 70                    | 8                 | 609x183x607            | B             |
| HW80HA10-6   | 592x890x635              | ePM1 50%                  | 10        | 11.5                   | 5000              | 70                    | 2                 | 909x240x607            | B             |
| HW80HB8-6    | 490x890x635              | ePM1 50%                  | 8         | 9.2                    | 4200              | 70                    | 2                 | 909x183x607            | B             |
| HW80HC5-6    | 287x890x635              | ePM1 50%                  | 5         | 5.7                    | 2500              | 70                    | 4                 | 909x240x607            | B             |
| HW90A10-6    | 592x592x635              | ePM1 85%                  | 10        | 7.7                    | 3400              | 140                   | 2                 | 609x240x607            | C             |
| HW90B8-6     | 490x592x635              | ePM1 85%                  | 8         | 6.2                    | 2800              | 140                   | 2                 | 609x183x607            | C             |
| HW90B10-6/90 | 592x490x635              | ePM1 85%                  | 10        | 6.4                    | 2800              | 140                   | 2                 | 609x183x607            | C             |
| HW90C5-6     | 287x592x635              | ePM1 85%                  | 5         | 3.8                    | 1700              | 140                   | 4                 | 609x183x607            | C             |
| HW90C10-6/90 | 592x287x635              | ePM1 85%                  | 10        | 3.8                    | 1700              | 140                   | 4                 | 609x183x607            | C             |
| HW90CC5-6    | 287x287x635              | ePM1 85%                  | 5         | 1.9                    | 850               | 140                   | 8                 | 609x183x607            | C             |
| HW90HA10-6   | 592x890x635              | ePM1 85%                  | 10        | 11.5                   | 5000              | 140                   | 2                 | 909x240x607            | C             |
| HW90HB8-6    | 490x890x635              | ePM1 85%                  | 8         | 9.2                    | 4200              | 140                   | 2                 | 909x183x607            | C             |
| HW90HC5-6    | 287x890x635              | ePM1 85%                  | 5         | 5.7                    | 2500              | 140                   | 4                 | 909x240x607            | C             |



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



# Compact filters

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

## Advantages of compact filters

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

## Structure

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

## Application

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

## Installation

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



# EFFICIENCY



Compact filters

HPQ-series

ePM2.5

ePM1

E10

E11

E12



Specifications

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

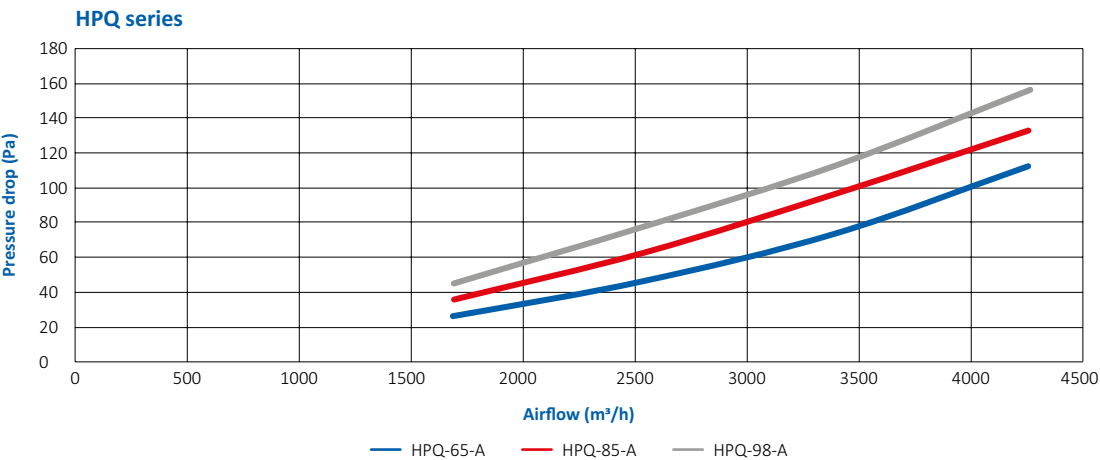
Advantages

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

Options

- High Temperature

| Type        | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890/EN1822 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|-------------|--------------------------|----------------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HPQ-65-A    | 592x592x292              | ePM2.5 55%                       | 18.8                   | 3400              | 75                    | 1                 | 605x305x605            | B             |
| HPQ-65-B    | 490x592x292              | ePM2.5 55%                       | 15.3                   | 2800              | 75                    | 1                 | 605x305x505            | B             |
| HPQ-65-C    | 288x592x292              | ePM2.5 55%                       | 8.4                    | 1700              | 75                    | 2                 | 605x305x305            | B             |
| HPQ-85-A    | 592x592x292              | ePM1 55%                         | 18.8                   | 3400              | 95                    | 1                 | 605x305x605            | B             |
| HPQ-85-B    | 490x592x292              | ePM1 55%                         | 15.3                   | 2800              | 95                    | 1                 | 605x305x505            | B             |
| HPQ-85-C    | 288x592x292              | ePM1 55%                         | 8.4                    | 1700              | 95                    | 2                 | 605x305x305            | B             |
| HPQ-98-A    | 592x592x292              | ePM1 80%                         | 18.8                   | 3400              | 110                   | 1                 | 605x305x605            | B             |
| HPQ-98-B    | 490x592x292              | ePM1 80%                         | 15.3                   | 2800              | 110                   | 1                 | 605x305x505            | B             |
| HPQ-98-C    | 288x592x292              | ePM1 80%                         | 8.4                    | 1700              | 110                   | 2                 | 605x305x305            | B             |
| HPQ-E10-A** | 592x592x292              | E10                              | 18.8                   | 3400              | 170                   | 1                 | 605x305x605            | -             |
| HPQ-E10-B** | 490x592x292              | E10                              | 15.3                   | 2800              | 170                   | 1                 | 605x305x505            | -             |
| HPQ-E10-C** | 288x592x292              | E10                              | 8.4                    | 1700              | 170                   | 2                 | 605x305x305            | -             |
| HPQ-E11-A** | 592x592x292              | E11                              | 18.8                   | 2000              | 130                   | 1                 | 605x305x605            | -             |
| HPQ-E11-B** | 490x592x292              | E11                              | 15.3                   | 1500              | 130                   | 1                 | 605x305x505            | -             |
| HPQ-E11-C** | 288x592x292              | E11                              | 8.4                    | 1000              | 130                   | 2                 | 605x305x305            | -             |
| HPQ-E12-A** | 592x592x292              | E12                              | 18.8                   | 2000              | 180                   | 1                 | 605x305x605            | -             |
| HPQ-E12-B** | 490x592x292              | E12                              | 15.3                   | 1500              | 180                   | 1                 | 605x305x505            | -             |
| HPQ-E12-C** | 288x592x292              | E12                              | 8.4                    | 1000              | 180                   | 2                 | 605x305x305            | -             |



\* According to Eurovent ECP-11-FIL-2020  
\*\* Not Eurovent certified

Compact filters

HPQ-XL-series

ePM2.5

ePM1

E10

E11

E12



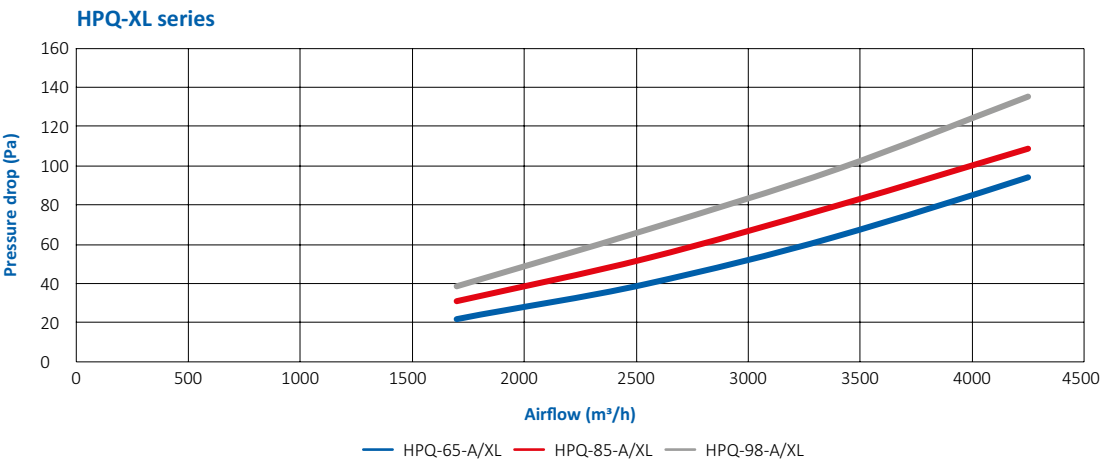
Specifications

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

Advantages

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

| Type           | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890/EN1822 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|----------------|--------------------------|----------------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HPQ-65-A/XL    | 592x592x420              | ePM2.5 55%                       | 25.0                   | 3400              | 60                    | 1                 | 605x435x605            | A             |
| HPQ-65-B/XL    | 490x592x420              | ePM2.5 55%                       | 20.4                   | 2800              | 60                    | 1                 | 605x435x505            | A             |
| HPQ-65-C/XL    | 288x592x420              | ePM2.5 55%                       | 11.2                   | 1700              | 60                    | 2                 | 605x435x305            | A             |
| HPQ-85-A/XL    | 592x592x420              | ePM1 55%                         | 25.0                   | 3400              | 80                    | 1                 | 605x435x605            | A             |
| HPQ-85-B/XL    | 490x592x420              | ePM1 55%                         | 20.4                   | 2800              | 80                    | 1                 | 605x435x505            | A             |
| HPQ-85-C/XL    | 288x592x420              | ePM1 55%                         | 11.2                   | 1700              | 80                    | 2                 | 605x435x305            | A             |
| HPQ-98-A/XL    | 592x592x420              | ePM1 80%                         | 25.0                   | 3400              | 100                   | 1                 | 605x435x605            | A             |
| HPQ-98-B/XL    | 490x592x420              | ePM1 80%                         | 20.4                   | 2800              | 100                   | 1                 | 605x435x505            | A             |
| HPQ-98-C/XL    | 288x592x420              | ePM1 80%                         | 11.2                   | 1700              | 100                   | 2                 | 605x435x305            | A             |
| HPQ-E10-A/XL** | 592x592x420              | E10                              | 25.0                   | 3400              | 155                   | 1                 | 605x435x605            | -             |
| HPQ-E10-B/XL** | 490x592x420              | E10                              | 20.4                   | 2800              | 155                   | 1                 | 605x435x505            | -             |
| HPQ-E10-C/XL** | 288x592x420              | E10                              | 11.2                   | 1700              | 155                   | 2                 | 605x435x305            | -             |
| HPQ-E11-A/XL** | 592x592x420              | E11                              | 25.0                   | 2000              | 120                   | 1                 | 605x435x605            | -             |
| HPQ-E11-B/XL** | 490x592x420              | E11                              | 20.4                   | 1500              | 120                   | 1                 | 605x435x505            | -             |
| HPQ-E11-C/XL** | 288x592x420              | E11                              | 11.2                   | 1000              | 120                   | 2                 | 605x435x305            | -             |
| HPQ-E12-A/XL** | 592x592x420              | E12                              | 25.0                   | 2000              | 165                   | 1                 | 605x435x605            | -             |
| HPQ-E12-B/XL** | 490x592x420              | E12                              | 20.4                   | 1500              | 165                   | 1                 | 605x435x505            | -             |
| HPQ-E12-C/XL** | 288x592x420              | E12                              | 11.2                   | 1000              | 165                   | 2                 | 605x435x305            | -             |



\* According to Eurovent ECP-11-FIL-2020  
\*\* Not Eurovent certified



Compact filters

HPQ-ECO-series

ePM2.5

ePM1

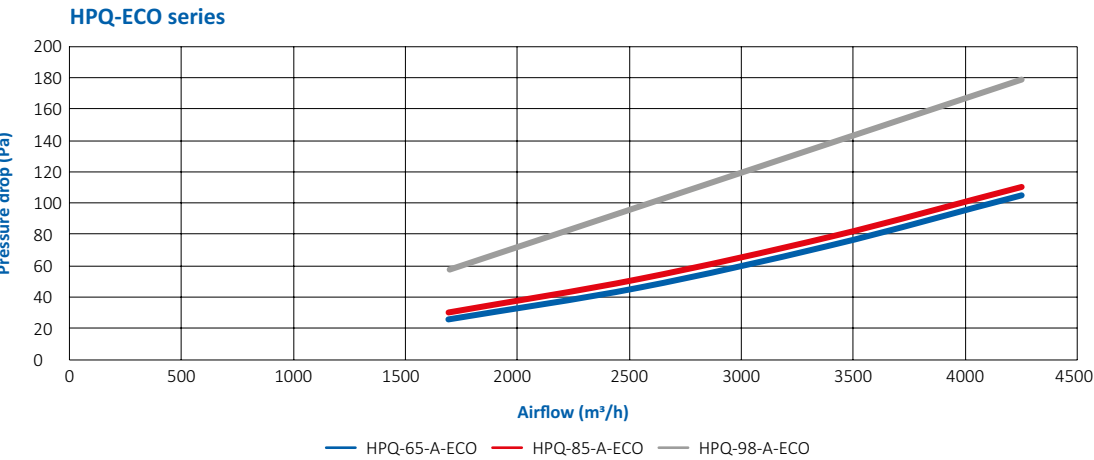


**Specifications**  
**Application:** HVAC, industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM2.5, ePM1  
**Maximum final pressure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

- Advantages**
- Small construction space
  - Low pressure drop



| Type         | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|--------------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| HPQ-65-A-ECO | 592x592x292              | ePM2.5 55%                | 14.0                   | 3400              | 75                    | 1                 | 605x305x605            | C             |
| HPQ-85-A-ECO | 592x592x292              | ePM1 55%                  | 14.0                   | 3400              | 80                    | 1                 | 605x305x605            | C             |
| HPQ-98-A-ECO | 592x592x292              | ePM1 80%                  | 14.0                   | 3400              | 130                   | 1                 | 605x305x605            | C             |



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

Compact filters

PT-series

ePM2.5

ePM1

E10

E11

E12

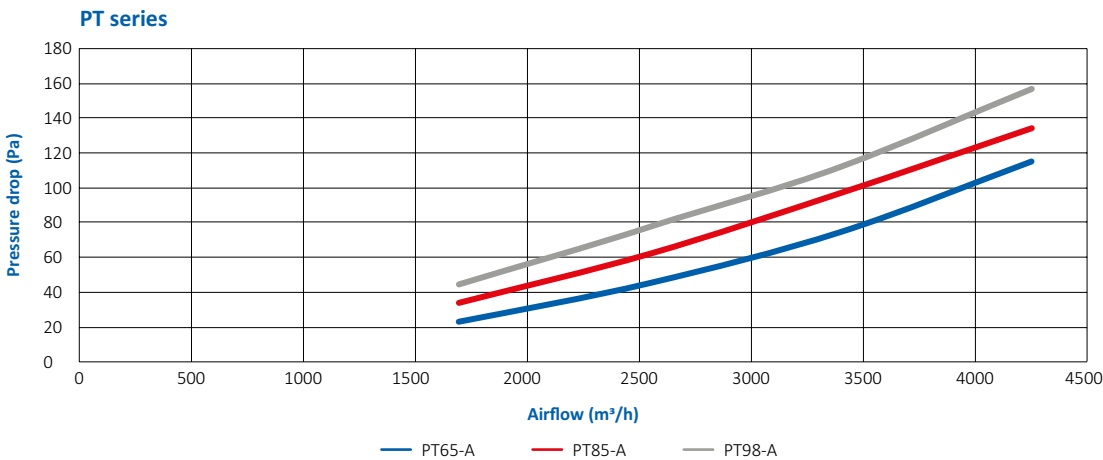


**Specifications**  
**Application:** Gasturbine filter, industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890 / EN1822:** ePM2.5, ePM1, E10,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

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



| Type       | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890/EN1822 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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  
\*\* Not Eurovent certified

Compact filters

PT-XL-series

ePM2.5

ePM1

E10

E11

E12



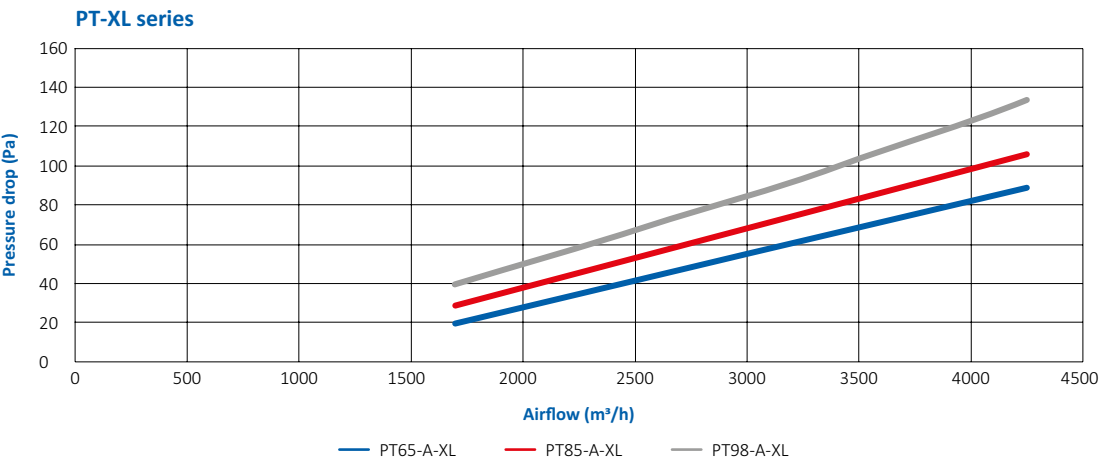
Specifications

**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

| Type          | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890/EN1822 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|---------------|--------------------------|----------------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| PT65-A-XL     | 592x592x400              | ePM2.5 55%                       | 25.0                   | 3400              | 60                    | 1                 | 605x435x605            | A             |
| PT85-A-XL     | 592x592x400              | ePM1 55%                         | 25.0                   | 3400              | 80                    | 1                 | 605x435x605            | A             |
| PT98-A-XL     | 592x592x400              | ePM1 80%                         | 25.0                   | 3400              | 100                   | 1                 | 605x435x605            | A             |
| PT-E10-A-XL** | 592x592x400              | E10                              | 25.0                   | 3400              | 155                   | 1                 | 605x435x605            | -             |
| PT-E11-A-XL** | 592x592x400              | E11                              | 25.0                   | 2000              | 120                   | 1                 | 605x435x605            | -             |
| PT-E12-A-XL** | 592x592x400              | E12                              | 25.0                   | 2000              | 165                   | 1                 | 605x435x605            | -             |



\* According to Eurovent ECP-11-FIL-2020  
\*\* Not Eurovent certified

Compact filters

CS-series

ePM1



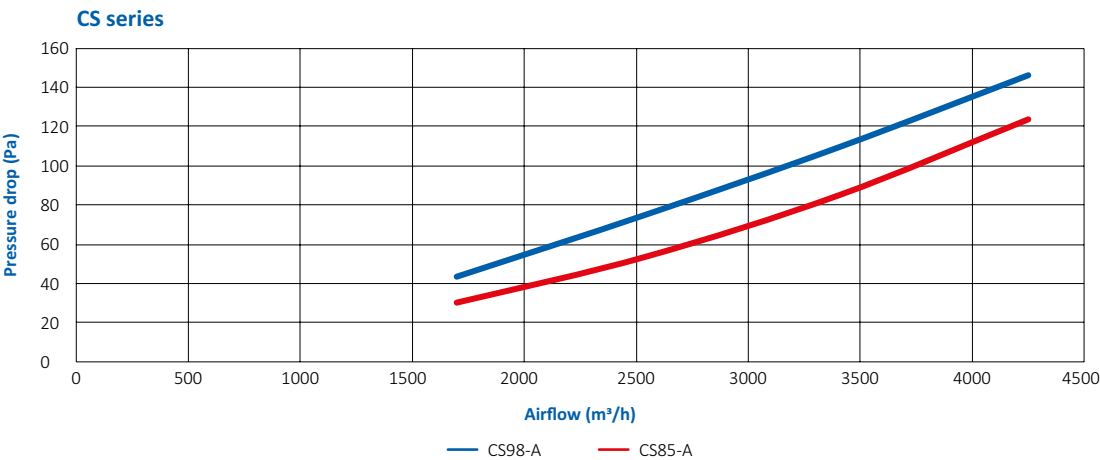
Specifications

**Application:** HVAC, industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 450Pa  
**Maximum temperature:** 65°C  
**Maximum relative humidity:** 90%  
**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<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|--------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| CS85-A | 592x592x292              | ePM1 55%                  | 18.8                   | 3400              | 85                    | 1                 | 605x305x605            | B             |
| CS85-B | 490x592x292              | ePM1 55%                  | 15.3                   | 2800              | 85                    | 1                 | 605x305x505            | B             |
| CS85-C | 288x592x292              | ePM1 55%                  | 8.4                    | 1700              | 85                    | 2                 | 605x305x305            | B             |
| CS98-A | 592x592x292              | ePM1 80%                  | 18.8                   | 3400              | 105                   | 1                 | 605x305x605            | B             |
| CS98-B | 490x592x292              | ePM1 80%                  | 15.3                   | 2800              | 105                   | 1                 | 605x305x505            | B             |
| CS98-C | 288x592x292              | ePM1 80%                  | 8.4                    | 1700              | 105                   | 2                 | 605x305x305            | B             |



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



Compact filters

CS-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

| Type     | Dimensions<br>WxHxD (mm) | Filter class<br>EN1822 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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            | -             |

Compact filters

CS-XL-series

ePM1

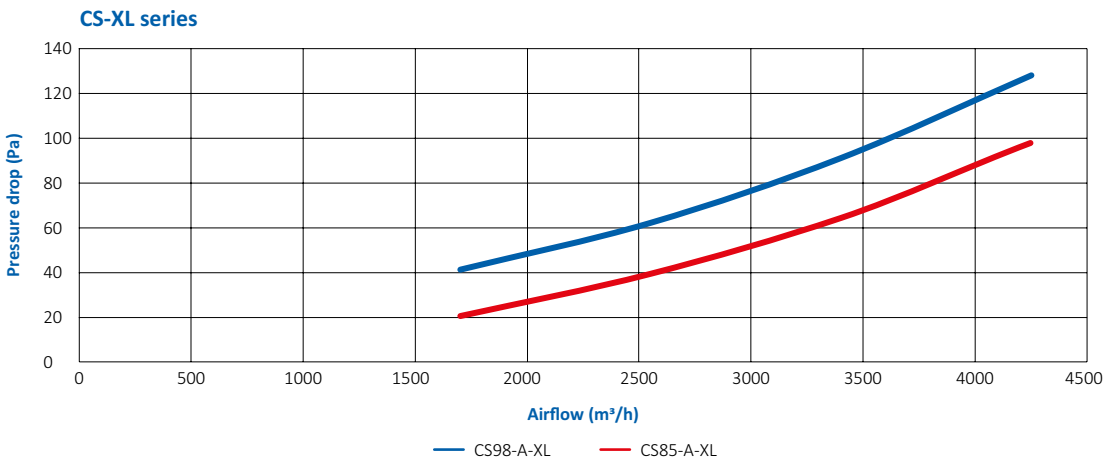


**Specifications**  
**Application:** HVAC, industry  
**Frame:** Plastic  
**Spacers:** Hotmelt  
**Bonding:** 2 component polyurethane  
**Medium:** Glass fibre paper  
**Gasket:** Optional, Continuous poured gasket  
**Filter class according to ISO 16890:** ePM1  
**Maximum final pressure drop:** 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<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) | Energy label* |
|-----------|--------------------------|---------------------------|------------------------|-------------------|-----------------------|-------------------|------------------------|---------------|
| CS85-A-XL | 592x592x420              | ePM1 55%                  | 25.0                   | 3400              | 62                    | 1                 | 605x435x605            | A+            |
| CS85-B-XL | 490x592x420              | ePM1 55%                  | 20.4                   | 2800              | 62                    | 1                 | 605x435x505            | A+            |
| CS85-C-XL | 288x592x420              | ePM1 55%                  | 11.2                   | 1700              | 62                    | 2                 | 605x435x305            | A+            |
| CS98-A-XL | 592x592x420              | ePM1 80%                  | 25.0                   | 3400              | 90                    | 1                 | 605x435x605            | A             |
| CS98-B-XL | 490x592x420              | ePM1 80%                  | 20.4                   | 2800              | 90                    | 1                 | 605x435x505            | A             |
| CS98-C-XL | 288x592x420              | ePM1 80%                  | 11.2                   | 1700              | 90                    | 2                 | 605x435x305            | A             |



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



# Compact filters

## HPQ-135G-series



### Specifications

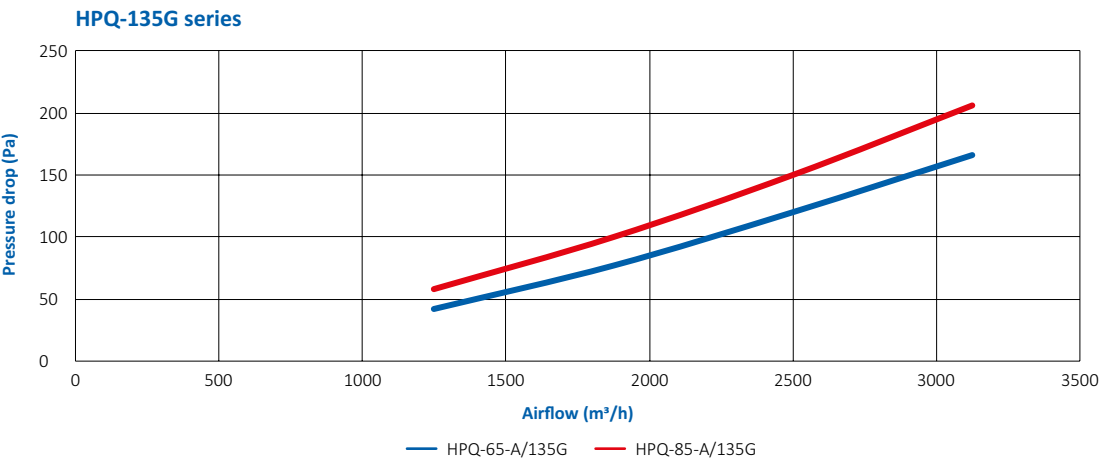
- Application:** HVAC, industry
- Frame:** Galvanized steel
- Spacers:** Hotmelt
- Bonding:** 2 component polyurethane
- Medium:** Glass fibre paper
- Gasket:** Optional, Continuous poured gasket
- Filter class according to ISO 16890:** ePM2,5, ePM1
- Maximum final pressure drop:** 450Pa
- Maximum temperature:**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

### Advantages

- Small construction space
- Low pressure drop



| Type           | Dimensions<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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             |



\* 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 of the deep-pleating method makes for low resistance at relatively low cost. The filter surface may be up to fifty times larger than its front area.

##### *B: High capacity model*

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

##### *Laminar flow filters*

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

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

#### Applications

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

#### Installation

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

- Avoid touching the pleat package, as this may cause damage
- Ensure that every HEPA filter is validated following installation, to ensure that it is correctly fitted and devoid of damage
- Keep copies or test reports on the filters, and maintain suitable records 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



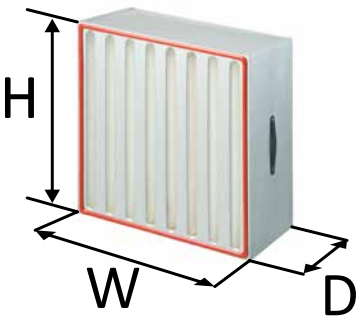
# HEALTH



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<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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

E10E11H13H14



| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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

E10E11H13H14



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<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|--------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HVG1110NBBL  | 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            |
| HCG1110NBBL  | 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            |
| HVG1110NCDDM | 457x592x292              | E10          | 27.0                   | 2650              | 125                   | 496x598x318            |
| HVG1111NBBL  | 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            |
| HCG1111NBBL  | 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            |
| HVG1111NCDDM | 457x592x292              | E11          | 27.0                   | 2650              | 140                   | 496x598x318            |
| HVG1113NBBL  | 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            |
| HCG1113NBBL  | 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            |
| HVG1113NCDDM | 457x592x292              | H13          | 27.0                   | 2650              | 250                   | 496x598x318            |

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

HEPA filters

HEPA HVG/HCG-series



| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|--------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HVG1113NDDM  | 592x592x292              | H13          | 36.0                   | 3200              | 250                   | 606x308x606            |
| HVG1114NB8BM | 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            |
| HCG1114NB8BM | 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



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<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|--------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HVS1110NB8BM | 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            |
| HCS1110NB8BM | 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            |
| HVS1111NB8BM | 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            |
| HCS1111NB8BM | 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            |
| HVS1113NB8BM | 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            |
| HCS1113NB8BM | 305x305x292              | H13          | 10.1                   | 1000              | 250                   | 311x313x311            |
| HCS1113NBEM  | 305x610x292              | H13          | 20.2                   | 2000              | 250                   | 620x310x315            |
| HCS1113NCEM  | 457x610x292              | H13          | 30.2                   | 3000              | 250                   | 463x616x318            |
| HCS1113NEEM  | 610x610x292              | H13          | 40.3                   | 4000              | 250                   | 620x310x620            |
| HCS1113NEFM  | 610x762x292              | H13          | 50.4                   | 5000              | 250                   | 778x325x626            |
| HVS1113NADM  | 288x592x292              | H13          | 18.0                   | 1550              | 250                   | 606x308x301            |
| HVS1113NCDM  | 457x592x292              | H13          | 27.0                   | 2650              | 250                   | 496x598x318            |

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



HEPA filters

HEPA HCS/HVS-series continued

E10

E11

H13

H14



| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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

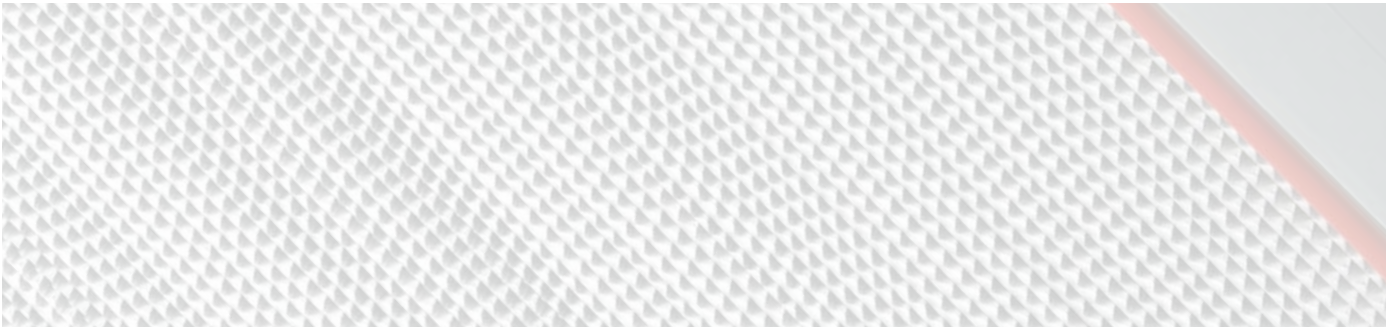
| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|-------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| 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            |
| HPG2110DBBL | 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.

HEPA filters

HEPA HPG-series continued

E10E11H13H14



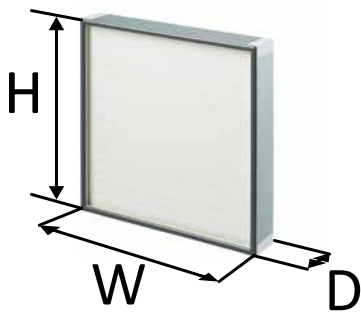
| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|-------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| 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

B 305

C 457

D 592

E 610

F 762

G 915 not available for MDF

H 1220 not available for MDF

I 1524 not available for MDF

J 1830 not available for MDF

K 380

L 210

M 490

N 402

Other sizes on request

7

Width (mm)

A 288

B 305

C 457

D 592

E 610

F 762

G 915 not available for MDF

H 1220 not available for MDF

I 1524 not available for MDF

J 1830 not available for MDF

K 380

L 210

M 490

N 402

Other sizes on request

8

Depth (mm)

E 68 mm, available for aluminium and MDF

G 80 mm, available for aluminium and MDF

H 80 mm gelseal, available for aluminium

I 90 mm, available for aluminium and MDF

J 102.5 mm blade assembly, available for aluminium

L 150 mm, available for aluminium and MDF

Q 110 mm, available for aluminium and MDF

Other sizes on request



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

| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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                    | 778x1540x99            |
| HLA1110DFJE  | 762x1830x68              | E10          | 41.4                   | 2250              | 65                    | 1836x89x616            |
| HLA1110DBGI  | 305x915x68               | E10          | 8.4                    | 450               | 65                    | 931x321x99             |
| HLA1110DGGI  | 915x915x68               | E10          | 24.9                   | 1350              | 65                    | 931x108x931            |
| HLA1110DGHIE | 915x1220x68              | E10          | 33.2                   | 1800              | 65                    | 1236x89x931            |
| HLA1110DGGIE | 915x1524x68              | E10          | 41.4                   | 2250              | 65                    | 931x1540x99            |
| HLA1110DGGIE | 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                    | 616x89x92              |
| HLA1111DEHE  | 610x1220x68              | E11          | 22.1                   | 1200              | 80                    | 1226x89x616            |
| HLA1111DEIE  | 610x1524x68              | E11          | 27.6                   | 1500              | 80                    | 626x1540x99            |
| HLA1111DEJE  | 610x1830x68              | E11          | 33.1                   | 1800              | 80                    | 1836x89x616            |
| 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                    | 778x1540x99            |
| HLA1111DFJE  | 762x1830x68              | E11          | 41.4                   | 2250              | 80                    | 1836x89x768            |
| HLA1111DBGI  | 305x915x68               | E11          | 8.4                    | 450               | 80                    | 931x321x99             |
| HLA1111DGGI  | 915x915x68               | E11          | 24.9                   | 1350              | 80                    | 931x108x931            |
| HLA1111DGHIE | 915x1220x68              | E11          | 33.2                   | 1800              | 80                    | 1236x89x931            |
| HLA1111DGGIE | 915x1524x68              | E11          | 41.4                   | 2250              | 80                    | 931x1540x99            |
| HLA1111DGGIE | 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             |

HEPA filters

HEPA HLA-E-series continued

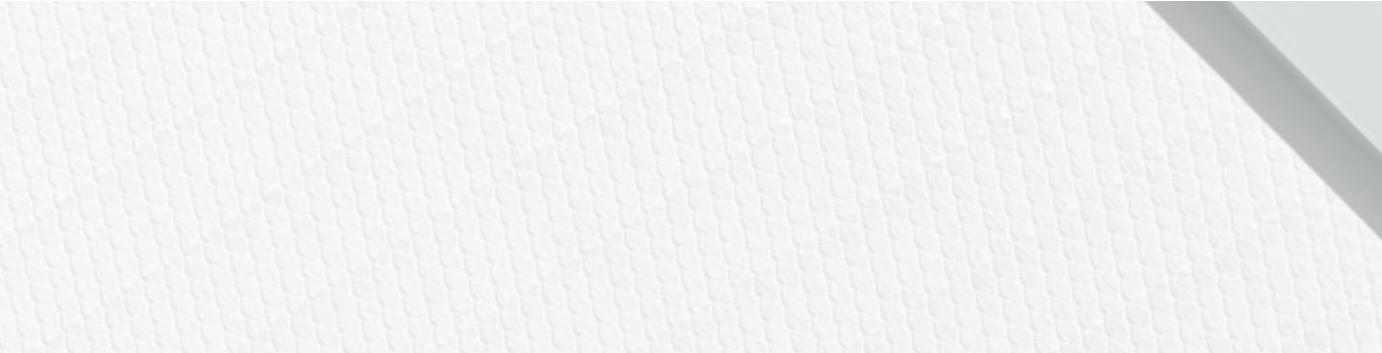
E10

E11

H13

H14

U15



| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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                   | 1836x89x616            |
| 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                   | 778x1540x99            |
| HLA1113DFJE | 762x1830x68              | H13          | 41.4                   | 2250              | 120                   | 1836x89x768            |
| HLA1113DBGI | 305x915x68               | H13          | 8.4                    | 450               | 120                   | 931x321x99             |
| HLA1113DGGI | 915x915x68               | H13          | 24.9                   | 1350              | 120                   | 931x108x931            |
| HLA1113DGHE | 915x1220x68              | H13          | 33.2                   | 1800              | 120                   | 1236x89x931            |
| HLA1113DGGI | 915x1524x68              | H13          | 41.4                   | 2250              | 120                   | 931x1540x99            |
| HLA1113DGGI | 915x1830x68              | H13          | 49.7                   | 2700              | 120                   | 931x1846x99            |
| HLA1114DBBE | 305x305x68               | H14          | 2.8                    | 150               | 140                   | 311x89x311             |
| HLA1114DCCE | 457x457x68               | H14          | 6.2                    | 335               | 140                   | 463x89x463             |
| HLA1114DBEE | 305x610x68               | H14          | 5.5                    | 300               | 140                   | 616x89x311             |
| HLA1114DCEE | 457x610x68               | H14          | 8.3                    | 450               | 140                   | 473x626x99             |
| HLA1114DBCE | 305x457x68               | H14          | 4.2                    | 225               | 140                   | 473x321x99             |
| HLA1114DEEE | 610x610x68               | H14          | 11.1                   | 600               | 140                   | 616x89x616             |
| HLA1114DEGE | 610x915x68               | H14          | 16.6                   | 900               | 140                   | 616x89x921             |
| HLA1114DEHE | 610x1220x68              | H14          | 22.1                   | 1200              | 140                   | 1226x89x616            |
| HLA1114DEIE | 610x1524x68              | H14          | 27.6                   | 1500              | 140                   | 626x1540x99            |
| HLA1114DEJE | 610x1830x68              | H14          | 33.1                   | 1800              | 140                   | 1836x89x616            |
| HLA1114DBFE | 305x762x68               | H14          | 7.0                    | 375               | 140                   | 778x321x99             |
| HLA1114DEFE | 610x762x68               | H14          | 13.9                   | 750               | 140                   | 778x626x99             |
| HLA1114DFFE | 762x762x68               | H14          | 17.3                   | 950               | 140                   | 778x778x99             |
| HLA1114DFGE | 762x915x68               | H14          | 20.7                   | 1125              | 140                   | 921x89x768             |
| HLA1114DFHE | 762x1220x68              | H14          | 27.6                   | 1500              | 140                   | 778x1236x99            |
| HLA1114DFIE | 762x1524x68              | H14          | 34.5                   | 1875              | 140                   | 778x1540x99            |
| HLA1114DFJE | 762x1830x68              | H14          | 41.4                   | 2250              | 140                   | 1836x89x768            |
| HLA1114DBGI | 305x915x68               | H14          | 8.4                    | 450               | 140                   | 931x321x99             |
| HLA1114DGGI | 915x915x68               | H14          | 24.9                   | 1350              | 140                   | 931x108x931            |
| HLA1114DGHE | 915x1220x68              | H14          | 33.2                   | 1800              | 140                   | 1236x89x931            |
| HLA1114DGGI | 915x1524x68              | H14          | 41.4                   | 2250              | 140                   | 931x1540x99            |
| HLA1114DGGI | 915x1830x68              | H14          | 49.7                   | 2700              | 140                   | 931x1846x99            |
| HLA1115DBEE | 305x610x68               | U15          | 5.5                    | 300               | 195                   | 463x89x463             |
| HLA1115DEEE | 610x610x68               | U15          | 11.1                   | 600               | 195                   | 616x89x616             |
| HLA1115DEHE | 610x1220x68              | U15          | 22.1                   | 1200              | 195                   | 1226x89x616            |
| HLA1115DCCE | 457x457x68               | U15          | 6.2                    | 335               | 195                   | 463x89x463             |
| HLA1115DFFE | 762x762x68               | 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 transport or installation.

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

| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1110DBCG | 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           |
| HLA1110DBGG | 305x915x80               | E10          | 10.0                   | 450               | 55                    | 931x321x111            |
| HLA1110DGGG | 915x915x80               | E10          | 29.8                   | 1350              | 55                    | 931x931x111            |
| HLA1110DGHG | 915x1220x80              | E10          | 39.7                   | 1800              | 55                    | 931x1236x111           |
| HLA1110DGIG | 915x1524x80              | E10          | 49.5                   | 2250              | 55                    | 931x1540x111           |
| HLA1110DGJG | 915x1830x80              | E10          | 59.4                   | 2700              | 55                    | 931x1846x111           |
| HLA1111DBBG | 305x305x80               | E11          | 3.3                    | 150               | 60                    | 321x103x321            |
| HLA1111DCCG | 457x457x80               | E11          | 7.4                    | 335               | 60                    | 473x103x473            |
| HLA1111DBEG | 305x610x80               | E11          | 6.6                    | 300               | 60                    | 321x103x626            |
| HLA1111DCEG | 457x610x80               | E11          | 9.9                    | 450               | 60                    | 473x626x111            |
| HLA1111DBCG | 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            |
| HLA1111DEFG | 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           |
| HLA1111DFIG | 762x1524x80              | E11          | 41.2                   | 1875              | 60                    | 778x1540x111           |
| HLA1111DFJG | 762x1830x80              | E11          | 49.4                   | 2250              | 60                    | 778x1846x111           |
| HLA1111DBGG | 305x915x80               | E11          | 10.0                   | 450               | 60                    | 931x321x111            |
| HLA1111DGGG | 915x915x80               | E11          | 29.8                   | 1350              | 60                    | 931x931x111            |
| HLA1111DGHG | 915x1220x80              | E11          | 39.7                   | 1800              | 60                    | 931x1236x111           |
| HLA1111DGIG | 915x1524x80              | E11          | 49.5                   | 2250              | 60                    | 931x1540x111           |
| HLA1111DGJG | 915x1830x80              | E11          | 59.4                   | 2700              | 60                    | 931x1846x111           |
| HLA1113DBBG | 305x305x80               | H13          | 3.3                    | 150               | 90                    | 321x103x321            |
| HLA1113DCCG | 457x457x80               | H13          | 7.4                    | 335               | 90                    | 473x103x473            |
| HLA1113DBEG | 305x610x80               | H13          | 6.6                    | 300               | 90                    | 321x103x626            |

HEPA filters

HEPA HLA-G-series continued

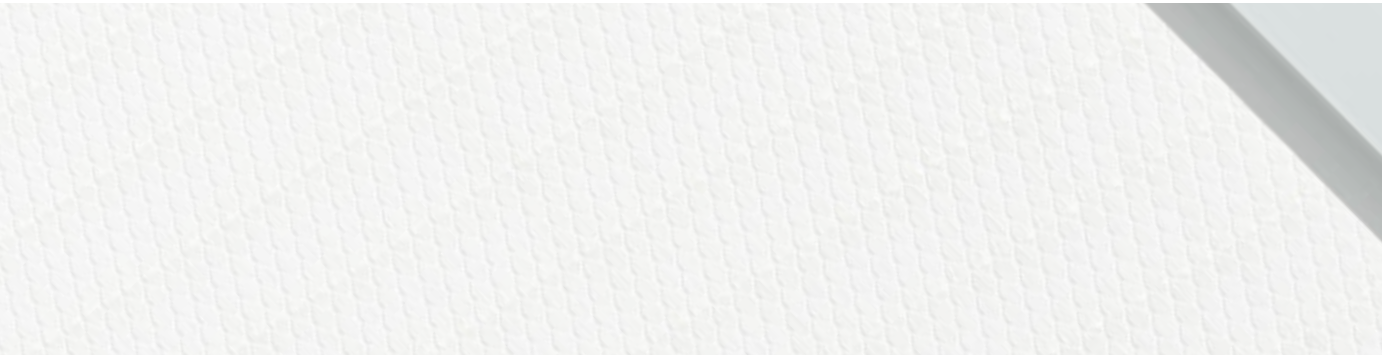
E10

E11

H13

H14

U15



| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|-------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HLA1113DCEG | 457x610x80               | H13          | 9.9                    | 450               | 90                    | 473x626x111            |
| HLA1113DBCG | 305x457x80               | H13          | 5.0                    | 225               | 90                    | 473x321x111            |
| HLA1113DEEG | 610x610x80               | H13          | 13.2                   | 600               | 90                    | 626x103x626            |
| HLA1113DEGG | 610x915x80               | H13          | 19.8                   | 900               | 90                    | 626x103x931            |
| HLA1113DEHG | 610x1220x80              | H13          | 26.4                   | 1200              | 90                    | 620x91x1230            |
| HLA1113DEIG | 610x1524x80              | H13          | 32.9                   | 1500              | 90                    | 626x1540x111           |
| HLA1113DEJG | 610x1830x80              | H13          | 39.5                   | 1800              | 90                    | 626x1846x111           |
| HLA1113DBFG | 305x762x80               | H13          | 8.4                    | 375               | 90                    | 778x321x111            |
| HLA1113DEFG | 610x762x80               | H13          | 16.6                   | 750               | 90                    | 778x626x111            |
| HLA1113DFFG | 762x762x80               | H13          | 20.7                   | 950               | 90                    | 778x778x111            |
| HLA1113DFGG | 778x915x80               | H13          | 24.8                   | 1125              | 90                    | 778x931x111            |
| HLA1113DFHG | 762x1220x80              | H13          | 33.0                   | 1500              | 90                    | 778x1236x111           |
| HLA1113DFIG | 762x1524x80              | H13          | 41.2                   | 1875              | 90                    | 778x1540x111           |
| HLA1113DFJG | 762x1830x80              | H13          | 49.4                   | 2250              | 90                    | 778x1846x111           |
| HLA1113DBGG | 305x915x80               | H13          | 10.0                   | 450               | 90                    | 931x321x111            |
| HLA1113DGGG | 915x915x80               | H13          | 29.8                   | 1350              | 90                    | 931x931x111            |
| HLA1113DGHG | 915x1220x80              | H13          | 39.7                   | 1800              | 90                    | 931x1236x111           |
| HLA1113DGIG | 915x1524x80              | H13          | 49.5                   | 2250              | 90                    | 931x1540x111           |
| HLA1113DGJG | 915x1830x80              | H13          | 59.4                   | 2700              | 90                    | 931x1846x111           |
| HLA1114DBBG | 305x305x80               | H14          | 3.3                    | 150               | 100                   | 321x103x321            |
| HLA1114DCCG | 457x457x80               | H14          | 7.4                    | 335               | 100                   | 473x103x473            |
| HLA1114DBEG | 305x610x80               | H14          | 6.6                    | 300               | 100                   | 321x103x626            |
| HLA1114DCEG | 457x610x80               | H14          | 9.9                    | 450               | 100                   | 473x626x111            |
| HLA1114DBCG | 305x407x80               | H14          | 5.0                    | 225               | 100                   | 473x321x111            |
| HLA1114DEEG | 610x610x80               | H14          | 13.2                   | 600               | 100                   | 626x103x626            |
| HLA1114DEGG | 610x915x80               | H14          | 19.8                   | 900               | 100                   | 626x103x931            |
| HLA1114DEHG | 610x1220x80              | H14          | 26.4                   | 1200              | 100                   | 620x91x1230            |
| HLA1114DEIG | 610x1524x80              | H14          | 32.9                   | 1500              | 100                   | 626x1540x111           |
| HLA1114DEJG | 610x1830x80              | H14          | 39.5                   | 1800              | 100                   | 626x1846x111           |
| HLA1114DBFG | 305x762x80               | H14          | 8.4                    | 375               | 100                   | 778x321x111            |
| HLA1114DEFG | 610x762x80               | H14          | 16.6                   | 750               | 100                   | 778x626x111            |
| HLA1114DFFG | 762x762x80               | H14          | 20.7                   | 950               | 100                   | 778x778x111            |
| HLA1114DFGG | 778x915x80               | H14          | 24.8                   | 1125              | 100                   | 778x931x111            |
| HLA1114DFHG | 762x1220x80              | H14          | 33.0                   | 1500              | 100                   | 778x1236x111           |
| HLA1114DFIG | 762x1524x80              | H14          | 41.2                   | 1875              | 100                   | 778x1540x111           |
| HLA1114DFJG | 762x1830x80              | H14          | 49.4                   | 2250              | 100                   | 778x1846x111           |
| HLA1114DBGG | 305x915x80               | H14          | 10.0                   | 450               | 100                   | 931x321x111            |
| HLA1114DGGG | 915x915x80               | H14          | 29.8                   | 1350              | 100                   | 931x931x111            |
| HLA1114DGHG | 915x1220x80              | H14          | 39.7                   | 1800              | 100                   | 931x1236x111           |
| HLA1114DGIG | 915x1524x80              | H14          | 49.5                   | 2250              | 100                   | 931x1540x111           |
| HLA1114DGJG | 915x1830x80              | H14          | 59.4                   | 2700              | 100                   | 931x1846x111           |
| HLA1115DBEG | 305x610x80               | U15          | 6.6                    | 300               | 140                   | 321x103x626            |
| HLA1115DEEG | 610x610x80               | U15          | 13.2                   | 600               | 140                   | 626x103x626            |
| HLA1115DEHG | 610x1220x80              | U15          | 26.4                   | 1200              | 140                   | 610x91x1230            |
| HLA1115DCCG | 457x457x80               | U15          | 7.4                    | 335               | 140                   | 473x103x473            |
| HLA1115DFFG | 762x762x80               | U15          | 20.7                   | 950               | 140                   | 778x778x111            |
| HLA1115DFGG | 762x915x80               | U15          | 24.8                   | 1125              | 140                   | 778x931x111            |

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



HEPA filters

HEPA HLA-I-series

E10

E11

H13

H14

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

| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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           |
| HLA1110DFJI  | 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            |
| HLA1111DEEGI | 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           |
| HLA1111DFIGI | 762x1524x90              | E11          | 42.9                   | 1875              | 55                    | 778x1540x121           |
| HLA1111DFJI  | 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                    | 321x103x626            |

HEPA filters

HEPA HLA-I-series continued

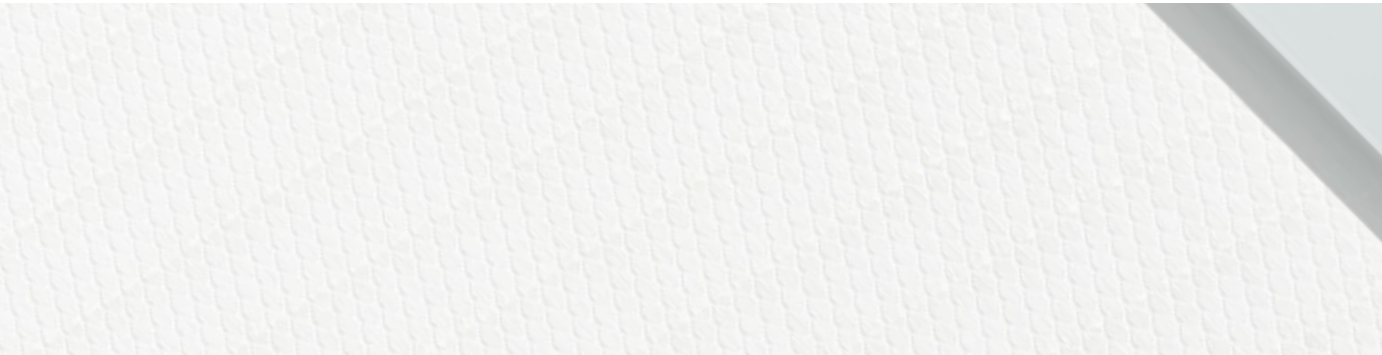
E10

E11

H13

H14

U15



| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1113DFFI | 762x762x90               | H13          | 21.5                   | 950               | 80                    | 778x778x121            |
| HLA1113DFGI | 762x915x90               | H13          | 25.8                   | 1125              | 80                    | 778x931x121            |
| HLA1113DFHI | 762x1220x90              | H13          | 34.4                   | 1500              | 80                    | 1236x108x778           |
| HLA1113DFII | 762x1524x90              | H13          | 42.9                   | 1875              | 80                    | 778x1540x121           |
| HLA1113DFJI | 762x1830x90              | H13          | 51.5                   | 2250              | 80                    | 778x1846x121           |
| HLA1113DBGI | 305x915x90               | H13          | 10.5                   | 450               | 80                    | 931x321x121            |
| HLA1113DGGI | 915x915x90               | H13          | 31.1                   | 1350              | 80                    | 931x108x931            |
| HLA1113DGHI | 915x1220x90              | H13          | 41.4                   | 1800              | 80                    | 1236x108x931           |
| HLA1113DGII | 915x1524x90              | H13          | 51.6                   | 2250              | 80                    | 1540x108x931           |
| HLA1113DGJI | 915x1830x90              | H13          | 62.0                   | 2700              | 80                    | 931x1846x121           |
| HLA1114DBBI | 305x305x90               | H14          | 3.5                    | 150               | 90                    | 321x103x321            |
| HLA1114DCCI | 457x457x90               | H14          | 7.8                    | 335               | 90                    | 473x473x121            |
| HLA1114DBEI | 305x610x90               | H14          | 6.9                    | 300               | 90                    | 321x103x626            |
| HLA1114DCEI | 457x610x90               | H14          | 10.3                   | 450               | 90                    | 473x626x121            |
| HLA1114DBCI | 305x407x90               | H14          | 5.2                    | 225               | 90                    | 473x321x121            |
| HLA1114DEEI | 610x610x90               | H14          | 13.8                   | 600               | 90                    | 626x103x626            |
| HLA1114DEGI | 610x915x90               | H14          | 20.7                   | 900               | 90                    | 626x103x931            |
| HLA1114DEHI | 610x1220x90              | H14          | 27.5                   | 1200              | 90                    | 626x1236x121           |
| HLA1114DEII | 610x1524x90              | H14          | 34.3                   | 1500              | 90                    | 626x1540x121           |
| HLA1114DEJI | 610x1830x90              | H14          | 41.2                   | 1800              | 90                    | 626x1846x121           |
| HLA1114DBFI | 305x762x90               | H14          | 8.7                    | 375               | 90                    | 778x321x121            |
| HLA1114DEFI | 610x762x90               | H14          | 17.3                   | 750               | 90                    | 778x626x121            |
| HLA1114DFFI | 762x762x90               | H14          | 21.5                   | 950               | 90                    | 778x778x121            |
| HLA1114DFGI | 762x915x90               | H14          | 25.8                   | 1125              | 90                    | 778x931x121            |
| HLA1114DFHI | 762x1220x90              | H14          | 34.4                   | 1500              | 90                    | 1236x108x778           |
| HLA1114DFII | 762x1524x90              | H14          | 42.9                   | 1875              | 90                    | 778x1540x121           |
| HLA1114DFJI | 762x1830x90              | H14          | 51.5                   | 2250              | 90                    | 778x1846x121           |
| HLA1114DBGI | 305x915x90               | H14          | 10.5                   | 450               | 90                    | 931x321x121            |
| HLA1114DGGI | 915x915x90               | H14          | 31.1                   | 1350              | 90                    | 931x108x931            |
| HLA1114DGHI | 915x1220x90              | H14          | 41.4                   | 1800              | 90                    | 1236x108x931           |
| HLA1114DGII | 915x1524x90              | H14          | 51.6                   | 2250              | 90                    | 1540x108x931           |
| HLA1114DGJI | 915x1830x90              | H14          | 62.0                   | 2700              | 90                    | 931x1846x121           |
| HLA1115DBEI | 305x610x90               | U15          | 6.9                    | 300               | 135                   | 321x103x626            |
| HLA1115DEEI | 610x610x90               | U15          | 13.8                   | 600               | 135                   | 626x103x626            |
| HLA1115DEHI | 610x1220x90              | U15          | 27.5                   | 1200              | 135                   | 626x1236x121           |
| HLA1115DCCI | 457x457x90               | U15          | 7.8                    | 335               | 135                   | 473x473x121            |
| HLA1115DFFI | 762x762x90               | U15          | 21.5                   | 950               | 135                   | 778x778x121            |
| HLA1115DFGI | 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

| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1111DEEQ  | 610x610x110              | E11          | 17.7                   | 600               | 40                    | 616x165x616            |
| HLA1111DEGGQ | 610x915x110              | E11          | 26.4                   | 900               | 40                    | 626x931x141            |
| HLA1111DEHGQ | 610x1220x110             | E11          | 35.2                   | 1200              | 40                    | 626x1236x141           |
| HLA1111DEIGQ | 610x1524x110             | E11          | 43.9                   | 1500              | 40                    | 626x1540x141           |
| HLA1111DEJQ  | 610x1830x110             | E11          | 52.7                   | 1800              | 40                    | 626x1846x141           |
| HLA1111DBFQ  | 305x762x110              | E11          | 11.2                   | 375               | 40                    | 778x321x141            |
| HLA1111DEFQ  | 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                    | 320x125x625            |

HEPA filters

HEPA HLA-Q-series continued

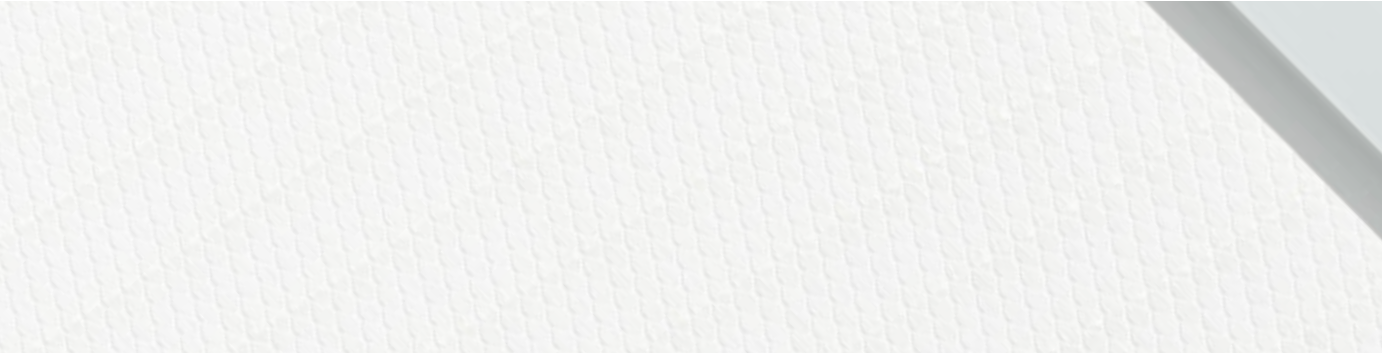
E10

E11

H13

H14

U15



| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1113DFFQ  | 762x762x110              | H13          | 27.6                   | 950               | 60                    | 778x778x141            |
| HLA1113DFGQ  | 762x915x110              | H13          | 33.1                   | 1125              | 60                    | 778x931x141            |
| HLA1113DFHQ  | 762x1220x110             | H13          | 44.1                   | 1500              | 60                    | 778x1236x141           |
| HLA1113DFIQ  | 762x1524x110             | H13          | 55.0                   | 1875              | 60                    | 778x1540x141           |
| HLA1113DFJQ  | 762x1830x110             | H13          | 66.0                   | 2250              | 60                    | 778x1846x141           |
| HLA1113DBGQ  | 305x915x110              | H13          | 13.4                   | 450               | 60                    | 931x321x141            |
| HLA1113DGGQ  | 915x915x110              | H13          | 39.8                   | 1350              | 60                    | 931x931x141            |
| HLA1113DGHQ  | 915x1220x110             | H13          | 53.0                   | 1800              | 60                    | 931x1236x141           |
| HLA1113DGIQ  | 915x1524x110             | H13          | 66.1                   | 2250              | 60                    | 931x1540x141           |
| HLA1113DGJQ  | 915x1830x110             | H13          | 79.3                   | 2700              | 60                    | 931x1846x141           |
| HLA1114DBBQ  | 305x305x110              | H14          | 4.4                    | 150               | 70                    | 320x165x320            |
| HLA1114DCCIQ | 457x457x110              | H14          | 9.9                    | 335               | 70                    | 473x473x141            |
| HLA1114DBEQ  | 305x610x110              | H14          | 8.8                    | 300               | 70                    | 320x125x625            |
| HLA1114DCEQ  | 457x610x110              | H14          | 13.2                   | 450               | 70                    | 473x626x141            |
| HLA1114DBCQ  | 305x457x110              | H14          | 6.7                    | 225               | 70                    | 473x321x141            |
| HLA1114DEEQ  | 610x610x110              | H14          | 17.7                   | 600               | 70                    | 616x165x616            |
| HLA1114DEGQ  | 610x915x110              | H14          | 26.4                   | 900               | 70                    | 626x931x141            |
| HLA1114DEHQ  | 610x1220x110             | H14          | 35.2                   | 1200              | 70                    | 626x1236x141           |
| HLA1114DEIQ  | 610x1524x110             | H14          | 43.9                   | 1500              | 70                    | 626x1540x141           |
| HLA1114DEJQ  | 610x1830x110             | H14          | 52.7                   | 1800              | 70                    | 626x1846x141           |
| HLA1114DBFQ  | 305x762x110              | H14          | 11.2                   | 375               | 70                    | 778x321x141            |
| HLA1114DEFQ  | 610x762x110              | H14          | 22.1                   | 750               | 70                    | 778x626x141            |
| HLA1114DFFQ  | 762x762x110              | H14          | 27.6                   | 950               | 70                    | 778x778x141            |
| HLA1114DFGQ  | 762x915x110              | H14          | 33.1                   | 1125              | 70                    | 778x931x141            |
| HLA1114DFHQ  | 762x1220x110             | H14          | 44.1                   | 1500              | 70                    | 778x1236x141           |
| HLA1114DFIQ  | 762x1524x110             | H14          | 55.0                   | 1875              | 70                    | 778x1540x141           |
| HLA1114DFJQ  | 762x1830x110             | H14          | 66.0                   | 2250              | 70                    | 778x1846x141           |
| HLA1114DBGQ  | 305x915x110              | H14          | 13.4                   | 450               | 70                    | 931x321x141            |
| HLA1114DGGQ  | 915x915x110              | H14          | 39.8                   | 1350              | 70                    | 931x931x141            |
| HLA1114DGHQ  | 915x1220x110             | H14          | 53.0                   | 1800              | 70                    | 931x1236x141           |
| HLA1114DGIQ  | 915x1524x110             | H14          | 66.1                   | 2250              | 70                    | 931x1540x141           |
| HLA1114DGJQ  | 915x1830x110             | H14          | 79.3                   | 2700              | 70                    | 931x1846x141           |
| HLA1115DBEQ  | 305x610x110              | U15          | 8.8                    | 300               | 110                   | 320x125x625            |
| HLA1115DEEQ  | 610x610x110              | U15          | 17.7                   | 600               | 110                   | 616x165x616            |
| HLA1115DEHQ  | 610x1220x110             | U15          | 35.2                   | 1200              | 110                   | 626x1236x141           |
| HLA1115DCCQ  | 457x457x110              | U15          | 9.9                    | 335               | 110                   | 473x473x141            |
| HLA1115DFFQ  | 762x762x110              | U15          | 27.6                   | 950               | 110                   | 778x778x141            |
| HLA1115DFGQ  | 762x915x110              | U15          | 33.1                   | 1125              | 110                   | 778x931x141            |

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



HEPA filters

HEPA HLA-L-series

E10

E11

H13

H14

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

| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1110DBCL  | 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            |
| HLA1110DEFL  | 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           |
| HLA1110DBGL  | 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           |
| HLA1111DEIGL | 610x1524x150             | E11          | 27.6                   | 1500              | 80                    | 626x1540x181           |
| HLA1111DEJGL | 610x1830x150             | E11          | 33.1                   | 1800              | 80                    | 626x1846x181           |
| HLA1111DBFL  | 305x762x150              | E11          | 7.0                    | 375               | 80                    | 778x321x181            |
| HLA1111DEFL  | 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           |
| HLA1111DBGL  | 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                   | 321x626x181            |

HEPA filters

HEPA HLA-L-series continued

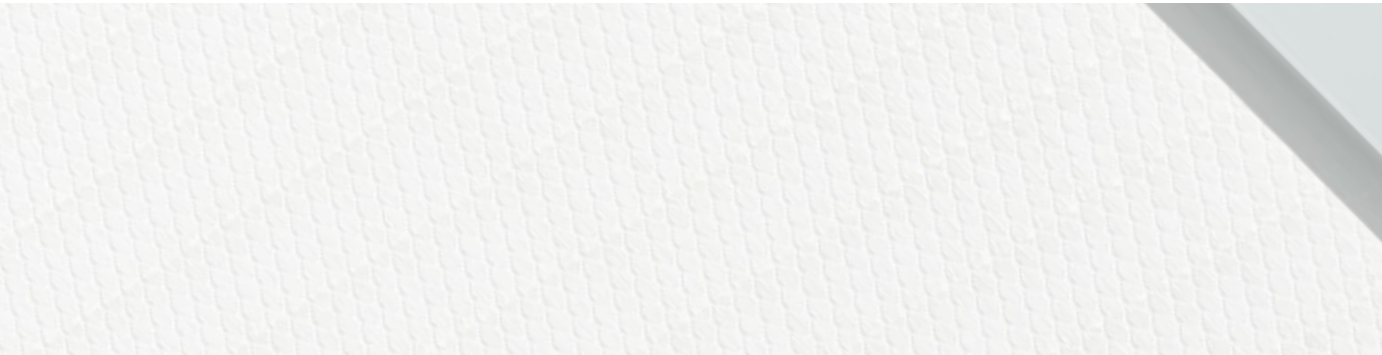
E10

E11

H13

H14

U15



| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|--------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HLA1113DCEL  | 457x610x150              | H13          | 8.3                    | 450               | 120                   | 473x626x181            |
| HLA1113DBCL  | 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           |
| HLA1113DBGL  | 305x915x150              | H13          | 8.4                    | 450               | 120                   | 931x321x181            |
| HLA1113DGGL  | 915x915x150              | H13          | 24.9                   | 1350              | 120                   | 931x931x181            |
| HLA1113DGHL  | 915x1220x150             | H13          | 33.2                   | 1800              | 120                   | 931x1236x181           |
| HLA1113DGIL  | 915x1524x150             | H13          | 41.4                   | 2250              | 120                   | 931x1540x181           |
| HLA1113DGJL  | 915x1830x150             | H13          | 49.7                   | 2700              | 120                   | 931x1846x181           |
| HLA1114DBBL  | 305x305x150              | H14          | 2.8                    | 150               | 140                   | 321x321x181            |
| 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           |
| HLA1114DFJL  | 762x1830x150             | H14          | 41.4                   | 2250              | 140                   | 778x1846x181           |
| HLA1114DBGL  | 305x915x150              | H14          | 8.4                    | 450               | 140                   | 931x321x181            |
| HLA1114DGGL  | 915x915x150              | H14          | 24.9                   | 1350              | 140                   | 931x931x181            |
| HLA1114DGHL  | 915x1220x150             | H14          | 33.2                   | 1800              | 140                   | 931x1236x181           |
| HLA1114DGIL  | 915x1524x150             | H14          | 41.4                   | 2250              | 140                   | 931x1540x181           |
| HLA1114DGJL  | 915x1830x150             | H14          | 49.7                   | 2700              | 140                   | 931x1846x181           |
| HLA1115DBEL  | 305x610x150              | U15          | 5.5                    | 300               | 195                   | 321x626x181            |
| HLA1115DEEL  | 610x610x150              | U15          | 11.1                   | 600               | 195                   | 626x626x181            |
| HLA1115DEHL  | 610x1220x150             | U15          | 22.1                   | 1200              | 195                   | 626x1236x181           |
| HLA1115DCCL  | 457x457x150              | U15          | 6.2                    | 335               | 195                   | 473x473x181            |
| HLA1115DFFL  | 762x762x150              | U15          | 17.3                   | 950               | 195                   | 778x778x181            |
| HLA1115DFGL  | 762x915x150              | U15          | 20.7                   | 1125              | 195                   | 778x931x181            |

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

HEPA filters

HEPA HLA-J-series

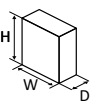
E10

E11

H13

H14

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

| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|--------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HLA1110DBBJ  | 305x305x102.5            | E10          | 2.8                    | 150               | 65                    | 321x321x134            |
| HLA1110DCCJ  | 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           |
| HLA1110DEIJ  | 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                    | 626x931x134            |
| 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           |
| HLA1110DGIJ  | 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            |
| HLA1111DEHJ  | 610x1220x102.5           | E11          | 22.1                   | 1200              | 80                    | 626x1236x134           |
| HLA1111DEIJ  | 610x1524x102.5           | E11          | 27.6                   | 1500              | 80                    | 626x1540x134           |
| HLA1111DEJJ  | 610x1830x102.5           | E11          | 33.1                   | 1800              | 80                    | 626x1846x134           |
| HLA1111DBFJ  | 305x762x102.5            | E11          | 7.0                    | 375               | 80                    | 778x321x134            |
| HLA1111DEFJ  | 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            |
| HLA1111DFHJ  | 762x1220x102.5           | E11          | 27.6                   | 1500              | 80                    | 778x1236x134           |
| HLA1111DFIJ  | 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           |
| HLA1111DGIJ  | 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                   | 321x626x134            |

HEPA filters

HEPA HLA-J-series continued

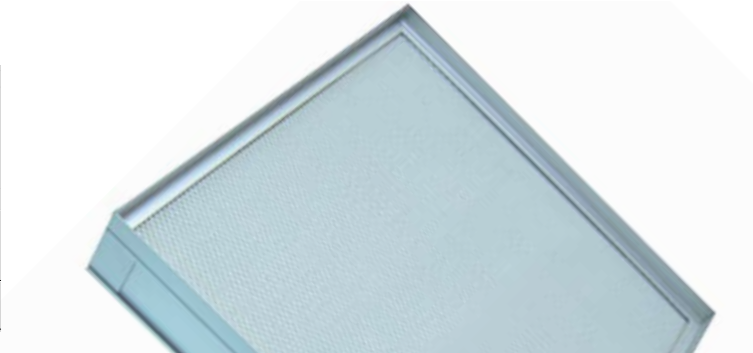
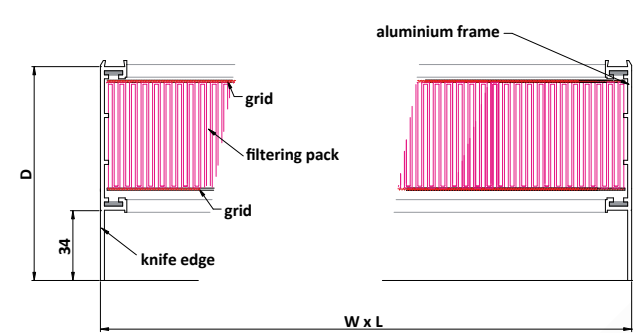
E10

E11

H13

H14

U15



| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|-------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HLA1113DCEJ | 457x610x102.5            | H13          | 8.3                    | 450               | 120                   | 473x626x134            |
| HLA1113DBCJ | 305x457x102.5            | H13          | 4.2                    | 225               | 120                   | 473x321x134            |
| HLA1113DEEJ | 610x610x102.5            | H13          | 11.1                   | 600               | 120                   | 626x626x134            |
| HLA1113DEGJ | 610x915x102.5            | H13          | 16.6                   | 900               | 120                   | 626x931x134            |
| HLA1113DEHJ | 610x1220x102.5           | H13          | 22.1                   | 1200              | 120                   | 626x1236x134           |
| HLA1113DEIJ | 610x1524x102.5           | H13          | 27.6                   | 1500              | 120                   | 626x1540x134           |
| HLA1113DEJJ | 610x1830x102.5           | H13          | 33.1                   | 1800              | 120                   | 626x1846x134           |
| HLA1113DBFJ | 305x762x102.5            | H13          | 7.0                    | 375               | 120                   | 778x321x134            |
| HLA1113DEFJ | 610x762x102.5            | H13          | 13.9                   | 750               | 120                   | 778x626x134            |
| HLA1113DFFJ | 762x762x102.5            | H13          | 17.3                   | 950               | 120                   | 778x778x134            |
| HLA1113DFGJ | 762x915x102.5            | H13          | 20.7                   | 1125              | 120                   | 778x931x134            |
| HLA1113DFHJ | 762x1220x102.5           | H13          | 27.6                   | 1500              | 120                   | 778x1236x134           |
| HLA1113DFIJ | 762x1524x102.5           | H13          | 34.5                   | 1875              | 120                   | 778x1540x134           |
| HLA1113DFJJ | 762x1830x102.5           | H13          | 41.4                   | 2250              | 120                   | 778x1846x134           |
| HLA1113DBGJ | 305x915x102.5            | H13          | 8.4                    | 450               | 120                   | 931x321x134            |
| HLA1113DGGJ | 915x915x102.5            | H13          | 24.9                   | 1350              | 120                   | 931x931x134            |
| HLA1113DGHJ | 915x1220x102.5           | H13          | 33.2                   | 1800              | 120                   | 931x1236x134           |
| HLA1113DGIJ | 915x1524x102.5           | H13          | 41.4                   | 2250              | 120                   | 931x1540x134           |
| HLA1113DGJJ | 915x1830x102.5           | H13          | 49.7                   | 2700              | 120                   | 931x1846x134           |
| HLA1114DBBJ | 305x305x102.5            | H14          | 2.8                    | 150               | 140                   | 321x321x134            |
| HLA1114DCCJ | 457x457x102.5            | H14          | 6.2                    | 335               | 140                   | 473x473x134            |
| HLA1114DBEJ | 305x610x102.5            | H14          | 5.5                    | 300               | 140                   | 321x626x134            |
| HLA1114DCEJ | 457x610x102.5            | H14          | 8.3                    | 450               | 140                   | 473x626x134            |
| HLA1114DBCJ | 457x205x102.5            | H14          | 4.2                    | 225               | 140                   | 473x321x134            |
| HLA1114DEEJ | 610x610x102.5            | H14          | 11.1                   | 600               | 140                   | 626x626x134            |
| HLA1114DEGJ | 610x915x102.5            | H14          | 16.6                   | 900               | 140                   | 626x931x134            |
| HLA1114DEHJ | 610x1220x102.5           | H14          | 22.1                   | 1200              | 140                   | 626x1236x134           |
| HLA1114DEIJ | 610x1524x102.5           | H14          | 27.6                   | 1500              | 140                   | 626x1540x134           |
| HLA1114DEJJ | 610x1830x102.5           | H14          | 33.1                   | 1800              | 140                   | 626x1846x134           |
| HLA1114DBFJ | 305x762x102.5            | H14          | 7.0                    | 375               | 140                   | 778x321x134            |
| HLA1114DEFJ | 610x762x102.5            | H14          | 13.9                   | 750               | 140                   | 778x626x134            |
| HLA1114DFFJ | 762x762x102.5            | H14          | 17.3                   | 950               | 140                   | 778x778x134            |
| HLA1114DFGJ | 762x915x102.5            | H14          | 20.7                   | 1125              | 140                   | 778x931x134            |
| HLA1114DFHJ | 762x1220x102.5           | H14          | 27.6                   | 1500              | 140                   | 778x1236x134           |
| HLA1114DFIJ | 762x1524x102.5           | H14          | 34.5                   | 1875              | 140                   | 778x1540x134           |
| HLA1114DFJJ | 762x1830x102.5           | H14          | 41.4                   | 2250              | 140                   | 778x1846x134           |
| HLA1114DBGJ | 305x915x102.5            | H14          | 8.4                    | 450               | 140                   | 931x321x134            |
| HLA1114DGGJ | 915x915x102.5            | H14          | 24.9                   | 1350              | 140                   | 931x931x134            |
| HLA1114DGHJ | 915x1220x102.5           | H14          | 33.2                   | 1800              | 140                   | 931x1236x134           |
| HLA1114DGIJ | 915x1524x102.5           | H14          | 41.4                   | 2250              | 140                   | 931x1540x134           |
| HLA1114DGJJ | 915x1830x102.5           | H14          | 49.7                   | 2700              | 140                   | 931x1846x134           |
| HLA1115DBEJ | 305x610x102.5            | U15          | 5.5                    | 300               | 195                   | 473x473x134            |
| HLA1115DEEJ | 610x610x102.5            | U15          | 11.1                   | 600               | 195                   | 626x626x134            |
| HLA1115DEHJ | 610x1220x102.5           | U15          | 22.1                   | 1200              | 195                   | 626x1236x134           |
| HLA1115DCCJ | 457x457x102.5            | U15          | 6.2                    | 335               | 195                   | 473x473x134            |
| HLA1115DFFJ | 762x762x102.5            | U15          | 17.3                   | 950               | 195                   | 778x778x134            |
| HLA1115DFGJ | 762x915x102.5            | U15          | 20.7                   | 1125              | 195                   | 778x931x134            |

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

| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1110DFFH  | 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            |
| HLA1110DGGH  | 915x915x80               | E10          | 29.8                   | 1350              | 55                    | 931x931x111            |
| HLA1110DGHH  | 915x1220x80              | E10          | 39.7                   | 1800              | 55                    | 931x1236x111           |
| HLA1110DGIH  | 915x1524x80              | E10          | 49.5                   | 2250              | 55                    | 931x1540x111           |
| HLA1110DGJH  | 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            |
| HLA1111DEEGH | 610x610x80               | E11          | 13.2                   | 600               | 60                    | 626x103x626            |
| HLA1111DEGGH | 610x915x80               | E11          | 19.8                   | 900               | 60                    | 626x103x931            |
| HLA1111DEHGH | 610x1220x80              | E11          | 26.4                   | 1200              | 60                    | 620x91x1230            |
| HLA1111DEIGH | 610x1524x80              | E11          | 32.9                   | 1500              | 60                    | 626x1540x111           |
| HLA1111DEJGH | 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            |
| HLA1111DFHGH | 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            |
| HLA1111DGGH  | 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            |

HEPA filters

HEPA HLA-H-series continued

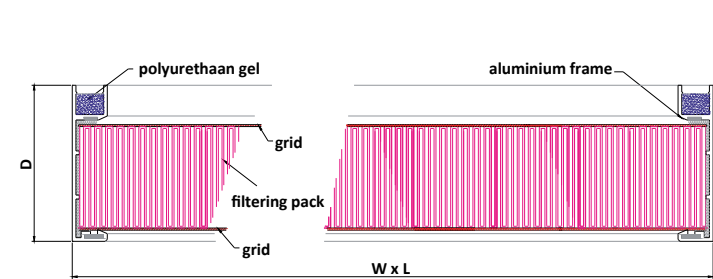
E10

E11

H13

H14

U15



| Type         | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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            |
| HLA1113DFFH  | 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                    | 778x1540x111           |
| HLA1113DFJH  | 762x1830x80              | H13          | 49.4                   | 2250              | 90                    | 778x1846x111           |
| HLA1113DBGH  | 305x915x80               | H13          | 10.0                   | 450               | 90                    | 931x321x111            |
| HLA1113DGGH  | 915x915x80               | H13          | 29.8                   | 1350              | 90                    | 931x931x111            |
| HLA1113DGHH  | 915x1220x80              | H13          | 39.7                   | 1800              | 90                    | 931x1236x111           |
| HLA1113DGIH  | 915x1524x80              | H13          | 49.5                   | 2250              | 90                    | 931x1540x111           |
| HLA1113DGJH  | 915x1830x80              | H13          | 59.4                   | 2700              | 90                    | 931x1846x111           |
| HLA1114DBBH  | 305x305x80               | H14          | 3.3                    | 150               | 100                   | 321x103x321            |
| HLA1114DCCIH | 457x457x80               | H14          | 7.4                    | 335               | 100                   | 473x103x473            |
| HLA1114DBEH  | 305x610x80               | H14          | 6.6                    | 300               | 100                   | 321x103x626            |
| HLA1114DCEH  | 457x610x80               | H14          | 9.9                    | 450               | 100                   | 473x626x111            |
| HLA1114DBCH  | 305x457x80               | H14          | 5.0                    | 225               | 100                   | 473x321x111            |
| HLA1114DEEH  | 610x610x80               | H14          | 13.2                   | 600               | 100                   | 626x103x626            |
| HLA1114DEGH  | 610x915x80               | H14          | 19.8                   | 900               | 100                   | 626x103x931            |
| HLA1114DEHH  | 610x1220x80              | H14          | 26.4                   | 1200              | 100                   | 620x91x1230            |
| HLA1114DEIH  | 610x1524x80              | H14          | 32.9                   | 1500              | 100                   | 626x1540x111           |
| HLA1114DEJH  | 610x1830x80              | H14          | 39.5                   | 1800              | 100                   | 626x1846x111           |
| HLA1114DBFH  | 305x762x80               | H14          | 8.4                    | 375               | 100                   | 778x321x111            |
| HLA1114DEFH  | 610x762x80               | H14          | 16.6                   | 750               | 100                   | 778x626x111            |
| HLA1114DFFH  | 762x762x80               | H14          | 20.7                   | 950               | 100                   | 778x778x111            |
| HLA1114DFGH  | 762x915x80               | H14          | 24.8                   | 1125              | 100                   | 778x931x111            |
| HLA1114DFHH  | 762x1220x80              | H14          | 33.0                   | 1500              | 100                   | 778x1236x111           |
| HLA1114DFIH  | 762x1524x80              | H14          | 41.2                   | 1875              | 100                   | 778x1540x111           |
| HLA1114DFJH  | 762x1830x80              | H14          | 49.4                   | 2250              | 100                   | 778x1846x111           |
| HLA1114DBGH  | 305x915x80               | H14          | 10.0                   | 450               | 100                   | 931x321x111            |
| HLA1114DGGH  | 915x915x80               | H14          | 29.8                   | 1350              | 100                   | 931x931x111            |
| HLA1114DGHH  | 915x1220x80              | H14          | 39.7                   | 1800              | 100                   | 931x1236x111           |
| HLA1114DGIH  | 915x1524x80              | H14          | 49.5                   | 2250              | 100                   | 931x1540x111           |
| HLA1114DGJH  | 915x1830x80              | H14          | 59.4                   | 2700              | 100                   | 931x1846x111           |
| HLA1115DBEH  | 305x610x80               | U15          | 6.6                    | 300               | 195                   | 321x103x626            |
| HLA1115DEEH  | 610x610x80               | U15          | 13.2                   | 600               | 195                   | 626x103x626            |
| HLA1115DEHH  | 610x1220x80              | U15          | 26.4                   | 1200              | 195                   | 610x91x1230            |
| HLA1115DCCH  | 457x457x80               | U15          | 7.4                    | 335               | 195                   | 473x103x473            |
| HLA1115DFFH  | 762x762x80               | U15          | 20.7                   | 950               | 195                   | 778x778x111            |
| HLA1115DFGH  | 762x915x80               | U15          | 24.8                   | 1125              | 195                   | 778x931x111            |

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 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

| Type        | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>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.

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

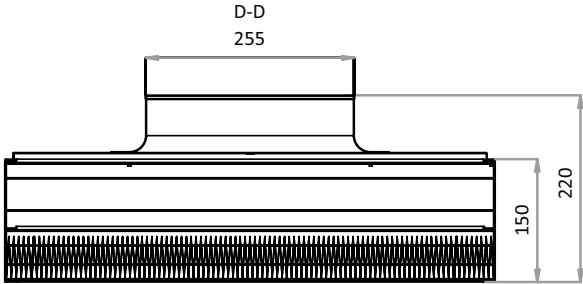
**Options**

- Continuous poured gasket

| Type             | Dimensions<br>WxHxD (mm) | Filter class | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | Dimensions<br>box (mm) |
|------------------|--------------------------|--------------|------------------------|-------------------|-----------------------|------------------------|
| HLH1111SBEL      | 305x610x150              | E11          | 5.5                    | 300               | 70                    | 321x626x183            |
| HLH1111SEEL      | 610x610x150              | E11          | 11.1                   | 600               | 70                    | 626x626x183            |
| HLH1111SEGL      | 610x915x150              | E11          | 16.6                   | 900               | 70                    | 626x931x183            |
| HLH1111SEHL      | 610x1220x150             | E11          | 22.1                   | 1200              | 70                    | 626x1236x183           |
| HLH1111S300600L  | 300x600x150              | E11          | 5.4                    | 300               | 70                    | 316x616x183            |
| HLH1111S600600L  | 600x600x150              | E11          | 10.7                   | 600               | 70                    | 616x616x183            |
| HLH1111S905600L  | 905x600x150              | E11          | 16.2                   | 900               | 70                    | 921x616x183            |
| HLH1111S1210600L | 1210x600x150             | E11          | 22.1                   | 1200              | 70                    | 1226x616x183           |
| HLH1111S1195595L | 1195x595x150             | E11          | 21.3                   | 1100              | 70                    | 1211x616x183           |
| HLH1113SBEL      | 305x610x150              | H13          | 5.5                    | 300               | 110                   | 321x626x183            |
| HLH1113SEEL      | 610x610x150              | H13          | 11.1                   | 600               | 110                   | 626x626x183            |
| HLH1113SEGL      | 610x915x150              | H13          | 16.7                   | 900               | 110                   | 626x931x183            |
| HLH1113SEHL      | 610x1220x150             | H13          | 22.3                   | 1200              | 110                   | 626x1236x183           |
| HLH1113S300600L  | 300x600x150              | H13          | 5.3                    | 300               | 110                   | 316x616x183            |
| HLH1113S600600L  | 600x600x150              | H13          | 10.7                   | 600               | 110                   | 616x616x183            |
| HLH1113S905600L  | 905x600x150              | H13          | 16.2                   | 900               | 110                   | 921x616x183            |
| HLH1113S1210600L | 1210x600x150             | H13          | 21.7                   | 1200              | 110                   | 1226x616x183           |
| HLH1113S1195595L | 1195x595x150             | H13          | 21.3                   | 1100              | 110                   | 1211x616x183           |
| HLH1114SBEL      | 305x610x150              | H14          | 5.5                    | 300               | 120                   | 321x626x183            |
| HLH1114SEEL      | 610x610x150              | H14          | 11.1                   | 600               | 120                   | 626x626x183            |
| HLH1114SEGL      | 610x915x150              | H14          | 16.7                   | 900               | 120                   | 626x931x183            |
| HLH1114SEHL      | 610x1220x150             | H14          | 22.3                   | 1200              | 120                   | 626x1236x183           |
| HLH1114S300600L  | 300x600x150              | H14          | 5.3                    | 300               | 120                   | 316x616x183            |
| HLH1114S600600L  | 600x600x150              | H14          | 10.7                   | 600               | 120                   | 616x616x183            |
| HLH1114S905600L  | 905x600x150              | H14          | 16.2                   | 900               | 120                   | 921x616x183            |
| HLH1114S1210600L | 1210x600x150             | H14          | 21.7                   | 1200              | 120                   | 1226x616x183           |
| HLH1114S1195595L | 1195x595x150             | H14          | 21.3                   | 1100              | 120                   | 1211x616x183           |

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

Including plenum the height is 220 mm





HEPA unit

HL-HD



Characteristics

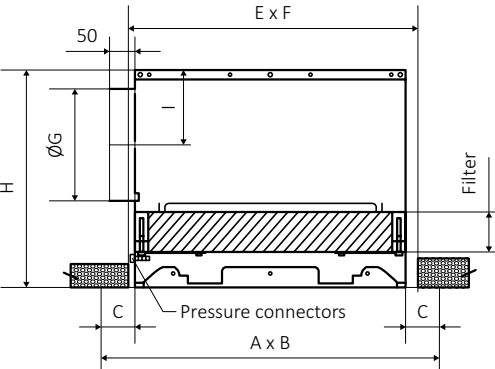
- Galvanised Steel RAL 9010 epoxy paint
- Connection on the top or the side
- Plenum and filter support assembled and sealed, air-tight
- For HEPA filters 68 or 150 mm thick
- Pressure connectors mounted
- Grill: interchangeable perforated, helicoid-jet or 4-way

Advantages

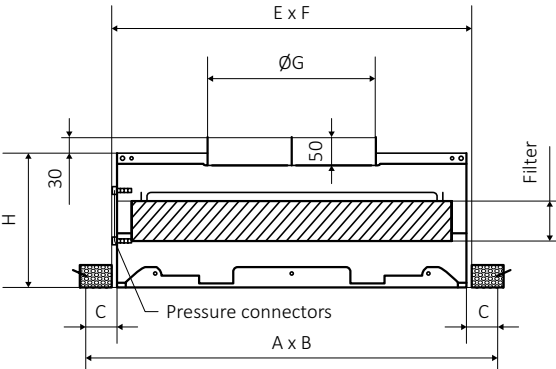
- Can be used for many purposes: air supply/return, wall or ceiling installation
- 3 diffuser models suitable for different types of diffusion:
- Perforated Grill for vertical diffusion
- Helicoid grill for diffusion of air via mixture
- 4-way grill for multidirectional diffusion
- HL-HD-S version available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



| Type     | Filter Dimensions (mm) | Overall AxB (mm) | Cut out dimensions ExF (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                  |



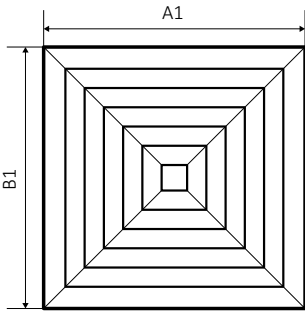
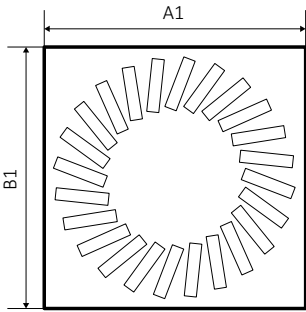
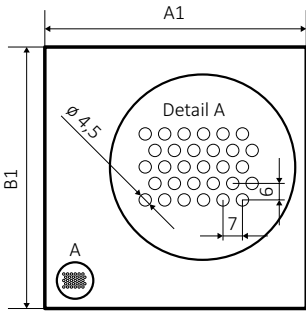
HL-HD-S



HL-HD-T

HEPA unit

HL-HD diffusers



| Type     | Overall (Cx C) | Perforated Grill |            | Type: Helicoid Grill<br>Maximum Flow (m³/h) |            | 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.

# 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 excentric 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           | Unit Dimensions (mm) |     |               |     | Filter Dimensions (mm) |     |     | Weight (Kg) |
|----------------|----------------------|-----|---------------|-----|------------------------|-----|-----|-------------|
|                | C                    | 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        |

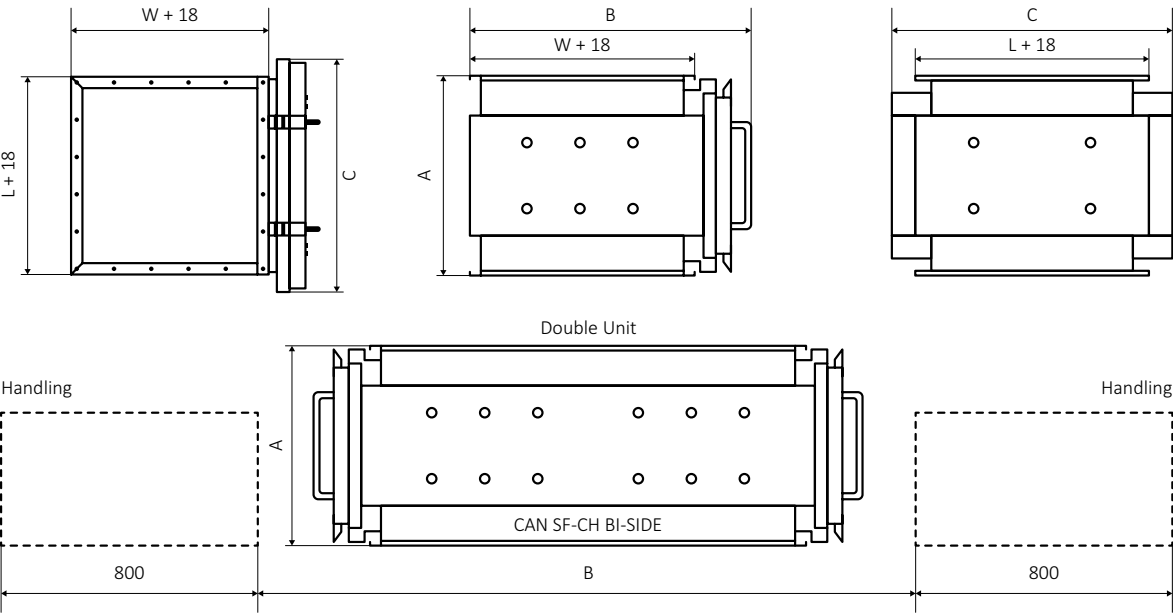
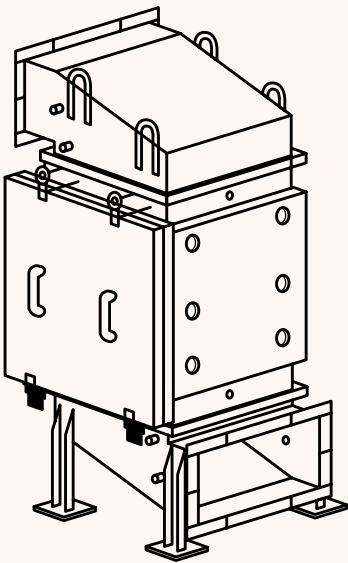
\* Consider Wx2 for the double unit since this version contains 2 filters.

# Mounting frames and units

## SF-CH Canister Unit continued

### Options

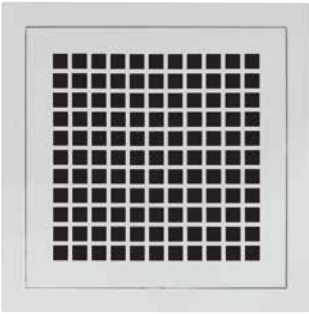
- Pressure connectors with valves
- Upper/lower collector- support feet
- AISI 304 or AISI 316 Stainless steel version
- ATEX version
- Integrated manual test scan. Integrity control as per ISO 10644-3
- Double unit with a single door
- Unit with integrated prefilter
- Integrated maintenance table
-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



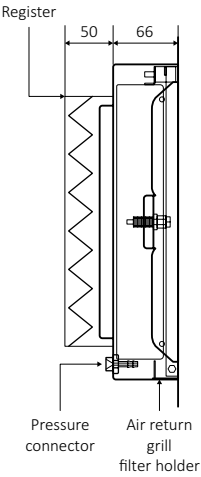
| Size | Filter Dimensions (mm) | Grill Dimensions |      |     |     | Nominal Flow (m³/h) |
|------|------------------------|------------------|------|-----|-----|---------------------|
|      |                        | A                | B    | C   | D   |                     |
| 3.1  | 305×150×48             | 410              | 255  | 350 | 195 | 200                 |
| 4.1  | 395×150×48             | 500              | 225  | 440 | 195 | 320                 |
| 3.1  | 305×305×48             | 410              | 410  | 350 | 350 | 500                 |
| 3.4  | 305×395×48             | 410              | 500  | 350 | 440 | 540                 |
| 3.5  | 305×490×48             | 410              | 595  | 350 | 535 | 800                 |
| 5.3  | 490×305×48             | 595              | 410  | 535 | 350 | 800                 |
| 4.4  | 395×395×48             | 500              | 500  | 440 | 440 | 840                 |
| 3.6  | 305×610×48             | 410              | 715  | 350 | 655 | 970                 |
| 6.3  | 610×305×48             | 715              | 410  | 655 | 350 | 970                 |
| 4.5  | 490×490×48             | 500              | 595  | 440 | 535 | 1000                |
| 4.6  | 395×610×48             | 500              | 715  | 440 | 655 | 1220                |
| 5.5  | 490×490×48             | 595              | 595  | 535 | 535 | 1220                |
| 5.6  | 490×610×48             | 595              | 715  | 535 | 655 | 1560                |
| 6.6  | 610×610×48             | 715              | 715  | 655 | 655 | 1950                |
| 5.9  | 490×915×48             | 595              | 1020 | 535 | 960 | 2340                |
| 7.4  | 762×395×48             | 867              | 500  | 807 | 440 | 1570                |
| 7.7  | 762×762×48             | 867              | 867  | 807 | 807 | 3030                |

# Air return grill

## HL-RB continued

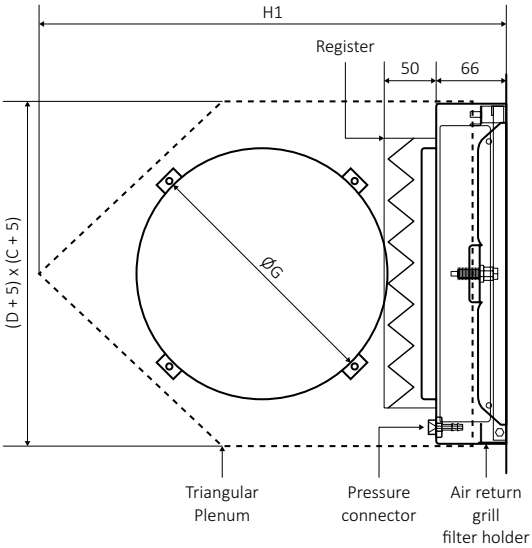
### HL-RB + Register

| Size | Filter Dimensions (mm) |
|------|------------------------|
| 3.1  | 305×150                |
| 4.1  | 395×150                |
| 3.1  | 305×305                |
| 3.4  | 305×395                |
| 3.5  | 305×490                |
| 5.3  | 490×305                |
| 4.4  | 395×395                |
| 3.6  | 305×610                |
| 6.3  | 610×305                |
| 4.5  | 490×490                |
| 4.6  | 395×610                |
| 5.5  | 490×490                |
| 5.6  | 490×610                |
| 6.6  | 610×610                |
| 5.9  | 490×915                |
| 7.4  | 762×395                |
| 7.7  | 762×762                |

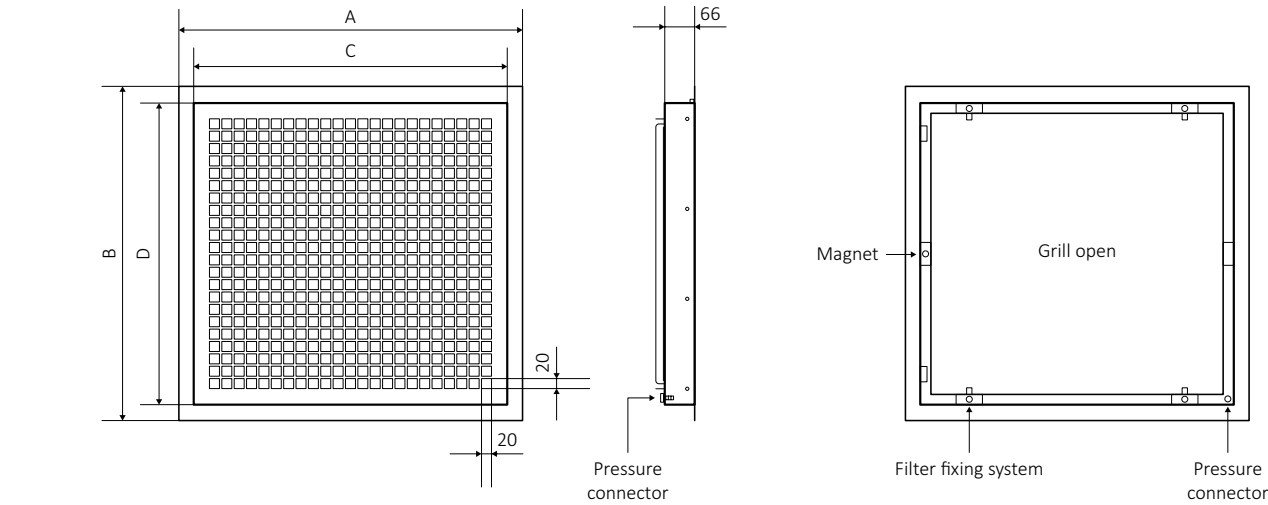


### HL-RB + Triangular Plenum

| 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.

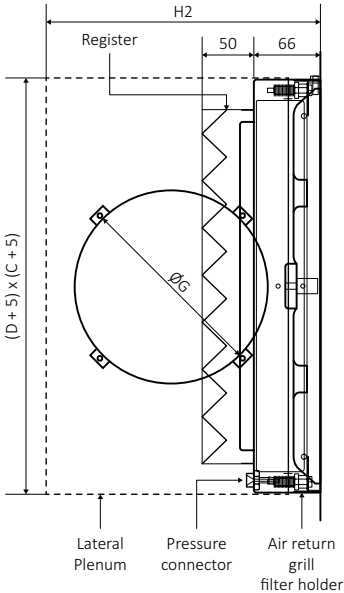


# Air return grill

## HL-RB continued

### HL-RB + Lateral Plenum

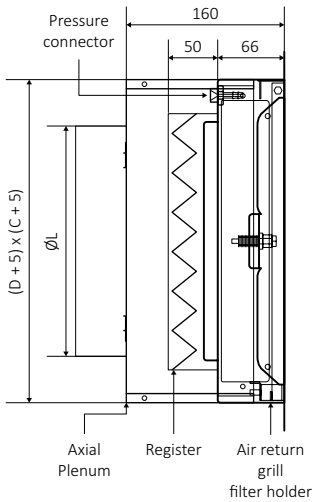
| Size | H2  | Ø   |
|------|-----|-----|
| 3.1  | 230 | 125 |
| 4.1  | 270 | 160 |
| 3.1  | 310 | 200 |
| 3.4  | 310 | 200 |
| 3.5  | 370 | 250 |
| 5.3  | -   | -   |
| 4.4  | 370 | 250 |
| 3.6  | 370 | 250 |
| 6.3  | -   | -   |
| 4.5  | 450 | 315 |
| 4.6  | 450 | 315 |
| 5.5  | 450 | 315 |
| 5.6  | 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 | ØL  |
|------|-----|
| 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

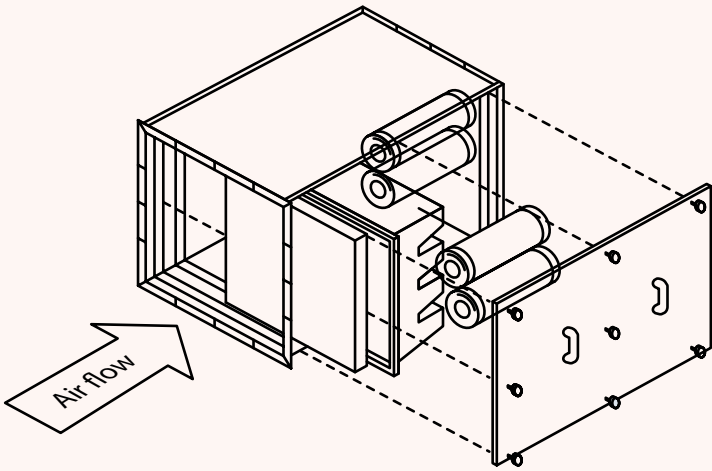
- Application Unit for the installation of one or several storeys of filtration in a duct network.
- Single-block galvanised steel
- Upstream/downstream clamps, width 30 mm
- Side door for filter access, knurled-knob closure and sealed joint
- Runner system for prefilters, tightening via cam for high-efficiency 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 windscreen grill with anti-volatile mesh
- Roof with diamond point for outside installation
- Support Feet
- Ground connection for ATEX zone
- Special Construction for HEPA filters

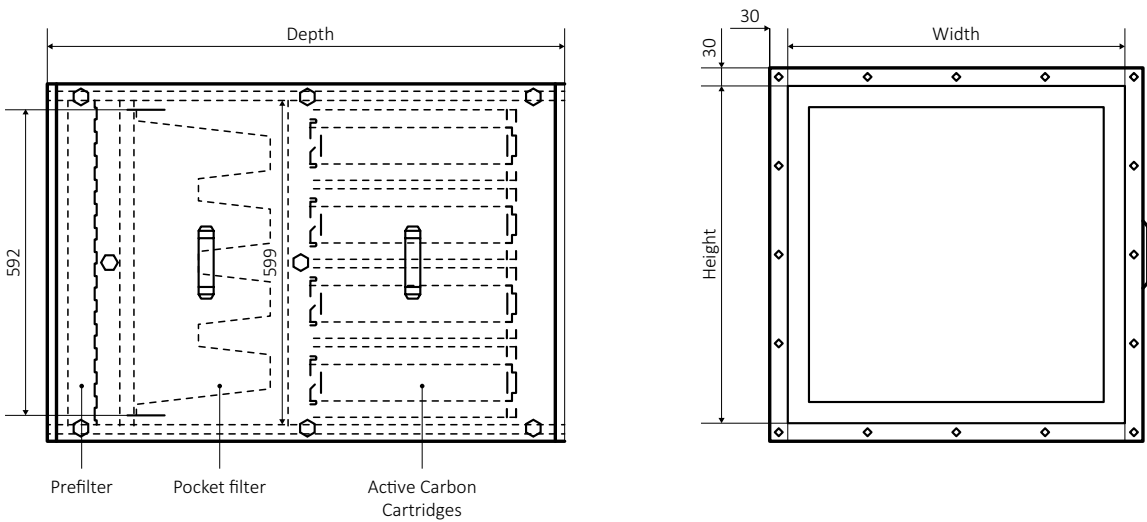


Sleeve filtration units

HL-DA Unit continued

| Type     | Number of filters | Dimensions Filters (mm) | With** (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                                         |
| H1L2     | 2                 | 592x592                 | 1240        | 620           | 400         | 700            | 700               | 700                       | 700                          | 1100                                         |
| H1.5L1   | 1                 | 592x592                 | 620         | 930           | 400         | 700            | 700               | 700                       | 700                          | 1100                                         |
| H1.5L2   | 2                 | 592x592                 | 1240        | 930           | 400         | 700            | 700               | 700                       | 700                          | 1100                                         |
| H2L1     | 2                 | 592x592                 | 620         | 1240          | 400         | 700            | 700               | 700                       | 700                          | 1100                                         |
| H2L1.5   | 2                 | 592x592                 | 930         | 1240          | 400         | 700            | 700               | 700                       | 700                          | 1100                                         |
| 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       |





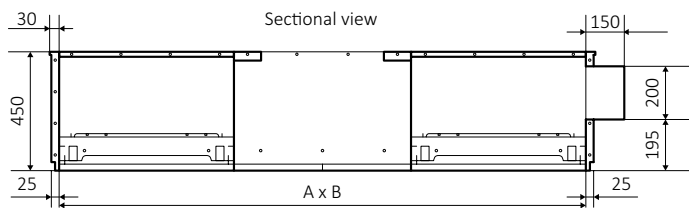
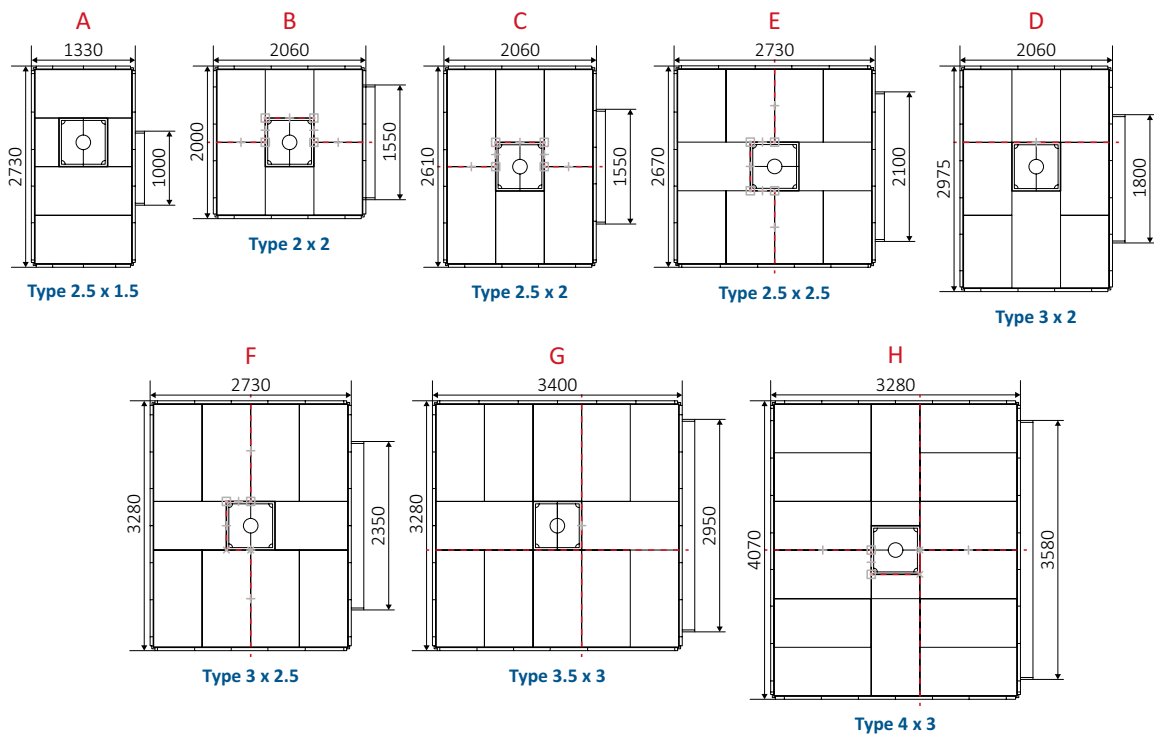
# Filtering ceiling for operating theatres

## HD-CE continued

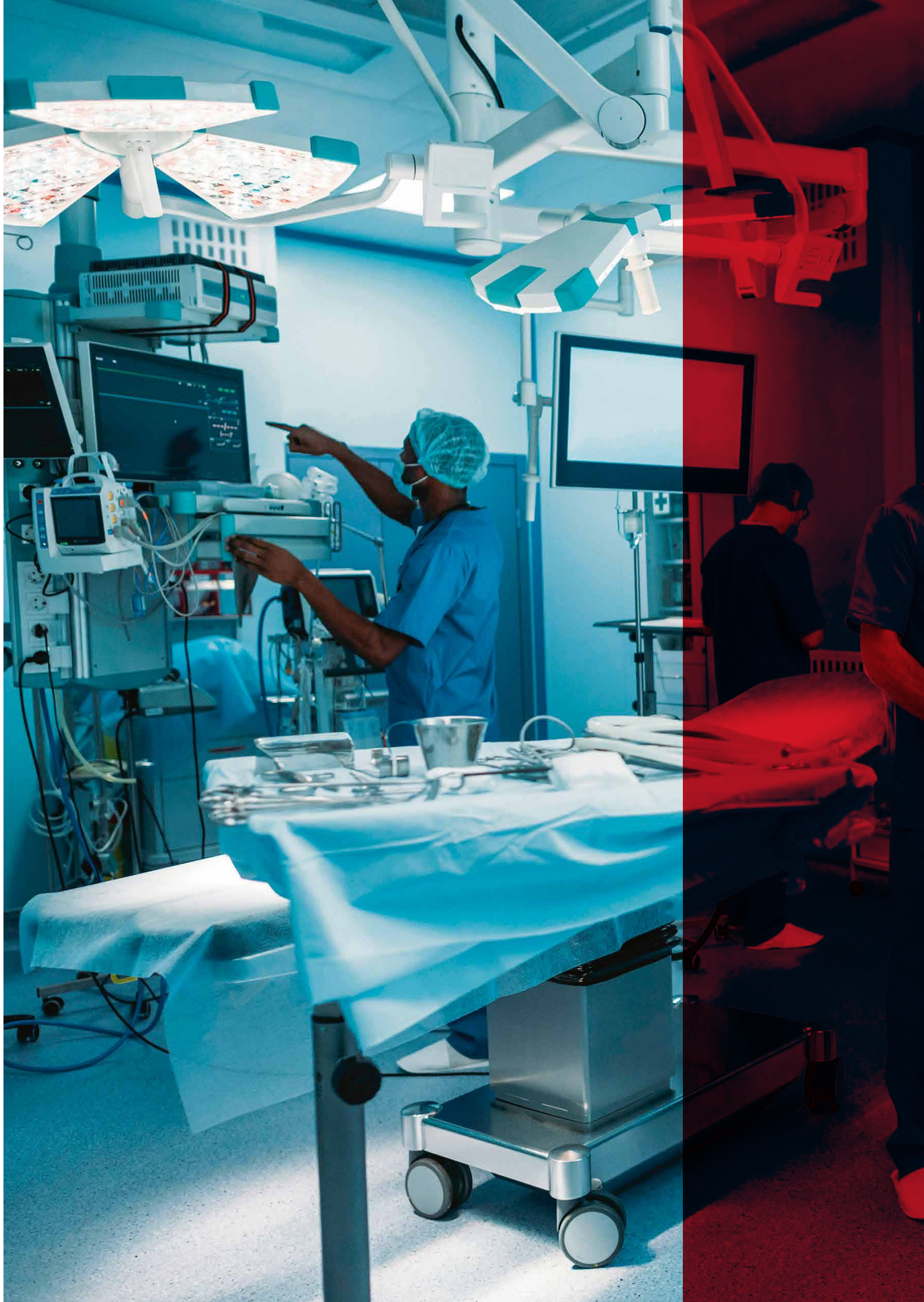


### Construction Variants and Options

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



Dividing line





# 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.

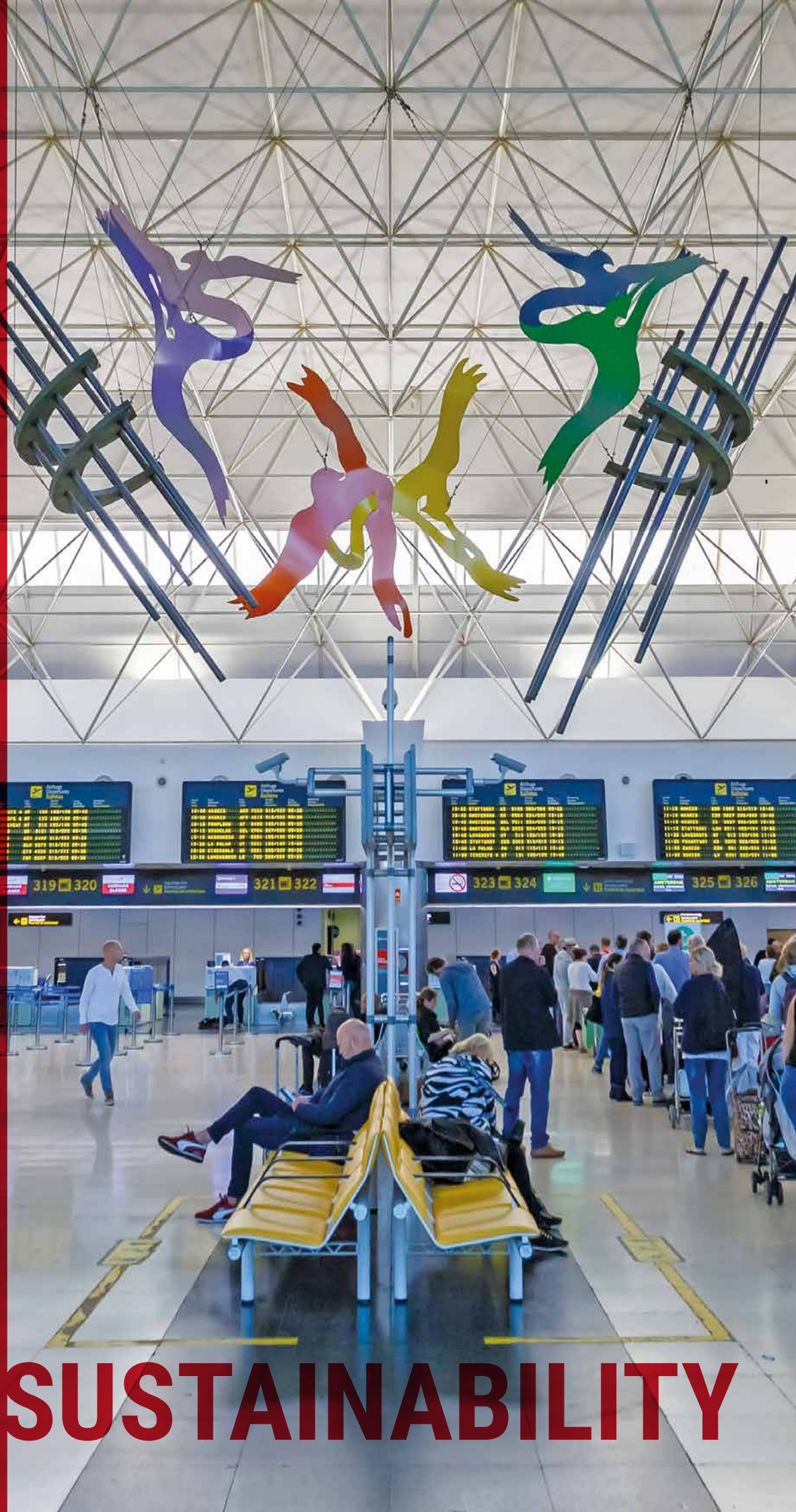
### Applications

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



# SUSTAINABILITY



# Active carbon filters

## Carbon cylinder



### Specifications

**Application:** Airports, industry, catering  
**Frame:** Galvanized steel or stainless steel (RVS)  
**Bonding:** -  
**Activated carbon:** M-CARB generic activated carbon, specific impregnated carbon used for airports and industrie  
**Gasket:** Neopreen  
**Maximum final pressure drop:** -  
**Maximum temperature:** 40°C  
**Maximum relative humidity:** 70%  
**Comments:** Possibility to apply impregnated carbon to filter specific gases

### Advantages

- Refillable
- High dust holding capacity
- Straightforward assembly

| Type       | Dimensions<br>WxHxD (mm)                              | Carbon Type | Volume<br>(L) | Bulk density<br>(kg) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>box (mm) |
|------------|-------------------------------------------------------|-------------|---------------|----------------------|-------------------|-----------------------|-------------------|------------------------|
| AC-2-12    | Lenght: 250 mm<br>Tickness: 25 mm<br>Galvanized steel | M2-3        | 3             | 1.2                  | 85                | 80                    | 4                 | 300x300x275            |
| AC-2-26    | Lenght: 450 mm<br>Tickness: 25 mm<br>Galvanized steel | M2-3        | 5             | 2.1                  | 150               | 80                    | 4                 | 300x300x275            |
| AC-2-26/SS | Lenght: 450 mm<br>Tickness: 25 mm<br>Stainless steel  | M2-3        | 5             | 2.1                  | 150               | 80                    | 4                 | 300x300x275            |
| AC-2-60    | Lenght: 600 mm<br>Tickness: 25 mm<br>Galvanized steel | M2-3        | 6             | 2.8                  | 205               | 75                    | 4                 | 300x300x275            |

### Gasket

| Type    | Used for<br>cylinders |
|---------|-----------------------|
| AC-P-25 | AC-2-12 & AC-2-26     |

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

# Active carbon filters

## AC12



### Specifications

**Application:** Museums, archives, industry  
**Frame:** Galvanized steel  
**Bonding:** -  
**Activated carbon:** M-carb generic activated carbon. R-CARB/S-CARB specific impregnated carbon used for museums and archives  
**Gasket:** Extruded rubber  
**Maximum final pressure drop:** -  
**Maximum temperature:** 40°C  
**Maximum relative humidity:** 70%

### Advantages

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

| Type          | Dimensions<br>WxHxD (mm) | Carbon Type | Volume<br>(L) | Bulk density<br>(kg) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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.



Active carbon filters

Activated carbon panel



Specifications

**Application:** Museums, archives, industry  
**Frame:** Galvanized steel  
**Bonding:** 2 component polyurethane  
**Activated carbon:** M-carb generic activated carbon.  
R-CARB/S-CARB specific impregnated carbon used for museums and archives  
**Gasket:** Neopreen  
**Maximum final pressure drop:** -  
**Maximum temperature:** 40°C  
**Maximum relative humidity:** 70%

Advantages

- Robust design
- High dust holding capacity

| Type             | Dimensions<br>WxHxD (mm) | Carbon Type | Volume<br>(L) | Bulk density<br>(kg) | Airflow<br>(m³/h) | # Filters/<br>box | Dimensions<br>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



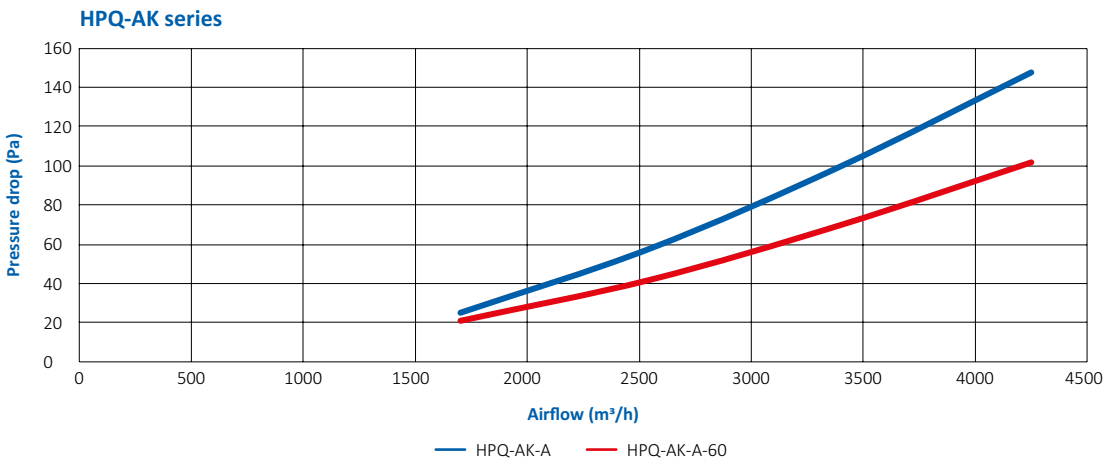
Specifications

**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<br>WxHxD (mm) | Filter class<br>ISO 16890 | Filter surface<br>(m²) | Airflow<br>(m³/h) | Pressure drop<br>(Pa) | # Filters/<br>box | Dimensions<br>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.







**SAFETY**

# Filter media

AFPRO Filters filter medium is made of high quality fibers, which are progressively built up to create a medium with a high particle interception capacity. In addition to synthetic media AFPRO has an extensive range of glass 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

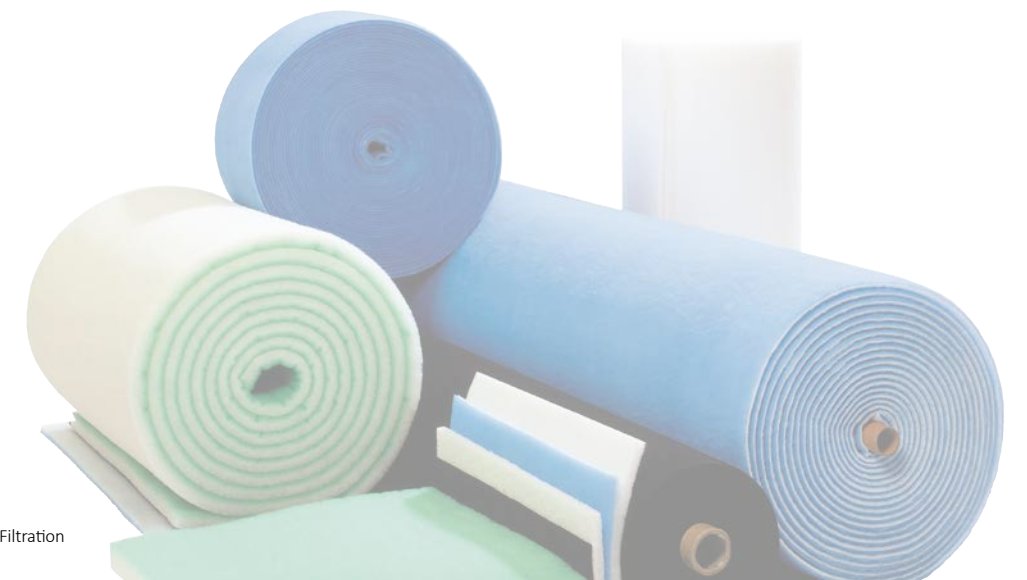
Our filter media are supplied either on a roll or in pre-cut sheets.

## 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

ISO Coarse



Specifications

**Application:** Prefilters in HVAC and industry  
**Material:** Polyester  
**Filter class according to ISO 16890:** ISO Coarse  
**Maximum final pressure drop:** 250Pa  
**Maximum temperature:** 70°C  
**Maximum relative humidity:** 90%

Advantages

- High dust holding capacity
- Easily custom fitted

Options

- Loose sheets, complete rolls, pre-cut media

| Type          | Dimensions<br>WxH (m) | Filter class<br>ISO 16890 | Color      | Airflow<br>(m³/h/m²) | Pressure drop<br>(Pa) | Weight<br>(g/m²) | Thickness<br>(mm) | Activated carbon<br>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

Filter media

Glasmedium

ISO Coarse



Specifications

**Application:** Spray booth, prefilters gas turbines  
**Material:** 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<br>WxH (m) | Filter class<br>ISO 16890 | Color       | Airflow<br>(m³/h/m²) | Pressure drop<br>(Pa) | Weight<br>(g/m²) | Thickness<br>(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                | -                         | -           | -                    | -                     | -                | -                 |





PROTECTION

# Holding frames

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

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

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

## Advantages

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

## Construction

The holding frames are made of either galvanized 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

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

# Holding frames

## HF HEPA



### Specifications

**Application:** Cleanrooms, hospitals  
**Frame:** Galvanized steel or stainless steel (RVS)  
**Gasket:** -  
**Maximum temperature:** 70°C  
**Comments:** Assembly tools for filters with a depth of 292 mm are included standard. Assembly tools for filters with a depth of 60-150 mm can be delivered on request

### Advantages

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

| Type             | Dimensions frame<br>WxHxD (mm) | Montage<br>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



# 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

|                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 General</b>                                                                                                                                                                                                                                                                                                                | 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.                                                                                                                                                                                                                                                                                         | 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.                                                                                                                                                                                                                                                                                                                                                                                                          | 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.                                                                                                                                                                                                                                                                                            | 11 Retention of title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 13 Applicable law and choice of forum                                                                                                                                                                                                              |
| 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.                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 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.                                                                                                                                                                                                                                    | 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. |
| 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.                                                                                                                                                          | 5 Price changes                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 8 Force majeure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 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.                                                                                                                                                                                                                                                                                  | 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.                                                                                                                                                                                                                                                                                                   | 13.2 With regard to the interpretation of international trade terms the “Incoterms” as compiled by the International Chamber of Commerce in Paris apply.                                                                                           |
| 1.3 All offers and contracts are exclusively governed by these Conditions. The applicability of general conditions of the customer is explicitly rejected.                                                                                                                                                                      | 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.                                                                                                                                                                        | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 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 inexperienced use.                                                                                                                                                                                                                                              | 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.                                                                                                                                                                                                                                                                                                                                                      | 13.3 Disputes can only be brought before the District Court of Alkmaar, unless Afpro Filters B.V. chooses another court.                                                                                                                           |
| 2 Offers                                                                                                                                                                                                                                                                                                                        | 6 Delivery and delivery / completion term                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 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. | 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.                                                                                                                                                                                                                                                                                                                                                  | 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. | 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.                                        |
| 2.1 All offers are without commitment, unless the contrary explicitly ensues therefrom.                                                                                                                                                                                                                                         | 6.1 Unless otherwise agreed delivery will be ex warehouse Afpro Filters B.V.                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 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.                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |
| 2.2 All price specifications are made subject to the reservation that price changes may be made. Prices are:<br>- based on delivery ex warehouse Afpro Filters B.V.<br>- exclusive of VAT, import duties and other taxes, levies and charges<br>- exclusive of costs of packing, loading and unloading, transport and insurance | 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.                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |
| 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.                                                                                                                                                                               | 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.                                                                                                                                                                                                                    | 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |
| 3 Intellectual property/confidentiality                                                                                                                                                                                                                                                                                         | 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.                                                                                                                                                                                                                                           | 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.                                                                                                                                                                                                                                                                                                                                             | 10 Liability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 12 Payment, interest, costs and dissolution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                    |
| 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.                                                                                                                                                               | 6.5 Exceeding the delivery/completion term does not give any entitlement to compensation.                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 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. | 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.                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                    |
| 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.                                                                               | 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. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 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.                                                                                                                                                                                                                                                                                                                                                              | 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.                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                    |
| 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.                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 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.                                                                                                                                                                                                                                                                                                         | 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.                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                    |
| 4 Contract                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 9 Guarantee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 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.                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |
| 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.                                              | 7 Transport and risk                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 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.                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |
| 4.2 Any later additions, changes, (verbal) agreements and/or commitments are only binding on Afpro Filters B.V. if Afpro Filtertechnik has confirmed such in writing.                                                                                                                                                           | 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.                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                    |

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Modifications and errors excepted.



# RESEARCH





Clean air, our care

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